IN THE COMMONWEALTH COURT OF PENNSYLVANIA

NAACP PENNSYLVANIA STATE CONFERENCE,
 	
                Petitioner,
 	
        v.
 	
KATHY BOOCKVAR, SECRETARY OF THE
COMMONWEALTH, AND JESSICA MATHIS, DIRECTOR OF THE BUREAU OF ELECTION SERVICES AND NOTARIES,
 	
                Respondents.
	No. 364 MD 2020

DECLARATION OF SOZI TULANTE
IN SUPPORT OF PETITIONER'S APPLICATION FOR SPECIAL RELIEF
IN THE FORM OF A PRELIMINARY INJUNCTION

I, SOZI TULANTE, declare as follows:

1.   I am an attorney with the law firm Dechert LLP, and counsel for Plaintiff NAACP Pennsylvania State Conference ("Petitioner") in this action.

2.   I submit this Declaration in support of Petitioner's Application for Preliminary Injunction.

3.   Below is a table of the documents referred to in Petitioner's brief in support of its Application for Preliminary Injunction, identified by their Exhibit number and citation or description. All Exhibits attached hereto are true and accurate copies of the documents identified below.

Exhibit Number	Citation / Description
Exhibit 1	Center for Disease Control and Prevention ("CDC"), *Coronavirus Disease 2019 (COVID-19) Cases in the U.S.* (Aug. 3, 2020), https://www.cdc.gov/coronavirus/2019-ncovicases-updates/cases -in-us.html.
Exhibit 2	Pennsylvania Department of Health, *COVID-19 Data for Pennsylvania* (last updated Aug. 4, 2020), https://www.health.pa.gov/topics/disease/coronavirus/ Pages/Cases.aspx.
Exhibit 3	McDaniel & Steele, *N.J. officials alarmed as cases increase*, The Philadelphia Inquirer (July 29, 2020), https://www.inquirer.com/health/coronavirus/coronavirus-covid-19-nj-philly-pa-parties-spread-indoors-murphy-schools-20200729.html?utm_medium=referral&utm_source=ios&utm_campaign=app_i os_article&utm_content=QW6USXWARJFAXBNDB2OFFHWVOY.
Exhibit 4	Jill Seladi-Schulman, Ph.D., *How Long Does the Coronavirus Live on Different Surfaces?*, Healthline (Apr. 29, 2020), https://www.healthline.com/health/how-long-does-coronavirus-last-on-surfaces.
Exhibit 5	CDC, *Coronavirus Disease 2019 (COVID-19) Factsheet, What you should know about COVID-19 to protect yourself and others* (June 1, 2020), https://www.cdc.gov/coronavirus/2019-ncov/downloads/2019-ncov-factsheet.pdf.
Exhibit 6	*Amendment to Order of the Governor of the Commonwealth of Pennsylvania for Individuals to Stay at Home* (May 7, 2020), Commonwealth of Pennsylvania Office of the Governor (May 7, 2020) https://www.governor.pa.gov/wp-content/uploads/2020/05/20200507-TWW-Stay-at-Home-Order-Amendment.pdf.
Exhibit 7	Avi Wolfman-Arent, *Philly school district approves plan to start year online* (July 30, 2020), https://whyy.org/articles/philly-school-district-approves-plan-to-start-year-online/.
Exhibit 8	Wood, Burney & Goodin-Smith, *Pa. coronavirus numbers double what they were last month; back-to-school worries intensify*, The Philadelphia Inquirer (July 22, 2020) https://www.inquirer.com/health/coronavirus/coronavirus-pennsylvania-cases-camden-schools-new-jersey-quarantine-trump-20200721.html?utm_medium=referral&utm_source=ios&utm_campaign=app_i os_article&utm_content=XAPZAGEY7BHITBXSMHGZMPFWCI.
Exhibit 9	*Coronavirus in the U.S.: Latest Map and Case Count*, N.Y. Times (updated Aug. 3, 2020), https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html.

Exhibit Number	Citation / Description
Exhibit 10	Aneri Pattani & Sara Simon, *Citing "overwhelming" spread, Pa. moves to add staff, app to trace the coronavirus*, The Philadelphia Inquirer (July 24, 2020), https://www.inquirer.com/news/pennsylvania/spl/pennsylvania-coronavirus-contact-tracing-app-staff-20200724.html.
Exhibit 11	*Pandemic far from over in nursing homes*, The Philadelphia Inquirer (June 8, 2020), https://www.inquirer.com/opinion/editorials/nursing-home-residents-employeesdeaths- infections-coronavirus-pennsylvania-new-jersey-20200608.html.
Exhibit 12	Governor Tom Wolf: Process to Reopen Pennsylvania, https://www.governor.pa.gov/process-to-reopen-pennsylvania/ (last updated July 31, 2020).
Exhibit 13	Justine McDaniel et al., *Masks now mandatory in Philly as officials show concern over new virus cases, suburban counties go 'green'* (June 26, 2020), https://www.inquirer.com/health/coronavirus/coronavirus-covid-19-green-phase-reopening-philly-philadelphia-masks-required-pa-counties-nj-bucks-mall-haircut-montco-20200626.html.
Exhibit 14	CDC, *Coronavirus Disease 2019 (COVID-19), People who need extra precautions*, https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/what-you-can-do.html.
Exhibit 15	*Governor Tom Wolf: Gov. Wolf Renews COVID-19 Disaster Declaration for State Response and Recovery, Stay-at-Home Order Ends June 4*, Press Release (June 3, 2020), https://www.governor.pa.gov/newsroom/gov-wolf-renews-covid-19-disaster-declaration-for-state-response-and-recovery-stay-at-home-order-ends-june-4.
Exhibit 16	Sarah Zhang, *A Vaccine Reality Check*, The Atlantic (July 24, 2020), https://www.theatlantic.com/health/archive/2020/07/covid-19-vaccine-reality-check/614566/.
Exhibit 17	Ryan Briggs, *Racial disparity grows as the coronavirus disproportionately claims Black lives in Pa., Jersey and Delaware*, WHYY (May 15, 2020), https://whyy.org/articles/racial-disparity-grows-as-the-coronavirusdisproportionately-claims-black-lives-in-pa-jersey-and-delaware.
Exhibit 18	Kummer & Gantz, *Breaking down the toll of Philly's coronavirus hospitalizations by race, age, and neighborhood*, The Philadelphia Inquirer (July 21, 2020), https://www.inquirer.com/health/coronavirus/coronavirus-hospitalization-philadelphia-report-race-age-sex-20200721.html?utm_medium=referral&utm_source=ios&utm_campaign=app_ios_article&utm_content=LKO33JRGUJETZGN4Y2K3A6GSYM.

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Exhibit 19	Yun Choi, *Philadelphia's coronavirus numbers show stark racial and income disparities*, 6abc.com (Apr. 8, 2020), https://6abc.com/coronavirus-philadelphiaphilly-racial-disparity-income/6087689.
Exhibit 20	Mike Argento, *Latinos in York City infected with COVID-19 at higher rate than others: 71.6% of cases*, York Daily Record (Apr. 16, 2020), https://www.ydr.com/story/news/2020/04/16/why-latinos-becoming-infectedcovid-19-higher-rate-than-others/5145512002.
Exhibit 21	Richard A. Oppel Jr. et al., *The Fullest Look Yet at the Racial Inequity of Coronavirus*, N.Y. Times (July 5, 2020), https://www.nytimes.com/interactive/2020/07/05/us/coronavirus-latinos-african-americans-cdc-data.html.
Exhibit 22	Juana Summers, *U.S. Surgeon General: People Of Color 'Socially Predisposed' To Coronavirus Exposure*, N.P.R. (Apr. 10, 2020), https://www.npr.org/sections/coronavirus-live-updates/2020/04/10/832026070/u-ssurgeon-general-people-of-color-socially-predisposed-to-coronavirus-exposure.
Exhibit 23	Denise Grady, *Fauci Warns That the Coronavirus Pandemic Is Far From Over*, N.Y. Times (June 9, 2020), https://www.nytimes.com/2020/06/09/health/fauci-vaccines-coronavirus.html?action=click&module=RelatedLinks&pgtype=Article.
Exhibit 24	Sarah Gantz, *In Pa., N.J., and across the country, the ACA has narrowed racial gaps in health-care access*, The Philadelphia Inquirer (Jan. 16, 2020), https://www.inquirer.com/health/consumer/aca-medicaid-insurance-racialdisparities-20200116.html.
Exhibit 25	Dr. Joia Mukherjee, et al., *Safe Voting During the COVID-19 Pandemic* (Apr. 2020), https://freespeechforpeople.org/wp-content/uploads/2020/04/FSFP-Report-on-Safe-Voting-04-07-2020-11.pdf.
Exhibit 26	CDC, *Coronavirus Disease 2019 (COVID-19), Considerations for Election Polling Locations* (June 22, 2020), https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html.
Exhibit 27	Neeltje van Doremalen et al., *Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1*, Letter to the Editor, New England Journal of Medicine (Apr. 16, 2020), https://bit.ly/2Uibd28.
Exhibit 28	*Election Assistance Comm'n, Vendor and Manufacturer Guidance on Cleaning Voting Machines and Other Election Technology*, https://www.eac.gov/election-

Exhibit Number	Citation / Description
	officials/vendor-and-manufacturer-guidance-cleaning-voting-machines-and-other-election (last visited July 30, 2020).
Exhibit 29	*Election Assistance Comm'n, ES&S, Best Practices – Voting System* (Mar. 2020), https://www.eac.gov/sites/default/files/electionofficials/coronavirus/ESS_BestPractices_Cleaning_Disinfecting.pdf.
Exhibit 30	The 2020 Pennsylvania Elections Calendar, https://www.votespa.com/About-Elections/Pages/Election-Calendar.aspx.
Exhibit 31	Pennsylvania General Assembly, 2020 Act 12–Pennsylvania Election Code – Omnibus Amendments (Mar. 27, 2020), https://www.legis.state.pa.us/cfdocs/Legis/LI/uconsCheck.cfm?txtType=HTM&yr=2020&sessInd=0&smthLwInd=0&act=12.
Exhibit 32	Jennifer Learn-Andes, *With in-person voting still likely, Luzerne County Looking at fewer, regional polling places* (April 22, 2020), https://www.timesleader.com/news/781157/with-in-person-voting-still-likely-luzerne-county-looking-at-fewer-regional-polling-places.
Exhibit 33	Jonathan Lai & Julia Terruso, *Philly wants the state to let it cut a lot of polling places — or send the National Guard to help*, The Philadelphia Inquirer (May 8, 2020), https://www.inquirer.com/news/philadelphia-2020-primary-polling-places-pollworkers-20200508.html.
Exhibit 34	Pennsylvania 2020 Primary Election, Act 35 of 2020 Report, Pa. Dep't of State (Aug. 1, 2020).
Exhibit 35	Chris Potter, *Polling Places Draw Long Lines, Report Few Problems, Amid Pandemic And Unrest*, Pittsburgh's NPR News Station (June 2, 2020), https://www.wesa.fm/post/polling-places-draw-long-lines-report-few-problemsamid-pandemic-and-unrest#stream/0.
Exhibit 36	Ivey DeJesus, *As counties look to consolidate polling places, advocates worry about voter disenfranchisement*, PennLive (Apr. 28, 2020), https://www.pennlive.com/coronavirus/2020/04/as-counties-look-to-consolidatepolling-places-advocates-worry-about-voter-disenfranchisement.html
Exhibit 37	Avi Wolfman-Arent et al., *On unprecedented Pa. primary day, high turnout in West Philly, too-big ballots in Bucks*, WHYY (June 2, 2020), https://whyy.org/articles/polls-open-in-pa-amid-historic-mix-of-civil-unresteconomic-strife-and-covid-19/

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Exhibit 38	Madeleine Smith, Ward 46, 7th Division Democratic Committee Person, Resolution 200376 Written Public Testimony To the Legislative Oversight Committee (July 21, 2020).
Exhibit 39	City of Philadelphia Public Hearing Notice, Remote Hearing Pursuant to Resolution 200376 for Philadelphia City Council Committee on Legislative Oversight Public Hearing on July 21, 2020.
Exhibit 40	Andrew Perrin & Erica Turner, *Smartphones help blacks, Hispanics bridge some – but not all – digital gaps with whites*, Pew Research Center Fact Tank (Aug. 20, 2019), https://www.pewresearch.org/fact-tank/2019/08/20/smartphoneshelp-blacks-hispanics-bridge-some-but-not-all-digital-gaps-with-whites
Exhibit 41	Monica Anderson, *Who relies on public transit in the U.S.*, Pew Research Center Fact Tank (Apr. 7, 2016), https://www.pewresearch.org/fact-tank/2016/04/07/who-relies-onpublic-transit-in-the-u-s.
Exhibit 42	Monica Anderson & Madhumitha Kumar, *Digital divide persists even as lower-income Americans make gains in tech adoption*, Pew Research Center Fact Tank (May 7, 2019), https://www.pewresearch.org/facttank/2019/05/07/digital-divide-persists-even-as-lower-income-americans-makegains-in-tech-adoption.
Exhibit 43	Julia Shanahan, *Voting Rights' Advocates Warn Of Bumpy Fall Unless PA. Addresses Primary Day Glitches*, Pennsylvania Capital-Star (June 4, 2020), https://patch.com/pennsylvania/across-pa/voting-rights-advocates-warn-bumpyfall-unless-pa-addresses-primary-day.
Exhibit 44	Jan Murphy, *Voter confusion abounds in places around Pennsylvania due to consolidated polling places*, PennLive (June 2, 2020), https://www.pennlive.com/news/2020/06/voter-confusion-abounds-in-places-around-pennsylvania-due-toconsolidated-polling-places.html.
Exhibit 45	Michaelle Bond et al., *Polling locations in Northwest Philly got the wrong voting machines, causing confusion and long lines: 'It was a mess,'* The Philadelphia Inquirer (June 2, 2020), https://www.inquirer.com/politics/election/northwest-philadelphia-voting-lines-2020-pa-primary-20200602.html.
Exhibit 46	Jonathan Lai, *Pennsylvania's nightmare 2020 voting scenario — and how to prevent it*, The Philadelphia Inquirer (June 28, 2020), https://www.inquirer.com/politics/election/2020-presidential-election-pa-voting-problems-20200628.html.
Exhibit 47	Julian Routh, *Allegheny County will send mail-in ballot applications to all registered voters*, Pittsburg Post-Gazette (Apr. 17, 2020), https://www.post-

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	gazette.com/news/politics-local/2020/04/17/Allegheny-County-will-send-mail-in-ballot-applications-to-all-registered-voters/stories/202004170118.
Exhibit 48	Jonathan Lai, *Pennsylvania's mail ballot problems kept tens of thousands from voting in a pandemic primary* (July 30, 2020), https://www.inquirer.com/politics/election/pa-mail-ballot-deadlines-disenfranchisement-20200730.html.
Exhibit 49	Associated Press, *Election official: Number of Pa. mail-in ballot applications 'off the charts,'* Pittsburgh Post-Gazette (May 21, 2020), https://www.post-gazette.com/news/politics-state/2020/05/21/pennsylvania-applications-mail-in-ballots-june-primary/stories/202005210104.
Exhibit 50	Jonathan Lai, *Philly voters have requested more mail ballots than all of Pennsylvania did in 2016*, The Philadelphia Inquirer (May 20, 2020), https://www.inquirer.com/politics/election/coronavirus-philadelphia-mail-ballot-requests-20200520.html.
Exhibit 51	Jonathan Lai, *Tens of thousands of Pennsylvania mail ballots were turned in after the deadline. November could be worse* (June 10, 2020), https://www.inquirer.com/politics/election/pa-mail-ballots-deadline-2020-primary-election-20200610.html.
Exhibit 52	Ron Southwick, *Dealing with mail-in ballots emerges as major challenge for Pa. primary election*, PennLive (May 28, 2020), https://www.pennlive.com/news/2020/05/dealing-with-mail-in-ballots-emerges-as-major-challenge-for-pa-primaryelection.html.
Exhibit 53	Vanessa Fields, Philadelphia Chapter of the National Organization for Women and the Philadelphia Commission for Women, Resolution 200376 Written Public Testimony To the Philadelphia City Council's Legislative Oversight Committee (July 21, 2020).
Exhibit 54	Declaration of Jonathan Marks, the Deputy Secretary for Elections and Commissions for Pennsylvania, *Crossey v. Boockvar*, No. 266 MD 2020 (May 18, 2020).
Exhibit 55	*Trump, Biden win Pennsylvania primary contests amid unrest, pandemic*, TRIBLive–Associated Press (June 2, 2020), https://triblive.com/news/pennsylvania/pennsylvania-primary-begins-amid-unrest-pandemic/.
Exhibit 56	Ellie Rushing, *Mail Delays Are Frustrating Philly Residents, and a Short-Staffed Postal Service is Struggling to Keep Up*, Philadelphia Inquirer (Aug. 2, 2020),

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	https://www.inquirer.com/news/philadelphia/usps-tracking-in-transit-late-mail-delivery-philadelphia-packages-postal-service-20200802.html.
Exhibit 57	Ivey DeJesus, *In communities of color, Pa. primary was marred by irregularities, including voter intimidation, advocates say*, PennLive (June 3, 2020), https://www.pennlive.com/news/2020/06/in-communities-of-color-theprimary-was-marred-by-a-slew-of-irregularities-including-voter-intimidation-saypa-voting-advocates.html.
Exhibit 58	Pennsylvania Applications and Balloting Guidance: Mail-in and Absentee Ballots and Voter Registration Changes, Act 77 Pa. Dep't of State (Jan. 10, 2020).
Exhibit 59	County Early Voting Sites, Pennsylvania June 2020 Primary Election.
Exhibit 60	Meghan Roos, *Wisconsin's In-Person Voting May Have Led To 'Large' Increase In Coronavirus Cases, Study Suggests*, Newsweek (May 18, 2020), https://www.newsweek.com/wisconsins-person-voting-may-have-led-largeincrease-coronavirus-cases-study-suggests-1504801.
Exhibit 61	New York Executive Order No. 202.23 (Apr. 24, 2020), https://www.governor.ny.gov/news/no-20223-continuing-temporary-suspension-and-modification-laws-relating-disaster-emergency.
Exhibit 62	Christine Vendel, *Man refuses to vote after some Dauphin County poll workers wouldn't wear masks*, PennLive (June 2, 2020), https://www.pennlive.com/news/2020/06/man-refuses-to-vote-after-some-dauphin-county-pollworkers-wouldnt-wear-masks.html.
Exhibit 63	*Lehigh County poll workers refusing to wear PPE, and other election day challenges*, FOX56 Newsroom (June 2, 2020), https://fox56.com/news/local/lehigh-county-poll-workers-refusing-to-wear-ppeand-other-election-day-challenges.
Exhibit 64	Alanis King, *'The supervisor coughed in a coworker's direction as a joke': As coronavirus cases at the US Postal Service surpass 1,200, employees say a lack of supplies and care is putting them at risk*, Business Insider (Apr. 25, 2020), https://www.businessinsider.com/postal-workers-usps-worry-for-their-safety-amidcoronavirus- pandemic-2020-4.
Exhibit 65	Nick Corasaniti, *What Pennsylvania's 'Dry Run' Election Could Reveal About November*, N.Y. Times (June 2, 2020), updated June 3, 2020), https://www.nytimes.com/2020/06/02/us/politics/pennsylvania-primaryelection.html.
Exhibit 66	Amy Gardner, Elise Viebeck, & Natalie Pompilio, *Primary voters in 8 states and D.C. faced some confusion, long lines and poor social distancing*, Wash. Post

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	(June 2, 2020), https://www.washingtonpost.com/politics/in-pennsylvaniaofficials-prepare-for-coronavirus-civil-unrest-to-disrupt-tuesdayprimary/2020/06/02/96a55c40-a4be-11ea-b619-3f9133bbb482_story.html.
Exhibit 67	Election Assistance Comm'n, Unisyn Voting Solutions, Preventing the Spread of COVID-19 in Election Polling Locations (Mar. 9, 2020), https://www.eac.gov/sites/default/files/electionofficials/coronavirus/Unisyn_Precautions_to_use_to_SanitizeVotingEquipment.pdf.
Exhibit 68	Election Assistance Comm'n, Dominion, Customer Notification: COVID-19 ("Coronavirus") Information, at 1 (Mar. 9, 2020), https://www.eac.gov/sites/default/files/electionofficials/coronavirus/DVS_CoronavirusCleaningNotice_030920.pdf.
Exhibit 69	Eric Mark, *County to use paper ballots for primary due to virus concerns*, Citizens 'Voice, https://www.citizensvoice.com/news/county-to-use-paper-ballots-for-primary-due-to-virus-concerns/article_eca38997-8202-56e3-915e-36c22d5243a5.html (updated June 18, 2020).
Exhibit 70	Keith Gushard, *Paper ballots at polling places for June 2 election*, Meadville Tribune, https://www.meadvilletribune.com/news/paper-ballots-at-polling-places-for-june-2-election/article_72d77f4a-850c-11ea-bcf2-abc7ccd89009.html (Apr. 23, 2020).
Exhibit 71	Presidential Comm'n on Election Admin., *The American Voting Experience: Report and Recommendations of the Presidential Commission on Election Administration* (Jan. 2014), *available at* http://web.mit.edu/supportthevoter/www/files/2014/01/Amer-Voting-Exper-final-draft-01-09-14-508.pdf
Exhibit 72	Governor Tom Wolf, Executive Order No. 2020-02 (June 1, 2020) https://www.governor.pa.gov/wp-content/uploads/2020/06/20200601-EO-Deadline-Extention.pdf.
Exhibit 73	*NAACP of Pa. v. Cortes*, No. 08-cv-05048, ECF No. 34, https://www.courtlistener.com/recap/gov.uscourts.paed.286575/gov.uscourts.paed.286575.34.0_1.pdf.

Pursuant to 42 Pa.C.S.A. Chapter 62, I, Sozi Tulante, declare under penalty of perjury under the law of the Commonwealth of Pennsylvania that the foregoing is true and correct.

Signed on the 6th day of August, 2020 in Philadelphia County in the Commonwealth of Pennsylvania.

/s/ Sozi Tulante
Sozi Tulante

CERTIFICATION

I certify that this filing complies with the provisions of the Public Access Policy of the Unified Judicial System of Pennsylvania: Case Records of the Appellate and Trial Courts that require filing confidential information and documents differently than non-confidential information and documents.

Date: August 6, 2020   /s/ Sozi Pedro Tulante
                                            Sozi Pedro Tulante (Pa. 202579)

Exhibit 1

CDC Centers for Disease Control and Prevention

MENU >

WEAR A MASK. PROTECT OTHERS.

Cases in the U.S.
Cases in the US

Updated August 2, 2020

Print

TOTAL CASES	TOTAL DEATHS
4,601,526	154,002
58,947 New Cases*	1,132 New Deaths*

Want More Data?
CDC COVID Data Tracker
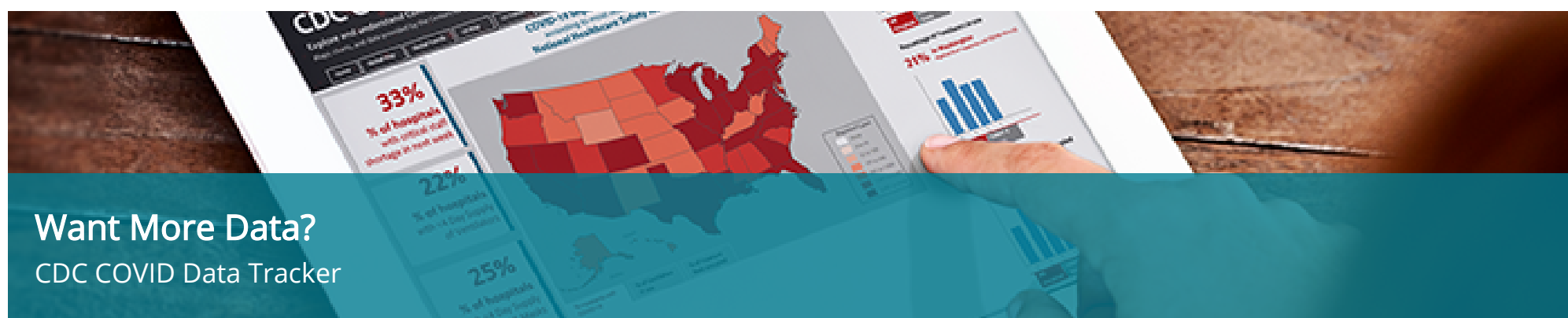
This page is updated daily based on data confirmed at 4:00pm ET the day before.

Cases by Jurisdiction

This map shows COVID-19 cases reported by U.S. states, the District of Columbia, New York City, and other U.S.-affiliated jurisdictions. Hover over the maps to see the number of cases reported in each jurisdiction. To go to a jurisdiction's health department website, click on the jurisdiction on the map.
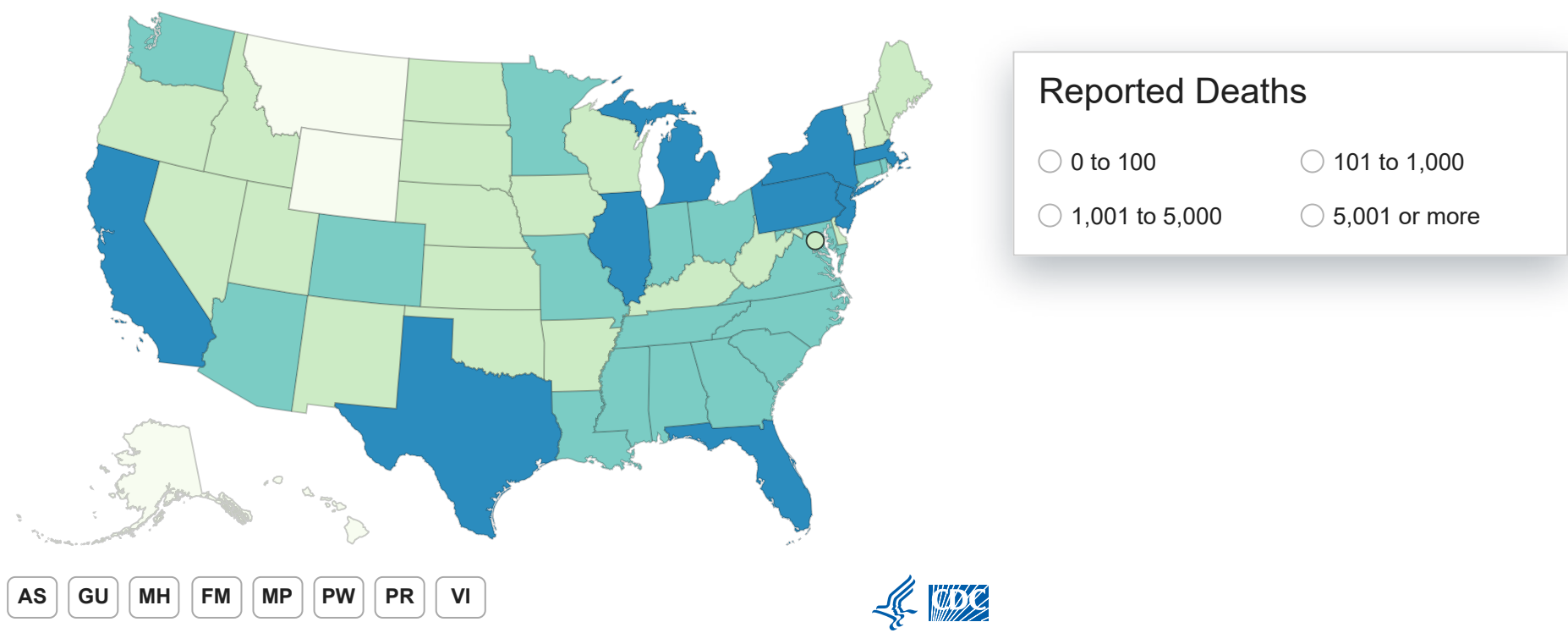
Reported Cases

- ○ 0 to 1,000
- ○ 1,001 to 5,000
- ○ 5,001 to 10,000
- ○ 10,001 to 20,000
- ○ 20,001 to 40,000
- ○ 40,001 or more

| AS | GU | MH | FM | MP | PW | PR | VI |
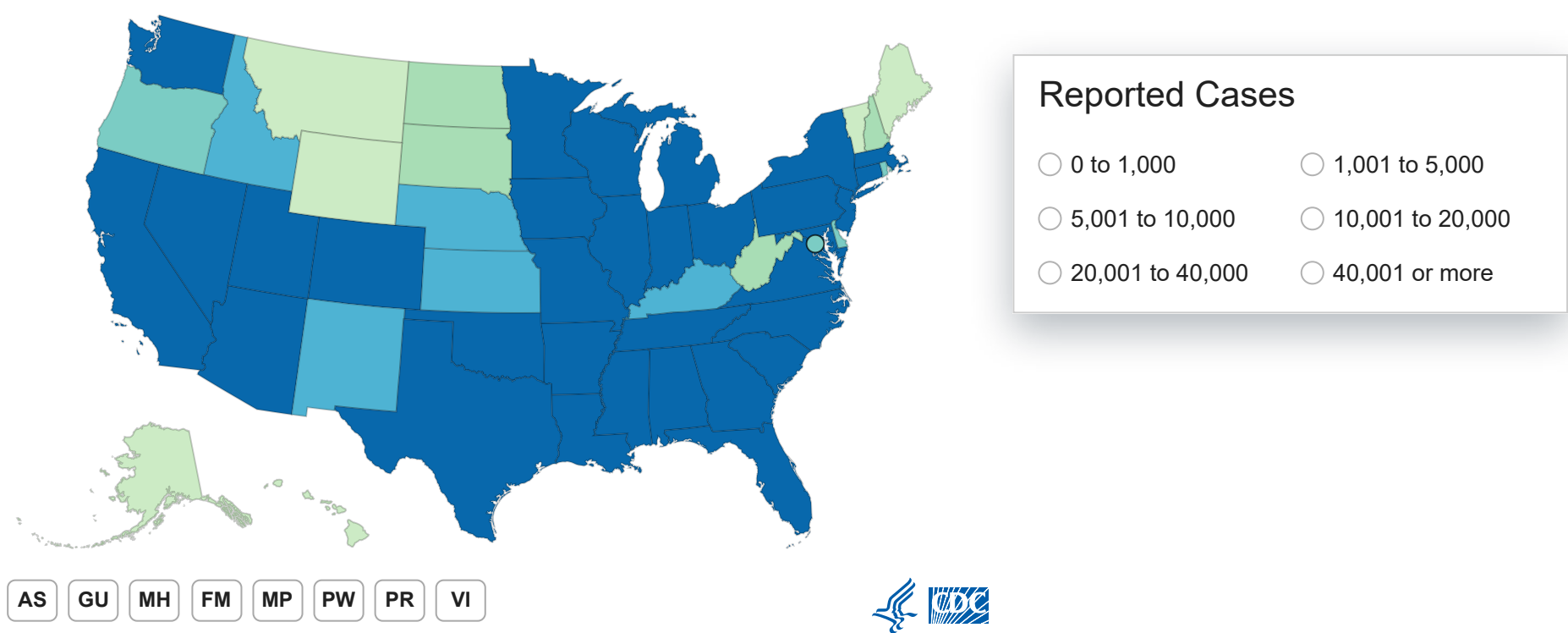
Jurisdictions

Add U.S. Map to Your Website

Deaths by Jurisdiction

This map shows COVID-19 cases reported by U.S. states, the District of Columbia, New York City, and other U.S.-affiliated jurisdictions. Hover over the maps to see the number of deaths reported in each jurisdiction. To go to a jurisdiction's health department website, click on the jurisdiction on the map.

Reported Deaths

- ○ 0 to 100
- ○ 101 to 1,000
- ○ 1,001 to 5,000
- ○ 5,001 or more

| AS | GU | MH | FM | MP | PW | PR | VI |

Jurisdictions

Add U.S. Map to Your Website

Cases & Deaths by County

Select a state to view the number of cases and deaths by county. This data is courtesy of USAFacts.org ⧉

Select a State ⌄

New Cases by Day

The following chart shows the number of new COVID-19 cases reported each day in the U.S. since the beginning of the outbreak. Hover over the bars to see the number of new cases by day.

☐ Cases   ☐ 7-Day Average   Reset
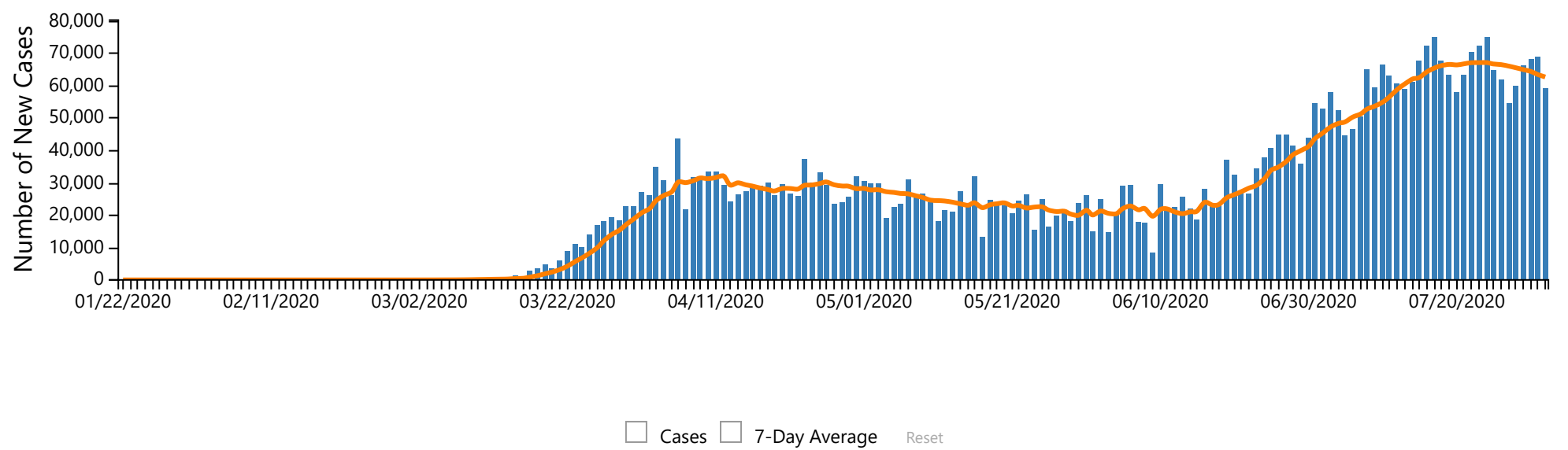
The 7-Day moving average of new cases (current day + 6 preceding days / 7) was calculated to smooth expected variations in daily counts.

View Data	✚

Cases & Deaths among Healthcare Personnel

Data were collected from 3,458,436 people, but healthcare personnel status was only available for 752,461 (21.8%) people. For the 120,467 cases of COVID-19 among healthcare personnel, death status was only available for 81,901 (68.0%).

CASES AMONG HCP	DEATHS AMONG HCP
120,467	587

Previous Data

CDC has moved the following information to the Previous U.S. COVID-19 Case Data page.

- Level of community transmission by jurisdiction — last updated May 18, 2020
- Total number of cases by day — last updated April 28, 2020
- Number of cases by source of exposure — last updated April 16, 2020
- Number of cases from Wuhan, China and the Diamond Princess cruise — last updated April 16, 2020
- Number of cases by illness start date — last updated April 15, 2020

More Information

COVIDView – A Weekly Surveillance Summary of U.S. COVID-19 Activity

Previous U.S. COVID-19 Case Data

FAQ: COVID-19 Data and Surveillance

Testing Data in the U.S.

World Map

Health Departments

Last Updated July 25, 2020, 03:00 PM

Previous U.S. COVID-19 Case Data

FAQ: COVID-19 Data and Surveillance

Testing Data in the U.S.

World Map

Exhibit 2

County case counts by date (/topics/Documents/Diseases%20and%20Conditions/COVID-19%20County%20Data/County%20Case%20Counts_8-4-2020.pdf)

Death Data

This information has been extracted from death records registered with the Department's Vital Records Program as of 11:59 pm on 8/3/2020.

Death by county of residence (/topics/Documents/Diseases%20and%20Conditions/COVID-19%20Death%20Data/Death%20by%20County%20of%20Residence%20--%202020-08-04.pdf)

View the weekly report issued July 31, 2020 (/topics/Documents/Diseases%20and%20Conditions/COVID-19%20Death%20Reports/Weekly%20Report%20of%20Deaths%20Attributed%20to%20COVID-19%20--%202020-07-31.pdf)

COVID-19 Cases Associated with Nursing Homes to Date

Long-term care facilities data

(/topics/disease/coronavirus/Pages/LTCF-Data.aspx)

Trajectory Animations

COVID-19 trajectory animations

(/topics/disease/coronavirus/Pages/Data-Animations.aspx)

EpiCurve by Region

Case counts are displayed by the date that the cases were first reported to the PA-NEDSS surveillance system. Case counts by date of report can vary significantly from day to day for a variety of reasons. In addition to changes due to actual changes in disease incidence, trends are strongly influenced by testing patterns (who gets tested and why), testing availability, lab analysis backlogs, lab reporting delays, new labs joining our electronic laboratory reporting system, mass screenings, etc. Trends need to be sustained for at least 2-3 weeks before any conclusions can be made regarding the progress of the pandemic. Source: Pennsylvania National Electronic Disease Surveillance System (PA-NEDSS) as of 12:00 a.m. on 8/4/2020

Multisystem Inflammatory Syndrome in Children (MIS-C) in Pennsylvania

Potential Cases	Confirmed Cases	Determined Not a Case	Under Investigation
67	39	12	16

COVID-19 Data for Pennsylvania

Page last updated: 12:00 p.m. on 8/4/2020

The COVID-19 Data Dashboard does not load properly in Internet Explorer. It is recommended to use Chrome, Edge or Firefox to view the dashboard.

Pennsylvania COVID-19 Dashboard

Confirmed

111,780

Probable

3,229

Negative

1,156,520

Deaths

7,232

Cases per 100,000 Population

| 1-5 | >5-10 | >10-20 | >20-100 | >100-500 | >500-1000 | >1000-2000 | >2000 |

3,000
2,000
1,000
0

200

100

0

Daily PC

Esri | Esri

Information last updated at 12:00 noon on 8/4/2020. Case count data, map and new cases per day data from PA-NEDSS. Deaths by day graph data from EDRS.

*Case Cou above incl

| Pennsylvania Cases | County Data | Zip Code Case Data | Hospital Preparedness | Cases Demographic | Deaths Demo |

Having trouble viewing the dashboard?

View the full screen version ☑ 78bf7/)   (https://experience.arcgis.com/experience/cfb3803eb93d42f7ab1c2cfccca   .View the

COVID-19 Early Warning Monitoring System Dashboard

(/topics/disease/coronavirus/Pages/Monitoring-Dashboard.aspx)

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County Case Counts to Date

Exhibit 3

N.J. officials alarmed as cases increase; Philly's total infections pass 30,000, and Fauci warns states on the rise to stop the surge

inquirer.com/health/coronavirus/coronavirus-covid-19-nj-philly-pa-parties-spread-indoors-murphy-schools-20200729.html

by Justine McDaniel and Allison Steele, Posted: July 29, 2020- 7:47 PM

MONICA HERNDON / Staff Photographer

Philadelphia surpassed 30,000 confirmed coronavirus infections since March and New Jersey's average number of new daily cases hit its highest peak in a month Wednesday, while outbreaks traced to house parties led officials to again warn against indoor gatherings.

A "worrisome" pattern of community clusters has emerged in New Jersey, said Gov. Phil Murphy, many of them related to people getting together at parties or other events.

After one recent party in North Jersey, 55 people fell ill with the coronavirus, Health Commissioner Judith Persichilli said Wednesday. Among the new outbreaks was one affecting the Rutgers University football team, which the school said Saturday was quarantining: 15 players have now tested positive, Persichilli said.

When many people crowd into an indoor, air-conditioned space, Murphy said, "you have also invited coronavirus to your party."

And Pennsylvania's seven-day average for new daily cases was climbing closer to 1,000, continuing an increasing trend that has not dropped or even plateaued since late June. The state reported 834 new cases Wednesday. Philadelphia reported 132, and Delaware County, which has experienced the sharpest recent increase in cases of the suburban counties, reported 63.

The United States also reached another grim milestone: The death toll surpassed 150,000, according to Johns Hopkins University data. That represents just under a quarter of all deaths worldwide.

The Inquirer Coronavirus Newsletter

Science-based coverage sent each Monday, Wednesday, and Friday night to your inbox.

The countries with the next-highest death tolls are Brazil, with more than 88,000, and the United Kingdom, with more than 46,000. China, where the virus was first identified, has reported 4,658 deaths.

Florida, North Carolina, and California set new single-day records for the number of deaths reported, and infectious-disease expert Anthony Fauci warned leaders in states where cases have begun to increase to get ahead of the curve if they want to avoid ending up in the same place.

» READ MORE: Face masks stop the spread of COVID-19, but a toxic brew has kept many Americans from wearing them

In New Jersey, Murphy had a similar warning. On July 22, the state's seven-day average for new daily cases was 192. That has climbed over the last week to 426 — the highest it has been in a month, since it hit 556 on July 1, according to data analyzed by The Inquirer.

It was the last four days, which added about 2,000 new cases, that set the state back nearly to where it was a month ago, Murphy said Wednesday. The transmission rate remains just over one, meaning at least one person is being infected as a result of each new case, but has not climbed higher.

"Over the past four months we have crushed the curve," Murphy said. "But folks, this is sobering. ... We can't go backwards. We can't afford to go backwards."

And, the governor suggested that as the state continues to lose ground in keeping new case numbers low, that could further delay the return of indoor dining.

"I'm not going to say that indoor dining is like a house party, because it isn't," Murphy said. "But when one party in an air-conditioned house leads to dozens of new cases, it should give us all pause."

Hospitalizations in New Jersey continued to drop, Persichilli said. But South Jersey is reporting a positivity rate that is higher than the state's average, meaning a higher percentage of people are testing positive there than in north or central Jersey.

Murphy acknowledged the hot weather was likely driving people into enclosed, air-conditioned spaces and said he understands that people need to "blow off some steam with friends." But gatherings are "how coronavirus gets passed around more efficiently," he said.

Advertisement

Health experts across the country have asked people to socialize outdoors or stay inside with members of their household to prevent the spread of the virus, particularly as they have learned more about its airborne spread, and contact tracers, including in New Jersey and Pennsylvania, have tracked infections to indoor gatherings based on patient reports. On Wednesday, Fauci told Americans to avoid bars and large gatherings as he advised them on how to help stop coronavirus surges in their states.

» READ MORE: How to wear face masks in hot weather

After New Jersey last week allowed parents to opt for virtual-only learning for their children, some Democratic state lawmakers said Wednesday they would introduce legislation to require public schools to start the school year with only remote instruction.

The state has directed schools to open with a hybrid in-person and virtual model, though parents can choose virtual-only.

The bill will propose that state officials evaluate to determine whether buildings can reopen based on virus infection statistics starting Oct. 31, meaning schools would be able to stop virtual-only learning if it became safer to do so.

Murphy declined to comment on the proposal during his Wednesday briefing, saying there was a "strong chorus on both sides." The lawmakers behind the bill said students and teachers shouldn't return to school until their safety can be ensured.

The Philadelphia School District, which announced Tuesday that it would start the school year with only virtual classes, plans to provide internet access to all families, the superintendent said Wednesday.

The district will soon announce details of the plan, which will connect every student who needs it to the internet, Superintendent William R. Hite Jr. said.

» *READ MORE: Philly promises public school students will have internet access as coronavirus keeps classes online*

In Philadelphia, none of the Phillies players and coaches — who played the coronavirus-stricken Miami Marlins on Sunday — had tested positive on either Monday or Tuesday. But Eagles offensive tackle Lane Johnson announced he had contracted the virus.

The Pennsylvania Interscholastic Athletic Association board of directors voted unanimously Wednesday to proceed with fall high school sports.

The PIAA announced earlier this month that it was planning for the "normal start of the fall sports season unless otherwise directed by the Commonwealth."

Wednesday's vote, which was reported by EasternPAFootball.com, means football teams can begin official workouts on Aug. 10, and the other fall sports can start Aug. 17.

Contributing to this article were staff writers Rob Tornoe, Melanie Burney, Laura McCrystal, Kristen A. Graham, Robert Moran, EJ Smith, and Scott Lauber.

View Comments

Exhibit 4

How Long Does the Coronavirus Live on Different Surfaces?

In late 2019, a new coronavirus began circulating in humans. This virus, called SARS-CoV-2, causes the illness known COVID-19.

SARS-CoV-2 can spread easily from person to person. It mainly does this through respiratory droplets that are produced when someone with the virus talks, coughs, or sneezes near you and the droplets land on you.

It's possible that you could acquire SARS-CoV2 if you touch your mouth, nose, or eyes after touching a surface or object that has the virus on it. However, this is not thought to be the main way that the virus spreads.

How long does the coronavirus live on surfaces?

Research is still ongoing into many aspects of SARS-CoV-2, including how long it can live on various surfaces. So far, two studies have been published on this topic. We'll discuss their findings below.

The [first study](#) was published in the New England Journal of Medicine (NEJM). For this study, a standard amount of aerosolized virus was applied to different surfaces.

The [second study](#)Trusted Source was published in The Lancet. In this study, a droplet containing a set amount of virus was placed onto a surface.

In both studies, the surfaces to which the virus had been applied were incubated at room temperature. Samples were collected at different time intervals, which were then used to calculate the amount of viable virus.

Keep in mind: Although SARS-CoV-2 can be detected on these surfaces for a particular length of time, the viability of the virus, due to environmental and other conditions, is not known.

How Long Can
SARS-COV-2 LAST?

Plastic
3 – 7 Days

Stainless Steel
3 – 7 Days

Copper
Up to 4 Hours

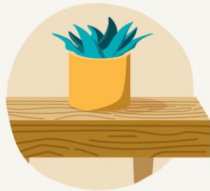### Paper
Up to 4 days

Glass
Up to 4 Days

Cardboard
24 Hours

Wood
Up to 2 days

healthline

Plastic

Many objects that we use every day are made of plastic. Some examples include, but aren't limited to:

- food packaging
- water bottles and milk containers
- credit cards
- remote controls and video game controllers
- light switches
- computer keyboards and mouse
- ATM buttons
- toys

The NEJM article detected the virus on plastic for up to 3 days. However, researchers in the Lancet study found that they could detect the virus on plastic for longer — up to 7 days.

Metal

Metal is used in a wide variety of objects we use every day. Some of the most common metals include stainless steel and copper. Examples include:

Stainless steel

- door handles
- refrigerators
- metal handrails
- keys

- cutlery
- pots and pans
- industrial equipment

Copper

- coins
- cookware
- jewelry
- electrical wires

While the NEJM article found that no viable virus could be detected on stainless steel after 3 days, researchers for the Lancet article detected viable virus on stainless steel surfaces for up to 7 days.

Investigators in the NEJM article also assessed viral stability on copper surfaces. The virus was less stable on copper, with no viable virus detected after only 4 hours.

Paper

Some examples of common paper products include:

- paper money
- letters and stationery
- magazines and newspapers
- tissues
- paper towels
- toilet paper

The Lancet study found that no viable virus could be found on printing paper or tissue paper after 3 hours. However, the virus could be detected on paper money for up to 4 days.

Glass

Some examples of glass objects that we touch every day include:

- windows
- mirrors
- drinkware
- screens for TVs, computers, and smartphones

The Lancet article found that no virus could be detected on glass surfaces after 4 days.

Cardboard

Some cardboard surfaces that you may come into contact with include objects like food packaging and shipping boxes.

The NEJM study found that no viable virus could be detected on cardboard after 24 hours.

Wood

The wooden objects that we find in our homes are often things like tabletops, furniture, and shelving.

Researchers in the Lancet article found that viable virus from wood surfaces could not be detected after 2 days.

Can temperature and humidity affect the coronavirus?

Viruses can definitely be impacted by factors like temperature and humidity. According to the Centers for Disease Control and Prevention (CDC), [most coronaviruses](#)Trusted Source survive for a shorter time at higher temperatures and humidity levels.

For example, in one observation from the Lancet article, SARS-CoV-2 remained very stable when incubated at 4°C Celsius (about 39°F).

However, it was rapidly inactivated when incubated at 70°C (158°F).

What about clothing, shoes, and floors?

The stability of SARS-CoV-2 on cloth was also tested in the [Lancet article](#)Trusted Source mentioned earlier. It was found that viable virus couldn't be recovered from cloth after 2 days.

Generally speaking, it's probably not necessary to [wash your clothes](#) after every time you go out. However, if you've been unable to maintain proper physical distance from others, or if someone has coughed or sneezed near you, it's a good idea to wash your clothes.

A study in [Emerging Infectious Diseases](#) assessed which surfaces in a hospital were positive for SARS-CoV-2. A high number of positives were found from floor samples. Half of the samples from the shoes of ICU workers also tested positive.

It's unknown how long SARS-CoV-2 can survive on floors and shoes. If you're concerned about this, consider removing your shoes at your front door as soon as you get home. You can also wipe the soles of your shoes with a disinfecting wipe after going out.

What about food and water?

Can the new coronavirus survive [in our food](#) or drinking water? Let's take a closer look at this topic.

Can the coronavirus survive on food?

The CDC notes that coronaviruses, as a group of viruses, generally [survive poorly](#)Trusted Source on food products and packaging. However, they do acknowledge that you should still be careful while handling food packaging that could be contaminated.

According to the Food and Drug Administration (FDA), there are currently [no reports](#)Trusted Source that food or food packaging is associated with SARS-CoV-2 transmission. They also note that it's still important to follow proper food safety practices.

It's always a good rule of thumb to wash fresh fruits and vegetables thoroughly with clean water, particularly if you plan to eat them raw. You may also want to use disinfecting wipes on plastic or glass food packaging items that you've purchased.

It's important to [wash your hands](#) thoroughly with soap and warm water in food-related situations. This includes:

- after handling and storing groceries
- before and after preparing food
- before eating

Can the coronavirus live in water?

It's unknown exactly how long SARS-CoV-2 can survive in water. However, a [study from 2009](#)Trusted Source investigated the survival of a common human coronavirus in filtered tap water.

This study found that coronavirus levels dropped by 99.9 percent after 10 days in room temperature tap water. The coronavirus that was tested was more stable at lower water temperatures and less stable at higher temperatures.

So what does that mean for drinking water? Remember that our water systems treat our drinking water before we drink it, which should inactivate the virus. According to the CDC, SARS-CoV-2 hasn't been detectedTrusted Source in drinking water.

Is the coronavirus still viable when it's on a surface?

Just because SARS-CoV-2 is present on a surface doesn't mean that you will contract it. But why exactly is this?

Enveloped viruses like coronaviruses are very sensitive to conditions in the environment and can quickly lose stability over time. That means that more and more of the viral particles on a surface will become inactive as time passes.

For example, in the NEJM stability study, viable virus was detected on stainless steel for up to 3 days. However, the actual amount of virus (titer) was found to have dropped drastically after 48 hours on this surface.

However, don't drop your guard just yet. The amount of SARS-CoV-2 that's needed to establish an infection is still currently unknownTrusted Source.

Because of this, it's still important to exercise caution with potentially contaminated objects or surfaces.

How to clean surfaces

Because SARS-CoV-2 can live on various surfaces for several hours up to several days, it's important to take steps to clean areas and objects that may come into contact with the virus.

So how can you effectively clean the surfaces in your home? Follow the tips below.

What should you clean?

Focus on high-touch surfaces. These are things that you or others in your household touch frequently during your daily activities. Some examples include:

- doorknobs
- handles on appliances, like the oven and refrigerator
- light switches
- faucets and sinks
- toilets
- tables and desks
- countertops
- staircase railings
- computer keyboards and computer mouse

- handheld electronics, such as phones, tablets, and video game controllers

Clean other surfaces, objects, and clothes as needed or if you suspect they've been contaminated.

If possible, try to wear disposable gloves while cleaning. Be sure to throw them away as soon as you're done.

If you don't have gloves, just be sure to wash your hands thoroughly with soap and warm water after you're done cleaning.

What are the best products to use for cleaning?

According to the CDC, you can use household cleaning products or EPA-registered disinfectantsTrusted Source to clean household surfaces. Follow the directions on the label and only use these products on surfaces that they're appropriate for.

Household bleach solutions can also be used when appropriate. To mix your own bleach solution, the CDC recommendsTrusted Source using either:

- 1/3 cup of bleach per gallon of water
- 4 tablespoons of bleach per quart of water

Use care while cleaning electronics. If the manufacturer's instructions aren't available, use an alcohol-based wipe or a 70 percent ethanol spray to clean electronics. Be sure to dry them thoroughly so liquid doesn't accumulate inside the device.

When doing laundry, you can use your regular detergent. Try to use the warmest water setting that's appropriate for the type of clothes you're washing. Allow washed clothes to dry completely before putting them away.

The bottom line

A few studies have been performed on how long the new coronavirus, known as SARS-CoV-2, can live on surfaces. The virus persists the longest on plastic and stainless steel surfaces. It's less stable on cloth, paper, and cardboard.

We don't know yet how long the virus can live in food and water. However, there have been no documented cases of COVID-19 that are associated with food, food packaging, or drinking water.

Even though SARS-CoV-2 can become inactivated in hours to days, the exact dose that can lead to an infection still isn't known. It's still important to maintain proper hand hygiene and to appropriately clean high-touch or potentially contaminated household surfaces.

Exhibit 5

What you should know about COVID-19 to protect yourself and others
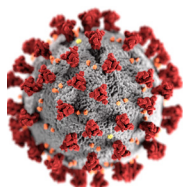
Know about COVID-19

- Coronavirus (COVID-19) is an illness caused by a virus that can spread from person to person.
- The virus that causes COVID-19 is a new coronavirus that has spread throughout the world.
- COVID-19 symptoms can range from mild (or no symptoms) to severe illness.

Know how COVID-19 is spread

- You can become infected by coming into close contact (about 6 feet or two arm lengths) with a person who has COVID-19. COVID-19 is primarily spread from person to person.
- You can become infected from respiratory droplets when an infected person coughs, sneezes, or talks.
- You may also be able to get it by touching a surface or object that has the virus on it, and then by touching your mouth, nose, or eyes.

Protect yourself and others from COVID-19

- There is currently no vaccine to protect against COVID-19. The best way to protect yourself is to avoid being exposed to the virus that causes COVID-19.
- Stay home as much as possible and avoid close contact with others.
- Wear a cloth face covering that covers your nose and mouth in public settings.
- Clean and disinfect frequently touched surfaces.
- Wash your hands often with soap and water for at least 20 seconds, or use an alcohol-based hand sanitizer that contains at least 60% alcohol.

Practice social distancing

- Buy groceries and medicine, go to the doctor, and complete banking activities online when possible.
- If you must go in person, stay at least 6 feet away from others and disinfect items you must touch.
- Get deliveries and takeout, and limit in-person contact as much as possible.

Prevent the spread of COVID-19 if you are sick

- Stay home if you are sick, except to get medical care.
- Avoid public transportation, ride-sharing, or taxis.
- Separate yourself from other people and pets in your home.
- There is no specific treatment for COVID-19, but you can seek medical care to help relieve your symptoms.
- If you need medical attention, call ahead.

Know your risk for severe illness

- Everyone is at risk of getting COVID-19.
- Older adults and people of any age who have serious underlying medical conditions may be at higher risk for more severe illness.

cdc.gov/coronavirus

CS 314937A   06/01/2020

Exhibit 6

COMMONWEALTH OF PENNSYLVANIA

OFFICE OF THE GOVERNOR

AMENDMENT TO ORDER OF
THE GOVERNOR OF THE COMMONWEALTH OF PENNSYLVANIA
FOR INDIVIDUALS TO STAY AT HOME

WHEREAS, as the COVID-19 disaster emergency in the Commonwealth continues, my Administration has developed a measured and strategic approach to allowing Pennsylvanians to return to work safely in a manner designed to prevent a resurgence of the virus; and

WHEREAS, this strategic phased reopening of the Commonwealth will be done in the most effective, efficient, and risk-averse method possible to balance our return to economic stability, while at the same time continuing to keep Pennsylvanians safe by controlling the spread of disease; and

WHEREAS, it is necessary to extend the requirements in my Stay At Home Order during the phased reopening process, with the recognition that such requirements may be suspended for specific counties as part of the gradual and strategic approach to reopening the Commonwealth; and

WHEREAS, as of May 7, 2020, the Commonwealth of Pennsylvania has 52,915 persons who have tested positive or meet the requirements as probable cases for COVID-19 in all sixty-seven counties and reports 3,416 deaths from the virus.

NOW THEREFORE, I hereby amend my Order directing "Individuals to Stay at Home" dated Apri1 1, 2020, as amended.

The first sentence of Section 2 is amended to read as follows:

This Order is effective immediately and will remain in effect through June 4, 2020.

The Order remains unchanged in every other respect.

GIVEN under my hand and the Seal of the Governor, at the city of Harrisburg, on this seventh day of May two thousand twenty, the year of the commonwealth the two hundred and forty-fourth.

TOM WOLF
Governor

Exhibit 7

CORONAVIRUS PANDEMIC

Philly school district approves plan to start year online

By Avi Wolfman-Arent · July 30, 2020

📷 School District of Philadelphia headquarters (Danya Henninger/Billy Penn)

It's official: The School District of Philadelphia and its 125,000 students will begin the school year online.

The city's Board of Education approved a revised version of the district's reopening plan, the highlight of which was a commitment to all-virtual learning through November 17.

The decision comes one week after a marathon board meeting that forced the School District of Philadelphia to abandon its original "hybrid" plan. District leaders hoped to have students in class two days a week — with an option for all-virtual education — but heard fierce opposition from parents and educators.

On Thursday, the school board passed a new health and safety plan by a vote of 7-1. Maria McColgan was the lone dissenter, although other board members noted that they voted "yes" begrudgingly.

Philadelphia joins Los Angeles, San Diego, Miami, and Houston among major cities that will begin the school year online.

The school district still hopes to hold some form of in-person school in the upcoming academic year, but that's contingent on the state of the virus and buy-in from community members.

Superintendent William Hite said the district will reevaluate at the end of the first marking period. If the district does begin to phase in face-to-face instruction, he said, it will begin with younger children and students who have complex special needs.

The district went online for the last month-and-a-half of the prior school year after buying and distributing tens of thousands of laptops. Hite said the district will be better prepared for virtual education this time.

"We were ill-equipped to do this in the spring," Hite said. "We're taking a completely different tack this time."

Student's virtual days, Hite said, will include a blend of live, digital teaching from classroom teachers, small group instruction over video, and independent study. The district will also ask teachers to begin each day with a morning check-in to set expectations.

The school year will start one week later than originally scheduled — on September 2 — so educators can receive more training on virtual teaching.

The district is also working with city officials, Hite said, to open up "drop-off centers" where students can access Wi-Fi and complete virtual work while under adult supervision.

The need for those drop-off centers is a concern for many critics of the all-virtual option.

Those critics say an online-only plan — with no option for in-person learning — will harm the children of essential workers and low-income students who rely heavily on the support structures schools provide.

"This all-virtual school will not help children. Some are going to be home all alone — not in class, but on the streets," asked Nicole Hunt, president of the union that represents the district's school climate staff and food service workers.

Hunt and others also accused the district of bending to the will of a vocal minority, while ignoring the plight of working families who can't attend lengthy school board meetings.

"The majority of parents was not on that call because they don't think their voices matter," she said.

But the union representing educators and the union representing school administrators opposed in-person school — as did dozens of parents who spoke passionately about the risks of learning in old school buildings while a deadly virus circulates.

"We are glad the School District of Philadelphia heard the concerns of administrators, students parents, and teachers," said Elana Evans, an educator from Paul Robeson High School. "We have to follow science, not politics. Until all of us are safe, we are all in danger."

Though the Board of Education vote to approve the all-virtual start was not close, several members noted their displeasure while voting yes.

Board President Joyce Wilkerson said she was "dismayed to see fear drive the decision" to abandon the original hybrid plan.

"It was distressing to hear people reject the science," Wilkerson said, noting that the City's Department of Health endorsed the district's plan.

Wilkerson and other board members, however, said it became clear the hybrid model would not win the support of teachers and administrators — two groups critical to making it work on the ground.

"Implementation of that plan was never going to be successful," she said.

Board member Angela McIver, the most strident critic of in-person learning on the board, hit back at other members who described the community backlash as anti-science or "hysteria."

"That's not right — to speak to people who spoke so passionately last week, [to say] we're being hysterical," McIver said.

The only board member to vote against the all-virtual plan was Maria McColgan, who is also the only medical doctor on the school board.

In a lengthy dissent, McColgan said the harm caused by the extended closure of school buildings will scar a generation of Philadelphia children — especially the poorest and most vulnerable among them.

"The way we're trying to prevent this is causing more harm than the disease," she said.

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Part of the series

Coronavirus Pandemic

View the series

Exhibit 8

Pa. coronavirus numbers double what they were last month; back-to-school worries intensify

inquirer.com/health/coronavirus/coronavirus-pennsylvania-cases-camden-schools-new-jersey-quarantine-trump-20200721.html

by Anthony R. Wood, Melanie Burney and Oona Goodin-Smith, Updated: July 22, 2020- 2:37 PM

TOM GRALISH / Staff Photographer

With COVID-19 numbers rising stubbornly in the region — and more dramatically in Western Pennsylvania and elsewhere in the nation — the virus continues to cast an ominous shadow over the 2020-21 school year, with administrators confronting unprecedented challenges.

"It's like we're planning in quicksand," said Katrina McCombs, superintendent of the Camden City School District, who announced Monday that a third of the teachers in the 15,000-pupil district might not return to classrooms in September because of coronavirus fears.

In Pennsylvania, where the seven-day average of daily confirmed cases — 871 — has more than doubled since mid-June, bumped up by outbreaks in the Pittsburgh area, Attorney General Josh Shapiro said he would sue the Trump administration if it attempted to withhold federal funds from schools that don't reopen fully.

While they haven't rivaled levels in Western Pennsylvania, reported case numbers have inched up in Philadelphia, with the daily average as of Tuesday for the previous seven days at 138, up from 110 the week before. While the rises are not large, Health Commissioner Thomas Farley said they might affect the progress of reopenings. Farley said he also was concerned about numbers spiking around the country.

And President Donald Trump, who previously had downplayed the pandemic's potential, said the numbers are likely to get worse before they improve.

JOSE F. MORENO / Staff Photographer
Dr. Thomas Farley, Philadelphia health commissioner, speaks to members of the media during a news conference at the Philadelphia Zoo on July 6.

Concerned about those national numbers, and what's going on in neighboring Delaware, New Jersey now is requiring individuals traveling from the Diamond State and 30 others to quarantine for a 14-day period after they arrive in the Garden State.

With 10 states added Tuesday and the removal of Minnesota, the list now consists of Alabama, Alaska, Arizona, Arkansas, California, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Louisiana, Maryland, Missouri, Mississippi, Montana, Nebraska, New Mexico, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, and Wisconsin.

Those arriving from those states are asked to self-quarantine in a home, hotel, or other lodging, leaving only for essential errands for food or other items, or to seek medical care. They also are advised to get tested. Enforcement, however, primarily will be a matter of "personal responsibility."

New Jersey's overall case numbers have been declining, and Gov. Phil Murphy has approved the resumption of practices for sports such as wrestling and football, but with proper safety protocols.

Gyms in New Jersey are limited to individual training sessions in separate rooms, with unrestricted public use prohibited. The state sought to have the Atilis Gym in Bellmawr held in contempt for violating state guidelines.

TIM TAI / Staff Photographer
A member enters the Atilis Gym in Bellmawr on Tuesday. The gym has reopened against New Jersey's coronavirus restrictions and is allowing up to 70 members inside at a time, but a judge denied Monday the state's request to hold its owners in contempt of court, instead ordering the gym to comply with tighter limitations on gym usage.

While Superior Court didn't issue a contempt citation, it did hold that the gym owners had to comply with rules and said the state could seek another contempt order if they didn't.

While the trends in New Jersey case numbers have been encouraging, the course of the 2020-21 school year appeared to be about as unpredictable as that of the virus itself.

New Jersey schools have been ordered to <u>provide in-person learning</u> at least some of the time, but Murphy also has said that New Jersey parents could opt for <u>remote-only learning,</u> given the ambiguities regarding the potential health risks to teachers and students.

In the Camden district, fears of the virus could lead to high absenteeism among teachers, Superintendent McCombs warned. Asked at a county briefing if the district would have enough teachers to open schools, she replied: "We are not 100% sure."

She said a wild card is the possibility that New Jersey will mandate all-remote learning should the coronavirus numbers spike upward. That would require the district to execute a radical pivot.

Joseph Meloche, the Cherry Hill superintendent, who joined McCombs at the Tuesday briefing, said officials are trying to figure out how to provide masks for students, teachers, and staff. The district's plans call for students attending in-person classes two days a week. He said that disposable masks would cost a prohibitive $2.5 million.

DAVID MAIALETTI / Staff Photographer
Superintendent of Camden Schools Katrina McCombs talks to reporters at U.S. Wiggins College Preparatory Lab Family School in Camden in March.

All 11,000 students would be required to wear masks in class, and he urged parents to get

their kids used to it during what is left of the summer.

Keith E. Benson, head of the Camden Education Association, said a union survey of nearly 1,100 members found that roughly 75% would return to the classroom but "with deep reservations." The union has worked on the reopening plan and hopes "to find the safest way" to return to in-person instruction, he said.

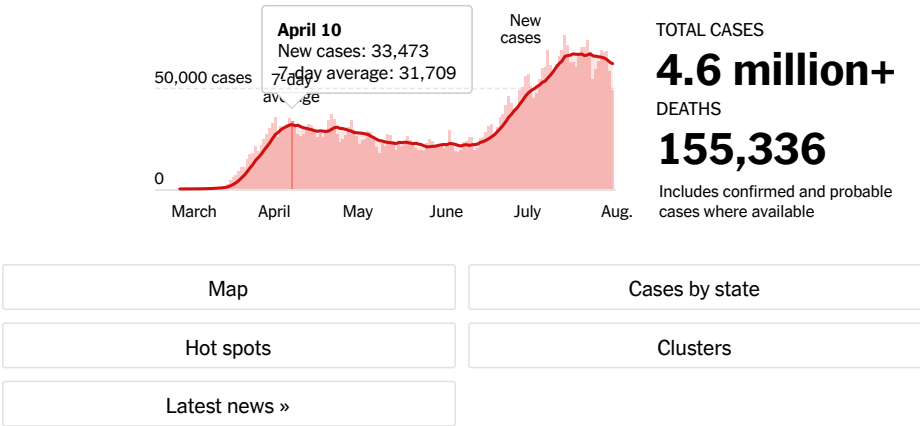"Personally, I do have some concerns," Benson said. "The COVID, coronavirus is real."

Staff writers John Duchneskie, Kristen A. Graham, Frank Kummer, Robert Moran, Ellie Rushing, Rob Tornoe, and Sean Collins Walsh contributed to this article.

Exhibit 9

The New York Times | https://nyti.ms/39jvJEY

The Coronavirus Outbreak ›

`LIVE`   Latest Updates   <u>Maps and Cases</u>   Vaccine Tracker   College Reopening   Economy

WORLD   COUNTRIES ˅ | U.S.A.   STATES ˅   TESTING

Coronavirus in the U.S.: Latest Map and Case Count

By The New York Times   Updated August 3, 2020, 9:43 A.M. E.T.

April 10
New cases: 33,473
7-day average: 31,709

50,000 cases

New cases

0

March   April   May   June   July   Aug.

TOTAL CASES

4.6 million+

DEATHS

155,336

Includes confirmed and probable cases where available

Map	Cases by state
Hot spots	Clusters
Latest news »	

At least 421 new coronavirus deaths and 48,849 new cases were were reported in the United States on Aug. 2. Over the past week, there have been an average of 61,815 cases per day, a decrease of 7 percent from the average two weeks earlier.

As of Monday morning, more than 4,679,700 people in the United States have been infected with the coronavirus and at least 155,300 have died, according to a New York Times database.

Hot spots	Total cases	Deaths	Per capita

Average daily cases per 100,000 people in the past week

8   24   40   56   Few or no cases

Use two fingers to pan and zoom. Tap for details.
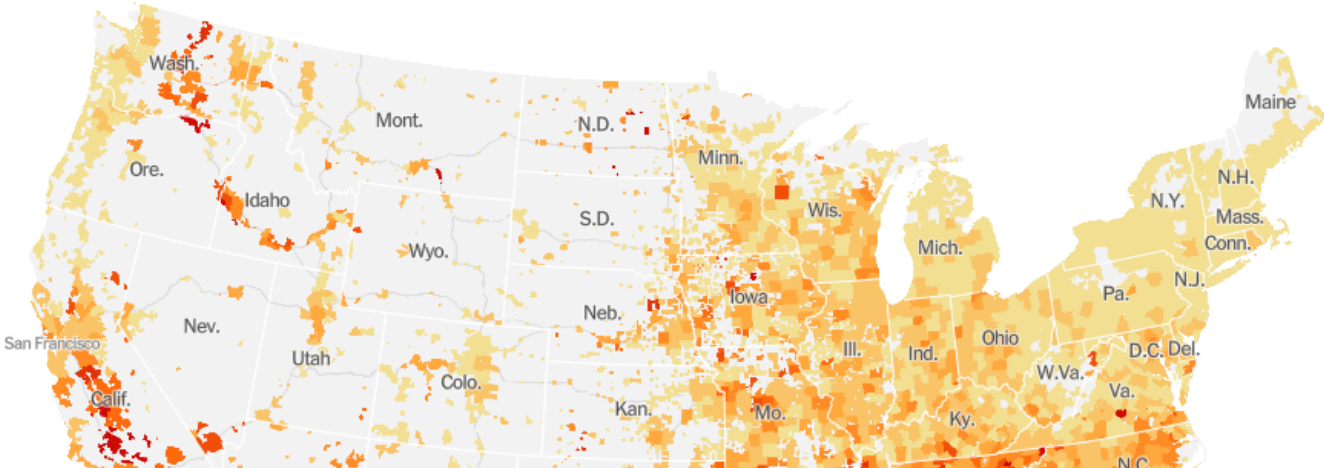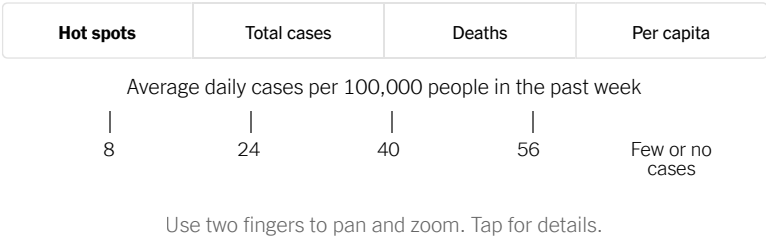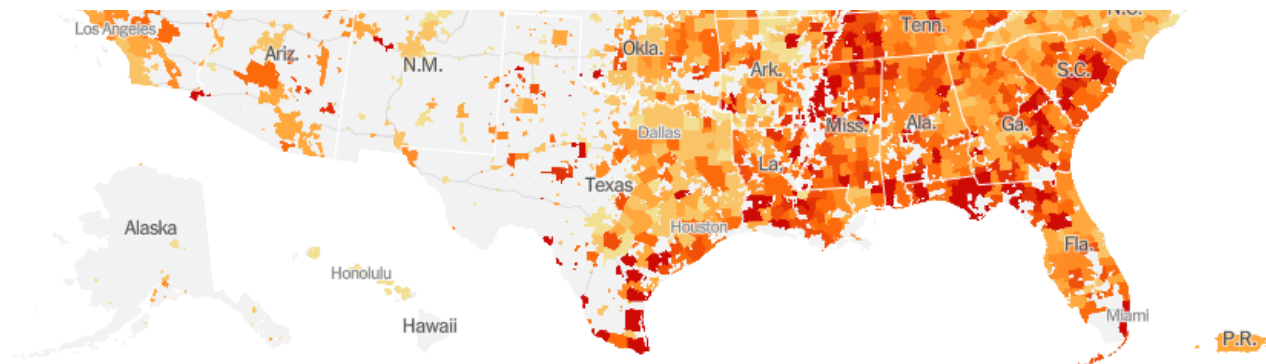
Sources: State and local health agencies and hospitals.

▶ About this data

Case numbers are surging throughout most of the United States, including in many states that were among the first to reopen. Because the number of people hospitalized and the percentage of people testing positive is also rising in many of those places, the case spike cannot be solely explained by increased testing. Still, coronavirus deaths remain well below their peak levels. And as some places reimpose restrictions, others continue to reopen their economies.

Where new cases are increasing

Cases per capita	Total cases

Charts show daily cases per capita and are on the same scale. States are sorted by cases per capita for the most recent day. Tap a state to see detailed map page.
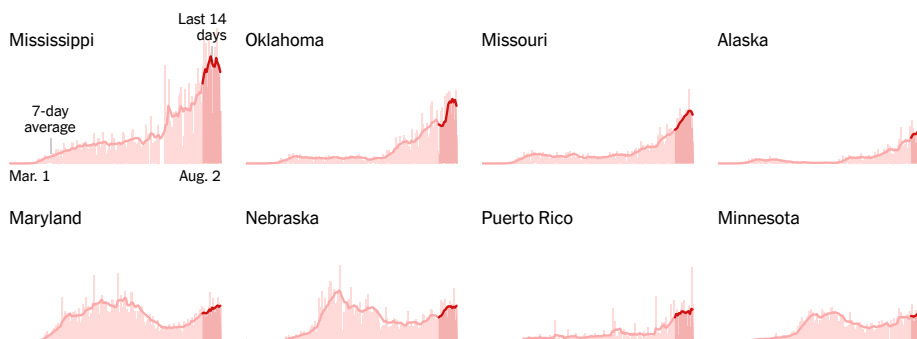
+ Show all

These states have had recent growth in newly reported cases over the last 14 days. The White House released criteria for states to reopen based on a "downward trajectory" of cases over the last 14 days, though it did not define how to measure the trajectory.

Where new cases are mostly the same

Cases per capita	Total cases

Charts show daily cases per capita and are on the same scale. States are sorted by cases per capita for the most recent day. Tap a state to see detailed map page.

Louisiana   Alabama   Nevada   Georgia

7-day
average

Mar. 1   Aug. 2

Tennessee   Arkansas   California   North Carolina

+ Show all

Where new cases are decreasing

Cases per capita	Total cases

Charts show daily cases per capita and are on the same scale. States are sorted by cases per capita for the most recent day. Tap a state to see detailed map page.

Last 14
days

Florida   Arizona   South Carolina   Texas

7-day
average

Mar. 1   Aug. 2

Idaho   Utah   U.S. Virgin Islands

Note: States and territories are grouped according to how the seven-day average of new cases has changed from two weeks ago to today.

Where new deaths are increasing

Deaths per capita	Total deaths

Charts show daily deaths per capita and are on the same scale. States are sorted by deaths per capita for the most recent day. Tap a state to see detailed map page.
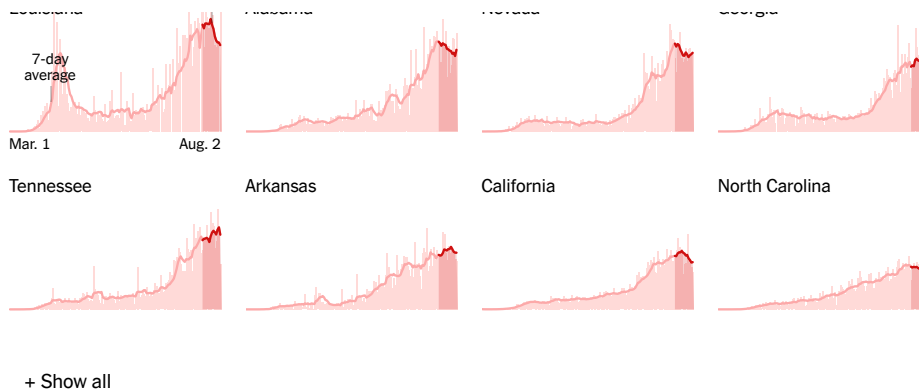
Mississippi   Florida   South Carolina   Louisiana

Last 14
days

7-day
average

Mar. 1   Aug. 2

Texas   Nevada   Georgia   Idaho

+ Show all
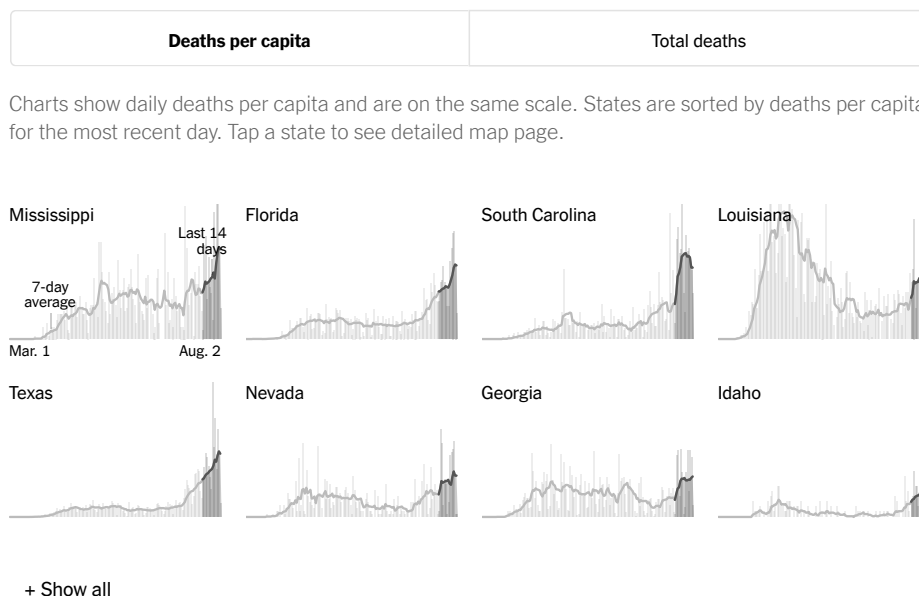
These states have had the highest growth in newly reported deaths over the last 14 days. Deaths tend to rise a few weeks after a rise in infections, as there is typically a delay between when people are infected, when they

die and when deaths are reported. Some deaths reported in the last two
weeks may have occurred much earlier because of these delays.

In late February, there were just a few dozen known cases in the United
States, most of them linked to travel. But by summer, the virus had torn
through every state, infecting more people than the combined populations
of Nebraska, Vermont and Montana. The national death toll exceeded the
population of Syracuse, N.Y. And after weeks of progress, reports of new
cases reached record levels in late June and early July.

Cases and deaths by state and county

This table is sorted by places with the most cases per 100,000 residents in the last seven
days. Charts are colored to reveal when outbreaks emerged.

Search counties

Cases	Deaths

	TOTAL CASES	PER 100,000	CASES IN LAST 7 DAYS	▼ PER 100,000	WEEKLY CASES PER CAPITA
					FEWER MORE
+ Florida MAP »	487,124	2,268	63,277	295	Mar. 1 Aug. 2
+ Mississippi MAP »	60,553	2,035	8,249	277	
+ Louisiana MAP »	119,861	2,578	12,175	262	
+ Alabama MAP »	91,444	1,865	12,150	248	
+ Nevada MAP »	50,270	1,632	7,351	239	
+ Georgia MAP »	177,556	1,672	24,080	227	
+ Tennessee MAP »	106,804	1,564	15,474	227	
+ Arizona MAP »	178,473	2,452	16,432	226	
+ South Carolina MAP »	91,788	1,783	10,589	206	
+ Texas MAP »	453,028	1,562	57,088	197	

Show all

▶ About this data

See our live coverage of the coronavirus outbreak for the latest news.

American life has been fundamentally reordered because of the virus.
Concerts, parades and baseball games have been called off.
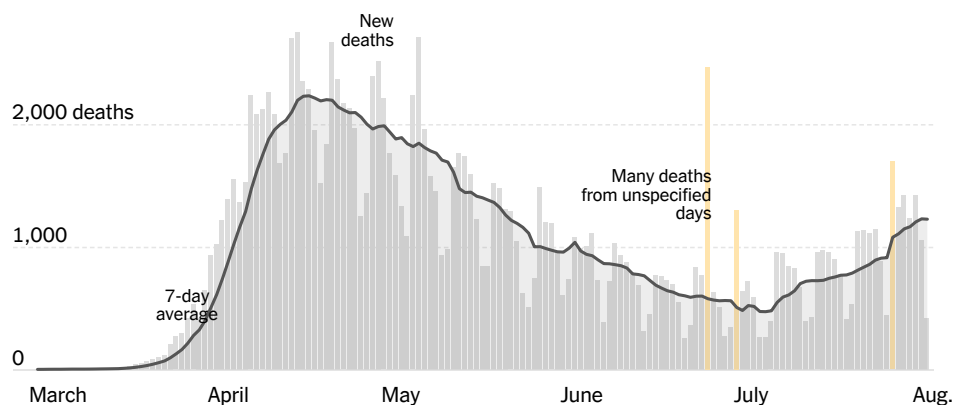Unemployment claims have spiked. And in most states, case numbers are
rising again.

New reported cases by day in the United States

New
cases

60,000 cases
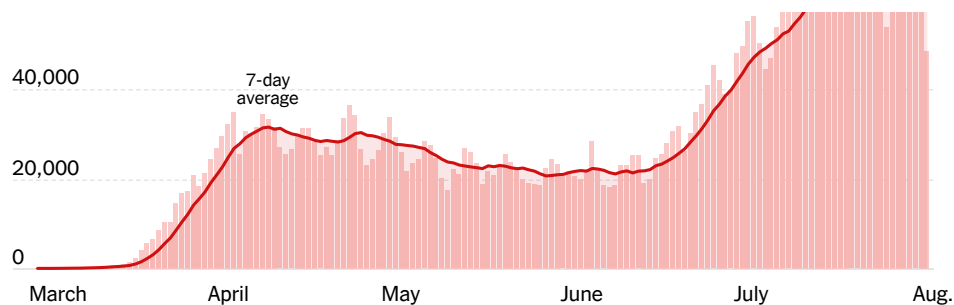
Note: The seven-day average is the average of a day and the previous six days of data.

New reported deaths by day in the United States

These are days with a data reporting anomaly. Read more here.

The New York Times has found that official tallies in the United States and in more than a dozen other countries have undercounted deaths during the coronavirus outbreak because of limited testing availability.

The New York Times is engaged in a comprehensive effort to track the details of every coronavirus case in the United States, collecting information from federal, state and local officials around the clock. The numbers in this article are being updated several times a day based on the latest information our journalists are gathering from around the country. The Times has made that data public in hopes of helping researchers and policymakers as they seek to slow the pandemic and prevent future ones.

The Times's data collection for this page is based on reports from state and local health agencies, a process that is unchanged by the Trump administration's new requirement that hospitals bypass the Centers for Disease Control and Prevention and send all patient information to a central database in Washington.

See our maps tracking the coronavirus outbreak around the world.

ADVERTISEMENT

The places hit hardest

The coronavirus has left no state unscathed. But its impact has been wildly uneven.

In New York and California, the states with the most known cases, more than 847,000 people have had the coronavirus. In some less populous states, including Vermont and Hawaii, there are fewer than 2,500 patients. And in a handful of remote counties, there has been not even one positive test.
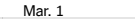
The nation's most populous places have all suffered tremendously. In Cook County, Ill., which includes Chicago, more than 4,800 people have died. In Los Angeles County, Calif., at least 166,000 people have had the virus. And in New York City, about one of every 370 residents has died.

But unlike in the early days of the pandemic, it is not so simple to say that big cities have been hit hardest. On a per capita basis, many of the places with the most cases have been small cities and rural communities in the Midwest and South.

And in some Sun Belt cities that were spared the worst of the pandemic in April, case and death numbers have surged to fearsome levels in recent weeks. In the county that includes McAllen, Texas, more than 85 percent of all coronavirus deaths have been announced since the start of July. . The Miami, Phoenix and Los Angeles areas have at times averaged more than 2,000 cases per day.

Hot spots: Counties with the highest number of recent cases per resident

Search counties

COUNTY	TOTAL CASES	PER 100,000	CASES IN LAST 7 DAYS	▼ PER 100,000	WEEKLY CASES PER CAPITA
					FEWER ... MORE
Madison, Texas	645	4,516	404	2,828	
Chicot, Ark.	529	5,228	223	2,204	
Sharkey, Miss.	180	4,166	77	1,782	
Chattahoochee, Ga.	660	6,051	151	1,384	
George, Miss.	541	2,208	298	1,216	
Jefferson, Fla.	344	2,415	170	1,193	
Cibola, N.M.	606	2,272	305	1,143	
Tallahatchie, Miss.	493	3,570	144	1,043	
Gulf, Fla.	379	2,779	138	1,012	
Cameron, Texas	12,077	2,854	4,250	1,004	

Show all

Note: Recent cases are from the last seven days.

Hundreds of thousands of cases traced to clusters

Coronavirus outbreaks have been traced to funerals, fast food restaurants, cruise ships and Navy vessels. But most of the biggest known clusters have been in nursing homes, food processing plants and correctional facilities, all places where people are packed in close quarters with little opportunity for social distancing.

Coronavirus cases have been reported in more than 15,000 nursing homes and other long-term care facilities, according to data collected by The New York Times from states, counties, the federal government and facilities themselves. More than 335,000 residents and employees have been infected in those homes, and more than 59,000 have died. That means more than 40 percent of deaths from the virus in the United States have been tied to nursing homes and other long-term care facilities.

We're tracking the devastating effects of the coronavirus in more than 14,000 nursing homes across the country »

"This disease creates the potential for a perfect storm in a long-term care facility — large groups of vulnerable people living together and a highly transmissible virus that may not cause symptoms in those who care for them," said Dr. Daniel Rusyniak, the chief medical officer for Indiana's state social services agency.

In American jails and prisons, more than 100,000 people have been infected and at least 802 inmates and correctional officers have died. During interviews with dozens of inmates across the country, many said they were frightened and frustrated by what prison officials have acknowledged has been an uneven response to the virus.

"I am very concerned," said Adamu Chan, an inmate at San Quentin State Prison in California, which has become one of the nation's largest coronavirus clusters with more than 2,300 infections and 15 deaths. "There's no way to social distance. We all eat together. We have a communal bathroom. There's no way to address a public health issue in an overcrowded facility."

Search clusters

CASES CONNECTED TO	▼ CASES
Marion Correctional Institution — Marion, Ohio	2,443
San Quentin State Prison — San Quentin, Calif.	2,435
Harris County jail — Houston, Texas	1,913
Pickaway Correctional Institution — Scioto Township, Ohio	1,794
Avenal State Prison — Avenal, Calif.	1,448
Trousdale Turner Correctional Center — Hartsville, Tenn.	1,382
North County jail — Castaic, Calif.	1,380
Columbia Correctional Institution — Lake City, Fla.	1,373
Ouachita River Unit prison — Malvern, Ark.	1,307
California Institution for Men — Chino, Calif.	1,184

Show all

About the data

The Times has found the following reporting anomalies for the data on this page:

- **June 25:** New Jersey began reporting probable deaths.

- **June 30:** New York City released deaths from earlier periods but did not specify when they were from.

- **July 27:** Texas began reporting deaths based on death certificates, causing a one-day increase.

- To see a detailed list of all reporting anomalies, visit the individual state pages listed at the bottom of this page.

In data for the United States, The Times is now including cases and deaths that have been identified by public health officials as probable coronavirus patients. Some states and counties only report figures in which a coronavirus infection was confirmed through testing. Because confirmed cases are widely considered to be an undercount of the true toll, some state and local governments have started identifying probable cases and deaths using criteria that were developed by states and the federal government.

Confirmed cases and deaths are counts of individuals whose coronavirus infections were confirmed by a laboratory test. **Probable cases and deaths** count individuals who did not have a confirmed test but were evaluated using criteria developed by national and local governments. Some governments are reporting only confirmed cases, while others are reporting both confirmed and probable numbers. And there is also another set of governments that are reporting the two types of numbers combined without providing a way to separate the confirmed from the probable. The

Times is now using the total of confirmed and probable counts when they are available individually or combined. Otherwise only the confirmed count will be shown.

Governments often revise data or report a large increase in cases on a single day without historical revisions, which can cause an irregular pattern in the daily reported figures. The Times is excluding these anomalies from seven-day averages when possible.

Read more about the methodology and download county-level data for coronavirus cases in the United States from The New York Times on GitHub.

Tracking the Coronavirus

World | **World Deaths** | **U.S. Cities** | **U.S. Deaths** | **Testing** | **Nursing homes** | **New York City** | **Reopening** | **Vaccines**

Countries

Brazil	India	U.K.
Canada	Italy	United States
France	Mexico	
Germany	Spain	

State by state

Alabama	Maine	Oregon
Alaska	Maryland	Pennsylvania
Arizona	Massachusetts	Puerto Rico
Arkansas	Michigan	Rhode Island
California	Minnesota	South Carolina
Colorado	Mississippi	South Dakota
Connecticut	Missouri	Tennessee
Delaware	Montana	Texas
Florida	Nebraska	Utah
Georgia	Nevada	Vermont
Hawaii	New Hampshire	Virginia
Idaho	New Jersey	Washington
Illinois	New Mexico	Washington, D.C.
Indiana	New York	West Virginia
Iowa	North Carolina	Wisconsin
Kansas	North Dakota	Wyoming
Kentucky	Ohio	
Louisiana	Oklahoma	

What you can do

Experts' understanding of how the Covid-19 works is growing. It seems that there are four factors that most likely play a role: how close you get to an infected person; how long you are near that person; whether that person expels viral droplets on or near you; and how much you touch your face afterwards.

You can help reduce your risk and do your part to protect others by following some basic steps:

- Keep your distance from others. Stay at least six feet away from people outside your household as much as possible.

- Wash your hands often. Anytime you come in contact with a surface outside your home, scrub with soap for at least 20 seconds, rinse and then dry your hands with a clean towel.

- Avoid touching your face. The virus primarily spreads when contaminated hands touch our nose or mouth or eyes. Try to keep your hands away from your face unless you have just recently washed them.

- Wear a mask outside your home. A mask protects others from any potential infection from you. The more people who wear masks, the more we all stay safer.

Here's a complete guide on how you can prepare for the coronavirus outbreak.

Note: Data are based on reports by states and counties at the time of publication. Local governments may revise reported numbers as they get new information. Some deaths may be reported by officials in two different jurisdictions. When possible, deaths have been reported here in the jurisdiction where the death occurred.

*Cases in New York City, Kansas City, Mo., and Joplin, Mo., each of which span multiple counties, are grouped together. Cases in a state that have been reported without a specific county are listed as county "unknown."

Population and demographic data from Census Bureau.

By Sarah Almukhtar, Aliza Aufrichtig, Matthew Bloch, Julia Calderone, Keith Collins, Matthew Conlen, Lindsey Cook, Gabriel Gianordoli, Amy Harmon, Rich Harris, Adeel Hassan, Jon Huang, Danya Issawi, Danielle Ivory, K.K. Rebecca Lai, Alex Lemonides, Allison McCann, Richard A. Oppel Jr., Jugal K. Patel, Julie Walton Shaver, Anjali Singhvi, Charlie Smart, Mitch Smith, Derek Watkins, Timothy Williams, Jin Wu and Karen Yourish. · Reporting was contributed by Jordan Allen, Jeff Arnold, Ian Austen, Mike Baker, Ellen Barry, Samone Blair, Nicholas Bogel-Burroughs, Aurelien Breeden, Elisha Brown, Emma Bubola, Maddie Burakoff, Alyssa Burr, Christopher Calabrese, Sarah Cahalan, Zak Cassel, Robert Chiarito, Matt Craig, Yves De Jesus, Brendon Derr, Brandon Dupré, Melissa Eddy, John Eligon, Timmy Facciola, Bianca Fortis, Matt Furber, Robert Gebeloff, Matthew Goldstein, Grace Gorenflo, Rebecca Griesbach, Lauryn Higgins, Josh Holder, Jake Holland, Jon Huang, Anna Joyce, Ann Hinga Klein, Jacob LaGesse, Alex Lim, Patricia Mazzei, Jesse McKinley, Miles McKinley, K.B. Mensah, Sarah Mervosh, Jacob Meschke, Lauren Messman, Andrea Michelson, Jaylynn Moffat-Mowatt, Steven Moity, Paul Moon, Thomas Gibbons-Neff, Anahad O'Connor, Ashlyn O'Hara, Azi Paybarah, Elian Peltier, Sean Plambeck, Elisabetta Povoledo, Cierra S. Queen, Savannah Redl, Scott Reinhard, Thomas Rivas, Frances Robles, Natasha Rodriguez, Alison Saldanha, Kai Schultz, Alex Schwartz, Emily Schwing, Libby Seline, Sarena Snider, Brandon Thorp, Alex Traub, Maura Turcotte, Tracey Tully, Lisa Waananen Jones, Amy Schoenfeld Walker, Jeremy White and Sameer Yasir. · Data acquisition and additional work contributed by Will Houp, Andrew Chavez, Michael Strickland, Tiff Fehr, Miles Watkins, Josh Williams, Albert Sun, Shelly Seroussi, Nina Pavlich, Carmen Cincotti, Ben Smithgall, Andrew Fischer, Rachel Shorey, Blacki Migliozzi, Alastair Coote, Steven Speicher, Hugh Mandeville, Robin Berjon, Thu Trinh, Carolyn Price, James G. Robinson, Phil Wells, Yanxing Yang, Michael Beswetherick, Michael Robles, Nikhil Baradwaj, Ariana Giorgi and Bella Virgilio.

Correction: July 20, 2020

The map key in an earlier version of this article was mislabeled. The key showed the average number of new cases in each county per capita per day, not the total number of cases per capita in the previous seven days.

Exhibit 10

Citing 'overwhelming' spread, Pa. moves to add staff, app to trace the coronavirus

inquirer.com/news/pennsylvania/spl/pennsylvania-coronavirus-contact-tracing-app-staff-20200724.html

by Aneri Pattani and Sara Simon, Posted: July 24, 2020

HARRISBURG — As coronavirus cases continue to rise in Pennsylvania, the state Health Department has received approval to spend nearly $27 million to ramp up contact tracing efforts, warning of potentially dire consequences if it is unable to do so quickly.

Contact tracing — locating people who have come in contact with individuals infected with COVID-19 and asking them to quarantine — is a key public health tool. Alongside wearing masks, practicing social distancing, and implementing widespread testing, experts say it's one of the best ways to slow the spread of the coronavirus.

Now, the state is looking to outside companies for help with this critical work.

Official documents show the Health Department has filed at least two emergency requests, using an expedited contracting process, to hire companies to assist with contact tracing. One proposed contract for $25 million is with an Atlanta-based staffing agency to recruit, hire, and train up to 4,000 tracers in 90 days. The other, for nearly $2 million, is with an Irish software company to launch a Bluetooth-enabled smartphone app that could notify users if they have been in close contact with an infected individual.

Neither contract has been finalized, according to a department spokesperson.

"At present, the spread of COVID-19 in the community is so overwhelming that the ability to track, trace, isolate, and test the individuals suspected to have the virus is impossible without the influx of additional staff and use of technology-assisted applications," the department wrote in one of the requests for emergency funding.

Over the last 14 days, about one-third of Pennsylvania counties have seen a rise in cases. The state's seven-day average of new cases is double what it was last month, driven by infections in the western region.

The trend has prompted Gov. Tom Wolf and Secretary of Health Rachel Levine to impose tighter restrictions on bars, restaurants, and indoor gatherings, and require people to wear masks in public. With surges in the southern and western parts of the nation, they worry that travel could bring more cases to the state if action is not taken swiftly.

As of Wednesday, there were 661 contact tracers across the state, the department said. That includes state and county employees, as well as volunteers. Although the department has met its original goal of 625 tracers, spokesperson Nate Wardle said, "We know that we will need to continue to increase our capacity as we move toward the fall."

But public health experts — much like the state's own emergency funding requests — say the time to ramp up contact tracing is now.

A tool built by George Washington University's Institute for Health Workforce Equity estimates Pennsylvania needs nearly 4,500 tracers based on its current case count. Other public health experts have cited 2,000 to 4,000 as the target.

The main question, said Edward Salsberg, a senior researcher who helped build the George Washington University tool, is whether the state can reach all contacts of new cases within 24 hours. By notifying people who may have contracted the virus within that time and advising them to stay home, you limit the spread, Salsberg said.

On a day like Friday, when Pennsylvania announced a recent high of 1,213 new cases of COVID-19, that would mean contact tracers would have to call between 1,000 and 13,000 people, depending on how many contacts each infected individual had.

The question is whether 661 tracers can reach that many people the next day, Salsberg said.

Contact tracing has been a challenge for Pennsylvania throughout the pandemic. When the coronavirus first struck in March, the state's roughly 130 community health nurses led the charge. But a Spotlight PA investigation found that decades of budget cuts and court battles had left only a skeleton workforce, and the nurses were quickly overwhelmed by the deluge of coronavirus cases.

At the height of the pandemic, the nurses were forced to forgo calling contacts themselves and instead ask individuals who tested positive to pass on the information to others.

Once cases began declining in late April, the nurses resumed these efforts, alongside a patchwork system of local health departments, hospital networks, and nonprofits. The state Health Department has been working to corral those efforts into six regional collaboratives, but as of mid-July, only three collaboratives have been formed.

Now, with concerns about increasing case counts and the fear of a second wave in the fall, the department is looking to bolster its contact tracing systems further.

It has posted 12 job openings for contact tracing field managers and community health nurses. And one of the emergency contract requests it filed suggests a plan to hire thousands more.

The request is for a one-year contract with Insight Global, a staffing agency that launched a health-care division during the pandemic. The document specifies that the Health Department currently has resources to hire up to 1,000 staff, and "any staffing partner should be prepared to accommodate up to 4,000."

Insight Global has experience with this type of work, the department wrote in the funding request, citing the company's ability to hire 1,600 "resources" within 30 days for the State of New York.

Alongside the boost in personnel, Pennsylvania is also looking to supplement traditional contact tracing efforts with an app built by an outside company.

Typically, this kind of technology relies on a large number of people downloading an app and consistently carrying their smartphones. A user is notified when they've been in close contact with someone who's self-identified as having COVID-19, though identifying information, like the infected person's name and location, is not revealed.

Pennsylvania's proposed vendor, NearForm, has already built a contact tracing app and implemented it successfully in Ireland, a country with strict privacy regulations. The company has made the technology's source code publicly available, allowing outside engineers to vet the app for potential weaknesses, and recently joined a new global technology initiative to help public health agencies combat COVID-19.

Still, social factors could hinder any app's ability to provide meaningful information in Pennsylvania.

When two users come into close contact, Bluetooth technology isn't able to discern whether they're both wearing masks or whether the contact was outdoors — factors that have been proven to reduce the risk of infection.

Additionally, bottlenecks in lab capacity occurring around the country mean COVID-19 test results can take days or even weeks to come back. If users don't have up-to-date information on their results, the technology won't be effective.

And in Pennsylvania's political landscape, where the coronavirus has become a divisive debate, questions remain about whether enough people would be willing to download an app — and self-report honestly — for the technology to actually be useful.

But experts say Pennsylvania has a critical opportunity to get a handle on cases.

"Now that numbers are coming up and we're reopening society, you want to stem this," Salsberg said. "This is how you keep your society open."

Exhibit 11

OPINION

Pandemic far from over in nursing homes | Editorial

Updated: June 8, 2020 - 6:09 AM

The Inquirer Editorial Board | opinion@inquirer.com

DREAMSTIME / MCT

As the coronavirus exacts a grim toll among nursing home residents and employees in experts warn that any slowdown in the pandemic's spread will not lessen the likelihood of a second wave of infections. Nursing homes and public health agencies were ill-prepared for a pathogen that has claimed 26,000 lives in these facilities nationwide. So the June 2 release of an analysis of New Jersey's response to the outbreak in the state's 370 nursing homes — with recommendations on preparing for a resurgence — is welcome. As are assurances by health officials in Harrisburg that preparations are underway as well in Pennsylvania.

About 1.4 million Americans live in nursing homes, including about 75,000 in Pennsylvanian and 45,000 in New Jersey. These are people generally vulnerable to the virus because of age, chronic pulmonary and other ailments, and the close quarters in which they live. Patients also have numerous daily contacts with health care workers who may inadvertently carry the virus into the facility, or back to their own families and communities.

RELATED STORIES

- **Welcome to the 'yellow' reopening phase | Coronavirus Newsletter**
- **The Philly area's largest nursing home operator says its coronavirus cases are stabilizing**
- **From confusion to threats, some Pa. nursing home residents aren't getting their coronavirus stimulus checks**

So while nursing home residents are less than five percent of the country's population, they comprise at least a third of the 110,000 COVID-19 fatalities nationwide. And more than half of coronavirus deaths in New Jersey, Pennsylvania, and Philadelphia have been among nursing home residents. This shouldn't have happened, and should not be allowed to happen again.

The 100-page analysis by Manatt Health cost New Jersey taxpayers $500,000 and recommends setting up a statewide emergency operations center for nursing homes, higher pay and additional training for employees, better oversight, and more "transparency and accountability." The analysis also noted that close to a third of the state's nursing homes had "infection prevention and control deficiencies' in 2017. And nearly a quarter of all New Jersey nursing homes had such deficiencies "in multiply consecutive years."

The pandemic has drawn wide attention to inspections, also known as surveys, of America's 15,000 nursing homes. A U.S. Government Accountability Office report released in May found that "persistent lapses" in infection control procedures as simple as hand washing have been widespread. Nursing home owners, including for-profit companies that have three-quarters of all such facilities in the United States, that have not been paying attention to the basics need to do so.

A spokesman for the Pennsylvania Department of Health said last week that as of May 15, the state was in the process of completing 657 onsite and virtual surveys of nursing homes, some involving multiple assessments. New Jersey health department officials said 115 nursing homes and 27 related facilities have been inspected as of June 3, and that "infection control focused surveys" mandated by the federal Centers for Medicare and Medicaid Services (cms.gov).will be conducted at all nursing homes in the state by July 31.

All well and good. But the fact remains that other measures, such as universal testing of nursing home residents, still remain a goal, not a reality. The New Jersey report and the inspections under way in Pennsylvania are the barest beginning of what states, and nursing home owners, must put do to be ready for when the next wave hits.

Posted: June 8, 2020 - 6:09 AM
The Inquirer Editorial Board | opinion@inquirer.com

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Keith Pompey, Staff Writer

Horoscopes: Friday, July 31, 2020

Holiday Mathis

BMW takes 2020 3 Series sedan to the Mth extreme

Scott Sturgis, Auto Columnist

Exhibit 12

Process to Reopen Pennsylvania

Last updated: 9:55 a.m., July 31, 2020

The 2019 Novel Coronavirus (COVID-19) pandemic is an unprecedented event that has impacted every part of the globe. Pennsylvania has seen a similar unprecedented burden of COVID-19 and has taken equally unprecedented measures to save lives and reduce morbidity of the COVID-19 virus.

The commonwealth has responded aggressively to the spread of COVID-19, first by working to contain the virus through contact tracing and quarantines for residents who came in contact with someone who tested positive for the virus to slow sustained community spread. When sustained community spread was established, the commonwealth moved to mitigation efforts early in the response by issuing orders to close schools and non-life-sustaining businesses; and to restrict large gatherings. This decision to respond aggressively has proven to be an essential and effective measure to reduce the spread of COVID-19 and ultimately save an unrealized number of Pennsylvanians' lives.

Mitigation efforts have helped to curtail the spread of COVID-19 so our hospitals can treat patients without overwhelming our limited supplies of personal protective equipment (PPE), ventilators, or beds. Throughout the pandemic, we have closely monitored our hospital system capacity through the creation of a public dashboard, and we have built and distributed millions of goods and materials to help our health care system manage the influx of patients.

PA DOH and PEMA have worked together to develop plans and stand up alternative care sites in the northeast and southeast so when our health care system becomes overwhelmed, we can load balance patients and supplies by keeping patient safety top of mind. At this point, alternative care sites have been identified in other areas of the commonwealth and can quickly stand up should there be a surge in other areas of the state.

As the situation stabilizes, we are planning a measured and strategic approach to allowing Pennsylvanians to return to work safely to prevent a resurgence of the virus. This must be done in the most effective, efficient, and risk-adverse method possible to balance our return to economic stability, while at the same time continuing to keep Pennsylvanians safe by controlling the spread of disease.

We are planning for the days and weeks ahead when we will not only safely return Pennsylvanians to work but return to a different and more resilient Pennsylvania. While we cannot be certain of the future path of this disease, our decisions will be driven first by prioritizing the health and safety of all Pennsylvanians.

To that end, the commonwealth is partnering with Carnegie Mellon University (CMU) to create a data-driven decision support tool that will enable a balance between maximizing the results of our economy while minimizing public health risks. This tool will help better understand the current health and economic status, as well as the inherent risks and benefits to easing restrictions by sector and region.

In consultation with Team PA, PA DOH, PEMA, the Department of Community and Economic Development, the Department of Labor & Industry, and others, the administration will develop guidance for businesses, local governments, workers, and customers with the goal of guiding a safe and iterative reopening process.

Pennsylvania plans to proceed with returning to work cautiously. Broad reopenings or reopenings that are not structured around ongoing social distancing, universal masking, or other public health guidance would likely result in a spike of cases and new stay-at-home and closure orders.

Throughout this process, the administration will have guidance in place to support best public health practices. This guidance will reinforce and build on existing worker and building safety orders. It will also be able to adapt to the changing nature of the pandemic, as well as lessons learned from communities that return to work strategically.

Discussed in greater detail below, the administration will utilize a three-phase matrix to determine when counties and/or regions are ready to begin easing some restrictions on work, congregate settings, and social interactions.

The red phase has the sole purpose of minimizing the spread of COVID-19 through strict social distancing, non-life sustaining business, school closures, and building safety protocols.

Red Phase

Work & Congregate Setting Restrictions

- Life Sustaining Businesses Only
- Masks Are Required in Businesses
- Congregate Care and Prison Restrictions in Place
- Schools (for in-person instruction) and Most Child Care Facilities Closed

Social Restrictions

- Stay at Home Orders in Place
- Large Gatherings Prohibited
- Masks Are Required in all Public Spaces
- Restaurants and Bars Limited to Carry-Out and Delivery Only
- Only Travel for Life-Sustaining Purposes Encouraged

- Reiterate and reinforce safety guidance for businesses, workers, individuals, facilities, update if necessary
- Monitor public health indicators, adjust orders and restrictions as necessary

As regions or counties move into the yellow phase, some restrictions on work and social interaction will ease while others, such as closures of schools, gyms, and other indoor recreation centers, hair and nail salons, as well as limitations around large gatherings, remain in place. For example, retail locations will be able to open with forthcoming guidance in place that is substantially similar to the worker safety and building safety order. Otherwise retail will be able to allow for curbside pickup. The purpose of this phase is to begin to power back up the economy while keeping a close eye on the public health data to ensure the spread of disease remains contained to the greatest extent possible.

Yellow Phase

Work & Congregate Setting Restrictions

- Telework Must Continue Where Feasible
- Businesses with In-Person Operations Must Follow Business and Building Safety Orders
- Masks Are Required in Businesses
- Child Care May Open Complying with Guidance
- Congregate Care and Prison Restrictions in Place
- Schools may provide in-person instruction only in accordance with Department of Education guidance.

Social Restrictions

- Stay at Home Order Lifted for Aggressive Mitigation
- Large Gatherings of More Than 25 Prohibited
- Masks Are Required in all Public Spaces
- In-Person Retail Allowable, Curbside and Delivery Preferable
- Indoor Recreation, Health and Wellness Facilities and Personal Care Services (such as gyms, spas, hair salons, nail salons and other entities that provide massage therapy), and all Entertainment (such as casinos, theaters) Remain Closed
- Restaurants and Bars May Open Outdoor Dining, in Addition to Carry-Out and Delivery (effective 6/5/2020)

- All businesses must follow CDC and DOH guidance for social distancing and cleaning
- Monitor public health indicators, adjust orders and restrictions as necessary

After a county transitions to the yellow phase, we will closely monitor for increased risk, such as significant outbreaks. If overall risk remains mitigated for fourteen days, we will transition the county to the green phase.

The green phase eases most restrictions with the continued suspension of the stay at home and business closure orders to allow the economy to strategically reopen while continuing to prioritize public health.

While this phase will facilitate a return to a "new normal," it will be equally important to continue to monitor public health indicators and adjust orders and restrictions as necessary to ensure the spread of disease remains at a minimum.

Green Phase

Work & Congregate Setting Restrictions

- Telework Must Continue Where Feasible
- Businesses with In-Person Operations Must Follow Updated Business and Building Safety Requirements
- All Businesses Operating at 50% Occupancy in the Yellow Phase May Increase to 75% Occupancy, Except Where Noted for Bars and Restaurants
- Masks Are Required in Businesses
- Child Care May Open Complying with Guidance
- Congregate Care Restrictions in Place
- Prison and Hospital Restrictions Determined by Individual Facilities
- Schools Subject to CDC and Commonwealth Guidance

Social Restrictions

- Indoor Gatherings of More Than 25 Prohibited; Outdoor Gatherings of More Than 250 Prohibited
- Masks Are Required in all Public Spaces
- Restaurants and Bars Open at 25% Capacity for Indoor Dining
- On-premises Alcohol Consumption Prohibited Unless Part of a Meal; Cocktails-to-go and Carryout Beverages are Allowed
- Personal Care Services (including hair salons and barbershops) Open at 50% Occupancy and by Appointment Only
- Indoor Recreation and Health and Wellness Facilities (such as gyms and spas) Open at 50% Occupancy with Appointments Strongly Encouraged; Fitness Facilities Are Directed to Prioritize Outdoor Fitness Activities
- All Entertainment (such as casinos, theaters, and shopping malls) Open at 50% Occupancy
- Construction Activity May Return to Full Capacity with Continued Implementation of Protocols

- All businesses must follow CDC and DOH guidance for social distancing and cleaning
- Monitor public health indicators, adjust orders and restrictions as necessary

See frequently asked questions about the latest COVID-19 restrictions, announced on July 15.

History

The first confirmed case of the 2019 novel coronavirus in the United States was reported in Washington state on January 21; on January 30, the World Health Organization declared the virus a global health emergency.

The Pennsylvania Department of Health (PA DOH) began daily leadership meetings on January 26, to carefully track the disease, prepare a response, and coordinate with federal and hospital partners.

On February 1, PA DOH stood up its DOC, or Department Operations Center, on a 12 hour, 7 days a week activation status at the Pennsylvania Emergency Management Agency (PEMA). Staffed by PA DOH epidemiologists, public health nurses, physicians, logistical, planning and communication support, the Pennsylvania Department of Human Services and PEMA to closely monitor the spread of the disease, and begin containment strategies in furtherance of the state's preparedness plans.

On March 4, due to the continued spread of the virus throughout the United States, PEMA partially activated its Commonwealth Response Coordination Center (CRCC) to provide planning and logistical support for PA DOH and to coordinate situational awareness across state agencies and all 67 counties within the commonwealth.

On March 6, Pennsylvania recorded its first two cases of COVID-19 and Governor Tom Wolf signed a Disaster Declaration to ensure the state had the resources and authority to plan the process of containment and mitigation in Pennsylvania, assuring Pennsylvanians that the commonwealth was prepared to face this crisis.

On March 7, PEMA elevated the activation level of its CRCC to a full activation during daylight hours to provide for additional support for PA DOH and to coordinate planning and response operations across state agencies and federal, state, and local jurisdictions.

From the beginning of the pandemic, the administration undertook a measured, regional strategy to mitigation and containment, and protecting Pennsylvanians with the assurance that they could receive testing and treatment for COVID-19 without any financial burden. Decisions and actions were taken on a state, county, and regional basis in coordination with local elected officials, public health experts, and other stakeholders.

On March 10, PEMA, with assistance from PA DOH, conducted a COVID-19 planning workshop and tabletop exercise for all state agencies to discuss preparations, potential impacts, and agency Continuity of Operations Plans (COOP) related to operations during a pandemic.

On March 12, with cases rising in Montgomery County, Governor Wolf closed schools and adult day centers there for 14 days, requesting that non-essential businesses close and county residents limit travel. He also imposed limited visitation in nursing homes and correctional facilities. The mitigations would prove to be vital as cases increased in the Southeast over the next week.

On March 13, Governor Wolf announced that mitigation efforts would be extended to Delaware County and all Pennsylvania schools would be closed for 10 days beginning March 16. Additionally, on March 13 the President of the United States issued a National Emergency, which included Emergency Disaster Declarations for all 50 states for emergency protective measures for COVID-19 response operations that was retroactive to January 20.

On March 14, with cases in Pennsylvania nearing 50, Governor Wolf announced additional closures in Bucks and Chester counties.

On March 16, because of the continued spread of the virus across the commonwealth and increasing case counts, PEMA began 24/7 operations of its CRCC in support of PA DOH and to maintain situational awareness, coordinate resource support, and provide planning support across the state agencies and federal, state, and local jurisdictions.

Under guidance from Health Secretary Dr. Rachel Levine, Governor Wolf ordered all Allegheny, Bucks, Chester, Delaware, and Montgomery county bars and restaurants to cease dine-in operations beginning March 16 for 14 days.

On March 18, PA DOH announced the first death from COVID-19 in the state.

On March 19, Governor Wolf ordered all non-life-sustaining businesses to close across the commonwealth to help stop the spread of the virus. The administration provided guidance, refined parameters, and designed an exemption process that could allow some businesses to remain open under strict guidance from the state. Additionally, on March 19 the governor received notification of approval of his request for a Small Business Administration (SBA) disaster declaration for the Economic Injury Disaster Loan (EIDL) program to provide much-needed aid to businesses impacted by the COVID-19 mitigation procedures.

On March 23, Governor Wolf and Dr. Levine began the process of issuing additional stay-at-home orders based on county cases and modeling of the possible spread.

Timeline of County Stay-at-Home Orders:

- March 23 Allegheny, Bucks, Chester, Delaware, Monroe, Montgomery, and Philadelphia counties;
- March 24 Erie County;
- March 25 Lehigh and Northampton counties;
- March 27 Berks, Butler, Lackawanna, Lancaster, Luzerne, Pike, Wayne, Westmoreland and York counties;
- March 28 Beaver, Centre, Washington counties;
- March 30 Carbon, Cumberland, Dauphin and Schuylkill counties;
- March 31 Cameron, Crawford, Forest, Franklin, Lawrence, Lebanon, Somerset counties; and
- April 1 Statewide Stay-at-Home Order.

As the administration issued stay-at-home orders, it also moved to make more materials available to health care systems by working with the legislature to invest $50 million in support for hospitals and health systems. The administration also worked with the legislature to move the primary election from April 28 to June 2.

Federal support and aid have been critical in the state's response. On March 29, to seek all available aid, Governor Wolf requested a federal major disaster declaration. On March 31, the federal government granted approval. Beginning with early assurances that COVID-19 testing and treatment would be covered for all Pennsylvanians at no cost, Governor Wolf took additional steps to ensure everyone in the state was treated fairly and without discrimination amid the pandemic.

On April 3, to reinforce mitigation and safety surrounding the COVID-19 pandemic, Governor Wolf called for universal masking and requested that religious leaders consider alternate forms of worship.

Additionally, on April 3, Pennsylvania was one of the first states to receive statewide approval from the Federal Emergency Management Agency (FEMA) to conduct non-congregate sheltering in response to the COVID-19 emergency in the commonwealth.

On April 5, Governor Wolf announced that Dr. Levine issued an Order to make the buildings Pennsylvanians work in safer.

To successfully mitigate a surge that could overwhelm the state's health care system, the administration sought information, capabilities, and needs from manufacturers that could ramp up to supply necessary personal protective equipment (PPE) and others supplies. In addition, health care facilities began the process of transferring supplies to help secure preparedness for those areas with greater needs. The state issued an order for the ability to transfer supplies around the commonwealth, as necessary to load balance the system.

On April 9, Governor Wolf announced the closure of schools through the end of the academic year and a temporary reprieve program for non-violent state correctional facility inmates amid Department of Corrections plans to keep inmates safe while incarcerated.

Communication and collaboration with other states have been vital as people typically travel between neighboring states for work, to visit family, and to vacation under non-pandemic circumstances. On April 13, Governor Wolf joined six other governors (NY, NJ, CT, RI, DE, MA) in a council to plan how states can work together to safely reopen and begin the process of recovery.

On April 15, the Secretary of Health issued an Order requiring safety measures in all businesses permitted to maintain in-person, physical operations except for health care providers. These measures included standards for cleaning and disinfecting high-touch areas, establishing protocols for businesses exposed to a probable or confirmed case of COVID-19, limiting the numbers of employees and customers on the premises, ensuring that employees have access to soap, sanitizer, and face masks, and that patrons wear face masks.

On April 17, Pennsylvania was the first state to have a Memorandum of Understanding (MOU) accepted by FEMA for purchasing and distributing food through established Food Banks in the commonwealth.

Also, on April 17, Governor Wolf outlined the standards the administration will use for reopening and on April 20, Governor Wolf announced a target date of May 8 for the beginning of phased reopening and easing of restrictions.

Standards

- Our approach will be data driven and reliant upon quantifiable criteria to drive a targeted, evidence-based, regional approach to reopenings in Pennsylvania.
- We will put forth guidance and recommendations for employers, individuals, and health care facilities and providers for assured accountability as we reopen.
- Reopening necessitates that adequate personal protective equipment and diagnostic testing are available.
- Reopening requires a monitoring and surveillance program that allows the commonwealth to deploy swift actions for containment or mitigation.

- Protections for vulnerable populations must remain steadfast throughout the reopening process, such as limitations on visitors to congregate care facilities and prisons.
- Limitations on large gatherings unrelated to occupations should remain in place for the duration of the reopening process.

Our approach will be data driven and reliant upon quantifiable criteria to drive a targeted, evidence-based, regional approach to reopenings in Pennsylvania.

To help inform decisions about what regions to reopen, and on what timeline, the commonwealth has partnered with Carnegie Mellon University and other institutions of higher education, to develop a data dashboard. This dashboard, as well as demographic and health criteria described further below, such as population density, mobility, availability of testing, and health care resources will inform formal recommendations made jointly by the Secretary of Health, the PEMA Director, and the Secretary of the Department of Community and Economic Development to the governor regarding when a region may safely move from one phase of reopening to the next. In preparing recommendations, the secretaries and PEMA director will meet to review the data sources described more fully below, balance risks to public health, and benefits to the economy, and agree unanimously as to the phase in which each region should safely be categorized.

First, DOH, in coordination with PEMA, other commonwealth agencies, and stakeholders in the areas of public health, economics, and emergency management, has developed criteria that will help guide decisions about reopenings and the easing of restrictions.

A target goal for reopening was initially set at having fewer than 50 new confirmed cases per 100,000 population reported to DOH in the previous 14 days.

So, for example, an area with a population of 800,000 people would need to have fewer than 400 new confirmed cases reported in the past 14 days to meet the target. An assessment then determines if the target goal has been met, and the administration works closely with county and local governments to enable the communities to reopen and transition back to work.

With the commonwealth dramatically increasing its testing capacity, as of May 22, the fewer-than-50 new cases per 100,000 population measure will be considered, but it will be reviewed in the context of various other factors that are indicative of risk.

Additionally, the commonwealth must ensure there is:

- Enough testing available for individuals with symptoms and target populations, such as those at high risk, health care personnel, and first responders.
- Robust case investigation and contact tracing infrastructure is in place to facilitate early identification of any cluster outbreaks and to issue proper isolation and quarantine orders.
- Identification of area's high-risk settings, including correctional institutions, personal care homes, skilled nursing facilities, and other congregate care settings, and assurance that facilities have adequate safeguards in place such as staff training, employee screening, visitor procedures and screening, and adequate supplies of PPE to support continued operations.

The Pennsylvania COVID-19 Dashboard shows up-to-date data on case counts and demographics, hospital preparedness, and testing. Having trouble viewing the dashboard? View the full screen version.

View CMU Risk-Based Decision Support Tools PDF (July 30, 2020).

Second, the commonwealth will use a modeling dashboard under development and evaluation by Carnegie Mellon University to take a regional and sector-based approach to reopenings, the easing of restrictions, and response.

The administration will use this data-driven decision support tool to better understand the current health and economic status, as well as the inherent risks and benefits to reopening certain businesses and industry areas. Using data that considers worker exposure and spread risks, health care capacity, economic impact, and supply chain impact, we will prioritize reopening where it has the potential for the most positive impact on the economy for workers and businesses while mitigating risk to public health and safety.

In order to arrive at results through this dashboard, the Commonwealth of Pennsylvania is providing access to data from several commonwealth agencies including the Departments of Labor & Industry, Human Services, Community and Economic Development, Revenue, and Health.

The dashboard will help with questions such as: What will be the likely public health and economic implications associated with opening an industry? What impact might reopening have on vulnerable workers and businesses? The data from the dashboard will also provide insights and recommendations at the industry and county level to inform state policy decisions.

The analysis will link data sources together to build an understanding of the current and real time state of Pennsylvania's economy and the impact of the spread of COVID-19. The model will help to predict and understand what types of individuals, businesses, and industries will be more at risk, most vulnerable, and impacted by COVID-19. The model will apply what-if scenarios that will allow the state to understand the impact of potential re-opening decisions. The analysis will allow the commonwealth to monitor changes over time and the impact of decisions. The purpose is not to make decisions but rather to inform decision makers. For example, all indicators could point to opening a specific county, but other factors such as population density around a hotspot, availability of supplies to ensure workers are protected, either PA DOH criteria or proximity to a hotspot in another county could make the county unfit to open.

Regions

Just as the administration took a measured, county-by-county approach to the Stay at Home order before expanding the order statewide, it will do the same to ease restrictions and reopen the state.

As regions meet the measures described earlier, the commonwealth will ease restrictions with the goal of broad reopenings as soon and as safely as possible. Certain regions have seen less case density than others. In these regions, it is important to account for hospital capacity as reopenings and the easing of restrictions begin. This information is part of the data and modeling project. For example, in the north central region there is less population density and fewer cases, but there is less hospital capacity if cases and hospitalizations were to surge. These factors will be considered on an ongoing basis and employers will be responsible for developing and demonstrating compliance with criteria in consultation with PA DOH and other relevant state agencies. At any point, the Governor, in consultation with PA DOH and PEMA may revise reopening standards to adjust for the spread of disease.

Industries

The reopening and the easing of restriction approach will primarily focus on regions, however certain industries are more susceptible to the spread of COVID-19. Other industries are more vulnerable to changing economic conditions. These factors are also part of the data and modeling project and will be closely considered as part of the reopening and the easing of restriction process. The first or "Yellow" phase of reopening will focus on businesses with low and moderate risk profiles, including those with low worker density, those that take place in outdoor settings, and those that can successfully implement the Governor and Secretary of Health's Worker Safety and Building Safety Orders, while encouraging those who can telework to continue to do so (see later section on "Phases"). When reopened, these businesses will have to adhere to strict guidelines for density and procedures. The administration will work with stakeholders in various industry sectors, as well as labor representatives and health professionals to craft guidance with tailored and appropriate safeguards in place.

We will put forth guidance and recommendations for employers, individuals, and health care facilities and providers for assured accountability as we reopen.

Since the beginning of the pandemic, the Wolf Administration has provided general safety guidance for businesses, organizations, and individuals. As the administration begins the reopening and the easing of restriction process, this guidance will be refined and strengthened so businesses and organizations can continue to prioritize public health and safety while attracting new business and getting the economy back on track.

All Pennsylvanians should continue to maintain social distancing even as the reopening and easing of restriction process begins. With few exceptions, Pennsylvanians should maintain a distance of six feet from each other, gatherings of more than 25 people will be prohibited, and non-essential travel should be avoided. In addition, individuals should engage in frequent hand washing and sanitizing, and surfaces should be disinfected as often as possible.

For employers, remote or telework should be the primary option if possible. Employers should expand technology where possible to provide remote or telework options. If remote or telework are not possible, employers must follow the guidance developed by the commonwealth in order to reduce the risk of coronavirus spread and to ensure workers are kept safe.

Guidance
Working across agencies, the commonwealth provided broad guidance for businesses and individuals that will enable employers to use their own expertise to decide what is best for their business while reporting on outcomes to the commonwealth. This guidance re-emphasizes and builds on existing orders previously issued to protect employees and customers, specifically the building safety and workers' safety orders. The guidance formalizes and builds on CDC recommendations and other best practices in states across the country.

Communicating COVID-19 Safety Procedures to Employees and Customers
Organizations will be required to make employees and customers aware of the guidance provided by the commonwealth to keep people at their establishment safe. Similar to Workers' Compensation or OSHA regulations, the commonwealth will require commonwealth-created "COVID-19 Safety Procedures for Businesses" flyer to be clearly displayed at workplaces, along with publicly posted acknowledgement by the employer that the guidance is being followed. There is also a requirement to name a "Pandemic Safety Officer" who would be in charge of carrying out the COVID-19 safety procedures set forth in this guidance.

The business reopening guidance will provide more information about expectations for communicating safety procedures to employees and customers.

Supplier Directory
The administration recognizes the difficulty of procuring materials businesses need to safely resume operations. In order to address this concern, the Department of Community and Economic Development created a supplier directory for protective materials.

To view the supplier directory.

Reopening necessitates that adequate personal protective equipment and diagnostic testing are available.

Personal Protective Materials and Hospital Stockpiles
Ensuring adequate supplies of Personal Protective Equipment (PPE) and other supplies needed to conduct diagnostic testing, care for COVID-19 patients, and support other normal health care functions is critical to resuming normal operations. The global nature of the COVID-19 pandemic has adversely impacted the normal supply chain for these materials as the demand has significantly outpaced the ability to produce or acquire the PPE and supplies needed. Since early March the Wolf Administration has worked tirelessly to procure and distribute PPE and other supplies to hospital systems, long-term care facilities, first responders and emergency management agencies throughout the commonwealth to respond to the COVID-19 crisis

As of April 22, the Wolf Administration has distributed 3 million N95 masks, approximately 231,000 gowns, approximately 1.36 million procedure masks, more than 1.32 million gloves, more than 68,000 face shields, and more than 5,300 coveralls to more than 900 unique places.

The Wolf Administration continues to monitor PPE and stockpile levels at our health systems, and takes that information into consideration as it makes decisions.

Diagnostic Testing
As of April 21, 2020, over 163,000 Pennsylvanians have been tested for COVID-19 at 67 unique testing sites, including our own State Public Health laboratory and two county public health labs. Over 700 tests a day can be done at the PA DOH State Public Health laboratory and PA DOH has deployed 14 rapid testing machines to vulnerable congregate settings including correctional facilities and

health care and state hospitals. Additionally, during the course of the pandemic, the Wolf Administration supported the establishment of three community-based testing sites which were located in Montgomery, Philadelphia, and Luzerne counties. The Luzerne County site is currently open and can test up to 250 people per day.

As the administration takes steps toward reopenings and the easing of restrictions, diagnostic testing capacity will be a critical factor in early identification of new infections or cluster outbreaks, changes in the spread of the virus, the extent of virus spread throughout the commonwealth, and whether healthy individuals who were previously exposed to the virus have developed immunity.

The commonwealth's testing plan consist of a multilayered approach comprised of the following components:

1. Community based testing available through:
   a. Existing health care institutions;
   b. State managed, locally executed community based or mass testing sites; and,
   c. Corporate managed and supported testing sites such as those available through commercial pharmacies and other providers.
2. Point of Care (POC) testing available through:
   a. Primary Care Physicians (PCP);
   b. Hospital Emergency Departments, urgent care, or other acute care centers;
   c. County health departments;
   d. Institutions with congregate care settings that have their own health care capability; and,
   e. Outbreak response teams responding to congregate care settings to identify spread of virus within institutions.
3. Serology testing as it becomes commercially available to determine the extent of the population that may have been exposed to COVID-19 and have developed antibodies to the virus and potentially have immunity.

The testing strategy also includes a plan to test underserved populations and those that have limited availability of transportation by employing a mobile community-based testing strategy as applicable.

More information about current coronavirus testing in the commonwealth can be found here.

Reopening requires a monitoring and surveillance program that allows the commonwealth to deploy swift actions for containment or mitigation.

The administration will use the data and modeling tools available as well as other indicators to determine if changes in the reopening and the easing of restriction process must take place.

Robust surveillance, case investigation, contact tracing, and isolation of positive cases or quarantine of close contacts can slow and stop the transmission of COVID-19. Pennsylvania's public health infrastructure of epidemiologists, community health nurses, and county and municipal health departments are the backbone of this work. These public health professionals are supported by surveillance and case management technology tools to track, manage, and evaluate efforts.

To scale our surveillance and monitoring infrastructure the commonwealth has:

- Partnered with Department of Human Service's eHealth Authority and the regional Health Information Exchange to monitor rate of emergency department visits and inpatient admissions.
- Established alerts from EpiCenter, Pennsylvania's syndromic surveillance system, for early identification of an increase in disease activity.
- Provided county-level and zip code level data through a public facing dashboard.
- Daily detailed analysis of surveillance data related to cases and test results, analysis of geospatial clusters of cases.
- Twice weekly reconciliation with surveillance data and electronic death data to provide more accurate counting of deaths related to COVID-19.
- Improving access to testing and timeliness for reporting for symptomatic close contacts in regions where this containment strategy is being implemented.

As counties return to work the department will use these tools and the complete case investigation and contact tracing plan of positive cases to stamp out disease transmission. Positive cases will be isolated, and their close contacts counseled and quarantined. The department will continue to conduct investigations of outbreaks at businesses, correctional facilities, and long-term or other congregate care facilities. This work will be done in partnership with local health departments and other health care infrastructure in the region. Existing public health systems and new technology tools will be utilized to support these boots on the ground efforts.

Protections for vulnerable populations must remain steadfast throughout the reopening process, such as limitations on visitors to congregate care facilities and prisons.

Pennsylvanians in congregate care and prisons are especially vulnerable to outbreaks. Until the pandemic is controlled, the commonwealth must continue measures designed to protect outbreaks in facilities like nursing homes, long-term care facilities, residential treatment facilities, and prisons. As the commonwealth reopens and eases restrictions on a regional basis, restrictions on visitors in congregate care settings and prisons will remain in place. These restrictions will be among the last restrictions eased to ensure resident health and safety. We are committed to alternative means of communication for residents with their family, friends, community members, and advocates while we take necessary health and safety precautions.

While the administration has needed to take unprecedented action in limiting visitation for vulnerable populations in congregate care settings, we are doing all we can to create new opportunities for social connectedness. For example, the Department of Aging through its Office of the Long-Term Care Ombudsman has developed a strategic partnership with the AARP to re-establish lines of communication with nursing home residents in targeted facilities throughout the commonwealth. As this disaster emergency continues over the next weeks and months, this critical technology, when strategically placed, will help meet the psychosocial needs of these already vulnerable individuals.

Congregate Care Facilities
On March 16, the Department of Human Services closed LIFE day centers to avoid congregate settings and to practice social distancing. The closure applies to the day center portion only. LIFE Provider Organizations should continue to use discretion when utilizing the clinic and therapy areas to see participants. FAQs are provided here.

On March 18, PA DOH issued guidance for nursing facilities on COVID-19 mitigation. This guidance required visitor limitations, personnel restrictions, and other measures to reduce the spread of COVID-19 in nursing facilities. This guidance will continue.

On March 29, the Department of Human Services issued guidance restricting all visitations in Personal Care Homes and Assisted Living Residences except for medically necessary visits and compassionate care situations, such as end-of-life situations. This guidance will continue.

On March 31, the Department of Human Services issued guidance for residential providers under the Office of Mental Health and Substance Abuse Services including Long-Term Structured Residences, Community Residential Rehabilitation Services, Residential Treatment Facilities, and Crisis Residences recommending all providers develop temporary modifications to their visitation policies that prohibit all non-employee visitors unless it is a medical necessity, required by court order, adult protective services or older adult protective services staff as outlined in guidance issued under applicable protective services laws. At the discretion of the facility director, additional exceptions may be made where a visit is deemed to be necessary. This guidance will continue.

On April 4, the Department of Human Services temporarily suspended all transfers to state-run juvenile justice facilities. This step was taken to allow staff to create two ten-bed intake units to mitigate risk of spread at the state-run facilities. Youth awaiting transfer to the state-run juvenile justice system will be admitted to the intake unit on the same day and remain in the unit for 14 days until they are cleared for entry into their designated program. If any youth test positive for COVID-19 during this 14-day period, they will be moved into isolation and the youth who are in the intake unit will restart their 14 days in the unit to make sure that they do not develop symptoms of COVID-19. Youth in the intake unit will have access to a counselor, psychological and medical services, physical activity, and other individualized recreational activities. Social distancing will be enforced, and youth will be able to maintain contact with their family through phone calls, video conferencing, and letters. The previously issued guidance will continue.

On April 7, the Department of Human Services issued procedures that must be followed for admission of an individual to one of the department's state facilities. Requirements include individuals be screened for COVID-19 prior to admission to state operated psychiatric hospitals, the long-term care facility (South Mountain Restoration Center), state centers, and Youth Development Centers or Youth Forestry Camps. Any individual who meets screening criteria for indication of infection but does not have documentation of a negative test result for COVID-19, may not be admitted. A medical clearance attestation from a physician within 72 hours prior to the requested admission date is acceptable for admission if the individual was screened with a negative result. If there was a positive screening, regardless of a COVID-19 test result, the individual must not be admitted until 7 days have passed since symptom onset, and 3 days (72 hours) after the resolution of fever without fever reducing medicines and improvement of other symptoms. If an individual has had a close contact with someone suspected to have, or diagnosed with, COVID-19, the individual should quarantine for 14 days from the last admission to a facility should not occur until after the 14-day quarantine is complete. This guidance will continue.

State Correction Institutions
On March 12, the DOC started their mitigation efforts by screening all staff across the state and canceled in person visitation before statewide mitigation was ordered. On March 28, the DOC shifted all new inmate intakes to one centralized location at SCI Retreat to allow for a period of quarantine before assigning their home institution.

At 10 p.m. on March 29, the DOC began a statewide inmate quarantine in response to the COVID-19 pandemic.

Since the quarantine began, inmates have been fed in their cells, and afforded out-of-cell time only for video visits, phone calls, access to the law library, as well as in-cell programming. All inmate movement is controlled to conform to social distancing recommendations. This guidance will continue.

To expand inmate interaction with their loved ones, video visits are being held seven days a week. To date, DOC has conducted almost 16,000 video visits with more scheduled every day. This number will continue to increase due to daily scheduling happening at state prisons. In addition, DOC officials have begun reducing the population where they can. Steps taken include:

- Furloughing paroled individuals from centers to home plans;
- Working with the parole board to maximize parole releases; and,
- Reviewing parole detainers for individuals in county jails and state prisons.

On April 10th, the governor issued reprieves for inmates who met criteria for the Temporary Program to Reprieve Sentences of Incarceration.

Learn more about the comprehensive mitigation efforts in state correction institutions.

Limitations on large gatherings unrelated to occupations should remain in place for the duration of the reopening process.
At this time, the commonwealth continues to follow federal guidance on restrictions on large gatherings. The CDC continues to recommend against larger gatherings of people, particularly gatherings where vulnerable populations may be present. This guidance will stay in place for the duration of the reopening process until there is robust testing, community-wide surveillance, contact tracing, or other means to mitigate the spread of the virus.

Support Systems
As reopenings and easing of restrictions begin, we need to provide adequate support systems for workers. That includes reopening of programs that support individuals' ability to return to work such as schools, child care facilities, adult day facilities, summer camps and afterschool programs, community recreational facilities, and more.

Child Care

The COVID-19 related school closure has created a gap in child care that may not have existed just a few months ago. We know this gap may potentially be a barrier for many Pennsylvanians preparing to transition back to work outside of the home. To address this barrier, the Departments of Education and Human Services are working with stakeholders to identify child care and school age care needs across the commonwealth. A primary focus will be exploring and creating options that will work best for families within their community. We will also look to our many partners to help us design a realistic plan that not only re-opens and expands these services if necessary, but also creates a restored sense of confidence in these environments as safe and healthy options when caregivers return to work.

K-12 Schools

On April 9, Governor Wolf and the Pennsylvania Department of Education announced that school buildings would be closed for the remainder of the 2019-2020 academic year. The Department of Education worked with Intermediate Units (IUs) and the Pennsylvania Training and Technical Assistance Network (PATTAN) to develop guidance and evidence-based resources around continuity of education to ensure all schools provide continuity of education for all students in the most accessible and appropriate ways possible. Working with the General Assembly, the Governor signed Act 13 of 2020 to waive the School Code requirement for a minimum 180-day school term, an action that builds on the administration's earlier commitment that no district or school would be penalized for falling short of the 180-day school term requirement.

In addition, Pennsylvania sought and received approvals from the federal government to allow schools the option to distribute meals to children age 18 and under at no cost while schools are closed. Although not required, participating schools are strongly encouraged to continue distributing and/or delivering school meals during breaks.

Higher Education

On April 9, the Governor and the Pennsylvania Department of Education announced that all postsecondary institutions in Pennsylvania must suspend in-person instruction at least through the end of the spring 2020 term. Postsecondary institutions may not resume in-person instruction until the governor permits them to open or lifts the closure of non-life-sustaining businesses.

Government Services

Local Government

Since the beginning of the COVID-19 outbreak, the Governor's Office has been in close collaboration with local leadership at the county and municipal level. Early on, the Governor's Office consulted with and informed county commissioners and municipal leadership about starting mitigation efforts in their jurisdictions. The Governor's Office shared public health concerns and information and took local feedback into account when making decisions around mitigation. This collaboration led to a strong, coordinated effort to prevent the spread of COVID-19 across the commonwealth.

As we look to reopen regions of the commonwealth, the Governor's Office will be undertaking that same coordinated approach to relaxing the governor's mitigation efforts. Local feedback, knowledge, and expertise will be critical as we move through all phases of reopening. The Governor's Office will continue to coordinate with local officials directly, when appropriate, and through their statewide representative organizations.

In the 10 jurisdictions with local county or municipal health departments, PA DOH will continue to coordinate closely with local health officials to ensure that there is a shared understanding of the public health rationale behind reopening decisions. In the remaining areas without countywide health departments, PA DOH will continue to discuss public health realities directly with county commissioners.

The shared goal of the state and local governments is, and should continue to be, a united front in which all levels of government are prepared to lead the citizens of Pennsylvania through this pandemic and to a safe, efficient, and effective reopening.

State Government

The COVID-19 global pandemic has created an unprecedented situation within our workforce. The Commonwealth is not excluded from this as it is the second-largest employer in the state. Throughout the COVID-19 crisis, state workers have continued to provide essential services to ensure public safety and the public health of all Pennsylvanians, specifically our most vulnerable populations. Roughly 43,000 employees continue to report onsite daily to perform vital work while roughly 18,000 employees remain teleworking in a full-time capacity.

As the state looks to reopen, it will do so in a phased approach in consultation with PA DOH. Bringing back our workforce and reopening public-facing offices at the appropriate time will be done through cooperation with state agencies, employees, and our unions. The staff that is already teleworking will be encouraged to do so where appropriate. Social distancing and facility cleaning measures will be in place to protect both staff and customers. Staff working onsite will be required to wear a mask.

Phases

As we progress through the process of reopening and the easing of restrictions, we will work in phases, taking a regional approach, with the expectation that this will not necessarily be a linear process. If indicators and criteria point to a spike in cases, the commonwealth, in coordination with local officials, will need to revert to previous restrictions and orders. Throughout all phases, there must be strict guidance in place to encourage social distancing.

Throughout this process, the commonwealth will remain flexible and respond to the conditions on the ground in specific areas. The commonwealth will work with local governments to help inform and make decisions that are best for their communities.

The phases were developed through the commonwealth's six standards for reopening as well as the federal government's Opening Up America Guidelines. The phases are intentionally expansive to allow for flexibility and decisions will be driven by health indicators as well as the Carnegie Mellon University data tool and metrics from the Department of Health to determine safety for regions and industries taking into account economic vulnerability. *Within each of these phases there could be additional actions, orders, or guidance depending on the public health and economic conditions facing regions or counties.*

Red Phase

Work & Congregate Setting Restrictions

- Life Sustaining Businesses Only
- Masks Are Required in Businesses
- Congregate Care and Prison Restrictions in Place
- Schools (for in-person instruction) and Most Child Care Facilities Closed

Social Restrictions

- Stay at Home Orders in Place
- Large Gatherings Prohibited
- Masks Are Required in all Public Spaces
- Restaurants and Bars Limited to Carry-Out and Delivery Only
- Only Travel for Life-Sustaining Purposes Encouraged

- Reiterate and reinforce safety guidance for businesses, workers, individuals, facilities, update if necessary
- Monitor public health indicators, adjust orders and restrictions as necessary

Yellow Phase

Work & Congregate Setting Restrictions

- Telework Must Continue Where Feasible
- Businesses with In-Person Operations Must Follow Business and Building Safety Orders
- Masks Are Required in Businesses
- Child Care May Open Complying with Guidance
- Congregate Care and Prison Restrictions in Place
- Schools may provide in-person instruction only in accordance with Department of Education guidance.

Social Restrictions

- Stay at Home Order Lifted for Aggressive Mitigation
- Large Gatherings of More Than 25 Prohibited
- Masks Are Required in all Public Spaces
- In-Person Retail Allowable, Curbside and Delivery Preferable
- Indoor Recreation, Health and Wellness Facilities and Personal Care Services (such as gyms, spas, hair salons, nail salons and other entities that provide massage therapy), and all Entertainment (such as casinos, theaters) Remain Closed
- Restaurants and Bars May Open Outdoor Dining, in Addition to Carry-Out and Delivery (effective 6/5/2020)

- All businesses must follow CDC and DOH guidance for social distancing and cleaning
- Monitor public health indicators, adjust orders and restrictions as necessary

Green Phase

Work & Congregate Setting Restrictions

- Telework Must Continue Where Feasible
- Businesses with In-Person Operations Must Follow Updated Business and Building Safety Requirements
- All Businesses Operating at 50% Occupancy in the Yellow Phase May Increase to 75% Occupancy, Except Where Noted for Bars and Restaurants
- Masks Are Required in Businesses
- Child Care May Open Complying with Guidance
- Congregate Care Restrictions in Place
- Prison and Hospital Restrictions Determined by Individual Facilities
- Schools Subject to CDC and Commonwealth Guidance

Social Restrictions

- Indoor Gatherings of More Than 25 Prohibited; Outdoor Gatherings of More Than 250 Prohibited
- Masks Are Required in all Public Spaces
- Restaurants and Bars Open at 25% Capacity for Indoor Dining
- On-premises Alcohol Consumption Prohibited Unless Part of a Meal; Cocktails-to-go and Carryout Beverages are Allowed
- Personal Care Services (including hair salons and barbershops) Open at 50% Occupancy and by Appointment Only
- Indoor Recreation and Health and Wellness Facilities (such as gyms and spas) Open at 50% Occupancy with Appointments Strongly Encouraged; Fitness Facilities Are Directed to Prioritize Outdoor Fitness Activities
- All Entertainment (such as casinos, theaters, and shopping malls) Open at 50% Occupancy
- Construction Activity May Return to Full Capacity with Continued Implementation of Protocols

- All businesses must follow CDC and DOH guidance for social distancing and cleaning
- Monitor public health indicators, adjust orders and restrictions as necessary

See frequently asked questions about the latest COVID-19 restrictions, announced on July 15.

Pennsylvania COVID-19 Dashboard

Pennsylvania Cases	County Data	Zip Code Case Data	Hospital Prepar

CMU Risk-Based Decision Sup… by Governor Tom Wolf on Scribd

Exhibit 13

Masks now mandatory in Philly as officials show concern over new virus cases; suburban counties go 'green'

📰 **inquirer.com**/health/coronavirus/coronavirus-covid-19-green-phase-reopening-philly-philadelphia-masks-required-pa-counties-nj-bucks-mall-haircut-montco-20200626.html

by Justine McDaniel, Laura McCrystal and Kristen A. Graham, Posted: June 26, 2020

CHARLES FOX / Staff Photographer

Editor's Note

News about the coronavirus is changing quickly. The latest information can be found at inquirer.com/coronavirus

Freedom mingled with caution on Friday as the Philadelphia region moved into the "green" phase of reopening, 16 weeks after Pennsylvania's first confirmed cases of the coronavirus, and following more than three months of lockdown, anxiety, and waiting.

But as people in the suburbs shopped, dined, worked out, and got haircuts, only certain "yellow" phase restrictions were lifted in Philadelphia — and officials ordered mandatory mask-wearing for everyone in the city.

The city is reconsidering its plans to move into the green phase next week, Health Commissioner Thomas Farley said Friday. Officials will monitor the virus and determine "what, if anything" previously slated to reopen next Friday can still do so.

Some activities and business operations might get the go-ahead to resume next week, he said, but others, such as indoor dining, might have to wait.

MONICA HERNDON / Staff Photographer
Darrell Shoaff, who works in facilities for STARR restaurants, installs clear acrylic dividers at Morimoto in Center City last week. The dividers are in place for when restaurants are allowed to reopen for indoor dining. It's not clear when that will happen.

"Cases in the community are no longer decreasing," Farley said. "I don't think [new cases] are rising fast, but they do appear to be increasing."

The Inquirer Coronavirus Newsletter

Science-based coverage sent each Monday, Wednesday, and Friday night to your inbox.

Masks are now mandatory in Philadelphia in all indoor public places, and are required outdoors wherever people who are not members of the same household are gathered, Farley announced.

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In the rest of the state, masks are required inside businesses and are recommended everywhere else.

» READ MORE: Coronavirus cases rise in states with relaxed face mask policies

In recent days, the city has averaged around or above 100 daily new cases, and Friday brought 143. The city had aimed to average 80 new cases per day before moving to green. Officials also noted new spikes in infections among teenagers, which appear to be linked to social gatherings, Farley said.

The city's positivity rate among people tested for the virus also increased from less than 5% 10 days ago to between 5% and 6%. The city wanted to reach less than 4% before moving to green.

Advertisement

"We are not right now ready to go to the green," Farley said. "At the same time, we recognize the difficulties of this four-month shutdown — a loss of income, a loss of business. ... So we're trying to figure out how to balance those risks."

» READ MORE: Philly is 'pleading with business owners' to follow coronavirus safety rules. But it's not issuing fines.

Still, salons, barbers, spas, zoos, residential pools, and private swim clubs were allowed to resume operations on Friday in the city, as well as in the collar counties. And as Philadelphia proceeded with renewed caution, there was palpable giddiness in some suburban streets.

YONG KIM / Staff Photographer
Shoppers enter and leave the King of Prussia Mall on Friday. The mall reopened after a 10-week shutdown.

Amid caution, many said the return to a sense of normality was causing them to grin behind their face masks.

"Today feels wonderful, almost like Christmas," said Marilyn Whitekettle as she got her hair dried by Carmen Tempesta at Moxie's Salon in Doylestown. Tempesta's full day of appointment slots had been booked well in advance, he said.

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For Bucks, Chester, Delaware, and Montgomery Counties, the green phase also meant a long-awaited return to gyms, libraries, museums, indoor malls, casinos, theaters, bars, and restaurants, all at reduced occupancy.

Lebanon County, the last left in the yellow phase, will go green next Friday, Gov. Tom Wolf said.

"We will soon have all of our counties in green," Wolf said in a Friday statement, calling it a milestone. "But we must remember that the restrictions that remain in the green phase will help us continue to enjoy the freedoms this phase allows for."

» READ MORE: We can get our hair cut now: Here's how to do it safely

Advertisement

In New Jersey, public school students will receive in-person instruction in the fall at least part-time, the state Education Department said in guidance issued to districts Friday.

School systems will be responsible for determining how to return to the classroom, but their plans must meet minimum guidelines, including social distancing, temperature checks, contact tracing, and mandatory face coverings for school staff and visitors, with masks strongly encouraged for students.

"It is becoming abundantly clear that children need to return to a school environment in some capacity, and we need to do so safely," Education Commissioner Lamont O. Repollet said.

» READ MORE: N.J. students will be in classrooms — at least for part of the week — come fall despite coronavirus, state says

Gov. Phil Murphy on Friday said the state's overall rate of transmission of the coronavirus was dropping slightly, and that he was seeing "a good picture overall" in terms of hospitalizations and other metrics.

Burlington, Gloucester, Cape May, and Ocean Counties are among 16 counties in the state where transmission rates have increased in recent weeks, Murphy's office confirmed Thursday.

The rate of infection was falling in Montgomery, Chester, and Delaware Counties, and was not clearly decreasing or increasing in Bucks, based on data from the last 14 days.

From Harrah's casino in Chester to the King of Prussia Mall, businesses opened their doors. The manager of the Red Lion Diner in Horsham hung a "Welcome back" sign outside. The staff at Dynamic Image Hair Salon in Havertown flipped the door sign to "Open" for the first time in months. People flocked to outdoor pools at the Newtown Athletic Club, while others filed into the nearby gym to work out on machines and treadmills.

"It's been tremendous," said club owner Jim Worthington, who said he was surprised at how many customers returned Friday. "I've had people come up to me with tears in their eyes. This is a big part of people's lives, not just fitness, but the sense of community and mental health it provides."

Still, people seemed fearful of sitting inside, said Sarah Brautigan, owner of the Havertown cafe Kettle. At Manoa Tavern, employees had seated only one table of customers by noon, said manager Joe Favazza.

In Montgomery County, shoppers strolled through the King of Prussia Mall for the first time in more than three months. Around half the mall's 400 stores remained shuttered; others had "We're open!" signs in the windows.

"Since nobody's here, we'll walk around," said Jennifer Michael, of Aston, who was buying hiking shoes with her son. "We want to be safe, but it's nice to feel normal."

Philadelphia officials said they have been in frequent contact with leaders of the surrounding counties. Mayor Jim Kenney acknowledged that their reopening may cause residents to shop outside the city, but said he wanted to put health considerations first.

"If we don't get it right, both the suburbs and us will be going back to yellow at some point," he said.

» READ MORE: COVID-19 cases are rising among young people. A South Philly survivor shares her experience.

The city's mandatory mask order came hours after the Archdiocese of Philadelphia, which is exempt from state requirements as a religious organization, announced that it would no longer require face coverings at Mass. Farley said he hoped the archdiocese would require them, and said religious services are "particularly high risk" for spreading the virus.

YONG KIM / Staff Photographer
Easter Mass on Sunday at the Cathedral Basilica of Ss. Peter and Paul on April 12. The Archdiocese of Philadelphia isn't requiring masks at Masses.

The order to wear masks, which will be accompanied by a public promotional campaign, will not be enforced by police or city officials, and it doesn't apply to children under 8.

"It's up to us as Philadelphia residents to self-enforce this order," Farley said. "If it works, we can reduce the spread of the infection. If it doesn't, we'll have more cases. It's as simple as that."

Staff writers Ellie Rushing, Erin McCarthy, Vinny Vella, Allison Steele, and Rob Tornoe contributed to this article.

View Comments

Exhibit 14

CDC Centers for Disease
Control and Prevention

Coronavirus Disease 2019 (COVID-19)

People Who Are at Higher Risk for Severe Illness

COVID-19 is a new disease and there is limited information regarding risk factors for severe disease. Based on currently available information and clinical expertise, **older adults and people of any age who have serious underlying medical conditions** might be at higher risk for severe illness from COVID-19.

Based on what we know now, those at high-risk for severe illness from COVID-19 are:

- People 65 years and older
- People who live in a nursing home or long-term care facility

People of all ages with underlying medical conditions, particularly if not well controlled, including:

- People with chronic lung disease or moderate to severe asthma
- People who have serious heart conditions
- People who are immunocompromised
    - Many conditions can cause a person to be immunocompromised, including cancer treatment, smoking, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids and other immune weakening medications
- People with severe obesity (body mass index [BMI] of 40 or higher)
- People with diabetes
- People with chronic kidney disease undergoing dialysis
- People with liver disease

👥 Older Adults	🫁 People with Asthma
👥 At Risk For Severe Illness	⚥ People with HIV

COVID-19: Are You at Higher Risk for Severe Illness?

Resources

- ASL Video Series: COVID-19: Are You at Higher Risk for Severe Illness?
- Learn how you can help protect yourself if you are at higher risk of severe illness from COVID-19 📄

Page last reviewed: April 15, 2020

Exhibit 15

Gov. Wolf Renews COVID-19 Disaster Declaration for State Response and Recovery, Stay-at-Home Order Ends June 4

June 03, 2020

Press Release, Public Health

Governor Tom Wolf today renewed the 90-day disaster declaration he originally signed on March 6 following the announcement of the first two presumptive positive cases of COVID-19 in the commonwealth. The declaration was set to expire on June 4.

The emergency disaster declaration provides for increased support to state agencies involved in the continued response to the virus and recovery for the state during reopening.

"Pennsylvanians have done a tremendous job flattening the curve and case numbers continue to decrease," Gov. Wolf said. "Renewing the disaster declaration helps state agencies with resources and supports as we continue mitigation and recovery."

The Department of Health's Department Operations Center at the Pennsylvania Emergency Management Agency is still active as is the CRCC there.

Also today, Gov. Wolf announced that he would allow the amended stay-at-home order to expire at 11:59 p.m., June 4. The-stay at-home requirements were only in effect for counties in the red phase.

"As phased reopening continues and all 67 counties are either in the yellow or green phase by Friday, we will no longer have a stay-at-home order in effect," Gov. Wolf said. "I remind Pennsylvanians that yellow means caution and even in the green phase everyone needs to take precautions to keep themselves and their communities healthy."

Read the amendment to the emergency disaster declaration here.

Ver esta página en español.

Exhibit 16

A Vaccine Reality Check

theatlantic.com/health/archive/2020/07/covid-19-vaccine-reality-check/614566

Updated at 7:56 p.m. on July 25, 2020.

Nearly five months into the pandemic, all hopes of extinguishing COVID-19 are riding on a still-hypothetical vaccine. And so a refrain has caught on: We might have to stay home—until we have a vaccine. Close schools—until we have a vaccine. Wear masks—but only until we have a vaccine. During these months of misery, this mantra has offered a small glimmer of hope. Normal life is on the other side, and we just have to wait—until we have a vaccine.

Feeding these hopes are the Trump administration's exceedingly rosy projections of a vaccine as early as October, as well as the media's blow-by-blow coverage of vaccine trials. Each week brings news of "early success," "promising initial results," and stocks rising because of "vaccine optimism." But a COVID-19 vaccine is unlikely to meet all of these high expectations. The vaccine probably won't make the disease disappear. It certainly will not immediately return life to normal.

Biologically, a vaccine against the COVID-19 virus is unlikely to offer complete protection. Logistically, manufacturers will have to make hundreds of millions of doses while relying, perhaps, on technology never before used in vaccines and competing for basic supplies such as glass vials. Then the federal government will have to allocate doses, perhaps through a patchwork of state and local health departments with no existing infrastructure for vaccinating adults at scale. The Centers for Disease Control and Prevention, which has led vaccine distribution efforts in the past, has been strikingly absent in discussions so far —a worrying sign that the leadership failures that have characterized the American pandemic could also hamper this process. To complicate it all, 20 percent of Americans already say they will refuse to get a COVID-19 vaccine, and with another 31 percent unsure, reaching herd immunity could be that much more difficult.

The good news, because it is worth saying, is that experts think there will be a COVID-19 vaccine. The virus that causes COVID-19 does not seem to be an outlier like HIV. Scientists have gone from discovery of the virus to more than 165 candidate vaccines in record time, with 27 vaccines already in human trials. Human trials consist of at least three phases: Phase 1 for safety, Phase 2 for efficacy and dosing, and Phase 3 for efficacy in a huge group of tens of thousands of people. At least six COVID-19 vaccines are in or about to enter Phase 3 trials, which will take several more months.

We are almost five months into the pandemic and probably another five from a safe and effective vaccine—assuming the clinical trials work out perfectly. "Even when a vaccine is introduced," says Jesse Goodman, the former chief scientist at the Food and Drug Administration, "I think we will have several months of significant infection or at least risk of infection to look forward to."

All of this means that we may have to endure more months under the threat of the coronavirus than we have already survived. Without the measures that have beat back the virus in much of Europe and Asia, there will continue to be more outbreaks, more school closings, more loneliness, more deaths ahead. A vaccine, when it is available, will mark only the beginning of a long, slow ramp down. And how long that ramp down takes will depend on the efficacy of a vaccine, the success in delivering hundreds of millions of doses, and the willingness of people to get it at all. It is awful to contemplate the suffering still ahead. It is easier to think about the promise of a vaccine.

"There's a lot of hope riding on these vaccines," says Kanta Subbarao, the director of the World Health Organization's flu collaborating center in Melbourne, who has also worked on other coronavirus vaccines. "Nobody wants to hear it's not just right around the corner."

Vaccines are, in essence, a way to activate the immune system without disease. They can be made with weakened viruses, inactivated viruses, the proteins from a virus, a viral protein grafted onto an innocuous virus, or even just the mRNA that encodes a viral protein. Getting exposed to a vaccine is a bit like having survived the disease once, without the drawbacks. A lot remains unknown about the long-term immune response to COVID-19, but, as my colleague Derek Thompson has explained, there are good reasons to believe getting COVID-19 will protect against future infections in some way.

Vaccine-induced immunity, though, tends to be weaker than immunity that arises after an infection. Vaccines are typically given as a shot straight into a muscle. Once your body recognizes the foreign invader, it mounts an immune response by, for example, producing long-lasting antibodies that circulate in the blood.

But respiratory viruses don't normally fling themselves into muscle. They infect respiratory systems, after all, and they usually sneak in through the mucous membranes of the nose and throat. Although vaccine shots induce antibodies in the blood, they don't induce many in the mucous membranes, meaning they're unlikely to prevent the virus from entering the body. But they could still protect tissues deeper in the body such as the lungs, thus keeping an infection from getting worse. "The primary benefit of vaccination will be to prevent severe disease," says Subbarao. A COVID-19 vaccine is unlikely to achieve what scientists call "sterilizing immunity," which prevents disease altogether.

One way to boost the effectiveness of a respiratory-virus vaccine is to mimic a natural infection, by spraying live but weakened virus into the nose. FluMist, for example, contains weakened flu viruses, and a handful of research groups are looking into the strategy for COVID-19. But live virus vaccines are riskier because, well, the virus is live. "We don't want to be spraying coronavirus up people's noses until [we] are absolutely sure that it's actually a virus that can't spread from person to person and that it can't make somebody sick," says Kathleen Neuzil, the director of the University of Maryland's Center for Vaccine Development and Global Health. "It will just take time."

With this first generation of vaccines, though, speed is of the essence. An initial vaccine might limit COVID-19's severity without entirely stopping its spread. Think flu shot, rather than polio vaccine. The FDA's guidelines for a COVID-19 vaccine recognize it may be far from 100 percent effective; to win approval, the agency says, a vaccine should prevent or reduce severe disease in at least 50 percent of people who get it. "That's obviously not ideal," says Walter Orenstein, a vaccine researcher at Emory University who previously worked as the director of the National Immunization Program. "But it's better than zero percent."

In recent weeks, multiple vaccine groups have released promising data that show their candidates can induce antibodies that neutralize the coronavirus in lab tests. Their next challenges are about scale: testing the vaccine in a Phase 3 trial with tens of thousands of people to prove it prevents infection in the real world, and then, if it works, manufacturing hundreds of millions, even billions, of doses. This is why even a vaccine that has already been tested in small numbers of people is still many months away.

Phase 3 trials are the largest and longest of the three phases—normally, they would take years, but they're being compressed into months because of the pandemic. Still, vaccine makers need to enroll tens of thousands of people to confirm efficacy and to look for rare and long-term side effects. It will take time to recruit participants, time to wait for them to be naturally exposed to COVID-19, time for any long-term side effects to show up, and time to simply analyze all of the data.

Perversely, the high and rising rates of COVID-19 in the United States do make it easier to test vaccine candidates here. Any given participant is more likely to get exposed to the virus at some point. "It's not good news for our country in any way, shape, or form, but ... it makes it possible to accumulate cases," says Ruth Karron, the director of the Center for Immunization Research at Johns Hopkins University, who also served on the Data and Safety Monitoring Board for Moderna's Phase 2 vaccine trial. Moderna, an American company, is conducting its Phase 3 trial in the U.S. A group based at the University of Oxford, which is collaborating with the U.K.-headquartered biotech company AstraZeneca, is running trials in Britain, Brazil, and South Africa—the latter two countries chosen specifically because of their high numbers of COVID-19 cases.*

In the U.S., the Trump administration's Operation Warp Speed is helping several vaccine makers invest in manufacturing facilities while these trials are ongoing. This could reduce the lag time between the approval and the availability of a vaccine, since companies might otherwise wait for FDA approval before scaling up manufacturing. But making hundreds of millions of doses is still a considerable challenge, especially for a novel vaccine.

The leading COVID-19 vaccine candidates rely on technology that's never been used before in approved vaccines. Moderna's vaccine, for example, is a piece of RNA that encodes a coronavirus protein. Oxford and AstraZeneca's vaccine attaches a coronavirus protein to a chimpanzee adenovirus. Neither has been manufactured before on the necessary scale.

Consider what happened in 2009, the most recent time the world mobilized to produce vaccines to stop a pandemic. The disease was H1N1, more commonly known as the "swine flu," and vaccine makers had the much simpler task of subbing the H1N1 strain into the seasonal flu vaccine they make every year. Despite many, many years of experience in making flu vaccines, the manufacturers hit an unexpected snag. Most flu vaccines are made from viruses grown in chicken eggs, and for some reason, the H1N1 strain did not grow very well in the eggs at first. "The amounts produced from a given amount of eggs were much lower than normal," says Goodman, who led the FDA's pandemic response in 2009. "So that really delayed things." Then, once millions of doses were in the works, Goodman says, there weren't enough facilities that could package the bulk vaccine into individual vials.

The Department of Health and Human Services created a network of fill-and-finish facilities to address this problem in the future. Right now, Operation Warp Speed is also awarding contracts to make the millions of syringes and glass vials needed to package a COVID-19 vaccine. Without careful planning on these fronts, the U.S. could run into a demoralizing scenario where vaccines are available, but there is no way to physically get them to people.

Even if all of this goes well—the earliest candidates are effective, the trials conclude quickly, the technology works—another huge task lies ahead: When vaccines are approved, 300 million doses will not be available all at once, and a system is needed to distribute limited supplies to the public. This is exactly the sort of challenge that the U.S. government has proved unprepared for in this pandemic.

In the H1N1 pandemic, the U.S. government purchased the vaccines and allocated doses to state and local health departments, which in turn vaccinated people through mass clinics as well as employers, schools, hospitals, pharmacies, and doctor's offices. Nationwide, the program eventually vaccinated about a quarter of all Americans—demand fell because the pandemic itself peaked not long after the vaccine became available.

The 2009 vaccination program was built on the infrastructure of the Vaccines for Children Program, in which the CDC buys and distributes vaccines to states for children who usually are uninsured or on Medicaid. Immunization managers who work in these programs are well versed in the intricacies of vaccine storage and distribution, such as maintaining a cold chain for vaccines that could become ineffective at room temperature. But because they work with children's vaccines, they deal mostly with pediatrician's offices. "We didn't have relationships with hospitals and internists and people who vaccinated adults," says Kelly Moore, who was the director of the Tennessee Immunization Program in 2009. In August that year, two months before they got their first shipment of the vaccine, Moore's team created a sign-up on the state immunization registry and sent out a newsletter every Friday with updates and training modules for handling vaccines.

"Unfortunately," says Moore, "that network has not been maintained because we haven't had other vaccines to send them in 11 years." Contact information is out of date. Rebuilding this network for adults will be even more important with COVID-19. Although the H1N1 vaccine was recommended for all ages, the focus was on kids, for whom the flu was particularly dangerous. The opposite is true of COVID-19, which is more of a threat to older adults.

Some of the leading COVID-19 vaccine candidates could also pose new logistical challenges, if they require storage at temperatures as low as −80 degrees Celsius or multiple doses to be effective. In fact, a COVID-19 vaccine is quite likely to require two doses; the first primes the immune system, allowing the second to induce a stronger immune response. Officials would have to balance giving one dose to as many people as possible with giving a second dose to those who already had one. "That was a complication we didn't face in 2009, and we were so grateful," says Moore.

Although the CDC took the lead in distributing H1N1 vaccines in 2009, Claire Hannan, the executive director of the Association of Immunization Managers, says the agency has been oddly silent about plans for a COVID-19 vaccine since April. "Initially, we were having planning calls with CDC right away," she says. "And then nothing." She has unsuccessfully tried to get in touch with Operation Warp Speed, which has suggested the Department of Defense may also get involved in vaccine distribution. "We continue to ask CDC these many, many questions. And they don't know," she says.

The CDC's Advisory Committee on Immunization Practices is also normally responsible for recommendations on how to prioritize vaccines. The committee, which is composed of outside experts, last met in late June, when they discussed prioritizing vaccines for health-care workers, the elderly, and those with underlying conditions. They also considered prioritizing vaccination by race, given the racial disparities in COVID-19 cases. But now the National Academy of Medicine is convening a panel on the same topic, which is again causing confusion about who is responsible for making these decisions.

In 2009, Moore's job was to put the CDC advisory committee's recommendations into practice. Two or three times a week, she would get an email from the CDC's vaccine distributor letting her know the number of doses available for her entire state. In practice, though, an initial shipment of vaccines might not be enough to cover everyone in even the highest priority group, such as health-care workers. It was up to people like Moore to decide which hospital got how many doses, with the promise of more on the way next week. Then individual hospitals administered the actual vaccines to their employees based on priority status.

This system is meant to be flexible and responsive to local conditions, but it also means the availability of a vaccine might seem to vary from place to place. For example, Emily Brunson, an anthropologist at Texas State University who studies vaccines, says that in 2009 there were cases in which one district interpreted recommendations strictly, giving the vaccine only to high-priority groups, and a neighboring district offered it to anyone who wanted it. The decision to distribute the vaccine through employee health centers in New York, which happened to include several Wall Street firms, also caused a big backlash. "There are many ways that things can be misinterpreted," Brunson says. And during an initial shortage, these decisions can feel unfair—especially given tensions seeded earlier in the pandemic when the rich and the famous were getting COVID-19 tests while ordinary people were being turned away at clinics.

If the pandemic so far is any indication, a vaccination program is likely to take place against a backdrop of partisanship and misinformation. Already, conspiracy theories are spreading about a COVID-19 vaccine, some of them downright outlandish. But the emphasis on speed—as in "Operation *Warp Speed*"—has also created real worries about vaccines being rushed to market. At a congressional hearing with five vaccine makers on Tuesday, company officials had to repeatedly push back against the idea that the industry might cut corners for a COVID-19 vaccine.

"We're going to be in a situation where some people will be desperate to get the vaccine and some people will be afraid to get the vaccine. And there'll be probably a lot of people in between who are a little bit of both or not sure," says Michael Stoto, a public-health researcher at Georgetown University. A vaccine, especially a novel one that doesn't offer complete protection against COVID-19, will require careful communication about risk. "The fact that we can't get ourselves straight about wearing masks will make that harder," he adds. Given the number of Americans who are currently unsure of or opposed to getting a COVID-19 vaccine, Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases, has warned that even a vaccine might not get the country to herd immunity if too many people refuse it.

For the Americans pinning their hopes on a vaccine, a botched rollout could feel like yet another example of failure in the time of COVID-19. That could have disastrous consequences that last well beyond the pandemic itself. Brunson worries that such a

scenario could undermine trust in public-health expertise and in all vaccines. "Both of those would be disasters," she says, "in addition to the COVID itself being a disaster." It could mean, for example, further resurgences of vaccine-preventable diseases such as measles and an even bigger challenge when battling future pandemics.

For all the uncertainties that remain ahead for a COVID-19 vaccine, several experts were willing to make one prediction. "I think the question that is easy to answer is, 'Is this virus going to go away?' And the answer to that is, '*No*,'" says Karron, the vaccine expert at Johns Hopkins. The virus is already too widespread. A vaccine could still mitigate severe cases; it could make COVID-19 easier to live with. The virus is likely here to stay, but eventually, the pandemic will end.

*This piece originally identified AstraZeneca as a British-Swiss biotech company.

Sarah Zhang is a staff writer at *The Atlantic*.

Exhibit 17

PLAN PHILLY

CORONAVIRUS PANDEMIC

Racial disparity grows as the coronavirus disproportionately claims Black lives in Pa., Jersey and Delaware

By Ryan Briggs · May 15, 2020

Are you on the front lines of the coronavirus? Help us report on the pandemic.

Black people continue to make up a disproportionate number of the coronavirus cases across Pennsylvania, New Jersey, and Delaware.

The disparity is especially stark in Pennsylvania, where African Americans account for just 11.3% of the state's population but represent almost a third of the 22,725 COVID-19 cases where the race of the patient was recorded.

Black Pennsylvanians represented 30% of the 2,133 deaths where the race of the victim was known.

Dr. Sharrelle Barber, an assistant research professor at Drexel University's Department of Epidemiology & Biostatistics, said the differing rates of infection and death between racial groups were significant.

"There are striking racial inequalities, particularly for Blacks," she said.

The disparity can be credited in part to higher prevalence of common COVID-19 comorbidities, like heart disease or diabetes. But Barber notes that these factors and others are "rooted in structural racism" — from historical disinvestment resulting in more limited access to health care in Black communities to racial segregation pushing Black people into crowded or otherwise substandard housing to the racial character of economic inequality in the region.

"There have been a number of structures that increase exposure. We know that Blacks and Latinos are disproportionately represented among low-wage workers, for example," she said. "It's a combination of factors. None of these things can be seen as separate."

COVID-19 disproportionately impacts Black Pennsylvanians

African-American residents account for 11% of Pennsylvania's population but they account for nearly a third of 22,725 COVID-19 cases and a quarter of 2,133 deaths where the race of victim was known.

African-American   White   Asian   Other

Pa. Deaths   **Pa. Cases**
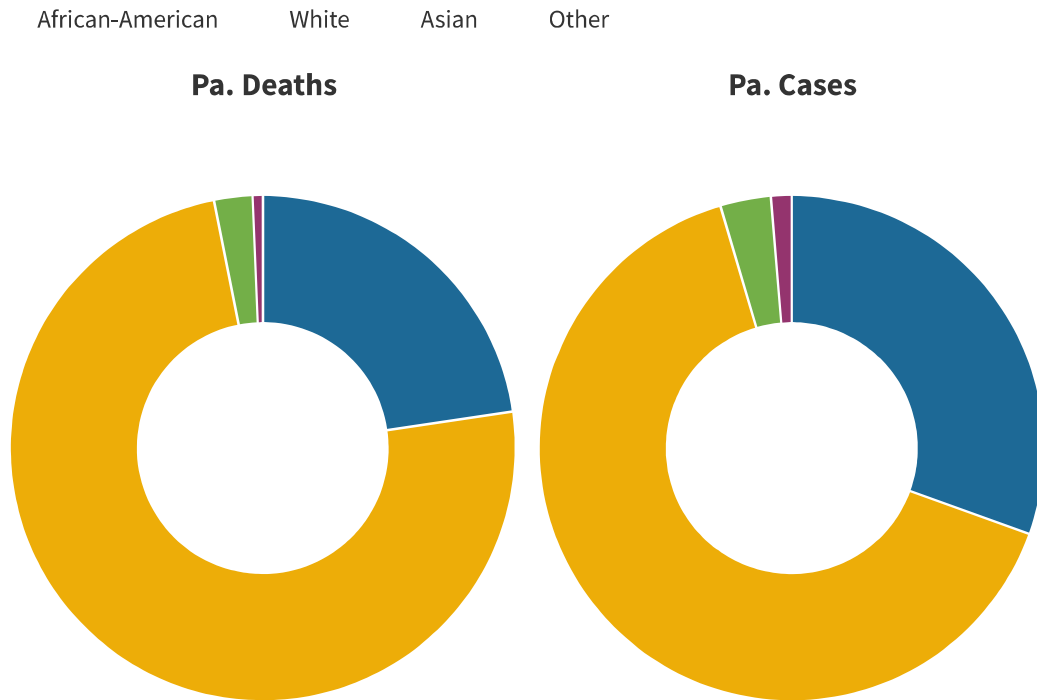
Source: Pa. Dept. of Health

WHYY

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A national and regional trend

The statewide trends in Pa. largely mirror those nationwide, where research has shown the African American mortality rate was, on average, 2.2 times higher than the rate for Latinx people, 2.3 times higher than Asians, and 2.6 times higher than for whites.

Similar patterns were present in New Jersey, where Black residents died at nearly double the rate of white residents. Delaware showed a smaller but still detectable disparity — Black people make up 21% of the state's population, but about a third of cases and 25% of deaths.

The First State is notably one of just three across the U.S. that releases detailed demographic data about the administration of COVID-19 tests, showing that it had almost doubled the rate of testing among Black and Latinx communities, relative to the white population.

Barber said these figures suggested that at least some localities were compensating for scant testing in Black and Latinx communities early on in the pandemic. But she said the differing testing rates alone were not the

root cause of differing racial outcomes.

"Testing alone would not explain the disparity," she said. "We're seeing it all over the country. It's in the South, it's in Wisconsin, it's here in Pa. These same racial structures exist everywhere."

Related Content

Fighting for information about who is getting sick

Gathering accurate data on racial demographics continues to be a challenge for many states. Pa. was unable to collect demographic data in 62% of all diagnosed COVID-19 cases and nearly half of all deaths. And the state does not currently provide detailed data on deaths or infections among Hispanics.

Dr. Fatima Cody Stanford, an obesity medicine physician-scientist at Harvard Medical School said, during a Wednesday seminar on COVID-19, that difficulty gathering this data could be clouding the full impact of coronavirus.

"We don't have much countrywide data," she said. "We've had to fight for the data we do have."

This information will only become more critical as caseloads decline and states begin to take steps to ratchet back from pandemic shutdowns, Barber said. As businesses call employees back to work, Black and Latinx people on the frontlines of the service economy will continue to face greater risk.

"The reopening strategies have not taken equity into consideration and how these steps are going to disproportionately impact Black and brown communities."

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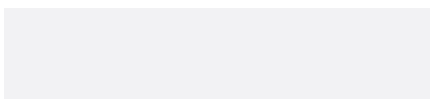
PlanPhilly

Exhibit 18

Breaking down the toll of Philly's coronavirus hospitalizations by race, age, and neighborhood

by Frank Kummer and Sarah Gantz, Posted: July 21, 2020

Since the coronavirus pandemic hit Philadelphia in early March, Black people have accounted for nearly 60% of COVID-19 hospitalizations in the city, according to the latest data released by the Philadelphia Department of Public Health.

As of last Wednesday, 27,867 city residents had tested positive for the virus. Of those, 6,128 had to be hospitalized.

Black Philadelphians accounted for the most hospitalizations of all racial and ethnic groups, totaling 3,570. That compared with a total of 2,558 hospitalizations for patients of white, Hispanic, Asian, and other racial or ethnic groups.

The new report is the first look at hospitalization breakdowns by race, age, zip code, and sex in Philadelphia. Similar racial disparities in COVID-19 hospitalizations have been documented across the country. Experts say they stem from inequality in health care and society.

"When we look at the impact of COVID-19, what we're really seeing is it mirroring, and in many ways exacerbating, disparities in health care that have existed for many years," said Samantha Artiga, director of the Disparities Policy Project at Kaiser Family Foundation, a health policy organization. Those underlying disparities, she said, "reflect structural and systemic barriers … including racism and discrimination."

The pandemic has hit the Black community hard because Black individuals are at greater risk of both exposure to the virus and experiencing severe complications if they are infected. Black workers are more likely than white workers to be deemed essential or to hold other jobs that can't be done remotely, making social distancing difficult, Artiga said.

What's more, Black people experience higher rates of heart disease, lung disease, diabetes, and other chronic health conditions that have been identified as risk factors for more severe cases of COVID-19.

In Philadelphia, Black patients accounted for 58% of hospitalizations, compared with 17% for white patients, 14% for Hispanic patients, and 4% for Asian patients, according to the new city data.

"Already the African American population is disproportionately at risk. It's no surprise to us the data are bearing this out," said Merle Carter, vice chair of the department of emergency medicine of Einstein Healthcare Network.

Majority-Black neighborhoods, such as Hunting Park, Kingsessing, West Philadelphia, Wynnefield, and Olney, were among those with the largest number of residents hospitalized for COVID-19.

"As we've seen throughout this pandemic, COVID-19 has disproportionately affected members of the African American community," the city's health department said in a statement. "More African Americans in Philadelphia have been diagnosed with COVID-19, more African Americans have been hospitalized as a result of COVID-19, and more African Americans have died from COVID-19 than any other race or ethnicity."

As a result, the department urged Black Philadelphians to get tested if they have symptoms or have been exposed to someone who has the virus. The city is also expanding its testing within the Black community. In June, the city pledged to fund efforts by the Black Doctors COVID-19 Consortium to provide free testing to residents in neighborhoods hit hardest by the pandemic.

The health department's new hospitalization data also show that those ages 55 to 74 were hospitalized the most, followed by those 75 and older. That tracks closely with national data that has shown the highest rates of hospitalizations in people 65 and older , according to the U.S. Centers for Disease Control and Prevention.

In Philadelphia, men, at 51%, were slightly more likely to be hospitalized than women, at 49%. CDC data suggest a similar breakdown across the United States.

The data do not break out race by age or sex.

Overall, about 22% of those testing positive since March 14 had to be hospitalized — about 6,100 people.

Hospitalizations have steadily trended down since April, when Philadelphia experienced a peak in coronavirus cases.

While the racial gaps exposed in the city's new coronavirus data are disheartening, Carter, of Einstein, said she is optimistic that this type of data reporting is drawing much-needed attention to health care disparities.

"Finally it's become mainstream to talk about the fact that there are inequalities, and now we are confronted with the data that's proving it," Carter said. "We've been talking about it for a long time in medicine, but no one has listened. Now that a pandemic has happened, everyone has been confronted with this — and they can't look away anymore."

Exhibit 19

WEATHER ALERT Excessive Heat Warning

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HEALTH & FITNESS

Philadelphia's coronavirus numbers show stark racial and income disparities

By Yun Choi

Wednesday, April 8, 2020

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Action News coverage of the coronavirus COVID-19 outbreak

PHILADELPHIA (WPVI) -- The coronavirus is infecting and killing African Americans in Philadelphia at disproportionately high rates, according to data released by the city health department.

The Philadelphia Department of Public Health first released demographic data on people

infected with and died of COVID-19 on April 8, in the fifth week since the first confirmed case in the city.

Racial information of 77 percent of all positive cases in the city remains unknown. But the 6abc Data Journalism Team found that African Americans account for over 56 percent of positive cases where the patient's race is known, while white Americans take up only 26 percent.

According to the U.S. Census population estimates, the proportionate percentages for African Americans and white Americans in the city are 42.3 percent and 41.2 percent, respectively.

Racial Breakdown of COVID-19 Cases in Philadelphia
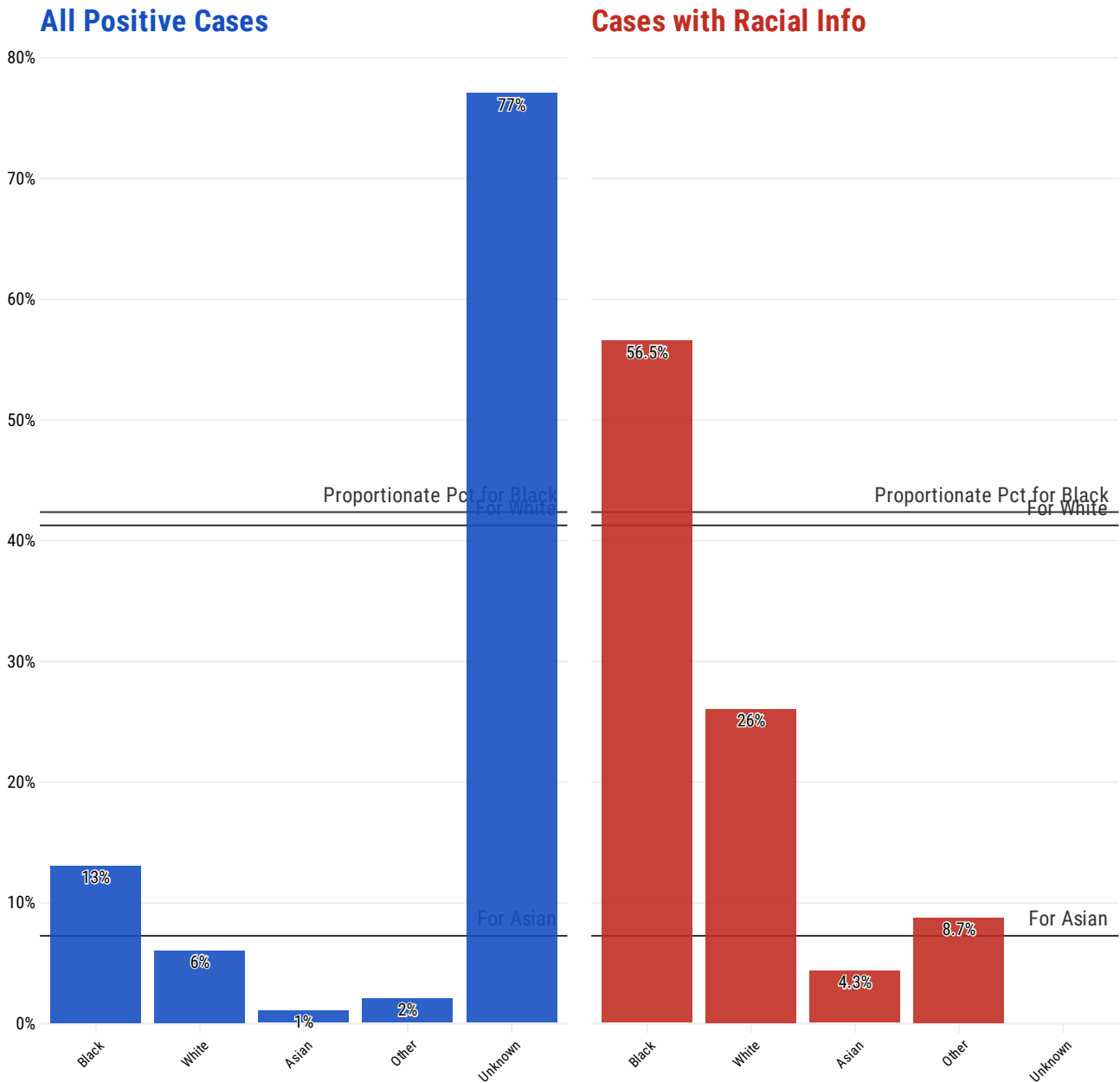
All Positive Cases

Cases with Racial Info

Source: Philadelphia Department of Public Health, U.S. Census Population Estimates • Last updated at 1 p.m. on April 8

Racial Breakdown of COVID-19 Deaths in Philadelphia
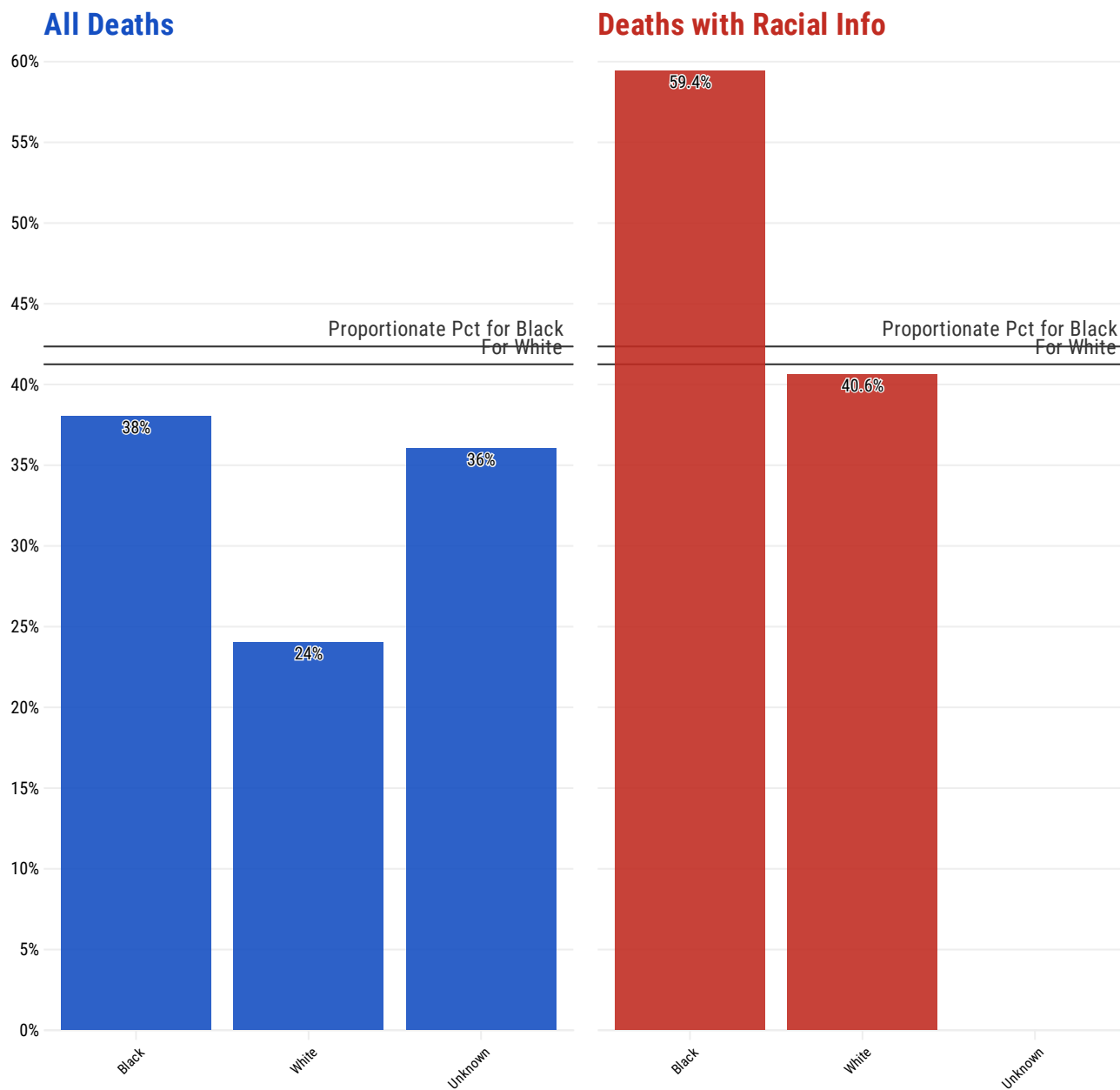
All Deaths

Deaths with Racial Info

	All Deaths	
Black	38%	
White	24%	
Unknown	36%	

Proportionate Pct for Black
For White

Proportionate Pct for Black
For White

59.4%

40.6%

Black   White   Unknown

Black   White   Unknown

Source: Philadelphia Department of Public Health, U.S. Census Population Estimates • Last updated at 1 p.m. on April 9

African Americans also account for over 57 percent of deaths where the deceased's race is known.

The 6abc Data Journalism Team also found white and affluent zip codes in Philadelphia had higher testing rates than their less white, poorer counterparts.

The zip codes with higher testing rates had lower positive test rates.

Philadelphia's Coronavirus Testing Numbers Show Stark Racial and Income Disparities

6abc Action News Data Journalism team found white and rich zip codes in Philadelphia have higher testing rates than their less white, poorer counterparts. Dots representing each zip code in Philadelphia, are sized and colored by population and racial composition, respectively. The bigger the dot, the bigger population in the area. The browner the dot, the more African-American residents in the area. Roll over or click on a dot to see the coronavirus testing rate, median income and racial breakdown. Use the time slider to see daily changes.

2020-04-05

Source: PA Department of Health, 2018 American Community Survey 5-Year Estimates • Last updated at 1 p.m. on April 13

Philadelphia's Coronavirus Positive Test Rates Show Stark Racial and Income Disparities

6abc Action News Data Journalism team found white and rich zip codes in Philadelphia have lower COVID-19 positive test rates than their less white, poorer counterparts. Dots representing each zip code in Philadelphia, are sized and colored by population and racial composition, respectively. The bigger the dot, the bigger population in the area. The browner the dot, the more African-American residents in the area. Roll over or click on a dot to see the coronavirus positive test rate, median income and racial breakdown. Use the time slider to see daily changes.
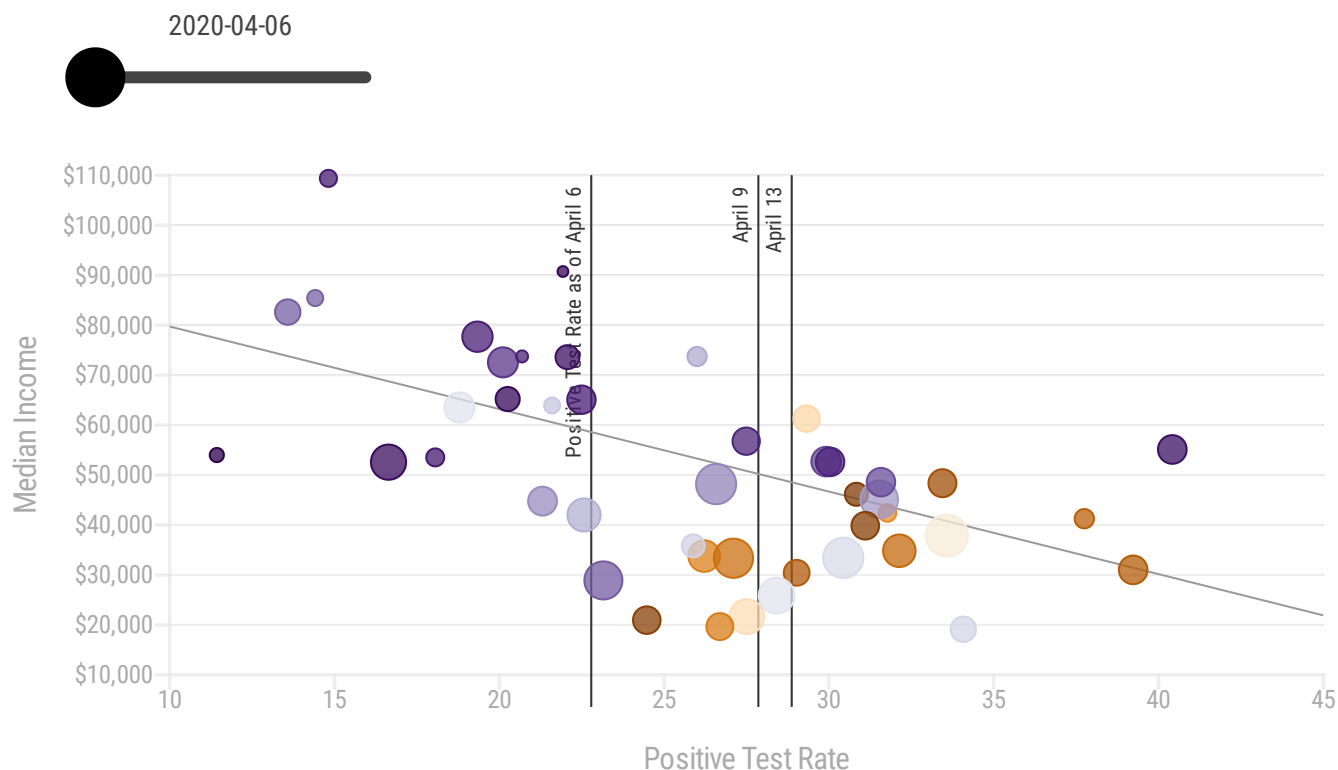
2020-04-06

Source: PA Department of Health, 2018 American Community Survey 5-Year Estimates • Last updated at 1 p.m. on April 13

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Exhibit 20

york daily record

Latinos in York City infected with COVID-19 at higher rate than others: 71.6% of cases

Mike Argento York Daily Record

Published 1:57 p.m. ET Apr. 16, 2020 | **Updated 11:02 a.m. ET Apr. 17, 2020**

The statistics are disturbing.

In York City, Latinos represent 33.3 percent of the population but account for 71.6 percent of the confirmed cases of COVID-19. Seventy-eight of the 109 cases reported in the city, as of April 14, were in the Latino community.

In contrast, the infection rate in the African-American community – 25.8 percent of the city's population – is 16.5 percent, and in the white community – 37.5 percent of the population – it is 7.3 percent.

Click here for Spanish translation: Latinos en York infectados con COVID-19 a una tasa más alta que otros: 71.6% de casos

"It's very disappointing," said York City Councilman Lou Rivera.

Racial disparities in the rates of infection have been reported throughout the country, focusing mostly on increased rates among African-Americans. But that information has been spotty and, in many instances, nonexistent, as neither the Centers for Disease Control nor the Pennsylvania Department of Health have provided demographic breakdowns of the rates of infection.

More: York County couple dies of COVID-19 complications three days apart

More: York Co. man went to Peru for his daughter's wedding. He wound up in 3-week COVID lockdown

On Wednesday, Gov. Tom Wolf addressed the issue, announcing the formation of a task force headed by Lt. Gov. John Fetterman to analyze the disproportionate effect of the pandemic in minority communities.

The first step is collecting demographic data. On Tuesday, state Secretary of Health Rachel Levine said such information is not being consistently reported by health care providers, even though it is required by the state. Seventy percent of the reports sent to the state lack such data.

In a statement, the Health Department said, "The department does not have COVID-19 data available by racial breakdown at this time. As most cases are identified by electronic laboratory results, race and ethnicity is typically not available as part of the laboratory submission form. If a full case investigation is completed, race and ethnicity, risk factors and other information is able to be collected. However, with over 1,500 new cases per day, the ability to do detailed case investigations and interviews on each confirmed case is not possible."

York is an anomaly when it comes to reporting such data. It is one of the few cities its size in the state that has its own health department, which conducts investigations into reports of infections, including collecting demographic information.

"It's a remarkable advantage," said Dr. Matthew Howie, medical director for the York City Health Bureau. "For a city our size to have this capability allows us to see things that other cities don't see."

As far as an explanation for the disparity of COVID-19 cases in the Latino community, Rivera said there could be a simple explanation: cultural and language barriers have thwarted the effort to disseminate information about preventive efforts in the Spanish-speaking community.

The councilman pointed out that when the federal government sent out its guidelines to slow the spread of the virus, it was in English and did not include a Spanish translation. (The city routinely disseminates information in Spanish on social media.)

When he saw the numbers, Rivera initially suspected that the elderly community represented the majority of the infections because older people may lack access to social media and other outlets that have been providing information. The city's statistics, though, showed that people over 65 accounted for only 12 percent of the infections in the Latino community and that those under 65 represented 78 percent.

Mayor Michael Helfrich said the city's data has shown that "quite a few of this group have gotten it from their workplaces."

The mayor noted that the state Department of Health has ordered safety measures at larger workplaces that remain open in the state.

"Unfortunately, the businesses are the ones responsible for their own oversight," the mayor wrote on Facebook earlier this week. "If an employee feels that the orders are not being followed, they're supposed to call the local police. Well, how many people that really need their paycheck are going to call the cops on their bosses?"

The city takes reports about unsafe workplaces, but since many of those employers are outside its borders, the city lacks jurisdiction to do anything, the mayor said. In those cases, workers can contact the city, and the city will pass that information on to the state.

"Make sure that people know they can come to us," the mayor wrote in a Facebook post. "We can protect people in the city limits, but I have no jurisdiction outside of York City. But we are informing the PA Department of Health, PA State Legislators, and the Governor's Office of issues outside of City limits. So, please, let's educate the Latino workers, and let them know there are now rules in place, and we can work together to make sure the big companies follow those rules."

Rivera said among those workplaces are some of the large warehouses and distribution centers in York County and some poultry and meat processing plants in the region – businesses that employ large numbers of Latinos.

The city is also working with CASA, an organization that advocates for Latino and immigrant communities in the mid-Atlantic region, to spread the word about workers' rights and measures people can take to stay safe and healthy during the pandemic.

Socioeconomic status plays a role in the disparity of infection rates among minority communities.

"Lack of health insurance and the jobs that are essential to the community and filled by minorities ... put them at greater risk," Rivera said. "This pandemic has taught us a lot of things. The people who are most vulnerable and most at risk mostly come from the black and brown communities. It's a sad state of affairs."

Editor's note: The York Daily Record would like to talk to people who have been diagnosed with COVID-19. If you or a family member are will to talk about your

experience, please call Mike Argento at 717-771-2046 or email mike@ydr.com.

Columnist/reporter Mike Argento has been a Daily Record staffer since 1982.

{ The York Daily Record's coverage of coronavirus is being provided for free to our readers. Please consider supporting local journalism by subscribing at ydr.com/subscribe. }

Special Subscription Offers

Exhibit 21

Coronavirus cases per 10,000 people

White	23
All	38
Black	62
Latino	73

The Fullest Look Yet at the Racial Inequity of Coronavirus

By Richard A. Oppel Jr., Robert Gebeloff, K.K. Rebecca Lai, Will Wright and Mitch Smith

July 5, 2020

Teresa and Marvin Bradley can't say for sure how they got the coronavirus. Maybe Ms. Bradley, a Michigan nurse, brought it from her hospital. Maybe it came from a visiting relative. Maybe it was something else entirely.

What is certain — according to new federal data that provides the most comprehensive look to date on nearly 1.5 million coronavirus patients in America — is that the Bradleys are not outliers.

Racial disparities in who contracts the virus have played out in big cities like Milwaukee and New York, but also in smaller metropolitan areas like Grand Rapids, Mich., where the Bradleys live. Those inequities became painfully apparent when Ms. Bradley, who is Black, was wheeled through the emergency room.

"Everybody in there was African-American," she said. "Everybody was."

Early numbers had shown that Black and Latino people were being harmed by the virus at higher rates. But the new federal data — made available after The New York Times sued the Centers for Disease Control and Prevention — reveals a clearer and more complete picture: Black and Latino people have been disproportionately affected by the coronavirus in a widespread manner that spans the country, throughout hundreds of counties in urban, suburban and rural areas, and across all age groups.

Race or ethnicity with the highest coronavirus rate in each county

White	Black	Latino	Asian	Native American	No race data

25   50
people per 10,000
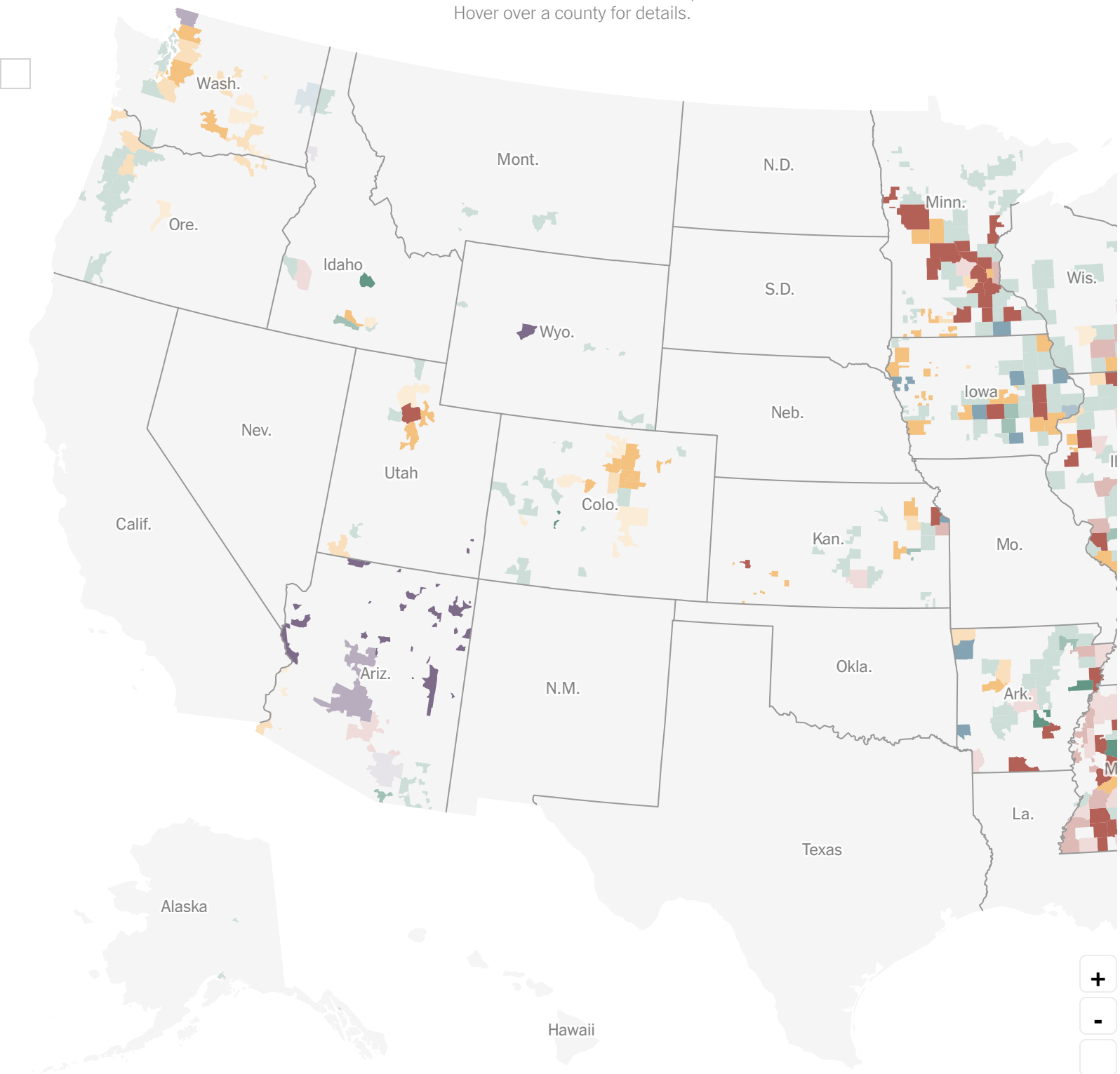
Source: Centers for Disease Control and Prevention | Note: Data is through May 28 and includes only cases for which the race/ethnicity and home county of the infected person was known. Only groups that make up at least 1 percent of a county's population are considered in determining the highlight color on the map. Sparsely populated areas in counties are not highlighted. The C.D.C. data included race/ethnicity information, but no county location, for infected people in eight additional states: Hawaii, Maryland, Missouri, Nebraska, New Hampshire, New Mexico, Texas and Vermont.

Latino and African-American residents of the United States have been three times as likely to become infected as their white neighbors, according to the new data, which provides detailed characteristics of 640,000 infections detected in nearly 1,000 U.S. counties. And Black and Latino people have been nearly twice as likely to die from the virus as white people, the data shows.

Rate of Black and Latino coronavirus cases, compared with white cases
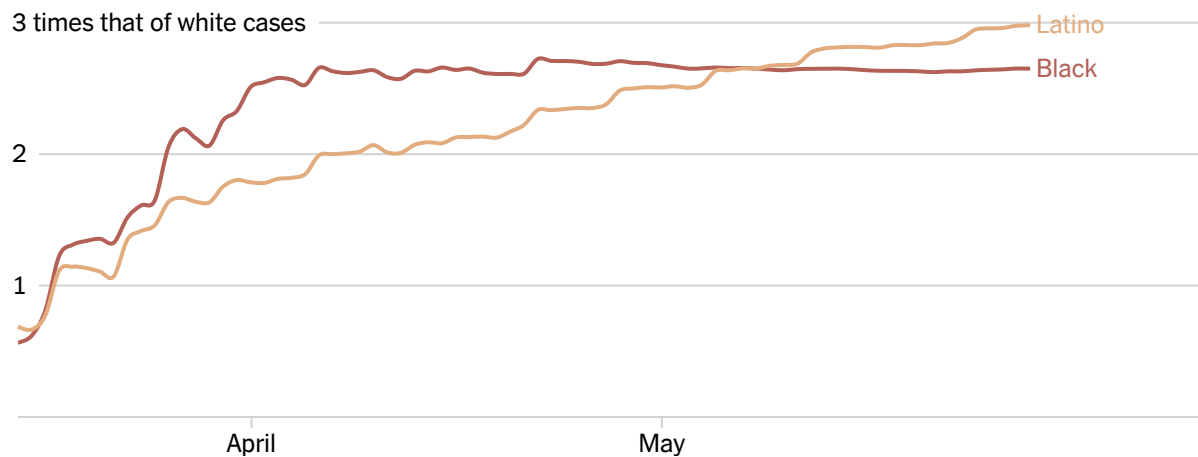
Source: Centers for Disease Control and Prevention | Note: Data is through May 28.

The disparities persist across state lines and regions. They exist in rural towns on the Great Plains, in suburban counties, like Fairfax County, Va., and in many of the country's biggest cities.

"Systemic racism doesn't just evidence itself in the criminal justice system," said Quinton Lucas, who is the third Black mayor of Kansas City, Mo., which is in a state where 40 percent of those infected are Black or Latino even though those groups make up just 16 percent of the state's population. "It's something that we're seeing taking lives in not just urban America, but rural America, and all types of parts where, frankly, people deserve an equal opportunity to live — to get health care, to get testing, to get tracing."

The data also showed several pockets of disparity involving Native American people. In much of Arizona and in several other counties, they were far more likely to become infected than white people. For people who are Asian, the disparities were generally not as large, though they were 1.3 times as likely as their white neighbors to become infected.

The new federal data, which is a major component of the agency's disease surveillance efforts, is far from complete. Not only is race and ethnicity information missing from more than half the cases, but so are other epidemiologically important clues — such as how the person might have become infected.

And because it includes only cases through the end of May, it doesn't reflect the recent surge in infections that has gripped parts of the nation.

Still, the data is more comprehensive than anything the agency has released to date, and The Times was able to analyze the racial disparity in infection rates across 974 counties representing more than half the U.S.

population, a far more extensive survey than was previously possible.

Disparities in the suburbs

For the Bradleys, both in their early 60s, the symptoms didn't seem like much at first. A tickle at the back of the throat.

But soon came fevers and trouble breathing, and when the pair went to the hospital, they were separated. Ms. Bradley was admitted while Mr. Bradley was sent home. He said he felt too sick to leave, but that he had no choice. When he got home, he felt alone and uncertain about how to treat the illness.

Teresa Bradley, 60, and her husband, Marvin Bradley, 61, both had Covid-19 earlier this year. Elaine Cromie for The New York Times

It took weeks, but eventually they both recovered. When Mr. Bradley returned to work in the engineering department of a factory several weeks later, a white co-worker told Mr. Bradley that he was the only person he knew who contracted the virus.

By contrast, Mr. Bradley said he knew quite a few people who had gotten sick. A few of them have died.

"We're most vulnerable to this thing," Mr. Bradley said.

In Kent County, which includes Grand Rapids and its suburbs, Black and Latino residents account for 63 percent of infections, though they make up just 20 percent of the county's population. Public health officials and elected leaders in Michigan said there was no clear reason Black and Latino people in Kent County were even more adversely affected than in other parts of the country.

Among the 249 counties with at least 5,000 Black residents for which The Times obtained detailed data, the infection rate for African-American residents is higher than the rate for white residents in all but 14 of those counties. Similarly, for the 206 counties with at least 5,000 Latino residents analyzed by The Times, 178 have higher infection rates for Latino residents than for white residents.

Coronavirus cases per 10,000 Black residents

| 2 times the rate of white cases | 4 times | Insufficient or no race data |

Double click to zoom into the map.
Hover over a county for details.
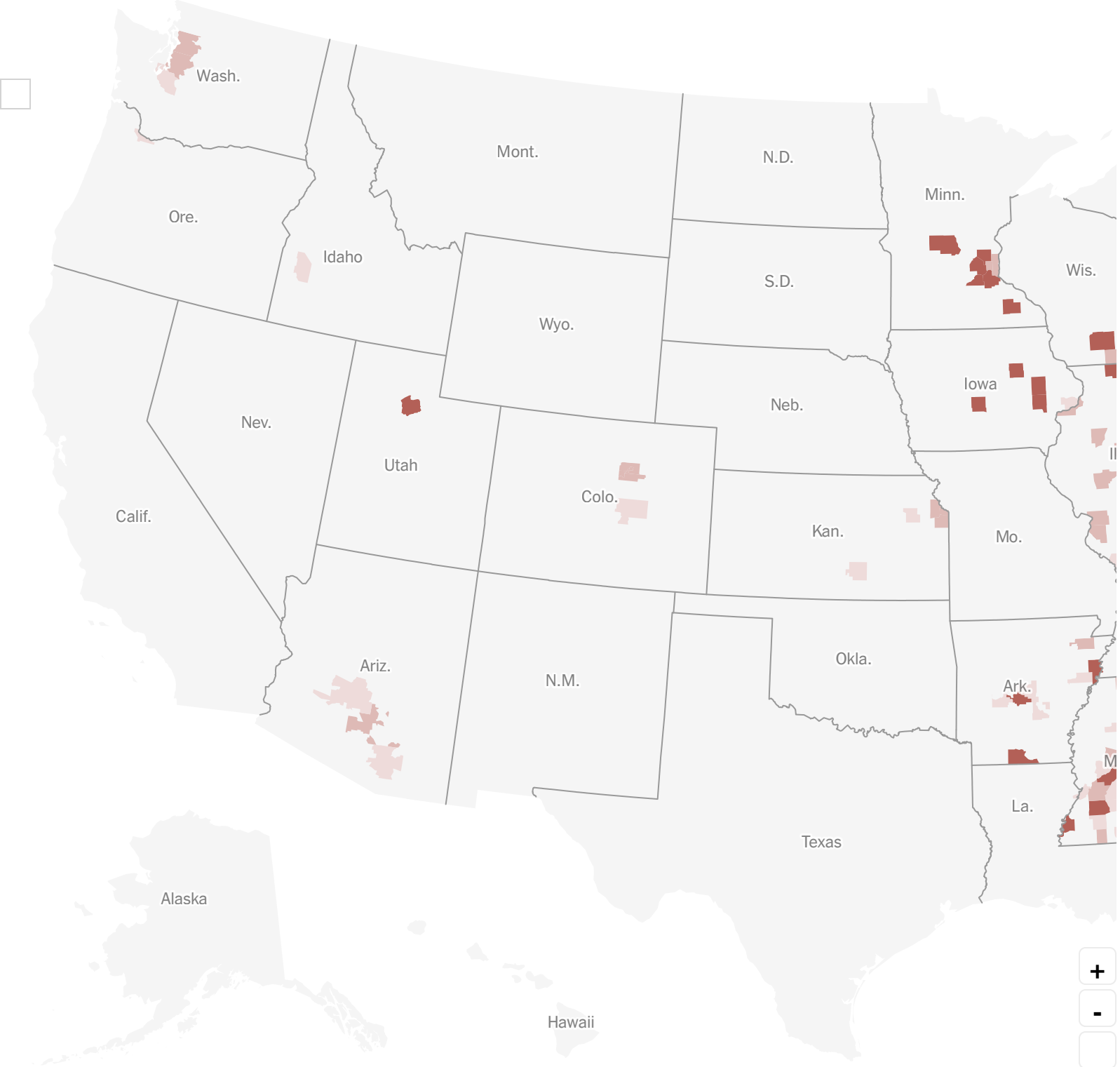
"As an African-American woman, it's just such an emotional toll," said Teresa Branson, the deputy administrative health officer in Kent County, whose agency has coordinated with Black pastors and ramped up testing in hard-hit neighborhoods.

Experts point to circumstances that have made Black and Latino people more likely than white people to be exposed to the virus: Many of them have front-line jobs that keep them from working at home; rely on public

transportation; or live in cramped apartments or multigenerational homes.

"You literally can't isolate with one bathroom," said Lt. Gov. Garlin Gilchrist II, who leads Michigan's task force on coronavirus racial disparities.

'We just have to keep working'

Latino people have also been infected at a jarringly disparate rate compared with white people. One of the most alarming hot spots is also one of the wealthiest: Fairfax County, just outside of Washington, D.C.

Three times as many white people live there as Latinos. Yet through the end of May, four times as many Latino residents had tested positive for the virus, according to the C.D.C. data.

Coronavirus cases per 10,000 Latinos

2 times the rate   4 times   Insufficient or
of white cases   no race data

Double click to zoom into the map.
Hover over a county for details.

With the median household income in Fairfax twice the national average of about $60,000, housing is expensive, leaving those with modest incomes piling into apartments, where social distancing is an impossibility. In 2017, it took an annual income of almost $64,000 to afford a typical one-bedroom apartment, according to county data. And many have had to keep commuting to jobs.

Diana, who is 26 and did not want her last name used out of fear for her husband's job, said her husband got sick at a construction site in April. She and her brother, who also works construction, soon fell ill, too. With three children between them, the six family members live in a two-bedroom apartment.

Diana, who was born in the United States but moved to Guatemala with her parents as a small child before returning to this country five years ago, is still battling symptoms. "We have to go out to work," she said. "We have to pay our rent. We have to pay our utilities. We just have to keep working."

Diana, with her 3-year-old son. She was sick with the coronavirus in April. Hector Emanuel for The New York Times

At Culmore Clinic, an interfaith free clinic serving low-income adults in Fairfax, about half of the 79 Latino patients who tested for the virus have been positive.

"This is a very wealthy county, but their needs are invisible," said Terry O'Hara Lavoie, a co-founder of the clinic. The risk of getting sick from tight living quarters, she added, is compounded by the pressure to keep working or quickly return to work, even in risky settings.

The risks are borne out by demographic data. Across the country, 43 percent of Black and Latino workers are employed in service or production jobs that for the most part cannot be done remotely, census data from 2018 shows. Only about one in four white workers held such jobs.

Also, Latino people are twice as likely to reside in a crowded dwelling — less than 500 square feet per person — as white people, according to the American Housing Survey.

The national figures for infections and deaths from the virus understate the disparity to a certain extent, since the virus is far more prevalent among older Americans, who are disproportionately white compared with younger Americans. When comparing infections and deaths just within groups who are around the same ages, the disparities are even more extreme.

Coronavirus cases per 10,000 people, by age and race
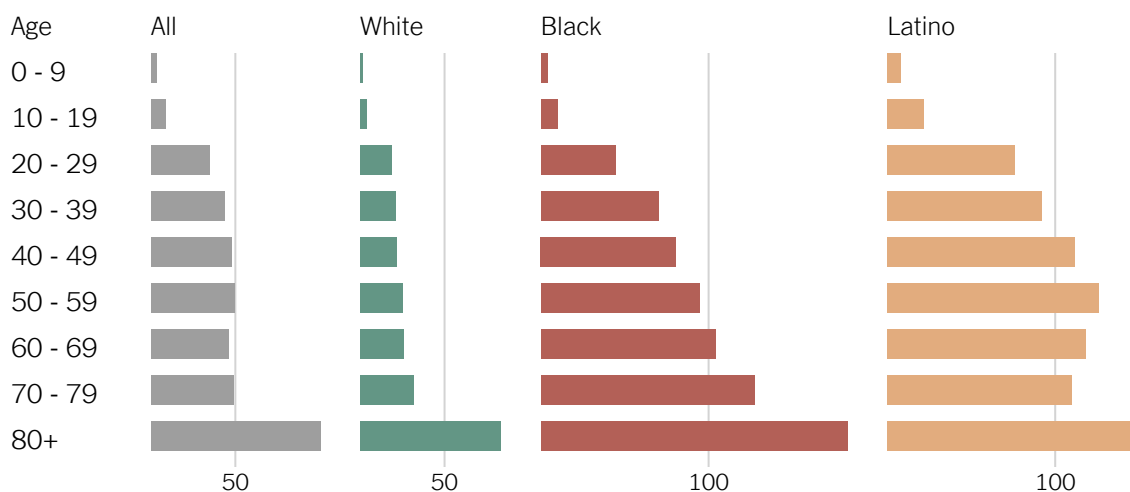
Source: Centers for Disease Control and Prevention | Note: Data is through May 28.

Latino people between the ages of 40 and 59 have been infected at five times the rate of white people in the same age group, the new C.D.C. data shows. The differences are even more stark when it comes to deaths: Of

Latino people who died, more than a quarter were younger than 60. Among white people who died, only 6 percent were that young.

Jarvis Chen, a researcher and lecturer at the Harvard T. H. Chan School of Public Health, said that the wide racial and ethnic disparities found in suburban and exurban areas as revealed in the new C.D.C data should not come as a surprise. The discrepancies in how people of different races, ethnicities and socioeconomic statuses live and work may be even more pronounced outside of urban centers than they are in big cities, Dr. Chen said.

"As the epidemic moves into suburban areas, there are good reasons to think that the disparities will grow larger," he said.

The shortfalls of the government's data

The Times obtained the C.D.C. data after filing a Freedom of Information Act lawsuit to force the agency to release the information.

To date, the agency has released nearly 1.5 million case records. The Times asked for information about the race, ethnicity and county of residence of every person who tested positive, but that data was missing for hundreds of thousands of cases.

C.D.C. officials said the gaps in their data are because of the nature of the national surveillance system, which depends on local agencies. They said that the C.D.C. has asked state and local health agencies to collect detailed information about every person who tests positive, but that it cannot force local officials to do so. Many state and local authorities have been overwhelmed by the volume of cases and lack the resources to investigate the characteristics of every individual who falls ill, C.D.C. officials said.

Even with the missing information, agency scientists said, they can still find important patterns in the data, especially when combining the records about individual cases with aggregated data from local agencies.

Still, some say the initial lack of transparency and the gaps in information highlight a key weakness in the U.S. disease surveillance system.

"You need all this information so that public health officials can make adequate decisions," said Andre M. Perry, a fellow in the Metropolitan Policy Program at The Brookings Institution. "If they're not getting this information, then municipalities and neighborhoods and families are essentially operating in the dark."

Higher cases, higher deaths

The higher rate in deaths from the virus among Black and Latino people has been explained, in part, by a higher prevalence of underlying health problems, including diabetes and obesity. But the new C.D.C. data reveals a significant imbalance in the number of virus cases, not just deaths — a fact that scientists say underscores inequities unrelated to other health issues.

The focus on comorbidities "makes me angry, because this really is about who still has to leave their home to work, who has to leave a crowded apartment, get on crowded transport, and go to a crowded workplace, and we just haven't acknowledged that those of us who have the privilege of continuing to work from our homes aren't facing those risks," said Dr. Mary Bassett, the Director of the FXB Center for Health and Human Rights at Harvard University.

Dr. Bassett, a former New York City health commissioner, said there is no question that underlying health problems — often caused by factors that people cannot control, such as lack of access to healthy food options and health care — play a major role in Covid-19 deaths.

But she also said a big determinant of who dies is who gets sick in the first place, and that infections have been far more prevalent among people who can't work from home. "Many of us also have problems with obesity and diabetes, but we're not getting exposed, so we're not getting sick," she said.

The differences in infection case rates are striking, said Jennifer Nuzzo, an epidemiologist and professor at the Johns Hopkins Bloomberg School of Public Health.

"Some people have kind of waved away the disparities by saying, 'Oh, that's just underlying health conditions,'" Dr. Nuzzo said. "That's much harder to do with the case data."

In June, C.D.C. officials estimated that the true tally of virus cases was 10 times the number of reported cases. They said they could not determine whether these unreported cases had racial and ethnic disparities similar to those seen in the reported infections.

But they said that more-severe infections — which are more often associated with underlying health conditions, and with people seeking medical care — are more likely to be recorded as cases.

That difference in the reporting of cases might explain some portion of the race and ethnicity disparities in the number of documented infections, C.D.C. officials said. But they said that it was also clear that there have been significant disparities in the number of both deaths and cases.

Methodology

To measure how the coronavirus pandemic is affecting various demographic groups in the United States, The New York Times obtained a database of individual confirmed cases along with characteristics of each infected person from the Centers for Disease Control and Prevention.

The data was acquired after The Times filed a Freedom of Information Act suit. The C.D.C. provided data on 1.45 million cases reported to the agency by states through the end of May. Many of the records were missing critical information The Times requested, like the race and home county of an infected person, so the analysis was based on the nearly 640,000 cases for which the race, ethnicity and home county of a patient was known.

The data allowed The Times to measure racial disparities across 974 counties, which account for about 55 percent of the nation's population, a far wider look than had been possible previously. Infection and death rates were calculated by grouping cases in the C.D.C. data by race, ethnicity and age group, and comparing the totals with the most recent Census Bureau population estimates for each county.

For national totals, The Times calculated rates based on both the actual population and the age-adjusted population of each county. The age adjustment accounts for the higher prevalence of the virus among older U.S. residents and the varying age patterns of different racial and ethnic groups. The national totals exclude data for eight states for which county-level information was not provided, but each of those states also showed a racial disparity in case rates.

Exhibit 22

Coronavirus Live Updates

THE CORONAVIRUS CRISIS

U.S. Surgeon General: People Of Color 'Socially Predisposed' To Coronavirus Exposure

April 10, 2020 · 3:24 PM ET

JUANA SUMMERS

Surgeon General Jerome Adams shows his inhaler during a coronavirus task force briefing at the White House at which he made a personal appeal to communities of color to follow federal guidelines.

Evan Vucci/AP

U.S. Surgeon General Jerome Adams again acknowledged in personal terms the increased risk for African Americans from the coronavirus, which appears to be infecting and killing black Americans at a disproportionately higher rate.

"I've been carrying around an inhaler in my pocket for 40 years, out of fear of having a fatal asthma attack," said Adams, who is 45, as he held his inhaler. "I more immediately share it so that everyone knows it doesn't matter if you look fit, if you look young, you are still at risk for getting and spreading and dying from coronavirus."
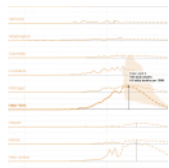
Adams' remarks at Friday's coronavirus briefing come as available data from the Centers for Disease Control and Prevention and individual states and cities show stark racial disparities, a finding acknowledged by President Trump himself and multiple members of the White House task force.

"The chronic burden of medical ills is likely to make people of color, especially, less resilient to the ravages of COVID-19. And it is possibly, in fact, likely that the burden of social ills is likely contributing," Adams said, noting that many African Americans and Hispanics do not have the types of jobs that allow them to telework or remain at home.

Watch his remarks.

Article continues below

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Adams said that there is no scientific basis to believe that people of color are "biologically or genetically predisposed to get COVID-19," but that they are "socially predisposed to coronavirus exposure, and have a higher incidence of the very diseases that put you at risk for severe complications of coronavirus."

Adams also said that it was even more important for communities of color to adhere to the White House task force's guidance and cautioned that they should avoid alcohol and drugs. He also urged Americans to check in on family members.

"Speaking of mothers, we need you to do this, if not for yourself, then for your *abuela*. Do it for your granddaddy, do it for your Big Mama, do it for your pop-pop," he said.

Asked about his remarks later, Adams clarified that his guidance around avoiding alcohol and drugs was not just for communities of color, but for all Americans, particularly those at high risk and with co-morbidities.
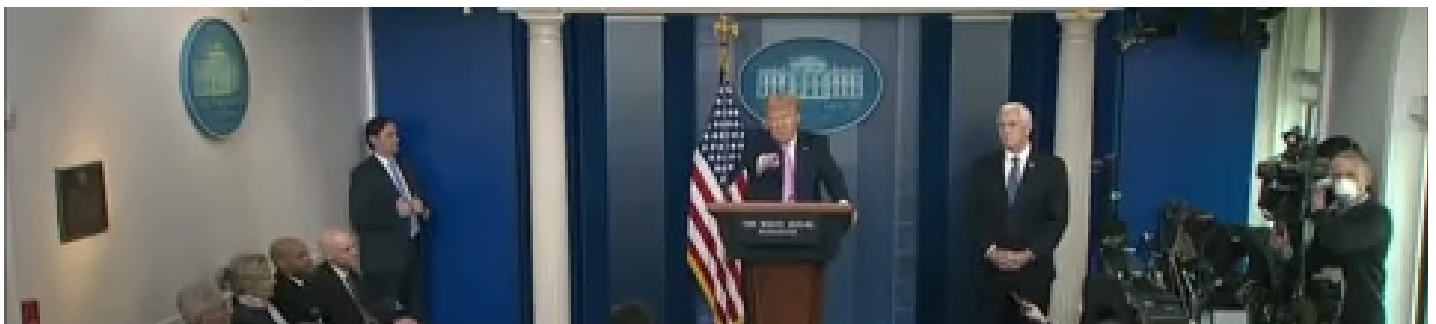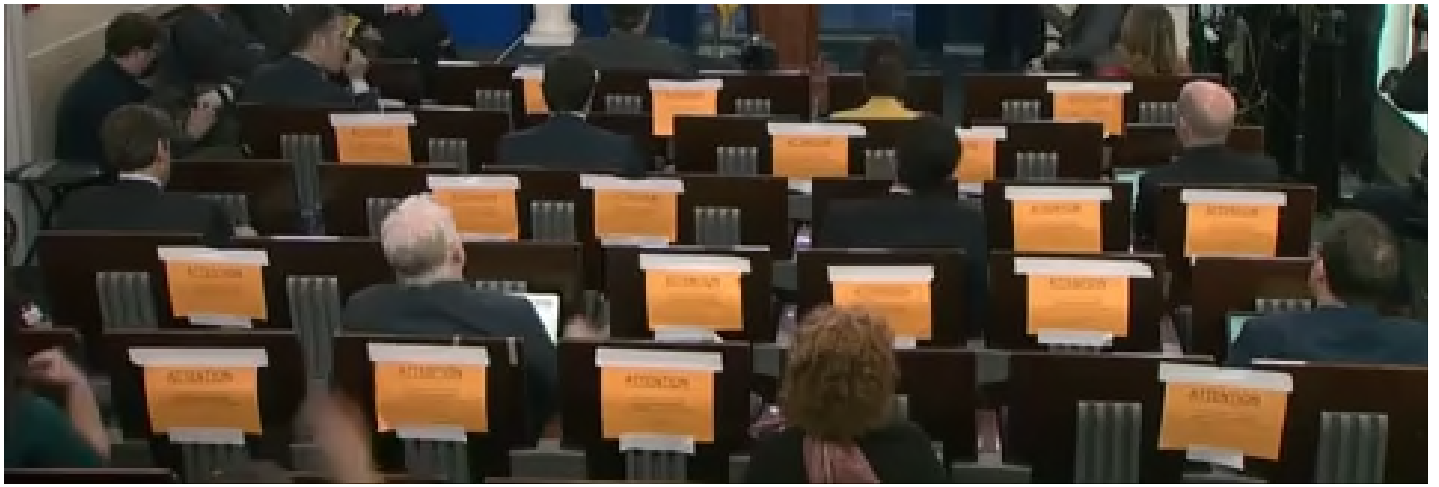
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Exhibit 23

The New York Times | https://nyti.ms/3ha8bqg

Fauci Warns That the Coronavirus Pandemic Is Far From Over

The nation's leading infectious disease expert tells biotech executives that Covid-19 has inflicted global damage, exposing worrisome racial disparities.

By **Denise Grady**

Published June 9, 2020   Updated July 13, 2020

In a wide-ranging talk to biotech executives, Dr. Anthony S. Fauci delivered a grim assessment of the devastation wrought around the world by the coronavirus.

Covid-19 is the disease that Dr. Fauci always said would be his "worst nightmare" — a new, highly contagious respiratory infection that causes a significant amount of illness and death.

"In a period of four months, it has devastated the whole world," Dr. Fauci, director of the National Institute of Allergy and Infectious Diseases, said on Tuesday during a conference held by BIO, the Biotechnology Innovation Organization. "And it isn't over yet."

His discussion with a moderator was conducted remotely and recorded for presentation to conference participants. Although he had known that an outbreak like this could occur, one aspect has surprised him, he said, and that is "how rapidly it just took over the planet."

An efficiently transmitted disease can spread worldwide in six months or a year, but "this took about a month," Dr. Fauci said. He attributed the rapid spread to the contagiousness of the virus, and to extensive world travel by infected people.

Latest Updates: Global Coronavirus Outbreak   Updated 14m ago

- Teachers unions sue Florida's governor over his order requiring schools to reopen despite virus surge.
- Trump announces he's reviving the virus daily briefing as cases continues to surge.
- The virus appears to have caught up with the Villages, one of the biggest retirement communities in the U.S.

  See more updates

More live coverage: **Markets**

Vaccines are widely regarded as the best hope of stopping or at least slowing the pandemic, and Dr. Fauci said he was "almost certain" that more than one would be successful. Several are already being tested in people, and at least one is expected to move into large, Phase 3 trials in July.

But much is still unknown about the disease and how it attacks the body — research that Dr. Fauci described as "a work in progress."

He said that he had spent much of his career studying H.I.V., and that the disease it causes is "really simple compared to what's going on with Covid-19."

The differences, he said, include Covid's broad range of severity, from no symptoms at all to critical illness and death, with lung damage, intense immune responses and clotting disorders that have caused strokes even in young people, as well as a separate inflammatory syndrome causing severe illness in some children.

"Oh my goodness," Dr. Fauci said. "Where is it going to end? We're still at the beginning of really understanding."

Another looming question, he said, is whether survivors who were seriously ill will fully recover.

He described the pandemic as "shining a very bright light on something we've known for a very long time" — the health disparities and the harder impact of many illnesses on people of color, particularly African-Americans.

The coronavirus has been a "double whammy" for black people, he said, first because they are more likely to be exposed to the disease by way of their employment in jobs that cannot be done remotely. Second, they are more vulnerable to severe illness from the coronavirus because they have higher rates of underlying conditions like diabetes, high blood pressure, obesity and chronic lung disease.

Given the disparities, he said, it is essential to focus more resources to control the coronavirus in the areas with high-density African-American populations. But the longer-term solution will take decades, he said, to address the socioeconomic and dietary factors that contribute to so many of the health problems in racial and ethnic groups that have been most affected by the virus.

The global race for vaccines and treatments by myriad companies and governments has led to calls for nonprofit and government-payment methods to ensure that the drugs would be widely available.

While access to vaccines will be essential, Dr. Fauci said it would probably not help if the U.S. government tried to impose price controls on drugmakers. "If you try to enforce things on a company that has multiple different opportunities to do different things, they will walk away."

He said he had never seen a successful attempt at price controls, and it would be more effective for the government to work with companies and help them in developing products. Then, he said, companies "will in good faith make it available to those groups, countries, nations that really can't afford it very well."

"It's a profit-driven industry," he said, adding that companies cannot realistically be expected to give products away.

"You've got to have some degree of profit," he continued, "as long as it isn't in such an outrageous way that it makes something completely out of the realm of people who need it."

The U.S. government has already pledged billions of dollars to several companies developing vaccine candidates. Efforts are also underway in Europe and China.

Exhibit 24

In Pa., N.J., and across the country, the ACA has narrowed racial gaps in health-care access

by Sarah Gantz, Updated: January 16, 2020

Elizabeth Robertson / File Photograph

The Affordable Care Act dramatically reduced racial disparities in health insurance coverage and access to care among black and Hispanic adults, especially in states that expanded Medicaid eligibility, according to a new report by the Commonwealth Fund.

Before the ACA was enacted in 2013, there was a 9.9 percentage-point gap between the uninsured rate among white adults and the uninsured rate among black adults. The gap narrowed to 5.8 percentage points in 2018, according to the report, which analyzed Census survey data.

The gap between white and Hispanic adults closed even more — from 25.7 percentage points to 16.3 percentage points.

In Pennsylvania, the uninsured rate gap between white and black adults now is under 4 percentage points; in New Jersey it's a little over 5 percentage points.

Narrowing the race gap in insurance coverage is an important step toward a more equitable health system because having insurance is a gateway to getting health care, said Sara Collins, a vice president for the Commonwealth Fund.

"Coverage is the most important factor in people's ability to access health care," Collins said. "… It is a necessary condition, but it is not sufficient to people getting quality care. Racial minorities, because of long-standing issues of bias in our delivery system, face an even greater hurdle to getting access to good care and good health outcomes."

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Though its provisions — such as covering preexisting conditions — are popular among most Americans, the ACA has continued to be political football, especially as the presidential election nears. President Donald Trump has attacked the program for years; some Democrats in the race want to replace it with a more universally available health-care plan, while others want to improve the ACA.

Meanwhile, the cost of health care and insurance has continued to rise, driven partly by high-deductible health plans that grew under the ACA. For people who do not qualify for Medicaid or an income-based subsidy for insurance purchased through the ACA marketplace, insurance is expensive.

But a report released Thursday found individual plan premiums declined for 2020 in 31 states, including Pennsylvania, where the cost of a benchmark plan covering a 40-year-old nonsmoker fell by 3%. But in New Jersey, the price of a similar plan climbed almost 11%, according to an Urban Institute report funded by the Robert Wood Johnson Foundation.

» READ MORE: *Medical debt is driving how people make decisions about health care, insurance*

Black, Hispanic, and white adults all gained insurance coverage under the ACA, which created an online insurance exchange with tax credits for people who buy individual insurance because they do not have employer-sponsored health insurance, and provided financial backing for states to increase the income eligibility for Medicaid.

But in most states, minority adults saw a greater gain in insurance coverage compared with white adults, though they still are less likely to have insurance, Commonwealth Fund researchers found.

In Pennsylvania, the uninsured rate among black adults dropped 11.6 percentage points, between 2013 and 2018, to 10.2%. The uninsured rate among white adults declined 4.7 percentage points during that period, to 6.3% in 2018.

In New Jersey, the uninsured rate among black adults declined from 22.4% in 2013 to 10.7% in 2018 — a change of 11.7 percentage points. Among white adults in New Jersey, the uninsured rate declined 5.2 percentage points, from 11.7% in 2013 to 5.5% in 2018.

As more people gained insurance coverage that enabled them to see a doctor, racial gaps in access to care improved, too, the study found.

Black and Hispanic adults reported the greatest reduction in <u>cost-related barriers to care</u>. And the number of minority adults who said they had a "usual source of care," such as a primary-care doctor or a health clinic, also increased.

Advertisement

The study did not look at other potential barriers to care and good health outcomes that disproportionately affect minority patients, such as <u>unconscious bias among doctors.</u> People with Medicaid coverage may also struggle to find a doctor who accepts their insurance or experience long wait times for an appointment.

» READ MORE: _A pediatrician who serves children of color discovered his implicit bias. Here's what he's doing about it._

In a statement, Collins said that the ACA's coverage expansion had helped drive "historic progress" but that there's still much work to be done. "Too many black and Hispanic adults are still unable to get health insurance or the health care they need, which contributes to inequitable health outcomes."

Hispanic adults, for example, still experience high uninsured rates compared with white and black adults. In New Jersey, nearly a quarter of Hispanic adults were uninsured in 2018, though that decreased from 40% in 2013.

In

their report, researchers cautioned that the progress made since the ACA took effect has largely stalled since 2016. Uninsured rates have ticked upward slightly in the last two years as Trump and Republicans chipped away at the ACA, for example reducing funding for community-based enrollment specialists and loosening restrictions on <u>limited-benefit insurance plans</u>.

Exhibit 25

SAFE VOTING DURING THE COVID-19 PANDEMIC

APRIL 2020

DR. JOIA MUKHERJEE
MARK RITCHIE
RON FEIN
SUSAN GREENHALGH
COURTNEY HOSTETLER

Safe Voting During the COVID-19 Pandemic

Introduction

The SARS-CoV-2 coronavirus ("novel coronavirus"), which causes the Coronavirus Disease 2019 ("COVID-19"), has been spreading throughout the United States since approximately January 2020. There is currently no cure or vaccine for COVID-19. As of this writing, there are more than 360,000 reported cases of COVID-19 in the United States, with cases in all fifty states, the District of Columbia, and U.S. territories. More than 10,000 people in the United States have died from COVID-19. Unfortunately, both of these numbers are expected to increase dramatically over the next several months. On March 29, 2020, Dr. Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases, predicted that millions of Americans would be infected and 100,000-200,000 would die.[1]

As the novel coronavirus spirals out of control, it has become clear that our traditional Election Day practices are not suited for a pandemic. In response, some states have already begun to postpone primary elections. But elections—the foundation of our democracy—must be held, and we must make legal and policy changes now to ensure a safe, accessible, and trustworthy election in November.

This report summarizes best practices for safe voting in the 2020 elections, based on the generally accepted best practices for infectious disease control (including for the novel coronavirus in particular) as of this date.[2] As explained in more detail below, we recommend that every state and jurisdiction take the following actions:

- **Make vote-by-mail easy.** All voters should have the opportunity to vote by mail, or to complete their ballots at home and drop them off at a drive-through or walk-through drop-off location. The processing of mail-in ballots must be handled in a way that protects poll workers from virus transmission.

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[1] Susan Milligan, "Fauci: U.S. Coronavirus Deaths Could Near 200,000," https://www.usnews.com/news/national-news/articles/2020-03-29/anthony-fauci-us-coronavirus-deaths-could-near-200-000 (Mar. 29, 2020).

[2] The information in this report reflects best practices as of this writing. As knowledge of this virus is rapidly evolving, it is likely that, over time, this understanding will evolve.

- **Minimize person-to-person contact at polling places.** Early voting should be expanded as much as feasible, to help limit the number of people who must vote on any one day, and the number of polling places should be increased. Voters should not be required to wait in long lines to vote. Polling places should be configured to allow at least six feet of distance between all voters and poll workers.
- **Minimize contact with commonly-used surfaces.** Polling places should be designed to ensure that voters are not required to touch common surfaces that are not disinfected. All voting-related equipment must be cleaned and disinfected regularly. Paper ballots are safer than voting machines and less likely to spread the novel coronavirus because fewer people must handle each ballot. The use of voting machines should be absolutely minimized, and used by only those voters who require them for accessibility purposes.
- **Design and manage polling places to protect the most vulnerable populations.** The location and staffing of polling sites should be carefully arranged to protect the most vulnerable populations, including older adults.

Epidemiology of the novel coronavirus

The novel coronavirus is thought to spread mostly person-to-person through respiratory droplets produced by an infected person who sneezes or coughs within approximately a six-foot radius of another person or who touches and object that is then touched by another person.

However, the novel coronavirus can also be spread through surfaces or objects. If the novel coronavirus is present on a surface or object, a person may contract COVID-19 by touching that surface or object, and then touching their mouth, nose, or eyes. Other coronaviruses, including Severe Acute Respiratory Syndrome (SARS) coronavirus and the Middle East Respiratory Syndrome (MERS) coronavirus, have been found to persist on glass for 4-5 days, and to persist on plastic for up to 6 days, with one coronavirus strand surviving on plastic for up to 9 days.[3] An early study on the aerosol and surface stability of the novel

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[3] G. Kampf et al., "Persistence of Coronaviruses on Inanimate Surfaces and Their Inactivation With Biocidal Agents," 104 J. of Hospital Infection 246 (Mar. 2020), https://doi.org/10.1016/j.jhin.2020.01.022.

coronavirus has determined that the novel coronavirus can remain viable on plastic for up to 3 days.[4]

In both cases, individuals infected with the novel coronavirus can shed the virus while appearing asymptomatic.

The novel coronavirus and the voting process

While voting practices vary widely, many aspects of common voting processes in the United States pose a high risk of transmitting the novel coronavirus. Because individuals can spread the novel coronavirus through person-to-person contact, any dense grouping of people might result in person-to-person spread of COVID-19.

At many polling places, voters waiting to vote must stand in line with other voters, often indoors and in confined spaces, sometimes for extended periods of time. Once inside the polling location, the typical "flow" involves interacting with a poll worker to check in; proceeding to a semi-private voting booth or area that may be quite close to another voter's voting booth; and then interacting with another poll worker to check out. All of these offer opportunities for an infected voter or poll worker to transmit the novel coronavirus directly to others.

Additionally, the novel coronavirus may be shed onto voting machines, voting booths, and other materials required for voting. The novel coronavirus could remain present on those materials for hours or days unless they are properly sanitized using disinfectants that are approved by the CDC for rendering the virus inactive.

Infectious disease control best practices for elections

The best practices to control the spread of the novel coronavirus in the voting process are based on the following principles:

> a. Minimizing person-to-person contact via social distancing.

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[4] Neeltje van Doremalen et al., "Aerosol and Surface Stability of SARS-CoV-2 as Compared With SARS-CoV-1," Letter to the Editor, New England Journal of Medicine (Mar. 17, 2020), https://bit.ly/2Uibd28.

> b. Minimizing contact by multiple people with commonly used surfaces.
> c. Frequently disinfecting commonly used surfaces.
> d. Protecting the most vulnerable populations, including older adults.

The Centers for Disease Control and Prevention ("CDC") issues and updates guidance on mass gatherings and large community events.[5] As of this writing, the CDC recommends that all U.S. events of 10+ people should be cancelled or held virtually. Many states and cities have imposed similar or even more stringent measures. Government authorities may revise these measures over time for various reasons. But from the perspective of infectious disease control, expert medical consensus is unlikely to change its view that minimizing large gatherings will be essential for months to come.

The CDC also issues and updates guidance specific to election polling locations.[6] The following best practices and recommendations are drawn from and reflect CDC and other expert medical guidance, as well as the professional expertise and judgment of Free Speech For People's advisor on infectious disease control in the voting process, Dr. Joia Mukherjee.

Voting by mail

All voters should have the opportunity to vote by mail, or to complete their ballots at home and drop them off at a drive-through or walk-through dropoff location. Voters should be able to request mail-in ballots up to the day before the election, to increase the likelihood that individuals who are diagnosed with COVID-19 or have been exposed to the novel coronavirus do not vote in person, and to ensure that individuals who wish to reduce their exposure to infection can do so. Envelope closures for mail-in ballots should use "no-lick" sealing methods such as pressure-sensitive gum.

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[5] *See* CDC, "Interim Guidance: Get Your Mass Gatherings or Large Community Events Ready for Coronavirus Disease 2019 (COVID-19)," https://www.cdc.gov/coronavirus/2019-ncov/downloads/Mass-Gatherings-Document_FINAL.pdf (revised Mar. 29, 2020).

[6] *See* CDC, "Recommendations for Election Polling Locations," https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html (revised Mar. 27, 2020).

Secure remote ballot marking options should be offered for voters with disabilities. Voters with disabilities may not be able to mark a vote-by-mail ballot at home. Jurisdictions should offer remote accessible ballot marking systems that allow a voter to access a ballot electronically on her computer or device and use assistive technology to mark and print a paper ballot. These systems should always conform to recommendations from the National Institute of Standards and Technology to protect ballot privacy and security and not transmit any vote selection information over the Internet.[7]

The processing of mail-in ballots must be handled in a way that protects poll workers from virus transmission. Processing locations must be set up to ensure that poll workers maintain a distance of six feet from one another. Poll workers should be provided with protective equipment, and be able to practice hand hygiene frequently in accordance with CDC guidance.[8] Envelopes should be opened in a manner that does not require poll workers to touch the envelopes' adhesive. Finally, tabulation equipment must be routinely sanitized in accordance with the vendor's guidance.

In-person voting

It may be impossible or not preferable for some voters to vote by mail. Therefore, all efforts must be made to ensure that voting locations are as safe and sanitary as possible.

Minimizing person-to-person contact at polling places

Density of people at polling sites must be reduced. This involves several measures to spread voters out in both space and time.

Early voting should be expanded as much as feasible, to help limit the number of people who must vote on any one day, and the number of polling places should be increased. On Election Day itself, voting hours should be expanded, and voters should be encouraged to come during off-peak hours when

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[7] Computer Sec. Res. Ctr., Nat'l Inst. of Sci. & Tech., "Security Best Practices for the Electronic Transmission of Election Materials for UOCAVA Voters" (NISTIR 7711), https://nvlpubs.nist.gov/nistpubs/Legacy/IR/nistir7711.pdf (Sept. 2011).

[8] *See* CDC, "When and How to Wash Your Hands," https://www.cdc.gov/handwashing/when-how-handwashing.html (last visited Apr. 6, 2020).

possible. Where possible, "curbside voting" (in which voters can vote without leaving their vehicles) should be made available, especially for voters with disabilities or who may be ill. Election officials should increase the number of available polling places, to ensure that fewer individuals are required to visit each polling location.

Voters should not be required to wait in long lines to vote. If short lines must form, voters must be able to maintain 6 feet of separation between one another. Voters should not be turned away at the polls to avoid long lines. Instead, long lines should be avoided by taking precautions recommended above, including expanded vote-by-mail, early voting options, and increasing the number of polling places to avoid dense crowds, as well as expanding the simultaneous voting capacity at polling places.

Polling places should be configured to allow at least six feet of distance between all voters and poll workers. In particular, voting booths must be configured to place at least 6 feet of separation between voters. The voting process should be set up to require only minimal interaction between voter and poll worker. Finally, voters and poll workers should be discouraged from bringing non-essential visitors such as minor children or grandchildren with them to the polls.

Minimizing contact with commonly used surfaces

Polling places should be designed to ensure that voters are not required to touch common surfaces that are not disinfected. Poll workers should wear surgical gloves and masks while handling ballots, pens, and other voting equipment. Poll workers should change their gloves and masks and wash their hands regularly.

Polling locations should provide alcohol-based hand sanitizer (at least 60% alcohol) for use both before and after voting. Sanitizer should be placed near the entrance, at registration desks, near the exits, and at other visible, frequently used locations. If possible, polling places should be located near publicly accessible bathrooms, which should be frequently re-stocked with ample soap and disposable paper towels.

All voting-related equipment must be cleaned and disinfected regularly. CDC guidance advises that poll workers must "[c]lean and disinfect voting-associated equipment (e.g., voting machines, laptops, tablets, keyboards) routinely."[9] However, the CDC does not define "routinely." From a public health standpoint, the best practices are as follows:

- For any equipment that is used repeatedly but by only one individual (e.g., a poll book that is used by only one poll worker for an entire shift), disinfect at least once per hour.
- For any equipment that is directly touched by multiple voters or other individuals (e.g., voting machines or assistive technology), disinfect after each individual's use.

Paper ballots are safer than voting machines and less likely to spread the novel coronavirus because fewer people must handle each ballot. Where possible, voters should be given their own disposable pen to mark the ballot and their own disposable writing surface. If not possible, each pen and writing surface must be thoroughly disinfected after each use.

Unfortunately, most voting machines are difficult to clean or sanitize properly in the middle of an election. The U.S. Election Assistance Commission has collected and published manufacturers' recommended practices for cleaning some electronic voting machines.[10] They are difficult to properly clean, in many cases require specialized instruction or materials, and have small parts.

Several manufacturers warn that common disinfectants, or departing from the recommended cleaning technique, could damage the equipment. For example, Election Systems & Software ("ES&S") warns that poll workers must be careful to not touch the sensors on the edges of the screen, "scratch touch screens," or

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[9] *See* CDC, "Recommendations for Election Polling Locations," https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html (revised Mar. 27, 2020).
[10] *See* Election Assistance Comm'n, "Coronavirus (COVID-19) Resources," https://www.eac.gov/election-officials/coronavirus-covid-19-resources (last visited Apr. 6, 2020).

allow moisture to "linger[] on the external surface."[11] ES&S also warns poll workers not to apply cleanser directly to the screens, or to use too much cleaner on the cloth, or else the equipment may become "damaged during cleaning."[12] As another example, Dominion Voting lists just six approved branded cleaning products for its touchscreen-based voting machines.[13]

In normal times, these products might all be readily available, but in the current situation, election officials might be unable to obtain them in sufficient quantities. They would then face the dilemma of either inadequately disinfecting the voting machines (which could then become disease vectors) or using unapproved products, possibly damaging expensive and hard-to-replace equipment in the middle of an election.

In many cases, manufacturers' recommended cleaning guidelines—which may be reasonable in normal circumstances—are inconsistent with the twin public health mandates of frequent cleaning and avoiding buildup of long lines during a pandemic. For example, Dominion Voting warns that its touchscreen-based voting machines must be powered down before cleaning, noting that "[m]oist wipes may alter the touch sensitivity of screens until the moisture is removed. Additionally, some screen buttons may be inadvertently activated during wipe down."[14] Powering down a voting machine before cleaning, and then restarting it after cleaning, takes time, especially because many machines will require a special administrator login after rebooting. Similarly, MicroVote cautions that after cleaning its Infinity electronic voting machine, poll workers must "[a]llow

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[11] ES&S, "Best Practices – Voting System," at 1-2, https://www.eac.gov/sites/default/files/electionofficials/coronavirus/ESS_BestPractices_Cleaning_Disinfecting.pdf (last visited Apr. 6, 2020).

[12] *Id.* at 3.

[13] Dominion Voting, "Customer Notification: COVID-19 ('Coronavirus') Information," at 4 (Mar. 9, 2020), https://www.eac.gov/sites/default/files/electionofficials/coronavirus/DVS_CoronavirusCleaningNotice_030920.pdf.

[14] Dominion Voting, "Customer Notification: COVID-19 ('Coronavirus') Information," at 1 (Mar. 9, 2020), https://www.eac.gov/sites/default/files/electionofficials/coronavirus/DVS_CoronavirusCleaningNotice_030920.pdf.

ample drying time after cleaning before operation."[15] If sanitized after each voter's use, consistent with infectious disease control best practices, these cleaning practices could lead to long lines that may create an increased risk of person-to-person transmission.

Furthermore, manufacturers' recommended cleaning practices are often highly specific, with cautions regarding any deviations. ES&S, for example, specifies that a "trained poll worker" must clean the machines.[16] Poll workers, whether paid or volunteer, are generally only lightly trained (e.g., a single two-hour training) and it is unreasonable to expect flawless execution.

This could result in two distinct failure modes. First, a poll worker might fail to clean a voting machine adequately, rendering it a continued potential source of surface-to-voter transmission. Second, a poll worker might inadvertently deviate from the cleaning instructions and damage a machine. This will reduce polling place capacity and thus lead to longer lines, creating an increased risk of person-to-person transmission.

Consequently, the use of voting machines should be absolutely minimized, and used by only those voters who require them for accessibility purposes. The machines will still have to be sanitized according to manufacturer and health authority instructions after every voter's use, but by minimizing the number of voters who use these voting machines, this will be much less often than if most or all voters were required to use them.

There is a collateral public health benefit to reducing the usage of these voting machines. In many cases, polling places can physically accommodate more voters voting simultaneously on paper ballots than on voting machines, with less (or no) down-time due to equipment failures. This would enable a faster flow through the polling place, thus reducing time spent in lines and exposed to other voters.

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[15] MicroVote, "Cleaning and Disinfecting Infinity Voting Equipment," https://www.eac.gov/sites/default/files/electionofficials/coronavirus/MicroVote_CleanSanitize.pdf (last visited Apr. 6, 2020).

[16] ES&S, "Best Practices – Voting System," at 1, https://www.eac.gov/sites/default/files/electionofficials/coronavirus/ESS_BestPractices_Cleaning_Disinfecting.pdf (last visited Apr. 6, 2020).

Protecting the most vulnerable populations

The location and staffing of polling sites should be designed and managed to protect the most vulnerable populations. Polling sites should be relocated away from senior centers or residential facilities. Election officials should recruit extra poll workers to facilitate a more expeditious voting process and to account for potential absences due to sickness or prudent self-isolation. There is expected to be a large pool of recently-unemployed workers, many of whom are in lower-risk groups for serious infection, who could be recruited for this important civic task. Poll workers who are at higher risk of serious infection should be given opportunities to serve in areas that do not involve engaging directly with voters, such as processing vote-by-mail ballots.

Conclusion

This year is the first federal election since 1918, and the nation's first-ever presidential election, conducted during a major global pandemic. In the midst of such a pandemic, we must have a president, governors, and mayors who have the consent of the governed. That requires a free, fair, and safe election. The recommendations in this report reflect best practices for ensuring a safe, accessible, and trustworthy election. Election officials should begin implementing these recommendations now, and continue to consult with public health experts to devise plans that limit transmission of the novel coronavirus without interfering with voters' ability to cast their votes. Our democracy demands no less.

About the Authors

Dr. Joia Mukherjee is a physician, clinical researcher, and educator trained in Infectious Disease, Internal Medicine, Pediatrics, and public health at the Massachusetts General Hospital and the Harvard School of Public Health. She is an Associate Professor of Medicine at the Brigham and Women's Hospital in the Division of Global Health Equity and in the Department of Global Health and Social Medicine at Harvard Medical School. She founded and directs the Masters in Medical Science in Global Health Delivery at Harvard Medical School. Dr. Mukherjee mentors residents in the Global Health Equity program at the Brigham and Women's Hospital and fellows from Children's Hospital and other Harvard teaching hospitals. She teaches infectious disease, global health delivery, and human rights to health professionals and students from around the world. She is the author of *Introduction to Global Health Delivery: Practice, Equity, Human Rights*, a textbook published in 2017 by Oxford University Press. Dr. Mukherjee's academic scholarship focuses on the treatment of HIV, TB, mental health and the strengthing of health systems in impoverished settings. She is also a sought-after teacher in human rights. Since 2000, Dr. Mukherjee has served as the Chief Medical Officer of Partners In Health, an international medical charity with programs in the United States, Haiti, Rwanda, Lesotho, Malawi, Sierra Leone, Liberia, Peru, Mexico, Russia, Kazakhstan and the Navajo nation. As Chief Medical Officer of PIH, Joia coordinates and supports PIH's efforts to provide high quality, comprehensive health care to the poorest and most vulnerable. She advises various grassroots organizations throughout the world and has consulted for the World Health Organization and other international agencies on health systems strengthening, human resources for health, the treatment of HIV, and the treatment of drug resistant tuberculosis in impoverished settings. She has won numerous awards for her teaching and health delivery work, and holds four honorary degrees. She is a graduate of the University of Minnesota Medical School and also earned a Masters of Public Health from the Harvard School of Public Health. Dr. Mukherjee is a member of the Free Speech For People Board of Directors.

Mark Ritchie served as Minnesota's Secretary of State from 2007-2015, including a term as president of the National Association of Secretaries of State. He currently serves on the U.S. Election Assistance Commission's Board of Advisors, appointed by Senator Amy Klobuchar. His time as Secretary of State was characterized by efforts to enhance voter knowledge and participation and the

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About Free Speech For People

Free Speech For People works to renew our democracy and our United States Constitution for we the people. Founded on the day of the Supreme Court's *Citizens United* ruling, Free Speech For People envisions a democratic process in which all people have an equal voice and an equal vote. We fight for free and fair elections, for reliable and secure voting systems, and for the bedrock principle that, in a democracy, all voters must have their votes properly counted. To learn more, please visit our website: www.freespeechforpeople.org.

Exhibit 26

CDC Centers for Disease
Control and Prevention

Coronavirus Disease 2019 (COVID-19)

Considerations for Election Polling Locations and Voters

Interim guidance to prevent spread of coronavirus disease 2019 (COVID-19)

Updated June 22, 2020   Print

Summary of changes:

- Expanded guidance on changes to operations, procedures, and facilities for polling locations
- Added reminders to maintain accessibility
- Added recommendations for voters

Guiding Principles to Keep in Mind

The more an individual interacts with others, and the longer that interaction, the higher the risk of COVID-19 spread. Elections with only in-person voting on a single day are higher risk for COVID-19 spread because there will be larger crowds and longer wait times. Lower risk election polling settings include those with:

- a wide variety of voting options
- longer voting periods (more days and/or more hours)
- any other feasible options for reducing the number of voters who congregate indoors in polling locations at the same time

The virus that causes COVID-19, is mostly spread by respiratory droplets released when people talk, cough, or sneeze. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. Personal prevention practices (such as handwashing, staying home when sick) and environmental cleaning and disinfection are important actions election officials, poll workers, and voters can take to help lower the risk of COVID-19 spread.

Recommendations for Election Officials and Poll Workers

Promoting Behaviors that Reduce Spread

- Stay home when sick or after recent close contact with a person with COVID-19
    - Educate poll workers about when they should stay home and when they can return to work.
        - Poll workers who are sick, have tested positive for COVID-19, or have recently had a close contact with a person with COVID-19 should stay home. Ensure that poll locations are adequately staffed to cover any sick workers who need to stay home.
        - CDC's criteria can help inform when poll workers may return to work:
            - If they have been sick with COVID-19
            - If they have recently had a close contact with a person with COVID-19
            - If they have tested positive for COVID-19

- Hand Hygiene and Respiratory Etiquette
    - Provide an alcohol-based hand sanitizer with at least 60% alcohol for use at each step in the voting process where voters interact with poll workers, after using the voting machine, and as the final step in the voting process. Place alcohol-based hand sanitizer in visible, frequently used locations such as registration desks, where "I Voted" stickers are dispensed, and exits. Alcohol-based hand sanitizers may not be compatible with electronic voting equipment

and may damage paper ballots. Poll workers and voters should ensure their hands are completely dry before handling these items.

- Encourage poll workers to wash their hands frequently (e.g., before entering the polling location, before and after breaks or shifts, after touching or handling cloth face coverings or PPE, after using the restroom, after touching shared surfaces or objects) with soap and water for at least 20 seconds.

- Encourage workers and voters to cover coughs and sneezes with a tissue or use the inside of their elbow. Used tissues should be thrown in the trash and hands washed immediately with soap and water for at least 20 seconds.
    - If soap and water are not readily available, use hand sanitizer that contains at least 60% alcohol.

- **Cloth Face Coverings**
    - Recommend and reinforce the use of cloth face coverings among all workers. Face coverings are most essential in times when physical distancing is difficult. Information should be provided to workers on proper use, removal, and washing of cloth face coverings.

    - Encourage voters to use cloth face coverings while in the polling location. In jurisdictions where voters' face coverings may need to be removed to support identification procedures, alcohol-based hand sanitizer containing at least 60% alcohol should be provided at the station so voters can sanitize their hands after removing their face coverings. A plastic barrier between the voter and the poll worker can provide additional protection. Post signs providing instruction on proper removal and handling 🅟 of face coverings.
        - Note: Cloth face coverings should **not** be placed on:
            - Babies and children younger than 2 years old
            - Anyone who has trouble breathing or is unconscious
            - Anyone who is incapacitated or otherwise unable to remove the cloth face covering without assistance

    - Cloth face coverings are meant to protect other people in case the wearer is unknowingly infected but does not have symptoms. Cloth face coverings are not surgical masks, respirators, or personal protective equipment.

    - Cloth face coverings can make it more difficult for people who are deaf or hard-of-hearing to lip-read, hear, or understand what people are saying. Communication can be supported with written communication, posting information/instructions, and decreasing background noise. Lip reading can be supported with clear face coverings, face shields, or plexiglass barriers. Consistent with applicable law, election officials should consider having supplies, such as clear face coverings available, to ensure that voting is accessible to people with disabilities.

- **Adequate Supplies**
    - Ensure adequate supplies to support healthy hygiene behaviors. Supplies include soap, hand sanitizer containing at least 60% alcohol (placed at every station, if supplies allow), paper towels, tissues, disinfectant wipes, and no-touch trash cans.

- **Signs and Messages**
    - Post signs in highly visible locations (e.g., at entrances, in restrooms) that promote everyday protective measures 🅟 and describe how to stop the spread 🅟 of germs such as by properly washing hands and properly wearing a cloth face covering 🖼 .

    - Include messages about behaviors that prevent the spread of COVID-19 when communicating with voters (such as on websites, in videos, in emails, and on social media accounts).

    - To the extent consistent with applicable law, ensure that any signage and messages are accessible to voters with disabilities, for example by providing large print or braille versions or having audible messages with the same information.

    - Find free CDC print and digital resources at the communications resources main page.

- **Social Distancing**
    - Remind voters upon arrival to leave space between themselves and others. Encourage voters to stay at least 6 feet apart. Polling places may provide signs, or other visual cues such as floor markings, decals, or chalk marks to help voters and workers remember this.

    - Have plans to manage lines to ensure social distancing can be maintained.

    - Clearly mark points of entry and exit to avoid bottlenecks.

    - Discourage voters and workers from greeting others with physical contact (e.g., handshakes). Include this reminder on signs about social distancing.

Maintaining Healthy Environments

Maintaining Healthy Environments

- **Disinfect surfaces**
  - Surfaces that are frequently touched by multiple people, for example door handles, registration tables, pens, and clipboards, should be disinfected frequently using products with EPA-approved emerging viral pathogens claims ⧉ .
  - Follow the manufacturer's instructions for all cleaning and disinfection products (e.g., concentration, application method and contact time, use of personal protective equipment, storage).
  - If the surface is dirty, it should be cleaned before disinfecting.
  - If public restrooms are available in the polling location, they should be cleaned and disinfected routinely.
  - After the polling location closes, clean and disinfect all facility areas and items, including all tables, chairs, door handles, and restrooms, used by poll workers or voters. The facility can be returned to normal use immediately with no additional precautions.

- **Clean and disinfect voting-associated equipment**
  - Voting machines, laptops, tablets, keyboards, ballot activation cards, and other reusable items should be disinfected routinely.
  - Follow the equipment manufacturer's instructions ⧉ for appropriate cleaning and disinfection procedures for voting machines and associated electronics.
    - To prevent damage to the equipment, post signs near voting equipment discouraging voters from disinfecting the equipment with their own wipes or touching the equipment with hands that are still wet with hand sanitizer.
  - Consider use of wipeable covers for electronics.
  - If no manufacturer guidance is available, consider the use of alcohol-based wipes or spray containing at least 70% alcohol to clean voting machine buttons and touch screens. Dry surfaces thoroughly to avoid pooling of liquids.
  - After the polling location closes, all equipment and transport cases should be cleaned and disinfected following the manufacturer's instructions prior to returning it to the election office.

- **Shared objects**
  - Where possible, replace shared objects, like pens or ballot activation cards, with single-use objects.
  - Shared objects, like pens or ballot activation cards, should be disinfected between users.
  - Headphones for voters with disabilities should be single-use or disinfected between users.
  - Minimize handling of shared objects. For example, reusable ballot activation cards or ballot secrecy sleeves can be deposited into a container instead of handing them to a poll worker.

- **Ventilation**
  - Ensure that ventilation systems operate properly and increase circulation of outdoor air as much as possible, for example by opening windows and doors. Do not open windows and doors if doing so poses a safety or health risk to poll workers, voters, or children accompanying voters (e.g., risk of falling or triggering asthma symptoms).

- **Crowd and line management**
  - Consider increasing the number of polling locations available for early voting and extending the hours of operation.
  - Maintain or increase the total number of polling places available to the public on Election Day to improve the ability to social distance.
  - Unless there is no other option, do not increase the number of potential registered voters assigned to each polling place.
  - Minimize lines as much as possible, especially tightly spaced queues in small indoor spaces. Use floor markings or decals and signs to remind voters to maintain social distancing while in line.
  - Limit the number of voters in the facility by moving lines outdoors if weather permits or using a ticket system for access to the facility.

- **Modified layouts and procedures**
  - Increase distance between voting booths to ensure that voters remain 6 feet apart.
  - To ensure sufficient space for social distancing and other measures, identify larger facilities for use as future polling places.

- Modify the polling location layout to ensure voters move in one direction while in voting locations and to avoid bottlenecks, such as single doors for entry and exit.
- Items to be reviewed, such as poll books or identification, should be placed on a table for examination to minimize handling.
- Notify voters of changes to polling operations, including the availability of alternative voting options that minimize contact, as allowed in the local jurisdiction.
- Ensure that any changes to operations do not limit accessibility to voters with disabilities.

- Physical barriers and guides
  - Physical barriers, such as plexiglass shields, can be used to protect workers and voters when physical distance cannot be maintained, for example at registration desks or between voting stations.
  - Consider placing markings or decal on the floor to remind voters to maintain at least 6 feet of space from other voters and workers.

Maintaining Healthy Operations

- Where available in your jurisdiction, offer alternative voting methods that minimize direct contact and reduce crowd size at polling locations
  - Consider offering alternatives to in-person voting if allowed in the jurisdiction.
  - Offer early voting or extended hours, where voter crowds may be smaller throughout the day.
  - Consider drive-up voting for eligible voters if allowed in the jurisdiction.
  - Encourage voters planning to vote in-person on election day to arrive at off-peak times. For example, if voter crowds are lighter mid-morning, advertise that in advance to the community.

- Protect people at increased risk for severe illness
  - Relocate polling locations from nursing homes, long-term care facilities, and senior living residences, to help protect older adults and those with underlying medical conditions from potential COVID-19 exposure.
  - Polling locations (e.g., libraries, schools) should ensure that voters can be separated from other facility users. For example, poll workers and voters can use designated entrances, exits, and restrooms that are separate from other facility users.
  - Limit nonessential visitors. Poll workers and voters should be discouraged from bringing accompanying persons (e.g., family members, friends) to the polling location.
  - Poll workers at higher risk for severe illness from COVID-19 should be assigned tasks that minimize direct contact with voters and other poll workers. These workers should be encouraged to practice preventive actions, such as social distancing and handwashing.

- Consider alternative voting options for voters with symptoms
  - Where possible in your jurisdiction, offer alternative voting options for voters with symptoms, those who are sick or known COVID-19 positive. Alternative voting options should minimize exposure between poll workers and voters, such as a designated polling site or curbside voting for sick voters. Poll workers assisting voters with symptoms should be provided with personal protective equipment (PPE), including respiratory protection, face shields, gowns, and gloves, and trained in the appropriate use of this equipment.
  - Post signs to discourage anyone with symptoms from entering the polling location buildings and provide voting options for those with symptoms. Ensure that any signage is accessible to voters with disabilities, for example by providing large print or braille versions or having audible messages with the same information.

- Scheduled or staggered voting
  - Consider offering scheduled voting or staggered entry to the polling location.

- Mail-in ballots
  - Workers handling mail-in ballots should practice hand hygiene frequently.
  - Mail-in ballots submitted directly to polling locations can be held for three hours prior to processing to further reduce risk.
  - Machines used to process mail in ballots should be cleaned and disinfected routinely. Follow the equipment manufacturer's instructions ⧉ for appropriate cleaning and disinfection procedures for voting machines and associated electronics.

- Ballots can be stored as usual without additional precautions.
- Mail-in voting can make it more difficult for voters with disabilities to exercise their right to vote. Election officials should ensure that accessible voting options are available and that these options are consistent with the recommendations for slowing the spread of COVID-19.

Recommendations for Voters

- Practice healthy behaviors to protect yourself and slow the spread of COVID-19
  - Wash your hands before entering and after leaving the polling location.
  - While in the polling location, use alcohol-based hand sanitizer containing at least 60% alcohol frequently, especially after touching surfaces frequently touched by multiple people, such as door handles or voting machines.
  - Cover coughs and sneezes with a tissue or the inside of your elbow. Throw used tissues in lined trash cans. Wash your hands or use an alcohol-based hand sanitizer containing at least 60% alcohol.
  - Wear a cloth face covering. Children under 2 and anyone who has trouble breathing, is incapacitated or otherwise unable to remove the face covering without assistance should not wear a cloth face covering.
  - Maintain at least 6 feet (about 2 arms' length) of distance from others. It is important to continue social distancing even when you and others are wearing cloth face coverings.
- **Consider voting alternatives available in your jurisdiction that minimize contact.** Voting alternatives that limit the number of people you come in contact with or the amount of time you are in contact with others can help reduce the spread of COVID-19. Check your local election office website ⬀ for more information on voting alternatives available in your jurisdiction.
- **Do not disinfect or wipe down the voting equipment yourself.** Electronic voting equipment can be damaged by cleaners and disinfectants. If you use hand sanitizer before touching the voting equipment, ensure your hands are completely dry to avoid damaging the equipment. Wash your hands or use alcohol-based hand sanitizer **after** using the voting equipment.

- **Avoid crowds**
  - Use early voting, if available in your jurisdiction.
  - Vote at off-peak times, such as mid-morning.
  - If driving to the polls and your schedule allows, monitor the voter line from your car and join it when it's shorter.

- **Be prepared**
  - Check your voting location and requirements in advance because they may have changed due to COVID-19.
  - Verify your voter registration information is correct in advance of reporting to the polling location.
  - Contact your local or state election office ⬀ for additional information for voters with disabilities.
  - Make sure you have all necessary documents to avoid delays at the polling location.
  - If possible, complete any registration forms prior to arriving at the polling location.
  - Where possible, review or complete a sample ballot at home to speed the process of casting your ballot at the polling location.
  - Bring your own black ink pen.
  - Bring a stylus or similar object for use with touchscreen voting machines. Check with poll workers before using.

Resources

Resources

[Vendor and Manufacturer Guidance on Cleaning Voting Machines and Other Election Technology](#) ↗

[Cybersecurity Infrastructure and Security Agency Election Security Resources](#) ↗

[Finding Voting Locations and Poll Workers](#) 📕 ↗

[Considerations for Modifying the Scale of In-Person Voting](#) 📕 ↗

[Health and Safety at the Polling Place](#) 📕 ↗

[Safeguarding Staff and Working Environment from COVID-19](#) 📕 ↗

Page last reviewed: June 22, 2020

COVID-2019 Menu

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Exhibit 27

CORRESPONDENCE

Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1

TO THE EDITOR: A novel human coronavirus that is now named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (formerly called HCoV-19) emerged in Wuhan, China, in late 2019 and is now causing a pandemic.[1] We analyzed the aerosol and surface stability of SARS-CoV-2 and compared it with SARS-CoV-1, the most closely related human coronavirus.[2]

We evaluated the stability of SARS-CoV-2 and SARS-CoV-1 in aerosols and on various surfaces and estimated their decay rates using a Bayesian regression model (see the Methods section in the Supplementary Appendix, available with the full text of this letter at NEJM.org). SARS-CoV-2 nCoV-WA1-2020 (MN985325.1) and SARS-CoV-1 Tor2 (AY274119.3) were the strains used. Aerosols (<5 μm) containing SARS-CoV-2 ($10^{5.25}$ 50% tissue-culture infectious dose [$TCID_{50}$] per milliliter) or SARS-CoV-1 ($10^{6.75-7.00}$ $TCID_{50}$ per milliliter)

were generated with the use of a three-jet Collison nebulizer and fed into a Goldberg drum to create an aerosolized environment. The inoculum resulted in cycle-threshold values between 20 and 22, similar to those observed in samples obtained from the upper and lower respiratory tract in humans.

Our data consisted of 10 experimental conditions involving two viruses (SARS-CoV-2 and SARS-CoV-1) in five environmental conditions (aerosols, plastic, stainless steel, copper, and cardboard). All experimental measurements are reported as means across three replicates.

SARS-CoV-2 remained viable in aerosols throughout the duration of our experiment (3 hours), with a reduction in infectious titer from $10^{3.5}$ to $10^{2.7}$ $TCID_{50}$ per liter of air. This reduction was similar to that observed with SARS-CoV-1, from $10^{4.3}$ to $10^{3.5}$ $TCID_{50}$ per milliliter (Fig. 1A).

SARS-CoV-2 was more stable on plastic and stainless steel than on copper and cardboard, and viable virus was detected up to 72 hours after application to these surfaces (Fig. 1A), although the virus titer was greatly reduced (from $10^{3.7}$ to $10^{0.6}$ $TCID_{50}$ per milliliter of medium after 72 hours on plastic and from $10^{3.7}$ to $10^{0.6}$ $TCID_{50}$ per milliliter after 48 hours on stainless steel). The stability kinetics of SARS-CoV-1 were similar (from $10^{3.4}$ to $10^{0.7}$ $TCID_{50}$ per milliliter after 72 hours on plastic and from $10^{3.6}$ to $10^{0.6}$ $TCID_{50}$ per milliliter after 48 hours on stainless steel). On copper, no viable SARS-CoV-2 was measured after 4 hours and no viable SARS-CoV-1 was measured after 8 hours. On cardboard, no viable SARS-CoV-2 was measured after 24 hours and no viable SARS-CoV-1 was measured after 8 hours (Fig. 1A).
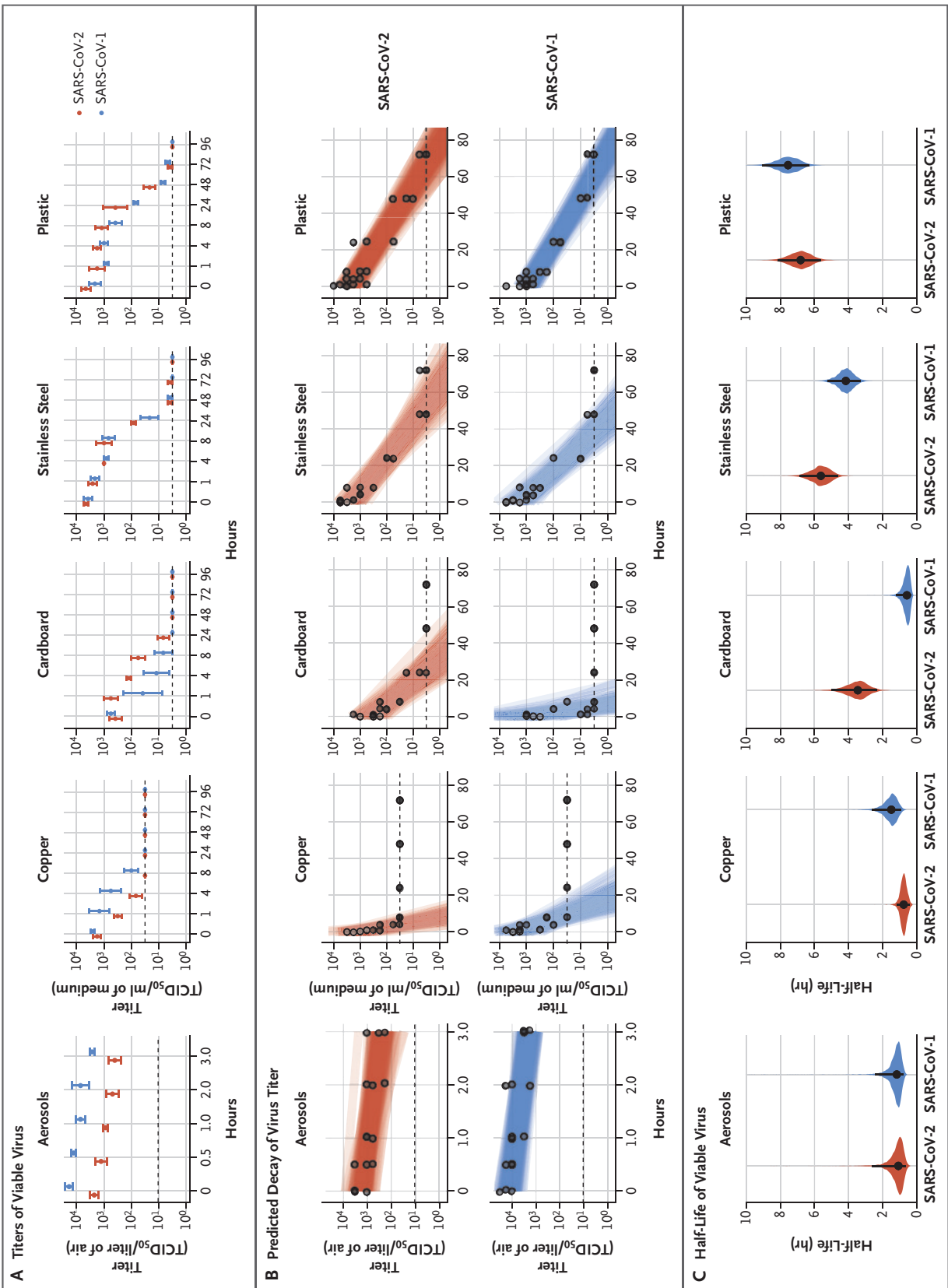
Figure 1 (previous page). Viability of SARS-CoV-1 and SARS-CoV-2 in Aerosols and on Various Surfaces.

As shown in Panel A, the titer of aerosolized viable virus is expressed in 50% tissue-culture infectious dose ($TCID_{50}$) per liter of air. Viruses were applied to copper, cardboard, stainless steel, and plastic maintained at 21 to 23°C and 40% relative humidity over 7 days. The titer of viable virus is expressed as $TCID_{50}$ per milliliter of collection medium. All samples were quantified by end-point titration on Vero E6 cells. Plots show the means and standard errors (I bars) across three replicates. As shown in Panel B, regression plots indicate the predicted decay of virus titer over time; the titer is plotted on a logarithmic scale. Points show measured titers and are slightly jittered (i.e., their horizontal positions are modified by a small random amount to reduce overlap) along the time axis to avoid overplotting. Lines are random draws from the joint posterior distribution of the exponential decay rate (negative of the slope) and intercept (initial virus titer) to show the range of possible decay patterns for each experimental condition. There were 150 lines per panel, including 50 lines from each plotted replicate. As shown in Panel C, violin plots indicate posterior distribution for the half-life of viable virus based on the estimated exponential decay rates of the virus titer. The dots indicate the posterior median estimates, and the black lines indicate a 95% credible interval. Experimental conditions are ordered according to the posterior median half-life of SARS-CoV-2. The dashed lines indicate the limit of detection, which was $3.33\times10^{0.5}$ $TCID_{50}$ per liter of air for aerosols, $10^{0.5}$ $TCID_{50}$ per milliliter of medium for plastic, steel, and cardboard, and $10^{1.5}$ $TCID_{50}$ per milliliter of medium for copper.

Both viruses had an exponential decay in virus titer across all experimental conditions, as indicated by a linear decrease in the $\log_{10}TCID_{50}$ per liter of air or milliliter of medium over time (Fig. 1B). The half-lives of SARS-CoV-2 and SARS-CoV-1 were similar in aerosols, with median estimates of approximately 1.1 to 1.2 hours and 95% credible intervals of 0.64 to 2.64 for SARS-CoV-2 and 0.78 to 2.43 for SARS-CoV-1 (Fig. 1C, and Table S1 in the Supplementary Appendix). The half-lives of the two viruses were also similar on copper. On cardboard, the half-life of SARS-CoV-2 was longer than that of SARS-CoV-1. The longest viability of both viruses was on stainless steel and plastic; the estimated median half-life of SARS-CoV-2 was approximately 5.6 hours on stainless steel and 6.8 hours on plastic (Fig. 1C). Estimated differences in the half-lives of the two viruses were small except for those on cardboard (Fig. 1C). Individual replicate data were noticeably "noisier" (i.e., there was more varia-

tion in the experiment, resulting in a larger standard error) for cardboard than for other surfaces (Fig. S1 through S5), so we advise caution in interpreting this result.

We found that the stability of SARS-CoV-2 was similar to that of SARS-CoV-1 under the experimental circumstances tested. This indicates that differences in the epidemiologic characteristics of these viruses probably arise from other factors, including high viral loads in the upper respiratory tract and the potential for persons infected with SARS-CoV-2 to shed and transmit the virus while asymptomatic.[3,4] Our results indicate that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days (depending on the inoculum shed). These findings echo those with SARS-CoV-1, in which these forms of transmission were associated with nosocomial spread and super-spreading events,[5] and they provide information for pandemic mitigation efforts.

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Dr. van Doremalen, Mr. Bushmaker, and Mr. Morris contributed equally to this letter.

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Epidemiologic and Survival Trends in Amyloidosis, 1987–2019

TO THE EDITOR: Amyloidosis is a group of rare disorders caused by deposition of misfolded proteins as insoluble fibrils, which leads to progressive multiorgan failure and death.[1] The past 30 years have seen remarkable advances in diagnostic imaging, more accurate identification of fibrils, and (in recent years) the first approved treatments.[2,3]

We report here data on 11,006 patients who received a diagnosis of amyloidosis during the period from 1987 through October 2019. All data were obtained from the United Kingdom National Amyloidosis Centre database. The number of cases increased by 670% from the period 1987–1999 to the period 2010–2019 (Fig. 1A). Systemic light-chain (AL) amyloidosis remained the most common type and accounted for 55% of all cases (Fig. 1B). With the advances in therapies that target plasma cells, overall survival among patients with AL amyloidosis increased from a median of 18 months among patients who received a diagnosis before 2005 to
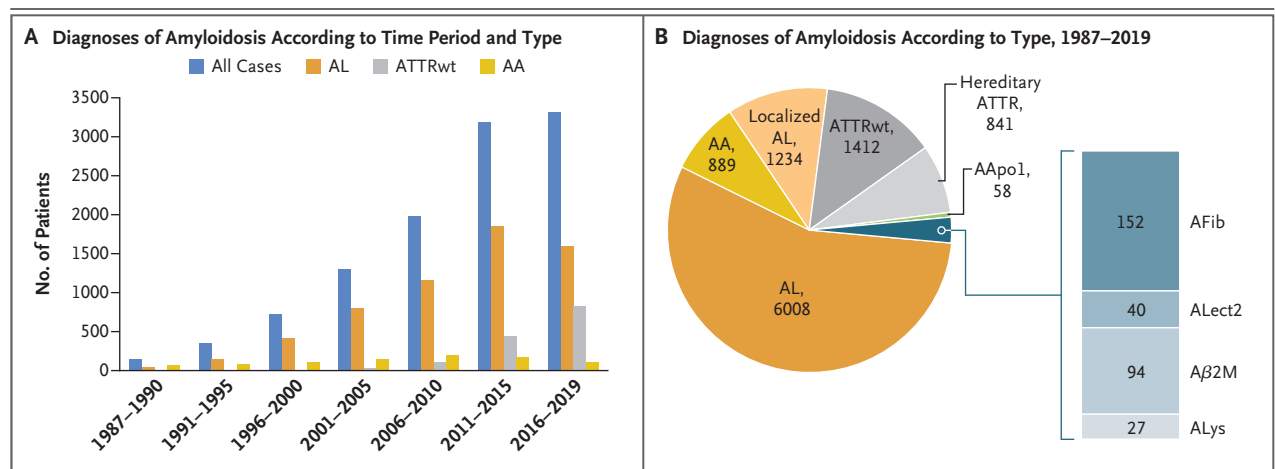
Figure 1. Diagnoses of Amyloidosis over Three Decades and Amyloidosis Types.

Panel A shows data for 11,006 cases of amyloidosis diagnosed from 1987 to 2019. Panel B shows data for the 10,755 cases for which fibril type could be determined accurately. AA denotes amyloid A, AApo1 amyloid apolipoprotein A-I, Aβ2M amyloid beta$_2$-microglobulin, AFib amyloid fibrinogen, ALect2 amyloid leukocyte chemotactic factor 2, AL light chain, ALys amyloid lysozyme, ATTR transthyretin-associated, and ATTRwt wild-type ATTR.

Exhibit 28

U.S. ELECTION ASSISTANCE COMMISSION (/)

Election Management Resources

VENDOR AND MANUFACTURER GUIDANCE ON CLEANING VOTING MACHINES AND OTHER ELECTION TECHNOLOGY

Clear Ballot

- **Best Practices for Device Cleaning** - This document includes polling place infrastructure, ClearVote ballot tabulation and marking devices, and poll worker hygiene.

Dominion Voting

- Customer Notification: **COVID-19 ("Coronavirus") Information** – This document provides best practices on cleaning and sanitizing voting equipment, ImageCAST Tabulator surface cleaning instructions, and warnings about the use of other cleaning methods.

ES&S

- **Best Practices for Cleaning and Disinfecting Equipment** – This document outlines tips for cleaning voting system equipment. To help maintain a sanitary voting environment and keep the terminal operating at maximum efficiency, complete the following steps. These steps apply to all ES&S devices that have a touch screen and may be conducted while the device is running.

Hart InterCivic

- **Hart Equipment Cleaning Recommendations** – This guide provides guidance on cleaning Hart election equipment and other recommendations for voting locations.

MicroVote

- **Cleaning and Disinfecting Infinity Voting Equipment** – These are the cleaning procedures for the MicroVote Infinity voting panel but they apply equally to all electronic products in the MicroVote system for purposes of disinfection.

Robis Elections Inc.

- **AskED Best Practices for Sanitary ePollbook Use** – This document provides guidelines for e-pollbook cleaning.and sanitary e-pollbook use.

Runbeck Election Services

- **RES Cleaning Guidelines** - This document provides guidelines for disinfecting and sanitizing equipment to promote a clean environment during the election process. The following guidelines are applicable to the Agilis, AgilisDuo, Sentio and Novus equipment. Additional information on Runbeck's response to the COVID-19 pandemic can be found **here (https://runbeck.net/covid-19-impact/)**.

Unisyn

- **Preventing the Spread of COVID-19 in Election Polling Locations** – This document includes the recommended three-step approach to preventing the spread of illnesses like COVID-19 and the flu in election polling locations.

VR Systems

- **Best Practices for COVID-19 Precautions**   - The EViD cleaning guidance in this document, is what VR Systems recommends to prevent the spread of COVID-19, in conjunction with **CDC guidance for election polling locations (https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html)**.

Exhibit 29

Best Practices for COVID-19

Best Practices for Cleaning & Disinfecting Equipment

First and foremost, ES&S shares its concern and empathy regarding the health and safety of all, including U.S. registered voters and poll workers.

To be as helpful as possible in this unprecedented situation, ES&S is reminding customers, below, of instructions for cleaning and disinfecting voting equipment, as well as providing voters and poll workers a link to government recommendations for staying safe while voting.

The Centers for Disease Control and Prevention (CDC) recommends the best way to protect your health while visiting any polling place is to use hand sanitizer and wash hands as soon as possible. Frequent and thorough hand washing remains the most effective protection against Coronavirus infection, according to the CDC. Voters should use antibacterial hand sanitizer before and after their voting session and be instructed to wash their hands after voting, regardless of what method of voting they use.

With the high volume of voters using a machine, equipment surfaces get smudged and dirty. Use these procedures throughout Election Day to help maintain a sanitary voting environment and keep the equipment operating at maximum efficiency.

CLEANING & DISINFECTING PROCEDURES FOR ES&S EQUIPMENT

These procedures apply to all ES&S devices. Procedures may be used on all surfaces including touch screens, ADA peripherals, input trays, ballot boxes, stands and external surfaces of the equipment. Following these steps will clean and disinfect. These steps may be conducted while the device is running, but must only be applied to external surfaces.

Required Supplies:	Use one of the following options: • Soft, lint-free cloth with isopropyl alcohol (70% or less) • ES&S Touch Screen Cleaning Kit • Alcohol wipes
Required Staff:	One trained poll worker

1. To clean and disinfect the external surfaces of the device:

   a. Lightly dampen (do not soak) a soft, lint-free cloth with isopropyl alcohol.

   b. Using gentle pressure and circular motions, wipe the surface until clean. To disinfect, maintain contact with the surface for a sustained duration; between 30 seconds and 10 minutes depending on the product.

Caution	For the ExpressVote XL, the touch screen manufacturer recommends disinfectants do NOT touch the black sensor tracks along the edges of the screen. Exposing the sensors to disinfectants may damage the entire touch screen. Instead, focus cleaning on the areas where voters come in contact with the touch screen.
Important	Be careful not to scratch touch screens.

ADDITIONAL MANUFACTURER-APPROVED DISINFECTANTS

In addition to the supplies listed in the previous section, the following disinfectants are manufacturer-approved for use as other product options. ES&S is sharing this list directly from our touch screen manufacturers. Inclusion on this list does not guarantee the product is rated for COVID-19.

Important	Products marked with an asterisk meet the EPA's criteria for use against SARS-CoV-2, the cause of COVID-19. Check the EPA website regularly for an updated list of approved products. ES&S will continue to update this document as new information becomes available.

For ExpressVote®, DS200®, DS450®, DS850®, ExpressTouch®, EP5000®, AutoMark®, and iVotronic® touch screens:

- Household bleach solution (1/3 cup bleach per gallon of water)*
- Clorox® Disinfecting Wipes
- Clorox® Healthcare Bleach Germicidal Wipes
- Clorox® Commercial Solutions Hydrogen Peroxide Cleaner Disinfectant Wipes
- Lonzagard® Disinfectant Wipes
- Lysol® Brand Clean & Fresh Multi Surface Cleaner (20% cleaner solution to water ratio)
- Purell® Professional Surface Disinfectant Wipes
- Sani-Cloth® Prime Germicidal Disposable Wipes*

For ExpressPoll® touch screens:

- PDI Sani-Cloth® Plus
- Covidien™ Alcohol Prep pads
- CaviWipes™
- Clorox Healthcare® Bleach Germicidal Wipes
- Total Solutions® Disinfectant Wipes

CLEANING PROCEDURES BEFORE AND AFTER STORAGE

When you first bring your equipment out of storage, or when you prepare to return it to storage, additional cleaning procedures may be applied. See the System Maintenance Manual for your product(s) for more information.

CLEANING PRECAUTIONS

To ensure the equipment is not damaged during cleaning, remember these precautions.

Warning	• Do NOT use full-strength, harsh detergents, liquid cleaners, aerosols, abrasive pads, scouring powders, or solvents, such as benzene, unless otherwise noted. Disinfectant sprays, such as Lysol, are not permitted and will damage the touch screen. • Avoid highly concentrated solutions (alcohol exceeding 70%, bleach or ammonia) as these may cause discoloration. • Liquids should never be applied directly to the unit. • Do not soak the cloth with solution so that moisture drips or lingers on the external surface.
Caution	• Prolonged exposure to alcohol will disinfect the equipment, but may remove the sheen on plastic surfaces. This will not effect the structural integrity of the equipment. • Do not allow cleaning solutions to come in contact with ballot stock.
Important	• ES&S cannot make a determination of the effectiveness of a given disinfectant product contained herein in fighting pathogens, such as COVID-19. Please refer to federal and local public health authority's guidance on how to stay safe from potential infection.

APPLICABLE VERSIONS

- All ES&S voting systems

Exhibit 30

Election Calendar

The 2020 Pennsylvania Elections Calendar

All dates in this calendar are subject to change without notice.

Date	Event
May 18, 2020	Last day to <u>REGISTER TO VOTE</u> before the primary
May 26, 2020	Last day to apply for a <u>mail-in or civilian absentee ballot</u>
June 2, 2020	Last day for <u>County Boards of Elections</u> to receive voted mail-in and civilian absentee ballots (**must be received by 8 P.M.**)
June 2, 2020	**GENERAL PRIMARY** Polls are open from 7 A.M. to 8 P.M.
June 3, 2020	First day to <u>REGISTER TO VOTE</u> after primary
June 9, 2020	Last day for <u>County Boards of Elections</u> to receive voted <u>military and overseas absentee ballots</u> (submitted for delivery no later than 11:59 P.M. on June 1)
August 3, 2020	Last day to circulate and file nomination papers
August 10, 2020	Last day for withdrawal by candidates nominated by nomination papers
August 10, 2020	Last day for withdrawal by candidates nominated at the primary
October 19, 2020	Last day to REGISTER before the November election

Date	Event
October 27, 2020	Last day to apply for a mail-in or civilian absentee ballot
November 3, 2020	Last day for County Boards of Elections to receive voted mail-in and civilian absentee ballots (must be received by 8 P.M.)
November 3, 2020	**GENERAL ELECTION** Polls are open from 7 A.M. to 8 P.M.
November 4, 2020	First day to register AFTER November election
November 10, 2020	Last day for County Boards of Elections to receive voted military and overseas absentee ballots (submitted for delivery no later than 11:59 P.M. on November 2)

Exhibit 31

PENNSYLVANIA ELECTION CODE - OMNIBUS AMENDMENTS

Act of Mar. 27, 2020, P.L. 41, No. 12   Cl. 25

Session of 2020
No. 2020-12

SB 422

AN ACT

Amending the act of June 3, 1937 (P.L.1333, No.320), entitled
"An act concerning elections, including general, municipal,
special and primary elections, the nomination of candidates,
primary and election expenses and election contests;
creating and defining membership of county boards of
elections; imposing duties upon the Secretary of the
Commonwealth, courts, county boards of elections, county
commissioners; imposing penalties for violation of the act,
and codifying, revising and consolidating the laws relating
thereto; and repealing certain acts and parts of acts
relating to elections," in preliminary provisions, further
providing for definitions; in county boards of elections,
further providing for powers and duties of county boards; in
ballots, further providing for forms of ballots, printing
ballots, numbers; in electronic voting systems, further
providing for forms, for election day procedures and the
process of voting and for post election procedures; in
preparation for and conduct of primaries and elections,
further providing for manner of applying to vote, persons
entitled to vote, voter's certificates, entries to be made
in district register, numbered lists of voters, challenges
and for deadline for receipt of valid voter registration
application; in voting by qualified absentee electors,
further providing for applications for official absentee
ballots, for approval of application for absentee ballot,
for absentee and mail-in electors files and lists, for
official absentee voters ballots, for envelopes for official
absentee ballots, for delivering or mailing ballots, for
voting by absentee electors, for canvassing of official
absentee ballots and mail-in ballots and for public records
and repealing provisions relating to violation of provisions
relating to absentee voting; in voting by qualified mail-in
electors, further providing for qualified mail-in electors,
for applications for official mail-in ballots, for approval
of application for mail-in ballot, for official mail-in
elector ballots, for envelopes for official mail-in ballots,
for voting by mail-in electors and for public records and
repealing provisions relating to violation of provisions
relating to mail-in voting; providing for Pennsylvania
Election Law Advisory Board; in penalties, further providing
for violations of provisions relating to absentee electors
ballots; providing for emergency provisions for 2020 general
primary election; and making a related repeal.

    The General Assembly of the Commonwealth of Pennsylvania
hereby enacts as follows:

    Section 1. Section 102(a.1) and (z.6) of the act of June 3,
1937 (P.L.1333, No.320), known as the Pennsylvania Election
Code, added October 31, 2019 (P.L.552, No.77), are amended and
the section is amended by adding a subsection to read:
    Section 102. Definitions.--The following words, when used
in this act, shall have the following meanings, unless

otherwise clearly apparent from the context:
    * * *
    (a.1) ["Canvass" includes] **The word "canvass" shall mean
the** gathering [the] **of** ballots after the [election] **final pre-
canvass meeting** and **the** counting, computing and tallying **of** the
votes **reflected on the ballots.**
    * * *
    **(q.1)   The word "pre-canvass" shall mean the inspection and
opening of all envelopes containing official absentee ballots
or mail-in ballots, the removal of such ballots from the
envelopes and the counting, computing and tallying of the votes
reflected on the ballots. The term does not include the
recording or publishing of the votes reflected on the ballots.**
    * * *
    (z.6)   The words "qualified mail-in elector" shall mean a
qualified elector [who is not a qualified absentee elector.].
**The term does not include a person specifically prohibited from
being a qualified absentee elector under section 1301.**
    Section 2. Section 302(p) of the act is amended to read:
    Section 302. Powers and Duties of County Boards.--The
county boards of elections, within their respective counties,
shall exercise, in the manner provided by this act, all powers
granted to them by this act, and shall perform all the duties
imposed upon them by this act, which shall include the
following:
    * * *
    (p) A county board of elections shall not pay compensation
to a judge of elections who wilfully fails to deliver by two
o'clock A. M. on the day following the election envelopes;
supplies, including all uncast provisional ballots; and
returns, including all provisional ballots [and absentee
ballots] cast in the election district **and statements signed
under sections 1306 and 1302-D.**
    Section 3. Section 1004 of the act, amended October 31,
2019 (P.L.552, No.77) and November 27, 2019 (P.L.673, No.94),
is amended to read:
    Section 1004. Form of Ballots; Printing Ballots[;
Numbers].--From the lists furnished by the Secretary of the
Commonwealth under the provisions of sections 915 and 984, and
from petitions and papers filed in their office, the county
election board shall print the official primary and election
ballots in accordance with the provisions of this act:
Provided, however, That in no event, shall the name of any
person consenting to be a candidate for nomination for any one
office, except the office of judge of a court of common pleas,
the Philadelphia Municipal Court or the office of school
director in districts where that office is elective or the
office of justice of the peace be printed as a candidate for
such office upon the official primary ballot of more than one
party. All ballots for use in the same election district at any
primary or election shall be alike. [They shall be at least six
inches long and four inches wide, and shall have a margin
extending beyond any printing thereon. They shall be printed
with the same kind of type (which shall not be smaller than the
size known as "brevier" or "eight point body") upon white paper
of uniform quality, without any impression or mark to
distinguish one from another, and with sufficient thickness to
prevent the printed matter from showing through. All the
ballots for the same election district shall be bound together
in books of fifty, in such manner that each ballot may be
detached and removed separately. The ballots for each party to
be used at a primary shall be bound separately.]
    Section 4. Sections 1109-A(a)(2), (b) and (e) and 1112-A(b)
(2), (3) and (4) of the act, amended October 31, 2019 (P.L.552,

No.77), are amended to read:
    Section 1109-A. Forms.--(a) * * *
    (2) The pages placed on the voting device shall be of
sufficient number to include, following the listing of
particular candidates, the names of candidates for any
nonpartisan offices and any measures for which a voter may be
qualified to vote on a given election day.[, provided further
that for municipal, general or special elections, the first
ballot page shall list in the order that such political parties
are entitled to priority on the ballot, the names of such
political parties.]
    * * *
    (b) Ballot labels shall be printed in plain clear type [in
black ink], of such size and arrangement as to fit the
construction of the voting device; and they shall be printed
[on clear white material or on material of different colors to
identify different ballots or parts of the ballot and in
primary elections to identify each political party.] **in a
manner prescribed by the Secretary of the Commonwealth to
identify different ballots or parts of a ballot and in primary
elections to identify each political party.**
    * * *
    (e) In primary elections, the Secretary of the Commonwealth
shall [choose a color for each party eligible to have
candidates on the ballot and a separate color for independent
voters. The ballot cards or paper ballots and ballot pages
shall be printed on card or paper stock of the color of the
party of the voter and the appropriate party affiliation or
independent status shall be printed on the ballot card or at
the top of the paper ballot and on the ballot pages.] **prescribe
a method to ensure that the elector votes the correct ballot.**
    * * *
    Section 1112-A. Election Day Procedures and the Process of
Voting.--* * *
    (b) In an election district which uses an electronic voting
system which utilizes paper ballots or ballot cards to register
the votes, the following procedures will be applicable for the
conduct of the election at the election district:
    * * *
    (2) At primary elections, the voter shall vote for the
candidates of his choice for nomination, according to the
number of persons to be voted for by him, for each office by
making a cross (X) or check (✓) mark or by making a punch or
mark sense mark in the square opposite the name of the
candidate **or by otherwise indicating a selection associated
with the candidate,** or he may so [mark the write-in position
provided on the ballot for the particular office] **indicate on
the ballot that the voter is electing to write in the name of a
person for the particular office,** and[, in the space provided
therefor on the ballot and/or ballot envelope, write] **insert**
the identification of the office in question and the name of
any person not already [printed on the ballot for that office]
listed as a candidate for that office, and such [mark]
indication and [written] insertion shall count as a vote for
that person for such office.
    (3) At all other elections, the voter shall vote for the
candidates of his choice for each office to be filled,
according to the number of persons to be voted for by him for
each office, by making a cross (X) or check (✓) mark or by
making a punch or mark sense mark in the square opposite the
name of the candidate, **or by otherwise indicating a selection
associated with the candidate,** or he may so [mark the write-in
position provided on the ballot for the particular office]
indicate on the ballot that the voter is electing to write in

the name of a person for the particular office, and[, in the space provided therefor on the ballot and/or ballot envelope, write] **insert** the identification of the office in question and the name of any person not already [printed on the ballot for that office] **listed as a candidate for that office**, and such [mark] **indication** and [written] insertion shall count as a vote for that person for such office.

(4) If he desires to vote for the entire group of presidential electors nominated by any party or political body, he may make a cross (X) or check (✓) or punch or mark sense mark [in the appropriate space opposite] **or otherwise indicate a selection associated with** the names of the candidates for President and Vice-President of such party or body. If he desires to vote a ticket for presidential electors made up of the names of persons nominated by different parties or political bodies, or partially of names of persons so in nomination and partially of names of persons not in nomination by any party or political body, or wholly of names of persons not in nomination by any party or political body, he shall insert[, by writing or stamping,] the names of the candidates for presidential electors for whom he desires to vote [in the blank spaces provided therefor] on the write-in ballot under the title of the office "Presidential Electors". In case of a question submitted to the vote of the electors, he may make a cross (X) or check (✓) or punch or mark sense mark [in the appropriate square opposite] **or otherwise indicate a selection associated with** the answer which he desires to give.
      * * *
    Section 5. Section 1113-A(i) of the act is amended to read:
    Section 1113-A. Post Election Procedures.--* * *
    (i) In the event that district tabulation of votes is not provided for by the voting system, it shall be the responsibility of the county board of elections to make available to the public at the central tabulating center, the election results for each election district. [It shall be the further duty of the county board of elections to post such results in each election district no later than 5:00 p.m. of the second day following the election.]
      * * *
    Section 6. Section 1210(a.4)(1) of the act, amended October 31, 2019 (P.L.552, No.77), is amended to read:
    Section 1210. Manner of Applying to Vote; Persons Entitled to Vote; Voter's Certificates; Entries to Be Made in District Register; Numbered Lists of Voters; Challenges.--* * *
    (a.4) (1) At all elections an individual who claims to be properly registered and eligible to vote at the election district but whose name does not appear on the district register and whose registration cannot be determined by the inspectors of election or the county election board shall be permitted to cast a provisional ballot. Individuals who appear to vote shall be required to produce proof of identification pursuant to subsection (a) and if unable to do so shall be permitted to cast a provisional ballot. An individual presenting a judicial order to vote shall be permitted to cast a provisional ballot. [An elector who appears to vote on election day having requested an absentee ballot or mail-in ballot and who is not shown on the district register as having voted an absentee ballot or mail-in ballot shall be permitted to cast a provisional ballot.]
      * * *
    Section 7. Section 1231(c)(2) of the act, added October 31, 2019 (P.L.552, No.77), is amended and the section is amended by adding a subsection to read:

    Section 1231. Deadline for Receipt of Valid Voter
Registration Application.--* * *
    (c) * * *
    [(2) No applications shall be received as follows:
    (i) On Sundays.
    (ii) On holidays.
    (iii) On the day of the election.
    (iv) During the fifteen days next preceding each general,
municipal and primary election except as provided under
subsection (b).]
    * * *
    **(e) (1) An applicant whose voter registration application
is timely received under subsection (b) or (c) shall be deemed
a registered elector of the county immediately upon acceptance
of the voter registration application by the commission under
25 Pa.C.S. § 1328(c)(1) or (2) (relating to approval of
registration applications), and the commission shall enter the
elector's registration information in the general register,
with the elector's unique identification number entered as his
or her SURE registration number.**
    **(2) Notwithstanding 25 Pa.C.S. § 1328(b)(2), if under
subsection (b) or (c) an applicant timely presents his or her
own application for voter registration under 25 Pa.C.S. § 1322
(relating to in-person voter registration), the commission
shall immediately examine the application pursuant to 25
Pa.C.S. § 1328(a) and shall, while the applicant waits,
promptly decide on said application by either accepting it,
rejecting it or forwarding it pursuant to 25 Pa.C.S. § 1328(b)
and, if accepted,** process the application in accordance with 25
Pa.C.S. § 1328(c).
    Section 8. Sections 1302(e.1) and (i)(1), 1302.2(c) and (e)
and 1302.3(a), amended October 31, 2019 (P.L.552, No.77), are
amended to read:
    Section 1302. Applications for Official Absentee Ballots.--
* * *
    (e.1) Any qualified registered elector who is unable
because of illness or physical disability to attend his polling
place on the day of any primary or election or operate a voting
machine and state distinctly and audibly that he is unable to
do so as required by section 1218 of this act may **at any time
request,** with the certification by his attending physician that
he is permanently disabled[,] and physically unable to attend
the polls or operate a voting machine and make the distinct and
audible statement required by section 1218 appended to the
application hereinbefore required, **to** be placed on a
permanently disabled absentee ballot list file. An absentee
ballot application shall be mailed to every such person
otherwise eligible to receive one, by the first Monday in
February each year, **or within forty-eight hours of receipt of
the request, whichever is later,** so long as he does not lose
his voting rights by failure to vote as otherwise required by
this act. Such person shall not be required to file a
physician's certificate of disability with each application as
required in subsection (e) of this section. Should any such
person lose his disability he shall inform the county board of
elections of the county of his residence. An absentee ballot
application mailed to [a voter] **an elector** under this section,
which is completed and timely returned by the [voter] **elector,**
shall serve as an application for any and all primary, general
or special elections to be held in the remainder of that
calendar year and for all special elections to be held before
the third Monday in February of the succeeding year. **The
transfer of a qualified registered elector on a permanently
disabled absentee ballot list from one county to another county**

**shall only be permitted upon the request of the qualified
registered elector.**
    * * *
    (i) (1) Application for official absentee ballots shall be
on physical and electronic forms prescribed by the Secretary of
the Commonwealth. The application shall state that an elector
who [receives and votes] **applies for** an absentee ballot
pursuant to section 1301 shall not be eligible to vote at a
polling place on election day[.] **unless the elector brings the
elector's absentee ballot to the elector's polling place,
remits the ballot and the envelope containing the declaration
of the elector to the judge of elections to be spoiled and
signs a statement subject to the penalties of 18 Pa.C.S. § 4904
(relating to unsworn falsification to authorities) to the same
effect.** Such physical application forms shall be made freely
available to the public at county board of elections, municipal
buildings and at such other locations designated by the
secretary. Such electronic application forms shall be made
freely available to the public through publicly accessible
means. No written application or personal request shall be
necessary to receive or access the application forms. Copies
and records of all completed physical and electronic
applications for official absentee ballots shall be retained by
the county board of elections.
    * * *
    Section 1302.2. Approval of Application for Absentee
Ballot.--
    * * *
    (c) The county board of elections, upon receipt of any
application of a qualified elector required to be registered
under the provisions of preceding section 1301, shall determine
the qualifications of such applicant by verifying the proof of
identification and comparing the information set forth on such
application with the information contained on the applicant's
permanent registration card. If the board is satisfied that the
applicant is qualified to receive an official absentee ballot,
the application shall be marked "approved." Such approval
decision shall be final and binding, except that challenges may
be made only on the ground that the applicant [did not possess
the qualifications of an absentee] **was not a qualified** elector.
Such challenges must be made to the county board of elections
prior to [the applicable deadline for the absentee ballots to
be received, as provided in section 1308(g). When so approved,
the registration commission shall cause an absentee voter's
temporary registration card to be inserted in the district
register on top of and along with the permanent registration
card. The absentee voter's temporary registration card shall be
in the color and form prescribed in subsection (e) of this
section:
    Provided, however, That the duties of the county boards of
elections and the registration commissions with respect to the
insertion of the absentee voter's temporary registration card
of any elector from the district register as set forth in
section 1302.2 shall include only such applications and
emergency applications as are received on or before the first
Tuesday prior to the primary or election. In all cases where
applications are received after the first Tuesday prior to the
primary or election and before eight o'clock P.M. on the day of
the primary or election, the county board of elections shall
determine the qualifications of such applicant by verifying the
proof of identification and comparing the information set forth
on such application with the information contained on the
applicant's duplicate registration card on file in the General
Register (also referred to as the Master File) in the office of
the Registration Commission and shall cause the name and

residence (and at primaries, the party enrollment) to be
inserted in the Military, Veterans and Emergency Civilian
Absentee Voters File as provided in section 1302.3, subsection
(b).] **five o'clock p.m. on the Friday prior to the election:
Provided, however, That a challenge to an application for an
absentee ballot shall not be permitted on the grounds that the
elector used an application for an absentee ballot instead of
an application for a mail-in ballot or on the grounds that the
elector used an application for a mail-in ballot instead of an
application for an absentee ballot.**
          * * *
     [(e)   The absentee voter's temporary registration card shall
be in duplicate and the same size as the permanent registration
card, in a different and contrasting color to the permanent
registration card and shall contain the absentee voter's name
and address and shall conspicuously contain the words "Absentee
Voter."]
          * * *
     Section 1302.3.   Absentee and Mail-in Electors Files and
Lists.--[(a)   The county board of elections shall maintain at
its office a file containing the duplicate absentee voter's
temporary registration cards of every registered elector to
whom an absentee ballot has been sent. Such duplicate absentee
voter's temporary registration cards shall be filed by election
districts and within each election district in exact
alphabetical order and indexed. The registration cards and the
registration cards under section 1302.3-D so filed shall
constitute the Registered Absentee and Mail-in Voters File for
the Primary or Election of (date of primary or election) and
shall be kept on file for a period commencing the Tuesday prior
to the day of the primary or election until the day following
the primary or election or the day the county board of
elections certifies the returns of the primary or election,
whichever date is later. Such file shall be open to public
inspection at all times subject to reasonable safeguards, rules
and regulations.]
          * * *
     Section 9.   Section 1303(a) and (e), amended October 31,
2019 (P.L.552, No.77) and November 27, 2019 (P.L.673, No.94),
are amended to read:
     Section 1303.   Official Absentee Voters Ballots.--(a)   In
districts in which ballots are used, the ballots for use by
such absentee electors under the provisions of this act shall
be the official ballots printed in accordance with sections
1002 and 1003: Provided, however, That the county board of
elections when [detaching] **preparing** the official ballots for
absentee electors shall be required to track the name of the
applicant to which a ballot is being sent. The county board of
elections shall also be required to print, stamp or endorse [in
red color] upon such official ballots the words, Official
Absentee Ballot. Such ballots shall be distributed by such
boards as hereinafter provided.
          * * *
     (e)   The official absentee voter ballot shall state that [a
voter] **an elector** who receives an absentee ballot pursuant to
section 1301 and whose **voted** ballot is not timely received **by
the commission** and who, on election day, is capable of voting
at the appropriate polling place may only vote on election day
by provisional ballot[.] **unless the elector brings the
elector's absentee ballot to the elector's polling place,
remits the ballot and the envelope containing the declaration
of the elector to the judge of elections to be spoiled and
signs a statement subject to the penalties under 18 Pa.C.S. §**

4904 (relating to unsworn falsification to authorities) to the same effect.

Section 10. Section 1304 of the act is amended to read:

Section 1304. Envelopes for Official Absentee Ballots.--
The county boards of election shall provide two additional envelopes for each official absentee ballot of such size and shape as shall be prescribed by the Secretary of the Commonwealth, in order to permit the placing of one within the other and both within the mailing envelope. On the smaller of the two envelopes to be enclosed in the mailing envelope shall be printed, stamped or endorsed the words "Official [Absentee] **Election** Ballot," and nothing else. On the larger of the two envelopes, to be enclosed within the mailing envelope, shall be printed the form of the declaration of the elector, and the name and address of the county board of election of the proper county. The larger envelope shall also contain information indicating the local election district of the absentee voter. Said form of declaration and envelope shall be as prescribed by the Secretary of the Commonwealth and shall contain among other things a statement of the electors qualifications, together with a statement that such elector has not already voted in such primary or election. The mailing envelope addressed to the elector shall contain the two envelopes, the official absentee ballot, lists of candidates, when authorized by section 1303 subsection (b) of this act, the uniform instructions in form and substance as prescribed by the Secretary of the Commonwealth and nothing else.[: Provided, however, That envelopes for electors qualified under preceding section 1301, subsections (a) to (h), inclusive, shall have printed across the face of each transmittal or return envelope two parallel horizontal red bars, each one-quarter inch wide, extending from one side of the envelope to the other side, with an intervening space of one-quarter inch, the top bar to be one and one-quarter inches from the top of the envelope and with the words "Official Election Balloting Material via Air Mail" between the bars; that there be printed, in the upper right corner of each such envelope in a box, the words "Free of U. S. Postage, Including Air Mail;" that all printing on the face of each such envelope be in red, and that there be printed in red, in the upper left corner of each such envelope, the name and address of the county board of elections of the proper county or blank lines for return address of the sender:

Provided further, That the aforesaid envelope addressed to the elector may contain absentee registration forms where required, and shall contain detailed instructions on the procedures to be observed in casting an absentee ballot as prescribed by the Secretary of the Commonwealth, together with return envelope upon which is printed the name and address of the registration commission of the proper county, which envelope shall have printed across the face two parallel horizontal red bars, each one-quarter inch wide, extending from one side of the envelope to the other side, with an intervening space of one-quarter inch, the top bar to be one and one-quarter inches from the top of the envelope and with the words "Official Election Balloting Material via Air Mail" between the bars; that there be printed in the upper right corner of each such envelope in a box the words "Free of U. S. Postage, Including Air Mail," and, in the upper left corner of each such envelope, blank lines for return address of the sender; that all printing on the face of each such envelope be in red.]

Section 11. Sections 1306(a) introductory paragraph and (b), 1308(g) and 1309(c) of the act, amended or added October 31, 2019 (P.L.552, No.77), are amended to read:

Section 1306. Voting by Absentee Electors.--(a) Except as provided in paragraphs (2) and (3), at any time after receiving

an official absentee ballot, but on or before eight o'clock P.M. the day of the primary or election, the elector shall, in secret, proceed to mark the ballot only in black lead pencil, indelible pencil or blue, black or blue-black ink, in fountain pen or ball point pen, and then fold the ballot, enclose and securely seal the same in the envelope on which is printed, stamped or endorsed "Official [Absentee] **Election** Ballot." This envelope shall then be placed in the second one, on which is printed the form of declaration of the elector, and the address of the elector's county board of election and the local election district of the elector. The elector shall then fill out, date and sign the declaration printed on such envelope. Such envelope shall then be securely sealed and the elector shall send same by mail, postage prepaid, except where franked, or deliver it in person to said county board of election.
    * * *
    (b) (1) Any elector who receives and votes an absentee ballot pursuant to section 1301 shall not be eligible to vote at a polling place on election day. The district register at each polling place shall clearly identify electors who have received and voted absentee ballots as ineligible to vote at the polling place, and district election officers shall not permit electors who voted an absentee ballot to vote at the polling place.
    (2) An elector who requests an absentee ballot and who is not shown on the district register as having voted the ballot may vote by provisional ballot under section 1210(a.4)(1).
    (3) Notwithstanding paragraph (2), an elector who requests an absentee ballot and who is not shown on the district register as having voted the ballot may vote at the polling place if the elector remits the ballot and the envelope containing the declaration of the elector to the judge of elections to be spoiled and the elector signs a statement subject to the penalties under 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) in substantially the following form:
    I hereby declare that I am a qualified registered elector who has obtained an absentee ballot or mail-in ballot. I further declare that I have not cast my absentee ballot or mail-in ballot, and that instead I remitted my absentee ballot or mail-in ballot and the envelope containing the declaration of the elector to the judge of elections at my polling place to be spoiled and therefore request that my absentee ballot or mail-in ballot be voided.
    (Date)
    (Signature of Elector)................(Address of Elector)
    (Local Judge of Elections)
    * * *
    Section 1308. Canvassing of Official Absentee Ballots and Mail-in Ballots.--* * *
    (g) (1) (i) An absentee ballot cast by any absentee elector as defined in section 1301(a), (b), (c), (d), (e), (f), (g) and (h) shall be canvassed in accordance with this subsection if the ballot is cast, submitted and received in accordance with the provisions of 25 Pa.C.S. Ch. 35 (relating to uniform military and overseas voters).
    (ii) An absentee ballot cast by any absentee elector as defined in section 1301(i), (j), (k), (l), (m) and (n), an absentee ballot under section 1302(a.3) or a mail-in ballot cast by a mail-in elector shall be canvassed in accordance with this subsection if the absentee ballot or mail-in ballot is received in the office of the county board of elections no later than eight o'clock P.M. on the day of the primary or election.

(1.1) The county board of elections shall meet no earlier than seven o'clock A.M. on election day to pre-canvass all ballots received prior to the meeting. A county board of elections shall provide at least forty-eight hours' notice of a pre-canvass meeting by publicly posting a notice of a pre-canvass meeting on its publicly accessible Internet website. One authorized representative of each candidate in an election and one representative from each political party shall be permitted to remain in the room in which the absentee ballots and mail-in ballots are pre-canvassed. No person observing, attending or participating in a pre-canvass meeting may disclose the results of any portion of any pre-canvass meeting prior to the close of the polls.

(2) The county board of elections shall meet no earlier than the close of polls on the day of the election and no later than the third day following the election to begin canvassing [the] absentee ballots and mail-in ballots [received under this subsection and subsection (h)(2).]**not included in the pre-canvass meeting. The meeting under this paragraph shall continue until all absentee ballots and mail-in ballots received prior to the close of the polls have been canvassed. The county board of elections shall not record or publish any votes reflected on the ballots prior to the close of the polls.** The canvass **process** shall continue through the eighth day following the election[.] **for valid military-overseas ballots timely received under 25 Pa.C.S. § 3511 (relating to receipt of voted ballot). A county board of elections shall provide at least forty-eight hours' notice of a canvass meeting by publicly posting a notice on its publicly accessible Internet website.** One authorized representative of each candidate in an election and one representative from each political party shall be permitted to remain in the room in which the absentee ballots and mail-in ballots are canvassed. [Representatives shall be permitted to challenge any absentee elector or mail-in elector in accordance with the provisions of paragraph (3).]

(3) When the county board meets to **pre-canvass or** canvass absentee ballots and mail-in ballots under [paragraph] **paragraphs (1), (1.1) and** (2), the board shall examine the declaration on the envelope of each ballot not set aside under subsection (d) and shall compare the information thereon with that contained in the "Registered Absentee and Mail-in Voters File," the absentee voters' list and/or the "Military Veterans and Emergency Civilians Absentee Voters File," whichever is applicable. If the county board has verified the proof of identification as required under this act and is satisfied that the declaration is sufficient and the information contained in the "Registered Absentee and Mail-in Voters File," the absentee voters' list and/or the "Military Veterans and Emergency Civilians Absentee Voters File" verifies his right to vote, the county board shall [announce the name of the elector and shall give any candidate representative or party representative present an opportunity to challenge any absentee elector or mail-in elector upon the ground or grounds: (i) that the absentee elector or mail-in elector is not a qualified elector; or (iii) that the absentee elector was able to appear personally at the polling place on the day of the primary or election during the period the polls were open in the case his ballot was obtained for the reason that he was unable to appear personally at the polling place because of illness or physical disability. Upon challenge of any absentee elector, as set forth herein, the board shall mark "challenged" on the envelope together with the reasons therefor, and the same shall be set aside unopened pending final determination of the challenge according to the procedure described in paragraph (5).] **provide**

a list of the names of electors whose absentee ballots or mail-in ballots are to be pre-canvassed or canvassed.

(4)　All absentee ballots [and mail-in ballots not challenged for any of the reasons provided in] **which have not been challenged under section 1302.2(c) and all mail-in ballots which have not been challenged under section 1302.2-D(a)(2) and that have been verified under** paragraph (3) shall be counted and included with the returns of the applicable election district as follows:

(i)　The county board shall open the envelope of every unchallenged absentee elector and mail-in elector in such manner as not to destroy the declaration executed thereon.

(ii)　If any of the envelopes on which are printed, stamped or endorsed the words "Official [Absentee] **Election** Ballot" [or "Official Mail-in Ballot"] contain any [extraneous marks or identifying symbols,] **text, mark or symbol which reveals the identity of the elector, the elector's political affiliation or the elector's candidate preference**, the envelopes and the ballots contained therein shall be set aside and declared void.

(iii)　The county board shall then break the seals of such envelopes, remove the ballots and [record the votes.] **count, compute and tally the votes.**

(iv)　Following the close of the polls, the county board shall record and publish the votes reflected on the ballots.

(5)　[With respect to the challenged ballots, they] **Ballots received whose applications have been challenged and ballots which have been challenged** shall be placed unopened in a secure, safe and sealed container in the custody of the county board until it shall fix a time and place for a formal hearing of all such challenges, and notice shall be given where possible to all absentee electors and mail-in electors thus challenged and to every individual who made a challenge. The time for the hearing shall not be later than [five (5)] **seven (7)** days after the [date of the challenge] **deadline for all challenges to be filed.** On the day fixed for said hearing, the county board shall proceed without delay to hear said challenges, and, in hearing the testimony, the county board shall not be bound by the Pennsylvania Rules of Evidence. The testimony presented shall be stenographically recorded and made part of the record of the hearing.

(6)　The decision of the county board in upholding or dismissing any challenge may be reviewed by the court of common pleas of the county upon a petition filed by any person aggrieved by the decision of the county board. The appeal shall be taken, within two (2) days after the decision was made, whether the decision was reduced to writing or not, to the court of common pleas setting forth the objections to the county board's decision and praying for an order reversing the decision.

(7)　Pending the final determination of all appeals, the county board shall suspend any action in canvassing and computing all challenged ballots received under this subsection irrespective of whether or not appeal was taken from the county board's decision. Upon completion of the computation of the returns of the county, the votes cast upon the challenged official absentee ballots that have been finally determined to be valid shall be added to the other votes cast within the county.

* * *

Section 1309.　Public Records.--* * *

(c)　The county board shall compile the records listed under subsection (b) and make the records publicly available upon request within forty-eight hours **of the request.**

Section 12.　Section 1331 of the act is repealed:

[Section 1331. Violation of Provisions Relating to Absentee Voting.--(a) Except as provided in subsection (b), any person who shall violate any of the provisions of this act relating to absentee voting shall, unless otherwise provided, be subject to the penalties provided for in section 1850 of this act.
    (b) Any person who knowingly assists another person who is not a qualified absentee elector in filling out an absentee ballot application or absentee ballot commits a misdemeanor of the third degree.]
    Section 12.1. Sections 1301-D(a), 1302-D(f) and (g), 1302.2-D(a)(2), (3), (4) and (5), (b) and (d) and 1302.3-D of the act, added October 31, 2019 (P.L.552, No.77), are amended to read:
Section 1301-D. Qualified mail-in electors.
    (a) General rule.--[The following individuals] **A qualified mail-in elector** shall be entitled to vote by an official mail-in ballot in any primary or election held in this Commonwealth in the manner provided under this article.[:
        (1) Any qualified elector who is not eligible to be a qualified absentee elector under Article XIII.
        (2) (Reserved).]
    * * *
Section 1302-D. Applications for official mail-in ballots.
    * * *
    (f) Form.--Application for an official mail-in ballot shall be on physical and electronic forms prescribed by the Secretary of the Commonwealth. The application shall state that a voter who [receives and votes] **applies for** a mail-in ballot under section 1301-D shall not be eligible to vote at a polling place on election day[.] **unless the elector brings the elector's mail-in ballot to the elector's polling place, remits the ballot and the envelope containing the declaration of the elector to the judge of elections to be spoiled and signs a statement subject to the penalties under 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) to the same effect.** The physical application forms shall be made freely available to the public at county board of elections, municipal buildings and at other locations designated by the Secretary of the Commonwealth. The electronic application forms shall be made freely available to the public through publicly accessible means. No written application or personal request shall be necessary to receive or access the application forms. Copies and records of all completed physical and electronic applications for official mail-in ballots shall be retained by the county board of elections.
    (g) Permanent mail-in voting list.--
        (1) Any qualified registered elector may request to be placed on a permanent mail-in ballot list file **at any time during the calendar year**. A mail-in ballot application shall be mailed to every person otherwise eligible to receive a mail-in ballot application by the first Monday in February each year **or within 48 hours of receipt of the request, whichever is later**, so long as the person does not lose the person's voting rights by failure to vote as otherwise required by this act. A mail-in ballot application mailed to [a voter] **an elector** under this section, which is completed and timely returned by the [voter] **elector**, shall serve as an application for any and all primary, general or special elections to be held in the remainder of that calendar year and for all special elections to be held before the third Monday in February of the succeeding year.
        (2) The Secretary of the Commonwealth may develop an electronic system through which all qualified electors may apply for a mail-in ballot and request permanent mail-in

voter status under this section, provided the system is able
to capture a digitized or electronic signature of the
applicant. A county board of elections shall treat an
application or request received through the electronic
system as if the application or request had been submitted
on a paper form or any other format used by the county.
   **(3)   The transfer of a qualified registered elector on a
permanent mail-in voting list from one county to another
county shall only be permitted upon the request of the
qualified registered elector.**
Section 1302.2-D.   Approval of application for mail-in ballot.
   (a)   Approval process.--The county board of elections, upon
receipt of any application of a qualified elector under section
1301-D, shall determine the qualifications of the applicant by
verifying the proof of identification and comparing the
information provided on the application with the information
contained on the applicant's permanent registration card. The
following shall apply:
      * * *
      (2)   The approval decision shall be final and binding,
except that challenges may be made only on the grounds that
the applicant [did not possess the qualifications of a mail-
in] **was not a qualified** elector.
      (3)   Challenges must be made to the county board of
elections prior to [the applicable deadline for the mail-in
ballots to be received, as provided in section 1308(g).]
**five o'clock p.m. on the Friday prior to the election:
Provided, however, That a challenge to an application for a
mail-in ballot shall not be permitted on the grounds that
the elector used an application for a mail-in ballot instead
of an application for an absentee ballot or on the grounds
that the elector used an application for an absentee ballot
instead of an application for a mail-in ballot.**
      (4)   When approved, the registration commission shall
cause a mail-in voter's [temporary registration card] **record**
to be inserted in the district register [on top of and along
with the permanent registration card] **as prescribed by the
Secretary of the Commonwealth.**
      [(5)   The mail-in voter's temporary registration card
shall be in the color and form prescribed under subsection
(d).]
   (b)   Duties of county boards of elections and registration
commissions.--The duties of the county boards of elections and
the registration commissions with respect to the insertion of
the mail-in voter's [temporary registration card of any elector
from the district register as provided under this section]
record shall include only the applications as are received on
or before the first Tuesday prior to the primary or election.
      * * *
   [(d)   Temporary registration card.--The mail-in voter's
temporary registration card shall be in duplicate and the same
size as the permanent registration card, in a different and
contrasting color to the permanent registration card and shall
contain the mail-in voter's name and address and shall
conspicuously contain the words "Mail-in Voter."]
[Section 1302.3-D.   Mail-in electors files and lists.
   The county board of elections shall maintain at its office a
file containing the duplicate mail-in voter's temporary
registration cards of every registered elector to whom a mail-
in ballot has been sent. The duplicate mail-in voter's
temporary registration cards shall be filed by election
districts and within each election district in exact
alphabetical order and indexed. The registration cards filed
shall be included in the Registered Absentee and Mail-in Voters

File for the Primary or Election of (date of primary or
election) under section 1302.3(a).]
   Section 13. Section 1303-D(a.1) and (e), amended or added
October 31, 2019 (P.L.552, No.77) and November 27, 2019
(P.L.673, No.94), are amended to read:
Section 1303-D. Official mail-in elector ballots.
   * * *
   (a.1) Duties of county boards of elections.--The county
board of elections, when [detaching] **preparing** the official
ballots for mail-in voters, shall be required to indicate on
[the stub of each detached ballot the name of the applicant to
which that precise ballot is being sent.] **the voter's record
the identification number of specific ballot envelope into
which the voter's ballot is inserted.** The county board of
elections shall also [remove the numbered stub from each ballot
and shall] print, stamp or endorse [in red color] on the
official ballots the words, "Official Mail-in Ballot." The
ballots shall be distributed by a board as provided under this
section.
   * * *
   (e) Notice.--The official mail-in voter ballot shall state
that a voter who receives a mail-in ballot under section 1301-D
and whose **voted** mail-in ballot is not timely received may only
vote on election day by provisional ballot[.] **unless the
elector brings the elector's mail-in ballot to the elector's
polling place, remits the ballot and the envelope containing
the declaration of the elector to the judge of elections to be
spoiled and signs a statement subject to the penalties of 18
Pa.C.S. § 4904 (relating to unsworn falsification to
authorities) to the same effect.**
   Section 14. Sections 1304-D(a), 1305-D, 1306-D(a) and (b)
and 1307-D(c) of the act, added October 31, 2019 (P.L.552,
No.77), are amended to read:
Section 1304-D. Envelopes for official mail-in ballots.
   (a) Additional envelopes.--The county boards of election
shall provide two additional envelopes for each official mail-
in ballot of a size and shape as shall be prescribed by the
Secretary of the Commonwealth, in order to permit the placing
of one within the other and both within the mailing envelope.
On the smaller of the two envelopes to be enclosed in the
mailing envelope shall be printed, stamped or endorsed the
words "Official [Mail-in] **Election** Ballot," and nothing else.
On the larger of the two envelopes, to be enclosed within the
mailing envelope, shall be printed the form of the declaration
of the elector and the name and address of the county board of
election of the proper county. The larger envelope shall also
contain information indicating the local election district of
the mail-in voter.
   * * *
Section 1305-D. Delivering or mailing ballots.
   The county board of elections, upon receipt and approval of
an application filed by a qualified elector under section 1301-
D, shall commence to deliver or mail official mail-in ballots
 as soon as a ballot is certified and the ballots are
available. While any proceeding is pending in a Federal or
State court which would affect the contents of any ballot, the
county board of elections may await a resolution of that
proceeding but in any event, shall commence to deliver or mail
official [absentee] **mail-in** ballots not later than the second
Tuesday prior to the primary or election. For applicants whose
proof of identification was not provided with the application
or could not be verified by the board, the board shall send the
notice required under section 1302.2-D(c) with the mail-in
ballot. As additional applications are received and approved,

the board shall deliver or mail official mail-in ballots to the
additional electors within 48 hours.
Section 1306-D. Voting by mail-in electors.
    (a) General rule.--At any time after receiving an official
mail-in ballot, but on or before eight o'clock P.M. the day of
the primary or election, the mail-in elector shall, in secret,
proceed to mark the ballot only in black lead pencil, indelible
pencil or blue, black or blue-black ink, in fountain pen or
ball point pen, and then fold the ballot, enclose and securely
seal the same in the envelope on which is printed, stamped or
endorsed "Official [Mail-in] **Election** Ballot." This envelope
shall then be placed in the second one, on which is printed the
form of declaration of the elector, and the address of the
elector's county board of election and the local election
district of the elector. The elector shall then fill out, date
and sign the declaration printed on such envelope. Such
envelope shall then be securely sealed and the elector shall
send same by mail, postage prepaid, except where franked, or
deliver it in person to said county board of election.
    * * *
    (b) Eligibility.--
        (1) Any elector who receives and votes a mail-in ballot
    under section 1301-D shall not be eligible to vote at a
    polling place on election day. The district register at each
    polling place shall clearly identify electors who have
    received and voted mail-in ballots as ineligible to vote at
    the polling place, and district election officers shall not
    permit electors who voted a mail-in ballot to vote at the
    polling place.
        (2) An elector who requests a mail-in ballot and who is
    not shown on the district register as having voted may vote
    by provisional ballot under section 1210(a.4)(1).
        **(3) Notwithstanding paragraph (2), an elector who
    requests a mail-in ballot and who is not shown on the
    district register as having voted the ballot may vote at the
    polling place if the elector remits the ballot and the
    envelope containing the declaration of the elector to the
    judge of elections to be spoiled and the elector signs a
    statement subject to the penalties of 18 Pa.C.S. § 4904
    (relating to unsworn falsification to authorities) which
    shall be in substantially the following form:**
    **I hereby declare that I am a qualified registered
elector who has obtained an absentee ballot or mail-in
ballot. I further declare that I have not cast my absentee
ballot or mail-in ballot, and that instead I remitted my
absentee ballot or mail-in ballot to the judge of elections
at my polling place to be spoiled and therefore request that
my absentee ballot or mail-in ballot be voided.**
    (Date)
    (Signature of Elector)   (Address of Elector)
    (Local Judge of Elections)
    * * *
Section 1307-D. Public records.
    * * *
    (c) Compilation.--The county board shall compile the
records listed under subsection (b) and make the records
publicly available upon request within 48 hours **of the request.**
    Section 14.1. Section 1308-D of the act is repealed:
[Section 1308-D. Violation of provisions relating to mail-in
            voting.
    (a) Penalties.--Except as provided under subsection (b), a
person who violates any of the provisions of this act relating
to mail-in voting shall, unless otherwise provided, be subject
to the penalties provided under section 1850.

(b)   Persons not qualified as mail-in voters.--A person who knowingly assists another person who is not a qualified mail-in voter in filling out a mail-in ballot application or mail-in ballot commits a misdemeanor of the third degree.]
    Section 15. The act is amended by adding an article to read:

ARTICLE XIII-E
PENNSYLVANIA ELECTION LAW ADVISORY BOARD

Section 1301-E. Definitions.
    The following words and phrases when used in this article shall have the meanings given to them in this section unless the context clearly indicates otherwise:
    "Board." The Pennsylvania Election Law Advisory Board established under section 1302-E(a).
Section 1302-E. Pennsylvania Election Law Advisory Board.
    (a)   Establishment.--The Pennsylvania Election Law Advisory Board is established within the Joint State Government Commission.
    (b)   Members.--The board shall be comprised of the following members:
        (1)   The Secretary of the Commonwealth or a designee.
        (2)   The President pro tempore of the Senate or a designee.
        (3)   The Minority Leader of the Senate or a designee.
        (4)   The Speaker of the House of Representatives or a designee.
        (5)   The Minority Leader of the House of Representatives or a designee.
        (6)   One member from each congressional district, of whom no more than half may be registered with the same political party, appointed by the Governor and confirmed by the Senate and which shall include members who:
            (i)   represent groups advocating for individuals with disabilities;
            (ii)   represent groups advocating for voting rights; and
            (iii)   represent county commissioners or county election officials.
    (c)   Duties.--The board shall have the following duties:
        (1)   Study this act and identify statutory language to repeal, modify or update.
        (2)   Collaborate with other agencies and political subdivisions of the Commonwealth to study election-related issues.
        (3)   Study the development of new election technology and voting machines.
        (4)   Evaluate and make recommendations on:
            (i)   improving the electoral process in this Commonwealth by amending this act or through regulations promulgated by the Department of State; and
            (ii)   implementing best practices identified to ensure the integrity and efficiency of the electoral process in this Commonwealth.
        (5)   By the end of each fiscal year, publish extensive and detailed findings on the Joint State Government Commission's publicly accessible Internet website and make them available in electronic format to the Office of the Governor and members of the General Assembly.
    (d)   Quorum.--A majority of appointed members shall constitute a quorum for the purpose of conducting business.
    (e)   Chairperson and vice chairperson.--The members shall select a member to be chairperson and another member to be vice chairperson.
    (f)   Transparency and ethics.--The board shall be subject to the following laws:

(1)   The act of July 19, 1957 (P.L.1017, No.451), known
as the State Adverse Interest Act.
(2)   The act of October 4, 1978 (P.L.883, No.170),
referred to as the Public Official and Employee Ethics Law.
(3)   The act of February 14, 2008 (P.L.6, No.3), known
as the Right-to-Know Law.
(4)   65 Pa.C.S. Ch. 7 (relating to open meetings).
(g)   Information gathering.--The board may conduct hearings
and otherwise gather relevant information and analysis that it
considers appropriate and necessary to fulfill its duties.
(h)   Reimbursement.--Members of the board shall be
reimbursed for reasonable expenses.
    Section 15.1.   Section 1853 of the act is amended to read:
    Section 1853.   Violations of Provisions Relating to Absentee
[Electors] and Mail-in Ballots.--If any person shall sign an
application for absentee ballot, mail-in ballot or declaration
of elector on the forms prescribed knowing any matter declared
therein to be false, or shall vote any ballot other than one
properly issued to [him] the person, or vote or attempt to vote
more than once in any election for which an absentee ballot or
mail-in ballot shall have been issued to [him] the person, or
shall violate any other provisions of Article XIII or Article
XIII-D of this act, [he] the person shall be guilty of a
misdemeanor of the [first] third degree, and, upon conviction,
shall be sentenced to pay a fine not exceeding [ten thousand
dollars ($10,000)] two thousand five hundred dollars ($2,500),
or be imprisoned for a term not exceeding [five (5)] two (2)
years, or both, at the discretion of the court.
    If any chief clerk or member of a board of elections, member
of a return board or member of a board of registration
commissioners, shall neglect or refuse to perform any of the
duties prescribed by Article XIII or Article XIII-D of this
act, or shall reveal or divulge any of the details of any
ballot cast in accordance with the provisions of Article XIII
or Article XIII-D of this act, or shall count an absentee
ballot or mail-in ballot knowing the same to be contrary to
Article XIII or Article XIII-D, or shall reject an absentee
ballot or mail-in ballot without reason to believe that the
same is contrary to Article XIII or Article XIII-D, or shall
permit an elector to cast [his] the elector's ballot at a
polling place knowing that there has been issued to the elector
an absentee ballot, [he] the elector shall be guilty of a
felony of the third degree, and, upon conviction, shall be
punished by a fine not exceeding fifteen thousand dollars
($15,000), or be imprisoned for a term not exceeding seven (7)
years, or both, at the discretion of the court.
    Section 16.   The act is amended by adding an article to
read:
                    ARTICLE XVIII-B
  EMERGENCY PROVISIONS FOR 2020 GENERAL PRIMARY ELECTION
Section 1801-B.   Election officers.
    (a)   Requirement.--
        (1)   Except as provided under paragraph (2), and
    notwithstanding section 402 or any other law of this
    Commonwealth, an election officer must be a qualified
    registered elector of the county in which the polling place
    is located.
        (2)   An election officer shall not be required to be a
    qualified registered elector in the election district in
    which the election officer is appointed.
    (b)   (Reserved).
Section 1802-B.   Polling place.
    (a)   Consolidation of polling places.--

(1)   A county board of elections may, not less than 20 days prior to the election, select and designate as the polling place for an election district any public or private building situated in another election district within the county, notwithstanding if the building is located in an election district which is not immediately adjacent to the boundary of the election district for which the building is to be a polling place.
        (2)   A polling place may be selected and designated under this subsection without the approval of a court.
        (3)   Two or more polling places may be consolidated, except that the consolidation of polling places may not result in more than a 60% reduction of polling place locations in the county, except for necessitous circumstances and as approved by the Department of State. Two or more polling places may be located in the same building.
        (4)   A polling place selected and designated under this subsection must be directly accessible by a public street or thoroughfare.
    (b)   Posting.--A county board of elections shall, not less than 15 days prior to the election under section 1804-B, post in a conspicuous place at the office of the county board of elections, a list of each place at which the election is to be held in each election district of the county. The list shall be available for public inspection at the office of the county board of elections and posted on the county's publicly accessible Internet website.
Section 1803-B.   Permissible polling place locations.
    (a)   Service.--Subject to subsection (b) and notwithstanding section 529(a) and (b) or any other law of this Commonwealth, malt or brewed beverages and liquors may be served in a building where a polling place is located during the hours that the polling place is open, except that an election may not be held in a room where malt or brewed beverages or liquors are dispensed.
    (b)   Accessibility.--A polling place under subsection (a) must be accessible from an outside entrance that does not require passageway through the room where malt or brewed beverages or liquors are dispensed.
Section 1804-B.   General primary election.
    (a)   Time.--Notwithstanding section 603 or any law of this Commonwealth, the general primary election shall occur throughout this Commonwealth on June 2, 2020.
    (b)   Calculation.--The following shall apply:
        (1)   Except for the deadline relating to the nomination of a candidate under Article IX, any date or deadline in this act, 25 Pa.C.S. Pt. IV (relating to voter registration) or 25 Pa.C.S. Ch. 35 (relating to uniform military and overseas voters) that depends on, or is contingent on, the date of the general primary election, shall be calculated based on the June 2, 2020, date for the general primary election.
        (2)   Notwithstanding subsection (a), the due date for the sixth Tuesday pre-primary cycle 1 campaign finance report shall be March 17, 2020.
    (c)   Nonapplicability.--This section shall not be construed to apply to the nominating petition process.
    (d)   Ballots.--A ballot for the general primary 2020 which has been purchased, printed or acquired prior to the effective date of this section and shows an election date of April 28, 2020, shall not be deemed to be invalid because of the date.
Section 1805-B.   Expiration.
    This article shall expire on July 3, 2020.
    Section 17. This act shall apply as follows:

    (1) The amendment or addition of the following shall
apply to elections occurring on or after June 2, 2020:
       (i) Section 102(a.1), (q.1) and (z.6).
       (ii) Section 1302.2(c).
       (iii) Section 1308(g).
       (iv) Section 1301-D(a).
       (v) Section 1302.2-D(a).
    (2) The amendment or addition of the following shall
apply to elections occurring on or after November 2, 2020:
       (i) Section 302(p).
       (ii) Section 1302(i)(1).
       (iii) Section 1303(e).
       (iv) Section 1306(b).
       (v) Section 1302-D(f).
       (vi) Section 1303-D(e).
       (vii) Section 1306-D(b).
    (3) The amendment or addition of the following shall
apply to envelopes and ballots purchased, printed or
acquired after the effective date of this section:
       (i) Section 1004.
       (ii) Section 1109-A(b) and (e).
       (iii) Section 1112-A(b)(2),(3) and (4).
       (iv) Section 1303(a).
       (v) Section 1304.
       (vi) Section 1306(a) introductory paragraph.
       (vii) Section 1303-D(a.1).
       (viii) Section 1304-D(a).
       (ix) Section 1306-D(a).
Section 18. Repeals are as follows:
    (1) The General Assembly declares that the repeal under
paragraph (2) is necessary to effectuate the amendment or
addition of section 1231(c)(2) and (e).
    (2) 25 Pa.C.S. § 1328(c)(4) and (5) are repealed.
Section 19. This act shall take effect immediately.

APPROVED--The 27th day of March, A.D. 2020.

TOM WOLF

Exhibit 32

County looking at fewer, regional polling places - Times Leader, The (Wilkes-Barre, PA) - April 22, 2020

April 22, 2020 | Times Leader, The (Wilkes-Barre, PA) | Jennifer Learn-Andes jandes@timesleader.com

With in-person voting still likely in the June 2 primary election, Luzerne County Manager C. David Pedri has announced a two-part plan to address coronavirus concerns.

On the first front he plans to send mail-in ballot applications to all registered voters, with the exception of the more than 15,000 voters who already requested them. Voters no longer have to cite a reason to take advantage of absentee voting under a reform initiated before the pandemic, and providing the actual applications needed should make it easier for those interested in the option, he said.

County funds won't be used for the mailing because the state is providing financial resources for outreach, Pedri said Wednesday. The county has 210,506 registered voters.

Site consolidation

His second solution involves where voters will physically cast their ballots if they don't want the mail-in option.

He plans to consolidate "as many polling locations as possible" and provide voting at fewer larger buildings that are accessible to the disabled with ample parking areas and room for social distancing.

Most of the more than 150 buildings used for voting before the pandemic are now closed to the public, and Pedri said he can't guarantee they will be open and available six weeks from now. These include church halls, fire or ambulance stations/halls, schools, municipal buildings, community centers, libraries and residential housing facilities.

Fewer, more regional voting sites are the only option, Pedri said, because the county must guarantee now that the buildings will be available on June 2 so it can proceed with planning and ample public notification. The county plans to issue new voter identification cards to everyone impacted by a location change.

Even if the county could lock in all 150 buildings now, Pedri said he can't ensure he will have enough election workers to staff them on June 2. Most of the county's more than 700 poll workers are over 65 and more vulnerable to the coronavirus, he reiterated.

Pedri said he expects to release more details on the "aggressive consolidation plan" in several days.

State directive

The state had issued a directive in late March moving the April 28 primary to June 2 and allowing counties to reduce the number of polling locations due to concerns about a lack of poll workers and building owners willing to allow crowds into their properties.

The March coronavirus election extension legislation said consolidation may not result in more than a 60% reduction of polling place locations, although counties can seek waivers for further cuts, if warranted, through the Pennsylvania Department of State.

Pedri had joined Allegheny County last week in calling for the state to eliminate the option to go to the polls and authorize counties to automatically mail ballots to every registered voter.

Gov. Tom Wolf issued a release Wednesday discussing promotion of the no excuse, mail-in voting option but making it clear in-person voting was still proceeding.

The state will provide counties with funding through state appropriations and the federal CARES Act to send informational mailings to voters, facilitate mail-in voting, purchase equipment and protective supplies, increase needed staffing and implement safety and security measures, the release said.

In addition, the state is purchasing and supplying infection-protection kits for each county to use at polling places on June 2, it said. These kits will include masks, gloves, hand sanitizer, floor marking tape and other sanitizing supplies.

As part of the state's push encouraging the public to vote from home, it will be advertising and sending 4.2 million postcards to primary voters informing them of the new election date and how to apply for mail-in ballots.

May 26 application deadline

The deadline for registered voters to apply for mail-in ballots is 5 p.m. May 26. Those not registered to vote in the primary must do so by May 18.

County Election Board Chairman Jose M. Adames said Wednesday his board should be involved in reviewing and providing feedback on the polling place consolidation plans before they take effect.

Adames said he plans to address the matter at the board's May 6 meeting, which will be held virtually through a platform announced soon.

Election Board member Joyce Dombroski-Gebhardt also said the board must be involved in the plans.

"We shouldn't be left out," she said.

Pedri said he "looks forward to the board providing input."

During a virtual meeting this week, county Council members Harry Haas, Walter Griffith and

LeeAnn McDermott said they support keeping the option to vote in person.

Pedri said the county also must figure out a way to safely resume training and public education on the new voting machines that had been halted by pandemic bans on group gatherings.

The new machines from Dominion Voting Systems Inc. will be used for the first time in the primary. Voters will make selections on computerized devices similar to the way they do now. But instead of touching a screen box to cast the ballot, voters will receive a paper printout to verify their selections before the paper is fed into a tabulator to be read and saved in compliance with a state mandate.

Exhibit 33

Philly wants the state to let it cut a lot of polling places — or send the National Guard to help

by Jonathan Lai and Julia Terruso, Updated: May 8, 2020

Philadelphia elections officials are asking the state for permission to cut the number of polling places the city will open for the June 2 primary by more than 60%, or to deploy the National Guard to compensate for an unprecedented shortage of poll workers.

If the state approves, Philadelphia will have fewer than 332 polling places, compared with its normal 830 or so. Otherwise, the city's chief elections official said, she won't have enough poll workers to hold the election.

"Depending on the number of polling places that is acceptable to ensure state approval, we may require as much as 1,500 National Guardsmen to supplement our poll worker recruitment," said Lisa Deeley, chair of the Philadelphia City Commissioners.

The coronavirus pandemic has wreaked havoc with 2020 voting in Pennsylvania and many other states.

Secretary of State Kathy Boockvar said this week/ that the National Guard could be called upon to staff election sites for counties short of poll workers. They would be dressed in civilian attire. About 2,400 citizen-soldiers and airmen from the Wisconsin National Guard served as poll workers for that state's April 7 primary.

Philadelphia is one of four counties that have asked the Pennsylvania Department of State, which oversees elections, to grant an exemption allowing it to reduce polling places by more than the 60% authorized in the emergency lawthat postponed the state's primary from April.

"Entire election boards are telling us that they will not be working due to COVID-19," Deeley said. "We have been exploring our election day plan for some time now."

It's unclear how much more than the 60% reduction Philadelphia is seeking. Allegheny County, which includes Pittsburgh, has asked whether it can reduce its number of polling places by as much as 90%. Cameron and Forest Counties, two of the least populated in the state, have also requested exemptions.

Elections officials around the state have echoed Philadelphia's concerns as poll workers cancel, wary of contracting the virus.

"I can't blame them. We're not shopping around the most attractive product," said Tim Benyo, chief clerk of elections for Lehigh County, which is short about 200 poll workers out of 1,000. "Low pay, long hours, and the chance of getting sick — that's not exactly something that people are knocking down the door to do."

Poll workers tend to be older, making them particularly vulnerable to the virus. Counties across the state have struggled to retain and replace poll workers who in some cases have dropped out en masse. Compounding the problem: Some locations no longer want to open up as polling places, including senior homes and private businesses that under normal circumstances host voting machines and thousands of voters.

Benyo said that in Lehigh County, his office is looking to erect tents outside facilities that don't want voting set up indoors. He's posted poll-worker jobs on the state's CareerLink website and is trying to make a push on social media and in the news media.

Elections officials, activists, and others are scrambling to try to ease the poll-worker and polling-place burden, including urging people to vote by mail. Bob Brady, the chair of the Philadelphia Democratic Party, said he is preparing to rally the city's elected officials to call for postponing the election for voter and poll-worker safety.

"There's no comfort level for people to go vote, there's no comfort level for people to man [polling places]," he said. "And you call in the National Guard, does that mean the National Guard won't get sick? Does that mean they're immune to the virus?"

Brady said he's also concerned about the possibility "you're disenfranchising voters by going to a very low number of polling places."

The emergency changes in state law that allow for consolidating polling places also allow voters to work the polls outside their home precincts, expanding the pool by providing flexibility. The state on Wednesday also reduced the number of poll workers required at a given location when they consolidate polling places. That eases pressure, county elections officials said, but they're still struggling to find enough willing staffers.

Allegheny County normally has about 6,500 poll workers, elections chief David Voye said. This election, depending on how few polling places the state allows it to open, the county will need 1,000 to 1,500 workers.

"We have already nearly 500 committed to working on June 2 and have only been making calls for a few days," Voye said.

Counties must finalize their polling places by Wednesday. Some, including Berks and Bucks Counties, are planning to open as many polling places as usual, though they've moved some locations. Others are reducing by up to the 60% mark. Montgomery County, for example, will open just 140 locations instead of 352.

Rural counties in the western part of the state, which have fewer voters and far fewer confirmed coronavirus cases, are also faring better.

In Mercer County, which has slowly started to reopen, elections director Jeff Greenburg said 84 of 85 polling locations have given his office the green light. He's only down about 20 poll workers.

"Clearly the eastern part of the state is in a much different situation," he said. Still, he looks at poll workers and says the pandemic has exposed the need to get younger people involved.

"To me, the Greatest Generation and the Baby Boomers, for the most part, have carried elections for decades," Greenburg said. "And it is definitely time for Millennials and Generation X and Y to seriously look at contributing to their communities and their country in this way."

If you'd like to be a poll worker for the June 2 primary election, submit this state form or contact your county elections officials directly.

Exhibit 34

Pennsylvania 2020 Primary Election
Act 35 of 2020 Report

Date: August 1, 2020

Contents

Introduction

On June 2, 2020, Pennsylvania held a primary election under unprecedented conditions. Prior to the primary, significant changes were implemented to the voting processes in Pennsylvania.

First, all Pennsylvanians voted on new, more accessible, auditable, and secure voting systems providing a voter-verifiable paper ballot. All 67 counties debuted their new voting systems in 2019 or the 2020 primary, completing a two-year initiative to bring these new systems with augmented election security and integrity to all Pennsylvanians.

Second, the Commonwealth for the first time in over 80 years significantly increased voting options, thanks to bipartisan support of Act 77 of 2019, which granted Pennsylvania voters enhanced options to participate in our democracy. One of those options provided that all eligible voters could now choose to vote by mail-in ballot.

Though unknown at the time, the timing of passage of Act 77 and mail-in voting was essential due to a third change: the spread of COVID-19. Due to the pandemic and stay-at-home orders implemented to stop the spread of the virus, Pennsylvanians embraced mail-in voting in impressive numbers. Nearly 1.5 million voters cast their vote by mail-in or absentee ballot, 17 times the number that voted absentee in the 2016 primary, when approximately 84,000 absentee ballots were cast.

And fourth, circumstances changed even further just days before our primary election, when we experienced civil unrest nationally and in regions throughout the Commonwealth in response to the tragic death of George Floyd, leading to curfews, travel restrictions, and office closures.

Yet, despite the changes and challenges, Pennsylvanians voted safely and peacefully in the primary, embracing the new mail-in voting option, and the new voting systems performed well. Reports of significant incidents were fewer than reported in many comparable prior elections, and our overall turnout was far higher than in 2012, the last time a presidential primary was not contested on both sides of the aisle. In addition to the nearly 1.5 million people who voted by mail, over 1.3 million Pennsylvanians voted in person on June 2.

We also learned some valuable lessons from the primary that we can use to ensure an even smoother voting experience in the general election in November.

In March 2020, Act 12 of 2020 was enacted, changing the date of the Primary from April 28 to June 2. Temporary changes, including allowing counties the ability to more quickly and easily appoint and staff polling places, were part of what allowed the 2020 Primary to be conducted safely and efficiently in the middle of a pandemic. While some of these Act 12 changes were temporary and expired after the primary, the Department of State and the county election offices agree that several of these temporary provisions relating to poll workers would be valuable and should be made permanent.

Other principal goals are to make it easier for counties to distribute and count mail-in ballots. The sheer volume of these ballots delayed some primary results in several counties. Our top priority is and has always been the accurate count of the ballots, and we know every voter shares this commitment. In addition, we also want to help the counties canvass these ballots as quickly and efficiently as possible.

The single most important change to accomplish this is a legislative change: We hope to work with the General Assembly to allow counties to begin pre-canvassing ballots in the weeks before Election Day. The counties overwhelmingly support this reform, and we hope the legislature shares this priority and will pass this amendment before counties finalize and begin sending ballots in early September.

Additionally, the Department is working with the counties to develop timelines and best practices, to map out the most effective processes before November, including recommendations on additional equipment, staffing, and schedules necessary to effectively process the high volume of mail-in ballots expected in November.

This report represents the fullest collection of data relating to the 2020 Primary Election, which may be helpful in mapping additional changes to Pennsylvania's Election Code that would be useful prior to the November Election. It includes some data not requested pursuant to Act 35, in order to provide more context for and a more complete presentation of the data.

The data referenced and presented in this report was obtained from two sources: The Statewide Uniform Registry of Electors (SURE), which is the statewide database used by county election officials to maintain elections and voter data, and the responses to uniform surveys that the Department sent to each county election director. Each county board of elections is responsible for ensuring the accuracy of the data that it enters into SURE and for its own responses to the Department's surveys. The Department has no ability to independently verify or guarantee the accuracy of the data received solely from the county boards of elections.

Voter Registration Statistics

Registered Voters as of June 2, 2020[1]

County	Registered Voters
ADAMS	67,695
ALLEGHENY	898,944
ARMSTRONG	42,128
BEAVER	110,663
BEDFORD	32,237
BERKS	256,863
BLAIR	75,535
BRADFORD	36,324
BUCKS	461,310
BUTLER	129,783
CAMBRIA	83,182
CAMERON	2,987
CARBON	44,339
CENTRE	109,015
CHESTER	359,265
CLARION	23,239
CLEARFIELD	46,523
CLINTON	20,811
COLUMBIA	38,035
CRAWFORD	53,613
CUMBERLAND	178,406
DAUPHIN	187,621
DELAWARE	404,732
ELK	19,223
ERIE	195,467
FAYETTE	77,316
FOREST	3,385
FRANKLIN	94,623
FULTON	9,124
GREENE	21,704
HUNTINGDON	26,687
INDIANA	49,874
JEFFERSON	30,256
JUNIATA	13,633
LACKAWANNA	142,575

County	Registered Voters
LANCASTER	331,820
LAWRENCE	54,204
LEBANON	86,963
LEHIGH	234,842
LUZERNE	211,276
LYCOMING	69,008
McKEAN	24,098
MERCER	70,706
MIFFLIN	25,283
MONROE	109,981
MONTGOMERY	574,403
MONTOUR	13,299
NORTHAMPTON	212,972
NORTHUMBERLAND	53,985
PERRY	28,054
PHILADELPHIA	1,076,764
PIKE	40,955
POTTER	10,687
SCHUYLKILL	85,526
SNYDER	22,180
SOMERSET	46,659
SULLIVAN	4,416
SUSQUEHANNA	25,516
TIOGA	25,221
UNION	24,050
VENANGO	31,048
WARREN	30,486
WASHINGTON	145,882
WAYNE	33,353
WESTMORELAND	239,997
WYOMING	17,209
YORK	291,334
Total	8,599,294

Table 1: Data obtained from the SURE system.

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[1] Data not requested by Act 35 but included for informational purposes.

Voter Registration Statistics

Voter Registration Applications Received by County Election Offices Fewer than 30 Days Before the 2020 Primary Election.

In other words, this represents voter registration applications received between May 4, 2020 and June 2, 2020.

County	Applications Received 5/4/20 – 6/2/20
ADAMS	1,522
ALLEGHENY	23,248
ARMSTRONG	951
BEAVER	2,676
BEDFORD	655
BERKS	6,589
BLAIR	1,998
BRADFORD	768
BUCKS	10,976
BUTLER	3,254
CAMBRIA	1,891
CAMERON	62
CARBON	1,061
CENTRE	2,882
CHESTER	9,515
CLARION	568
CLEARFIELD	1,430
CLINTON	614
COLUMBIA	1,057
CRAWFORD	1,259
CUMBERLAND	4,383
DAUPHIN	4,892
DELAWARE	10,611
ELK	444
ERIE	4,454
FAYETTE	1,891
FOREST	65
FRANKLIN	2,310
FULTON	205
GREENE	434
HUNTINGDON	615

County	Applications Received 5/4/20 – 6/2/20
INDIANA	1,042
JEFFERSON	779
JUNIATA	294
LACKAWANNA	3,561
LANCASTER	8,666
LAWRENCE	1,226
LEBANON	2,185
LEHIGH	6,780
LUZERNE	4,945
LYCOMING	1,698
McKEAN	636
MERCER	1,665
MIFFLIN	692
MONROE	2,629
MONTGOMERY	16,778
MONTOUR	348
NORTHAMPTON	5,222
NORTHUMBERLAND	1,362
PERRY	696
PHILADELPHIA	31,678
PIKE	941
POTTER	225
SCHUYLKILL	2,036
SNYDER	538
SOMERSET	1,067
SULLIVAN	83
SUSQUEHANNA	474
TIOGA	513
UNION	596
VENANGO	788
WARREN	417
WASHINGTON	3,463
WAYNE	659
WESTMORELAND	5,514
WYOMING	382
YORK	7,131
Total	220,989

Table 2: Data obtained from the SURE system.

Voter Registration Statistics

Voter Registration Applications Fewer than 15 Days before Primary Election

Voter Registration Applications Received by County Election Offices Fewer than 15 Days Before the 2020 Primary Election. In other words, this represents voter registration applications received between May 19, 2020 and June 2, 2020.

County	Applications Received 5/19/20 – 6/2/20
ADAMS	553
ALLEGHENY	9,063
ARMSTRONG	355
BEAVER	961
BEDFORD	222
BERKS	2,339
BLAIR	773
BRADFORD	269
BUCKS	4,257
BUTLER	1,213
CAMBRIA	725
CAMERON	18
CARBON	368
CENTRE	1,058
CHESTER	3,330
CLARION	169
CLEARFIELD	513
CLINTON	225
COLUMBIA	382
CRAWFORD	423
CUMBERLAND	1,613
DAUPHIN	1,775
DELAWARE	4,316
ELK	161
ERIE	1,535
FAYETTE	659
FOREST	23
FRANKLIN	917
FULTON	64
GREENE	173
HUNTINGDON	213

County	Applications Received 5/19/20 – 6/2/20
INDIANA	361
JEFFERSON	278
JUNIATA	102
LACKAWANNA	1,077
LANCASTER	3,023
LAWRENCE	487
LEBANON	735
LEHIGH	2,451
LUZERNE	1,753
LYCOMING	616
McKEAN	247
MERCER	611
MIFFLIN	248
MONROE	1,072
MONTGOMERY	6,570
MONTOUR	109
NORTHAMPTON	2,054
NORTHUMBERLAND	455
PERRY	228
PHILADELPHIA	12,892
PIKE	346
POTTER	77
SCHUYLKILL	704
SNYDER	177
SOMERSET	396
SULLIVAN	30
SUSQUEHANNA	122
TIOGA	177
UNION	195
VENANGO	241
WARREN	137
WASHINGTON	1,303
WAYNE	214
WESTMORELAND	2,037
WYOMING	123
YORK	2,611
Total	**82,924**

Table 3: Data obtained from the SURE system.

Total Number of Voters in 2020 Primary Election[2]

County	Votes
ADAMS	21,656
ALLEGHENY	316,376
ARMSTRONG	15,513
BEAVER	38,330
BEDFORD	11,342
BERKS	78,851
BLAIR	25,741
BRADFORD	11,827
BUCKS	157,090
BUTLER	47,129
CAMBRIA	30,151
CAMERON	1,114
CARBON	12,835
CENTRE	32,986
CHESTER	121,902
CLARION	9,351
CLEARFIELD	17,811
CLINTON	7,781
COLUMBIA	12,028
CRAWFORD	15,602
CUMBERLAND	60,260
DAUPHIN	67,118
DELAWARE	138,838
ELK	7,932
ERIE	59,698
FAYETTE	23,093
FOREST	1,274
FRANKLIN	33,806
FULTON	3,060
GREENE	7,878
HUNTINGDON	9,551
INDIANA	17,355
JEFFERSON	11,912
JUNIATA	5,256
LACKAWANNA	53,141
LANCASTER	104,382

County	Votes
LAWRENCE	17,862
LEBANON	28,292
LEHIGH	70,409
LUZERNE	65,634
LYCOMING	24,709
McKEAN	8,101
MERCER	21,564
MIFFLIN	8,320
MONROE	28,454
MONTGOMERY	218,034
MONTOUR	3,517
NORTHAMPTON	63,310
NORTHUMBERLAND	15,871
PERRY	11,277
PHILADELPHIA	345,591
PIKE	10,331
POTTER	4,384
SCHUYLKILL	31,118
SNYDER	8,108
SOMERSET	17,877
SULLIVAN	1,724
SUSQUEHANNA	9,131
TIOGA	9,835
UNION	8,577
VENANGO	11,061
WARREN	7,934
WASHINGTON	48,440
WAYNE	12,025
WESTMORELAND	85,164
WYOMING	6,598
YORK	87,277
Total	**2,880,499**

Table 4: Data obtained from the SURE system.

[2] Data not requested by Act 35 but included for informational purposes.

Total Mail-in and Absentee Ballots Cast in 2020 Primary Election[3]

County	Votes
ADAMS	10,492
ALLEGHENY	213,873
ARMSTRONG	4,985
BEAVER	18,603
BEDFORD	3,840
BERKS	39,339
BLAIR	10,241
BRADFORD	3,443
BUCKS	78,798
BUTLER	19,779
CAMBRIA	11,873
CAMERON	538
CARBON	5,603
CENTRE	19,112
CHESTER	74,469
CLARION	2,987
CLEARFIELD	5,401
CLINTON	2,898
COLUMBIA	4,964
CRAWFORD	5,653
CUMBERLAND	31,745
DAUPHIN	34,109
DELAWARE	59,405
ELK	2,778
ERIE	29,651
FAYETTE	9,952
FOREST	604
FRANKLIN	12,505
FULTON	740
GREENE	3,241
HUNTINGDON	3,143
INDIANA	7,301
JEFFERSON	3,584
JUNIATA	1,639
LACKAWANNA	29,453

County	Votes
LANCASTER	52,273
LAWRENCE	8,003
LEBANON	13,031
LEHIGH	39,769
LUZERNE	40,038
LYCOMING	7,543
McKEAN	2,575
MERCER	8,312
MIFFLIN	3,012
MONROE	14,813
MONTGOMERY	126,843
MONTOUR	1,710
NORTHAMPTON	36,867
NORTHUMBERLAND	4,708
PERRY	3,792
PHILADELPHIA	174,472
PIKE	5,572
POTTER	1,108
SCHUYLKILL	11,044
SNYDER	2,695
SOMERSET	5,818
SULLIVAN	625
SUSQUEHANNA	3,605
TIOGA	3,271
UNION	3,687
VENANGO	3,963
WARREN	3,094
WASHINGTON	22,220
WAYNE	5,050
WESTMORELAND	40,437
WYOMING	2,824
YORK	40,040
Total	**1,459,555**

Table 5: Data obtained from the SURE system.

[3] Data not requested by Act 35 but included for informational purposes.

Absentee Ballot Statistics

Absentee Ballot Applications Received for the 2020 Primary Election regardless of how the application was processed.

County	Applications Received
ADAMS	2,071
ALLEGHENY	46,229
ARMSTRONG	989
BEAVER	4,166
BEDFORD	695
BERKS	7,138
BLAIR	2,000
BRADFORD	767
BUCKS	21,979
BUTLER	4,740
CAMBRIA	2,255
CAMERON	82
CARBON	1,306
CENTRE	4,386
CHESTER	19,163
CLARION	689
CLEARFIELD	1,252
CLINTON	468
COLUMBIA	1,169
CRAWFORD	1,429
CUMBERLAND	6,746
DAUPHIN	7,362
DELAWARE	18,691
ELK	494
ERIE	5,895
FAYETTE	2,536
FOREST	102
FRANKLIN	2,440
FULTON	161
GREENE	874
HUNTINGDON	633
INDIANA	1,238
JEFFERSON	558
JUNIATA	319
LACKAWANNA	6,072
LANCASTER	10,915

County	Applications Received
LAWRENCE	1,961
LEBANON	2,620
LEHIGH	8,944
LUZERNE	5,513
LYCOMING	1,667
McKEAN	459
MERCER	2,170
MIFFLIN	549
MONROE	4,709
MONTGOMERY	34,317
MONTOUR	402
NORTHAMPTON	8,227
NORTHUMBERLAND	1,411
PERRY	685
PHILADELPHIA	52,258
PIKE	1,788
POTTER	226
SCHUYLKILL	2,626
SNYDER	505
SOMERSET	1,258
SULLIVAN	134
SUSQUEHANNA	829
TIOGA	529
UNION	563
VENANGO	878
WARREN	780
WASHINGTON	5,386
WAYNE	1,238
WESTMORELAND	8,600
WYOMING	562
YORK	9,906
Total	349,709

Table 6: Data obtained from the SURE system.

Absentee Ballot Statistics

Absentee Ballot Applications Approved for the 2020 Primary Election.

County	Applications Approved
ADAMS	1,837
ALLEGHENY	41,269
ARMSTRONG	945
BEAVER	3,862
BEDFORD	661
BERKS	6,182
BLAIR	1,790
BRADFORD	704
BUCKS	19,396
BUTLER	4,273
CAMBRIA	2,108
CAMERON	53
CARBON	1,175
CENTRE	4,019
CHESTER	17,251
CLARION	640
CLEARFIELD	1,181
CLINTON	420
COLUMBIA	1,049
CRAWFORD	1,339
CUMBERLAND	6,094
DAUPHIN	6,745
DELAWARE	16,197
ELK	454
ERIE	5,512
FAYETTE	2,385
FOREST	92
FRANKLIN	2,259
FULTON	146
GREENE	839
HUNTINGDON	565
INDIANA	1,228
JEFFERSON	499
JUNIATA	273
LACKAWANNA	5,695
LANCASTER	9,809

County	Applications Approved
LAWRENCE	1,790
LEBANON	2,388
LEHIGH	7,972
LUZERNE	4,886
LYCOMING	1,476
McKEAN	427
MERCER	1,908
MIFFLIN	487
MONROE	4,067
MONTGOMERY	29,704
MONTOUR	364
NORTHAMPTON	7,418
NORTHUMBERLAND	1,298
PERRY	634
PHILADELPHIA	48,938
PIKE	1,556
POTTER	210
SCHUYLKILL	2,427
SNYDER	471
SOMERSET	1,172
SULLIVAN	123
SUSQUEHANNA	749
TIOGA	464
UNION	515
VENANGO	815
WARREN	734
WASHINGTON	5,034
WAYNE	1,121
WESTMORELAND	7,940
WYOMING	525
YORK	8,629
Total	315,188

Table 7: Data obtained from the SURE system.

Absentee Ballot Statistics

Absentee Ballots Voted in the 2020 Primary Election.

County	Ballots Voted
ADAMS	1,338
ALLEGHENY	28,494
ARMSTRONG	781
BEAVER	3,197
BEDFORD	540
BERKS	4,841
BLAIR	1,451
BRADFORD	535
BUCKS	13,642
BUTLER	3,310
CAMBRIA	1,732
CAMERON	43
CARBON	965
CENTRE	3,366
CHESTER	13,400
CLARION	525
CLEARFIELD	956
CLINTON	323
COLUMBIA	807
CRAWFORD	965
CUMBERLAND	4,878
DAUPHIN	5,546
DELAWARE	11,215
ELK	380
ERIE	4,579
FAYETTE	1,936
FOREST	80
FRANKLIN	1,706
FULTON	112
GREENE	712
HUNTINGDON	449
INDIANA	1,060
JEFFERSON	329
JUNIATA	230
LACKAWANNA	4,776
LANCASTER	7,631
LAWRENCE	1,470

County	Ballots Voted
LEBANON	1,935
LEHIGH	6,162
LUZERNE	3,630
LYCOMING	1,071
McKEAN	328
MERCER	1,323
MIFFLIN	401
MONROE	3,109
MONTGOMERY	22,027
MONTOUR	306
NORTHAMPTON	5,813
NORTHUMBERLAND	898
PERRY	516
PHILADELPHIA	35,009
PIKE	1,262
POTTER	173
SCHUYLKILL	1,885
SNYDER	383
SOMERSET	872
SULLIVAN	108
SUSQUEHANNA	595
TIOGA	370
UNION	440
VENANGO	643
WARREN	555
WASHINGTON	3,935
WAYNE	959
WESTMORELAND	6,632
WYOMING	423
YORK	5,977
Total	236,040

Table 8: Data obtained from the SURE system.

Absentee Ballot Statistics

Absentee Ballot Applicants Who Voted a Provisional Ballot in the 2020 Primary Election.

County	Provisional Ballots Voted
ADAMS	40
ALLEGHENY	1,079
ARMSTRONG	25
BEAVER	74
BEDFORD	10
BERKS	176
BLAIR	47
BRADFORD	33
BUCKS	938
BUTLER	219
CAMBRIA	37
CAMERON	0
CARBON	22
CENTRE	62
CHESTER	448
CLARION	12
CLEARFIELD	36
CLINTON	11
COLUMBIA	16
CRAWFORD	28
CUMBERLAND	159
DAUPHIN	221
DELAWARE	966
ELK	5
ERIE	125
FAYETTE	49
FOREST	1
FRANKLIN	61
FULTON	9
GREENE	16
HUNTINGDON	17
INDIANA	11
JEFFERSON	35
JUNIATA	3
LACKAWANNA	138

County	Provisional Ballots Voted
LANCASTER	301
LAWRENCE	21
LEBANON	42
LEHIGH	243
LUZERNE	155
LYCOMING	82
McKEAN	12
MERCER	107
MIFFLIN	11
MONROE	142
MONTGOMERY	1,092
MONTOUR	1
NORTHAMPTON	152
NORTHUMBERLAND	38
PERRY	1
PHILADELPHIA	657
PIKE	37
POTTER	10
SCHUYLKILL	42
SNYDER	9
SOMERSET	56
SULLIVAN	2
SUSQUEHANNA	17
TIOGA	21
UNION	11
VENANGO	23
WARREN	19
WASHINGTON	88
WAYNE	16
WESTMORELAND	161
WYOMING	14
YORK	435
Total	9,147

Table 9: Data obtained from the SURE system.

Absentee Ballot Statistics

Absentee Ballot Applications Filed Prior to Receipt of Voter Registration in the 2020 Primary Election.

County	Applications Filed
ADAMS	0
ALLEGHENY	4
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	1
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	3
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	1
DAUPHIN	1
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	1
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0

County	Applications Filed
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	2
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	2
MONTOUR	0
NORTHAMPTON	1
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	3
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**19**

Table 10: Data obtained from the SURE system.

Absentee Ballot Statistics

Total Absentee Ballots Reported by Counties as Challenged in the 2020 Primary Election.

County	Ballots Challenged
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0
LAWRENCE	0

County	Ballots Challenged
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**0**

Table 11: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Absentee Ballot Statistics

Absentee Ballots Successfully Challenged in the 2020 Primary Election.

County	Ballots Challenged
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0
LAWRENCE	0

County	Ballots Challenged
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	0

Table 12: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Absentee Ballot Statistics

Challenged Absentee Ballots Not Canvassed in the 2020 Primary Election.

County	Ballots Not Canvassed
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0

County	Ballots Not Canvassed
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**0**

Table 13: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Mail-in Ballot Statistics

Mail-in Ballot Applications Received for the 2020 Primary Election regardless of how the application was processed.

County	Applications Received
ADAMS	11,846
ALLEGHENY	255,281
ARMSTRONG	5,077
BEAVER	18,817
BEDFORD	4,079
BERKS	43,844
BLAIR	11,293
BRADFORD	4,094
BUCKS	88,393
BUTLER	21,946
CAMBRIA	12,265
CAMERON	586
CARBON	5,906
CENTRE	19,097
CHESTER	79,624
CLARION	2,943
CLEARFIELD	5,564
CLINTON	3,335
COLUMBIA	5,318
CRAWFORD	6,768
CUMBERLAND	32,854
DAUPHIN	34,857
DELAWARE	75,180
ELK	2,945
ERIE	30,414
FAYETTE	10,036
FOREST	602
FRANKLIN	13,364
FULTON	824
GREENE	3,037
HUNTINGDON	3,328
INDIANA	6,984
JEFFERSON	4,431
JUNIATA	1,740
LACKAWANNA	29,414
LANCASTER	57,550

County	Applications Received
LAWRENCE	8,202
LEBANON	13,676
LEHIGH	43,579
LUZERNE	51,135
LYCOMING	9,151
McKEAN	2,974
MERCER	10,140
MIFFLIN	3,235
MONROE	15,143
MONTGOMERY	142,881
MONTOUR	1,780
NORTHAMPTON	39,744
NORTHUMBERLAND	5,794
PERRY	3,957
PHILADELPHIA	182,074
PIKE	5,687
POTTER	1,209
SCHUYLKILL	11,446
SNYDER	2,773
SOMERSET	6,069
SULLIVAN	584
SUSQUEHANNA	3,682
TIOGA	3,653
UNION	3,823
VENANGO	4,231
WARREN	3,208
WASHINGTON	23,532
WAYNE	4,856
WESTMORELAND	41,716
WYOMING	2,914
YORK	49,257
Total	**1,615,741**

Table 14: Data obtained from the SURE system.

Mail-in Ballot Statistics

Mail-in Ballot Applications Approved for the 2020 Primary Election.

County	Applications Approved
ADAMS	11,142
ALLEGHENY	238,504
ARMSTRONG	4,863
BEAVER	17,835
BEDFORD	3,910
BERKS	41,120
BLAIR	10,488
BRADFORD	3,913
BUCKS	81,907
BUTLER	20,281
CAMBRIA	11,820
CAMERON	562
CARBON	5,475
CENTRE	17,816
CHESTER	72,525
CLARION	2,831
CLEARFIELD	5,277
CLINTON	3,153
COLUMBIA	4,932
CRAWFORD	6,369
CUMBERLAND	30,987
DAUPHIN	33,096
DELAWARE	69,247
ELK	2,781
ERIE	28,984
FAYETTE	9,628
FOREST	583
FRANKLIN	12,780
FULTON	772
GREENE	2,930
HUNTINGDON	3,155
INDIANA	6,964
JEFFERSON	4,226
JUNIATA	1,614
LACKAWANNA	28,087
LANCASTER	53,426

County	Applications Approved
LAWRENCE	7,719
LEBANON	13,031
LEHIGH	39,601
LUZERNE	48,105
LYCOMING	8,632
McKEAN	2,833
MERCER	9,378
MIFFLIN	3,069
MONROE	13,840
MONTGOMERY	129,168
MONTOUR	1,627
NORTHAMPTON	36,497
NORTHUMBERLAND	5,351
PERRY	3,791
PHILADELPHIA	176,003
PIKE	5,155
POTTER	1,174
SCHUYLKILL	11,022
SNYDER	2,632
SOMERSET	5,855
SULLIVAN	561
SUSQUEHANNA	3,466
TIOGA	3,427
UNION	3,639
VENANGO	3,998
WARREN	3,061
WASHINGTON	22,250
WAYNE	4,598
WESTMORELAND	39,290
WYOMING	2,769
YORK	45,426
Total	1,510,951

Table 15: Data obtained from the SURE system.

Mail-in Ballot Statistics

Mail-in Ballots Voted in the 2020 Primary Election.

County	Ballots Voted
ADAMS	9,154
ALLEGHENY	185,379
ARMSTRONG	4,204
BEAVER	15,406
BEDFORD	3,300
BERKS	34,498
BLAIR	8,790
BRADFORD	2,908
BUCKS	65,156
BUTLER	16,469
CAMBRIA	10,141
CAMERON	495
CARBON	4,638
CENTRE	15,746
CHESTER	61,069
CLARION	2,462
CLEARFIELD	4,445
CLINTON	2,575
COLUMBIA	4,157
CRAWFORD	4,688
CUMBERLAND	26,867
DAUPHIN	28,563
DELAWARE	48,190
ELK	2,398
ERIE	25,072
FAYETTE	8,016
FOREST	524
FRANKLIN	10,799
FULTON	628
GREENE	2,529
HUNTINGDON	2,694
INDIANA	6,241
JEFFERSON	3,255
JUNIATA	1,409
LACKAWANNA	24,677
LANCASTER	44,642
LAWRENCE	6,533

County	Ballots Voted
LEBANON	11,096
LEHIGH	33,607
LUZERNE	36,408
LYCOMING	6,472
McKEAN	2,247
MERCER	6,989
MIFFLIN	2,611
MONROE	11,704
MONTGOMERY	104,816
MONTOUR	1,404
NORTHAMPTON	31,054
NORTHUMBERLAND	3,810
PERRY	3,276
PHILADELPHIA	139,463
PIKE	4,310
POTTER	935
SCHUYLKILL	9,159
SNYDER	2,312
SOMERSET	4,946
SULLIVAN	517
SUSQUEHANNA	3,010
TIOGA	2,901
UNION	3,247
VENANGO	3,320
WARREN	2,539
WASHINGTON	18,285
WAYNE	4,091
WESTMORELAND	33,805
WYOMING	2,401
YORK	34,063
Total	**1,223,515**

Table 16: Data obtained from the SURE system.

Mail-in Ballot Statistics

Mail-in Ballot Applicants Who Voted a Provisional Ballot in the 2020 Primary Election.

County	Provisional Ballots Voted
ADAMS	248
ALLEGHENY	4,337
ARMSTRONG	146
BEAVER	459
BEDFORD	129
BERKS	1,146
BLAIR	316
BRADFORD	263
BUCKS	3,335
BUTLER	1,001
CAMBRIA	298
CAMERON	12
CARBON	131
CENTRE	304
CHESTER	1,468
CLARION	71
CLEARFIELD	195
CLINTON	139
COLUMBIA	90
CRAWFORD	227
CUMBERLAND	676
DAUPHIN	1,058
DELAWARE	5,916
ELK	53
ERIE	710
FAYETTE	289
FOREST	14
FRANKLIN	364
FULTON	34
GREENE	92
HUNTINGDON	92
INDIANA	83
JEFFERSON	355
JUNIATA	41
LACKAWANNA	544

County	Provisional Ballots Voted
LANCASTER	1,689
LAWRENCE	87
LEBANON	233
LEHIGH	1,132
LUZERNE	1,513
LYCOMING	649
McKEAN	163
MERCER	567
MIFFLIN	56
MONROE	397
MONTGOMERY	4,170
MONTOUR	22
NORTHAMPTON	566
NORTHUMBERLAND	165
PERRY	10
PHILADELPHIA	1,874
PIKE	132
POTTER	72
SCHUYLKILL	255
SNYDER	83
SOMERSET	165
SULLIVAN	13
SUSQUEHANNA	88
TIOGA	125
UNION	68
VENANGO	139
WARREN	65
WASHINGTON	254
WAYNE	43
WESTMORELAND	1,029
WYOMING	58
YORK	2,156
Total	42,674

Table 17: Data obtained from the SURE system.

Mail-in Ballot Statistics

Mail-in Ballot Applications Filed Prior to Receipt of Voter Registration in the 2020 Primary Election.

County	Applications Filed
ADAMS	0
ALLEGHENY	16
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	2
BLAIR	0
BRADFORD	0
BUCKS	2
BUTLER	1
CAMBRIA	0
CAMERON	0
CARBON	1
CENTRE	1
CHESTER	2
CLARION	0
CLEARFIELD	1
CLINTON	1
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	2
DAUPHIN	0
DELAWARE	4
ELK	0
ERIE	3
FAYETTE	0
FOREST	0
FRANKLIN	2
FULTON	1
GREENE	0
HUNTINGDON	2
INDIANA	4
JEFFERSON	2
JUNIATA	0
LACKAWANNA	1
LANCASTER	3

County	Applications Filed
LAWRENCE	0
LEBANON	0
LEHIGH	1
LUZERNE	1
LYCOMING	1
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	2
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	1
PERRY	0
PHILADELPHIA	21
PIKE	2
POTTER	0
SCHUYLKILL	0
SNYDER	1
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	1
UNION	0
VENANGO	2
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	2
WYOMING	0
YORK	5
Total	**91**

Table 18: Data obtained from the SURE system.

Mail-in Ballot Statistics

Total Mail-in Ballots Reported by Counties as Challenged in the 2020 Primary Election.

County	Ballots Challenged
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0
LAWRENCE	0

County	Ballots Challenged
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**0**

Table 19: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Mail-in Ballot Statistics

Mail-in Ballots Reported by Counties as Successfully Challenged in the 2020 Primary Election.

County	Ballots Challenged
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0

County	Ballots Challenged
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	0

Table 20: Data obtained from the SURE system.

Mail-in Ballot Statistics

Challenged Mail-in Ballots Not Canvassed in the 2020 Primary Election.

County	Ballots Not Canvassed
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0
LAWRENCE	0

County	Ballots Not Canvassed
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**0**

Table 21: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Absentee Ballot and Mail-in Ballot Statistics

Ballots Sent to Wrong Individual or Wrong Address in the 2020 Primary Election.[4]

County	Ballots Sent
ADAMS	0
ALLEGHENY	3,000
ARMSTRONG	0
BEAVER	0
BEDFORD	2
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	19
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	2
JEFFERSON	0
JUNIATA	0

County	Ballots Sent
LACKAWANNA	1
LANCASTER	0
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	1
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	8
PERRY	11
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	3
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	235
Total	**3,282**

Table 22: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

[4] Counties responding to this question noted that ballots were sent to the wrong address because the voters' address was incomplete or needed to be updated.

Absentee Ballot and Mail-in Ballot Statistics

Ballots Voted by Individual Other than Voter in the 2020 Primary Election.[5]

County	Ballots Voted
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	1
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0

County	Ballots Voted
JEFFERSON	0
JUNIATA	0
LACKAWANNA	1
LANCASTER	0
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	0
PIKE	0
POTTER	0
SCHUYLKILL	1
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	3

Table 23: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

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[5] In every instance where a voter received a wrong ballot as indicated above, the county reported they were able to correct the matter and reissue a ballot to the appropriate voter while ensuring the incorrect ballot was cancelled and not counted.

Absentee Ballot and Mail-in Ballot Statistics

Ballots Returned Not by Mail or In Person in the 2020 Primary Election.[6]

County	Ballots Returned
ADAMS	0
ALLEGHENY	0
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	1
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	4
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0

County	Ballots Returned
JUNIATA	0
LACKAWANNA	1
LANCASTER	2
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	20
McKEAN	0
MERCER	9
MIFFLIN	0
MONROE	0
MONTGOMERY	112
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	2
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	2
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0
Total	**153**

Table 24: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

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[6] In the above reports, figures include emergency ballots, ballots returned through a voter-designated agent, or other persons that were not the voter. For more information, see pp. 38-39.

Act 12 of 2020 Statistics

Election Officers Appointed in Districts Outside District of Residence for the 2020 Primary Election.[7]

County	Election Officers Appointed
ADAMS	23
ALLEGHENY	296
ARMSTRONG	58
BEAVER	No data provided
BEDFORD	5
BERKS	413
BLAIR	86
BRADFORD	34
BUCKS	372
BUTLER	52
CAMBRIA	35
CAMERON	8
CARBON	25
CENTRE	203
CHESTER	139
CLARION	0
CLEARFIELD	5
CLINTON	14
COLUMBIA	Data not available at this time
CRAWFORD	15
CUMBERLAND	167
DAUPHIN	0
DELAWARE	Data not available at this time
ELK	0
ERIE	138
FAYETTE	32
FOREST	2
FRANKLIN	40
FULTON	1
GREENE	44
HUNTINGDON	40
INDIANA	18

County	Election Officers Appointed
JEFFERSON	5
JUNIATA	0
LACKAWANNA	186
LANCASTER	341
LAWRENCE	3
LEBANON	No data provided
LEHIGH	0
LUZERNE	168
LYCOMING	0
McKEAN	14
MERCER	56
MIFFLIN	8
MONROE	88
MONTGOMERY	0
MONTOUR	1
NORTHAMPTON	169
NORTHUMBERLAND	11
PERRY	1
PHILADELPHIA	Data not available at this time
PIKE	0
POTTER	2
SCHUYLKILL	36
SNYDER	1
SOMERSET	13
SULLIVAN	0
SUSQUEHANNA	5
TIOGA	0
UNION	10
VENANGO	31
WARREN	25
WASHINGTON	238
WAYNE	25
WESTMORELAND	350
WYOMING	0
YORK	167
Total	**4,217**

Table 25: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

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[7] Several counties did not have this data readily available at this time.

Act 12 of 2020 Statistics

Number of Polling Places Consolidated that did Not Require DOS Approval for the 2020 Primary Election.

County	Polling Places Consolidated
ADAMS	0
ALLEGHENY	N/A
ARMSTRONG	3
BEAVER	1
BEDFORD	2
BERKS	0
BLAIR	9
BRADFORD	0
BUCKS	9
BUTLER	0
CAMBRIA	6
CAMERON	N/A
CARBON	13
CENTRE	4
CHESTER	73
CLARION	2
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	11
CUMBERLAND	8
DAUPHIN	6
DELAWARE	151
ELK	0
ERIE	0
FAYETTE	0
FOREST	N/A
FRANKLIN	0
FULTON	0
GREENE	5
HUNTINGDON	42
INDIANA	2
JEFFERSON	1
JUNIATA	0
LACKAWANNA	14

County	Polling Places Consolidated
LANCASTER	6
LAWRENCE	8
LEBANON	0
LEHIGH	0
LUZERNE	86
LYCOMING	0
McKEAN	0
MERCER	1
MIFFLIN	12
MONROE	0
MONTGOMERY	212
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	8
PERRY	0
PHILADELPHIA	N/A
PIKE	0
POTTER	0
SCHUYLKILL	9
SNYDER	2
SOMERSET	5
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	11
WAYNE	2
WESTMORELAND	0
WYOMING	0
YORK	0
Total	724

Table 26: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Act 12 of 2020 Statistics

Polling Place Consolidation Requiring DOS Approval for the 2020 Primary Election.

County	Polling Places Consolidated
ADAMS	0
ALLEGHENY	830 into 211
ARMSTRONG	0
BEAVER	0
BEDFORD	0
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	10 into 3
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	0
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	9 into 2
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0

County	Polling Places Consolidated
LAWRENCE	0
LEBANON	0
LEHIGH	0
LUZERNE	0
LYCOMING	0
McKEAN	0
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	0
PERRY	0
PHILADELPHIA	850 into 190
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	0
WAYNE	0
WESTMORELAND	0
WYOMING	0
YORK	0

Table 27: Data in this table is based on the request for approval the referenced counties submitted to the Department of State.

Act 12 of 2020 Statistics

Polling Places Located Subject to Section 1803-B during the 2020 Primary Election.

County	Polling Places
ADAMS	0
ALLEGHENY	1
ARMSTRONG	0
BEAVER	0
BEDFORD	2
BERKS	0
BLAIR	0
BRADFORD	0
BUCKS	0
BUTLER	0
CAMBRIA	0
CAMERON	0
CARBON	0
CENTRE	0
CHESTER	0
CLARION	0
CLEARFIELD	0
CLINTON	0
COLUMBIA	0
CRAWFORD	0
CUMBERLAND	0
DAUPHIN	1
DELAWARE	0
ELK	0
ERIE	0
FAYETTE	0
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	0
HUNTINGDON	0
INDIANA	0
JEFFERSON	0
JUNIATA	0
LACKAWANNA	0
LANCASTER	0
LAWRENCE	0

County	Polling Places
LEBANON	0
LEHIGH	5
LUZERNE	0
LYCOMING	0
McKEAN	3
MERCER	0
MIFFLIN	0
MONROE	0
MONTGOMERY	0
MONTOUR	0
NORTHAMPTON	0
NORTHUMBERLAND	10
PERRY	0
PHILADELPHIA	10
PIKE	0
POTTER	0
SCHUYLKILL	0
SNYDER	0
SOMERSET	0
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	0
VENANGO	0
WARREN	0
WASHINGTON	11
WAYNE	0
WESTMORELAND	74
WYOMING	0
YORK	0
Total	117

Table 28: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Polling Places Located in a School

Polling placed located in schools for the 2020 Primary Election.

County	Polling Places
ADAMS	1
ALLEGHENY	30
ARMSTRONG	0
BEAVER	4
BEDFORD	0
BERKS	28
BLAIR	6
BRADFORD	0
BUCKS	65
BUTLER	0
CAMBRIA	5
CAMERON	8
CARBON	0
CENTRE	8
CHESTER	93
CLARION	2
CLEARFIELD	1
CLINTON	0
COLUMBIA	0
CRAWFORD	4
CUMBERLAND	8
DAUPHIN	28
DELAWARE	73
ELK	0
ERIE	15
FAYETTE	12
FOREST	0
FRANKLIN	0
FULTON	0
GREENE	3
HUNTINGDON	19
INDIANA	1
JEFFERSON	0
JUNIATA	0
LACKAWANNA	20
LANCASTER	8
LAWRENCE	3

County	Polling Places
LEBANON	2
LEHIGH	17
LUZERNE	26
LYCOMING	1
McKEAN	1
MERCER	8
MIFFLIN	10
MONROE	2
MONTGOMERY	140
MONTOUR	0
NORTHAMPTON	29
NORTHUMBERLAND	6
PERRY	0
PHILADELPHIA	99
PIKE	0
POTTER	0
SCHUYLKILL	1
SNYDER	0
SOMERSET	3
SULLIVAN	0
SUSQUEHANNA	0
TIOGA	0
UNION	2
VENANGO	0
WARREN	2
WASHINGTON	8
WAYNE	0
WESTMORELAND	29
WYOMING	0
YORK	10
Total	841

Table 29: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Pre-Canvassing and Canvassing Statistics

Date and Time of Pre-Canvass Meeting[8]

County	Date/Time of Meeting
ADAMS	6/2/2020 9:00am
ALLEGHENY	6/2/2020 7:00am
ARMSTRONG	6/2/2020 9:00am
BEAVER	N/A
BEDFORD	6/2/2020 7:30am
BERKS	N/A
BLAIR	6/2/2020 9:00am
BRADFORD	N/A
BUCKS	6/2/2020 10:00am
BUTLER	6/2/2020 7:00am
CAMBRIA	6/2/2020 8:00am
CAMERON	6/2/2020 10:00am
CARBON	N/A
CENTRE	6/2/2020 9:00am
CHESTER	6/2/2020 7:00am
CLARION	6/2/2020 4:30pm
CLEARFIELD	6/2/2020 10:00am
CLINTON	N/A
COLUMBIA	6/2/2020 7:00am
CRAWFORD	6/2/2020 10:00am
CUMBERLAND	N/A
DAUPHIN	N/A
DELAWARE	6/2/2020 9:00 am
ELK	6/2/2020 1:00pm
ERIE	6/2/2020 10:00 am
FAYETTE	6/2/2020 8:00am
FOREST	6/2/2020 3:00pm
FRANKLIN	6/2/2020 8:30am
FULTON	6/2/2020 1:00pm
GREENE	N/A
HUNTINGDON	6/2/2020 10:00am
INDIANA	6/2/2020 9:00am
JEFFERSON	6/2/2020 7:00am

County	Date/Time of Meeting
JUNIATA	N/A
LACKAWANNA	6/2/2020 9:00am
LANCASTER	6/2/2020 8:00am
LAWRENCE	6/2/2020 8:10am
LEBANON	N/A
LEHIGH	6/2/2020 7:00am
LUZERNE	6/2/2020 7:00am
LYCOMING	6/2/2020 7:00am
McKEAN	6/2/2020 9:00am
MERCER	N/A
MIFFLIN	6/2/2020 9:30am
MONROE	N/A
MONTGOMERY	6/2/2020 8:00am
MONTOUR[9]	6/1/2020 9:00am
NORTHAMPTON	6/2/2020 7:00am
NORTHUMBERLAND	6/2/2020 8:00am
PERRY	6/2/2020 9:30am
PHILADELPHIA	N/A
PIKE	N/A
POTTER	6/2/2020 10:00am
SCHUYLKILL	6/2/2020 1:00am
SNYDER	6/2/2020 8:00am
SOMERSET	N/A
SULLIVAN	6/2/2020 11:00am
SUSQUEHANNA	6/2/2020 7:00pm
TIOGA	6/2/2020 1:00pm
UNION	6/2/2020 9:00am
VENANGO	6/2/2020 7:00am
WARREN	6/2/2020 9:00am
WASHINGTON	6/2/2020 7:00am
WAYNE	6/2/2020 8:00am
WESTMORELAND	6/2/2020 9:00am
WYOMING	6/2/2020 7:00am
YORK	6/2/2020 7:00am

Table 30: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

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[8] If N/A is listed, it means that the county did not participate in pre-canvassing events.
[9] In the survey responses, Montour County reported they began on 6/1/2020 when they started

preliminary sorting and slicing envelopes opening without removing ballots nor counting ballots.

Pre-Canvassing and Canvassing Statistics

Date and Time of Canvass Meeting for the 2020 Primary Election.

County	Date and Time of Meeting
ADAMS	6/2/2020 9:00am
ALLEGHENY	6/2/2020 8:00pm
ARMSTRONG	6/5/2020 9:00am
BEAVER	6/3/2020 9:00am
BEDFORD	6/2/2020 7:30am
BERKS	6/2/2020 9:00am
BLAIR	6/3/2020 8:00am
BRADFORD	6/2/2020 1:00pm
BUCKS	6/3/2020 9:00am
BUTLER	6/5/2020 9:00am
CAMBRIA	6/2/2020 8:30am
CAMERON	6/5/2020 9:00am
CARBON	6/3/2020 9:00am
CENTRE	6/2/2020 9:00am
CHESTER	6/3/2020 7:00am
CLARION	6/3/2020 9:00am
CLEARFIELD	6/2/2020 8:00pm
CLINTON	6/5/2020 9:00am
COLUMBIA	6/2/2020 8:00pm
CRAWFORD	6/2/2020 8:30pm
CUMBERLAND	6/3/2020 9:00am
DAUPHIN	6/4/2020 9:00am
DELAWARE	6/2/2020 8:30am
ELK	6/3/2020 9:00am
ERIE	6/5/2020 9:00am
FAYETTE	6/5/2020 9:00am
FOREST	6/2/2020 3:00pm
FRANKLIN	6/3/2020 9:00am
FULTON	6/5/2020 9:00am
GREENE	6/3/2020 9:00am
HUNTINGDON	6/2/2020 8:00pm
INDIANA	6/3/2020 8:30am
JEFFERSON	6/2/2020 9:00am
JUNIATA	6/3/2020 9:00am
LACKAWANNA	6/2/2020 5:30pm

County	Date and Time of Meeting
LANCASTER	6/3/2020 9:00am
LAWRENCE	6/2/2020 8:00pm
LEBANON	6/3/2020 9:00am
LEHIGH	6/3/2020 10:00am
LUZERNE	6/2/2020 8:00pm
LYCOMING	6/2/2020 8:00pm
McKEAN	6/5/2020 9:00am
MERCER	6/3/2020 9:00am
MIFFLIN	6/5/2020 9:00am
MONROE	6/3/2020 at 9:30am
MONTGOMERY	6/2/2020 8:00pm
MONTOUR	6/3/2020 9:00am
NORTHAMPTON	6/5/2020 9:00am
NORTHUMBERLAND	6/2/2020 3:45pm
PERRY	6/2/2020 10:00am
PHILADELPHIA	6/5/2020 9:00am
PIKE	6/3/2020 7:00am
POTTER	6/3/2020 9:00am
SCHUYLKILL	6/2/2020 1:00pm
SNYDER	6/2/2020 9:00pm
SOMERSET	6/2/2020 9:00am
SULLIVAN	6/5/2020 9:00am
SUSQUEHANNA	6/2/2020 8:00pm
TIOGA	6/3/2020 8:30am
UNION	6/5/2020 9:00am
VENANGO	6/5/2020 8:00am
WARREN	6/5/2020 9:00am
WASHINGTON	6/3/2020 9:00am
WAYNE	6/2/2020 8:00pm
WESTMORELAND	6/5/2020 5:00pm
WYOMING	6/2/2020
YORK	6/2/2020 8:00pm

Table 31: Data obtained from each county via a uniform survey requesting the data required pursuant to Act 35.

Pre-Canvassing and Canvassing Statistics

Last Date County Reported Counting all Domestic Ballots for the 2020 Primary Election.[10]

County	Date and Time of Meeting
ADAMS	6/4/2020
ALLEGHENY	6/17/2020
ARMSTRONG	6/11/2020
BEAVER	6/11/2020
BEDFORD	6/3/2020
BERKS	6/9/2020
BLAIR	6/8/2020
BRADFORD	6/17/2020
BUCKS	6/17/2020
BUTLER	6/8/2020
CAMBRIA	6/5/2020
CAMERON	6/5/2020
CARBON	6/18/2020
CENTRE	6/5/2020
CHESTER	6/15/2020
CLARION	6/17/2020
CLEARFIELD	6/5/2020
CLINTON	6/9/2020
COLUMBIA	6/9/2020
CRAWFORD	6/18/2020
CUMBERLAND	6/16/2020
DAUPHIN	Not provided
DELAWARE	6/18/2020
ELK	6/3/2020
ERIE	6/12/2020
FAYETTE	6/22/2020
FOREST	6/5/2020
FRANKLIN	6/9/2020
FULTON	6/5/2020
GREENE	6/17/2020
HUNTINGDON	6/5/2020

County	Date and Time of Meeting
INDIANA	6/16/2020
JEFFERSON	6/5/2020
JUNIATA	6/5/2020
LACKAWANNA	6/8/2020
LANCASTER	6/16/2020
LAWRENCE	6/9/2020
LEBANON	week of 6/8/20
LEHIGH	6/12/2020
LUZERNE	6/18/2020
LYCOMING	6/15/2020
McKEAN	6/5/2020
MERCER	6/9/2020
MIFFLIN	6/10/2020
MONROE	6/5/2020
MONTGOMERY	6/17/2020
MONTOUR	6/4/2020
NORTHAMPTON	6/5/2020
NORTHUMBERLAND	6/3/2020
PERRY	6/5/2020
PHILADELPHIA	6/17/2020
PIKE	6/5/2020
POTTER	6/4/2020
SCHUYLKILL	6/11/2020
SNYDER	6/4/2020
SOMERSET	6/10/2020
SULLIVAN	6/5/2020
SUSQUEHANNA	6/5/2020
TIOGA	6/5/2020
UNION	6/11/2020
VENANGO	6/5/2020
WARREN	6/5/2020
WASHINGTON	6/12/2020
WAYNE	6/8/2020
WESTMORELAND	6/9/2020
WYOMING	6/5/2020
YORK	6/12/2020

Table 32: Data obtained from each county via a uniform survey as well as other county post-election reporting regarding ballot counting status.

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[10] Data not requested by Act 35 but included for informational purposes.

Review of Actions Taken

The General Assembly's enactment of the election reforms contained in Act 2019-77 and Act 2020-12 and election officials' subsequent implementation of those legislative reforms enabled Pennsylvania to respond effectively to the unique challenges posed by the COVID-19 pandemic. The mail-in voting option in Act 77 and the emergency polling place and poll worker provisions in Act 12 gave voters expanded access to voting by mail and helped county election officials protect public health for in-person voting.

As mentioned in the introduction to this report, the confluence of circumstances leading up the June 2 Primary, including the closures and restrictions caused by COVID-19 and the unprecedented volume of voters voting by mail, resulted in some unavoidable challenges. Delays and errors in fulfilling some ballot requests in several counties required those counties not only to take quick actions to correct errors, but also to provide individualized outreach to correct any confusion among voters experiencing these issues.

Counties collectively reported that 3,288 ballots were sent to the wrong voter or to the wrong address. Of this total, 3,000 were reported by a single county (Allegheny). That county reported that 3,000 ballots were returned as undeliverable because the voters provided an incorrect or no longer valid address. In about half of these cases, the county was able to reissue ballots, but in some cases the undeliverable ballots arrived too late for the county to reissue ballots.

The causes of the remaining errors and irregularities include the following:

- mail house vendor errors;
- mailing addresses on some address labels without an apartment number due to an anomaly in the Online Absentee Ballot application that did not require applicants to enter apartment information in the correct field;
- human error when inserting balloting materials into envelopes;
- mail delivery errors that resulted in individuals receiving another voter's balloting materials; and
- timing issues that resulted in voters receiving ballots at an address after they moved or returned to a previous address.

Counties reported that three (3) ballots (of the nearly 2.9 million ballots voted in the Primary Election) were voted by someone other than the voter. In each of these three cases, the person who voted the ballot received it in error, and in each case county election officials voided the ballots and re-issued them to the appropriate voter. Based on the information reported by the counties, these situations were reviewed by the counties, who reported that the facts did not appear to be willful nor attempted fraud, and thus they were dealt with administratively.

Counties reported that a total of 153 ballots were returned by means other than the voter sending it by mail or delivering it in person to a site designated by the county board of elections. Of those 153 ballots, 117 ballots were delivered on behalf of voters with disabilities by duly

designated agents. The remaining 36 instances appear to be the result of confusion regarding the requirements for delivering balloting materials. For example, Mercer County reported that a care home administrator delivered the ballots of nine (9) residents on Election Day because they had failed to timely mail the ballots. The county reported that it informed the care home administrator that the ballots could not be counted. Lycoming County reported that it allowed approximately 20 ballots to be delivered by the voters' spouses. That county has taken steps to ensure that its staff does not accept this type of delivery in the future.

In addition to the issues reported in response to the Act 35 inquiries, in Montgomery County approximately 1,900 voters were sent ballots for the incorrect political party. The county cancelled the ballots and issued new ballots to each affected voter. Also, in Montgomery County, about 4,000 additional voters received the wrong ballot style. Unfortunately, the county became aware of this issue late in the process, at which point there was no longer time to issue new ballots and send them by mail. The county cancelled all the incorrect ballots and contacted the affected voters to inform them that they could vote provisionally at the polls or come to the county in person to request a replacement ballot. In both these circumstances, the county's mail house vendor did not employ adequate quality control measures to prevent such errors from occurring. The county is no longer using this vendor and will ensure stricter quality control measures going forward.

In the lead up to the June 2, 2020 Primary, the Department worked with the counties that experienced delays and/or errors in the fulfillment of ballot requests to aid them in assessing the causes and identifying appropriate solutions for any problems that occurred. Immediately following the conclusion of the Primary, the Department reached out to the counties to follow up on all issues and begin working with them on ways to prevent future occurrences, and expanded our work with them on process improvement and implementation of best practices. The Department also engaged experts to work directly with counties to break down and evaluate their internal processes and external dependencies to identify specific actions that the counties must take to avoid similar delays and errors for the November general election.

The data provided by the counties reinforces numerous independent studies that conclude that mail ballot fraud is exceedingly rare, and it demonstrates that the errors that occurred accounted for a very small fraction of the nearly 1.5 million absentee and mail-in ballots requested and cast by voters. Nonetheless, it also demonstrates the need for additional education and outreach to ensure that the issues experienced during the primary do not recur.

Issues or Incidents Involving Voting Machines

The counties reported relatively few voting system errors or issues in the 2020 Primary Election. Of the 27 counties that reported experiencing any voting system issue, all but three (3) counties reported only isolated issues with scanners or ballot- marking devices that were quickly resolved through maintenance or replacement. For example, nine (9) counties had to replace or take offline approximately 30 scanners on Election Day and one (1) county had to replace a defective power cord on a scanner. The remaining counties experienced isolated errors related to needing to replace the paper roll or ink cartridge for the printers, cleaning and calibration adjustments, paper jams, battery failures and errors in opening the polls and other minor poll worker errors. In the overwhelming majority of counties these routine issues were reported in fewer numbers in the 2020 primary than voting system issues reported in comparable prior years with older voting systems.

In the three (3) counties that experienced more significant issues, voters were able to continue voting with little to no interruption throughout the day. In each instance, the issues were not actually voting system issues; rather, they concerned printing vendor errors resulting in some ballots that did not fit through the scanners or were too lightly printed to be successfully scanned, or the use of incorrect markers resulting in write-in votes unable to be scanned.

Each of these issues was addressed at the time and additional corrective action is being taken, as described below:

Bucks County, whose printing vendor cut some ballots too large to be scanned by the precinct scanners, addressed the issue immediately by instructing voters to cast their ballots in the emergency ballot box on the scanner so they could be secured and returned to the county to be tabulated centrally. The county is implementing changes to ensure this does not recur in the future, including evaluating a change in print vendor and augmenting quality control and testing measures.

Similarly, in Lancaster County, where some ballots were too lightly printed to be read by the scanner, the county addressed the immediate issue by instructing voters to insert the improperly printed ballots into the emergency ballot box on the scanner so they could be secured and returned to the county to be tabulated centrally. The county has cancelled its contract with the print vendor and is in the process of rebidding the contract and will implement changes to ensure this does not recur.

Clarion County experienced issues with the scanners' reading of write-in votes on election day ballots and determined that the issue was caused by the pens used to mark the ballots, not the voting system itself. Though the issue did not impede voting, it did significantly slow the canvassing of write-in votes after election day. Because they could not be effectively scanned and captured at the precinct on election day, all ballots with write-in votes had to be rescanned at the county and reconciled manually. The county will be implementing improved training to address this prior to the November election.

The Department will continue working with all counties to ensure that their pre-election logic and accuracy testing is completed as broadly and effectively as possible. Additionally, the Department will work with counties to conduct additional education for poll workers and voters alike. COVID-19 significantly affected both poll worker recruitment and training, and also prevented many counties from holding in-person voting system demonstrations to give poll workers, voters, and other stakeholders an opportunity to gain hands-on experience with new voting systems.

The Department's Ready to Vote 2020 campaign will continue to serve as an important resource for information about each county's voting system. This resource includes online step-by-step instructions for each county's voting system, as well as video demonstrations of voting on each voting system. These resources are supplemented by poll worker training resources provided by both the Department and voting system vendors to ensure that poll workers have access to training materials that they can review in their own homes. The Ready to Vote 2020 campaign also includes a toolkit that candidates, legislators, parties, and other stakeholders can use to generate awareness about these resources. It is essential that all stakeholders work to expand knowledge of these resources, to increase voter education, poll worker recruitment, and poll worker training, to ensure the most accessible and secure participation by eligible voters in this November's election.

Conclusions

The 2020 Primary Election provided some clarity on additional changes that the General Assembly should consider regarding the administration of elections.

Delivery of Ballots to Voters

Section 1305 of the Election Code requires a county board of elections to begin delivering or mailing ballots to voters no later than 14 days before a primary or election. Based on the experiences of the primary election, we believe this is not nearly enough.

Therefore, the Department recommends that the deadline for counties to begin delivering or mailing ballots to voters be increased to at least 28 days before the election, and if a third-party vendor is used, counties should be required to submit the initial list of approved applicants to its third-party vendor(s) no fewer than 35 days prior to an election. These changes would help ensure that voters receive their ballot earlier and have an appropriate amount of time to complete and return their ballot.

Return of Ballots to Counties

Requiring ballots to be sent to voters earlier will only solve part of this problem, however. Some voters will not receive their ballots until only a day or two before an election; others will receive their ballot earlier but may not return it until closer to the election. To allow for all of these votes to be counted, the Department recommends that counties be required to count votes that are received by the county board of elections no later than the Friday following an election, provided that the envelopes have been postmarked by Election Day. Allowing ballots to be returned by the Friday after Election Day will allow ample time for all votes to be counted prior to the statutory deadline to order a statewide recount of any race that is decided by less than a 0.5% margin. Coupled with a change of date for counties to begin delivering or mailing ballots to voters, this change would provide eligible voters the greatest ability to cast their vote.

Pre-Canvass Timeline

As mentioned earlier in this report, the Department also supports counties beginning the pre-canvassing process as early as three weeks before Election Day. To illustrate why this is important, we can look to the Democratic Primary on June 2: At midnight on June 3, 2020, the Democratic race for Auditor General was led by one candidate. Due to delays in canvassing of ballots, it was not until days later that a different candidate, Nina Ahmad, took the lead as ballots continued to be counted. This same process occurred in nine (9) House and Senate races. Even with Act 12 of 2020 moving back the pre-canvassing period from 8pm on Election Day to 7am, it was still not enough time, and in approximately half the counties, ballots were still being counted over a week later. Allowing counties to begin taking these steps earlier would allow them to report accurate and nearly complete results in a timely manner.

The Department recommends that this period be extended to three weeks prior to the primary or election. The Department further recommends that counties be required to conduct at least one pre-canvass meeting, and as many meetings as necessary to pre-canvass all ballots received

prior to the Friday before a primary or election. Counties would be required to follow procedures already in place to notify the public, political parties, and campaigns about these pre-canvass meetings. Furthermore, the law already prohibits any person attending or participating in a pre-canvass meeting from disclosing the results of a pre-canvass meeting prior to the close of the polls. The penalty for doing so is enumerated in Section 1853 of the Election Code, which provides for a fine of up to $2,500 and/or up to two years in jail. Thus, the Department believes that changes can be implemented that would ensure that counties would be able to report accurate and more complete results on election night without risking the release of results beforehand.

Poll Worker Flexibility

Act 12 of 2020 authorized counties to appoint poll workers for the 2020 Primary Election who were not specifically registered electors of the election district they were serving in on the day of the primary. This flexibility allowed for the counties to appoint thousands of poll workers in order to fill vacancies in advance of the primary. The Department believes that making this provision of Act 12 permanent would enhance poll worker recruitment and is of urgent need given the continuance of COVID 19 precautions.

Additionally, the Department would recommend that Section 405 of the Election Code be modified to provide a county Board of Elections with a greater amount of time prior to an election in which they may appoint poll workers to fill vacancies. Currently, a county must wait until five days before an election to appoint poll workers to fill vacancies. Prior to those five days the county must seek Court approval to appoint them. The Department believes that this should be changed to allow counties the authority to fill vacancies beginning at least 60 days before Election Day. Like the other recommendation described above, this would provide counties with greater flexibility in ensuring that all polling places are properly staffed on election day.

The Pennsylvania Department of State and all 67 counties have demonstrated the strength of our election officials' commitment to ensuring the integrity, accessibility, and security of our elections. On June 2, 2020, Pennsylvanians reaffirmed the durability of our democracy when we exercised our right to vote amid a worldwide pandemic and nationwide social unrest, and overwhelmingly embraced new, more secure voting systems and expanded options for voting safely by mail. We have our dedicated county election officials and poll workers, as well as our resilient voters, to thank for the success of the primary election. With their continued commitment and collaboration, we look forward to holding another successful election on November 3rd.

Exhibit 35

Polling Places Draw Long Lines, Report Few Problems, Amid Pandemic And Unrest

By Chris Potter

Given that Pennsylvania's 2020 primary is taking place amid a global pandemic and nationwide unrest over policing, voting has preceded quietly in Allegheny County since the polls opened at 7 a.m. With two hours left to go before polls closed at 8 p.m., there were few problems to report -- although lines at some polling places were getting longer as the workday ended. An Allegheny County Judge, in fact, agreed to keep the polls open at the Penn Hills Libary on Stotler Road until 9 p.m., owing to concerns about access to the site.

Traffic jams around the site were a problem throughout much of the day, and shortly before the polls closed, ACLU of PA legal director Vic Walczak filed a motion to keep the site open. As a matter of law, any voter in line when the polls close is eligible to vote, but Walczak said the challenge for voters in Penn Hills was getting into line to begin with.

"You couldn't get into the parking lot," he said. The nearest parking was a down a hill with no sidewalk, "and the issue was that people either couldn't get into the lot, and either couldn't or didn't want to walk a quarter mile."

The move was not expected to delay reporting of results from elsewhere in the county.

Voters at a Highland Park polling place, meanwhile, reported waits of up to an hour.

"I would rather do the risk and vote rather than sit around and say 'woulda shoulda coulda,'" said Highland Park resident Vickie Davis, about why she was willing to wait. She said she requested a vote-by-mail ballot but didn't receive one in time.

Waits elsewhere were not as long, though there were complications. Lines at Wilkinsburg's municipal building wrapped around the block but the line moved briskly once officials opened another room to voters. Some activists expressed concern that the mostly-black borough's municipal building also housed its police department -- a potentially unwelcome backdrop amid nationwide protests of police misconduct. But Wilkinsburg voter Idris Carlow said the protests, and Donald Trump's militaristic response to them, underscored the importance of voting.

"We've got a president in there right now who, instead of trying to work with everybody... he's trying to bring the National Guard in, he's trying to push for a more violent ssituation," he said. "It's already violent enough."

As of 5:40 p.m., the county had scanned over 107,500 mail-in ballots, out of the more than 185,000 it received prior to Election Day, at the North Side warehouse that is the center of ballot-counting operations.

The actual scanning of ballots is a rapid-fire process: The county has eight optical scanners capable of processing 300 ballots per minute. The most labor-intensive part of the process is removing ballots from their envelopes and smoothing them so they don't jam the scanners. A county spokeswoman said she expected the pace of scanning to increase as the day wore on: It took the county from 7 a.m. until lunchtime to count its first 24,000 ballots -- by dinnertime workers had processed roughly 37,000 ballots in the previous hour-and-a-half.

County officials say there have been a handful of issues reported from various polling sites. Election workers in Elizabeth Township initially couldn't find any ballots for Republican voters this morning, but discovered they had merely been misplaced. Similar lapses were reported elsewhere by afternoon, when the county said that "in each case, ballots were found at those locations. The division also sent additional ballots to each of these polling places."

Some voters in other polling locations, in particular Brashear High School used by voters in Pittsburgh's southern neighborhoods, complained that they had been assigned ballots for the wrong party's primary. A county spokesperson said problems there were "minimal" and were addressed before lunchtime.

There were also scattered reports, in Brentwood and elsewhere, of voters being turned away without masks: While county officials have urged everyone to wear a mask at the polls -- and while poll workers have a supply of spare masks to hand out -- it is not a requirement to vote. "We contacted each polling place again to reiterate that voters can vote even if they do not wear a mask," the county said in a late-afternoon statement.

Poll workers tremselves are required to wear masks or face shields, the county added.

At least one altercation took place between a voter and a constable after the voter began denouncing socialism outside a polling place at Taylor Allderdice High School in the East End. According to video viewed by WESA, the constable was called out to deal with the voter, who pushed the constable back into a nearby dumpster. The men wrestled on the ground before the fight was broken up.

County officials said the man was allowed to vote and was told no charges would be filed.

It is difficult to compare turnout to previous elections. In an effort to limit the spread of the coronavirus, the county shrunk its 1,300 polling places down to fewer than 200. And much of the voting has already taken place, thanks to a dramatic expansion of mail-in balloting.

While tens of thousands of mail-in votes have already been counted, county officials cannot release any of those totals until polls close at 8 p.m. There will likely be a sizable number of votes reported shortly afterwards. That will mark a shift from prior years, in which counting began only after polls closed and initial results often weren't available for an hour or longer.

Still, it is not clear when winners in many of these races will be called. Late Monday, Gov. Tom Wolf announced that in Allegheny and five other counties, election officials should count mailed-in ballots that arrive at the elections office as late as next Tuesday, provided they are postmarked today.

Lucy Perkins contributed to this story.

Exhibit 36

As counties look to consolidate polling places, advocates worry about voter disenfranchisement

By Ivey DeJesus | idejesus@pennlive.com   April 28, 2020

Elections officials across the state are bracing for a walk-out of sorts. Not technically a walk-out but a no-show.

With the current coronavirus pandemic still ratcheting up the count of positive cases and deaths across Pennsylvania, election officials are worried that poll workers are thinking twice about working on June 2, the newly designated primary date.

The prospect is pushing up against the idea of further consolidating polling places.

The underlying reason: Poll workers tend to be older individuals - typically retired - and as such, they belong to one of the most COVID-19 vulnerable demographics.

Election officials are concerned that with the lethal virus still a threat, poll workers will decide to stay home on election day rather than risk exposure to the deadly virus.

"I'm in touch with inspectors and judges to see what their comfort level is and I can tell you right now today I'm going to be missing 30 percent of poll workers," said Jerry Feaser, director of the Dauphin County Office of Elections and Voter Registration.

"That varies from poll workers not willing to serve given the conditions to precincts where maybe a handful of poll workers would be missing."

Elections clerks and machine operators are appointed and paid by the county. Judges and inspectors are elected.

Coronavirus cases in Pennsylvania

As of 12 p.m. July 20, 2020, the Pa. Department of Health reports that there are 101,738 confirmed and probable cases of COVID-19 in Pennsylvania. There are at least 7,018 reported deaths from the virus.
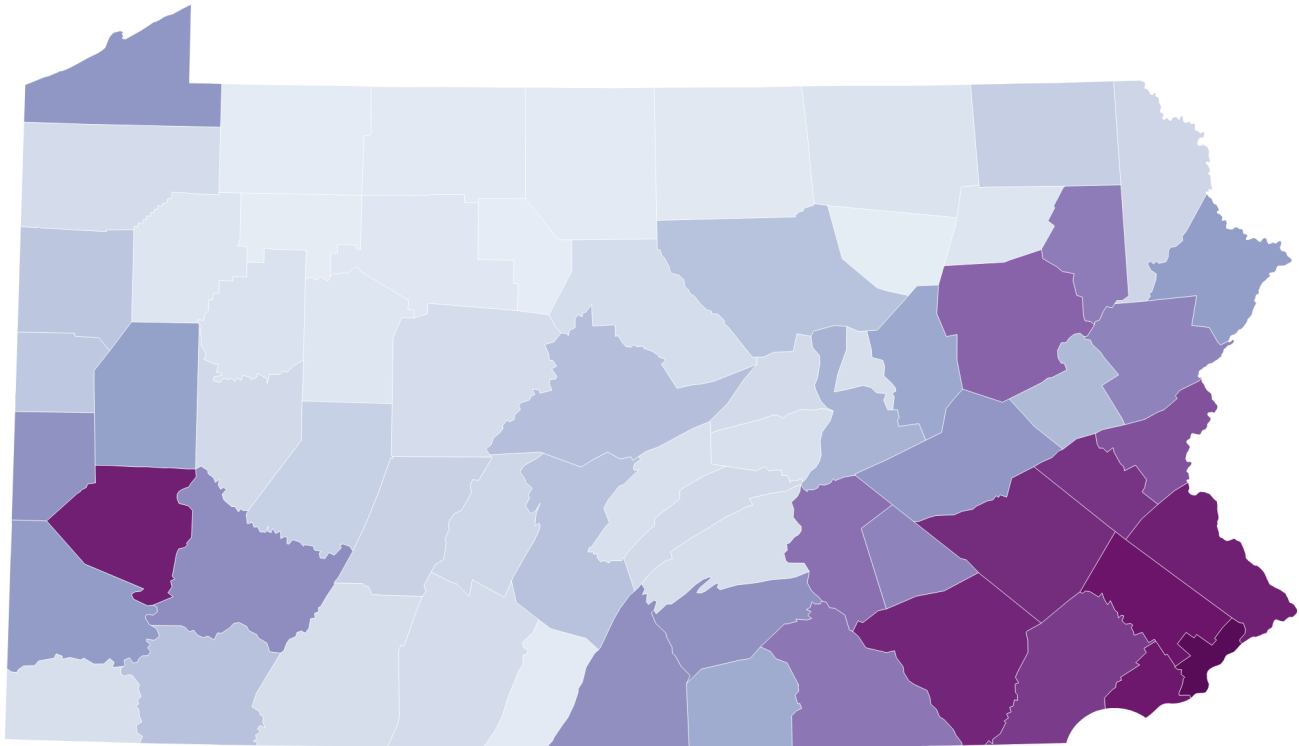
Map: Megan Lavey-Heaton | PennLive.com • Source: Pa. Department of Health • Created with Datawrapper

Gov. Tom Wolf in March signed legislation to move the primary, originally scheduled to be held Tuesday, to June 2. The new law allows counties to consolidate up to 60 percent of polling places.

Under the new law, county election officials must consolidate polling places no later than 20 days prior to the primary election.

The practical application of that directive is engendering different options - if not opinions across the state.

Densely populated counties such as Allegheny, for instance, which has about 1,300 polling places, are pushing to reduce the number of polling places to fewer than 200.

But even smaller county electorates are weighing the realities brought on by a coronavirus weary public.

Already across Pennsylvania, poll workers have called off ahead of the primary, expressing to country officials fears that they will be exposed to the virus while working with the public.

"I'm 69 and I have a lot of friends working the polls, many great people, very dedicated. They take their job seriously," said Doug Hoke, a York County Commissioner. "But this is a very unusual time and it's a threatening virus. I don't want to see us get to the last minute and find out that we are in this situation."

Hoke said he is encouraging voters to use the no-excuse mail-in ballot, but thinks that further reduction of polling places may be necessary.

"We have 161 polling places and we already have some difficulty maintaining them with ADA (the Americans with Disabilities Act)," he said. "Some are very, very small organizations with 500 voters. Combining some of them for a very convenient place to poll probably makes a lot of sense under this circumstance."

Feaser said Dauphin County managed to hold 19 training sessions for poll workers just in time before the ban on large group gatherings went into effect under the emergency pandemic restrictions.

With approximately 159,000 voters eligible to vote in the primary, Feaser said Dauphin County may not have an option but to further consolidate polling places

"We would have to," he said. "A couple of boards are raring to go but those are few and far in between."

Feaser expects his poll capacity to be down 30 percent "if things don't improve."

Elections officials are having to work around restrictions on large public venues that have historically served as polling places, including schools, libraries and municipal buildings.

Feaser said he is looking to identify alternate locations for six precincts, while an additional 16 are in the "wait and see" mode as far as their readiness for primary day.

"Come May 1, we may have a little gap to fill or a whole lot," he said.

Coronavirus cases in Pennsylvania

As of 12 p.m. July 20, 2020, the Pa. Department of Health reports that there are 101,738 confirmed and probable cases of COVID-19 in Pennsylvania. There are at least 7,018 reported deaths from the virus.
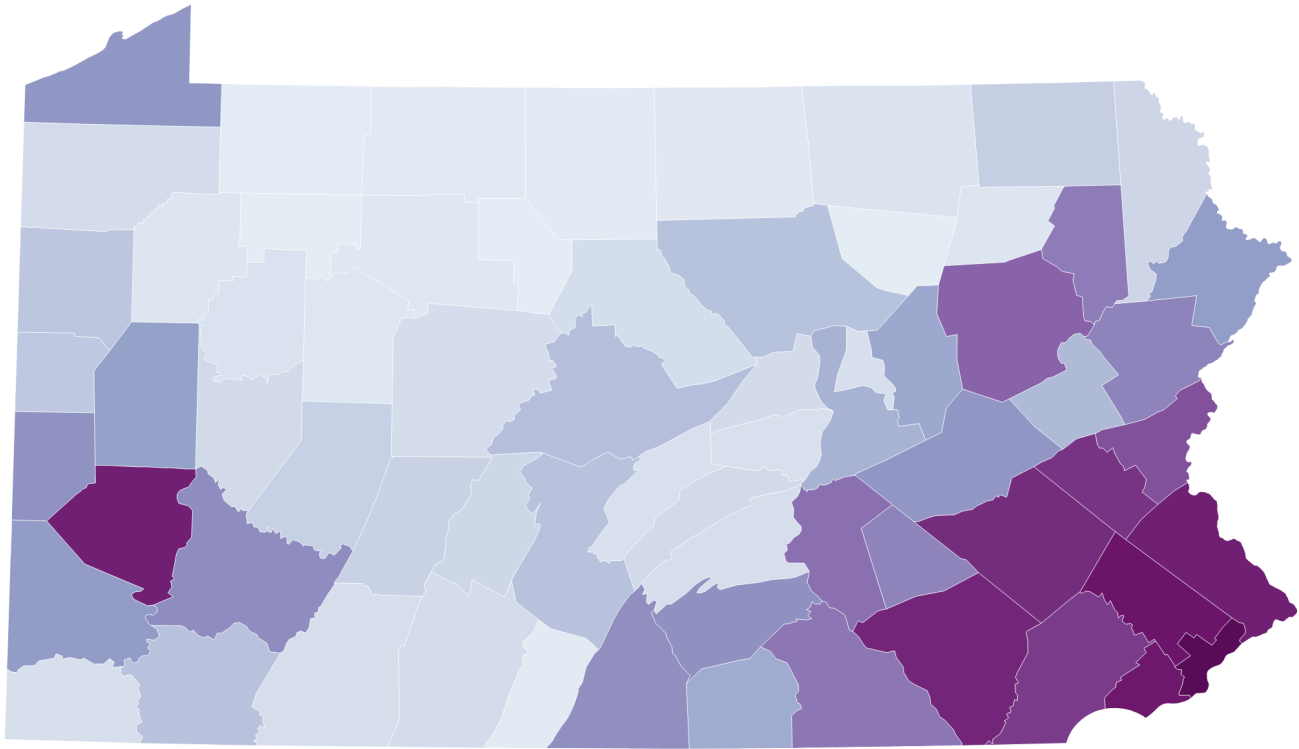
Map: Megan Lavey-Heaton | PennLive.com • Source: Pa. Department of Health • Created with Datawrapper

The whole state of affairs has fueled concerns about the primary and its integrity. Chief among those concerns is voter disenfranchisement.

"We know that counties are trying to balance the logistical restrictions of running an election during a pandemic with the need to ensure voting is accessible," said Suzanne Almeida, Redistricting and Representation Counsel for Common Cause, a progressive organization. "The most important thing is that voters aren't disenfranchised."

Almeida said that means that counties need to be careful when consolidating polling places to use places that are accessible, within a reasonable distance from the old polling place, and easily reachable by public transportation.

"Counties also must provide clear information to voters about where their polling place will be, including signage, information on a website, and possibly mailing information to every affected voter," she said.

Indeed, that is included in the letter of the law.

Under the new law, two or more precincts may locate their polling place within the same building, but there must be a clear delineation of each precinct. These emergency guidelines are set to expire after the primary election and normal procedures to resume for the upcoming general election in November.

Still, Rogette Harris, chairwoman of the Dauphin County Democrats, and the only African American to hold such a post in Pennsylvania, remains concerned that further consolidation would have adverse impacts on communities of color.

"My biggest concern is that there is enough time to alert people of the changes," she said. "You'll have some people who go to the old poll and they might not take the time to find the new polling place. It's about communication. It's messaging."

She also has concerns about transportation - meaning voters who live in low-income areas being unable to get to new polling places.

"We want to make sure we don't disenfranchise any communities," Harris said. "I 'm hoping that as these decisions are made, that all communities are included in the discussion. My concern is that we make sure all voices are included and that decisions are not made based on the voices of a few."

More from PennLive

Unresponsive, unreachable unemployment office infuriates Pennsylvania residents

Most central Pa. counties not ready for 'yellow' stage of coronavirus reopening, based on announced formula

Despite shutdown of Pa., most voters support Gov. Tom Wolf's handling of coronavirus crisis

This report was updated to clarify that clerks and machine operators are paid by the county.

Exhibit 37

ELECTION 2020 | **CORONAVIRUS PANDEMIC**

On unprecedented Pa. primary day, high turnout in West Philly, too-big ballots in Bucks

By Avi Wolfman-Arent , Miles Bryan , Ximena Conde , Laura Benshoff , Layla A. Jones , Peter Crimmins , Katie Meyer · June 2, 2020

Odell Griffin places his mail-in ballot in a box outside City Hall. (Emma Lee/WHYY)

Updated: 1:45 p.m.

It is an election day in Philadelphia unlike any in recent memory.

One day after Philadelphia police tear-gassed protestors on a major city highway — and in the middle of a global pandemic that has triggered an economic shockwave — voters will cast ballots in the Pennsylvania primary.

As polls opened at 7 a.m., socially-distant lines formed at a consolidated number of polling places.

At DiSilvestro Recreation Center at Broad and Morris streets in Philadelphia, many voters waited a half an hour to cast their ballots, and some voiced concerns about being late for work.

> **There is a long, socially-distanced line to vote outside the DiSilvestro Recreation Center.** pic.twitter.com/xuecOFO4F6
>
> **— Laura Benshoff (@LEBenshoff)** June 2, 2020

> **Meg Kane has been waiting about 30 min to vote at this point. She came 8 blocks to this consolidated polling place where the line of ~50 is moving pretty slowly** pic.twitter.com/zB2brD1HGz
>
> **— Laura Benshoff (@LEBenshoff)** June 2, 2020

> **John Shuman, of Point Breeze, says he's concerned about social distancing at his polling place. It's a very small room and many people are impatiently crowding outside. "Almost seems like they did this on purpose."** pic.twitter.com/hGvCcARURk
>
> **— Laura Benshoff (@LEBenshoff)** June 2, 2020

Even before the death of George Floyd at the hands of police in Minnesota and the civil unrest that followed, this would have been an unusual election.

Because of the coronavirus outbreak — which continues to sicken hundreds of Pennsylvanians each day — officials postponed the primary from April 28 and encouraged mail-in voting. More than 1.8 million voters across the state have requested mail-in ballots.

Meanwhile, several counties — including Philadelphia, Delaware and Montgomery — slashed the number of in-person polling places by more than half, as venues and poll-workers dropped out due to the coronavirus.

At DiSilvestro, poll workers said this location was the consolidation of 10 others. Voters described walking three-quarters of a mile to get there instead of to their usual polling place in one of the densest parts of the city.

The line moved slowly, and inside, the polling room was crowded, prompting some to voice concerns about the safety of voting here during a pandemic.

"I don't understand why they put all these people in one place," said John Shuman, who lives in Point Breeze. "I mean if you're working about [coronavirus], you got more people here than spreading it out."

> **John Shuman, of Point Breeze, says he's concerned about social distancing at his polling place. It's a very small room and many people are impatiently crowding outside. "Almost seems like they did this on purpose."** pic.twitter.com/hGvCcARURk
>
> **— Laura Benshoff (@LEBenshoff)** June 2, 2020

And there was one more adjustment made Monday, as Gov. Tom Wolf declared that officials in six counties — Philadelphia, Delaware, Montgomery, Erie, Allegheny and Dauphin — now have an extra week to count ballots mailed by Tuesday.

Given the circumstances, Philadelphia officials expect a much smaller in-person turnout than usual — considering also the nominations of Donald Trump and Joe Biden in this year's presidential contest have become foregone conclusions.

Polls close at 8 p.m. A citywide curfew, imposed by Mayor Jim Kenney, will take effect at 8:30 p.m. Tuesday to accommodate voting.

Bucks contends with ballot issues, an eleventh-hour court challenge

In Bucks County, which is using new voting machines countywide for the first time this election, an unexpected issue has popped up: Some ballots are too big to fit into the machines.

Bucks is using machines that require voters to fill out a paper ballot, then feed it into a scanner.

County spokesman Larry King said commissioners don't yet know the scale of the problem, but have seen sporadic issues at polling places across the county that have affected ballots for both parties.

The solution, he said, is rudimentary: Commissioners have instructed judges of elections to have their poll workers simply cut a sliver off of the ballot with scissors or a paper cutter, which usually solves the problem.

Officials believe the issue is the fault of the vendor in charge of printing the ballots, Reliance Graphics.

King said he voted in person in Doylestown this morning and noticed that his own ballot was a little wide for the scanner. He eventually forced it in, and the machine accepted it.

He added, county officials have instructed judges of elections who aren't able to cut down ill-fitting ballots to place them in an emergency ballot box, which will be brought to the county elections office in Doylestown and tallied there.

Too-big ballots aren't the only factor adding an element of chaos to Bucks' election.

Late last week, county officials submitted an emergency petition to the county's Court of common Pleas, asking for voters to get more time to return mail-in ballots due to sluggish mail. The judge,

James McMaster, is expected to issue a decision Tuesday afternoon.

Bucks, which has so far seen largely peaceful protests, wasn't included in Gov. Wolf's order extending the deadline to return mail-in ballots.

"I guess we weren't violent enough," King said.

He said officials are hoping Wolf's deadline extension in the six other counties will sway the judge to rule in Bucks' favor.

Poll workers report good turnout in West Philly

Despite predictions of low turnout, the scene at polling places around West Philadelphia was generally unaffected by coronavirus fears or worries of depressed turnout from citywide civil unrest, poll workers said.

"With all the rallies, all the disease, I'm happy to see the turnout," said Marvin Robinson, 4th ward committee person, from Universal Bluford Charter. "With the riots going on, I didn't even think we were going to have an election, but thank God that the people believe in their democracy."

Lines inside at James Rhoads School and Heston School, and socially distant lines outside the School of the Future, were a result of consolidated polling places, but also unusually high turnout.

"It's more people coming out on the primary," said the judge of elections, Katherine Gambrell. "It's higher than it normally would be this time a day just for my one division."

By about 11:30 a.m., 131 people had voted in the 6th ward 15th division.

There were some hiccups.

Gambrell said she arrived at her polling place at 6:15 a.m. to no tables or chairs. There was also no guidance about how to combine polling places, which caused confusion.

Jacqueline Brower showed up to her normal voting location at Heston School near 54th Street and Lancaster Avenue, only to be told her polling place had been moved. Sandra Williams, judge of elections at that location, called a voting hotline and helped Brower learn where she should vote.

That happened at locations across West Philly, poll workers said.

Some voters downplay coronavirus concerns

If Pennsylvania's primary election had been held last month, Plymouth Meeting resident Kathie McDade wouldn't have been willing to vote in person.

"But I'm getting a little more comfortable now that the [COVID-19] numbers are going down, so I'd rather do it in person," she told WHYY reporter Ximena Conde earlier today while voting at Central Montco Technical High School.

Some of the voters who showed up said they weren't too concerned about the health risks posed by voting in person.

"I feel like we are pretty safe where we are," said Claire Ward, who voted at Belmont Elementary School in Lower Merion Township. "We live, maybe, five blocks from here and I feel like the whole pandemic thing is a little overdone."

Donna Kelly is the judge of elections at Central Montco Technical High School.

Only one precinct was added to the school, for a total of three, though a staffing shortage and steady stream of voters kept poll workers busy.

"This doesn't seem to be terribly different from other primaries," said Kelly. "Probably 10% of our voters did mail-in. Here we probably see 25% turnout during primaries, so it's looking like it's running about the same for us."

Sanitizing the clipboards was the only minor delay voters reported, but Kelly said it hasn't posed a problem for those casting ballots.

"People are understanding that we might not be able to rush them through," she said.

Poll workers report early difficulties

As the morning unfolded in the Philadelphia area, poll workers reported low turnout and some technical issues.

"It's just a mess in here," said Geneva Carter, a longtime election judge who was stationed at Vare Recreation Center in South Philadelphia on Tuesday morning. "People don't even know where to vote."

Carter said turnout was about half of what it would normally be.

At Belmont Hill Elementary in Montgomery County, WHYY reporter Ximena Conde said the typical, early-morning rush never took place.

A voting machine operator also told Conde that younger poll workers had replaced some of the older volunteers who usually work on election day.

> **Robin Kolodny is a voting machine op. here and a polisci prof at Temple. She says the avg. age of those working the polls at this Montco location has dropped. Several college students today as some of the older volunteers sit this election out bc of COVID-19 concerns** pic.twitter.com/LhZ1mOrhvN
>
> — Ximena Conde (@RadioXimena) June 2, 2020

But for those who did vote, many said it was important at this critical point in American history to participate in the process. Among them was Jennifer Price of Kensington, who said she was heartbroken by the looting in her neighborhood over the weekend.

> **"My heart is broken." Jennifer Price witnessed the destruction in Kensington over the wknd, came out to vote to have her voice heard. @WHYYNews pic.twitter.com/lfX0KRYLja**
>
> — Peter Crimmins (@petercrimmins) June 2, 2020

Kenney, Outlaw defend tear-gassing of protestors

Top Philadelphia officials are defending the police department's decision to use tear gas and rubber bullets against a large group of protestors who blocked traffic on I-676 Monday afternoon.

Protestors and reporters on the scene largely described the gathering as peaceful, including WHYY's Miles Bryan.

> **Just wanna emphasize here that protests I see are being totally peaceful.**
>
> — Miles Bryan (@miles__bryan) June 1, 2020

> **I was there. I thought cars were maybe coming. It was terrifying** https://t.co/Swbqu1zwlY

— Miles Bryan (@miles__bryan) June 1, 2020

In a statement to press late Monday night, Philadelphia Police Commissioner Danielle Outlaw painted a different picture.

Outlaw said the crowd surrounded a state police trooper in his car and began rocking the vehicle back and forth. She also claimed that protestors hurled rocks at SWAT officers from nearby overpasses and that the crowd, at some point, "began rushing toward the officers."

"We have repeatedly assured our great communities that we will protect, preserve, and uphold every person's constitutional right to protest. However, we can not tolerate acts of violence and other criminal activity," Outlaw said in her statement. "Today's deployment of tear gas was a means to safely diffuse a volatile and dangerous situation, and restore order, when it became increasingly clear that other measures were ineffective in accomplishing that necessary objective."
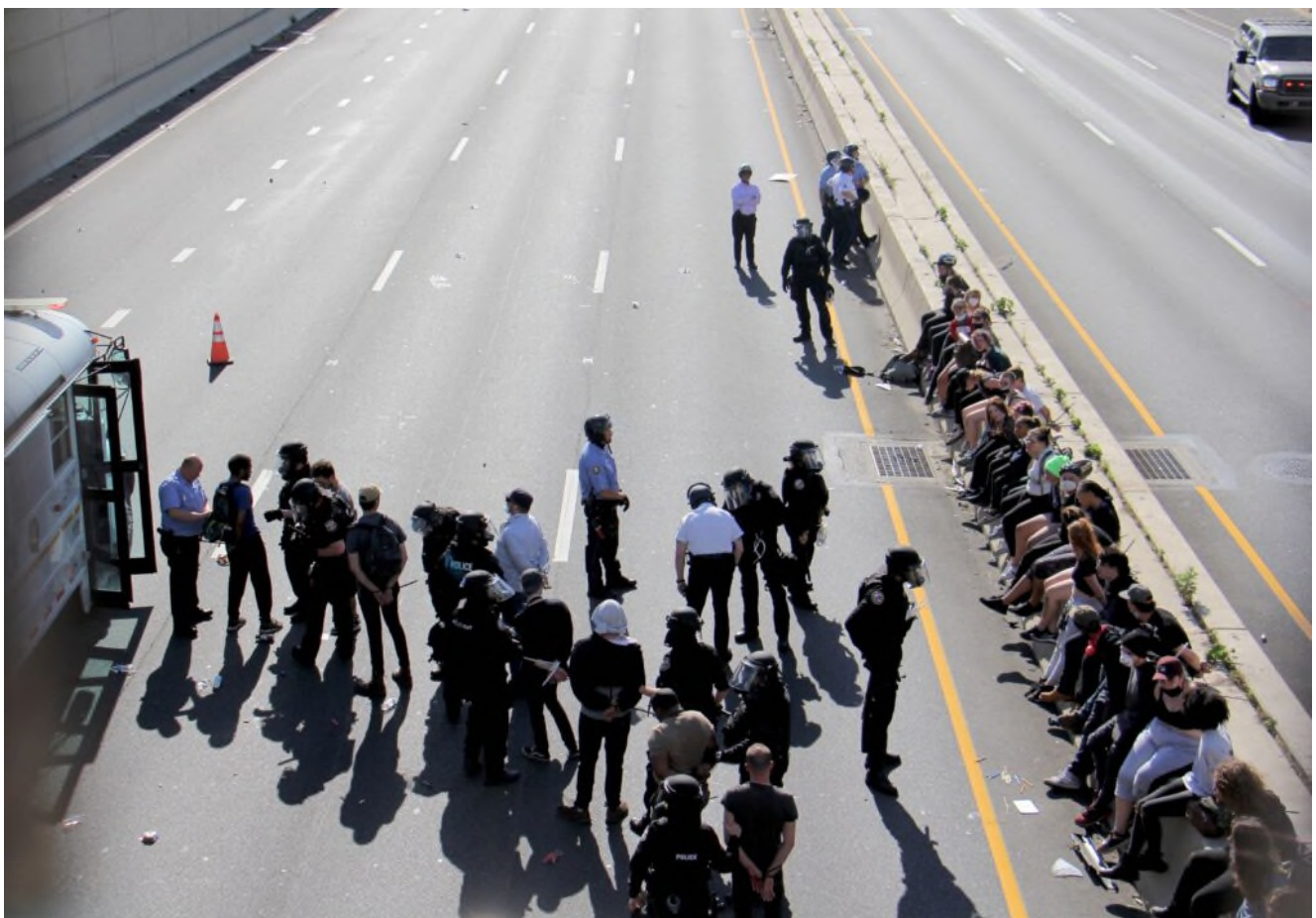
Police load arrested protesters into a Sheriff's Office bus after closing Route 676 in both directions. (Emma Lee/WHYY)

Protesters told reporters that the police initiated the conflict, which started after peaceful protestors spilled onto the Vine Street Expressway.

Kenney, also in a statement, said that the presence of protesters on the highway was a danger to public safety.

"The use of tear gas during a demonstration is something that I never wanted to witness during my time as mayor," he said. "I'm deeply saddened that peaceful protests for such an important cause are being diminished by actions that threaten public safety."

"I want to assure the public that this was not a decision that anyone took lightly. It was made because we simply cannot condone behaviors that endanger the lives of others, like traversing an open highway," he added. "The officers on site were concerned about the safety of protestors as well as those who may be driving on the highway."

Related Content

COMMUNITY

Protesters tear-gassed in Philly after blocking highway traffic

2 months ago

Death and mayhem overnight

A Philadelphia gun shop owner shot and killed a man who the owner said was among a group that had broken into the store.

Authorities say the shooting at the Firing Line Gun Range and Gun Store occurred around 4:20 a.m. Tuesday.

The shop owner told police he was staking out his store following an earlier burglary attempt and was monitoring a store security screen when he saw three or four men using wire cutters to break through the gate. The owner said he shot one of the men in the head while the man was inside the store, and the others then ran from the scene.

Police also say thieves are blowing up and stealing ATMs across Philadelphia.

Explosions were heard throughout the city overnight as at least ten machines were vandalized, mainly at neighborhood convenience stores and gas stations.

Police say the thieves usually set off explosive devices and made off with the cash. In other cases, they would steal just the machines.

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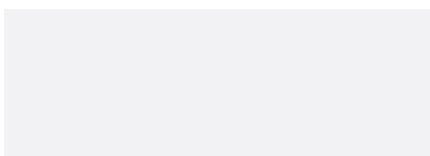
COMMUNITY

Black protesters say focus on feds hasn't derailed message

2 weeks ago

Exhibit 38

Resolution 200376 Written Public Testimony
To the Legislative Oversight Committee

Submitted by Madeleine Smith, Ward 46, 7th Division Democratic Committee Person, ████████████████████████████
Tuesday, July 21, 2020

Thank you Council Members for the opportunity to submit written public testimony in regards to resolution 200376, regarding issues that arose from the primary election mail-in ballot process, and recommendations. My name is Lena Smith, I am a committee person in the 46th Ward, 7th Division Democratic Committee. On election day I was working as a poll watcher and campaign volunteer at the West Philadelphia High School at 4900 Chestnut Street. This was the newly assigned polling location for my division. My general sentiments about West Philadelphia High School is that it was total chaos and confusion. I felt like I was watching voter suppression in action. It was incredibly frustrating to watch. We did our best to help people and make suggestions where possible to the poll workers where they could improve. Our campaign became a resource of information for people who were confused, frustrated, crying, angry, defeated, and upset. I am very concerned about the impacts that this experience will have on the 2020 General election, voter turnout, and further voter suppression.

People Being Turned Away

The polling location where I was located has historically been a polling place for divisions who vote for the 190th legislative district. The location had been changed into a 188th district location. But because of how the 188th district lines are drawn, the wards were split up.

Around 12pm we started getting people walking up to us saying - "my names not in the book, where do I go?" or people who had arrived early and been told their name wasn't in the book, gone to a different polling location, and were coming back because they were told this was actually their polling location. I talked to one woman who had been to three polling locations total and was about to go to her fourth of the day. People were literally leaving in tears because they were so frustrated.

To be clear - there was nothing posted telling where voters should go who have historically voted at the high school but their location had been changed. A few times the Judge of elections and other poll workers made a blanket announcement to the crowd of people that those who used to vote at West Philly High were all now to vote at a different location over a mile away. When in reality, there were 2 or 3 other polling locations that some, but not all, potential voters were expected to report.

The sample ballots posted up outside the polling locations did not list the correct ward and divisions which were assigned to vote at West Philadelphia high schools.

The Judge of elections would not check if people were actually assigned to vote at the location. Poll workers announced a telephone number to call, but it appeared like they did not write it down and post it for people to refer back to who arrived later. They did not give out or write down the "find my polling place" website. There were people who spent an hour plus waiting in line only to get to the front and find out their polling location had changed. I would estimate that we looked up polling locations or called the city commissioner's office 25 times to help voters find out where to go.

One incident a voter watched a poll worker search for their name in the book and was told on multiple occasions that she was not listed. However, the voter actually saw her name in the book and had to tell the worker twice that she was in fact there before the worker finally located her name.

Another incident - a voter was told their name wasn't in the book, went to a different polling location, was told to come back to West Philly High, and then their name was found and it turned out West Philly high was their actual polling place.

One woman waited in line all evening. When she reached the front of the line at 7:55pm she was told her name was not in the book and she'd have to go to another polling location. By the time she would have arrived, the polls would have closed.

By my guess, I would say that 25+ people had to go to a different polling location and about 7 people came back after being sent away and going to a different polling location only to be told they were supposed to vote at West Philly High. The majority of people were black people and older people. I only remember one white person being turned away.

The Line Situation

At some point in the day the judge of elections decided to try and speed up the process. The sign-in tables inside were broken up alphabetically by last name. The line started forming again around 12:45pm and was getting long. The judge began calling out people by last name based on how open the different stations inside were. He would come out and say "I need 4 people whose last name is between A-E," which of course would cause a rush of people to flood the doors with no regard to how long people were waiting. The line really became a crowd of people standing around and many were very confused. We debated with the judge about how to make his new system function better and make it a better experience for voters. Probably after 2 hours of this - and people giving up and leaving - we were able to use duct tape to create 4 lines based on the different sections by last name among the crowd.

We also realized that the judge of elections had been calling "F-I" for a long time (approximately 60-75 mins), when the section was actually labelled "F-L". This meant that a large portion of people had been waiting and had never had their last name called. Briefly, when this was

brought to his attention, the judge of elections refused to accept that he was wrong. Once we got the line sorted and the judge of elections accepted the group was in fact F-L, he still failed to explain to potential voters about how this new line by last name system worked. We had to tell every voter how to line up. Some who didn't know their alphabet. Many of whom just walked by us. We just couldn't talk to everyone. I would say about 15 people left because they didn't want to wait in line or had waited for so long and just gave up.

Social Distancing Failures

When the judge of elections began calling people in by 4's, what that actually meant is that there were 4 people waiting in line behind every section at the table. So at any time there were up to 16 people standing in the lobby with another 8 or so poll workers sitting behind the table. I even went in for a moment and there was a group of 3-4 people chatting in the lobby. The lobby was being used to sign people in. It was about a 12x12 foot space. Voters then walked into the Gymnasium to vote. The gymnasium was HUGE and very spacious. The ballot machines were set up right by the door. A line began to form at the door and then extended into the already crowded lobby. Meanwhile, there was a huge unused gymnasium that could have been used to create more space for people to vote.

The judge of elections and many of the poll workers did not wear masks or gloves. I saw the judge of elections, several times, touch people. When he and I were talking he got right in my face. It was very unnerving. A voter even repeatedly spoke to the Judge of elections about how he is not wearing a mask or maintaining social distancing with others, to which he replied "I'm outside" and did not change his behavior.

Other Issues

Regarding accessibility - when I was inside the polls inspecting machines I noticed that a man who had eye sight problems requested ADA access to machines. The poll workers stated that "They did not have ADA". I'm not quite sure what that is or means, but this seemed like a failure.

At least 10 people arrived expecting to be able to turn in their mail in ballots.

The judge of elections also spent a considerable amount of time chatting outside with the Greg Benjamin campaign volunteers.

Recommendations

Overall, my perception of the challenges faced during the 2020 primary election are related to inadequate funding and preparation. City Council must immediately address funding issues for the board of elections for staff, training, and resources. I also support the recommendations for the creation of polling centers where people can vote regardless of whether it is their assigned polling place.

Thank you for the opportunity to submit this testimony in writing. I can be reached for further discussion at ██████████████████████

Exhibit 39

City of Philadelphia

Public Hearing Notice

The **Committee on Legislative Oversight** of the Council of the City of Philadelphia will hold a Public Hearing on **Tuesday, July 21, 2020**, at **1:00 PM**, in **a remote manner using Microsoft® Teams. This remote hearing may be viewed on Xfinity Channel 64, Fios Channel 40 or http://phlcouncil.com/watch-city-council/**, to hear testimony on the following items:

200376	Resolution authorizing the Philadelphia City Council Committee on Legislative Oversight to hold public hearings examining issues that arose from the primary election mail-in ballot process, and recommendations for necessary procedures to improve voter education and voter processes for the upcoming general election, including potential funding and staffing needs of the Philadelphia City Commissioners Office.

Speakers interested in giving testimony on any of these legislative matters must call 215-795-4243, or send an e-mail to samantha.williams@phila.gov by 3 p.m. the day before the hearing and submit the following information:

- Full name
- Callback telephone number where you can be reached
- Identify the resolution number that will be addressed

Speakers who submitted the above information within the required time frame will be telephoned during the public hearing and invited to the remote hearing. They will be given additional instructions by the Committee Chair once they are connected.

Immediately following the public hearing, a meeting of the Committee on Legislative Oversight, open to the public, will be held to consider the action to be taken on the above listed items.

Copies of the foregoing items are available in the Office of the Chief Clerk of the Council, Room 402, City Hall.

Michael A. Decker
Chief Clerk

Exhibit 40

FACTANK
NEWS IN THE NUMBERS

AUGUST 20, 2019

Smartphones help blacks, Hispanics bridge some – but not all – digital gaps with whites

BY **ANDREW PERRIN** AND **ERICA TURNER**

Black and Hispanic adults remain less likely than whites to say they own a traditional computer or have high speed internet at home, according to a Pew Research Center survey conducted in early 2019. But smartphones are playing a role in helping to bridge these differences.

Despite some lower adoption, blacks and Hispanics own smartphones at similar shares to whites

% of U.S. adults in each group who say they have the following

■ White ■ Black ■ Hispanic

Desktop or laptop computer
- White: 82
- Black: 58
- Hispanic: 57

Home broadband
- White: 79
- Black: 66
- Hispanic: 61

Smartphone
- White: 82
- Black: 80
- Hispanic: 79

Tablet computer
- White: 53
- Black: 58
- Hispanic: 43

All of the above
- White: 40
- Black: 33
- Hispanic: 28
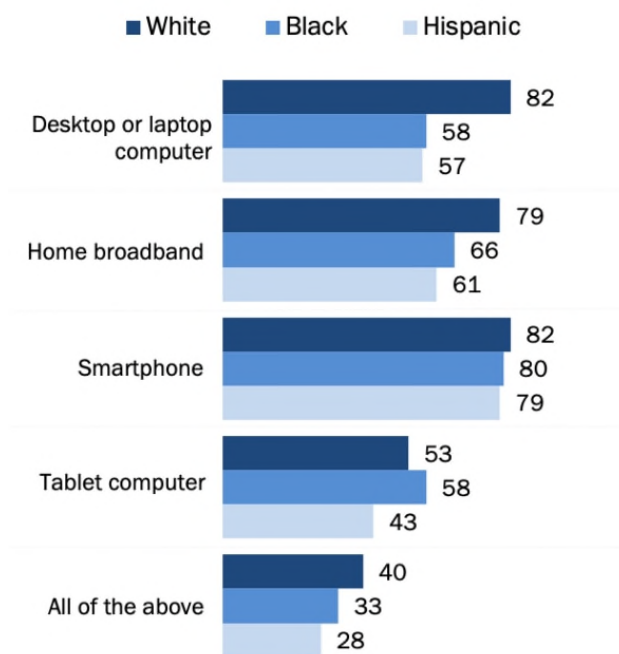
Note: Those who did not answer are not shown. Whites and blacks include only non-Hispanics. Hispanics are of any race.
Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

Roughly eight-in-ten whites (82%) report owning a desktop or laptop computer, compared with 58% of blacks and 57% of Hispanics. There are also substantial racial and ethnic differences in broadband adoption, with whites being more likely than either blacks or Hispanics to report having a broadband connection at home. (There were not enough Asian respondents in the sample to be broken out into a separate analysis.)

But despite these differences, black and Hispanic adults have mobile devices such as smartphones in shares similar to whites. About eight-in-ten whites, blacks and Hispanics own a smartphone. There are, however, differences between Hispanics born inside and outside the U.S.: 87% of U.S.-born Hispanics own a smartphone, compared with 69% of Hispanics born abroad.

Mobile devices play a larger role for black and Hispanic people when it comes to their online access options. Some 25% of Hispanics and 23% of blacks are "smartphone only" internet users – meaning they lack traditional home broadband service but do own a smartphone. By comparison, 12% of whites fall into this category.

In addition, blacks and Hispanics are more likely than whites to rely on their smartphones for a number of activities, such as seeking health information or looking for work, according to a Pew Research Center survey from late 2014. Although smartphones help bridge internet access gaps, other 2014 Pew Research Center data shows that blacks, Hispanics and lower-income smartphone users are about twice as likely as whites to have canceled or cut off service because of the expense.

Smartphones are not the only way those without traditional access options attempt to bridge these gaps. For black Americans in particular, libraries can play an important role: 42% of black library users say they use libraries' computers and internet connections, compared with one-quarter of whites and 24% of Hispanics, according to 2016 Center data. And blacks and Hispanics express pronounced interest in getting training that would help improve their digital skills. Some 46% of blacks and 48% of Hispanics say training to help them be more confident in using computers, smartphones and the internet would help "a lot" in terms of making important decisions, compared with 20% of whites.

Note: This is an update of a post originally published Aug. 31, 2017.

Read the other posts in our digital divide series:

- *Disabled Americans are less likely to use technology*
- *Digital gap between rural and nonrural America persists*
- *Digital divide persists even as lower-income Americans make gains in tech adoption*

Topics Hispanic/Latino Demographics, Mobile, African Americans, Technology Adoption, Digital Divide, Race and Ethnicity
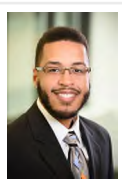
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Erica Turner *is a former intern at Pew Research Center.*

POSTS | BIO | EMAIL

SIGN UP FOR OUR ELECTION 2020 NEWSLETTER

Exhibit 41

FACTANK
NEWS IN THE NUMBERS

APRIL 7, 2016

Who relies on public transit in the U.S.

BY **MONICA ANDERSON**

America's love affair with the car is [well-documented](#), but many U.S. adults also rely on a bus, train or subway to get around. One-in-ten Americans (11%) say they take public transportation on a daily or weekly basis, according to a new Pew Research Center survey conducted in late 2015, but *who* is taking public transit varies substantially by region, nativity, and race and ethnicity.

New York leads U.S. in public transit use

Unlinked passenger trips in U.S. by urbanized area, 2014, in millions

New York-Newark	4,358
Los Angeles-Long Beach-Anaheim	682
Chicago	632
Washington, D.C.	470
San Francisco-Oakland	457
Boston	418
Philadelphia	370
Seattle	207
Miami	171
Atlanta	137
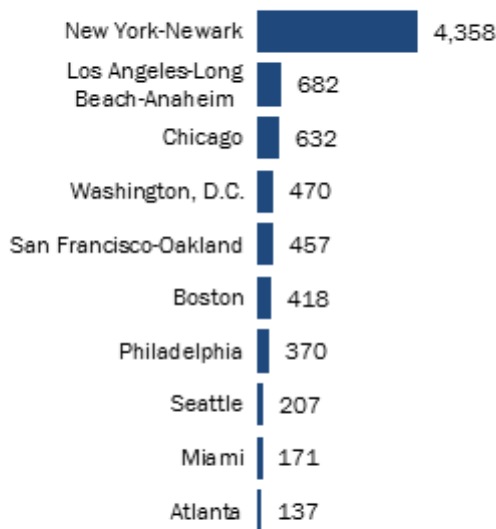
Note: Unlinked passenger trips refer to the number of passengers who board public transportation vehicles.

Source: Pew Research Center analysis of 2014 service data from the National Transit Database.

PEW RESEARCH CENTER

The Northeast, home to several of the most traveled transit systems in the country, has the largest share of adults by region (25%) who use public transportation on a regular basis

(daily or weekly). City dwellers are also more frequent users of mass transit. Some 21% of urban residents use public transit on a regular basis, compared with 6% of suburban residents and just 3% of rural residents.

Recent headlines on public transit haven't been flattering. Last week, Washington D.C., transit officials warned that repairs to its subway system – which is one of the most used in the nation – could close entire rail lines for up to six months. This statement came two weeks after the city's metro rail service was suspended for 29 hours for emergency inspections.

Public transit use varies by demographic group

% of U.S. adults who say they take public transportation (like a bus, subway or train) on a daily, almost daily or weekly basis

Group	Value
U.S. adults	11
Northeast	25
Midwest	8
South	7
West	9
Urban	21
Suburban	6
Rural	3
White	7
Black	23
Hispanic	15
U.S. born	9
Foreign born	25
18-29	21
30-49	12
50-64	7
65+	4
<$30K	15
$30-74,999K	8
$75K+	10
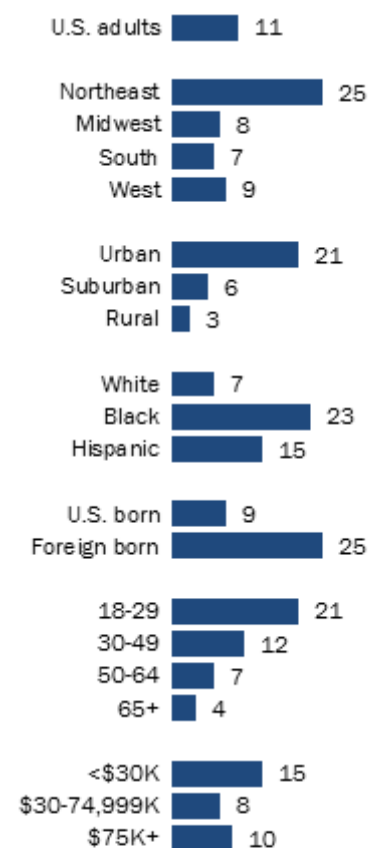
Note: Whites and blacks include only non-Hispanics. Hispanics are of any race.

Source: Survey conducted Nov. 24-Dec. 21, 2015.

PEW RESEARCH CENTER

The nation's capital is not the only city facing public transit issues and changes. A 2013 [Federal Transit Administration](#) report estimated that "more than 40% of buses and 25% of rail transit around the U.S. are in marginal or poor condition." Besides infrastructure concerns, other cities are looking for ways to [grow ridership](#), increase [affordability](#) and modernize how commuters [pay](#) for fares.

Americans who are lower-income, black or Hispanic, immigrants or under 50 are especially likely to use public transportation on a regular basis, Pew Research Center data show.

While there are few racial and ethnic differences in public transit use among non-urban residents, there are substantial differences when looking at only those living in urban areas. Among urban residents, 34% of blacks and 27% of Hispanics report taking public transit daily or weekly, compared with only 14% of whites. Foreign-born urban residents are more likely than urban dwellers born in the U.S. to regularly use public transportation (38% vs. 18%).

One possible reason that blacks, Hispanics and immigrants might be bigger users of public transit is because they are more likely than Americans overall to live in large metropolitan areas, where there tend to be more public transit options. They are also less likely to have access to an [automobile](#) than other groups and are more likely to use public transit for [commuting to work](#). Blacks and Hispanics also tend to live [farther away](#) from their jobs, which could make walking or biking to work less common.

Note: Read the full methodology and topline results [here (PDF)](#).

Topics [Demographics,](#) [Work and Employment](#)

[Monica Anderson](#) *is an associate director of research at Pew Research Center.*
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Exhibit 42

FACTANK
NEWS IN THE NUMBERS

MAY 7, 2019

Digital divide persists even as lower-income Americans make gains in tech adoption

BY **MONICA ANDERSON** AND **MADHUMITHA KUMAR**

Thirty years after the debut of the World Wide Web, internet use, broadband adoption and smartphone ownership have grown rapidly for all Americans – including those who are less well-off financially. But even as many aspects of the digital divide have narrowed over time, the digital lives of lower- and higher-income Americans remain markedly different.

Lower-income Americans have lower levels of technology adoption

% of U.S. adults who say they have the following ...
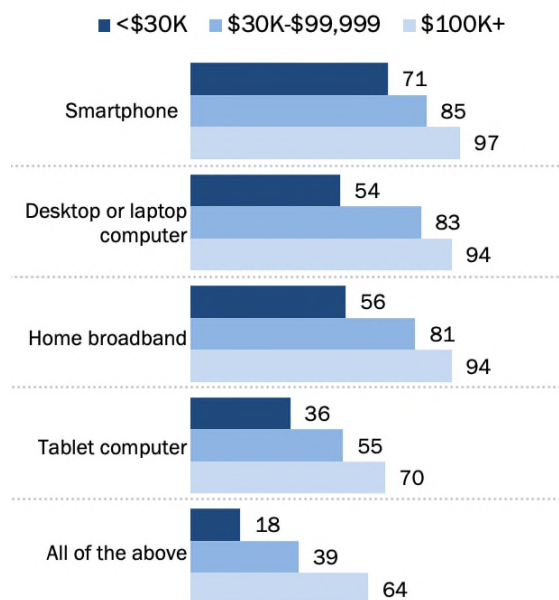
■ <$30K   ■ $30K-$99,999   ■ $100K+

Smartphone	71	
	85	
		97
Desktop or laptop computer	54	
	83	
		94
Home broadband	56	
	81	
		94
Tablet computer	36	
	55	
		70
All of the above	18	
	39	
		64

Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

Roughly three-in-ten adults with household incomes below $30,000 a year (29%) don't own a smartphone. More than four-in-ten don't have home broadband services (44%) or a traditional computer (46%). And a majority of lower-income Americans are not tablet

owners. By comparison, each of these technologies is nearly ubiquitous among adults in households earning $100,000 or more a year.

Higher-income Americans are also more likely to have multiple devices that enable them to go online. Roughly two-thirds of adults living in high-earning households (64%) have home broadband services, a smartphone, a desktop or laptop computer *and* a tablet, compared with 18% of those living in lower-income households.

The share of lower-income Americans who rely on their smartphone for going online has roughly doubled since 2013

% of U.S. adults who say they have smartphone, but no broadband at home, by annual household income
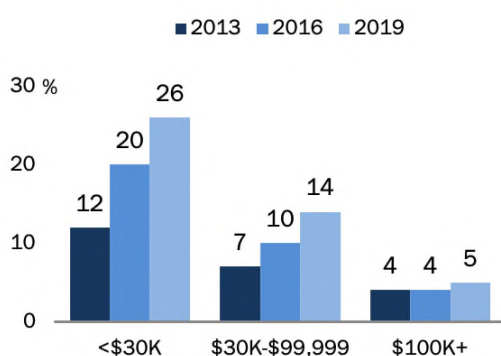
Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Jan. 8-Feb. 7, 2019. Trend data from previous Pew Research Center surveys.

PEW RESEARCH CENTER

With fewer options for online access at their disposal, many lower-income Americans are relying more on smartphones. As of early 2019, 26% of adults living in households earning less than $30,000 a year are "smartphone-dependent" internet users – meaning they own a smartphone but do not have broadband internet at home. This represents a substantial increase from 12% in 2013. In contrast, only 5% of those living in households earning $100,000 or more fall into this category in 2019.

This reliance on smartphones also means that the less affluent are more likely to use them for tasks traditionally reserved for larger screens. For example, lower-income smartphone owners were especially likely to use their mobile device when seeking out and applying for jobs, according to a 2015 Pew Research Center report.

The disparity in online access is also apparent in what has been called the "homework gap" – the gap between school-age children who have access to high-speed internet at home and those who don't. In 2015, 35% of lower-income households with school-age children did not have a broadband internet connection at home, according to a Pew Research Center analysis of U.S. Census Bureau data.

The digital divide has been a central topic in tech circles for decades with researchers, advocates and policymakers examining this issue. Federal Communications Commission Chairman Ajit Pai reiterated his commitment to [bringing high-speed internet](#) services to lower-income communities, though there are [partisan differences](#) in views of how this should be carried out.

Note: See full topline results and methodology [here](#). This is an update of a post originally published March 22, 2017.

Read the other posts in our digital divide series:

- [Disabled Americans are less likely to use technology](#)
- [Digital gap between rural and nonrural America persists](#)
- [Smartphones help blacks, Hispanics bridge some – but not all – digital gaps with whites](#)

Topics Emerging Technology Impacts, Technology Adoption, Socioeconomic Class, Digital Divide, Income Inequality, Income

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POSTS | BIO | EMAIL

Exhibit 43

Voting Rights' Advocates Warn Of Bumpy Fall Unless PA. Addresses Primary Day Glitches

patch.com/pennsylvania/across-pa/voting-rights-advocates-warn-bumpy-fall-unless-pa-addresses-primary-day

June 4, 2020

(Capital-Star photo by John L. Micek)(Pennsylvania
Capital-Star)

By Julia Shanahan, The Pennsylvania Capital-Star

-

June 3, 2020

Voting in this November's general election could be disastrous if the state does not take measures to reform the model used for the primary election, a voter watchdog coalition warned Wednesday.

In a conference call with journalists, members of the Pennsylvania Election Protection Coalition, a group of organizations that advocate for voters' rights, said the COVID-19 pandemic, protests, and consolidated polling places made it significantly more difficult for people to vote.

Many voters had to walk past National Guard troops in order to get to their polling place, and many people did not know where their new polling place was since precincts were consolidated.

"Reasonable people did not vote yesterday, because on top of a pandemic, they were witnessing simultaneous state-sanctioned violence across the country, including within our Commonwealth," Erin Kramer, the executive director of One Pennsylvania, a multi-issue

organization based on civic engagement, said.

> Live Coverage: The latest on the 2020 Pennsylvania primary election

Some members of the coalition seemed to disagree with a statement Pennsylvania Secretary of State Kathy Boockvar issued Tuesday night contending that the election process ran smoothly given the circumstances, and that 1.8 million voters requested mail-in or absentee ballot forms.

"I think we would say that there was nothing typical about yesterday's election," Kramer said.

Kramer said based on surveys people on the ground took yesterday, voting was accessible if you had "laser focus" on what it took to get to the polls. She said in Philadelphia, Allegheny, and Delaware counties, almost half of the voters at consolidated polling locations were asked for ID, and poll watchers saw many voters get turned away for not having proper identification.

> With Pa. primary looming amidst COVID and protests, Wolf extends mail-in ballot deadline for 6 counties

Kramer said some people were waiting in line to vote for more than 30 minutes, which is unusual in a primary election, and said this would be even worse on a general Election Day.

The coalition is advocating for the implementation of voting centers, which would be well-resourced voting locations with a large staff in a facility central to the community, so people can clearly understand where they need to go to vote. People would be able to vote at any center in their county.

A large portion of voters calling helplines on Tuesday were trying to locate their new polling place, according to members of the coalition and a statement from the Department of State.

"If you imagine the idea of multiple locations that then any voter in the county can access, you have a lot less of the confusion around assigning people to a particular consolidated polling place based on their geography," Ray Murphy, the state coordinator of the advocacy group Keystone Votes, said.

Suzanne Almeida, interim executive director of Common Cause Pennsylvania, said she heard reports of poll workers not properly trained on how to interact with voters, and that some poll workers were reluctant to wear personal protective equipment, like face masks.

Almeida said that as expected, there was a shortage of PPE that could be delivered to polling places across the state.

"In addition to voter confusion, we also heard reports of polls opening late, particularly because of confusion around poll books and poll workers not being properly trained, not just on election law, but actually how to interact with folks," Almeida said.

The coalition is seeking approval from the Legislature on measures to broaden voter accessibility, since the pandemic will likely still be looming in November. This includes legislative approval on adjusting deadlines for absentee and mail-in ballots and for ballots to be sent to every voter in the state by mail.

Murphy said the budget allocation to pay for printing and postage costs would be about $15 million.

"It's truly a question of whether the Legislature wants to guarantee that November's election goes smoothly," Murphy said.

Julia Shanahan, a journalism student at the University of Iowa, is a summer intern for the Pennsylvania Legislative Correspondents Association.

This story was originally published by the Pennsylvania Capital-Star. For more stories from the Pennsylvania Capital-Star, visit PennCapital-Star.com.

Exhibit 44

Voter confusion abounds in places around Pennsylvania due to consolidated polling places

By Jan Murphy | jmurphy@pennlive.com   June 2, 2020

Some voters in some cities around the state are finding their experience of participating in Tuesday's primary to be confounding, intimidating, and frustrating.

Changes made in response to the COVID-19 pandemic and having an election in the shadows of civil unrest gripping the nation added a new level of emotion to carrying out one's civic duty.

Many polling places weren't in the locations where they used to be and many longtime poll workers sat out this election as a result of concerns about exposure to coronavirus.

County election officials in midstate counties reported little to no problems with that.

However, in other places around the state, voters showed up at their standard polling place only to be met with a sign directing them to another location or simply seeing no notice at all, said Erin Kramer, executive director of One Pennsylvania, an organization monitoring issues arising at polling places across the state as part of the Lawyers' Committee for Civil Rights Under Law.

Watch Video At: https://youtu.be/alUXUVsSUIo

In Philadelphia, 18 polling places are consolidated in the Philadelphia Convention Center, which currently finds itself in the middle of a militarized zone in the city's downtown accessible by foot or bicycle as a result of the violence erupting out of protests, said Suzanne Almeida, interim executive director of Common Cause Pennsylvania, which also works with the lawyers' committee.

Having a strong National Guard and police presence surrounding the area "is obviously a deterrent to voters," she said.

Another concern is Philadelphia's 8:30 p.m. curfew tonight. Even though voting is a permitted activity to be out after the curfew and voters are permitted to still cast ballots if they are standing in line when polls close at 8 p.m., Almeida said it could still have a chilling effect on voters.

The Pennsylvania Election Protection coalition, a nonpartisan voter protection organization, fielded more than 350 calls to the toll-free Election Protection Hotline at 866-OUR-VOTE, including 191 reports of problems, as of 10 a.m. The number of calls rose to 950 by late afternoon.

Generally, turnout was reported as lower than usual for a presidential primary due to historic levels of voters who chose Pennsylvania's new no-excuse mail-in ballot options.

Dauphin County received 32,000 mail-in and absentee ballots, which is 43% of the total number of votes cast in the 2016 presidential primary, said its election director Jerry Feaser.

Cumberland County, meanwhile, received 37,311 mail-in and absentee ballots, which is far more than its previous high-water mark of 7,000, said spokeswoman Samantha Krepps.

Still, there were reports of long lines in other locations, including a couple in Allegheny County resulting from delayed openings of the polls, poll books not being at the appropriate locations, and in one case, voting machines were delivered while people were waiting to vote.

In Wilkinsburg, a majority black borough in Allegheny County, the polling location was inside the municipal building that also houses the police precinct office. That made for a difficult voting experience for black voters in that community in the midst of the ongoing civil unrest in response to police violence against black citizens.

"Black voters are required to stand in line while police officers are entering and leaving the polling location for official police business, not exactly how people want to spend their election day," Kramer said.

Other issues reported to the election protection hotline included reports of workers at a Lehigh County polling place refusing to wear personal protective equipment and in one Philadelphia precinct, not enough personal protective equipment was provided so poll workers had to bring their own.

There also were complaints about difficulties in social distancing at polling places. One of the most egregious examples reported to the election protection hotline took place in Philadelphia, where 12 voting machines were crammed together in a 500-square-foot room.

Voting machine failures were reported in Bucks and Lancaster counties, as well as in two polling places in Philadelphia's East Mount Airy where wait times were reported as long as two hours, causing voters to vote provisionally or not at all.

In another Philadelphia polling place, there weren't enough secrecy envelopes for provisional ballots provided to voters who had issues with receiving their mailed ballot in time.

And in Delaware County, delays in receiving mailed ballot to residents of a nursing home in quarantine for COVID-10 led to them not getting to vote at all.

"The state and counties are doing the best that they can today, amid incredibly challenging circumstances, and we appreciate that," Almeida said. "However, if county elections offices don't receive additional resources to address problems like these, we are very concerned about what will happen in November."

Jan Murphy may be reached at jmurphy@pennlive.com. Follow her on Twitter at @JanMurphy.

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Exhibit 45

Polling locations in Northwest Philly got the wrong voting machines, causing confusion and long lines: 'It was a mess'

by Michaelle Bond, Julia Terruso and Justine McDaniel, Updated: June 2, 2020

TIM TAI / Staff Photographer

Voting in Philadelphia's busy 50th Ward started off messy Tuesday when polling locations were delivered machines meant for neighboring poll places.

The problem was corrected by late morning, city officials said, though the wait to vote in parts of the busy ward was still about 90 minutes by early evening.

The ward in Northwest Philadelphia is one of the highest turnout locations in the city, and lines started forming around the block at polling places like the Masjidullah Temple early in the morning. Several divisions had already been consolidated into polling locations, making the crowds larger.

Councilmember Cherelle Parker, who is also ward leader in the area, said multiple polling locations were delivered the wrong machines.

Advertisement

"They were all at the wrong locations. It was a mess." Parker said.

The office of the Philadelphia City Commissioners, who oversee elections, confirmed a mix-up had occurred with polling places receiving the wrong voting machines, including at the mosque. Voters used paper emergency ballots before the correct machines were set up.

Pennsylvania 2020 Newsletter

Interested in how Pennsylvania is shaping the 2020 election? Sign up to receive our newsletter every Wednesday.

» READ MORE: _Live coverage of the 2020 Pennsylvania primary election_

While voting machines were being fetched, the line to vote stretched from Masjidullah, around the corner and down the block, all the way to Ogontz Avenue. Parker walked up and down the line that snaked around the block, thanking voters for their patience.

Advertisement

"We know this is not normal," she told them.

Parker said that once notified, city officials corrected the problem. But those in line from 7 a.m. to 9:45 a.m. had to vote via emergency paper ballot. She said she worked the lines to ensure folks their votes would be counted, but encountered skepticism.

"There's a strong distrust for this vote-by-mail process," Parker said. "There's a strong distrust. And people feeling like voter suppression is real. And they know that there are folks across this nation and this city and all over who would prefer that they did not vote. And then they wake up this morning to know that they're standing in line and when they get there, they can't vote."

"The average person can't be expected to know what happened with the machines," she added. "The only thing that they know — 'I'm going to exercise my constitutional right to vote and those damn machines were not there.'"

TIM TAI / Staff Photographer
Dozens of voters line up outside Masjidullah.

The coronavirus pandemic may not have deterred the voters who showed up, but it was a source of their confusion. The city consolidated polling places because of the public health crisis. Some voters stood in line wondering whether they were in the right place. Some former polling places lacked signs directing people to new sites. At least a few voters had already stood in line at one polling place, only to be told they couldn't vote there.

While Parker commended city officials for fixing the voting machine problem early, the polling place consolidation continued to have an impact on wait times into the early evening. The lines to vote at the mosque at 5:30 numbered at least 100 people.

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Elections experts generally agree on a benchmark of half an hour as the maximum acceptable length of time voters should have to wait at a polling place.

Rasheen White, 50, cast her ballot after waiting an hour and a half. She was tired and had not expected such a line, but said people were friendly.

"I wanted to come," she said. "Just doing my duty."

Poll workers had reorganized the site by late afternoon to make separate lines for each section of the alphabet, and a volunteer in a yellow vest was walking up and down the queues directing people.

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City project manager Melissa Scott-Walker, who was there to help with the crowds, said people had been understanding.

"I think people realize that we're in the middle of a pandemic" she said, "and things [won't be] normal."

-Staff writer Jonathan Lai contributed to this article

Exhibit 46

Pennsylvania's nightmare 2020 voting scenario — and how to prevent it

by Jonathan Lai, Posted: June 28, 2020

HEATHER KHALIFA / Staff Photographer

It's Nov. 3, 2020. It's been a long Election Day in Pennsylvania, with new voting machines causing confusion at some polling places, and the closure of others for public health reasons leading to long lines at locations still open. Meanwhile, a huge surge of mail ballots driven partly by coronavirus fears of voting in person means it's going to take days to count them all and determine who won.

But President Donald Trump is already declaring victory.

Early, unofficial results make it look like he has won the critical battleground state of Pennsylvania in a landslide. But the election night results are incomplete, with most mail ballots not yet counted. And most Democrats voted by mail, while most Republicans voted in person.

Trump isn't winning. His voters are just being counted first.

In the days after the election, as the populous and Democratic Philadelphia region counts its votes, the numbers shift in Joe Biden's favor, and Trump begins to make false claims of voter fraud and election rigging — echoing conspiracy theories he has promoted for months.

One week after the election, votes are still being counted, lawsuits are being prepared, misinformation and partisan attacks are flying. And public trust in the legitimacy of the election is fading, fast.

None of this has happened yet. But the experience of this month's Pennsylvania primary election, coupled with Trump's increasingly frequent false claims about mail voting, show that it's not only possible: Without policy changes before November, it is likely, elections officials and voting rights advocates say.

"We are definitely headed for this possibility, but it is not inevitable. It is something that we can — and have the responsibility to — avoid," said Wendy R. Weiser, head of the Democracy Program at New York University's Brennan Center for Justice. "It will be a meltdown. It will be a disaster. But we can change it. And it will be if our political leaders don't take steps now."

A new Pennsylvania law allowing anyone to vote by mail, along with the pandemic, led to a massive volume of mail ballots in the June 2 primary. And the long process of counting them left numerous races without a declared winner for days.

The primary revealed those weaknesses — among others — in the electoral system that can still be addressed before November

"We can't buy time back, but seriously... legislative fixes can change fundamental aspects of this," said Lee Soltysiak, chief operating officer for Montgomery County and chief clerk of its elections board. "The sooner these decisions are made, or frankly the sooner they say they're not going to do it, certainty is valuable. We'll make it work, you know?"

TOM GRALISH / Staff Photographer
Workers deliver a cart full of ballots from voting machines around the city to the Philadelphia Board of Elections on June 4. Results took longer to progress because of a flood of mail ballots.

Public trust can be fragile, especially in a time of strong political polarization. If people begin losing faith in the electoral system and its outcomes, the legitimacy of the government itself is at risk.

"The system is not only built on elections but on trust," Weiser said. "And the outcomes of those elections lead to peaceful transitions of power."

Here are some of the nightmare scenarios keeping elections officials and experts up at night — and how to prevent them.

Nightmare 1: Votes take days to count, leading to false claims of election rigging

Now that any Pennsylvania voter can use a mail ballot, it takes much longer to count votes than it used to.

With a mail ballot, elections workers have to confirm the validity of the vote, sort it into the right pile, open two different envelopes, and, finally, scan the ballot.

But Pennsylvania law doesn't allow mail ballots to be opened until Election Day. Some counties, especially the smaller, more Republican ones, are able to count all their ballots on Election Day. Many are not. Philadelphia doesn't start counting mail ballots until the day after the election because work that day is focused on in-person voting.

Most votes in the Philadelphia region weren't even counted on the night of the primary because so many were cast by mail.

Pennsylvania's election night results tend to be more favorable toward Republicans than the final tally, a phenomenon established by academics and known as the "blue shift." That is highly likely to become even stronger in the fall, given the partisan divide seen in the primary: Most Democratic votes were cast by mail, while most Republican ones were cast in person.

If that holds up, the results we see on election night will be missing a large fraction of Democratic votes.

Experts and elections officials are particularly concerned Trump will make unfounded claims of election rigging and voter fraud. In 2018, Trump made false claims of fraud and warned of "election theft" as votes were counted in Florida and leads narrowed for the Republican candidates in closely watched races for governor and Senate. "An honest vote count is no longer possible-ballots massively infected," he said on Twitter. "Must go with Election Night!"

This year, he has made a series of false and unfounded claims about mail ballots.

> The Florida Election should be called in favor of Rick Scott and Ron DeSantis in that large numbers of new ballots showed up out of nowhere, and many ballots are missing or forged. An honest vote count is no longer possible-ballots massively infected. Must go with Election Night!
>
> — Donald J. Trump (@realDonaldTrump) November 12, 2018

How to prevent it: County elections officials generally agree they should be allowed to start opening or even counting mail ballots before Election Day, and Pennsylvania Secretary of State Kathy Boockvar, whose department oversees elections, supports doing so as early as three weeks before. Pennsylvania's state legislature would have to change the law for that to happen.

The time it takes to count mail ballots can also be shortened by purchasing or leasing equipment and by significantly increasing staffing.

False claims of election rigging may be impossible to avoid. Experts say public awareness campaigns are needed to reset expectations for when results will be in and explain how the system works.

"If I knew how to silence Trump, I would probably be Biden's running mate, right?" said Lisa Deeley, chair of the Philadelphia city commissioners. "How do we silence or overpower the voice of the president on all these social media platforms?"

Nightmare 2: Tens of thousands of voters are disenfranchised

Pennsylvania's deadlines for requesting and returning mail ballots can be very tight.

Voters have until one week before an election to request a mail ballot, and mail ballots have to be returned by 8 p.m. Election Day, according to state law.

Elections officials warned before the primary that thousands or even tens of thousands of people would receive their mail ballots too late to mail back, and several court cases sought to change the deadlines.

Ultimately, tens of thousands of ballots arrived after the election day deadline, a troubling sign for November, when turnout could be much higher — perhaps double or more in some counties.

How to prevent it: State lawmakers should change the deadlines, many elections officials and advocates say. Some say the application deadline should be moved earlier; others say the return deadline should be pushed later; others call for a combination of both.

Counties also scrambled in the days before the primary to set up drop boxes for voters to hand-deliver their mail ballots. Those were heavily used, and officials hope to set up more of them for November.

Some counties are also hoping to set up offices where people can vote early by requesting a mail ballot in person. Those "early voting" sites would require equipment and staff, and there are strict requirements for eligible locations.

Nightmare 3: Chaos at the polls

There are a number of reasons why there could be confusion and chaos at the polls on Election Day:

Voting locations may change without people knowing. Counties have replaced voting machines in the last two years, and some voters will be encountering them for the first time. Problems with voting machines or poll books can delay voting and cause long lines, as they did in Philadelphia during the primary. And counties may not have enough poll workers, while new ones may not be trained well enough to troubleshoot problems.

"You do not want inadequate polling places to be perceived as roadblocks and barriers to deter voters," said Donnell Drinks, election protection coordinator for the ACLU of Pennsylvania. "You don't want it to seem that it's chaotic in nature."

Philadelphia had 77% fewer polling places in the primary than in the election before; Montgomery County had 60% fewer. That was allowed under a one-time provision in an emergency law passed in March, but the challenges of polling places will remain in November.

TIM TAI / Staff Photographer
Dozens of voters line up outside Masjidullah in Philadelphia's East Mount Airy section on Pennsylvania's primary election day, June 2.

During a pandemic in which older people are at heightened risk, elections officials don't want to use senior centers as voting sites, some privately owned places are closed and even boarded up for weeks or months, and many locations are too small or otherwise unfit for social distancing.

Poll workers, meanwhile, are usually older than the general population, and some counties struggled to find enough people.

And concerns around voting machine failures and similar problems exist every election — but are heightened during high-turnout presidential elections.

How to prevent it: County elections officials have already begun planning their polling places and staffing, though the uncertainty around the coronavirus remains a challenge.

Elections officials said they need a major recruitment effort to bring in poll workers, especially young ones, and they need to find voting locations with owners who would be willing to allow voters to gather even during the height of a potential fall wave of COVID-19 cases.

Exhibit 47

Allegheny County will send mail-in ballot applications to all registered voters

April 17, 2020 3:59 PM

By Julian Routh / Pittsburgh Post-Gazette

Allegheny County will send mail-in ballot applications to every registered voter in the county who hasn't already applied for one for this June's primary election, officials announced Friday.

The county is currently "finalizing" the mailings, which will include an application and a postage-paid envelope addressed back to the county elections office, according to a written announcement.

County Executive Rich Fitzgerald, who earlier this week called on the governor to use his emergency powers to allow counties to send actual mail-in ballots to voters, said without that authority, officials are "moving forward" with sending the applications.

The move follows weeks of lawmakers and local officials encouraging Pennsylvanians to apply for mail-in ballots if they're concerned about the viability of voting in-person on June 2 in the midst of the COVID-19 pandemic.

Mr. Fitzgerald has warned that encouragement isn't enough, and that holding in-person voting on June 2 would be a "disaster," potentially leaving the county without enough workers to staff polling places and disenfranchising voters who will stay home in fear for their safety.

The county has received more than 71,000 absentee and mail-in ballot applications so far, 20,000 of which have been processed already.

According to the county, the mailers will cost about 57 cents each, not including the return postage, which is based on how many are returned.

Since the June 2 election is a party primary, only registered Democrats and Republicans will receive applications, except for Bethel Park, where there's a measure on the ballot, county spokeswoman Amie Downs said.

There are currently more than 520,000 registered Democrats and 249,000 registered Republicans in Allegheny County.

Julian Routh: jrouth@post-gazette.com, 412-263-1952, Twitter @julianrouth.

Exhibit 48

Pennsylvania's mail ballot problems kept tens of thousands from voting in a pandemic primary

⬛ inquirer.com/politics/election/pa-mail-ballot-deadlines-disenfranchisement-20200730.html

by Jonathan Lai, Posted: July 30, 2020

TOM GRALISH / Staff Photographer

Voting early enough was the key to successfully casting a ballot by mail in Pennsylvania last month. At least three weeks before the June 2 primary election, to be precise.

Voters whose mail ballot requests were processed after that point were less and less likely with each passing day to end up successfully voting, according to an Inquirer analysis of state data.

Before May 12, almost 90% of voters who requested mail ballots ultimately voted, and the vast majority did so by mail. But many mail ballot applications, almost two out of five, were processed within three weeks of the election. And for those voters, only about 76% ended up voting.

That's a significant difference: Without that drop-off, about 92,000 more Pennsylvanians would have voted in the primary, according to the Inquirer analysis.

This year's primary was the first election in which people were allowed under a new state law to vote by mail without providing a reason. Coupled with a coronavirus pandemic that made in-person voting riskier than normal, the new law sent the number of mail ballot requests skyrocketing. Every step of the process took longer than normal, with inundated county elections offices struggling to quickly process applications and print ballots. And mail delivery was uneven and often delayed, voters and elections officials across the state said.

Pennsylvania 2020 Newsletter

Interested in how Pennsylvania is shaping the 2020 election? Sign up to receive our newsletter every Wednesday.

While it's impossible to know exactly why the voting rate dropped as mail ballot requests were made closer to election day, the data suggest elections officials and voting-rights advocates were right when they warned that the state's mail ballot deadlines are too tight and were likely to disenfranchise voters.

"And the data now backs it up," said Lee Soltysiak, Montgomery County's chief operating officer and clerk of its elections board. "It's not just a bunch of grumpy election officials wringing their hands."

Montgomery County was one of six for which Gov. Tom Wolf extended the mail ballot deadline, and elections officials there ended up counting thousands of mail ballots under that order. Even so, the voting rate fell from 89.5% for voters whose applications were processed before May 12 to 75.9% for voters whose requests were processed later. That's 7,100 votes in Montgomery County.

Voters have until one week before election day to request a ballot, and completed ballots have to be returned by 8 p.m. election day to be counted.

For many voters, elections officials said, there's no way to receive their ballots with enough time to return them. And because of the pandemic, many of those voters might not choose to instead vote in person.

"It may be with all the good intentions in the world, making it so people can apply as late as possible, but those good intentions are disenfranchising voters," said Al Schmidt, one of the three Philadelphia city commissioners who run elections. "It doesn't matter what the intentions are when voters are disenfranchised."

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Tens of thousands of mail ballots arrived after the deadline, with most of them counted under Wolf's order but thousands more rejected.

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To get a wider picture of voter behavior, The Inquirer combined a dataset of every approved mail ballot request for the June 2 primary election with the July 13 voter roll, which records the method by which a voter participated in the primary election. (Two counties, Northumberland and Susquehanna, were excluded from the analysis because they did not have data for the primary.)

Of the more than 1.8 million voters in the analysis, 1.09 million had their applications processed before May 12 and almost 976,000 of them ended up voting. More than 713,000 voters had their mail ballot requests processed on or after May 12, and 545,000 of them ultimately voted.

The analysis cannot show *why* voters did not cast ballots. Some voters mailed their ballots back and they arrived at county elections offices too late to count. Others may have given up after deciding their ballot could not be submitted in time. And still others may have tried to vote in person but ultimately did not do so.

"There is clearly a timeline problem — [but] I don't think we have enough information to know the solution," said Suzanne Almeida, the interim head of the good-government group Common Cause Pennsylvania.

Advertisement

Elections officials and voting-rights advocates have urged state lawmakers and the governor to quickly pass a law changing the voting deadlines, though there's no consensus around a specific fix. Some propose widening the window by moving the application deadline earlier. Others say the deadline for returning ballots should be later, perhaps by allowing ballots to be postmarked by election day but received in the days after. Still others suggest a hybrid of the two or some other option.

There are also several lawsuits in state and federal courts over how Pennsylvania's general election will be conducted, and some of those take aim at the ballot deadlines.

Without a policy change, county officials said, they would urge voters to request mail ballots earlier, devote more resources to processing ballots more quickly, install drop boxes and other ways for voters to return ballots, and try to work with the postal service to ensure fast or at least predictable mail delivery times.

Ultimately, though, they said a statewide fix is required.

"The one thing we are all asking for at this point is to move that deadline," said Allegheny County Executive Rich Fitzgerald. "Then I think some of those problems can be fixed."

View Comments

Exhibit 49

post-gazette.com
Pittsburgh Post-Gazette

Election official: Number of Pa. mail-in ballot applications 'off the charts'

May 21, 2020 9:47 AM

Associated Press

Pennsylvania's top elections official, Kathy Boockvar, said that voters have submitted about 1.6 million applications for mail-in and absentee ballots for the June 2 primary election.

That number, she said, is "off the charts" and beyond most expectations. Applications are pouring in ahead of next Tuesday's deadline to apply, as counties make plans to dramatically reduce the number of physical polling place locations because of the coronavirus.

The fear of infection has made it difficult to recruit polling workers, and state and federal health guidelines have made it difficult to find polling places that can accommodate the demands of social distancing.

In a conference call on election issues organized by U.S. Sen. Bob Casey's office, Secretary of the Commonwealth Boockvar said she does not expect to see lines at polling places in most locations, given the number of mail-in and absentee ballots requested and considering Gov. Tom Wolf's restrictions that might be in place in some parts of Pennsylvania.

Some counties have already received more mail-in ballot applications than the entire vote total that they were expecting in the June 2 primary election, Boockvar said.

More than 3.2 million people cast ballots in the 2016 presidential primary election. However, this time around, the presidential nominations are uncontested.

Still, Boockvar conceded that the volume of mailed-in ballots will make it impossible to produce a result in close races on election night.

It will depend on how many ballots are actually submitted, she said. Some counties have received about 50% of the ballots for which voters applied, and those numbers vary tremendously across the state, she said.

To help with counting a surge of mailed-in ballots, a new state law moved up the time that counties can start preparing the mailed-in ballots to be counted, to 7 a.m. on Election Day, although the ballots can't actually be counted until polls close.

"I don't think it's going to to be sufficient for many counties," Boockvar said. "So ... some of the races that are not close we will get results quickly, but if there are close races, it may take a couple of days."

In the meantime, counties are dramatically scaling back on polling places. Allegheny County, the state's second-most populous county behind Philadelphia, received state approval to set up 211 polling places, down from about 830. Montgomery County, the third-most populous county, is planning to set up 140, down from 352.

The deadline to apply for a mail-in ballot is 5 p.m. on May 26. Registered voters can go to VotesPa.com/ApplyMailBallot and fill out the online form with a Pennsylvania driver's license or PennDOT-issued photo ID handy. Exceptions and other forms of ID can also be found on the website.

First Published May 21, 2020 9:47 AM

Exhibit 50

The Inquirer

NEWS   SPORTS   BUSINESS   OPINION   POLITICS   ENTERTAINMENT   LIFE   FOOD   HEALTH   REAL ESTATE

Philly voters have requested more mail ballots than all of Pennsylvania did in 2016

by Jonathan Lai, Updated: May 20, 2020
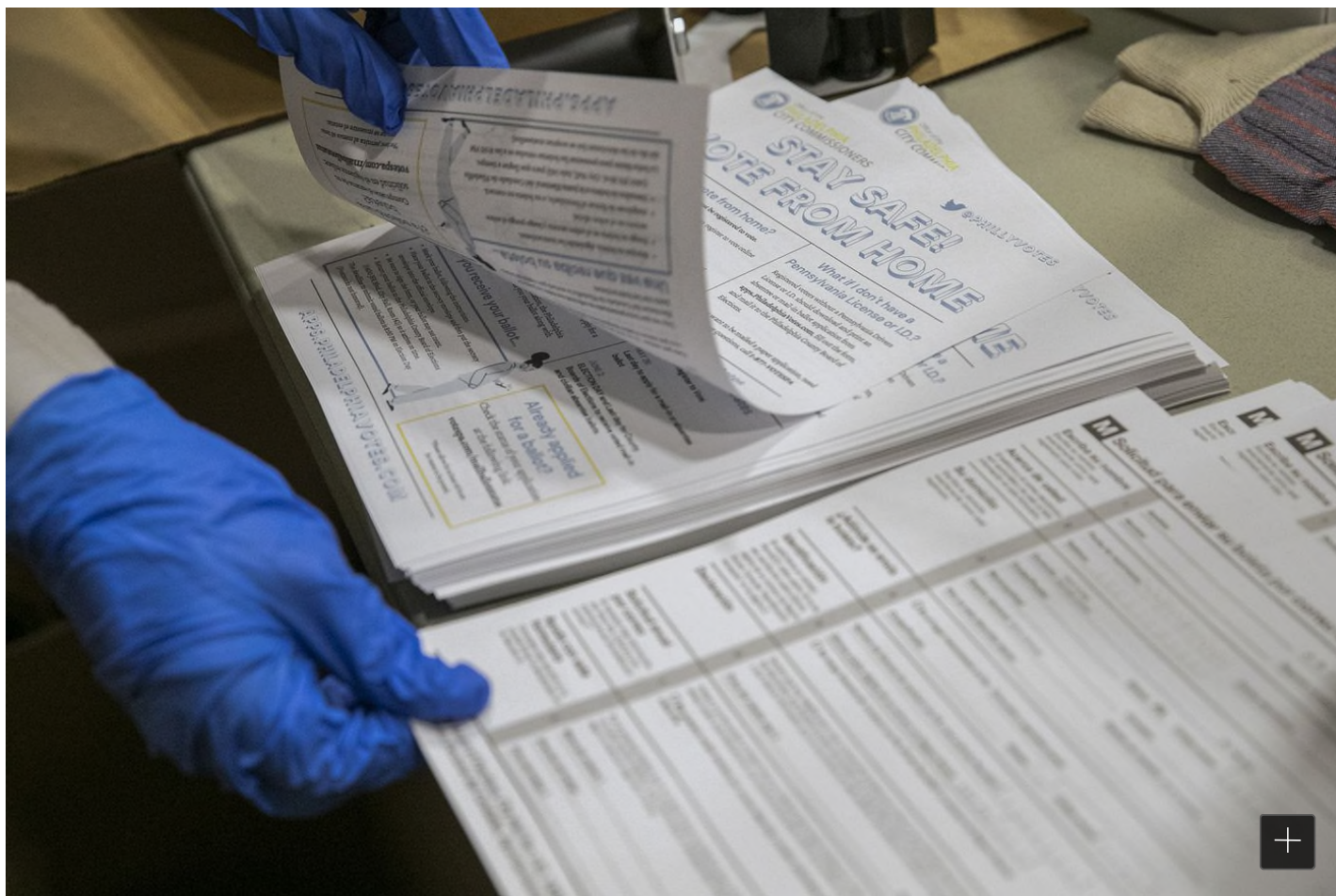
HEATHER KHALIFA / STAFF PHOTOGRAPHER

Editor's Note

News about the coronavirus is changing quickly. The latest information can be found at **inquirer.com/coronavirus**

The difference is so huge, it sounds like a mistake at first.

As of Wednesday, almost 23 times as many Philadelphia voters had requested mail ballots as did for the 2016 primary. So many voters — more than 145,000 — that the number in Philadelphia alone already exceeds the statewide total from four years ago.

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And in what could be a coronavirus-era milestone, Philadelphia elections officials project a majority of votes in the June 2 primary will be cast by mail. The percentage is normally in the low single digits.

The number of mail ballot requests continues to grow — and at an increasing rate.

Philadelphia Voters Have Already Requested More Mail Ballots Than the Whole State Did in 2016

In the 2016 primary, 107,000 Pennsylvania voters requested absentee ballots. Philadelphia alone has already surpassed that number this year, with more than 145,000 of the city's voters requesting mail ballots as of Wednesday morning.
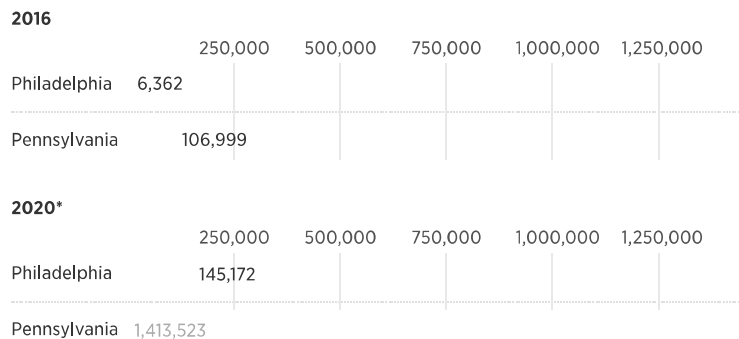
2016

	250,000	500,000	750,000	1,000,000	1,250,000
Philadelphia 6,362					
Pennsylvania 106,999					

2020*

	250,000	500,000	750,000	1,000,000	1,250,000
Philadelphia 145,172					
Pennsylvania 1,413,523					

As of May 20. Numbers reflect voters who have had their ballot requests processed. They do not include any backlog of applications awaiting processing.

Chart: JONATHAN LAI •
Source: Pennsylvania Department of State, Philadelphia City Commissioners

At the beginning of last month, elections officials were processing several hundred requests for mail ballots each day. By the end of April, there were 3,000 requests a day. Now, it's more than 4,500.

PENNSYLVANIA 2020 NEWSLETTER

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"We expect a big push this week," said Omar Sabir, one of the three Philadelphia city commissioners, who oversee elections. "We expect at the deadline to increase our number."

Mail Ballot Requests in Philadelphia Are Growing Quickly

The number of mail ballot requests is growing as Tuesday's deadline nears. At the start of April, city elections officials were processing several hundred ballot requests a day. That number grew to about 3,000 by the end of the month. They're now handling more than 4,500 a day.
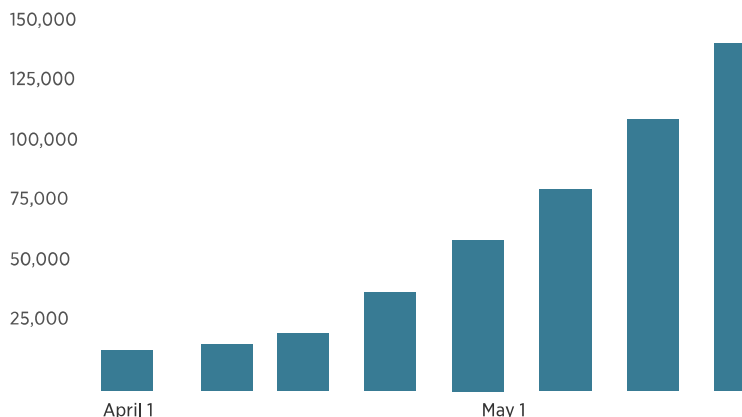
Numbers reflect individual voters who have had their ballot requests processed by the city. They do not include backlogs of applications that were awaiting processing.

Chart: JONATHAN LAI •
Source: Pennsylvania Department of State, Philadelphia City Commissioners

There are two primary reasons for the sudden flood of mail-in ballots.

The first is structural: Anyone can now vote by mail under a new state law. In the past, absentee ballots were tightly restricted to people who were truly unable to vote in person, and only about 5% of votes were cast absentee in any election. (Due to a quirk in the law, Pennsylvania technically has two kinds of mail ballots, "absentee" and "mail-in," that are functionally the same for voters.)

A major change to Pennsylvania election law last year removed those barriers, and the 2020 primary is the first election in which anyone, for any reason, can vote by mail.

And then, of course, there's the coronavirus pandemic.

"Here we are in a June pandemic election," said Lisa Deeley, chair of the city commissioners. "Luckily, fortuitously, we were able to do this [vote-by-mail] without an excuse."

"It's a one-off; this is not the way Philadelphians would choose to vote in normal circumstances," she said. "We want to go back to restaurants, we want to go back to bars, we want to go back to movies.... We hope everything will go back to the way it was with voting."

Some voters are likely to change their behavior even after the pandemic subsides. Generally after states expand vote-by-mail, they see gradual adoption over the course of several years, and many voters who find it convenient in one election continue doing so in the future.

That's what Sabir expects to do.

Sabir said voting at physical polling locations has been a sacred ritual for him because of the long fight for black Americans to secure the right to vote. "Every time, it's like we're walking on hallowed ground," he said.

But Sabir said voting at home still felt special and was so convenient and safe that it's his preferred method for the future.

"Alternative voting" methods such as early in-person voting and voting by mail have risen in popularity across the country, with about two out of five votes now cast in some method other than at the polls on Election Day. Pennsylvania long resisted that trend.

When last year's election law was passed, state elections officials predicted about 20% of votes statewide would come by mail, already four times higher than the past. Coronavirus fears could send them soaring past that mark.

Philadelphia used to have much lower absentee-voting rates than other counties (previous law made it particularly hard for some to vote absentee). But this year, the city appears to be jumping to the head of the pack.

The number of mail ballots requested has increased at a greater rate in Philadelphia than in any other county. Across the state, there have been more than 13 times as many requests this year as in 2016.

Philadelphia's Mail Ballot Requests Have Increased More Than Any Other County

Pennsylvania voters have requested more than 13 times as many mail ballots this year as in the 2016 primary, and Philadelphia has led the pack, with a greater increase than any other county. On total numbers, though, the city still trails Allegheny County.
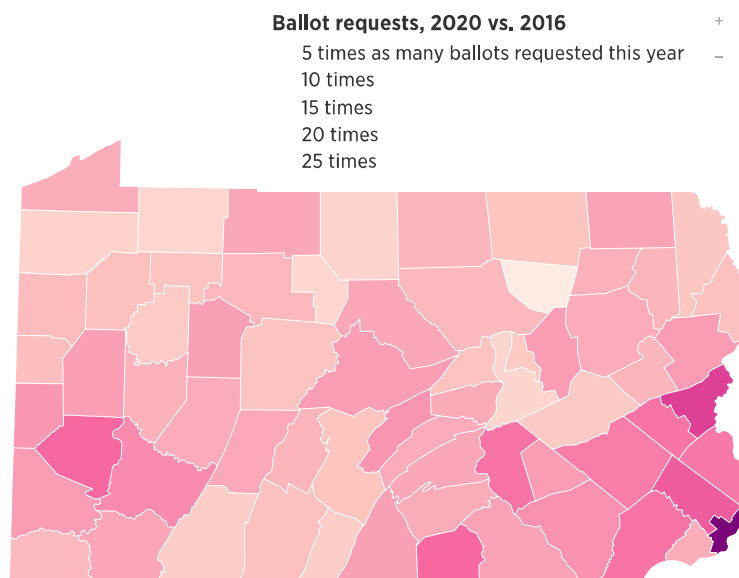
Ballot requests, 2020 vs. 2016   +

5 times as many ballots requested this year   –
10 times
15 times
20 times
25 times

As of May 20. Numbers reflect voters who have had their ballot requests processed. They do not include backlogs of applications that were awaiting processing.

Map: JONATHAN LAI •
Source: Pennsylvania Department of State, Philadelphia City Commissioners

Despite having far and away the most registered and active voters in the state, Philadelphia tends to come behind Montgomery and Allegheny Counties when it comes to total absentee ballots.

This year, Philadelphia continues to trail Allegheny, home to Pittsburgh, but has jumped ahead of Montgomery County.

Want to vote by mail? Here's what you need to know. Applications are due by 5 p.m. Tuesday, May 26. Completed ballots must be returned to county elections officials by 8 p.m. election day, June 2. (Postmarks don't count.)

Posted: May 20, 2020 - 11:19 AM

Jonathan Lai | **@Elaijuh** | **jlai@inquirer.com**

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Matt Breen, Staff Writer

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Inquirer Staff Photographers

Exhibit 51

Tens of thousands of Pennsylvania mail ballots were turned in after the deadline. November could be worse.

by Jonathan Lai, Updated: June 10, 2020

Philadelphia City Commissioners

Tens of thousands of Pennsylvania voters were almost disenfranchised last week. Thousands of others actually were.

And things could be even worse in November.

That's the clear takeaway from a review of state data on mail ballots, along with interviews with elections officials in several of Pennsylvania's largest counties: Tens of thousands of ballots arrived in the week after the June 2 primary election, and thousands more voters who applied to vote by mail ended up using provisional ballots at the polls instead.

Most of those votes will be counted after orders from Gov. Tom Wolf and judges extending ballot deadlines for specific counties. But that leaves thousands of votes in the rest of the state uncounted. And those orders applied only to this election, leaving in place what many election officials say are problematic deadlines that will continue to ensnare voters in November and future elections.

"These deadlines have real consequences," said Delaware County Council Member Christine Reuther. "And one of them is, people are going to be disenfranchised."

It's a problem that Reuther and other elections officials across the state had warned about. A new state law allowing anyone to vote by mail and coronavirus fears of voting in person led to a massive volume of mail ballots. The pandemic also made the mail ballot process slower than normal, they said, in part because of unpredictable delivery times. Officials warned that thousands or even tens of thousands of voters would receive their ballots too late to return them.

They were right.

In Philadelphia alone, officials said, more than 14,600 ballots arrived after the deadline. Allegheny County had 9,400. Montgomery County had more than 5,800, Delaware County had 2,500, and Bucks County had more than 1,200. Those were among the counties that received extensions and will have most of those late ballots counted.

Others received no extension, including Chester County, which had 1,600 ballots arrive late. The numbers are much lower in the rest of the state's smaller counties, such as Northampton with its 300 late ballots. But those numbers likely add up to thousands of rejected votes.

The number could be as high as 75,700 late ballots statewide, according to data from the Pennsylvania Department of State, which oversees elections. But that data did not align with what some counties reported and is based on a system that for technical reasons overstates the numbers. That data showed 8,680 late ballots in counties that did not have extensions.

Donald Trump's 2016 margin of victory in the state was 44,000 votes, or about 0.7%.

"We've been saying what was going to happen, and nobody was listening to us, and it happened," said Deborah Olivieri, elections director for Berks County, which had "a couple hundred" ballots arrive after the deadline. "I hope they'll listen to us now."

The struggle to count the flood of mail ballots has left numerous races without a clear winner a week after election day.

The counties also saw a significant spike in provisional ballots, which are paper ballots used at polling places when a voter's status has to be confirmed after election day. Elections officials said most of the provisional ballots were used by voters who had applied for mail ballots and were unable to return them in time, a sign the deadlines were too tight.

Bucks County, for example, had about 2,500 provisional ballots, far surpassing the previous record of 400. Almost 1,600 of them were from people who had requested mail ballots.

It's also impossible to know how many voters simply didn't cast a ballot, choosing to sit out the election because they could not meet the mail deadline.

There are always some voters who turn in their ballots too late, and not every late arrival means a voter was silenced. Some people who sent mail ballots too late may have also voted using provisional ballots. Wolf ordered late-arriving ballots to be counted in six counties, including Philadelphia, if they were postmarked by election day.

And as always, some voters sent their ballots in after election day itself, which isn't allowed. Out of Allegheny County's 9,400 or so late-arriving mail ballots, about 6,800 were postmarked by election day and will be counted under Wolf's order. But 2,600 were not.

"No matter what the deadline is, there are always going to be late ones; people wait until the last minute," said Tim Benyo, the chief elections clerk for Lehigh County. "It's going to happen every time. I don't know what the fix is."

He's not the only one who's unsure of a solution. Some elections officials and lawmakers want an earlier deadline for requesting a ballot. Others suggest a later deadline for returning them, and multiple lawsuits have sought such an extension . Others propose a combination of the two or some other method.

Whatever the fix, elections administrators generally agree on one thing: The current timeline shuts out some voters.

Voters can apply for mail ballots up to one week before election day, and the ballots must be returned to county elections officials by 8 p.m. on election day. For voters who apply at the deadline, that leaves just one week for elections officials to process and approve applications, print and prepare ballots, and mail them to voters — then for voters to fill out the ballot and mail it back.

But some of those steps can take a day or two if not more, and the pandemic exacerbated that.

"It's insufficient and unrealistic that anyone could ever apply for a ballot on or, frankly, near the deadline and have any faith that it would be returned by 8 p.m." one week later, said Lee Soltysiak, Montgomery County's chief operating officer and the clerk of its elections board. "It's not realistic. It's disingenuous to suggest it's even possible."

State lawmakers should change the deadlines, county officials said.

"They should have introduced something the day after the election. It was so obvious," said Diane M. Ellis-Marseglia, chair of the Bucks County commissioners.

Olivieri was hopeful that evidence of the problem will spur a change.

"We're not just talking [about change] because we don't want to deal with it, we're talking because we know what's going to come down the road," she said. "I just hope they listen to us now. We're not crying wolf or 'the sky is falling' for no reason."

Exhibit 52

Dealing with mail-in ballots emerges as major challenge for Pa. primary election

By Ron Southwick | rsouthwick@pennlive.com   May 28, 2020

Even in a normal year, Pennsylvania's first statewide election allowing voters to cast ballots by mail would have been challenging.

It's not a normal year. The coronavirus pandemic has dramatically altered the preparations and management of the Pennsylvania primary on June 2, posing major challenges for state and county officials. About 1.8 million voters have applied to cast their ballots by mail.

County officials have expressed concerns about handling the volume in the primary and in the fall with the presidential election.

Gov. Tom Wolf was asked about the anxiety of some county officials at a news conference Tuesday and said, "I think it's a legitimate concern."

Some county officials said they fear some voters won't get their ballots in time to mail them back, so they may end up going to vote in person anyway. To vote by mail, the ballots must be received by county election offices by 8 p.m. on June 2.

Some voters are still waiting for their mail-in ballots. If they get the mail-in ballots in the next couple of days, they'll have little time to fill them out and get them in the mail in time. Wait times for mail-in ballots have varied by county. An analysis of those wait times by WPVI-TV (6abc) found voters in some counties had to wait more than two weeks to get their mail-in ballot.

There have been other snafus. The Philadelphia Inquirer reported Montgomery County sent the wrong ballots to nearly 2,000 voters for the primary, with Democrats getting Republican ballots, or vice versa. In Luzerne County, mail-in ballots included an error in the instructions, The Citizens' Voice reported.

'A huge increase'

Wolf signed the state's most sweeping election reform law in decades late last year, a measure which received strong bipartisan support from lawmakers. The law enabled voters to apply to cast ballots by mail without having to cite any reason.

For decades, Pennsylvanians could only vote by mail with an absentee ballot, meaning they had to explain why they couldn't cast a ballot in person, such as military service or a serious health issue. The number of absentee ballots in past years hasn't been insignificant,

but it's generally been a relatively small number.

In the 2016 primary, there were 160,000 absentee ballots statewide, noted Suzanne Almeida, interim executive director for Common Cause Pennsylvania.

"We're seeing a huge increase over what we've ever seen before," Almeida said.

Common Cause is concerned about the ability of the counties to handle the mail-in ballots. She said the counties are underfunded and overworked as it is on elections, and now they're facing hurdles they've never seen.

On top of that, some counties are using new voting machines in addition to dealing with mail-in ballots. Some counties have merged or moved polling places due to the pandemic as well.

"Vote by mail was always going to be new," Almeida said. "I think the pandemic has increased the pressure on all of those areas and made it difficult."

If voters don't get their mail-in ballot, some will end up having to go to the polls, where they can cast a provisional ballot, Almeida noted. But some voters, worried about exposure to the coronavirus or possibly having to travel to a new polling place, may not relish that option.

"Fundamentally this is about Pennsylvania voters getting to vote by using their chosen method," she said.

How counties are responding

With the coronavirus pandemic, Wolf and others have said the mail-in ballot is a boon this year, giving voters the option of participating in the primary without dealing with potentially crowded polls.

"This is going to be a better, healthier way to actually exercise the vote, than voting in person," Wolf said in his news conference Tuesday.

Clearly, voters are taking advantage of it.

In Allegheny County, more than 280,000 have applied to vote by mail, more than any other county, according to the Pennsylvania Department of State. Philadelphia is second with 217,000 applications. In neighboring Montgomery County, more than 160,000 have applied to vote by mail.

Montgomery County officials filed an unsuccessful court appeal to try and get the deadline extended for mail-in ballots. The county has set up five sites where people can drop off their ballots, up until June 2.

"Concerns over the spread of COVID-19 have created a high demand for mail-in voting and mail delivery times have been slower than normal," Kenneth E. Lawrence Jr., chairman of the Montgomery County Board of Elections, said in a recent news release. "Installing ballot drop-off boxes is another step we are taking to ensure ballots are returned to our office by the Election Day deadline.

Delaware County officials are projecting they'll be dealing with 85,000 ballots by mail, including absentee ballots. For perspective, Delaware's previous high mark for ballots by mail came in the 2008 general election, when the county received about 25,000 absentee ballots.

In Delaware County, voters worried they won't be able to mail their ballots in time can take them to polling places with drop boxes or the county's government center.

Berks County received 47,746 mail-in ballot applications this year, said Deborah Olivieri, the county's director of elections. In 2016, the county received around 3,000 absentee ballots.

Unlike some other counties, Berks County is only offering one location for those who want to drop off their ballot because they don't think they'll have time to mail it: the county government center in Reading. Olivieri said the county opted against setting up multiple drop boxes.

"There are security concerns in doing them around the county," she said.

Looking toward November

At a news conference Wednesday, Wolf was asked if he'd support giving counties more time beyond June 2 to count the mail-in ballots. The governor said that would require legislative approval, which he said would be unlikely. Wolf said he didn't think he had the authority to extend the deadline for mail-in ballots.

Looking to the fall, Almeida of Common Cause said lawmakers and the governor should allow the mail-in ballots to be counted beyond 8 p.m. on the night of the election.

If that happened, it conceivably means races couldn't be decided or called on Election Night. In a presidential election year, with Pennsylvania being a battleground state that could decide who wins the White House, the idea of delaying election results may be untenable to many.

Given the enormous volume of mail-in ballots in the primary, and the likelihood of a much greater number of ballots to process in November, Almeida said there's a good chance some races won't be decided on Election Night anyway.

Adrienne Marofsky, Delaware County's director of public relations, said officials in her county don't expect to finish counting all the ballots on June 2.

"The final tally is not expected to be complete by election night," she wrote in an email. "Results may not be available until June 6."

In Berks County, Olivieri hailed the efforts of her staff to prepare for the primary in a pandemic. But she said she's not sure the counting of all the ballots will be done on June 2.

"This is the first time going through this," she said.

In recent weeks, President Donald Trump has delivered blistering criticism of voting by mail, claiming it leads to voter fraud. Elections officials have pushed back against that claim.

Almeida noted Pennsylvania's Democratic and Republican parties have reminded voters of the deadlines and how they can vote by mail.

"Both major political parties, Republicans and Democrats, have reached out to their bases and have done follow-up to ask folks to vote by mail," Almeida said.

Note: Voters with questions about voting, voting by mail, or finding polling places can go to the state's election website: www.votespa.com.

•

Exhibit 53

TESTIMONY: RESOLUTION 200376
Philadelphia City Council's Legislative Oversight Committee
Tuesday, July 21, 2020

Good afternoon, my name is Vanessa Fields and I am speaking on behalf of the Philadelphia Chapter of the National Organization for Women (NOW) and the Philadelphia Commission for Women.

I would like to thank the Legislative Oversight Committee for providing the citizens of Philadelphia the opportunity through this public hearing to discuss issues that arose from the June 20th Primary Election.

In December, 2019 I became the president of the Philadelphia Chapter of NOW. Philly NOW was incorporated in 1971. Our chapter is engaged in working to realize a broad vision of progress for women. NOW is driven by six core missions: Economic Justice, Reproductive Justice, Gender Equality, Combating Racism, Ending Violence Against Women and Constitutional Equality.

Philly NOW along with other organizations recently signed on to a letter from Protect Our Vote Philly to the City Commissioner's Office. The letter discussed concerns regarding the City Commissioners Office staff handling of mail-in-ballots and Watchers ability to monitor the counting of the ballots.

I am also the Chairperson for the Philadelphia Commission for Women. The Philadelphia Commission for Women is charged with promoting civic, educational and economic policies for women, girls and those who identify as female. The Commission accomplishes this charge by providing advice and recommendations to the Mayor and City Council on policies and programs that advance equal rights and opportunities for women in Philadelphia.

Shortly after the June 2, 2020 Primary Election the Women's Commission formed a subcommittee to provide recommendations to address the concerns of voters who attempted to utilize voting-by-mail.

Voter concerns fell into four categories. Mail-in-ballots application, receipt of ballots in the mail, election day and inadequate staffing at the Commissioners Office and the polls on election day.

For many voters their experience with voting-by-mail was a nightmare. Many were not able to vote for the first time in their adult life.

My 85 year old Mother who experienced first hand Jim Crow laws prohibiting black people from voting was not able to vote in the June,2020 Primary because she did not receive her ballot in time !

The Women's Commission has provided this committee with our document which discusses the concerns and recommendations regarding the June 2, 2020 Primary Election. Therefore, I will not discuss them in detail during this hearing.

There's a saying, " when you know better, you do better." As a result of the testimony that you will hear today , you will know better. Therefore, the voters of Philly expect you to do better by allocating funds and whatever else is needed to address these voting concerns.

Thank you.

Exhibit 54

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

MICHAEL CROSSEY, *et al.*,	:	
Petitioners,	:	
v.	:	No. 266 MD 2020
KATHY BOOCKVAR, SECRETARY OF THE COMMONWEALTH, *et al.*,	:	
Respondents.	:	

DECLARATION OF JONATHAN MARKS

I, Jonathan Marks, declare under the penalty of perjury pursuant to 18 Pa.C.S. § 4902 that:

I am the Deputy Secretary for Elections and Commissions for the Department of State (the "Department") of the Commonwealth of Pennsylvania. I make this declaration in support of Respondents' Emergency Application for Special Relief in the Nature of a Preliminary Injunction and for Expedited Review.

Act 77's Amendments to the Pennsylvania Election Code

1. On October 31, 2019, Governor Wolf signed Act 77 of 2019 into law. This Act made significant changes to Pennsylvania's Election Code.

2. Among other reforms, Act 77 provided that electors who were not eligible for absentee ballots would be permitted to vote with mail-in ballots.

Before Act 77 was passed, voters who did not qualify for absentee ballots were required to vote in person at their polling places on election day.

3.   Act 77 did not change the deadline for applying for non-emergency absentee ballots; this deadline is still 5:00 p.m. on the Tuesday before the election. The same deadline now applies for mail-in ballot applications.

4.   Act 77 extended the deadline for receipt of voted ballots, however, from 5:00 p.m. on the Friday before the election to 8:00 p.m. on the day of the election.

5.   Act 77 also included provisions to ensure that counties will begin sending absentee and mail-in ballots to eligible voters as soon as the ballot is certified and official ballots are available.

6.   As a result of Act 77, the Department and Pennsylvania's county boards of elections (the "counties") anticipated that counties would have to deal with a large increase in the number of ballots they would receive by mail. Even before the current COVID-19 emergency, the Department and the counties were preparing for this increase.

The Ongoing Efforts to Mitigate the Impact of the COVID-19 Emergency on the Primary Election

7.   As the Court is undoubtedly aware, the COVID-19 pandemic is causing real and constantly evolving challenges to every aspect of Pennsylvania personal, commercial, and civic life, and presents special challenges to those

administering the primary election.

8.   In March 2020, as the severity of the crisis became clear, the Department, together with the counties and the General Assembly, began taking steps to mitigate these challenges.

9.   The General Assembly took a critical step toward mitigation on March 27, 2020, when it passed Act 12 of 2020, which postponed the primary election from April 28 to June 2, 2020.

10.   Act 12 also included provisions to give counties flexibility in recruiting poll workers and relocating polling places, for the primary election, and allowed counties to begin pre-canvassing absentee and mail-in ballots at 7:00 a.m. on election day.

11.   The Department and the counties are using the five extra weeks Act 12 provided to minimize the effect of the COVID-19 pandemic on mail-in, absentee, and in-person voting.

12.   First, the Department has taken steps aimed at smoothing the process of in-person voting on election day.

13.   The Department is assisting counties with planning for reductions in numbers of poll workers and available polling places, and advising counties about how they can set up their polling places to facilitate social distancing.

14.   The Department has provided counties with $13 million in sub-

grants—which the Commonwealth received from the federal government—for the counties to use towards additional staff, purchasing equipment, and otherwise ensuring the primary is administered as seamlessly as possible.

15.   The Department has also procured 6,000 safety kits to provide to counties, which include masks, gloves, hand sanitizer, and other supplies for safely administering in-person voting.

16.   Second, in order to alleviate crowding at polling places, the Department, the counties, and third parties are making efforts to encourage as many Pennsylvania voters as possible to vote by mail-in or absentee ballot.

17.   The Department and counties have put many mechanisms in place to allow voters to request absentee or mail-in ballots. Most registered voters may sign up online on the Department's website, and any registered voter may get an application by downloading and printing one; requesting one in person at the voter's county election office; or calling, emailing, or writing to the Department or the voter's county election office. In counties where election offices have reopened to the public, voters can also request ballots in person, fill them out, and submit them in one visit.

18.   Many third parties, including nonprofits, government officials, and political candidates, are also delivering applications to potential voters.

19. The Department has created and posted on its website a toolkit that third parties can use to educate their constituents. The Ready to Vote toolkit includes templates for posters, flyers, palm cards, and other educational materials.

20. The Department and the Governor's office have devoted significant resources to educating members of the public about the availability of absentee and mail-in ballot options. For example,

- Governor Wolf has encouraged voters to apply for ballots during his frequent COVID-19 updates;

- The Department has mailed postcards to all households with registered primary voters (voters registered to either major political party), informing voters about the changed primary date and the availability of absentee and mail-in voting options;

- The Department has provided email updates to registered voters;

- The Department is also conveying this information to voters using bilingual statewide TV, radio, and streaming online broadcasts; and

- Other Pennsylvania departments have emailed updates from the Department to their own email lists.

21. In these communications, the Department has emphasized the need to apply for and return absentee and mail-in ballots promptly and has communicated the deadlines for requesting ballots and returning them.

22. Many county boards of elections have also made significant efforts to educate the public about these options for voting and encourage voters to promptly apply for ballots. For example, some counties have sent pre-stamped mail-in ballot

applications to registered voters. Other counties have communicated with their registered voters through social media, text and mail.

23.   Elected officials, political parties, candidates, and public interest groups, including Common Cause and the League of Women Voters, have joined the effort, alerting their constituents and contacts to the new mail-in voting option and the application process.

The Current Status of the Ballot Application Process

24.   It appears that the efforts to encourage the public to apply for mail-in and absentee ballots have, so far, been successful.

25.   The Commonwealth has 7,477,057 registered primary voters. Only a certain percentage of these, however, can be expected to vote in any particular primary election.

26.   Primary turnout is typically lowest in elections with no contested major party presidential race and no high-profile statewide races.

27.   The June 2, 2020 primary will be such an election; neither presidential primary is contested, and the statewide races have not captured a great deal of the public's attention.

28.   Statewide turnout in the last several primary elections in which federal offices were on the ballot was as follows:

- 2018: 1,563,373

- 2016 (contested races for both major party presidential nominations): 3,416,283

- 2014: 1,370,815

- 2012 (contested race for one major party presidential nomination): 1,608,341

- 2010: 1,885,648

29.   Preliminary data indicates that, as of Sunday, May 17, 2020, the counties have received nearly 1.5 million applications for absentee and mail-in ballots – 1,487,047, to be exact.

30.   The counties have approved 1,310,516, or approximately 88%, of the applications.

31.   Preliminary data indicates that the counties have mailed 1.2 million ballots, or approximately 90% of the applications approved so far, to voters.

32.   The counties have received 280,105 voted ballots, which accounts for approximately 21% of applications approved so far. Because several counties, including Philadelphia, began mailing out their ballots very recently, I expect this number to increase rapidly.

33.   The Department receives real-time updates of ballot application statistics, and, if the Court would find it useful, can provide updated figures as the primary election approaches.

34.   Because this is the first election in which the Commonwealth offers the option of mail-in voting, and because the effect on turnout of the COVID-19

pandemic is uncertain, it is difficult to predict exactly how many voters will seek mail-in or absentee ballots. It is unlikely, however, that this number will exceed 2 million. Therefore, it is reasonable to assume that more than 60% of the mail-in and absentee ballots that will be requested for the primary election have already been requested.

35. Over recent weeks, the counties have been adding extra personnel to help process applications and other election tasks more quickly. Many counties have also procured additional print and mailing services to streamline preparation and delivery of balloting materials.

36. While managing the application process during the COVID-19 crisis has certainly presented challenges for individual counties, so far, most counties have been able to process applications as they are made and avoid backlogs.

37. There is, of course, significant variation among counties. As of May 17, 2020, many counties had mailed ballots in response to more than 99% of their approved applications.

38. For the counties identified on pages 11-12 of Petitioner's Application and the corresponding exhibits, as of May 17, preliminary data shows the following approximate figures:

- Allegheny County had received 205,454 applications, rejected 16,809 of them, approved 183,345, and mailed out 171,343 ballots;

- Delaware County had received 68,418 applications, rejected 3,365 of them, approved 46,332, and mailed out 18,756 ballots;

- Lawrence County had received 8,340 applications, rejected 523 of them, approved 7,712 , and mailed out 7,701 ballots;

- Lehigh County had received 41,596 applications, rejected 3,240 of them, approved 35,714, and mailed out 34,480 ballots;

- Mercer County had received 9,411 applications, rejected 666 of them, approved 7,649, and mailed out 6,677 ballots;

- Montgomery County had received 140,150 applications, rejected 6,234 of them, approved 125,043 and mailed out 113,512 ballots; and

- Philadelphia County had received 150,366 applications, rejected 1,887 of them, approved 131,962 of them, and mailed out 98,435 ballots.

39. Based on the counties' progress, and assuming there are no dramatic surges in infections, weather events, or other unexpected events, I expect that the great majority of the Commonwealth's 67 counties will be able to timely process any current backlogs and handle additional applications that arrive.

40. Primarily due to the impact of COVID-19, a handful of counties have recently processed ballot applications and ballot mailings at a slower pace than others. The Department does not yet have enough information to determine whether these counties will be in a position to catch up with their pending applications and process new applications as they are received.

41. The Election Code requires counties to mail absentee and mail-in primary election ballots for all approved applications by Tuesday, May 19, 2020.

See 25 P.S. §§ 3146.5(b), 3150.15.

42.   After this date, the Department will in a better position to determine which counties, if any, are likely to experience significant delays in processing and responding to timely submitted ballot requests.

43.   By Friday, May 22, 2020, unless the Court directs otherwise, I will supplement this Declaration with additional information about the counties' progress.

The United States Post Office

44.   Petitioners speculate that the United States Post Office ("USPS") is experiencing delays in processing of first-class mail that will extend mail times beyond the typical one to three business days.

45.   As part of preparations for the June 2 primary election, the Department has been in close contact with representatives of the USPS for several months, including conversations with staff from certain of the five regional processing plants that serve Pennsylvania,

46.   The Department and the counties have worked with the USPS to ensure that the envelopes used for mailing blank and returned ballots are formatted to work with the USPS's automated equipment, thereby ensuring that ballots reach their destinations as quickly as possible.

47.   Envelopes containing ballots are clearly marked as such and are

segregated from other mail using "green tags," which allows the USPS to prioritize them as official election mail and expedite them to the extent possible.

The Relief Petitioners Request

48.   From a purely policy perspective, I agree with Petitioners that extending the deadline for receipt of ballots may be good policy under the circumstances, and, as with any extension, would increase the number of votes that are timely returned. This might well increase voters' confidence in the midst of a crisis.

49.   I also agree that in the event of significant backlogs in application processing due to COVID-19, a breakdown in the postal service, or other developments, an extension of the ballot receipt deadline (targeted, if necessary, to counties that are experiencing delays) might be necessary to avoid an undue burden on the right to vote.

50.   The other form of relief that Petitioners request – allowing third parties to deliver voters' mail in or absentee ballots to county election offices – would likely have negative consequences. Procedures would need to be put in place to require written authorizations for such deliveries, as are required for emergency absentee ballots. Confirming these written authorizations would likely increase the administrative burden on county election officials. Doing so would also impose a burden on individual voters to identify and authorize designated

representatives to deliver ballots on their behalf. Allowing third-party delivery of ballots might also reduce the level of assurance that an individual voter has regarding the security of her ballot.

51. Based on the information available at this time, the Department does not predict significant impediments to the ability of voters in most of the Commonwealth's counties to timely return mail-in ballots.

52. At this point, the Department cannot rule out the possibility that one or more individual counties will develop significant delays in processing applications, but do not predict that such delays will occur across the Commonwealth.

53. Given the unpredictable nature of the pandemic, the deadline extension Petitioners seek could become appropriate. If problems develop, however, it is more likely than not that they will not affect the entire Commonwealth, or that they will not require a full seven-day extension.

54. Granting a full seven-day, statewide extension at this point could have the undesired consequence of encouraging counties to turn their attention away from ballot application processing, or encouraging voters to delay requesting or mailing their ballots.

55. If significant problems develop shortly before or on the day of the election, a court could consider an extension of the ballot receipt deadline that is

tailored to those problems.

56.   Pennsylvania statutes require counties to retain all absentee and mail-in ballots they receive – even those received after the deadline – for a period of two years. Therefore, late-received ballots will not be discarded before a court has the opportunity to consider whether the deadline should be extended.

57.   If the Court grants the relief Petitioners seek to extend the deadline for receipt of ballots, it will cause complications and delays in counties' canvassing processes.

58.   First, for ballots received after election day, counties will have to put in place a new procedure for examining postmarks; determining whether "a preponderance of the evidence" indicates whether a ballot was mailed after election day; and, potentially, allowing for challenges regarding envelopes with illegible or absent postmarks.

59.   Second, during the canvassing process, counties examine each provisional ballot envelope to determine whether the elector was eligible to vote. If the county determines that the elector who submitted the provisional ballot was duly registered to cast a primary vote in that district and that the elector did not also submit an absentee or mail-in ballot, the provisional ballot will be counted. If the county determines that the elector submitted an absentee or mail-in ballot, the provisional ballot will not be counted.

60.   Thus, a county cannot count a voter's provisional ballot until it has confirmed that the voter did not also return an absentee or mail-in ballot. Therefore, counties will not be able to process provisional ballots until after the last day for receipt of absentee ballots.

61.   Accordingly, a seven-day extension of the ballot receipt deadline could delay counting of all ballots until eight days or more after the election.

62.   This delay, in turn, would interfere with the following deadlines, which the Court should consider extending if it extends the ballot return date: The deadline by which proof of identification for absentee and mail-in ballots must be received and verified under 25 P.S. § 3146.8(h); the deadline for counties to submit unofficial election returns to the Secretary of the Commonwealth under 25 P.S. § 3154(f); the deadline for a defeated candidate to request that a recount and recanvass not be made under 25 P.S. § 3154(h); and the deadline for the Secretary of the Commonwealth to order a recount or recanvass under 25 P.S. § 3154(g)(2).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 18, 2020.

_____
Jonathan Marks

Exhibit 55

Trump, Biden win Pennsylvania primary contests amid unrest, pandemic

TRIB LIVE **triblive.com**/news/pennsylvania/pennsylvania-primary-begins-amid-unrest-pandemic

Associated Press

June 2, 2020

Email Newsletters

TribLIVE's Daily and Weekly email newsletters deliver the news you want and information you need, right to your inbox.

HARRISBURG — Pennsylvania held a primary election Tuesday amid civil unrest, a pandemic, the introduction of new voting machines in some counties and the debut of mail-in balloting that pushed county election bureaus to their limits.

The result of the highest-profile contest on the ballot was a foregone conclusion: President Donald Trump and former Vice President Joe Biden, uncontested for their party's nominations, both won their primary Tuesday in Pennsylvania.

The lack of drama in the outcome of the presidential primary and the huge number of voters who opted to vote by mail meant turnout was light.

Still, voters in some places were dealing with late-arriving mail-in ballots and a dramatic consolidation of polling places in Philadelphia, Pittsburgh and Montgomery County to cope with the difficulty of recruiting poll workers fearful of the coronavirus.

Ultimately, more than 1.8 million voters applied for a mail-in or absentee ballot, smashing expectations by state officials for the debut of the state's new vote-by-mail law and drawing warnings that many contest results will be delayed well past election night.

In Allegheny County, with all but one of the 1,323 districts reporting (99.92%), Biden pulled in 80.1% of the vote with 107,037 votes. Bernie Sanders picked up 17.6% (23,569) and Tulsi Gabbard had 2.3% (3,023). On the Republican side, Trump garnered 83.3% with 24,127 votes. William Weld had 13.1% (3,778) and Roque Rocky De La Fuente had 3.6% (1,055).

In Westmoreland County, with all of the 307 districts reporting, Biden landed 70.31% (11,899), Sanders 20.7% (3,501) and Gabbard 9% (2,524). Trump picked up 96.4% (28,358), Weld 2.7% (785) and De La Fuente .9% (263).

Officials in Philadelphia and its suburbs, in particular, had been concerned that voters wouldn't receive their ballots in time for the post office to return them by Tuesday's 8 p.m. deadline.

Two heavily populated suburban Philadelphia counties on Tuesday won court decisions extending the counting of mail-in ballots, a day after Gov. Tom Wolf issued a similar order for Philadelphia and five counties with protests over George Floyd's death raging.

In Bucks County, home to 461,000 registered voters, a judge ruled that the county can count any ballots that arrive by June 9, as long as they are postmarked by June 1. In Delaware County, home to 405,000 voters, a judge gave the county an extra 10 days to count the ballots of about 400 voters whose ballots had not even been mailed to them before Tuesday.

Meanwhile, in Philadelphia, lines were long at consolidated polling locations, made temporarily worse in some places by broken voting machines and delivery mix-ups of voting machines at other polling places, The Philadelphia Inquirer reported.

Despite the challenges, the Department of State said Tuesday night that the election had gone smoothly.

Polls opened at 7 a.m. and closed at 8 p.m., with social distancing rules in place at the still-open locations.

There was only one competitive primary among the statewide races: a six-way race in the Democratic primary for auditor general. Candidates in the other two other statewide races on the ballot, attorney general and treasurer, were uncontested.

All 18 of the state's members of the U.S. House of Representatives are seeking reelection, although only two have primary opposition. One of them, Pittsburgh's Mike Doyle, a Democrat and the dean of the state's delegation, won his primary as he seeks a 14th term. In the Legislature, all 203 House seats and half the 50-member Senate are up this year.

Primary voters will also pick delegates and alternates for the two major parties' presidential nominating conventions.

Lawmakers voted to postpone the primary election from April 28 to avoid the height of Pennsylvania's spike in coronavirus cases, and candidates and political parties have urged voters to cast ballots by mail.

Wolf's order to extend the deadline for counting mail-in ballots is limited to Philadelphia, Allegheny, Dauphin, Delaware, Erie and Montgomery counties, where his emergency declaration over the protests was active as of Monday.

Republican Party officials criticized Wolf's order as usurping lawmakers' authority and violating constitutional protections that ensure equal voting laws, but had not challenged it in court as of Tuesday evening. In 2012, then-Gov. Tom Corbett, a Republican, used the authority, allowing counties that had to close their election offices in the days before the election because of Superstorm Sandy to extend the deadline to accept absentee ballots.

Voters who do not receive their ballot in the mail can vote provisionally at their polling location. In addition, some counties were providing ballot drop-off locations.

Meanwhile Tuesday, 22 counties were road-testing new paper-based voting machines, ordered by Wolf in 2018 as a bulwark against election meddling after the federal authorities said Russian hackers had targeted election systems in Pennsylvania and other states in the 2016 election.

Categories: Election | News | Pennsylvania | Politics Election | Top Stories

Exhibit 56

Mail delays are frustrating Philly residents, and a short-staffed Postal Service is struggling to keep up

inquirer.com/news/philadelphia/usps-tracking-in-transit-late-mail-delivery-philadelphia-packages-postal-service-20200802.html

by Ellie Rushing, Posted: August 2, 2020

ALEJANDRO A. ALVAREZ / Staff Photographer

Neighborhoods across the Philadelphia region are experiencing significant delays in receiving their mail, with some residents going upwards of three weeks without packages and letters, leaving them without medication, paychecks, and bills.

The delays come at a time when the U.S. Postal Service is experiencing significant changes. The new Postmaster General's policies eliminate overtime, order carriers to leave mail behind to speed up their workdays, and slash office hours, which — coupled with staffing shortages amid previous budget cuts and coronavirus absences — are causing extensive delivery delays.

According to local union leaders and carriers, mail is piling up in offices, unscanned and unsorted. Mail carriers who spoke with The Inquirer said they are overwhelmed, working long hours yet still unable to finish their routes. Offices are so short-staffed that when a carrier is out, a substitute is often not assigned to their route.

"I understand we are flexing our available resources to match the workload created by the impacts of the ongoing Coronavirus pandemic," said USPS spokesperson Ray V. Daiutolo Sr. "We have a liberal leave policy and we are aggressively trying to hire qualified candidates. We appreciate the patience of our customers and the efforts of employees as conditions change on a day-to-day basis. We are proud of our workforce for the essential role they are playing for the customers they serve."

Advertisement

He said the USPS made its leave policy more flexible due to the pandemic.

ALEJANDRO A. ALVAREZ / Staff Photographer
Robert Young, Sr. outside his home in the Overbrook section of Philadelphia. He along with neighbors have been getting sporadic mail service in this Philadelphia neighborhood. Photograph from Thursday, July 30, 2020.

Inquirer Morning Newsletter

Get the news you need to start your day

Residents are trying to understand the situation, but many are struggling to get by without checks or packages of food they're expecting to receive.

"I feel bad complaining because it's a bigger issue," said Robert Young Sr., an Overbrook resident who went more than a week without receiving mail, leaving him without worker's compensation payments. "But we still have to live."

'It's just piles of our mail sitting in the post office'

Customers are past frustrated. For example, in Overbrook Park, which has seen at least four coronavirus cases among carriers in the last month, according to the union, residents are desperate.

Valerie Rice said her mail has arrived only once every two weeks in July. She receives medication for her 25-year-old grandson, who has autism, through the mail. But now it doesn't come on time, forcing her to go to different drugstores across the city, in hopes they have what he needs.

Advertisement

"I try to stay by him and pray for life that I have what I need to take care of him," said Rice, 65.

Donald Bullock said he has gone three weeks without his mail — leaving 71 letters and three packages, including two paychecks, sitting inside the Overbrook post office, according to his USPS mail alerts.

ALEJANDRO A. ALVAREZ / Staff Photographer
The Overbrook section of Philadelphia has been hard-hit by the mail delays, with some residents going three weeks without their much-needed letters and packages.

Daiutolo said that in Overbrook's case, the managers are "flexing available resources to match workload" and that "every effort is being made to deliver mail."

People across the city — North Philly, Queen Village, South Philly, and parts of Southwest — say they're seeing two- to three-day lags and that their packages are arriving weeks after their projected delivery date.

Residents have filed customer-service complaints and have gone to their post office trying to pick up their mail, but they're told they must wait for the carrier to deliver their items.

"It's the same runaround, but nothing is being done," said Young. "It's just piles of our mail sitting in the post office."

Staff shortages and policy changes

Across Philadelphia, at least 133 Postal Service employees — from carriers and clerks to mail handlers and custodians — have tested positive for the coronavirus since March, according to records provided by American Postal Workers Union Local 89. Two employees have died.

Philadelphia's main headquarters has been hit hard — the Processing and Delivery Center has seen 34 cases, while the Main Office of Delivery on 30th and Chestnut Streets has seen 28.

The cases are exacerbating staffing shortages, said Nick Casselli, president of APWU Local 89. When an employee tests positive, they cannot work for at least two weeks, and employees who have been in contact with them are forced to quarantine for 14 days. If there is no one to fill in, the mail doesn't go out.

On top of staff shortages, the agency has seen a significant increase in packages due to a boom in online shopping as people stay home. Casselli said Philadelphia's plant was processing about 30,000 parcels per day before the coronavirus. Now, it's processing 100,000.

"They were short-staffed before COVID, and now they don't have the manpower to process the mail that needs to be delivered," said Casselli. "Mail is sitting for a week to 10 days before they're even scanned to go out."

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Amid this increase, sudden policy changes instituted to cut costs by new Postmaster General Louis DeJoy, a Trump donor who was appointed in May, are exacerbating delays, at a time when unprecedented voting by mail has put scrutiny on the agency. In memos to employees, DeJoy has ordered carriers to leave mail behind if it delays routes, and said the agency will prohibit overtime.

Additionally, post offices' hours are being slashed, including in Camden and Cherry Hill.

"These are things that have never ever happened in the history of the post office," said Casselli.

DAVID MAIALETTI / Daily News
Nick Casselli, president of APWU Local 89, said Philadelphia's postal workers are overwhelmed with deliveries at a time when staff numbers are low and policy changes are cutting hours.

Carriers are being told to leave mail behind

The USPS, which is part of a $1.6 trillion mailing industry that employs 7.3 million people, faces crippling debt.

Philip F. Rubio, a history professor at North Carolina A&T State University who has written numerous books about the Postal Service, said the current changes are part of the Trump administration's quest to turn the public against the post office and ultimately privatize it.

Advertisement

"What's happening now is really egregious," he said.

Mail carriers say the new orders have forced them to abandon some of the most sacred commitments of their job.

Handout
Two photos taken by a Delaware County mail carrier of 20 years show just a few of the many boxes of undelivered mail and packages piling up in the local post office.

Two Philadelphia-area carriers who spoke on the condition of anonymity to protect their jobs said supervisors instruct them to leave mail behind and prioritize the delivery of Amazon packages. Both said that their stations are overflowing with parcels, and that they cannot fit the amount of mail they have to deliver in one day in their trucks or bags.

"It's more packages than at Christmastime. It's impossible to keep up," said a North Philadelphia-area carrier who is working 90 hours per week, still unable to finish his routes.

A 20-year carrier in Delaware County said cutting overtime would be detrimental amid huge amounts of mail and directions to leave it behind. In his area, six routes do not have assigned carriers, so others work overtime to deliver those routes. If overtime is cut, there will be "no bodies to deliver that mail."

"The things we were told never to do because that would get us fired are all the things management is encouraging us to do," he said. "In 20 years of delivering, no one has ever told us not to deliver mail up until this point."

Correction: This story has been corrected to note that the USPS is only one part of the $1.6 trillion mailing industry, which employs 7.3 million people. The Postal Service itself employs 633,108 people.

View Comments

Exhibit 57

In communities of color, Pa. primary was marred by irregularities, including voter intimidation, advocates say

By Ivey DeJesus | idejesus@pennlive.com   June 3, 2020

In some places, voters had to pass a heavy police presence - at times seeing officers in riot gear - to arrive at polling places.

Voters in at least one predominantly black ward had to vote in a municipal building that houses the police department.

In one Allegheny County precinct the judge of elections requested that constables - fully suited in riot gear and armed - watch over voters queued up to vote.

Another polling location saw agitators shouting down voters in line; one man called voters "radical leftists."

Legions of voters were asked for their identification. Many were turned away. Others waited in long lines for hours at polling places only to be told by police to clear out because of curfews.

In some areas, voters couldn't get to the consolidated polling center, while others couldn't find their polling places because of poor signage.

Those were just some of the troubling reports that election watchdog groups logged in the Pennsylvania primary Tuesday. Voters across Pennsylvania went to the polls amid a pandemic and widespread social unrest, and an election cycle that had undergone substantial changes in recent months.

[Trump, Biden win Pa. primary contests amid unrest, pandemic](#)

On Wednesday a coalition of groups led by the Pennsylvania Election Protection Coalition outlined what advocates are calling "serious structural problems" with the state's election system.

Organizers stressed that the issues must be addressed before the November general election, which will likely be held even as the coronavirus pandemic continues to be a public health crisis.

Thais Carrero, state director of CASA, noted that while initiatives such as mail-in ballots and the consolidation of polling locations had been implemented to ensure voting access amid the historic circumstances, the initiatives had not worked for all Pennsylvanians.

"What we saw yesterday is once again the communities of color continue to be left behind all these initiatives," she said.

Advocates outlined a myriad of concerns regarding the initiatives that were rolled out amid the coronavirus pandemic, including no-excuse mail-in ballots for all voters, extended deadlines and consolidated polling places.

Ivan Garcia, the political director of Make the Road PA, said polling places in communities of color saw longer lines than other areas. He said the mail-in ballot initiative had to be expanded and offered automatically to all voters to mitigate such voting issues.

Garcia said precincts composed of majority minority voters saw far less participation in mail-in ballots. Advocates said additional federal and state funding is needed to expand the initiative - even cover costs - in order to ensure greater participation among voters of color.

Universal distribution of mail-in ballots would greatly increase participation among voters of color, he said.

"We are talking thousands of additional voters who would have requested ballots if they had been sent to every voter," Garcia said. "In Berks County we would have seen an additional 16,000 voters requesting ballots."

More than 1,000 calls were logged to the toll-free Election Protection Hotline (1-866-OUR-VOTE) concerning problems or confusion related to voting and polling places. Legions of voters reported having never received the mail-in ballot. And poll watchers from the advocacy groups assigned to monitor local scenes reported substantial confusion amid voters as to where they were to vote as well as apprehension in having to negotiate a police presence near polling locations.

Meanwhile, Pennsylvania Secretary of State Kathy Boockvar reported that Tuesday's primary had played out smoothly despite the unprecedented challenges.

"[Yesterday], we marked two major milestones in Pennsylvania's electoral history," Boockvar said. "For the first time, Pennsylvania voters could vote by mail-in ballot without having to provide an excuse, and they did so in impressive numbers. And all 67 counties have now deployed new, more secure and accessible voting systems with voter-verifiable paper ballots. I am extremely thankful for and proud of Pennsylvania's dedicated election officials, poll workers and, of course, voters."

Approximately 1.8 million Pennsylvania voters applied for and were approved to vote by mail-in and absentee ballot. That figure is 17 times higher than the number of voters who applied for an absentee ballot for the 2016 presidential primary.

Indeed, the majority of polling places reported smooth voting on Tuesday - with nearly 2 million voters opting to vote by mail resulting in light turnout across some counties.

But voting advocates said many of the problems were reported in communities of color.

Suzanne Almeida, the interim executive director of Common Cause Pennsylvania, said over half of the voters they heard from reported being concerned about finding their polling places.

Many voters, she said, were concerned with the lack of personal protective equipment on the part of poll workers.

"There were concerns from voters that there was not appropriate social distancing," Almeida said. "We were hearing of poll workers who were reluctant to wear masks. There are so many stories from yesterday that we heard in the command center."

One of the most compelling concerns from voters - and eye witnesses - centered around voting amid protesters, agitators, as well as police.

Erin Kramer, executive director of One Pennsylvania, said in some cases voters had to endure levels of violence unprecedented in an election.

"I cannot imagine that black Pennsylvanians were able to access the ballot freely and fairly," she said. "What we saw in this election was that if you had the resources and if you had laser focus to what it took to vote, you voted, but if you were a regular person, especially black or blown person in Pennsylvania voting was hard."

Kramer said looking ahead to November, polling places need to be well marked and advertised.

She stressed that voting centers could not be located in police stations nor municipal buildings that housed or were adjacent to police stations. Furthermore, they need to be located along public transit lines, and not at the top of a hill, so that older and handicap voters have access.

She outlined several polling places that were beset by chaos, particularly one just outside Pittsburgh in the Penn Hills area, which saw more than 100 voters still waiting in line at 8 p.m.

Kramer said many voters waited in their cars and were concerned as to whether that disqualified them from being in line.

Voters in at least three Philadelphia polling locations were asked to leave because of the curfew. Others in the Fishtown area reported being intimidated by the social unrest, she said.

Ray Murphy, the state coordinator for Keystone Votes, said the state's election process lacked the nimbleness to accommodate the new initiatives amid the social and public health upheavals.

Advocates called on the Legislature to shore-up the weaknesses in the state's recently adjusted election structure, including extending deadlines and rolling-out universal mail-in ballot applications. They called for additional funding of county elections boards by federal and state authorities.

Exhibit 58

Pennsylvania
Applications and Balloting Guidance:
Mail-in and Absentee Ballots
and Voter Registration Changes

Date: January 10, 2020
Version: 1.0

Act 77 of 2019 provides that voters in Pennsylvania can cast their vote early by either mail-in or absentee ballot. The Act also modifies voter registration requirements. The following guidelines define both what is required by Act 77 and what is permissible under Act 77 or some other portion of the Election Code.

Voter Registration

- The voter registration deadline is now fifteen (15) days before the election. Therefore, voter registration applications must now be **received** by the county board of elections no later than fifteen (15) days before the election.

- Applicants may either return their application in person or it must be received by mail by the county board of elections by the deadline. Previously, counties accepted applications postmarked by the deadline, but that is no longer permitted.
    - Voter registration applications submitted online are timely if they are submitted before midnight on the 15th day prior to a primary or election.

- If an applicant's voter registration application is rejected, the applicant may appeal that decision to the county board of elections by the 8th day prior to Election Day.

Mail-in and Absentee Balloting – General Provisions

- Qualified voters may apply at any time before any primary or election for a mail-in or absentee ballot (up to the deadline described below), and county boards of elections **must begin** processing applications at least fifty (50) days before the primary or election. County boards of elections **may process applications earlier** than fifty (50) days before the primary or election, **if the county board of elections determines that it is better for its operational needs to do so.**

- The deadline for applying for absentee ballots has not changed, and the new mail-in ballots follows the same application deadline. Applications must be received by the county board of elections by 5:00 P.M. on the Tuesday prior to the primary or election. **However, the deadline for counties to receive voted mail-in or absentee ballots has been extended to 8:00 P.M. on Election Day.**

- **Permanent voter lists**:

    - **For the permanent absentee ballot list, only voters with a permanent illness or disability are eligible**; this section does not apply to voters expecting to be absent from the municipality.

    - Absentee voters who request to be placed on the permanent absentee list no longer have to renew their physician's certification of continued disability every four (4) years or list it on each application.

- o **For the permanent <u>mail-in ballot</u> list, any mail-in voter can request to be placed on the permanent mail-in voter list.**

  - o Each year the county must send an application to any voter on the permanent absentee and mail-in voter lists by the first (1st) Monday in February.

  - o The yearly application serves as a standing request for any election that calendar year **and** for any special election until the third (3rd) Monday in February the next year.

- • **Important Changes relating to Returning the Ballot:**

  - o A voter who has returned a mail-in or absentee ballot may **not** vote at the polling place on Election Day.

  - o If a voter requests but does not return their mail-in or absentee ballot, they may still deliver the ballot in person to a county elections office (CEO) until 8:00 P.M. on Election Day.

  - o If a voter cannot return the ballot in person, the voter can vote in person at the voter's polling place on Election Day, but they may <u>only</u> do so by provisional ballot.

  - o If a voter whose record in the district poll book indicates that the voter is not eligible to cast a ballot in person on Election Day asserts that they did not cast a mail-in or absentee ballot and is eligible to vote, the voter should be provided a provisional ballot.

Mail-in and Absentee Applications

There are three (3) ways by which voters can apply for mail-in or absentee ballots:

1. In Person
2. Online
3. By Mail

Requirements for in-person applications:

- • Voters are permitted to apply in person at a CEO for a mail-in or absentee ballot.

- • Voters who apply at a CEO during business hours may request to receive a mail-in or absentee ballot in person while the voter is in the office. ***Note:*** *Please see "Optional county services" below for more information.*

- Once the ballot has been finalized and printed, the county board of elections **must promptly present** the voter with the voter's mail-in or absentee ballot.

- A county board of elections **cannot decline** the voter's application for a mail-in or absentee ballot, unless there is a bona fide objection to the mail-in or absentee ballot application.

- Voters who request a mail-in or absentee ballot in person must be provided an opportunity to privately and secretly mark their ballot. *Note: The marking of the ballot in secret does not have to take place in the election offices. It can be provided in a nearby location.*

- Voters are permitted to deliver a mail-in or absentee ballot in-person at a CEO up to 8:00 P.M. on Election Day.

Optional County Services:

- As allowed under existing law, county election boards may provide for mail-in and absentee application processing and balloting at more than one CEO located within county borders.

- Additional business hours for CEOs may be established; hours do not have to be limited to weekdays nor to typical business hours. Counties are encouraged to offer business hours outside of these time frames, including weeknights or weekend hours to enable maximum flexibility and convenience to voters.

- If a county decides to provide additional mail-in and absentee balloting by establishing additional CEOs, the county must account for **all** of the following:

    o Each CEO must be staffed by appointed elections personnel in municipal or county-owned or leased properties selected by the county board of elections for processing applications and in-person voting of both mail-in and absentee ballots.

    o Each CEO must have a secure county network connection that is capable of connecting to the Statewide Uniform Registry of Electors (SURE), and staff trained and approved to access SURE. *NOTE: The Department will work with counties to establish secure connections; the county network extension must be approved by the Department.*

    o Each CEO must either have copies of all ballot styles available to be voted in the county, or an on-demand ballot printer capable of printing all ballot styles available to be voted in the county.

    o Each CEO must have a secure ballot collection receptacle to store voted mail-in or absentee ballots submitted at the location.

- When choosing a location for the CEO, counties should consider, at a minimum, the following:

    o Choose locations that serve heavily populated urban/suburban areas, as well as rural areas.

TLP: WHITE

> > ▪ For example, counties may want to select accessible locations near heavy traffic areas such as commercial corridors, large residential areas, major employers and public transportation routes.
>
> > ▪ In rural areas, locations should be selected that are easily recognizable and accessible within the community.
>
> > o Counties may want to select locations in areas in which there have historically been delays at existing polling locations, and areas with historically low turnout.

Requirements for online or mail applications:

- After the ballot has been finalized and printed, the county board of elections **must promptly deliver or mail** the voter's mail-in or absentee ballot, and in any event must deliver ballots by the second (2nd) Tuesday before the election.
- After the county board of elections begins delivering and mailing mail-in and absentee ballots, the county must deliver or mail subsequent ballots requested within forty-eight (48) hours of receipt provided they are approved.
- Whether submitted in person or by mail, all mail-in and absentee ballots must be received by the CEO by 8:00 P.M. on Election Day.

Mail-in and Absentee Ballots

Delivery of Mail-in and Absentee Ballots

- As noted previously, counties **must** begin processing applications for mail-in and absentee ballots at least fifty (50) days before the primary or election or at an earlier time as the county board of elections determines **may** be appropriate.
- Counties **must begin delivering** mail-in or absentee ballots as soon they are certified and available.
- Counties **may** await the outcome of pending litigation that affects the contents of the ballots, but in any event the county **must** begin delivering mail-in or absentee ballots no later than the 2nd Tuesday prior to Election Day.

Collection of Mail-in and Absentee Ballots

- In addition to CEOs, counties may provide for other secure ballot collection locations that the county deems appropriate to accommodate in-person return of voted mail-in and absentee ballots.
- If a county decides to provide for other ballot collection locations, the county should consider the following best practices:

TLP: WHITE

o The county board of elections should pass a resolution to determine the number and locations of ballot collection locations within the county, and provide public notification of the locations.

o Ensure and document to the Department the security and chain of custody of mail-in and absentee ballots retrieved from ballot collection locations. **NOTE**: *Please contact the Department for guidance on how to document security and chain of custody.*

o Utilize a secure ballot collection receptacle that is designed for this specific purpose. **NOTE**: *Please contact the Department for guidance on factors, best practices, and examples for these receptacles.*

o Officially designate county election personnel who are sworn and authorized to remove mail-in and absentee ballots from ballot collection receptacles.

o Process mail-in and absentee ballots collected from ballot collection locations in the same manner as ballots personally delivered or mailed to the county board of elections.

o Hours of access to and collection from the ballot collection locations do not have to be limited to weekdays nor to typical business hours.

o Public notification should be provided as to the location of collection locations, and clear signage should designate the locations and explain their proper use.

# # #

Version History:

Version	Date	Description	Author
1.0	1.10.2020	Initial document release	Bureau of Election Security and Technology

Exhibit 59

COUNTY	LOCATION	HOURS
ALLEGHENY	County Administration Building - Lobby 542 Forbes Ave. Pittsburgh, PA 15219	Sat., May 30 - 10am-5pm Sun., May 31 - 10am-5pm Mon., June 1 - 5pm-8pm Tues., June 2 - 7am-8pm
BEDFORD	Bedford County Courthouse Parking Garage - 2nd floor near courthouse entrance 200 S. Juliana St. Bedford, PA 15522	24/7 access available
BUCKS	Location #1: County Administration Building - Outside 55 East Court St. Doylestown, PA Location #2: Lower Bucks Government Service Center 7321 New Falls Rd, Levittown, PA 19055 Location #3: Upper Bucks Service Center 261 California Rd., Quakertown, PA 18951	Sat., Sun., and Mon. - 7am-7pm
CHESTER	1. Chester County Govt Services Center-Lobby, 601 Westtown Rd, West Chester 2. Chester County Public Safety Training Campus-Test Site Greeter Station, 137 Modena Rd, Coatesville 3. Longwood Gardens South Parking Lot-Test Site Greeter Station, 1010 E Baltimore Pike, Chadds Ford 4. Kimberton Fair Grounds-Parking Lot, 762 Pike Springs Rd, Phoenixville 5. Warwick County Park-Park Office, 191 County Park Rd, Pottstown 6. Battle of the Clouds Park-Parking Lot, 125 N Phoenixville Pike, Malvern	1. 24/7 access available 2. 8am-6pm 3. 8am-6pm 4. 11am-7pm 5. 11am-7pm 6. 11am-7pm
CAMERON	Cameron County Courthouse - Mail/Drop box slot on outside of building 20 E 5th St. Emporium, PA 15834	24/7 access available
CARBON	Carbon County Elections Office - Mail/Drop box slot on outside of building 76 Susquehanna St Jim Thorpe, PA 18229	24/7 access available
CENTRE	Willowbank Office Building - Outside 420 Holmes St Bellefonte, PA	24/7 access available
CHESTER	Government Services Center - Lobby 601 Westtown Rd West Chester, PA	
CLINTON	Clinton County Elections Office - Outside 2 Piper Way Lock Haven, PA 17445	24/7 access available
CRAWFORD	Crawford County Courthouse - Lobby 903 Diamond Park Meadville, PA	
DAUPHIN	Dauphin County Administration Building - Outside 2 South 2nd St. Harrisburg, PA	24/7 access available
DELAWARE	Delaware County Government Center 201 W Front St Media, PA	Sat., May 30 - 9am-2pm Tues., June 2 - 8:30am-8pm
ELK	Elk County Courthouse Annex 300 Center St. Ridgeway, PA 15853	8:30 - 4:00 on Monday 7/1; 6:30 - 8:00 pm on Tuesday 7/2.
ERIE	Erie County Courthouse - Outside 140 W. Sixth St. Erie, PA	24/7 access available

LUZERNE	1. Drop box - Penn Place, 2 N. Pennsylvania Ave., Wilkes-Barre 2. Drop off counter - Hazleton Post Office, 231 N. Wyoming St., Hazleton 3. Drop off counter - Wilkes-Barre Post Office, 300 S. Main St., Wilkes-Barre	1. Fri.-Sat. and Mon., 8am-5pm; E-Day, 7am-8pm 2. Fri.-Sat. and Mon., 7:30am-5:15pm; Sun. 9am-12:30pm 3. Fri.-Sat. and Mon., 7am-6pm; Sun. 8am-1pm
MONTGOMERY	1. One Montgomery Plaza-Lobby, 425 Swede St., Norristown 2. Green Lane Park, 2144 Snyder Rd, Green Lane 3. Mont. County Community Connections Office, 421 W. Main St, Lansdale 4. Mont. County Community College, South Hall, 101 College Sr., Pottstown 5. Eastern Court House Annex, 102 North York Rd, Willow Grove 6. Lower Marion Township Building, 75 E Lancaster Ave, Ardmore 7. The Lower Providence Township Building, 100 Parklane Drive, Eagleville 8. Spring Mill Fire Company, 1210 E. Hector St., Conshohocken 9. The Upper Dublin Township Building, 801 Loch Alsh Ave., Fort Washington 10. Wall Park, 600 Church Road, Elkins Park	1. 7am-8pm daily 2. Mon.-Fri., 9am-5pm; Sat.-Sun., 9am-2pm; E-Day, 9am-8pm 3. Mon.-Fri., 9am-5pm; Sat.-Sun., 9am-2pm; E-Day, 9am-8pm 4. Mon.-Fri., 9am-5pm; Sat.-Sun., 9am-2pm; E-Day, 9am-8pm 5. Mon.-Fri., 9am-5pm; Sat.-Sun., 9am-2pm; E-Day, 9am-8pm 6. Tuesday, June 2, 9am-8pm
PHILADELPHIA	City Hall - Between South Entrance and the Octavio Catto Statue 1400 JFK Blvd. Philadelphia, PA	24/7 access available
VENANGO	Venango County Courthouse Annex 1174 Elk St Franklin, PA 16323	24/7 access available
YORK	York Administrative Center 28 E. Market St. York, PA 17407 York County at Pleasant Valley Road 2401 Pleasant Valley Rd, York	Mon.-Fri. - 8am-4:30pm Tues., June 2 - 8am-8pm

Philadelphia Mobile Drop Off Locations

Region	Location	Address	Date	Time
West	Boys Latin of Philadelphia Charter High School	5501 Cedar Ave Philadelphia, PA 19143	Saturday, May 30, 2020	9:00 AM-11:00 AM
Southwest	John Bartram High School	2401 S 67th St Philadelphia, PA 19142	Saturday, May 30, 2020	12:00 PM-2:00 PM
South	South Philadelphia High School	2101 S Broad St Philadelphia, PA 19148	Saturday, May 30, 2020	3:00 PM-5:00 PM
Far Northeast	George Washington High School	10175 Bustleton Ave Philadelphia, PA 19116	Sunday, May 31, 2020	8:00 AM-10:00 AM
Lower Northeast	Rising Sun Plaza Shopping Center	Rising Sun & Adams Aves Philadelphia, PA 19120	Sunday, May 31, 2020	11:00 PM-1:00 PM
North (East of Broad)	25th District PAL Center	3199 D Street Philadelphia, PA 19134	Sunday, May 31, 2020	2:00 PM-4:00 PM
River	Fishtown Crossing Shopping Center	2401 Aramingo Ave Philadelphia, PA 19125	Sunday, May 31, 2020	5:00 PM-7:00 PM
Northwest	Shawmont Elementary School	535 Shawmont Ave Philadelphia, PA 19128	Monday, June 1, 2020	9:00 AM-11:00 AM
Upper North	Central High School	1700 W Olney Ave Philadelphia, PA 19141	Monday, June 1, 2020	12:00 PM-2:00 PM
North (West of Broad)	Tanner Duckrey Public School	1501 W Diamond St Philadelphia, PA 19121	Monday, June 1, 2020	3:00 PM-5:00 PM

Philadelphia Drop-Off Offices on Election Day (June 2, 7am-8pm) - Learn more: https://www.philadelphiavotes.com/en/home/item/1815-election_day_drop-off_offices

Council District 1	Philadelphia City Commissioner's Office	520 N. Columbus Boulevard	19123	June, 2 - 7am-8pm
Council District 2	Tilden Middle School	6601 Elmwood Avenue	19142	June, 2 - 7am-8pm
Council District 3	Lucien Blackwell Library	52nd and Sansom Streets	19139	June, 2 - 7am-8pm
Council District 4	Hillside Recreation Center	203 Fountain Street	19128	June, 2 - 7am-8pm
Council District 5	Council President's District Office	2815 Ridge Ave, Ste B	19121	June, 2 - 7am-8pm
Council District 6	Councilperson Henon's District Office	6730 Torresdale Avenue	19135	June, 2 - 7am-8pm
Council District 7	Harrowgate PAL Center	851 E Tioga Street	19134	June, 2 - 7am-8pm
Council District 8	Councilperson Bass District Office	4439A Germantown Avenue	19144	June, 2 - 7am-8pm
Council District 9	West Oak Lane Library	2000 Washington Lane	19138	June, 2 - 7am-8pm
Council District 9	Wadsworth Library	1500 Wadsworth Avenue	19150	June, 2 - 7am-8pm
Council District 10	Councilperson O'Neill's District Office	Bustleton Ave and Bowler Streets	19115	June, 2 - 7am-8pm

Exhibit 60

Wisconsin's In-Person Voting May Have Led to 'Large' Increase in Coronavirus Cases, Study Suggests

Meghan Roos   May 18, 2020

A new study published Monday suggests in-person voting during Wisconsin's primary election on April 7 may have led to "large" increases in the state's number of COVID-19 cases.

Though the data gathered by economists at University of Wisconsin Oshkosh and Ball State University was not complete, the researchers said their assessment of COVID-19 cases by county thus far indicates a strong connection between each county's number of in-person polling locations and spikes in positive cases. The real impact of in-person voting on rising case numbers could have been even broader than the data suggests, researchers said.

"Across all models we see a large increase in COVID-19 cases in the weeks following the election in counties that had more in-person votes per voting location," the study authors said. "Furthermore, we find a consistent negative relationship between absentee voting and the rate of positive COVID-19 tests."

The decision to proceed with Wisconsin's primary election was hotly debated after Governor Tony Evers implemented a statewide safer-at-home order on March 25 and attempted to halt in-person voting on April 6. After the U.S. Supreme Court intervened to allow in-person voting to proceed, long lines were seen outside polling places throughout the state as residents made the choice between exercising their right to vote and taking precautions recommended by Evers to stay home and avoid potential exposure to the virus.

Residents wait in long line to vote in a presidential primary election outside the Riverside High School in Milwaukee, Wisconsin, on April 7, 2020. The controversial presidential primary was held despite a state-wide stay-at-home order and concern that the election could expose thousands of voters and poll workers to the coronavirus. Democratic officials had sought to postpone the election but were overruled by the top state court, and the US Supreme Court stepped in to bar an extension of voting by mail that would have allowed more people to cast ballots without going to polling stations. Both courts have conservative majorities. KAMIL KRZACZYNSKI/AFP via Getty Images

To assess how in-person voting affected COVID-19 case counts, researchers said they looked at the number of cases reported in each county and found rising numbers after the virus' two- to three-week incubation period in areas where more in-person voting opportunities were available. According to the data, when the average number of votes per polling place in a county rose by 100, the county's rate of positive COVID-19 tests rose by about 3.4 percentage points in the two or three weeks after the primary. Meanwhile, each average increase of 10,000 absentee ballots cast led to a slight decrease in a given county's case count, though that decrease was estimated to be less than 1 percent.

"These estimates suggest that counties with higher numbers of voters per polling location see notably higher increases in their positive test rate in the weeks following the election, relative to those with lower in-person votes per location realities," the study said.

The state began feeling measurable impacts of its in-person primary in late April, when the Wisconsin Department of Health Services (DHS) estimated <u>at least 40 poll workers and voters</u> had tested positive for the virus. Jennifer Miller, a spokesperson with the DHS, said the "final number" of COVID-19 cases linked to the primary election was 71, the *Wisconsin State Journal* reported Saturday.

Recognizing the lack of early widespread testing and the uncertainty surrounding asymptomatic patients, researchers said it was difficult to determine an exact number of cases that could be tied to the primary. Even so, they said the data gathered indicated in-person voting would not be a successful strategy for keeping case counts low during future elections.

"Given these results, it may be prudent, to the extent possible, that policy makers and election clerks take steps to either expand the number of polling locations or encourage absentee voting for future elections held during the COVID-19 pandemic," the study authors said in their report.

Correction May 20, 2020, 10:46 a.m.: This article has been corrected to reflect that when the number of in-person ballots cast per polling place rose by 100, the study showed a 3.4 percentage point increase in the rate of positive COVID-19 tests per county.

Exhibit 61

No. 202.23

E X E C U T I V E O R D E R

**Continuing Temporary Suspension and Modification of Laws
Relating to the Disaster Emergency**

WHEREAS, on March 7, 2020, I issued Executive Order Number 202, declaring a State disaster emergency for the entire State of New York; and

WHEREAS, both travel-related cases and community contact transmission of COVID-19 have been documented in New York State and are expected to be continue;

NOW, THEREFORE, I, Andrew M. Cuomo, Governor of the State of New York, by virtue of the authority vested in me by Section 29-a of Article 2-B of the Executive Law to temporarily suspend or modify any statute, local law, ordinance, order, rule, or regulation, or parts thereof, of any agency during a State disaster emergency, if compliance with such statute, local law, ordinance, order, rule, or regulation would prevent, hinder, or delay action necessary to cope with the disaster emergency or if necessary to assist or aid in coping with such disaster, I hereby temporarily suspend or modify, for the period from the date of this Executive Order through May 24, 2020 the following:

- Section 8-400 and any provision of Article 9 of the Election Law in order to provide that every voter that is in active and inactive status and is eligible to vote in a primary or special election to be held on June 23, 2020 shall be sent an absentee ballot application form with a postage paid return option for such application. This shall be in addition to any other means of requesting an absentee ballot available, and any voter shall continue to be able to request such a ballot via phone or internet or electronically. Any ballot which was requested or received for any previously re-scheduled election, or for the primary election to be held on June 23, 2020 shall continue to be valid and shall be counted by the Board of Elections if it shall be returned to them.

IN ADDITION, by virtue of the authority vested in me by Section 29-a of Article 2-B of the Executive Law to issue any directive during a disaster emergency necessary to cope with the disaster, I hereby issue the following directives for the period from the date of this Executive Order through May 24, 2020:

- The Commissioner of Health is authorized to suspend or revoke the operating certificate of any skilled nursing facility or adult care facility if it is determined that such facility has not adhered to any regulations or directives issued by the Commissioner of Health, and if determined to not be in compliance notwithstanding any law to the contrary the Commissioner may appoint a receiver to continue the operations on 24 hours' notice to the current operator, in order to preserve the life, health and safety of the people of the State of New York.

- The state assembly and state senate special elections, which are otherwise scheduled to be held on June 23, 2020 are hereby cancelled and such offices shall be filled at the general election. The special election to be held for the office of Queens Borough President is hereby cancelled, and such office shall be filled at the general election.
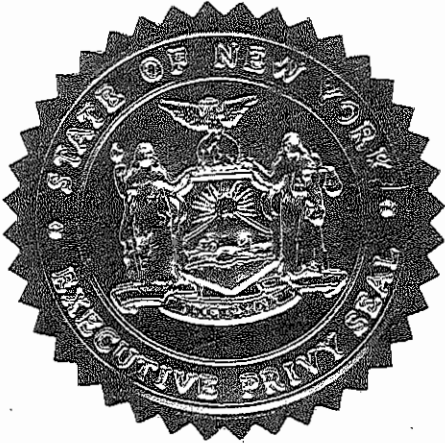
GIVEN under my hand and the Privy Seal of the

State in the City of Albany this

twenty-fourth day of April in the year

two thousand twenty.

BY THE GOVERNOR

Secretary to the Governor

Exhibit 62

Man refuses to vote after some Dauphin County poll workers wouldn't wear masks

pennlive.com/news/2020/06/man-refuses-to-vote-after-some-dauphin-county-poll-workers-wouldnt-wear-masks.html

By Christine Vendel | cvendel@pennlive.com   June 2, 2020

David Hess walked up to his polling place in Swatara Township Tuesday and noticed campaign workers milling near the door, not wearing masks.

That sparked some concern, but he proceeded into Rutherford Elementary, where he was surprised to see only half of the poll workers masked even though a sign was posted asking voters to wear masks to "be respectful of the poll workers."

Hess asked them why they weren't wearing face protection and they told him masks weren't required by county officials.

So Hess, 67, said he turned and left, without casting his votes in the Republican primary as he had intended.

"I didn't feel safe," he said. "The governor strongly recommends wearing masks. So does the secretary of Health. Every store you walk into, you have to wear a mask. Yet when you go to a polling place, they aren't wearing masks?"

Watch Video At: https://youtu.be/alUXUVsSUIo

Hess called Dauphin County's election bureau, where he was told that they could not force volunteers to wear masks. Jerry Feaser, the county's director of elections, told Hess they had enough trouble as it was to recruit volunteers this year amid the pandemic and were not able to mandate masks.

Poll workers at Rutherford Elementary, at 6500 Clearfield Street, told a PennLive reporter who visited the gym that "it's hot in here," and they weren't required to wear masks. Still, two of the three women volunteers greeting voters were wearing masks when PennLive stopped by and the large gym was empty of voters.

The county provided each polling location with masks, face shields, hand sanitizer, gloves and wipes, according to Amy Richards, the county spokeswoman.

"Poll workers were asked to wear masks," Richards said. "The county has limited ability to enforce, but we can certainly look into this further."

Hess said the situation proves that mail-in balloting should be expanded or required for the fall election statewide to encourage participation while keeping voters safe.

"Frankly if it's that much trouble getting poll workers then the General Assembly should authorize all mail-in ballots, because this situation isn't going to work," said Hess, who served as the state's Secretary of Pennsylvania's Department of Environmental Protection under Gov. Tom Ridge. "The bottom line here is poll workers need to have enough respect for me so I could vote in person and that didn't happen today. I thought they would protect my health when I went in, but I guess that was my mistake."

The level of public health preparations varied by polling site on Tuesday. At Hess' polling place, they had small bottles of hand sanitizer available at the table with poll workers, but voters were expected to use the same pens. (Workers said they wiped down the pens after each use.) There were no markings on the floor for social distancing.

Jugs of hand sanitizer greeted voters at the Immanuel Alliance Church at 800 S. Market St., in Mechanicsburg.

But in Cumberland County, at the Immanuel Alliance Church at 800 S. Market St. in Mechanicsburg, voters were greeted with giant jugs of hand sanitizer, blue tape on the carpet to mark for social-distancing and fully-masked volunteers, some of whom also wore face shields.

The county purchased bulk pens so each voter could use and keep their own pen; and workers switched from plastic reusable cards that voters' use to signify their affiliated party to separate slips of paper that were discarded after each individual use. The county also provided special wipes that could be used on the new electronic voting machine screens to keep them clean and disinfected.

"The county really has done a good job to protect voters and workers," said Linda Schultz, the judge of elections at Immanuel.

Fran Gagliano said she has been voting regularly at Immanuel in every election since she moved to Central Pennsylvania in 2005. She didn't have any qualms about voting in-person during a pandemic.

"It's just in and out," she said, "and they had plenty of protection. It's just like going to the store with everyone wearing masks."

Cumberland County Spokeswoman Samantha Krepps said they prepared in advance by buying pens in bulk for 4-cents each and distributing plastic face shields provided by the Department of State. They also provided masks, wipes and some hand sanitizer, but the giant jugs were provided by the church.

Krepps said poll workers were encouraged to wear masks unless they had a medical problem that prevented it. That said, she said the workers were instructed to allow anyone to vote, mask or not. She said she believed most voters wore masks since they are voting with their neighbors and would want to keep neighbors and volunteers safe.

Turnout was lower in Cumberland County Tuesday compared to prior primary elections, she said, likely because many voters turned in mail-in ballots.

The county received 37,311 mail-in or absentee ballots when they normally received a fraction of that, or about 7,000, she said. Mail-in ballots must be returned to the county office by 8 p.m. Tuesday to be counted, she said.

Turnout also was light in other counties across Pennsylvania with mail-in ballots and possibly some voters reluctant to visit the polls amid the pandemic.

Exhibit 63

Lehigh County poll workers refusing to wear PPE, and other election day challenges
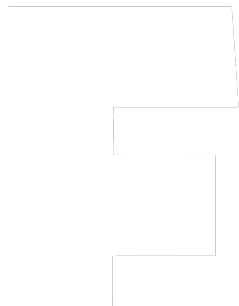
The Pennsylvania Election Protection coalition today has fielded more than 350 calls to the toll-free Election Protection Hotline at 866-OUR-VOTE, including 191 reports of problems, as of 10 a.m.

As predicted, turnout at in-person polling places is low, especially in Philadelphia, which has experienced civil unrest in response to police violence against Black citizens.

Individuals who decided to vote in person have encountered polling places that did not open on time in Allegheny, Delaware, Lehigh and Philadelphia counties, as well as confusion with machines and long lines.

Across the state:

> Workers at a polling place in Lehigh County are refusing to wear PPE.

> A polling place in Brookhaven, Delaware County, still had not opened as of 9 a.m.

> Machine failures have been reported in Philadelphia, Bucks and Lancaster counties.

> Intimidating police presence has been reported at the polling place for Allegheny County's majority Black borough of Wilkinsburg, as well as in Allentown and Philadelphia.

Some specific examples in Philadelphia:

> Poll workers at Carver High School in North Philadelphia had to bring their own personal protective equipment (PPE).

Voters in East Mount Airy—at both Finley Recreation Center and Anna B. Day School —are reporting wait times of 90 minutes to 2 hours due to malfunctioning voting machines, causing voters to vote provisionally. Many left instead.

At a West Philadelphia school—where 8,584 voters were assigned to a consolidated polling place—secrecy envelopes were not available for provisional ballot voters. (Any voter who experienced a challenge to voting by mail needs to cast a provisional ballot today to have their vote counted.)

DiSilvestro Recreation Center in South Philadelphia has a very long line with no social distancing markings.

"The state and counties are doing the best that they can today, amid incredibly challenging circumstances, and we appreciate that," said Suzanne Almeida, interim executive director of Common Cause Pennsylvania. "However, if county elections offices don't receive additional resources to address problems like these, we are very concerned about what will happen in November."

The Pennsylvania Election Protection Coalition is led by a core group of organizations, including Common Cause Pennsylvania, Pennsylvania Voice, ACLU of Pennsylvania, the Pitt Institute for Cyber Law, Policy, and Security (Pitt Cyber), All Voting is Local, the Lawyers Committee for Civil Rights Under Law and the Fair Elections Center.

Exhibit 64

'The supervisor coughed in a coworker's direction as a joke': As coronavirus cases at the US Postal Service surpass 1,200, employees say a lack of supplies and care is putting them at risk

Alanis King
Apr 25, 2020, 10:15 AM

A USPS employee in Boston during the coronavirus pandemic. Lane Turner/The Boston Globe via Getty Images

- **Confirmed cases of the novel coronavirus have surpassed 1,200 at**

confirmed cases of the novel coronavirus have surpassed 1,200 at the United States Postal Service, which logged a mere 51 cases less than a month ago. More than 30 employees have died.

- In emails to Business Insider, USPS employees claimed a lack of sanitation supplies, sick pay, and care from supervisors.

- One employee said a supervisor coughed in the direction of a coworker "as a joke." The USPS told Business Insider that the US Occupational Safety and Health Administration issued an inquiry into the claim, and that after the USPS responded, "OSHA closed the matter without further inspection."

- The USPS has established safety and leave policies during the pandemic, but employees and unions have said those policies aren't being carried out everywhere.

- Visit Business Insider's homepage for more stories.

United States Postal Service employees from various states and municipalities are sharing their stories about what it's like to process and deliver the nation's mail during a pandemic.

As confirmed COVID-19 cases surpass 1,200 among the employees, a common refrain has emerged: lack of supplies and care amid the deadly outbreak is putting them at risk.

"I'm almost begging you to do some sort of investigation," a longtime USPS employee and American Postal Workers Union (APWU) member in California told Business Insider via email. The employee said they felt as if their supervisors didn't care, which was underscored by one particular event.

"A coworker stated that the supervisor coughed in his direction less than a few feet away as a joke after the employee had made a remark about [the coronavirus]," they said. The employee claimed that the acting manager "sort of chuckled" when it happened, making light of a pandemic that has so far infected more than 2.8 million people and

killed nearly 200,000 worldwide.

A USPS spokesperson told Business Insider that the US Occupational Safety and Health Administration issued an inquiry into the claim, and that after the USPS responded, "OSHA closed the matter without further inspection."

A USPS employee in Manhattan during the coronavirus pandemic. Mike Segar/Reuters

Emails like the one above began to flood in not long after the USPS joined the coronavirus news cycle, such as in this story about how the service was in a financial crisis and how, as of March 25, 51 of 630,000 USPS employees had tested positive for the coronavirus and nearly 2,000 were in quarantine.

At the time, the National Association of Letter Carriers (NALC) union representing USPS city carriers said protective measures from the USPS weren't being deployed evenly.

But things have gotten worse since then. As of April 17, counts from the NALC were that more than 900 employees had tested positive for the virus, more than 600 additional workers were presumed positive, more than 8,000 were in quarantine, and that more than 30 USPS

employees had died from COVID-19, including nine city carriers.

The American Postal Workers Union, which also represents USPS employees, wrote on April 16 that more than 35 postal workers, including "a number of APWU members," had died of COVID-19.

On April 21, USPS spokesperson Dave Partenheimer told Business Insider that 1,219 employees had tested positive for COVID-19, in addition to "some deaths." Partenheimer did not have quarantine numbers to provide.

A USPS mail carrier during the COVID-19 pandemic. AP Photo/Paul Sancya

That means the USPS has roughly 24 times the amount of cases it had less than a month ago, despite both insufficient amounts of testing and inequality in distribution across the US — as illustrated by asymptomatic celebrities, athletes, and billionaires obtaining tests while nurses on the front lines struggle to do the same.

The longtime USPS employee in California, who isn't a carrier, told Business Insider that employees including themself were "either scared to speak up or simply don't want to put a target on [their] back for speaking up" about insufficiencies at the post office amid the

pandemic.

Only one employee who emailed Business Insider, who had been previously quoted by another outlet, didn't ask to stay anonymous out of fear of retaliation — Colorado carrier Stefan Geissler, who has actively spoken about the USPS' response to the pandemic.

"While so many businesses have done their part and made difficult decisions to flatten the curve, the USPS is, as you know, not even in the starting blocks," Geissler told Business Insider via email.

A USPS employee in Manhattan during the coronavirus pandemic. Mike Segar/Reuters

Other employees who reached out to Business Insider specifically asked not to be identified in order to protect their employment, which Business Insider has verified.

The others echoed Geisler, along with the California employee saying they don't feel like the pandemic is being taken seriously enough. Management and other employees aren't following Centers for Disease Control and Prevention guidelines, they said, and they've sent complaints to multiple organizations about what's going on.

"We're given daily 'stand up' safety briefings and are required to sign documents saying we were given this 'training,' yet the supervisors do not practice any of the recommendations," they said, adding that the safety briefings happen every day in a small room and social-distancing guidelines aren't followed during them. "They are different everyday, and seem to be from the CDC and the post office's safety department."

But, the employee said, their office hasn't "bothered to inform [them] of an employee who got the coronavirus in a building less than 100 yards away." They discovered the nearby case after seeing an alert that was intended for managers, they said.
"When an employee asked about any cases next door, both the supervisor and acting manager acted as though they knew nothing and quickly changed the subject," they said. "Myself and three other employees go into that building to get our facility's mail, and they said nothing to us.

"And here we are interacting within the vicinity, not knowing if we could be contracting a deadly disease and take it home to our families."

A mail carrier during the coronavirus outbreak. AP Photo/Nati Harnik

The NALC said that in March, the USPS created a mandatory stand-up talk required to be given each time a facility has an employee who tested positive for COVID-19. The union has asked employees to report it if those talks are not happening.

When asked, Partenheimer told Business Insider that in addition to stand-up talks that are supposed to be given when an employee tests positive, "any employees who may have had exposure" to the person who tested positive are notified.

The California employee, an American Postal Workers Union member, said the union had been notified of all of the issues in their facility. On April 17, they sent Business Insider a photo of a bottle with clear liquid and a homemade label reading "hand sanitizer," claiming that it was a replacement bottle in the office.

"No labels, just some bottle management gave us," they said. "Is it the right mixture?"

When asked about the photo, Partenheimer told Business Insider that the USPS "only uses or purchases EPA approved products for cleaning and sanitizing."
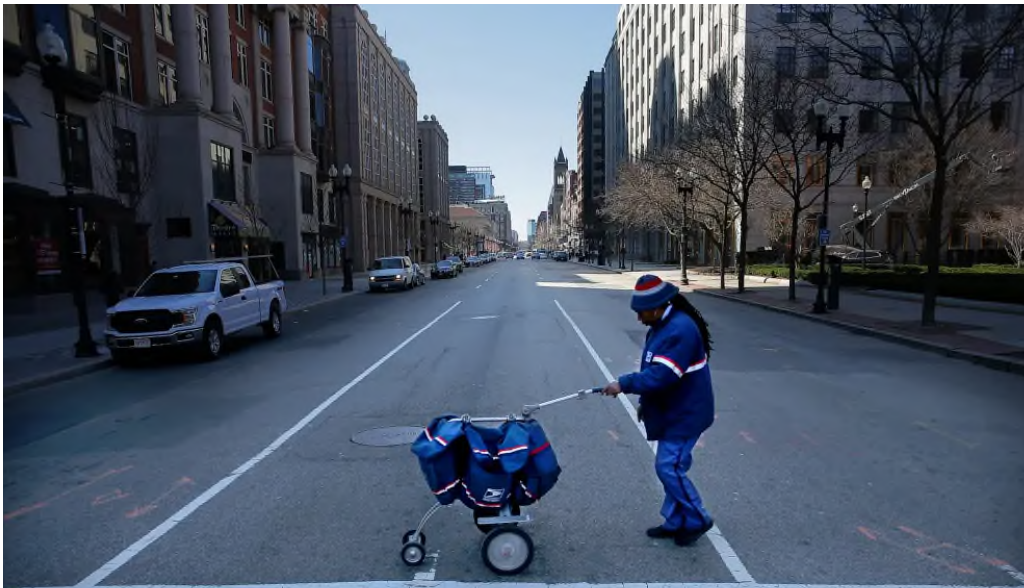
A Massachusetts employee who has spent decades working for the postal service, primarily as a city carrier, said that while their branch is supposed to receive daily safety briefings, there were three days during the first week of April when there were no briefings. The inconsistency carried into the next week, they said.

When asked how the USPS is ensuring daily talks happen and safety protocols are being enforced, Partenheimer told Business Insider:

"Standard Work Instructions have been issued to address social distancing in a number of different situations, including performing talks to our employees."

In addition, Partenheimer said, all stand-up talks "are tracked" to ensure they happen. When asked how they're logged, Partenheimer said it's done in an online system called the "Safety Toolkit." People who are conducting the briefings have to certify that they delivered the talks and when they were given.
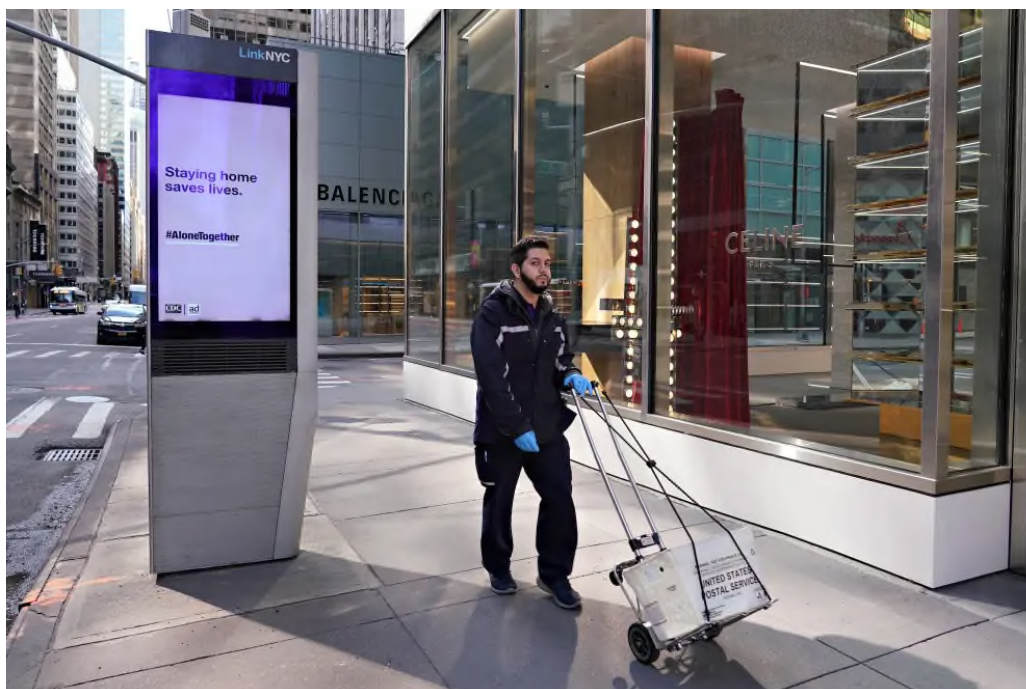
A USPS worker walks by a LinkNYC sign reading "Staying home saves lives" as the

But the Massachusetts employee said the inconsistency of safety briefings wasn't the only problem.

"We have had limited access to sanitizing wipes and employees have resorted to buying construction wipes online," they said, adding that as of April 3, their postal facility hadn't provided employees with any hand sanitizer.

The local fire and EMS service donated more than 20 small bottles of sanitizer, they said, adding that the USPS' "lack of preparedness and concern" is "systemic of our work conditions." The local fire chief confirmed the donation to Business Insider, saying the employee's office was one of two that received sanitizer donations.

The employee "wouldn't dream of treating employees this way," they said.

Employees were eventually provided with Lysol spray to share, the employee from Massachusetts said, in addition to a "short supply of gloves and limited wipes." Those in the community created cloth masks, too.
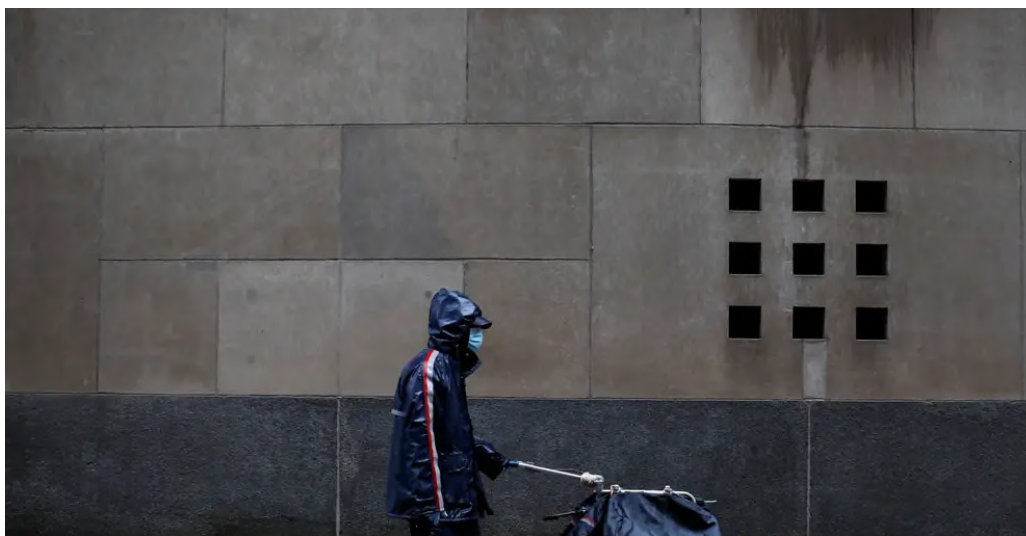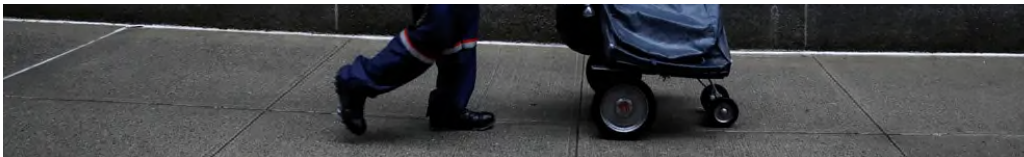
A USPS employee in Manhattan during the coronavirus pandemic. Andrew Kelly/Reuters

A longtime city carrier in Ohio told Business Insider that when they opted to self quarantine at the end of March after not receiving adequate supplies or workstation sanitation, and after hearing that employees weren't being "informed of employees with pending tests," they weren't able to use their hundreds of hours of earned sick leave.

The employee, a National Association of Letter Carriers member, sent photos of their hour tracking and earned hours, and said they were docked for leave without pay — which they felt was retaliation for feeling unsafe.

"I am sure the union will get me the money eventually after a long grievance process," they said. "It is just the principal of the matter."

When the Ohio employee returned to work on April 6 after their leave, they said their office did have hand sanitizer, surgical masks, gloves and wipes, but not everyone's temperature was taken. It was also announced that carriers would start staggering work by two hours in order to maintain proper social distancing, they said, but it still wasn't enough.

"Out of the 30-plus people there this morning, I and two others were the only ones with masks on in the office and nothing was ever mentioned about the fatalities of fellow carriers in New York or the recent death of the mail handler in Detroit," they said, adding that carriers were responsible for sanitizing their own vehicles and were instructed not to let businesses or senior-living facilities take their temperatures. "We are also not being updated as to our number of positive cases within the company."

A USPS employee in Santa Monica, California, during the coronavirus pandemic. Mario Tama/Getty Images

Partenheimer confirmed that employees aren't allowed to submit to temperature readings or medical questionnaires as a condition of delivery, "because temperature readings and medical questionnaires are currently considered confidential medical information."

"Under the Rehabilitation Act and the Privacy Act, specific employee medical information must be kept confidential and may only be shared in very limited circumstances," Partenheimer said.

Partenheimer also confirmed that carriers are responsible for maintaining vehicles and workstations, and that the USPS has instructed drivers "to clean frequently touched surfaces regularly."

"All required supplies were made available to employees on a daily basis," Partenheimer told Business Insider. "When supplies need to be replenished, every effort was and is being made to expedite the orders."

A USPS employee in New York City during the coronavirus pandemic. John Nacion/NurPhoto via Getty Images

A month ago, the NALC union was talking about the claimed lack of supplies promised by the USPS. While the service agreed to provide certain provisions during the coronavirus pandemic, the union said in a March 25 update — daily cleaning supplies for offices and vehicles, hand sanitizer and other clearing supplies for carriers, and masks and gloves for any employee who requested them — much of that promise wasn't being fulfilled.

"We have received almost 3,000 reports from all over the country regarding these issues," the union statement from March said. "In some places, all of these things are being done. However, in too many places they are not.

"In the places where there are not enough supplies, or none at all, it is generally due to the overall shortage of these items throughout the country. USPS has been working to acquire more items, even authorizing local managers to purchase them if they could be found."

A USPS employee in Washington, DC, during the coronavirus pandemic. Saul Loeb/AFP via Getty Images

In the April 17 update, the NALC indicated that the problem hadn't been fixed entirely, saying that the NALC was "in constant communication and negotiation with management" about "supplies, equipment, policies, protocols, and work procedures necessary to keep letter carriers safe."

When asked about the claims of supply shortages, Partenheimer told Business Insider that the USPS "worked through some early supply-chain issues — the same issues faced by others across the country — and [is] making sure the supplies and equipment are getting to all areas."

The NALC told members to immediately contact the union if they saw issues in the workplace, many of which were mentioned by the employees who reached out to Business Insider. Those issues included, emphasis ours:

> Please continue to contact us with any questions, and to report **offices that are not being sanitized on a regular basis**, that **do not have sufficient supplies** (hand sanitizer, disinfectant wipes, masks, gloves, etc.), that are not following Centers for Disease Control & Prevention (CDC) protocols for employees to be quarantined, that **have not implemented social distancing practices**, that are **not providing daily communication regarding stand-up talks, safety precautions, and instances of infection in the building**, that expect employees to work

of infection in the building, that expect employees to work without protection or in an unsanitized environment, or that have any other issues that put employees at increased risk.

The union added in that same update that the USPS had recently agreed to provide N95 masks to employees who are more vulnerable to the virus and request such equipment.

That's in addition to an April 2 update from the USPS, which said it would: ensure "millions of masks, gloves and cleaning and sanitizing product are available and distributed to more than 30,000 locations every day"; ensure appropriate social distancing at facilities; update cleaning policies to meet CDC guidelines; allow "allow liberal use of leave" for employees; allow those who can work remotely to do so; and issue "a daily cadence of employee talks, articles, videos, and other communications to ensure employees have the latest information and guidance."

Neither the NALC nor the APWU responded to a list of questions sent over by Business Insider.

But as both employees and the unions have pointed out, not all of those protection promises from the USPS have panned out yet.

A USPS employee in Manhattan during the coronavirus pandemic. Mike Segar/Reuters

Still, the Ohio employee said, people rely on the work of USPS employees — from those looking for medication to local restaurants sending out deal fliers to stay afloat and those relying on an income by making masks and selling them. And even amid a "toxic" work environment that requires the right mental attitude to stick with, they said, "the good outweighs the bad."

"I love my job and my customers, and I take pride in going out of my way for them everyday," they said. "We are essential.
"But if I can't ensure my own safety, I can't ensure my customers' safety either."

Are you a USPS employee with a story to share about the coronavirus pandemic? Contact the reporter at aking@businessinsider.com.

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The coronavirus pandemic

- Biden will not travel to Milwaukee to accept his Democratic presidential nomination.

- New York City will establish checkpoints at bridges and tunnels to enforce quarantine rules for many out-of-state travelers.

- More than 700,000 people have died of COVID-19 — with one person dying every 15 seconds on average in the last 2 weeks alone.

- A bipartisan group of 7 US governors banded together to purchase COVID-19 testing equipment in the absence of a strong federal testing program.

- Mounting research paints a bleak picture for schools trying to reopen. Most large schools can expect coronavirus cases within 1 week.

Do you have a personal experience with the coronavirus you'd like to share? Or a tip on how your town or community is handling the pandemic? Please email covidtips@businessinsider.com and tell us your story.

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More: U.S. Postal Service   USPS   coronavirus   COVID-19   ⌄

Exhibit 65

What Pennsylvania's 'Dry Run' Election Could Reveal About November

nytimes.com/2020/06/02/us/politics/pennsylvania-primary-election.html

Nick Corasaniti

June 2, 2020

Advertisement

Continue reading the main story

Every weekend since Gov. Tom Wolf of Pennsylvania issued a statewide stay-at-home order, on April 1, millions of cellphones across the commonwealth have buzzed with text messages from the state Democrats, checking on the status of voters' mail-in ballots.

During that period, state Republicans called two million phones around the state to try to mobilize support, and the Republican National Committee sent applications for mail-in ballots to thousands of targeted voters there.

With Pennsylvania holding an important primary election on Tuesday, both parties are also treating it as their biggest chance to stage a statewide "dry run" for organizing and voting before the November presidential vote in one of the nation's more crucial battleground states.

The parties are in new territory this election season — not only because of Covid-19 and the protests over George Floyd's death, including in Philadelphia and Pittsburgh, but also because of a new law allowing anyone who votes by mail in the primary to easily request a mail-in ballot for the November election. Party officials and affiliate groups are racing to ramp up and test their voter mobilization efforts, given that the race between President Trump and Joseph R. Biden Jr. this fall is likely to involve obstacles wrought by the coronavirus.

"We do feel strongly that it is a dry run for us to figure out some of the pressure points and be able to address them going into November," said Sinceré Harris, the executive director of the Pennsylvania Democratic Party. "We are definitely dealing in anything but the norm right now, but at least, when it comes to Covid-19, we're looking at a situation where similar challenges could come during November."

One of the biggest problems for both sides is that the state election system is cracking under the stress of an enormous expansion of vote-by-mail in a very short amount of time. More than 1.8 million people have requested absentee ballots, compared with just over 100,000 from four years ago, and counties are struggling to keep up. Voters have been calling party hotlines and writing on social media that they haven't received their ballots weeks after applying.

In Montgomery County, a populous suburban area outside Philadelphia, 2,000 incorrect ballots were sent to voters of the opposite party.

In Philadelphia, the election offices have been closed because of the virus. The phone line to the county elections office leads to a recording, with no general voice mail or ability to reach a human with an election problem.

Officials are also bracing for longer voting lines. Every municipality outside Philadelphia and Pittsburgh has only one open polling location, and the locations in the two major cities have been condensed.

In Bucks County, a swing suburban county near Philadelphia that Hillary Clinton carried by less than 3,000 votes in 2016, the county Democrats transitioned their effort to knock on 300,000 doors into a blitz of phone calls and text messages. They now have a big absentee ballot advantage: As of Monday, 72,061 Democrats had applied for the mail-in ballots, compared with 29,475 Republicans, according to the secretary of state.

"I can only remember the last two cycles where the Democrats actually turned in more absentees than the Republicans, and it was not by much," said John Cordisco, the Democratic Party chair in Bucks County. He added that virtual organizing had helped the county party conserve resources for November. "We're literally saving $400,000 to $500,000 by not having to do the volunteers' door knocking."

Image

Processed mail-in ballots were accumulating last week at the Bucks County Board of Elections.Credit...Matt Slocum/Associated Press

A central part of the Democratic effort has been what's <u>known as a "ballot chase" program</u>.

Using the state party's voter file, volunteers from around the country are able to login and call or text voters in Pennsylvania asking if they've requested a ballot. An app with a call script provides volunteers with responses based on how far along a voter is in the absentee process.

For the past week and a half, the state Democratic effort has focused on contacting voters who had already requested a mail-in ballot but had not yet returned it and letting them know their remaining options for returning the ballots.

The overall Democratic effort on vote-by-mail in Pennsylvania has led to a significant advantage for the party. Of the 1.8 million absentee ballots requested, 70 percent were from Democrats, according to the secretary of state's office. While Pennsylvania turnout in the general election in 2016 topped six million, the huge ballot advantage is buoying the hopes of Democrats in a state that Mr. Trump won by less than 45,000 votes.

But despite that advantage for the primary, Democrats across the state are increasingly anxious about their ability to reach low-income and minority voters — key blocs of support that traditionally don't vote by mail. According to Common Cause, a nonpartisan public interest group, during the initial surge in interest in mail-in ballots, 91 percent of requests were from white voters, and just under 6 percent were from black voters.

The closing and consolidation of polling locations are also more likely to affect voters in predominantly minority neighborhoods. For example, in Penn Hills, a community on the outskirts of Pittsburgh that has a large black population, more than 50 polling locations are being consolidated into one location.

Sign up to receive an email when we publish a new story about the 2020 election. The online ballot application form is also available only in English.

To try to expand vote-by-mail in lower-income communities, the state Democratic Party has tested a program in Philadelphia for the primary, training ward leaders on new texting and calling software and bringing them into the mail-in ballot organizing effort. Since the party began the program, participation among African-Americans has jumped to 11 percent in ballot requests, Ms. Harris said.

"They're an integral part of the Democratic machines in the city," she said.

Republicans, too, are facing their own problems of absentee ballot mistrust. With the president constantly railing against vote-by-mail, some local officials are wondering about the effect on absentee voting, though they remain confident it won't affect overall turnout.

"A lot of Republicans just don't like the idea of mail-in ballots because of the opportunity for voter fraud," said Dave Majernik, the vice chairman of the Allegheny County Republicans. "So some of them are just deliberately not using them and are going to show

up at the polls for that reason."

The president's opposition to vote-by-mail has also put the state party in an awkward position of advocating the process in Pennsylvania yet denouncing it nationwide. On Facebook, the party boasts of forcing the state to "adopt safeguards" after "more and more Democrats signed up," and asking voters to oppose "Pelosi's national mail-in ballot."

The Facebook post then directs users to the state party's website, which is dedicated to helping voters through the absentee ballot system. When the link is shared on social media, a graphic about the "all new 2020 mail-in ballot" also says "Trump Backed. PAGOP Backed."

The same graphic appears on the website, but without the "Trump Backed. PAGOP Backed" language.

The Republican effort in Pennsylvania is also testing out some of the new members of the Trump Victory Leadership Initiative Fellowship program, a team of volunteers who are run through a training program before being placed into various field duties. The R.N.C. also has more than 60 staff members on the ground in the state.

Processing work on mail-in ballots was underway last week in Butler, Pa Credit...Keith Srakocic/Associated Press

Though the focus has been predominantly on absentee and vote-by-mail operations, some outside groups are transitioning to a scaled-down version of a more traditional get-out-the-vote operation.

"For the folks that don't feel comfortable voting by mail, now we're focused on how can we now educate them about where the poll site is, and know that every worker there should have the P.P.E. that's required," said Ivan Garcia, the civic engagement director for Make the Road Pennsylvania, an advocacy group for immigrants.

Mr. Garcia is also aiming to find a silver lining in the consolidated polling locations and potentially long lines on Tuesday. Using the group's separate advertising arm, Mr. Garcia is paying to target voters' phones, or "geofence" them, at polling locations in Philadelphia, Lehigh and Berks Counties and serve digital ads to those who are near polling centers.

"People will go to vote, they'll get frustrated and see how frustrating it is to vote in person, and then we'll send them digital ads where they can now request their ballot to vote by mail for the general election in November," Mr. Garcia said. "We want to do it while voting is still fresh in their mind."

Exhibit 66

Primary voters in 8 states and D.C. faced some confusion, long lines and poor social distancing

By **Amy Gardner**, **Elise Viebeck** and **Natalie Pompilio**

June 2, 2020 at 10:20 p.m. EDT

Voters in primaries around the country reported problems with mail-in ballots and confusion about where to turn out in person, as protests over the killing of George Floyd threatened to combine with the coronavirus pandemic to disrupt elections.

Primaries were held Tuesday in eight states and the District of Columbia, with nearly every jurisdiction facing a surge of interest in voting by mail and accompanying logistical problems. In several places, the number of in-person voting places was significantly reduced, and cities including the District experienced long lines that grew into the early evening.

The problems, though not critical, occurred on the heaviest day of voting since the novel coronavirus emerged in full force and suggested challenges ahead for the November presidential election.

"This surge is one thing, but I think we can expect a lot more than this in November, even without covid-19," Pennsylvania Secretary of State Kathy Boockvar said about absentee voting. She described the day's contests as running "remarkably smoothly, with no widespread issues to report."

The story appeared different in the District, which opened just 20 of its typical 143 polling places and reported wait times at each location of more than an hour around 7:30 p.m. The lines stretched for blocks, even as the city's curfew took effect.

Despite the problems, the voting landscape was a sharp departure from the partisan and court battles earlier this year in Ohio and Wisconsin over whether to postpone elections because of the threat of the coronavirus.

Yet as they cast ballots in person on Tuesday, voters encountered conditions that have become a hallmark of this unusual election year: fewer voting locations, newly installed ballot dropboxes, signs encouraging social distancing and poll workers in protective gear. The public was also cautioned not to expect complete results on Tuesday night, with some states saying they might not be released until next week.

In one Pennsylvania county, a judge on Tuesday ordered the mail-in deadline extended for as many as 500 people who had requested but not received mailed ballots. Election officials in Delaware County had struggled to fulfill an "unprecedented number" of absentee ballot requests, County Solicitor William F. Martin wrote in a last-minute court petition.

Voters in other jurisdictions faced similar hurdles. In the District of Columbia, Maryland and Rhode Island, some reported not receiving mail-in ballots or struggling to submit requests. D.C. election officials resorted to hand-delivering ballots that were at risk of not arriving on time.

Long lines formed in spots. At about 6 p.m., 300 or more people waited to vote in a line that stretched about six blocks around the Sherwood Recreation Center in the H Street neighborhood in Northeast Washington.

In one predominantly African American area of Pittsburgh, voters complained of feeling intimidated by having to cast ballots in a polling location that also houses a police department during a time of tension between black residents and law enforcement.

Lakiya Brown of northeast Philadelphia said she was not afraid of contracting the coronavirus or encountering danger from police or protesters when she cast her ballot Tuesday. But the 37-year-old said she planned to be at home before it got dark.

"People are angry. I get it. I am angry. I am hurting," she said, wiping away tears. "I may not act the same way, but I get it."

Some troubles appeared to stem from poor communication to voters about changed routines. In Philadelphia, for instance, where only 190 of 831 polling places were opened, some voters showed up at their normal location to find facilities shuttered with no signs directing them to a consolidated location.

Most of the problems emerged before Election Day and were related to the overwhelming increase in demand for mail-in ballots, which was up more than 1,000 percent in some jurisdictions, according to election officials.

Pennsylvania, notably the ring of suburbs around Philadelphia, is widely expected to be a crucial battleground in the November presidential election. If thousands of voters are unable to cast mail-in ballots in the primary, election officials will be under tremendous pressure to better prepare for a general election that four years ago was decided by the narrowest of margins.

Deadlines — and voters' confusion about them — also caused issues.

In Indiana, the clerk of the state's most populous county warned last week that thousands of ballots might not be counted because they would not be returned by the deadline of noon on Election Day.

And in New Mexico, voting rights advocates reported that several thousand applications for absentee ballots were received the day after the deadline.

Several of Tuesday's contests drew special interest.

In Iowa, firebrand conservative Rep. Steve King (R) faced four GOP rivals. In Maryland, House Majority Leader Steny H. Hoyer (D) was being challenged from the left by first-time candidate Mckayla Wilkes. And in New Mexico, former CIA operative Valerie Plame ran in a competitive primary for the seat being vacated by Senate hopeful Ben Ray Luján, a member of House Democratic leadership.

The presidential campaigns were taking note of turnout in Tuesday's primaries. Election officials across the board expected low in-person turnout because of the surge in mail-in ballots, although that could mask the number of voters who were unable to or chose not to vote at all due to confusion over mail balloting rules or fear of infection at the polls.

There was uncertainty about where to drop mail-in ballots. Philadelphia election officials set up dropboxes at only 11 locations, not at every polling location. At the A.W. Christy Recreation Center in predominantly black West Philadelphia — where 15 separate polling locations were consolidated — voters arrived with mail-in ballots in hand, unsure of what to do with them. With no ballot dropbox available, officials directed voters to a public library a mile away.

Advocates said black voters have struggled to cast absentee ballots out of a combination of mistrust about dropping their ballots in the mail and a lack of access to information about how to do it.

"To have these folks have to specifically come to the polls is unconscionable to me," said Sergio Cea, 35, a community organizer.

One voter, Dorsey Williams, 52, came to the Lucien E. Blackwell West Philadelphia Regional Library to drop off his mail-in ballot, only to be told — incorrectly — that he had to submit his ballot in the council district where he lives.

"Voter suppression is for real," he said. "They just did it to me."

In Delaware County outside Philadelphia, officials said they had fulfilled an unprecedented 80,000 requests for mail-in ballots. But 6,000 of them went out just Monday — giving those voters little wiggle room to return them on time. Officials said they would be unable to fulfill another 400 ballot requests at all because of insufficient staffing and time.

To help alleviate the crush, Pennsylvania Gov. Tom Wolf (D) extended the mail-in ballot deadline by a week in six counties where the pandemic and protests have been most acute, but ballots still must be postmarked or received in person by 8 p.m. Tuesday.

"This is an unprecedented time for Pennsylvania and our nation as we face a major public health crisis and civil unrest during an election," Wolf said in a statement. "Voting is the cornerstone of our democracy, and I want to ensure that voters can cast their ballot and that it is received in time."

The Pennsylvania primary was the state's first major contest since state lawmakers expanded absentee balloting to all voters last fall, long before they could have predicted how dramatically interest in voting by mail would surge as a result of the pandemic.

The onset of violent protests after Floyd, who was black, was killed in police custody in Minneapolis compounded the challenges that Tuesday brought.

Philadelphia has been under a mandatory 6 p.m. curfew since Sunday; the curfew in Washington is set at 7 p.m., while polls remained open. Both cities declared voters and poll workers exempt. The mayor of Providence, R.I., imposed a 9 p.m. curfew, one hour after polls were scheduled to close.

Wolf ordered his deadline extension for mail-in ballots to apply to Philadelphia and two of its suburbs, as well as the counties that include Pittsburgh, Harrisburg and Erie.

Republican National Committee spokesman Mike Reed said Monday that the party was considering whether to bring legal action to block Wolf's order. The GOP fought efforts to extend the ballot deadline in Wisconsin's spring elections in April.

"We want everyone to have the opportunity to vote, but we have an Election Day for a reason," Reed said. "Postponing this deadline would require county election offices to verify ballots for weeks after the election, potentially delaying the outcome and opening the door for unnecessary litigation."

In Philadelphia, the crunch for in-person voting access could be more acute in the city's black enclaves, notably West and North Philadelphia, where requests for mail-in ballots were lower than in white areas, according to an analysis by Jonathan Tannen, a demographer who crunches city data.

Exhibit 67

Preventing the Spread of COVID-19 in Election Polling Locations
Updated 3.9.2020

Unisyn recommends a three-step approach to preventing the spread of acute respiratory illnesses such as COVID-19 and the flu in election polling locations.

The first and most important step is to provide voters, election officials and poll workers with a means to clean their hands. Whether it is using soap and water or an alcohol-based hand sanitizer, clean hands dramatically reduces the spread of germs.

Recommend Hand Cleaning Method

Post signs in the bathroom or handwashing stations to remind voter to wash their hands with soap and hot water for at least 20 seconds and to dry their hands thoroughly prior using the voting equipment. If the polling location does not have a hand washing station, hand sanitizer with at least 65% alcohol must be made available. The hand sanitizer should be placed in obvious and easily accessible location such as the registration desk.

> **NOTE:** Do not handle thermal paper or ballots after using hand sanitizer or other disinfecting wipes as chemicals may degrade legibility.

The second step is to clean the visibly dirty surfaces of the voting equipment. Cleaning does not kill all the germs, but it does decrease the number of germs present and reduces the risk of spreading a virus.

Recommended Cleaning Method

Clean the entire terminal, and its peripherals, by wiping with a soft cloth dampened with a mild detergent solution to remove any dust or fingerprints. Follow this with bleach free household disinfection wipes to disinfect the equipment.

- **Equipment Case** - Clean the case with a <u>slightly damp</u> cloth and mild detergent. Only clean the external areas of the terminal, DO NOT clean any of the internal components. Do not use the mild detergent cleaning solution on any of the exposed areas of the printer.

- **Touchscreen** - Clean the display using a soft, clean microfiber cloth and water, IPA (Isopropyl Alcohol), or Hexane. *Do not use ketone type material (such as acetone), ethyl alcohol, toluene, ethyl acid or methyl chloride to clear the panel. These substances may permanently damage the touchscreen.*

- **Keypad** - Use a damp cloth to clean the keypad exterior. Use a cotton swab lightly moistened with water to clean around keys.

The third step is to disinfect the voting equipment using **bleach free** household wipes.

Recommended Disinfecting Method

Disinfecting the equipment will not remove all the germs on surfaces, but it aids in killing the germs that remain on a surface after cleaning and further reduces any risk of spreading infection. Use **bleach free** household wipes to disinfect the voting equipment each time they are used. If necessary, wring excess liquid from the wipe, it should be damp not heavily saturated with cleaner.

Resources:

https://www.cdc.gov/coronavirus/2019-ncov/community/large-events/election-polling-locations.html

Exhibit 68

DOMINION VOTING
Our customers come first.

CUSTOMER NOTIFICATION:
COVID-19 ("Coronavirus") Information
March 9, 2020

Dear Election Official:

In light of COVID-19 ("Coronavirus") developments in the U.S. and globally, we want to remind customers of instructions for cleaning and sanitizing your voting equipment.

The Centers for Disease Control and Prevention (CDC) recommends the best way to protect your health while visiting any polling place is to **USE HAND SANITIZER** and **WASH HANDS** as soon as possible. Because the virus enters through the eyes, nose and mouth, frequent and thorough handwashing remains the #1 most effective protection against Coronavirus infection. Voters should use antibacterial hand sanitizer before and after their voting session and be instructed to wash their hands after voting, regardless of what method of voting is in place.

How to Clean & Sanitize Your Voting Equipment

According to the CDC, transmission of Coronavirus to persons from surfaces contaminated with the virus has not been documented. However, cleaning and sanitizing surfaces can help reduce occurrence of viral outbreaks:

- Always follow recommended manufacturer guidelines for cleaning and sanitizing equipment. Using the enclosed guidelines for ICX Touchscreens (see Avalue Cleaning Guidance), ImageCast Precinct or ImageCast Evolution systems (see ImageCAST® Tabulators Surface Cleaning Guide), thoroughly clean all units in every polling place each morning before powering them on. Clean the units again in the evening after they have been powered off. Remind voters to use hand sanitizer and wash their hands in between.

- The CDC's guidelines for polling stations includes a list of products with EPA-approved emerging viral pathogens claims (*NOTE*: Some formulations may not be appropriate for your hardware and may cause problems).

- Follow the **CAUTION** information in the enclosed instructions to prevent damage to your voting system touchscreens and tabulators. Cleaning the units while they are powered ON is not recommended. Moist wipes may alter the touch sensitivity of screens until the moisture is removed. Additionally, some screen buttons may be inadvertently activated during wipe down.

- Regular alcohol wipes can be used for cleaning activation cards and non-porous privacy sleeves.

Thank you for your attention to this important matter. If you have questions or need further information, please contact your Customer Relations Manager for guidance.

1201 18th St., Suite 210, Denver, CO 80202
(866) 654-8683 | DOMINIONVOTING.COM

ImageCAST® Tabulators Surface Cleaning Guide

Dominion Voting Systems products are designed to withstand intensive use under operating and environmental conditions outlined in voting standards (VVSG). Normally, surface dirt and fingerprints do not affect the operation of the tabulators. However, from a healthcare aspect, it may be beneficial to clean and sanitize the product before and after use on Election Day. This guide provides the cleaning procedures, along with equipment and supplies required for this purpose.

NOTE: These products are intended solely for cleaning the exterior of the tabulators. Do not apply to the interior components of the system.

A. Recommended Cleaner and Sanitizing Agent:

Dominion recommends using one of the following cleaners/sanitizing agents for ImageCAST Tabulators:

- Mix of isopropyl alcohol and water solution with a ratio of at least 50% alcohol, up to 100% straight isopropyl alcohol.

B. Recommended Cloths and Wipes:

Dominion recommends using one of the following microfiber electronics cleaning cloths or wipes to the clean the exterior of your tabulators:

Cloths:
- 3MTM Scotch-Brite® Electronics Cleaning Cloth.
- TECHSPRAY® 2368-2 LCD and Plasma Screen Cleaning Wipes

Disinfectant Wipes:
- KIMTECH® One-Step Disinfectant Wipes.

C. Instructions:

1. POWER OFF the tabulator.
2. Spray a small amount of cleaning / sanitizing agent onto the cloth.
3. Wipe the tabulator in a gentle motion to remove any dirt, dust, or finger marks.
4. Use a dry cloth to wipe any excess moisture.
5. The tabulator is ready to be deployed for use or storage.

CAUTION

Normal household cleaners, cloths and wipes are not safe to use on the LCD glass or displays. Please use only the Dominion recommended solutions. Please consult with Dominion technical support before using any other solutions.

To avoid potentially hazardous situations associated with the use of alcohol or other cleaning / sanitizing agents which may result in personal injury and property damage:

- Be sure to follow all instructions and recommendations in this document and the manual.
- Be sure to follow precautions and directions for any cleaning / sanitizing agent.
- Do NOT use any solutions that contain ammonia, acidic, alkali or other caustic chemicals.
- Do NOT use any vinegar-based solutions.
- Do NOT use coarse cloths or paper towels.
- Do NOT spray cleaning / disinfecting agent directly on the tabulator.

We value the health of our customers and voters. Thank you!

9 Timber Lane, Marlboro, NJ 07746
Tel: (732) 414-6500 Fax: (732) 414-6501

<u>Avalue Touch Panel PC Care and Cleaning Guide</u>

Thank you for using the Avalue Touch Panel PC. Our products are designed to withstand intensive use under all types of applications and require very little maintenance. Normally, dirt and fingerprints do not affect the operation of the Touch Panel PC. However, Avalue recommends that you periodically clean the Touch Panel PC for best visual and operational experience. Certain applications such as medical, healthcare and fitness, etc. may also require disinfecting the product after use. Therefore, we have prepared for you this Touch Panel PC Care and Cleaning Guide. Please read and be sure to follow the instructions outlined when cleaning or disinfecting the Touch Panel PC.

Recommended Cleaner and Disinfecting Agent:
We recommend using one of the following cleaners or disinfecting agents to clean and/or disinfect your Touch Panel PC:

Cleaners:
- 3M CL600 Anti-Static Electronic Equipment Cleaner.
- TECHSPRAY® 1605-6FP LCD and Plasma Screen Cleaner.

Disinfecting Agents:
- Mix isopropyl alcohol and water solution at a ratio of 50:50.
- Straight isopropyl alcohol.

Recommended Cloths and Wipes:

We recommend using one of the following screen safe, microfiber electronics cleaning cloths or wipes to clean your Touch Panel PC:

Cloths:
- 3MTM Scotch-Brite® Electronics Cleaning Cloth.
- TECHSPRAY® 2368-2 LCD and Plasma Screen Cleaning Wipes.

Cleaning Wipes:
- 3MTM CL610 Electronic Equipment Wipes.
- 3MTM CL630 Notebook Screen Cleaning Wipes.
- Fellowes® 99703 Screen Wipes.

Disinfectant Wipes:
- KIMTECH® One-Step Disinfectant Wipes.

Instructions:
1. Turn off the Touch Panel PC and all other attached devices.
2. Spray a small amount of cleaning / disinfecting agent onto the cloth.
3. Wipe the Touch Panel PC in a gentle motion to remove any dirt, dust, or finger marks.
4. Use a dry cloth to wipe any excess moisture.
5. Turn the Touch Panel PC back on.

avalue
Technology Inc.

9 Timber Lane, Marlboro, NJ 07746
Tel: (732) 414-6500 Fax: (732) 414-6501

CAUTION

Normal household cleaners, cloths and wipes may not be safe to be used on the sensitive electronics components. Please use the Avalue recommend cleaning / disinfecting solutions. Please consult with Avalue technical support before using any other cleaning / disinfecting solutions.

To avoid potentially hazardous situations associated with the use of alcohol or other cleaning / disinfecting agents which may result in personal injury and property damage:

- Follow all instructions and recommendations in the manual.

- Be sure to follow cleaning / disinfecting agent manufacturer's precautions and directions.

- Do not use any solutions that contain ammonia, acidic, alkali or other caustic chemicals on the Touch Panel PC.

- Do not use any vinegar-based solutions.

- Avoid using coarse cloths or paper towels.

- Do NOT spray cleaning / disinfecting agent directly on the Touch Panel PC.

Exhibit 69

County to use paper ballots for primary due to virus concerns

Eric Mark
Apr 28, 2020

Luzerne County voters will vote by paper ballot instead of using touchscreen machines in the June 2 primary because of concerns about COVID-19, county Manager David Pedri announced Tuesday.

Voters will be provided with a pen to fill out their ballots, and will keep the pen after voting, Pedri said during a presentation at a county council work session held via video conference.

He told council members the county is working hard to ensure the safety of voters and poll workers in light of the coronavirus pandemic.

PEDRI

"It's not ideal but we are trying to pivot and do things as best we can," Pedri said.

The use of paper ballots and individual pens for each voter will be much safer than using touchscreen machines, he said.

Voters with special needs will be permitted to select candidates on the touchscreens, which will be cleaned after each time they are used, Pedri said.

The county will use school buildings and other large facilities to house multiple voting districts, as allowed by recent state legislation designed to ensure public safety at the polls during the pandemic, Pedri said.

Spacious school gymnasiums will be ideal sites to house multiple voting districts safely, with proper social distancing, he said.

The consolidation will reduce from 144 to 58 the number of buildings the county will use for polling sites.

It will also reduce the number of poll workers needed to staff the election. Most of the county's longtime poll workers are 65 or older and considered at high risk, and many have said they will not work the polls for the primary, Pedri said.

Many of the county's regular polling sites are also unavailable because they are in buildings that are closed during the pandemic, he said.

Pedri continued to push for voters to choose the mail-in ballot voting option, available for the first time this year in Pennsylvania.

On Friday, the county will mail an application for a mail-in ballot, with a self-addressed stamped envelope, to every registered Republican and Democrat in the county who has not already applied for one, Pedri said.

About 20,000 people have requested mail-in-ballots as of Tuesday, he said.

Councilman Stephen J. Urban asked whether the county would continue to use the electronic poll book system it has used since 2018.

Pedri said election officials are still deciding the best option for poll books, on which voters sign in before casting their ballots.

Councilman Walter Griffith said the county should be better prepared for the primary at this point. He criticized the county board of elections for not meeting the past seven weeks, and questioned why more poll workers have not been trained in advance of the election.

Pedri said poll worker training will continue the next few weeks. If needed, the county will use online training, he said.

Pedri said he is working to finalize the county's plans for the primary. He will present the final plan to the board of elections for its approval May 6, he said.

A complete list of polling locations will be part of the report the county will submit to the board of elections next week, Pedri said.

The deadline to apply for a mail-in ballot is 5 p.m. May 26.

Contact the writer:

emark@citizensvoice.com

570-821-2117

Exhibit 70

FEATURED

Paper ballots at polling places for June 2 election

By Keith Gushard Meadville Tribune
Apr 23, 2020

It will be paper ballots at Crawford County's polling precincts during Pennsylvania's primary election, now scheduled for June 2.

Crawford County Board of Elections members voted unanimously Wednesday to move a paper ballot format due to the COVID-19 pandemic.

The switch will allow for a less potential spread of the virus than using the electronic voting machines, according to board members. The electronic voting machines would require cleaning of touch screens after each use by a voter which could slow the process.

However, each of the county's 68 precincts still will have an electronic voting machine to comply with federal handicapped-accessibility laws, said Rebecca Little, director of the county's Election and Voter Services Office.

Polls will be open from 7 a.m. to 8 p.m. June 2 for those who choose to vote in person at their designated precinct.

Under the system, poll workers will give a registered voter a paper ballot and a pen to cast their vote. The voter then will deposit the paper ballot into a locked bin at the precinct.

After the polls close at 8 p.m., the secured ballots will be taken to the Crawford County Courthouse where they will be put through a high-speed central scanner at a designated time by Board of Elections officials.

County Commissioner Chris Soff, who is chairman of the Board of Elections, said the primary paper ballots will be compatible with the scanning system used by the county's electronic voting machines.

The county also is looking at the possibility of changing some precinct voting locations due to the pandemic, though no decisions have been made as yet.

Potentially, there could be a central voting site in one location for several precincts.

Any changes in polling locations would have to be announced and advertised at least 20 days prior to the June 2 primary, Soff said.

Keith Gushard can be reached at 724-6370 or by email at kgushard@meadvilletribune. com.

YOU CAN VOTE

The Crawford County Board of Elections reminds the county's registered voters that they have the option to apply for a mail-in or absentee ballot for the June 2 primary election. Voters may contact the Crawford County Election and Voter Services Office, 903 Diamond Park, Meadville, PA 16335 to request a mail-in or absentee ballot application or they may visit votespa.com to apply online. Mail-in or absentee ballot applications must be received at the courthouse no later than 5 p.m. May 26.

The last day to register to vote in Pennsylvania's primary election is May 18. Persons may contact the Crawford County Election and Voter Services Office, 903 Diamond Park, Meadville, PA 16335, or go online at votespa.com to register to vote.

Exhibit 71

The American Voting Experience:

Report and Recommendations of the Presidential Commission on Election Administration
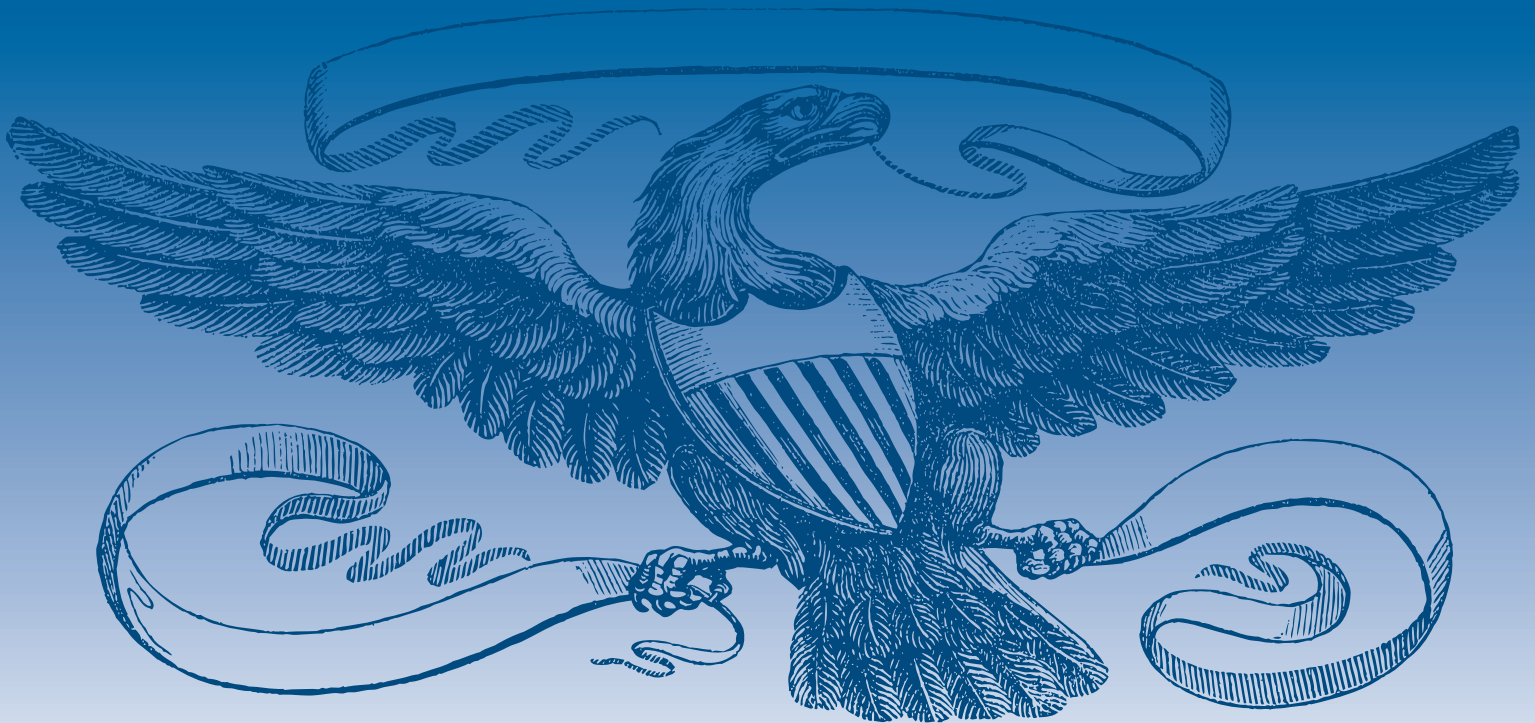
January 2014

Presidential Commission on Election Administration

Robert F. Bauer, Co-Chair

Benjamin L. Ginsberg, Co-Chair

Brian Britton

Joe Echevarria

Trey Grayson

Larry Lomax

Michele Coleman Mayes

Ann McGeehan

Tammy Patrick

Christopher Thomas

Senior Research Director: Nathaniel Persily

the Presidential Commission
on Election Administration

January 2014

Dear Mr. President:

We are pleased to submit this Report and Recommendation called for in your Executive Order 13639, which established this Commission on Election Administration and defined its mission.

Our examination spanned six months of public hearings and included consultations with state and local election officials, academic experts, and organizations and associations involved in one form or another with voting or election administration. In connection with testimony provided to the Commission, the Caltech-MIT Voting Technology Project also conducted a comprehensive survey of the views of thousands of local election officials around the country. As a result, the Commission presents its unanimous recommendations, together with an array of best practices in election administration, which will significantly improve the American voter's experience and promote confidence in the administration of U.S. elections.

The Commission's focus in this Report remained resolutely on the voter. We discovered, as officials, experts, and members of the public from across the country testified, that voters' expectations are remarkably uniform and transcend differences of party and political perspective. The electorate seeks above all modern, efficient, and responsive administrative performance in the conduct of elections. As the Commission sets out in its Report, election administration must be viewed as a subject of sound public administration. Our best election administrators attend closely to the interests, needs, and concerns of all of our voters — in large and small jurisdictions, and in urban and rural communities — just as well-managed organizations in the private sector succeed by establishing and meeting high standards for "customer service."

This view of administration will not only reduce wait times where they occur, but also improve the quality of administration in many other ways, from the registration process through the selection and design of polling places, to improved access for particular communities of voters, such as those with disabilities or limited English proficiency, and overseas and military voters. The Commission has found that the problems encountered with election administration overlap and intersect, and improved management at one stage in the process

will yield benefits at later stages. Improving the accuracy of registration rolls, for example, can expand access, reduce administrative costs, prevent fraud and irregularity, and reduce polling place congestion leading to long lines.

Consistent with this approach, the Commission's key recommendations call for:

- modernization of the registration process through continued expansion of online voter registration and expanded state collaboration in improving the accuracy of voter lists;

- measures to improve access to the polls through expansion of the period for voting before the traditional Election Day, and through the selection of suitable, well-equipped polling place facilities, such as schools;

- state-of-the-art techniques to assure efficient management of polling places, including tools the Commission is publicizing and recommending for the efficient allocation of polling place resources; and,

- reforms of the standard-setting and certification process for new voting technology to address soon-to-be antiquated voting machines and to encourage innovation and the adoption of widely available off-the-shelf technologies.

The Commission is grateful for the opportunity to present this Report and Recommendations on issues central to the quality of voter participation and confidence in our democratic process.

Respectfully submitted,

Robert F. Bauer, Co-Chair

Benjamin L. Ginsberg, Co-Chair

Brian Britton

Joe Echevarria

Trey Grayson

Larry Lomax

Michele Coleman Mayes

Ann McGeehan

Tammy Patrick

Christopher Thomas

Table of Contents and Summary of Recommendations

The diversity and decentralization of the U.S. election system cautions against nationwide rules, but all jurisdictions face some common challenges in registering voters, casting ballots, and counting votes.

Election needs are often the last to receive attention from state and local budgetary authorities, well behind public safety, education, and transportation.

A large share of the nation's voting machines are now almost a decade old and starting to break down. With no federal appropriations on the horizon, election authorities are on their own to do more with less.

No citizen should have to wait more than 30 minutes to vote; jurisdictions can solve the problem of long lines

through a combination of planning, including use of the tools noted in this Report, and the efficient allocation of resources.

Compliance with numerous existing laws continues to be inconsistent or inadequate, and enforcement must be strengthened.

- UOCAVA and the MOVE Act for military and overseas voters

- Sections 203 and 208 of the Voting Rights Act for voters with limited English proficiency

- Americans with Disability Act and Help America Vote Act for voters with disabilities

- The National Voter Registration Act for voters who register with a Department of Motor Vehicles or other covered agency

Because the selection of election officials on a partisan basis can risk public confidence in the quality and impartiality of administration, the responsible department or agency in every state should have on staff individuals chosen solely on the basis of experience and expertise.

Introduction

The United States runs its elections unlike any other country in the world. Responsibility for elections is entrusted to local officials in approximately 8,000 different jurisdictions. In turn, they are subject to general oversight by officials most often chosen through a partisan appointment or election process. The point of contact for voters in the polling place is usually a temporary employee who has volunteered for one-day duty and has received only a few hours of training. These defining features of our electoral system, combined with the fact that Americans vote more frequently on more issues and offices than citizens anywhere else, present unique challenges for the effective administration of elections that voters throughout the country expect and deserve.

Other countries exhibit one or another of these features in their election systems, but none have the particular combination that characterizes administration in the United States. Decentralization and reliance on volunteers ensure that the quality of administration varies by jurisdiction and even by polling place. The involvement of officials with partisan affiliations means that the rules or their interpretations will be subject to charges of partisanship depending on who stands to win from the officials' decisions. The sheer frequency and volume of democratic choices from persistent elections tax voters' attention and capacity.

The problems observed in recent elections stem, in part, from these defining characteristics of our electoral system. Long wait times at select polling places result from a combination of mismanagement, limited or misallocated resources, and long ballots. Problems faced by military voters and their dependents in receiving and transmitting ballots, and then having them counted, still remain. Accommodations for voters with disabilities or with limited English proficiency vary widely, dependent on the attention they receive from local officials and compliance with statutory protections. Bloated and inaccurate voter registration lists — the source of many downstream election administration problems — arise in the absence of a national list of voters that is updated when voters move, die or change their names.

Some of the differences in approaches to election administration may be explained by cultural differences between states. For instance, the manner in which early voting is conducted, or whether it is allowed at all, varies considerably between states. Vote-by-mail and no-excuse absentee voting is increasingly popular in the West, while in-person early voting is more popular in the South. The same could be said for provisional ballots, which are used for different purposes in different states. In some states, voters who are permanently registered as absentee must cast a provisional ballot if they show up at the polls. In others, voters can update their address in the polling place by voting a provisional ballot. In still others, provisional ballots serve the narrow purposes for which they were intended under the Help America Vote Act (HAVA), namely as a stop gap measure for the poll worker who gives a provisional ballot to the voter who claims to be registered but whose name does not appear on the rolls.

Although the diversity of election processes spawns problems, the variety of practices localities use to combat them can also be a fruitful source of context-specific solutions. There is no shortage of good ideas when it comes to election administration. The tasks presented to the Commission were to collect the best programs, innovations, and practices from around the country to address current challenges, as well as to identify the next generation of problems that will confront the American electoral system.

After a six-month extensive examination of how elections are conducted throughout the United States, we, the members of the Presidential Commission on Election Administration, conclude that problems that hinder the efficient administration of elections are both identifiable and solvable. This Report sets forth many recommendations and best practices derived from our examination.

Some problems in election administration affect only a limited number of jurisdictions, while others are more broadly shared. In general, we view the recommendations as broad-based solutions to common problems evident on a national scale. In addition to these recommendations, the Commission urges adoption or consideration of other best practices, highlighted throughout the Report in italics, that are usually applicable to focused situations in individual jurisdictions or sometimes particular polling places. These highlighted best practices are not the only ones of potential use or value to jurisdictions around the country, and numerous others worthy of consideration are included in the Appendix.

The key recommendations of the Commission are:

Voter Registration:

Online Registration: The steady trend toward online voter registration should continue as every state should allow eligible citizens to register to vote and to update their registrations via the internet.

Interstate Exchange of Voter Lists: States should update and check their voter registration lists against each other, as is done with the "IVRC" and "ERIC" projects, to ensure that voters are correctly registered at one location, that registration lists are more accurate and not a source of polling place congestion, and that these more accurate lists can assist in identifying individuals who are eligible to vote, but are not registered.

Access to the Polls:

Expansion of Voting Before Election Day: In order to limit congestion on Election Day and to respond to the demand for greater opportunities to vote beyond the traditional Election Day polling place, states that have not already done so should expand alternative ways of voting, such as mail balloting and in-person early voting.

Schools as Polling Places: States should encourage the use of schools as polling places. Because they often provide the best facilities to meet voters' needs, roughly one-third of voters currently vote in schools. To address security concerns, Election Day should be scheduled as an in-service day for students and teachers.

Polling Place Management:

Adoption of Resource Allocation Tools: Local officials should employ a resource allocation calculator, akin to the ones presented at www. supportthevoter.gov, in order to optimize the number of voting machines and staff at polling places, thereby reducing the potential for long lines.

Voting Technology:

>**Addressing the Impending Crisis in Voting Technology**: By the end of the decade, a large share of the nation's voting machines, bought 10 years ago with HAVA funds, will reach the end of their natural life and require replacement. To address this impending challenge and to usher in the next generation of voting machines, the standards and certification process for new voting technology must be reformed so as to encourage innovation and to facilitate the adoption of widely available, off-the-shelf technologies and "software-only" solutions.

This Report focuses not only on the problem of election administration for all voters, but also the effect of administrative failures on discrete populations such as voters with disabilities, those with limited English proficiency, and military and overseas voters. Just as certain problems in election administration are more pronounced in some jurisdictions, they also burden some populations more than others. Inaccessible polling places are a problem for the general population, for example, but they can be a major barrier to participation for those with mobility problems. Similarly, poorly designed and complex ballots pose problems for all voters, but they can prove particularly daunting for voters with limited English proficiency. Any solutions in this realm must be made with an eye toward addressing the problems faced by voters as a whole while also ensuring that the needs of these discrete populations are met. However, the best way to perform this dual task is to "bake in" these targeted solutions to the recommendations applicable to the system as a whole. The Commission's recommendations are proposed with this strategy in mind. They should be adopted not only because they address problems broadly shared, but also because they address more severe challenges faced by particular populations.

I.   Definition of the Charge

The Presidential Commission on Election Administration was established by Executive Order on March 28, 2013. Its mission was to identify best practices in election administration and to make recommendations to improve the voting experience.

The Executive Order focused the Commission's work on several areas of concern:

- i.   the number, location, management, operation, and design of polling places;

- ii.   the training, recruitment, and number of poll workers;

- iii.   voting accessibility for uniformed and overseas voters;

- iv.   the efficient management of voter rolls and poll books;

- v.   voting machine capacity and technology;

- vi.   ballot simplicity and voter education;

- vii.   voting accessibility for individuals with disabilities, limited English proficiency, and other special needs;

- viii. management of issuing and processing provisional ballots in the polling place on Election Day;

- ix.   the issues presented by the administration of absentee ballot programs;

- x.   the adequacy of contingency plans for natural disasters and other emergencies that may disrupt elections; and

- xi.   other issues related to the efficient administration of elections that the Co-Chairs agree are necessary and appropriate to the Commission's work.

The charge requires consideration of a multiplicity of election administration problems and contexts. The Commission was asked in considering each of these issues to propose common sense, non-partisan solutions that would prove useful to state and local officials in administering successful elections that meet the needs and legitimate expectations of voters.

The guiding principle for these recommendations, however, is to improve the voter experience. By improving the voter experience, we mean that:

- Voters at all points of contact with the electoral process should find that it is accessible and dependable.

- Voters should not need to wait more than half an hour to vote.

- Ballots should be well-designed and simple to understand.

- The registration process should be efficient and reliable.

- Voter rolls at the polling place should be accurate.

- Voting information provided by officials should be clear and comprehensive.

- Ballots delivered by mail should arrive in a timely fashion and should be tracked from delivery to return.

- Military and overseas voters should receive their ballots on time and be confident that the election authority has received them in time to be counted.

- Polling places should be well-organized, well-equipped, and accessible.

- Well-trained and informed poll workers should supply useful guidance, answer questions, and resolve issues as they arise.

- Accommodations should be made for populations requiring specialized support, such as voters with disabilities or limited English proficiency.

Accessibility and dependability are the criteria for excellence and success in the private sector, and the Commission believes that those goals should also guide the administration of elections.

The Commission was not charged with proposing federal or state legislation or evaluating ongoing and often controversial legislative enactments or proposals. To be sure, several of the problems described in the Executive Order were covered by existing federal legislation, and drawing attention to gaps in enforcement and compliance is within the ambit of this Report. In addition, while not taking on the task of drafting a model state election code, the Commission did uncover instances where state laws require

modernization to accommodate changes in technology or legal developments in other settings. For example, all states should update their laws governing design and font size for ballots to reflect the new technologies of balloting, as well as to incorporate modern lessons concerning the principles of design. Similarly, the experience with Hurricane Sandy made it evident that states must be certain their laws are updated to establish clear procedures for the rescheduling or conduct of elections in the event of a natural disaster. They also must be updated to accommodate voting for first responders from outside the disaster areas and those who are unable to return to their jurisdiction for Election Day due to the emergency.

In formulating its recommendations, the Commission sought out and received extensive testimony, data, and information from election administrators, experts, academics, and the public. It did so through several different channels. In addition to four public hearings the Commission held around the country,[1] subgroups of commissioners were invited to and attended meetings of election officials, interest groups, and academics.[2] Members of the public, moreover, submitted written testimony that was considered by the Commission and posted on its website: www.supportthevoter.gov.

Several people and institutions were helpful in constructing this report. John Fortier and Matthew Weil from the Bipartisan Policy Center and Doug Chapin from the Hubert Humphrey School of Public Affairs at the University of Minnesota ably and expertly advised the Commission in its research. Annie Donaldson and Lynn Eisenberg were extremely helpful in the production of the report.

A group of academic experts on election administration, led by Professors Stephen Ansolabehere, Daron Shaw and Charles Stewart III, provided extensive research that was very helpful to the Commission. They conducted a national survey of local election officials that asked a series of questions related to the Executive Order. The data from that survey and their report are available at www.supportthevoter.gov. Along with Stephen Graves, Mark Pelczarski, Aaron Strauss, and Heather Smith, the academic experts also helped assemble the online "Election Toolkit," which is available through www.supportthevoter.gov and is housed at the Caltech-MIT Voting Technology Project's website. The website presents two sets of tools that election administrators can use: resource allocation tools to avoid polling place congestion and tools to assist jurisdictions in implementing online voter registration. The Commission strongly encourages local officials to examine and improve upon these online tools.

The Commission concludes this introduction with the acknowledgement of a special debt to the state and local election officials who testified in public hearings and gave generous amounts of their time and expertise to the Commission. The country's election officials find themselves second-guessed and heavily criticized when elections run into problems, and praise is not forthcoming in comparable volume — or at all — when the process runs smoothly. At the same time, these officials are all too often given inadequate resources with which to carry out this critical function. Over the months of its preparation of this Report, the Commission arrived at a renewed appreciation of how hard, diligently and effectively the vast majority of the country's election officials work to provide well-run elections for voters — and how difficult the job is. This Report reflects significant contributions from officials around the nation, and the Commission hopes that the recommendations and best practices set out here will contribute to the work ahead in making elections run still better for America's voters.

II. Setting the Stage: Background for the Recommendations

A.   Variation in Administration: "Does One Size Fit All?"

At the threshold of its work, the Commission was confronted with what multiple election administrators repeatedly described as the "one size does not fit all" problem.[3] Given the complexity and variation in local election administration, the argument goes, no set of practices can be considered "best" for every jurisdiction. Some reforms that work well in certain contexts will be unnecessary or fail in others. There is certainly merit to this position; no one can doubt the limits of nationwide reforms of the American electoral system when local institutions, rules, and cultures differ considerably.

That being said, most jurisdictions that administer elections confront a similar set of challenges. They must register voters and verify voter eligibility. They must design ballots, find people to staff polling places, and procure machinery to cast and count votes. They must arrange for the results of the votes cast on or before Election Day to be transmitted to a central election office and verified for accuracy. Jurisdictions also must comply with an array of federal requirements concerning accessibility and anti-discrimination. And even amidst the diversity of local jurisdictions, similar types of jurisdictions — by size, legal regimes, cultures, etc. — often share similar problems and can learn from each other about the best solutions to common problems.

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The recommendations in this Report are targeted at common problems shared by all or most jurisdictions. For the most part, they are of a size that should fit all. At the same time, the Report notes best practices that might apply to jurisdictions to a greater or lesser degree depending on their circumstances.

B. The Issue of Resources

The most universal complaint of election administrators in testimony before the Commission concerned a lack of resources.[4] Election administrators have described themselves as the least powerful lobby in state legislatures and often the last constituency to receive scarce funds at the local level.[5] Although local elections may occur quite frequently, issues of election administration draw the attention of the public only every two or four years. Likewise, budget authorities tend to view elections as a periodic need, not a persistent — much less urgent — one. This is despite the fact that some election functions, such as voter registration, demand continual attention, and preparation for the next election must begin as soon as the current election is over. When states and localities experience fiscal pressures, elections tend toward the lower end of the scale of priorities, behind education, public safety, and health care, to name just a few resource competitors.

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In the midst of intense competition for budget dollars, election officials often face significant difficulty in advocating for their cause. Few such officials can articulate service standards that would guide what budgets "should" be for personnel and equipment. Elected representatives who control the purse strings may appreciate what election officials want, but are less sure of what they truly need. As a result, legislators are often disinclined to spend marginal tax dollars on administering elections, as opposed to other areas of local government.[6]

C. The Technology Challenge

The question of resources will become increasingly important in the coming years as jurisdictions look to replace aging voting technology. A large share of the voting machines currently in operation was purchased with federal money appropriated pursuant to the 2002 Help America Vote Act (HAVA). Jurisdictions used that money to replace archaic punch card and other ballot technology with electronic or optical scan voting machines.[7]

Now a decade old, these systems, like much computer technology of that age, are reaching the end of their operational life.[8] Before HAVA, jurisdictions purchased voting technology on a rolling basis across the country; each year a fraction of jurisdictions were buying new voting systems. After HAVA was enacted, and in just a short window of time, most jurisdictions purchased new voting systems, upgrading from paper, lever or punch card systems to optical scan or direct recording electronic (DRE) machines. Few jurisdictions have budgeted to purchase new voting systems, often at a cost of millions of dollars. Without a comparable infusion of federal funds, jurisdictions will be on their own to replace aging machines or to alter the voting process so as to serve more voters with fewer machines.[9]

Compounding the problem is the dissatisfaction of local officials with the array of voting machines currently available — a complaint heard at many hearings. State and local election officials told the Commission that the machines available do not meet the needs (technical, operational, regulatory or otherwise) of the jurisdictions.[10] Indeed, the voting machine manufacturers themselves sympathized with their potential customers' plight.[11] However, the vendors maintain that administrative and legal obstacles currently discourage existing manufacturers (or new market entrants) from investing resources in the development of new equipment that would meet their customers' demands.

Much of the problem is the direct result of both a dispersed market with approximately 8,000 jurisdictions and the fact that the standard-setting process for new voting machines has broken down.[12] The federal standards in operation are now eight years old, and many states require by law that any voting machines used in their localities pass the applicable federal standards.[13] Newer standards (that is, a newer version of the "Voluntary Voting System Guidelines," or "VVSG") were proposed six years ago by the Tech-

nical Guidelines Development Committee of the U.S. Election Assistance Commission (EAC) and the National Institutes on Standards and Technology (NIST).[14] Such standards can only be adopted, however, by the EAC, which, due to a lack of commissioners and the related problem of disagreement over the agency's mission and past direction, cannot currently carry out this task. Some new voting technologies can be certified according to the standards developed in 2005 (or under an "extension clause" to those standards). However, the confusion surrounding the operative guidelines creates uncertainty in an area where those investing in the next generation of voting technology need greater clarity. Without a fully functioning EAC to adopt the new standards, many new technologies that might better serve local election administrators are not being brought to the marketplace.[15]

This lack of up-to-date standards has impeded the inevitable and much-needed transition of the voting process to off-the-shelf technology, such as tablets and laptop computers. Jurisdictions that use electronic voting machines usually deploy machines for a few days per year and then lock them up in storage for the rest. For cash-strapped jurisdictions that wish to keep pace with evolving technology, the purchase of hundreds of expensive, specialized pieces of hardware good for only one purpose — elections — no longer makes sense. The existing legally operational standards were developed five years before the product launch of the first generation iPad. Any firm that wishes to invest in election applications for commercial off-the shelf-tablets or computers does so in an uncertain regulatory environment. The confusion surrounding the standards has had the perverse effect of complicating the move to certification of the very technologies most current and familiar to voters.[16]

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A divide has also developed between election officials, on the one hand, and the information technology community, on the other, about the use of computer technology in elections. Concerns among the computer science community about the security of computers in the conduct of elections have led to a slow-down in the adoption of new technologies, and a continued reliance on single-use machines that are expensive and

increasingly impractical to buy and maintain. More effective vehicles for practical collaboration between technical specialists and election officials are needed for the development of voting technology that balances security concerns with a consistent focus on innovation. From the frustrations of finding adequate voting equipment technology on the market, promising collaborations have arisen in communities such as Los Angeles County, California,[17] and Travis County, Texas,[18] that may inform the setting of standards for future technologies.

D.   Addressing Long Lines— and the Standard for Judging What is "Long"

The image of voters waiting for six or more hours to vote on Election Day 2012, as in the two previous Presidential contests, spurred the call for reform that led to creation of this Commission. Research suggests that, although a limited number of jurisdictions experienced long wait times, over five million voters in 2012 experienced wait times exceeding one hour and an additional five million waited between a half hour and an hour.[19] In some jurisdictions, the problem has recurred for several presidential elections,[20] while in others, a particular confluence of factors led to unprecedented lines in 2012.[21] It became clear to the Commission as it investigated this problem that there is no single cause for long lines and there is no single solution. But the problem is solvable.

The problem of long Election Day lines, it should be emphasized, is a problem largely limited to Presidential elections.[22] Even in Presidential elections, a small share of jurisdictions and typically a small share of polling places within "problem jurisdictions" experience long lines. However, when the population of the problem jurisdictions and polling places are added up, it does mean that several million of our 130 million voters are standing in line for an unacceptably long time.

The causes of long lines are not uniform across jurisdictions that experienced them. One line may be the result of a poorly laid out polling place. Down the street, the line may be due to equipment malfunction. Across town, a strong personality conflict amongst poll workers or disagreement on process can create a bottleneck.

Although isolated incidents can cause long wait times, systemic problems can also in-

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crease the likelihood that lines will develop. Lengthy propositions and constitutional amendments can clog the ballot. Poor methodology in resource allocation or turnout forecasting can lead to shortages of staff and machines where they are most needed. Inadequate facilities or insufficiently trained poll workers can increase the "transaction time" for each voter, as can an inaccurate voter list that leads more voters to cast provisional ballots. And of course, the more limited the opportunities to vote, the greater will be the number of voters who will vote during the constricted hours of a single Election Day. All of these factors can result in stress to the foundation of the election and have a direct impact on a large number of voters.

The Commission has concluded that, as a general rule, no voter should have to wait more than half an hour in order to have an opportunity to vote.

Throughout the Report, we address issues and offer recommendations that can address the management of lines. But a key question in the first instance is how to establish the standard for what is properly deemed a "long" line. *The Commission has concluded that, as a general rule, no voter should have to wait more than half an hour in order to have an opportunity to vote.*

Of course, there will be circumstances that strain this goal, such as when a busload of people shows up unexpectedly at a polling location, or a hundred-person line of enthusiastic voters is waiting to greet the poll worker who opens the polling place in the morning. Nonetheless, local officials should be able to plan the allocation of their resources such that during the normal course of the day, nearly all voters can be processed within the 30-minute standard. Any wait time that exceeds this half-hour standard is an indication that something is amiss and that corrective measures should be deployed. Furthermore, knowing that the process will inevitably break down somewhere within a jurisdiction on Election Day — it may not be possible to predict exactly where breakdowns will happen — these corrective measures need to be developed in advance and activated as necessary to handle these situations. Excessive wait times are avoidable if the jurisdiction has undergone proper planning and develops systems to inform the responsible authorities when a breakdown occurs.

E.   Disproportionate Impacts and Enforcement of Existing Federal Law

The Executive Order directs the Commission to pay specific attention to the voting difficulties experienced by certain populations. In particular, the Commission is to take account of the problems experienced by military and overseas voters and voters with disabilities or limited English proficiency. These are populations for whom specific federal laws provide protection or assistance. Throughout its review, the Commission heard complaints from advocates for each of these groups that the applicable laws are underenforced.

Military and overseas voters raised concerns about the implementation of the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA)[23] and the Military and Overseas Voter Empowerment (MOVE) Act.[24] Great strides have been made in facilitating voting by soldiers and others overseas due to these laws. However, many voters covered by these Acts still find difficulties registering to vote, receiving their ballot in time to be voted, or having their voted ballot reach the election office in time to be counted.[25] There is inconsistency in how the states implement and administer the various stop gap measures that federal law provides to ensure military and overseas voters are registered and vote. The Federal Postcard Application (FPCA) is designed to facilitate registration and serve as an absentee ballot request by military and overseas voters, and the Federal Write-in Absentee Ballot (FWAB) serves as an emergency ballot in the event such voters never receive their absentee ballot. But states vary as to the length of time an FPCA is operable and the extent to which an FWAB also serves as a voter registration application. As described below in our recommendations, online voter registration should be pursued by all jurisdictions as a service to all voters. However, military and overseas voters represent the population most likely to benefit from increased use of the internet in the registration process.

Moreover, the Commission heard about the inconsistency of the assistance military voters receive from Installation Voting Assistance Offices tasked by federal law with facilitating voter registration for uniformed personnel.[26] In some instances, the Commission heard, these difficulties may arise from discomfort of some members of the military about getting involved with anything "political." In other instances, similar to the plight of election officials in dealing with local governments, voting assistance may

simply be considered a lower priority than the many other critical responsibilities of unit commanders. Whatever the cause, the law requiring voting assistance for military voters is clear and must be enforced.

For language minorities, the Commission heard from witnesses and experts about failures to comply with Sections 203 and 208 of the Voting Rights Act.[27] Section 203 requires language assistance in communities with large non-English speaking populations. In many instances, such required assistance, either at the polling site or in the ballot materials has not been made consistently or reliably available. Section 208 allows a voter unable to read the ballot to gain assistance in voting from a person of their choosing. Many poll workers are not aware of or do not comply with this provision of federal law.

Language difficulties can affect voter participation throughout the electoral process. If ballot materials and election agency websites are only in English, then voters with limited English will be less able to navigate the registration process.[28] Inadequate supplies of bilingual poll workers or ballots in other languages will make it more difficult for them to vote. These problems are then compounded for certain groups, such as Alaskan Native voters, who face additional logistical problems due to other forms of geographic and social isolation from election authorities.[29]

The issues language minorities face are not limited to inconsistent compliance with federal law. Of central importance is the quality of administration. Limited English proficiency voters should expect support at the polling place that is not defined by the "floor" set by law. From signage to ballots to the availability of assistance from bilingual poll workers, the administration of the polling place should reflect the understanding that limited English proficiency should not be experienced as a limited or second-class citizenship.

Disability rights groups also noted concerns with the enforcement of the relevant provisions of the Americans with Disability Act (ADA) and HAVA. They described the continued inaccessibility of many polling places and voting machines, as well as more direct impediments such as statutory bans on voting faced by those with cognitive impairments.[30] Perhaps the largest share of concerns revolved around training of poll workers and election officials. Advocates stressed the importance of training regarding legal requirements, specifically the right to receive assistance from someone of the voter's

choosing, and the operation of assistive technologies for voting.[31] In addition, they urged targeted training to educate poll workers about how best to interact and to serve voters with a variety of accessibility needs.[32]

However, the election statute most often ignored, according to testimony the Commission received, is the National Voter Registration Act (NVRA or "Motor Voter").[33] Designed to assist prospective voters by facilitating registration, the statute requires Departments of Motor Vehicles (DMVs) and public assistance agencies to provide registration materials and to ensure that their customers have the opportunity to register to vote. By all accounts, states vary considerably in the degree to which such agencies register voters and transfer registration data to election administrators.[34] (Also, as evidenced by the biennial NVRA report issued by the EAC, several states are unable to account for the source for many, if not most, of their new registrations.[35])

DMVs, which are supposed to play the most important registration role in the statute, are the weakest link in the system. Some DMVs appear to disregard the law. Others erect impediments to the seamless transfer of registration data to election offices managing statewide registration lists.[36] This noncompliance leads to preventable inaccuracies in the voter registration lists. Voters who think they registered or updated their address at the DMV show up at polling locations only to find out they are not registered or are in the wrong polling location.

The DMVs do not shoulder all of the blame; the other public assistance agencies required by the NVRA to register voters also often fail to comply with the law. Disability rights groups identified the lack of voting assistance available at state offices for the disabled.[37] Military advocates offer similar criticisms of recruitment centers.[38] As assistance agencies shift their client services to online channels, compliance with the NVRA often drops further because voter registration is left out of the online portals and website designs of these agencies.

When the NVRA was passed two decades ago, the revolution in data sharing and integration was just beginning. Now, Americans experience every day a world in which data-sharing is commonplace and expected. Indeed, the challenge of data-sharing envisioned and required by the NVRA — principally, exchanging names and addresses between agencies — pales in comparison to most modern-day data integration challenges. However, by all accounts, the root of many registration difficulties occurs at the

point where one agency receiving a registration form or updated address fails to transmit that information accurately and seamlessly with the voter registration database held by the election authority.

F.   Professionalism in Election Administration

One of the distinguishing features of the American electoral system is the choosing of election officials and administrators through a partisan process. Some are appointed and others elected, but almost all are selected on a partisan basis. Critics have argued that under this arrangement public confidence suffers, as may the quality of administration. Those who run our elections are subjected to competing pressures from partisans and political constituencies, on the one hand, and their obligation to the voting public as a whole, on the other. Defenders of this practice note that the role of elected officeholders, such as Secretaries of State, is embedded in the legal structure and long-standing practice of American election administration. They also note that these officeholders generally perform capably and with accountability under close public scrutiny.

In every respect possible, the responsible department or agency in every state should have on staff individuals who are chosen and serve solely on the basis of their experience and expertise.

Whatever the view taken of the role of elected officials, the Commission found general agreement that election administration is public administration. That means that in every respect possible, the responsible department or agency in every state should have on staff individuals who are chosen and serve solely on the basis of their experience and expertise. The Commission notes that this is often the case in departments across the country, and it is a model to which all jurisdictions should aspire.

Elected officials are well-served having professional support, and it would also bolster the voting public's confidence in the voting process. Professionalism in administration assumes particular importance in a field characterized by scarcity of resources and

increased public demand for a high quality of administration with keen political sensitivities. It is evident to the Commission that the core competencies required of today's election administrator are different from those in the past. The last decade's heightened demand for more professional administration of elections and modernization of the process demonstrates that there is an increasing need for technology acumen, public relations skills, and data savvy.[39]

Indeed, the Commission would go further and urge the integration of election administration in university curriculums of public administration. For the most part, election officials now migrate into their positions from other areas of government or political party service. Once there, certification and training programs run by Secretaries of State, state associations of clerks, or national organizations, such as the Election Center and IACREOT, become the forums for professional development. It is time that election administration is also counted among those fields for which graduate training in a professional school can constitute preparation for a career.

G.   Incorporation of Recommendations Made by Other Commissions and Organizations

Before progressing to the principal recommendations, the Commission wishes to acknowledge that it is not the first body convened to examine best practices in election administration. Since the 2000 Election, if not well before, professional organizations of election officials and those in related fields have been making suggestions for improving the U.S. election system. The Commission views this Report as building on and augmenting the important recommendations made by these other organizations in light of recent experience and data.

Because this Report seeks to focus attention on certain important reforms rather than to repeat the entire list of recommended best practices available elsewhere, the Report places in its online Appendix other documents that the Commission urges policy makers to consider. These other reports, recommendations and best practices, while useful, are of a style that focuses often on the (admittedly, very important) "trees" of election administration instead of the "forest."

First, the Commission recommends consideration of the National Association of Secretaries of State (NASS) Report on Natural Disasters[40] and the Congressional Research Service's *Hurricane Sandy and the 2012 Election: Fact Sheet*.[41] The NASS task force was created in response to the problems in the 2012 Election due to Superstorm Sandy.[42] The task force reviewed all state laws concerning elections and disaster preparedness. It highlighted best practices concerning, for example, losses of electricity and internet connectivity in polling places on Election Day, last-minute absentee voting by first responders from outside the affected jurisdiction who respond to the disaster, and plans to reschedule an election in the event the disaster makes voting impossible. Following the recommendations made by NASS would go a long way toward preparing jurisdictions for the next potential disaster that could disrupt an election.

Second, since the famed confusion concerning the 2000 Palm Beach "butterfly ballot," several organizations specializing in design have offered recommendations concerning ballots and other election materials. Working with AIGA, the professional association for design, the EAC produced *Effective Designs for the Administration of Elections*,[43] which provides important design recommendations for multiple stages of the voting process. Another team of usability experts led by Dana Chisnell, Drew Davies and Whitney Quesenbery created a series of "field guides" on a range of election-related design and usability issues. The Commission recommends consideration of the guidelines prepared in the EAC Report and the field guides.

Third, the Election Center, a highly regarded professional organization for election administrators, set forth its recommendations for election reform following the 2004 election.[44] Many of these recommendations go beyond the scope of the Executive Order and also advocate for changes in federal law. However, the Commission suggests consideration of the many recommendations concerning provisional ballots, statewide voter registration databases, electronic pollbooks, early and absentee voting, vote centers, and poll worker recruitment and retention.

Fourth, the EAC, which was created by the HAVA, has provided a series of best-practices documents concerning election administration through its Election Management Guidelines program.[45] Its publication on poll worker recruitment, training, retention and management offers important recommendations in those areas as well.[46]

Fifth, the EAC's Quick Start Guides provide a wealth of suggestions concerning most areas covered by the Executive Order.[47] The Commission urges local and state election authorities to consider the recommendations made by the EAC in these easy-to-use guides for election administration.

Sixth, the Future of California Elections project (FOCE) provided to the Commission a series of best practices recommendations, now posted on www.supportthevoter.gov. Its recommendations concerning limited English proficiency voters were particularly comprehensive and deserve recognition and consideration. As one of the nation's most ethnically diverse states, of course, California has had unsurpassed experience in dealing with voters of limited English proficiency. The Commission urges consideration of the best practices concerning limited English proficiency voters identified by FOCE.

Finally, and of a similar fashion, the National Council on Disability made available to the Commission best practices documents concerning accessibility and disability. The voluminous material includes poll worker guides, polling place and ballot design rec-ommendations, and a host of other documents describing the problems faced by voters with disabilities and potential solutions. The Commission urges consideration of the proposals contained therein, as well.

III. Recommendations and Best Practices

Against this background, the Commission agreed unanimously on the following recommendations that address the specific issues identified in the President's Executive Order.

A.   Voter Registration: List Accuracy and Enhanced Capacity

Whether the goal is ensuring that only duly qualified registered voters vote or that more people are able to vote more easily, election officials across the political spectrum recognize the value of accurate and manageable voter rolls. Yet most statewide voter registration systems aggregate county and local lists and registration records that originate on paper. With so many jurisdictions responsible for the registration lists, their quality is uneven and too many records are inaccurate, obsolete, or never entered into the system.[48] To achieve efficiency and accuracy, state and local election officials should consider incorporating the recommendations and best practices discussed below into their standard operations. All these best practices must include stringent privacy and security procedures.

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Accurate voter lists are essential to the management of elections.[49]   Keeping track is a Herculean task. On Election Day 2012, the registration system had 191.8 million records and 130.3 million voters managed by officials in 50 states and approximately 8,000 local election offices, with the lists used at 186,000 precincts.[50] The quality of the list can affect the ability of people to vote, of election offices to detect problems, and of courts and others monitoring elections to detect election fraud or irregularities. A list

with many incorrect records can slow down the processing of voters at polling places resulting in longer lines.

State, county, and local election officials face two major challenges. First, the record keeping system is largely based on outdated paper-based registration systems requiring data entry by government employees.[51] Second, 12 percent of people in the United States move every year from one residence to another.[52] This mobility, not surprisingly, leads to: incorrect information in records; obsolete information, such as changes in names or signatures; duplicate or out-of-date records, such as when a person moves but does not notify the election office; and improperly dropped records, such as when a person has not moved but is dropped from the rolls. While no single measure fully captures the "accuracy" of state voter registration lists, the latest research suggests as many as eight percent of registration records (representing 16 million people) are invalid or significantly inaccurate.[53] That figure also masks great variation over time and among states: In some states in recent years, over 15 percent of the records on the registration lists have been inaccurate.[54]

To be sure, the country is now much better off with the statewide voter registration lists mandated by HAVA. Prior to HAVA, counties were in charge of voter registration lists in most states. Voters who moved between counties, even within the same state, often appeared on two (or more) county registration lists for a considerable time.

The statewide lists go a long way toward addressing that problem, but their potential has not yet been fully realized. Local jurisdictions continue to serve as middlemen between voters and the statewide list, as they are often the repositories for forms gathered through registration drives and the like. Moreover, as previously noted, Departments of Motor Vehicles (the agency most often responsible for a voter's registration or updating of records) often fail to integrate the data they receive with the statewide list. Finally, state websites vary considerably in quality and ease of use for voters seeking to check or correct their information.[55]

Recommendation: States should adopt online voter registration.

Online voter registration is rapidly establishing itself in the states as an invaluable tool for managing the accuracy of voter rolls and reducing the costs of list maintenance. As of August 2013, 19 states have authorized or implemented a complete on-line voter

registration system, while five others offer a more limited version.[56] The significant and growing experience of these states has also allowed for examination of the results to date. The data suggest that these systems have performed to expectations and have earned high confidence among voters, as well as support among election officials across the political spectrum.[57]

The Commission received consistently affirmative assessments of the benefits that online registration can provide to the overall objectives of election administration.[58] An online voter registration system:

- reduces the high potential for error that exists with traditional paper-based systems;

- saves jurisdictions a significant amount of money;

- increases the accuracy and currency of the voter rolls, thereby reducing delays and congestion at the polling place; and

- improves the voter experience because voters get immediate feedback when they are registered or when their information (e.g., address, party, etc.) has been updated.[59]

Implementing online registration would address a range of problems the Commission was charged with examining.

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An accurate voter registration list is often a prerequisite to effective election planning and administration. A list filled with inaccuracies, likewise, produces downstream problems throughout the administration of an election.[60] With the enhanced accuracy and efficiency that online registration systems provide, election administrators are able to respond more effectively to a number of recurring challenges:

- **Lines:** Error-ridden voter rolls contribute to congestion and lines on Election Day. Voters whose information is missing from the rolls or incorrectly entered require the time and attention of officials. This necessarily delays the movement of other voters through the polling place.[61]

- **Security:** Online systems also provide additional reassurance of well-maintained, "clean" rolls that protect against the potential or appearance of vulnerability to fraud. As for any web-based system, questions about security will require close attention to ensure that unauthorized changes to voter registration cannot be made. One of the advantages of a properly run online system is that states are able to authenticate the registration immediately and provide protections unavailable in paper-based systems.[62] The voter registering online controls more directly the dissemination of the information than when entrusting forms with personal information to unknown individuals representing parties, candidates, or third party organizations. The voter usually receives an email confirmation that the registration was received and processed. Moreover, as demonstrated by the wide and growing popularity of online registration, voters seem to have confidence in such systems. This is not surprising when an increasing number of voters are using the internet to manage many core functions of their everyday lives.

- **Provisional Ballots:** In 2008, half of the provisional ballots issued to voters nationwide were attributable to problems with the rolls.[63] When voters arrive at the polling place and the poll worker cannot find their names on the list, the voters are given a provisional ballot. Errors in the registration process often cause the list inaccuracies that lead to increased numbers of provisional ballots. Such errors include transcription and data entry problems that lead to misspelling of voters' names, addresses and identifying information. Because it eliminates the middlemen between the voter and the registration list, online registration can help produce lists that lead to fewer disagreements between poll workers and voters about their registration status, and therefore fewer provisional ballots.

- **Overall Effects on Participation:** The ease of online registration makes it more certain that some types of voters will be registered, and then eventually turn out to vote. Studies of online registration show that younger voters are more likely to register when online tools are available.[64] In Arizona, registration rates increased from 29 percent to 53 percent among voters aged 18 to 24 with the adoption of an online system.[65] There is also evidence that turnout may be higher among those registering online than those who register through traditional paper systems. In Arizona in 2008, 94 percent of online registrants voted compared to 85 percent of those who registered by paper.[66]

- **Removing Barriers to Participation by Voters with Disabilities:** Systems that facilitate in-home management of registration are helpful to voters with limited mobility.[67] Online registration systems provide such convenience for voters with disabilities who, once registered, may also use those systems to update their registration records.

- **Cost:** Paper-based management of the rolls is costly and stresses an already burdened administrative infrastructure.[68] County and local election officials spend roughly one-third of their budgets on registration,[69] and the evidence is clear that online registrations provide election officials with significant cost savings over the traditional paper systems. Maricopa County, Arizona, has seen 80 cents in labor cost savings for each online registration and averages 325,000 transactions a year, while Washington State has experienced 18 cents savings per registration received and Delaware has achieved savings of $100,000 over a four-year period.[70]

- **Integration and Promotion:** Online registration allows state election authorities to partner with other state agencies and outside groups to facilitate registration. The portal to the online registration process can be housed on any state or private website. When voters register through those alternate websites, their information in the voter registration file is immediately updated. Organizations, such as Rock the Vote, have been successful in placing online widgets on various websites that facilitate the transfer of voter information to election authorities.[71]

By and large, the experience across all states appears to have mirrored that of Arizona and Washington State, which have led the way nationally in establishing and effectively implementing online registration. State officials report that overall "both the online and automated systems [have] met little resistance; some people voiced security concerns, but in time were generally convinced of the program's reliability."[72] In the majority of the states that have adopted online registration, the legislation establishing the systems has been approved on a bipartisan basis. Indeed, the relevant webinar produced by the National Conference of State Legislatures is titled "Online Registration: the Bipartisan Trend in Elections."[73]

To assist jurisdictions that have not yet moved toward online voter registration, *the Commission has placed as an example on its website (through a link to the Caltech-MIT Voting Technology Project) computer code that facilitates interaction between an outside website and a state's registration system.* Of course, creating an online registration system involves more than just copying this code, which was created by Rock the Vote.[74] But the "widget" available on the website highlights the way that voter information can be entered by a user in one setting and, through a simple platform, seamlessly integrated with a state's registration list. Such systems allow any agency or group with state authorization to provide a secure direct portal to the state's election site. Online registration, therefore, not only facilitates state agencies' efforts to register voters, but it enables outside groups to empower users of their websites to register directly into the state's system. In doing so, it reduces the chances of fraud and other irregularities of a paper-based system, in which outside groups may destroy registration forms or submit fraudulent registrations. The Commission strongly recommends not only that states adopt online voter registration, but that they do so in a way that allows secure and direct data entry by prospective voters through multiple web-based internet portals approved by the state.

Recommendation: Interstate exchanges of voter registration information should be expanded.

The decentralized nature of the administration of American elections may have its most pronounced and demonstrable effects in the registration system. Unlike other countries, the United States does not maintain a list of registered voters at the national level, let alone eligible voters or citizens. The states, therefore, are responsible for maintaining a list of "who" is registered to vote "where" in their jurisdictions. States have historically not coordinated with each other, and federal law does not require them to do so.

Consequently, the millions of voters who move between states each year often appear on more than one state's registration list.

As noted above, prior to HAVA's requirement of statewide voter registration lists, it was fairly common for an individual voter to appear on several local registration lists in different counties within a state. The extraordinary mobility of the American population has combined with decentralized election authority to produce bloated and inaccurate lists. Problems with these lists, as described earlier, make every aspect of election administration more difficult, and are also seen by some as rendering the system vulnerable to fraud.

Every effort needs to be made to facilitate coordination among the states in the development of accurate and up-to-date registration lists. States should also take advantage of other publicly available databases that indicate which voters have moved or died. All these efforts must, of course, remain compliant with NVRA rules concerning voter notification and removal from rolls. Protecting the privacy of voter data must also be a top priority. However, data-matching tools have advanced to the point where seemingly intractable registration problems can be addressed by simple coordination between the states using publicly available databases concerning "who" lives "where." Two existing projects are emblematic of these efforts.

> *Every effort needs to be made to facilitate coordination among the states in the development of accurate and up-to-date registration lists.*

The first is the Interstate Voter Registration Crosscheck Program (IVRC). Twenty-nine states have joined that program.[75] Participating states exchange and compare voting data after a federal election to ascertain whether voters in different states, sharing the same name, birthdate and other information, voted in the same election. Matched records are then forwarded to the participating states that can then cull them to see if any such matches represent attempts at double voting that should be forwarded to law enforcement. To ensure privacy, the project uses a secure FTP site that deletes all participating states' data after running the crosscheck.

The second project is the Electronic Registration Information Center or "ERIC," started by the Pew Charitable Trusts but now independently run by seven participating states.[76] States that participate in ERIC are able to check their voter registration lists against data gathered from other states and several nationally available lists, such as those maintained by the U.S. Postal Service or the Social Security Administration. ERIC provides information to participating states as to which voters may have moved (either between states or within them), which voters may have died, which may have changed their names, and which eligible voters might not be registered. It protects the privacy of voter data by anonymizing each voter's data before that data leaves a state's control, so that no birthdates or like information gets revealed in the process.

The interstate data that ERIC provides to participating states allows those states to account for ongoing changes in voters' names, addresses, and registration statuses and to prepare for upcoming elections. For the 2012 election, for example, ERIC identified more than 750,000 records of voters who appeared to have moved within a state participating in ERIC. It also identified more than 90,000 records of voters who appear to have moved from one ERIC state to another, and more than 23,000 records of deceased individuals still on the rolls. Moreover, it identified 5.7 million potentially eligible but unregistered voters in the participating states.[77]

The Commission endorses state programs to share data and to collaborate in the synchronization of voter lists so that the states, on their own initiative, come as close as possible to creating an accurate database of the eligible electorate. The Commission recommends that these programs be structured to consolidate and integrate all compatible functions. Such projects should strive to improve the accuracy of voter registration records, enhance the ability to detect ineligible voting and prosecute voter fraud, reduce administrative costs, and increase registration rates. Doing so will help achieve management efficiencies and enhance these programs' appeal to the states that have yet to join in these collaborative ventures. Thus far, programs of this kind have shown the ability to safeguard any voter information they receive.[78]

Recommendation: States should seamlessly integrate voter data acquired through Departments of Motor Vehicles with their statewide voter registration lists.

The Department of Motor Vehicles (DMV), known in each state as the agency issuing driver's licenses and state personal identification cards, plays a pivotal role in the registration of America's voters. As a critical actor in the creation and maintenance of each state's voter registration file, the DMV can also contribute to the degree of orderliness and efficiency of operation in each community's polling places on Election Day. The NVRA, enacted more than 20 years ago, mandates that each state's DMV offer an opportunity to register to vote for every citizen applying for a driver's license or state personal identification card or changing an address on one of those documents. If there is any identification document that citizens will keep current, it is the state-issued driver's license or personal identification card. Universally, this NVRA program, commonly known as "Motor Voter," is embraced across political party lines because such a wide swath of the American electorate frequents these offices on a regular basis.

Yet the data compiled biennially by the EAC reflect poorly on the efficacy of Motor Voter. Significantly less than one-third of new registrations are processed through motor vehicle departments. Only seven states and the District of Columbia report total motor vehicle department registrations accounting for more than 50 percent of the total registrations received in the 2011-2012 election cycle.[79] The low level of participation by DMVs leaves no doubt that Motor Voter is not working as intended.[80]

Delaware and Michigan have designed systems that seamlessly integrate the Motor Voter transaction into the DMV driver's license application program in such a manner as to keep a large number of voter records current and to save the DMV money in reduced staff time committed to this program.[81] The Delaware DMV Director and the Election Commissioner together developed an interface called "e-signature."[82] It began because of the number of voters who appeared at polling places believing they had registered at the DMV, but were not on the voter rolls. When citizens go to the DMV for driver's license services, they provide their information to the DMV clerk. By following a script on their computer screen, the DMV clerks now ask citizens if they would like to register to vote or update their information if they are already registered. They view their information on a screen that is also a credit card-style signature device. On that screen, voters certify that they are citizens, select their party affiliations and sign the forms. All

of this information is then transmitted in real-time to the Department of Elections for the voter's county. The election office no longer processes registration applications from the DMV by hand. All information is now entered and transmitted electronically, saving time every day and especially on Election Days.

An improperly functioning DMV can naturally lead to Election Day confusion. Voters who appear at their polling place after moving can find that their voter registration records have not been updated to conform to their new driver's license addresses. As a result, a greater number of provisional ballots are cast, leading to congestion in the polling place and unnecessary post-election verification work for county and local election officials.[83] In other states, the voters are directed to their old polling places to vote, which may be located in another jurisdiction within the state. *The Commission strongly recommends that states follow the Delaware model and adopt procedures that lead to the seamless integration of data between DMVs and election offices.*

> *An improperly functioning DMV can naturally lead to Election Day confusion.*

The Commission notes that the adoption of online registration will provide DMVs with a ready-made portal to facilitate seamless transmission of voter registration data to the election office. An online registration portal can open at a specific point during the driver's license transaction, thus providing the convenient opportunity to register contemplated by the NVRA. Indeed, with online voter registration, a registration widget or portal can be placed on any state website to facilitate registration either by a voter or an administrator who is filling in a voter's information for other purposes.

B. Improved Management of the Polling Place

Securing access to the vote depends on sound polling place management. The issues that election administrators confront in organizing and managing polling locations relate directly in one form or the other to the matters the Commission was charged with examining. The task is not an easy one. With limited resources, election administrators must have suitable and well-designed facilities, effective line management techniques, and the capacity to recruit and train poll workers.

A well-managed polling place can be the most important factor contributing to the quality of the voter experience. Effective polling place management will keep lines short and moving, keep the number of provisional ballots to a minimum, and ensure that the voting machines are working properly. Well-trained poll workers can answer voters' questions with accurate information and respond to the needs of particular communities of voters requiring special support, such as voters with disabilities or with limited English language proficiency.

Over the course of the hearings, the Commission received testimony about excellent programs in place and tested tools for assuring the efficient allocation of resources. More discouragingly, the Commission also heard about recurring problems that election administrators are expected to address without adequate support from the public or private sectors. There is a way forward however, and we have organized our discussion of recommendations and best practices around the following critical points in the management of a polling place:

- Polling place location and design

- Management of the flow of voters

- Poll worker recruitment

- Poll worker training

1.   Polling Place Location and Design

The Commission received a substantial amount of testimony indicating that election administrators are too often scrambling to identify suitable facilities to serve as polling places.[84] Not every potential location is adequate to meet the requirements of a polling location. *A polling place must (1) have room to comfortably accommodate voters, (2) provide accessibility for voters with disabilities, (3) have adequate infrastructure such as the capacity for appropriate levels of internet and telephone connection, (4) offer adequate parking, and (5) be located in reasonable proximity to the population of voters that it is intended to serve.* Because there is no such thing as a permanent polling place — it is necessarily set up only for Election Day, then disbanded and turned over to its other standard purposes — facilities generally in use throughout the rest of the year must be identified and

easily converted to their periodic electoral function. Moving polling places often leads to voter confusion and other administrative problems. Therefore, to the extent possible, election administrators hope to retain the same facilities from one election to the next.[85]

Effective polling place management requires, at the outset, that the officials understand the constraints imposed by the facility in which balloting will take place. Each facility should be evaluated to assess parking availability, the path of travel for voters to the actual polling location, and the room itself. *Local officials need to maintain a diagram of every polling place used in the jurisdiction to include at a minimum: room dimensions, location of power outlets, the proposed positioning of voting and voter processing equipment, the entry and exit routes, and signage required by the Americans with Disabilities Act.*

All such layouts should be maintained in the clerk's office, provided to the election official responsible for the polling location on Election Day, and updated before every election. These evaluations can identify where temporary measures need to be taken to guarantee that the polling place is accessible with the placement of curb or threshold ramps, compliant signage, voter call buttons, etc. Some jurisdictions, such as Jefferson County, Colorado, also include an assessment of where voter lines would form to ensure that they would occur inside of the facility so that voters are not waiting in the cold or rain.[86]

Recommendation: Schools should be used as polling places; to address any related security concerns, Election Day should be an in-service day.

With almost no exception, the testimony received from state and local election administrators identified schools as the preferred venue for polling places.[87] They have the needed and desirable space, are inexpensive, widespread, conveniently located, and accessible for people with disabilities. About a quarter of voters nationwide voted in schools in the 2008 and 2012 elections, and close to one third of Election Day voters did so.[88] Recognizing the importance of schools in elections, some states mandate or explicitly authorize their use as polling locations.[89]

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Since the tragic events in Newtown, Connecticut, some states have considered imposing additional limitations on access to schools for voting.[90] It is this concern — security — that has presented the largest obstacle to widespread use of schools.[91] Even in states where schools are authorized to serve as polling places, the Commission heard that many school districts resist using schools as polling places for this reason.[92] This resistance can even extend to cases where the schools appear obligated to make themselves available by statute, but have adopted strategies to avoid being pressed into service.

Sensitive to this issue, some state laws and jurisdictions have focused on the possible use of schools on days when students are not in the classroom. Professional training or "in service" days offer an opportunity for the schools to remain on their academic schedule. If Election Day were an in-service day, students would not be present and teachers could use the day to perform administrative functions and conduct professional training.[93]

The Commission recommends that states authorize the use of schools as polling place locations, while at the same time taking all the steps necessary to address these legitimate security concerns. In the end, there is no better alternative than schools, and there are few locations more familiar and convenient to voters. Most communities do not have adequate alternative sites for polling places. Experience in jurisdictions where schools are used as polling places suggests that if schools are made unavailable, there may be either a crisis of access or a removal of polling places from the proximity of voters. It is known that the farther a polling place is moved from a voter the less likely that the voter will turn out to vote.[94]

State legislators working with school boards and election officials should be able to craft legislatively authorized programs that effectively balance school and electoral administrative needs. The Commission strongly recommends that all states review their state laws and contemporary practices within their jurisdictions to ensure the continued and future use of schools as polling places. The Commission more specifically recommends close attention to the use of professional or in-service training days to enable voting to take place on days when students would not be on location in school.

Recommendation: States should consider establishing vote centers to achieve economies of scale in polling place management while also facilitating voting at convenient locations.

The need to increase the number of schools used as polling places is representative of a larger set of issues concerning the optimal location for polling places to facilitate voting most efficiently. One recent innovation to address this problem is the use of "vote centers." A vote center is "a polling place at which any registered [voter] in the political subdivision holding the election may vote, regardless of the precinct in which the [voter] resides."[95] Because they are intended to make voting more convenient, vote centers are often located in places that are proximate to the everyday activities of local residents, such as in shopping centers. Instead of siting polling places nearest to voters' residences, vote centers are placed along common travel and commuting routes.

Vote centers provide benefits to election administrators and voters alike. Election administrators like them because they can concentrate resources in a large location that can service multiple voters from many different precincts. Voters like them because they are often located in places where they would travel in the normal course of their day.[96] They also help to address the long-standing problem of confusion among voters about their correct precinct polling locations.[97] Polling place confusion accounts for a disproportionately high number of provisional ballots, as voters arriving at the wrong polling place cannot be offered a regular ballot.[98] County-wide vote centers also tend to be established in locations superior in capacity and infrastructure to many used for more traditional precinct locations.

Indeed, jurisdictions that conduct in-person early voting effectively adopt the vote center model, given that early voting almost always takes place at centralized locations rather than in the multitude of polling places available for Election Day. Many jurisdictions with in-person early voting have already established the internet connectivity between polling locations and a centralized database necessary to ensure immediate updating of the list of who voted to prevent double voting. For them, adding Election Day vote centers takes advantage of the early voting infrastructure and computer systems to provide voters with additional options for casting their ballot.

The testimony received by the Commission indicates that vote centers can allow for a more efficient conduct of elections through the consolidation of precincts into smaller

numbers of vote center locations and a reduction in the number of poll workers needed. In Bernalillo County, New Mexico, for example, the number of poll workers required for Election Day was reduced by two-thirds and the county realized substantial savings.[99] There is also some evidence that vote centers may contribute to increased turnout — a measure of the value to voters of having the opportunity to cast their ballots at conveniently located and adequately equipped facilities.[100]

However, vote centers are not appropriate for every jurisdiction, and election authorities need to take a number of key factors into account if and when they transition to them. An insufficient number of vote centers or insufficient staffing and resources could increase, rather than decrease, voter wait times.[101] Moreover, if they are inconveniently located, as compared to neighborhood polling places, any turnout benefit may not be realized and indeed, turnout could decrease. Such considerations are especially important for populations that must use public transportation to reach their voting location. The value of vote centers will depend on residential and transportation patterns. The decision on whether to transition to vote centers will often turn on whether more voters can be better served through large, highly-resourced and conveniently located polling locations or whether a larger number of smaller, traditional polling places can better meet voter needs.

2.   Management of Voter Flow

Even with adequate facilities, election officials must efficiently allocate resources. They must position staff and voting machines at polling locations to provide an optimal flow of voters and to minimize the possibility of long wait times. The Commission heard extensive testimony on different techniques that administrators have used to accommodate the flow of voters without the risk of long lines.[102] It also heard from industry leaders about innovative ways they have dealt with long wait times.

For example, many jurisdictions employ "line walkers" to address potential problems among voters before they reach a check-in station where their registration is verified. Doing so allows polling place officials to identify and resolve problems before voters reach the first choke point in the voting queue. Line walkers can identify, for example, which voters on line might be at the wrong polling place, have a problem with their registration, or need to cast a provisional ballot. Identifying such voters as early in the process as pos-

sible ensures that their problems will not result in congestion at the check-in station where research suggests most election lines develop.[103]

Other jurisdictions seek to give voters better information on line length before they go to the polling place, so they can plan accordingly. For example, Orange County, California, and Travis County, Texas, issued internet feeds on Election Day that described wait times at specific polling places.[104] Especially in jurisdictions with vote centers where any voter in the county can vote in addition to their polling place, this kind of publicly available information can help spread out the flow of voters to alleviate congestion.[105]

The private sector employs other techniques to deal with long lines. Whether in restaurants or theme parks, customers are quite familiar with the notion of "taking a number" or "making an appointment" instead of waiting in line. By analogy, voters could be offered a "virtual wait" and an opportunity to spend the "wait time" elsewhere — running errands, or having lunch — with the assurance that upon returning to the polling place, they would be able to cast their ballot promptly. Voters judged to be in line at the point that they would experience an hour's delay prior to voting could be issued cards with a proposed time of return.

> *The private sector employs other techniques to deal with long lines . . . . Voters could be offered a "virtual wait" and an opportunity to spend the "wait time" elsewhere.*

They could then leave the polling place or the line, should they wish to do so, and return at the appointed time and move through an expedited or special line to vote. This tool would be beneficial for the voters who remained in line as well as those who took advantage of this offer. Lines would be shorter, and the speed and comfort of voting is sure to improve the experience. Additionally, if the polling place had sufficient space, voters could "take a number" when they arrive, and then wait at a central location with chairs until their number was called, rather than having to stand in a long line.

To be sure, there are imperfections in the analogy between lines at the polls and those at places of business. Voters waiting in line might not be too thrilled to see those with pre-appointments to vote pass them by. Moreover, any favorable treatment in the vot-

ing process due to skill in navigating new procedures might be seen by some as troublesome. As these practices have not yet been adopted by jurisdictions, the Commission would not describe them as "best practices" yet. Pilot programs should be considered that take the lessons learned from industry and apply them to the polling place.

Queuing theory, developed to deal with problems of industrial organization, however, can be helpful in identifying analogous phenomena in the polling place. Literature on that topic emphasizes that lines form when large numbers of people arrive at the same time, when there are too few points of service, and when the transaction time takes too long.[106] Drawing on such literature, experts who testified before the Commission emphasized the stages in the voting process that bear on wait times:

> **Check-in**: The first stage includes the check-in station when voters identify themselves to the poll worker who checks their registration status. At this stage their identification or signature can be checked. If the jurisdiction uses paper ballots, one is given to the voter at this time. Research suggests that most voters who experience long wait times did so at this stage.[107] The factors generating wait times at this stage include inadequate numbers of poll workers, pollbooks, or check-in stations, as well as poor design of polling places and the inaccuracy of registration lists. High rates of provisional ballots can also lead to longer lines, as voters and poll workers attempt to address confusion regarding a voter's registration status and to provide the appropriate ballot.

> **Voting Station Entry:** The second stage begins after check-in when voters wait for a machine or privacy booth in order to mark their ballot. Here, inadequate supply of such machines or booths can lead to lines as voters wait for one to become available. The length of time it takes a voter to cast a ballot will affect wait times upstream in the process. The factors affecting how long it takes a voter to vote include the length and complexity of the ballot, the preparation and sophistication of the voter, and the functionality of the voting machine.[108]

> **Ballot Casting:** Finally, for jurisdictions that rely on scanned paper ballots for in-person voting, the process of verifying and depositing a ballot can impose delays that migrate back upstream, particularly when ballots are more than one page.[109] In jurisdictions with multiple ballot cards, bottlenecks can form at the optical scan machines and cause delays.

Whether the necessary resources include polling places, poll workers, tables, pollbooks, privacy booths, or voting machines, the problem of long lines is principally a problem of the deployment of resources.[110] If the "one size does not fit all" slogan has any validity in addressing the problem of lines, it is this: local jurisdictions deploy a variety of different equipment to meet their functional demands, and they face a variety of different constraints in terms of the facilities available for voting. Proper deployment of resources in a particular precinct requires detailed planning and knowledge of expected voter turnout, average service times at check-in tables, and the likely flow of voters at peak times throughout the day.

Thousands of service-related businesses across the country deal with similar challenges each day. General knowledge about how to meet these location-specific challenges is well known in the fields of industrial engineering and management science. The challenge is marrying more completely these common management tools with the election process.

If a jurisdiction either does not have sufficient resources or does not devote them to its voting process, then lines can form. Research shows that voters in a small number of states (or localities within states) persistently endure long lines.[111] In these states, a top-to-bottom review of resource allocation and standard operating procedures may be in order. However, for the most part, the problem of long lines usually only afflicts a limited share of the polling places within a county.[112] This suggests that more often, it is the allocation of resources between polling places, rather than the total resources available, that causes long lines. In these cases, local jurisdictions may need to reconsider how resources are allocated, or how the addition of well-targeted resources could ameliorate the bottlenecks that do arise.

Although insufficient resources or their misallocation may be the primary and most obvious reasons for long lines, other factors can also play a significant role in delaying the voter. Statutes that require large numbers of voters to cast provisional ballots slow down the voting process.[113] Inaccurate voting rolls increase the number of unregistered voters or voters in the wrong polling place who must be processed. Polling place changes can also cause lines if voters' confusion leads many to show up at the wrong location.[114] Finally, poorly trained poll workers can drastically slow down the voting process.[115]

Nothing is more important to the success of an election than planning. In most jurisdictions, it is very difficult to make many adjustments to address issues that arise on Election Day, so the validity, accuracy and detail of the plan is critically important. *Planning for an Election Day begins with assessments of the number of registered voters and predictions as to how many of these voters will turn out during the early voting period and on Election Day.*[116] These predictions require accurate data concerning past turnout, as well as the historical pace of registration for past elections. If the jurisdiction is blindsided by the number of voters who show up at the polls, and cannot accommodate unplanned turnout, then long lines will occur. Many allocation decisions need to be made a half-year in advance of an election. *However, the best-prepared jurisdictions react to data gathered in the critical three-month period prior to an election when the factors affecting turnout are most relevant.* In that period the registration lists change considerably and the jurisdiction can learn what share of the voting population is using alternative means of voting, such as absentee ballots.

Predicting turnout is the beginning, not the end, of the process of preventing long lines. Jurisdictions must decide how to allocate their scarce resources between polling places on Election Day and during any applicable early voting period. *To estimate how many poll workers, machines, and voting stations are needed on Election Day, jurisdictions must pretest their ballots to gauge the time it will take an average voter to vote the ballot.*[117] If a voter takes 10 minutes to vote a ballot and the balloting period for a day is twelve hours, for example, then a maximum of only 72 voters can be served on any given voting machine in a day. Similarly, at the check-in station, if it takes three minutes for a poll worker to check in an average voter, then only 20 voters can be checked in per hour, per poll worker. Service times such as these can be estimated by conducting actual pretesting of all aspects of the election under simulated conditions prior to Election Day. Of course, administrators must plan for peak traffic periods and not make the mistake of assuming that voters will apportion themselves evenly throughout the day. The number of voters a machine can theoretically serve if used during an entire day, for instance, is irrelevant if most voters arrive at the polls during a compressed four-hour period.[118]

There is much that states and localities can do to reduce wait times. Most obviously, increasing the number of voters who vote before Election Day can relieve Election Day traffic.[119] However, some states that have adopted in-person early voting have simultaneously reduced Election Day polling places, leading to no net gain from the standpoint of Election Day administration.[120] Even during the period of early voting, moreover,

states must plan for increased turnout. Although voters appear to have a greater tolerance for waiting in line during the early voting period (since they chose to come at that particular time), wait times, on average, were higher in 2012 during early voting than they were on Election Day.[121] Therefore, election officials not only must plan for the glut of voters who wish to vote early, but also must ensure that sufficient resources remain to keep lines short on Election Day. Many states, therefore, limit by statute the number of registered voters per precinct to ensure that polling place consolidation or population growth over time does not lead to turnout that overwhelms polling place capacity.

Well-informed voters can also help reduce wait times. An uninformed voter who sees the ballot for the first time in a polling booth will take longer to vote than one who comes prepared to vote having viewed a sample ballot either on a state's website, through the news media, or perhaps in a mailer. *The sample ballot should be available to all voters no later than the beginning of in-person early voting or three weeks prior to Election Day.* Voters can then have the ballot in hand and the opportunity to make up their mind before entering the polling place. *Moreover, if the law allows, states should reduce the length and complexity of the ballot in Presidential Election years (which are generally the elections in which we experience long lines) to ensure that voters can vote more quickly.*[122] The jurisdiction should also provide voters the information they need, such as polling locations and hours, ballot and candidate information, absentee and UOCAVA ballot information, registration deadlines, and voter identification requirements. The easier it is for voters to obtain election-related information, the more likely they will show up at the correct polling place informed and ready to cast their ballot.

Systems that allow voters to mark a sample ballot prior to Election Day can also reduce the time a voter spends at the polls. In fact, technology now could allow a voter to fill out and download a sample ballot at home. A voting machine can then scan the sample ballot (or its barcode) so as to populate the ballot on the screen for the voter to verify his or her choices. The voter could still make changes to the ballot in the privacy booth, of course. However, a significant amount of the voter's time could be saved by reading the sample ballot and making choices before casting the final ballot itself in the voting booth.

Before experimenting with particular innovations to address long lines, jurisdictions must plan for the pace and volume of voters throughout the voting period. Every election official who is responsible for allocating a jurisdiction's limited voting resources (ballots, voting booths, voting machines, voter check-in tables, pollbooks, qualified election workers, etc.) to polling locations must be able to predict how many voters will show up and how long they will take to vote. This knowledge is required to allocate voting resources efficiently to polling locations and to determine prior to the election if sufficient resources are available or if lines will be an issue due to a lack of resources. While most election officials do this to some degree, testimony showed that some do not. Lines were simply anticipated as part of the election process.[123]

Recommendation: Jurisdictions should develop models and tools to assist them in effectively allocating resources across polling places.

To assist local jurisdictions in planning for the logistical challenges facing them on Election Day, *election officials need greater access to industrial engineering tools that are regularly employed to help manage customer service queues*. We can imagine a number of models for developing richer collaborations between industrial engineers and election officials. In some larger counties and cities, local governments may already employ the needed talent, so the issue may be one of developing inter-agency agreements to allow industrial engineers to consult with the election department as needed. Another model may be collaborations between election offices and universities. Land grant universities particularly would be the logical starting points for such collaborations in many states.

Although we sense a pressing need for a major effort to be made to foster a higher level of engagement between election officials and industrial engineers, important first steps have been taken to develop simple computer applications that demonstrate the value of industrial engineering tools in managing resource allocation for in-person voting. These resource calculators enable administrators to plan for efficient Election Day operations by judging the resources needed to accommodate the projected traffic through the polling place.[124]

To aid jurisdictions in making such calculations, the Commission identified examples of resource allocation calculators to illustrate the types of models jurisdictions can use to better allocate resources between their polling places. None of these is a universally

applicable model for all types of jurisdictions; however, they stand as examples that jurisdictions can modify to suit their particular circumstances. The Commission, having heard impressive testimony on the models now available, is publicizing them and strongly recommending their use. *The Caltech-MIT Voting Technology Project is now hosting these models on its site, and are available through a link from www.supportthevoter.gov. The Commission urges the further development and tailoring of* these tools so that they can be adopted across the widest range of jurisdictions.

> *The Commission, having heard impressive testimony on the resource calculators now available, is publicizing them and strongly recommending their use.*

To be clear, the Commission is not recommending the use of resource calculators as certain solutions to polling place lines. They are tools that, prior to the election, allow the administrator to allocate limited voting resources most effectively based upon predicted turnout and expected time required for voting. Together with other sound polling place management practices, these tools can help ensure that a polling place quickly processes the volume of voters who will pass through on Election Day. They are guides, not answers, but indispensable guides nonetheless. Any kit of best practices would have to include these resource calculators, which, in turn, will continue to improve with experience and further development. It is the hope of the Commission that these models will serve as springboards for better models, adapted and refined for the particular circumstances of individual jurisdictions.

Such calculators, however, are only as good as the data entered into them, and they can only be improved if their predictions are evaluated after each election. Addressing long lines requires systematic procedures to spot when and where long lines occur. *Keeping track of wait times at individual polling places can be done using simple management techniques, such as recording line length at regular intervals during Election Day and giving time-stamped cards to voters during the day to monitor turnout flow.*

After each election, moreover, jurisdictions must evaluate and account for any lines that were reported. *In polling places with a history of long lines, local election officials should*

analyze the reasons for excessive wait times and develop plans based on that analysis for avoiding the problem in the future. The Commission further recommends that, in the interests of coordination and communication among all responsible election officials, the local officials should provide copies of these plans for remedying line problems to the relevant chief state election official.

Recommendation: Jurisdictions should transition to electronic pollbooks.

Numerous witnesses before the Commission testified to the extraordinary value that they have derived from the use of electronic pollbooks.[125] An e-pollbook is an electronic version of the paper pollbook. It is simply a list of eligible voters in the relevant jurisdiction, which traditionally has been organized alphabetically or by address of the voter. The e-pollbooks provide poll workers with the ability to locate a voter's information quickly and accurately, to confirm a voter's registration status, and to prescribe the appropriate ballot. The e-pollbook provides greater flexibility to those who are checking in people to vote, compared to the traditional paper list. In some cases, the e-pollbook has real-time access to the county or state voter list, which allows poll workers even greater flexibility in dealing with voter registration problems that emerge on Election Day.

E-pollbooks can make a singular contribution in resolving registration problems at check-in stations. Preprinted paper pollbooks only contain the names of voters eligible to vote in a specific precinct. If the voter is in line for the wrong precinct or in the wrong polling place and reaches the front of the line, the election worker with the paper pollbook cannot resolve the issue. Thus, the voter must be removed from the line until the issue is resolved—often by contacting the central election office, which may be overwhelmed with other calls. Even in the best of circumstances, the voter is inconvenienced and the capacity of the central election office is taxed.[126]

> *E-pollbooks can make a singular contribution in resolving registration problems at check-in stations.*

E-pollbooks significantly reduce this burden.[127] Some newer implementations of e-pollbooks give poll workers the flexibility to "walk the line," to make sure that those

waiting in line are registered to vote and at the correct polling place. If not at the correct polling place, they can then be directed to the right one. If they do not appear to be registered, these voters can then be taken out of line well before reaching the check-in station, so that their registration-related problem can be solved without holding up the rest of the voters.

E-pollbooks benefit election officials as well as voters. They can help to reduce poll worker errors frequently associated with paper-based voter check-in processes. Poll workers sometimes fail to check-in voters, distribute the wrong ballots, or send voters to the wrong polling place. E-pollbooks can help mitigate, if not solve, each of these problems. E-pollbooks can also be instrumental in gathering data on wait times and traffic, as they can keep track of when voters arrive and check-in. These data can later assist election officials in planning for peak flow times throughout the day. Finally, e-pollbooks can save money otherwise spent each election on the generation of thousands of pages of voter rolls. It is no wonder then, that in the national survey of election officials, e-pollbooks was one of the most frequently identified innovations that respondents desired.[128]

3.   Poll Workers

Poll workers represent the primary point of contact with the electoral process for most voters. Effective polling place management requires personnel on location who are well-trained and able to work on what will ultimately be a long and grueling Election Day.[129] They must administer the polling place and provide information as necessary to the voters. One of the signal weaknesses of the system of election administration in the United States is the absence of a dependable, well-trained trained corps of poll workers.[130] Workers report for duty only a few days a year, possibly as infrequently as once. The days are long and the pay is low. Training is spotty and often consists of no more than a couple of hours.[131] The quality of training in approximately 8,000 election jurisdictions varies markedly.[132]

Because many citizens who might otherwise volunteer for poll worker duty cannot take the time off from work, the responsibility falls throughout the United States predominantly on senior citizen volunteers. Surveys show that just under half of the community of poll-workers is retired, and that more than half of poll workers are older than 60.[133]

A survey of local election administrators on the issues specified in the President's Executive Order identifies poll worker shortages as one of the leading concerns.[134] The Commission heard consistent testimony that effective poll worker recruitment, training and staffing are among the most important factors in determining the quality of the voter experience. There is evidence to this effect in studies that show that voter satisfaction and confidence correlate with positive appraisal of poll worker performance.[135]

a.　　　Recruitment

Recruitment of poll workers is a persistent challenge. Election administrators surveyed on the point report considerable difficulties in locating dependable poll workers; across states, large numbers of officials reported that recruitment is "very" or "somewhat" difficult.[136] Several steps could be taken immediately to significantly address the undersupply of poll-workers. *The Commission recommends that election administrators consider the many recommendations made available in the relevant EAC report, Successful Practices for Poll Worker Recruitment, Training and Retention.*[137] The Commission wishes to highlight and recommend two policies in particular: the recruitment of high school and college students and the recruitment of employees from the public and private sector.

Recommendation: Jurisdictions should recruit public and private sector employees, as well as high school and college students, to become poll workers.

Finding a sufficient number of capable poll workers with the free time to work on Election Day can be one of the most difficult challenges election officials face. Retirees are, therefore, a natural resource to draw upon to fill the need. However, jurisdictions facing shortages need to diversify the population pool from which they draw poll workers. To do so will require cooperation from schools and other private and public entities.

However, jurisdictions facing shortages need to diversify the population pool from which they draw poll workers.

Jurisdictions that allow students to work at polling places have generally found that the practice is an effective way to have sufficient staff on Election Day and to expand the future pool of poll workers.[138] Half of the states already allow 16

and 17 year olds to work at the polls.[139] For credit or other recognition, these students are given Election Day off from school (if school is in session) to serve at polling places. With systematic attention to creative programs for encouraging student participation, the pool of available support for poll working could be significantly expanded. As an exercise in civic education, certainly, this alternative has much to be commended.

In recent years, some programs have also been instituted to encourage employers to make opportunities for poll worker service available to their employees.[140] Two states provide by law that employers must afford their employees these opportunities without penalty. *Other states have developed programs to recognize employers for supporting those employees who wish to work on Election Day.* Examples include the "Champions for Democracy" program in Franklin County, Ohio,[141] and in the Kansas City metropolitan area, "Making Voting Popular."[142]

The Commission recommends that each state establish or upgrade programs for encouraging employee service at the polls. State statutory authorization has the evident virtue of clearly setting out state policy in this regard and guarding against the possibility that employees wishing to serve will be discouraged by fear that they will suffer penalties in the workplace. In the end, however, the success of these programs depends on broad community support, including recognition of both the employee's service as a poll worker and the employer's willingness to give the employee the day off for that service. Beyond mere statutory authorization, voluntary initiatives of this nature may establish these programs more firmly within the communities these poll workers serve. Taken together, recognition at law and informal recognition in the community have the combined potential for adding appreciably to the number of poll workers prepared to serve on Election Day.

The public sector also has a significant contribution to make through the encouragement of poll worker service by county employees. County employee participation is authorized and encouraged in some jurisdictions, but not in others. The Commission recommends that jurisdictions throughout the country study and adopt various ways of bringing the county workforce in to support the electoral process. We recognize that certain safeguards might be appropriate, such as disallowing county employee poll worker service if the official to whom they report is a candidate on the ballot. However, for most county employees a day of service as a poll worker does not pose challenges different than those faced by private sector employees.

b.   Training

Election administrators must also contend with the difficulty finding adequate time and resources for the training of poll workers.[143] As noted, poll workers are paid little and some show up only for the days on which elections are held. Their availability for training is necessarily limited, and high rates of turnover in some jurisdictions lead to losses of institutional memory from one election to the next.[144]

Given the variety of tasks facing modern poll workers, different poll workers may require different skills. Together, however, the team of poll workers can determine the quality of the voting experience in the polling place. Depending on their familiarity and facility with the check-in process, poll workers can be the critical determinant of the length of a line. Similarly, poll worker familiarity with the voting equipment, especially with features designed to make machines accessible, can determine in the most basic way whether a voter can cast a ballot.[145] Finally, poll workers unaware of various legal requirements, such as those governing provisional ballots, may unintentionally turn away eligible voters.

Poll worker training programs vary widely among jurisdictions and are not generally rigorous or thorough.[146] On average, poll workers receive two-and-a-half hours of training.[147] However, many receive such training only once, while others are retrained for each election. In some cases, the teaching mode is interactive and may include Election Day simulation, while in others it is primarily "lecture" style.[148] A few jurisdictions evaluate poll worker progress in mastering the information, but not all do.[149] Even fewer evaluate poll workers to determine if they can perform their Election Day responsibilities. Given the scarcity of poll workers, many who fail at the most basic tasks are nevertheless retained for Election Day.

> *Poll worker training programs vary widely among jurisdictions and are not generally rigorous or thorough.*

Recommendation: States should institute poll worker training standards.

The Commission strongly recommends that states prescribe statutorily required training regimens and allocate the resources necessary to give those programs the chance to succeed. Online coursework presents a fresh opportunity for more intensive training and can include mechanisms for feedback and evaluation. Working with the state's colleges and universities, election officials can avail themselves of the growing capacity to design and deliver highly effective online courses that go well beyond traditional online and video classes of the past. By taking programs online, jurisdictions can save money and make training materials and interactive tools available to poll workers on a virtually continuing basis.

Because of the variety of voting systems that may be used in a given state, counties may be best situated in some states to train on the specific equipment used in their jurisdictions. *States could support the counties by preparing a template that permits each county to further customize the program suitable for their training purposes, while still achieving uniform application of the state's legal standards.* There are examples, such as in the state of Michigan,[150] or Dallas County, Texas,[151] where significant time and attention has been paid to the development of online training programs that, the Commission was advised, have proven effective.

4.   **Management of the Polling Place to Address the Needs of Particular Communities of Voters**

The President's Executive Order identifies among the issues the Commission must consider problems of accessibility faced by voters with disabilities and with limited English language proficiency. As mentioned in the introduction, the Commission believes that the needs of these voters must be considered at all stages of the electoral process. Indeed, just as election authorities should "bake in" accessibility to each aspect of election administration, this Report attempts to do so by not limiting its discussion of such needs to a separate section. That being said, polling place management presents a range of issues concerning voters with disabilities and limited English proficiency that a discussion of some specific best practices may be necessary.

Recommendation: Election authorities should establish advisory groups for voters with disabilities and for those with limited English proficiency.

As a threshold matter, an election official must work with community groups in order to understand the needs of voters with disabilities and limited English proficiency, as well as to gain assistance and advice as to how to meet those needs. Advisory groups from these communities can play a critical role in fostering cooperation between their members and the election authorities. Their advice is also indispensable as an election authority makes decisions on resource allocation to accommodate accessibility concerns.[152]

Advisory groups play a critical communication function as well. When election authorities need to inform voters with accessibility needs of the resources available, advisory groups can serve as a conduit between their members and the election authorities. *Election authorities must make every effort through their own websites and traditional communication outlets (especially through non-English media) to reach voters with accessibility needs.* However, sometimes the advisory groups through their email lists, websites and communication modes specifically tailored to those with accessibility needs can partner with election officials to reach voters more easily.

Advice from these groups can be particularly useful when it comes to training poll workers and managing polling places. The Commission heard on several occasions how poll workers were poorly trained to deal with voters with accessibility needs and how polling places and election materials were not designed with these needs in mind. If the relevant groups are brought in early enough into the decision-making process, many of these concerns regarding poll workers and polling places can be alleviated.

a.   **Voters with disabilities**

The population of voters with disabilities is large and growing.

The population of voters with disabilities is large and growing. Roughly 35 to 46 million Americans of voting age — amounting to one in seven potential voters — have accessibility needs.[153] The share of the voting population with disabilities will also grow considerably as the Baby Boomer

population ages. Issues of voting and accessibility, therefore, are not ones for a discrete subset of the population. Rather, they are issues that many, if not most, voters may experience at some point in their lives.

Recommendation: States and localities must adopt comprehensive management practices to assure accessible polling places.

Federal law requires that all polling places be accessible to voters with disabilities in accordance with the Americans with Disabilities Act. The Civil Rights Division of the Justice Department has published a pamphlet and checklist (http://www.ada.gov/votingchecklist.htm) that can and should be used to ensure each polling place is accessible to voters with disabilities. *The responsible election official should keep the completed checklist for each polling place on file in the office, and it should be updated before each election.*

For voters with disabilities, the first question is one of physical access, both inside and outside the polling place.[154] Outside the polling place, impediments to access present in a variety of ways, such as parking lots and spaces located far from the polling place, and a lack of navigable space between the parking lot and the polling place entrance.[155] *Within the polling place, elderly voters and voters with disabilities waiting their turn to vote must have access to chairs while waiting and then, when their turn to vote comes, to the machinery.*[156] Corridors and doorways must be wide enough for wheelchair ramps in the location, and the voting machines must not be set too close to a wall and must otherwise be reachable.[157] Over time, the Government Accountability Office has found that significant improvement has been made in the accessibility of polling places. But additional improvement is still required.[158]

Testimony on this issue highlighted the importance of ensuring that poll workers are trained on how to interact with voters with disabilities and how to configure and operate the equipment.[159] Training films already developed by both election officials and organizations representing voters with disabilities are also available on the internet. *The Elections Department of the County and City of San Francisco has provided an extremely helpful video guide[160] to setting up an accessible polling place and the Pennsylvania Department of State has an equally helpful video guide for poll workers to educate them about voters with disabilities.*[161] *The Commission regards them as models that other jurisdictions should emulate.*

Recommendation: States should survey and audit polling places to determine their accessibility.

States must routinely audit their polling places to determine their accessibility. Polling places change with each election: some are removed due to consolidation, new ones might be added, and others' architectural features may change. Moreover, as states shift to alternative modes of voting, such as vote centers and early voting locations, or change their voting technology, new accessibility concerns may arise and need addressing. Only a routine audit that evaluates polling places for accessibility can ensure that state authorities are kept up to date about any problems in polling place design affecting voters with disabilities.

The Wisconsin Government Accountability Board performs a survey and audit of polling places that stands as a model. Its *Polling Place Accessibility Survey*[162] asks a series of questions regarding parking, pathways, entrances, interior routes, and voting areas. The Board's 2013 Report[163] was derived from 1,614 polling place audits conducted over the course of 16 elections, which required the visiting of 921 municipalities located in 66 Wisconsin counties. The audit was comprehensive and identified shortcomings that deserved attention. Following the audit, localities then worked to address the problems the audit revealed.

b.   Voters with limited English proficiency

Voters with limited English proficiency confront a range of barriers in voting. According to census statistics, approximately 10 million citizens of voting age do not speak English "very well."[164] Language barriers may prevent effective participation at each stage of the voting process: navigating an election website, learning about the registration process, registering to vote, gaining information about the election (sample ballot, polling place location and hours, etc.), navigating the polling place, interacting with poll workers, and finally, casting a ballot. Election authorities must be aware of the challenges faced by voters with limited English proficiency and adapt their communications accordingly.

> *Language barriers may prevent effective participation at each stage of the voting process.*

As noted in the introduction, sections 203 and 208 of the Voting Rights Act provide a series of protections for voters of limited English proficiency. If a language minority exceeds five percent of the voting population of a jurisdiction, it must provide election materials and polling place assistance in that language. Even for voters outside of jurisdictions meeting that threshold, however, voters with difficulty reading English are entitled to voting assistance from a person of their choosing. Compliance with these legal requirements varies considerably by jurisdiction and by polling place. As elsewhere, the Commission urges strong enforcement of these existing federal laws.

Recommendation: Jurisdictions should provide bilingual poll workers to any polling place with a significant number of voters who do not speak English.

A serious problem highlighted throughout the Commission's review of the barriers to access faced by limited English proficiency voters was the inadequate supply of bilingual poll workers. Once again, where adequate assistance is not available at the polls, errors in communication can lead to logjams that contribute to problems such as lines.[165] The Commission recommends that election officials develop and implement plans to work with members of minority language groups in their jurisdictions to address the issue.

As in the case of voters with disabilities, poll workers must exhibit an understanding of the specific issues that limited English proficiency voters face. No voter, for any reason, should be made to feel unwelcome or in any way a "second-class" citizen. To have personnel on hand, properly trained, who can speak the language of the voter is indispensable to establishing a polling place that runs appropriately and treats and supports all voters alike. Election administrators must consider the number of workers necessary to accommodate the language minority population. The should also ensure that poll workers hired to provide language assistance have the necessary skill set to do so effectively and should provide them with all of the tools necessary to be successful. The EAC has published glossaries of election terminology in many languages that can be invaluable in establishing an effective program.[166]

The Commission believes that this recommendation might be considered, and its objective satisfied, in conjunction with its emphasis on the importance of opening up more successful channels of poll worker recruitment in our educational institutions.

Students with bilingual capabilities could be recruited and given credit for their service. The same could be true for bilingual teachers in the school system, who can be a critical resource both for recruiting students and serving as poll workers on Election Day.

Recommendation: Jurisdictions should test all election materials for plain language and usability.

Even in jurisdictions without large non-English speaking populations, steps should be taken to address the barriers that language can place in front of limited English proficient voters. Voting materials and ballots are notoriously complex and difficult to read for all voters. Often this is the fault of an election code that heaps one requirement onto another without consideration for the physical limits of a printed page or the attention and capabilities of a voter. Such laws need to be reformed, but even acting within those constraints, election officials should adapt their materials to make them as easy as possible for voters to understand.

The Commission urges jurisdictions to engage in usability testing of their voting and polling place materials, with particular attention to adopting "plain language" guidelines.[167] Forms and notices that may seem clear to one schooled in the procedures of a polling place will be difficult for many, if not most, non-experts to comprehend. All materials and designs need to be tested before an election to ensure that voters of varying proficiency with English can understand them. This includes not only native English speakers and those who speak foreign languages, but also those with cognitive challenges who can often be confused by directions written in a bureaucratic language.

C.   Voting Before Election Day

Voting in the United States has undergone what has been described as a "quiet revolution" in the expansion of the time allotted for voting.[168] Nearly a third of voters in the 2012 Election cast their ballot before Election Day, more than double the rate of the 2000 election.[169] Of the more than 47 million Americans who cast ballots early in 2012, 29 million were cast by mail and 18.5 million early in-person.[170]

Whatever the form and design of in-person or mail voting in any one state, the trend toward increasing the time period for voting is certain to continue. Stated simply, early voting offers Americans opportunities to participate in the electoral process that simply

cannot be afforded by the contained twelve-hour period of the traditional Election Day.

Election officials from both parties testified to the importance of early voting in alleviating the congestion and other potential problems of a single Election Day.

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Early voting takes several forms and the type of early voting available varies considerably by region. In the West, vote-by-mail and no-excuse absentee voting predominate, with Washington and Oregon running their elections exclusively by mail. In 27 other states and the District of Columbia, no-excuse absentee voting is available.[171] In some, such as Arizona, California, Colorado, District of Columbia, Hawaii, Montana, New Jersey, and Utah, a voter can permanently register as an absentee voter. In 32 states plus the District of Columbia, some form of early in-person voting is available. Although available in Western states, it is used with greater frequency in the South.[172] In addition to these two paradigmatic forms of early voting, many hybrids also exist, such as where voters can apply for, vote and drop off their absentee ballots at a county office, an early voting site, or at a polling place on Election Day. Indeed, the state of Oregon has "all mail" elections, but 60 percent of their ballots are not returned by mail, they are dropped at drop-boxes provided for voters across the state.[173] Some states also allow for what is cryptically named "in-person absentee voting," where a voter can obtain and cast an absentee ballot before Election Day at an election headquarters with the ballot then tabulated along with all the other absentee ballots received.

The testimony received by the Commission uniformly reflected the view that Americans will continue to expect choices in when and how they can vote prior to Election Day. Some states have proposed legislation to limit the length of time during which in-person early voting would be available. However, in most states discussions concern how early voting should be structured, not whether it would be offered at all. Variations remain in the formats provided for early voting. Some states still require excuses for absentee voting by mail, while Oregon and Washington provide for all-mail elections.

In-person early voting is also characterized by diversity. Early voting states, on average, provide 19 days for voting. But that average does not reflect the considerable variation among states in the number of days, which days, and which hours early voting is available (whether it includes the weekend before the election, for example).[174]

The Commission recognizes that each form of early voting has its critics. Some criticize the practice, in general, for permitting voters to cast ballots at different stages of a campaign with different levels of information about the candidates. In-person early voting, in particular, is criticized because it requires more extensive staffing both for the election authority and the campaigns that monitor polling places. No-excuse absentee voting and vote-by-mail, moreover, often lead to errors in balloting on the part of the election authority or the voter. Ballots can be lost in the mail (either in delivery or return), they can be mailed out or received too late for timely voting, and voters occasionally make mistakes in complying with various signature and other requirements that make an absentee ballot legal. Fraud is rare, but when it does occur, absentee ballots are often the method of choice.[175] Finally, absentee ballots are usually paper ballots, and are therefore not accessible to many persons with disabilities, such as those with visual or dexterity challenges.

What does emerge from evidence about the experience of voters is that their tolerance for wait times is considerably higher with early voting. Having chosen the day and time for voting that is convenient for them, early voters are described as being in a more "celebratory" frame of mind than under the often rushed circumstances they face on Election Day when they must vote at a specific location on a specific day. The Commission has found that in early voting our electoral process is increasingly reflecting the expectations that voters have about the choices that should be available to them in their day-to-day lives. As noted in testimony from the National Conference of State Legislatures, "no state . . . abandoned these early voting options once they've tried them."[176]

Recommendation: States should expand opportunities to vote before Election Day.

Early voting is here to stay,[177] and the Commission recommends that states that have not yet offered voters choice on when to cast their ballot commit to study the alternatives and adopt those that would work best for them. Different states will prefer different types of voting before Election Day, as well as different durations for the early voting

period. However, the bipartisan consensus of election administrators in favor of voting before Election Day was evident in the testimony heard by the Commission and the response of voters around the country when it has been made available.[178]

Whatever its preferred format, early voting addresses many of the current and future challenges to voting in America. As discussed above, polling places are becoming more difficult to locate and staff. Early in-person voting allows election authorities to use the facilities available to them for longer periods of time to relieve some of the traffic that would occur on Election Day. Similarly, for jurisdictions facing a crisis in the acquisition of new voting machines, extending the early voting period will allow the jurisdiction to service more voters per machine.

The benefits of pre-Election Day voting can only be realized, however, if jurisdictions do not, at the same time, overly reduce resources dedicated to Election Day. All things being equal, extending the period for voting should relieve the congestion on Election Day. However, if jurisdictions overcompensate by significantly reducing the number of polling places, staff, and other resources available for Election Day, that may not be the case. *Therefore, the Commission emphasizes that expansion of pre-Election Day voting should not come at the expense of adequate facilities and resources dedicated to Election Day.*

A similar cautionary note applies to vote centers, as well. As noted above, jurisdictions that allow early in-person voting usually have the physical and computer infrastructure to establish Election Day vote centers. However, any management benefits from voting in larger more convenient locations will not be realized if the number of vote centers is inadequate or if insufficient resources are deployed to deal with the larger number of voters a vote center necessarily experiences.

Likewise, expansion of no-excuse absentee or mail balloting must be done with an awareness of the risks and downsides of that method. As a threshold matter, to the extent that these methods rely on the U.S. Postal Service, they depend upon an institution under increased strain and undergoing major restructuring, as highlighted for example by recent consolidation of processing plants and proposed abolition of Saturday mail delivery. Jurisdictions must account for these changes in the schedule for mailing and receiving absentee ballots.

Problems with the mail are indicative of larger challenges with absentee and mail voting. Unlike voting in a polling place, voting by mail requires successful delivery and receipt of the ballot at many stages in the voting pipeline.[179] A jurisdiction must receive the voter's properly executed application for an absentee ballot before the relevant deadline. The voter then must receive the ballot on time and properly execute it by, for example, providing some identifying information and signature.[180] The ballot then must be received by the election office in time to be counted. At each stage of this process, ballots can get lost by fault of the voter, the election administrator, the mail, or someone else.

Therefore, while endorsing the expansion of no-excuse absentee voting, the Commission also encourages the increased use of safeguards. One such safeguard is online tracking of absentee ballots. County election websites should enable voters to verify that their absentee ballot request was received, that their ballot was mailed out, and then later that it was received and counted (and if not counted, the reason why).[181] Barcoding technology has empowered jurisdictions to automate this process and to empower voters to check that their votes have not been "lost in the system."[182] Moreover, jurisdictions that recognize a problem with the absentee ballot or application of a voter should follow up with that voter if sufficient time exists to cure any technical defects that might prevent the voter's vote from being counted.

Furthermore, establishing communication with the local Postmaster is essential to ensure that issues are addressed and that mailings comply with postal regulations. Inconsistent interpretation of these regulations surrounding mailing content and Official Election Material Mailings is an ongoing concern for election administrators. Rejections of election-related mail, rate differentials, and delay of service to the voter have led some to call for simplified pricing and a service regime for Official Election Material, such as a single rate without content restrictions. Finally, some election administrators have advised that officials should retrieve ballots at the post office itself to ensure they are all received by the appropriate deadline.[183]

The Commission endorses expanded use of pre-Election Day voting. Although the Commission considers the trajectory of early voting to be clear and irreversible, different states, of course, will adopt the type of early voting that best fits their needs and capabilities. Whatever the form early voting may take, it must be administered in an equitable manner so all voters can have equal opportunity to vote. Indeed, enabling voters to cast a ballot at a time convenient to them, not the election authority, is the whole point of allowing voting before Election Day.

D.   Military and Overseas Voters

Military and overseas voters confront problems similar to other absentee voters, but their geographic distance from local election officials often magnifies the challenges of registering, receiving ballots, returning them, and having them counted.[184] While all voters can benefit from the increased availability of online tools, the internet is the election lifeline for many military and overseas voters, in particular. Any process in the election administration pipeline that relies on the mail is one that necessarily has a disparate impact on overseas and military voters, for whom mail (whether that of a foreign government or the Military Postal Service) is often slow and unreliable.[185] However, jurisdictions vary wildly in the quality of the tools and information on their websites, and the degree to which they specifically seek out and assist uniformed and overseas (UOCAVA) voters.

> *Jurisdictions vary wildly in the quality of the tools and information on their websites, and the degree to which they specifically seek out and assist uniformed and overseas voters.*

Through federal legislation, such as UOCAVA and the MOVE Act, the nation has made great strides in recent years in facilitating participation by military and overseas voters.[186] In particular, the MOVE Act's requirement that ballots be mailed 45 days before an election has helped address the previously intractable problem of overseas voters not receiving their ballots on time.[187] Likewise, the innovations of the Federal Postcard Application (FPCA) and Federal Write-in Absentee Ballot (FWAB) serve as important stop gaps to ensure that service members can register and vote in the event the normal state methods fail.

With these innovations and legal changes have come some problems, however. Because of changes with the MOVE Act, there is great uncertainty as to how long an FPCA remains in effect — one election, a two-year election cycle, or more. Prior to MOVE, requests made through the FPCA would lead to ballot delivery for the next two federal elections. Although the MOVE Act now reduces the requirement to one year, some states still abide by the two-year standard.[188] Some states take the FPCA at face-value

as a "voter registration and absentee ballot application" and utilize it to fully register a covered voter and simultaneously slate the voter to receive an absentee ballot. Other jurisdictions treat the FPCA as a temporary registration mechanism, only registering the voter for the period of time the FPCA designates and then canceling the voter's registration at the end of that time period.

Second, jurisdictions vary in their tendency to count a FWAB simultaneously as a voter registration application — some do and some do not.[189] The FWAB is used by voters who swear and attest that they have made a previous attempt to register and request a ballot and have not received the standard ballot to vote. Yet some jurisdictions reject a FWAB if they do not have a previous request on record.[190] These inconsistencies lead to great confusion among service members and overseas voters over whether their registrations are effective.

Any consistent standard regarding the FWAB and FPCA is better than no rule at all. *Because the FWAB and FPCA were both intended to enable voter registration by military and overseas voters, states should recognize them, at a minimum, as voter registration applications akin to those filed by other voters.* With respect to the FPCA, the MOVE Act's permission for states to treat the FPCA as a ballot application for one year only was motivated by the fact that the extreme mobility of the military population often leads their addresses on voter rolls to become quickly out of date. However, now two soldiers, both using the same form in different states, could have their registrations and ballot requests become inoperative at different times. Unless the MOVE Act is amended to require a fixed period for which a FPCA will serve as a ballot application, states need to coordinate among themselves to establish consistency in the determination of whether a FPCA will enable a military or overseas voter to receive a ballot for one or two years.

Recommendation: States should provide ballots and registration materials to military and overseas voters via their websites.

Looking toward the future, even though the internet is not yet secure enough for voting, we should expect that military and overseas voters will continue to be the testing ground for greater use of the internet for communications between election authorities and UOCAVA voters.[191] Because of the unique needs of UOCAVA voters and the importance of the internet as the primary mode through which election officials communicate with them, it is imperative that jurisdictions provide a targeted website and

assistance for those voters.[192] The websites of state and local election authorities must be improved to provide customized and comprehensive information for military and overseas voters.

A survey of state election websites by the Overseas Voter Foundation has detailed the shortfalls in the quality of materials and instructions for overseas and military voters:[193]

- 26 jurisdictions offer a direct link to military and overseas voter services on their voting/elections homepage.

- Rather than offering their own state-specific instructions, 20 states redirect military and overseas voters to FVAP for instructions on how to vote from abroad.

- 15 states have no on-site option for UOCAVA "voter registration" on the state website (they either redirect the user to FVAP or provide no assistance).

- 13 states have no on-site option for "absentee ballot request" on their state website (they either redirect the user to FVAP or provide no assistance).

- 35 states have no on-site option for use of the Federal Write-in Absentee Ballot (FWAB) (they either redirect the user to FVAP or provide no assistance).

- 19 states provide no extra assistance to military and overseas voters, such as a specific e-mail address, an interactive help desk, or a frequently asked questions (FAQ) section.

Many of the innovations that will assist domestic voters will have payoffs for military voters as well. Like other highly mobile voters, members of the military suffer from a registration system that requires re-registration whenever the voter changes addresses. As they move from one base to another and then another, service members must re-register to vote (if they are moving residences within the U.S.) or notify their home election official of their new mailing address (if they are moving but not changing their legal residence). In either case, the ease with which a voter can navigate the registration process from afar will be a determining factor to overcoming the first hurdle on the way to voting. All the benefits of online registration for domestic voters, therefore, are even greater for military and overseas voters.

The same holds for innovations in voting technology that will allow voters to create and fill in their ballot online, even if they do not cast it over the internet. *However they may transmit their ballot, overseas and military voters would benefit from a system that allows them to create on their attached printer a ballot with a barcode that can be read by the local election administrator.*[194] Doing so should also cut down on the work often required by election officials who must re-mark ballots received from overseas so that the machine counter can read them. As with all other absentee ballots, the voter must verify his or her identity. But the more that the transmission and receipt of such ballots are free from human error, the greater the likelihood that the ballot will be received, cast, and counted correctly.

E.   Growing Challenges with Election Equipment and Voting Technology

Perhaps the most dire warning the Commission heard in its investigation of the topics in the Executive Order concerned the impending crisis in voting technology.[195] Well-known to election administrators, if not the public at large, this impending crisis arises from the widespread wearing out of voting machines purchased a decade ago, the lack of any voting machines on the market that meet the current needs of election administrators, a standard-setting process that has broken down, and a certification process for new machines that is costly and time-consuming. In short, jurisdictions do not have the money to purchase new machines, and legal and market constraints prevent the development of machines they would want even if they had the funds.

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When most people think of the crisis in voting technology, they think it passed with the 2000 election. Ballots became notorious in that election as the cause of many problems. Indeed, the cross-eyed vote counter in Florida remains to this day the poster child of sorts for election dysfunction.

The voting technology crisis the country will soon experience has its roots in the 2000 election, but the nature of the problem is quite different than a decade ago. A large share of the voting machines currently in operation were purchased with federal funds appropriated in 2003 as part of HAVA's provisions assisting in the transition away from punch card ballots and mechanical lever machines toward Direct Recording Electronic (DRE) and optical scan machines.[196] Those machines are now reaching the end of their natural life cycle, and no comparable federal funds are in the pipeline to replace them.[197]

Notwithstanding their budgetary constraints, election officials consistently told the Commission they are dissatisfied with the current offerings of voting equipment and technology, as they consider purchases that will carry them through the next decade. The options available do not meet their needs and do not employ the sorts of advances that have become commonplace in consumer products and other industries.[198] For a number of reasons, the existing election equipment marketplace consists almost solely of complex, single-use, end-to-end systems. For the most part, these systems are not customizable or interchangeable, and employ software that is stagnant. The choices are so unsatisfactory that at least two large jurisdictions (Los Angeles County and Travis County, Texas[199]) have opted to try to build their own systems. Many other jurisdictions are watching those counties with anticipation, while also searching for another solution.

The remaining vendors in the industry are in a difficult position. They face a fragmented market where buying decisions are often left to a multitude of county and local jurisdictions so that a consistent market with which to fund innovation is elusive.[200] While the industry has developed some promising new technologies into their prototypes for the future, bringing those innovations to market is handicapped by the current standard-setting and certification process.

As the Commission heard repeatedly, the current standard-setting and certification process is unworkable and must be fixed.[201] If the system worked as intended, the Technical Guidelines Development Committee (TGDC) of the EAC, working with the National Institute on Standards and Technology, would periodically propose "Voluntary Voting System Guidelines" that would be adopted by the EAC. Because the EAC does not have a quorum of commissioners, though, any proposals from the TGDC cannot be adopted. As a result, the only standards currently operational are ones passed in 2005, which merely supplement the 2002 Voting System Standards promulgated by the Fed-

eral Election Commission at a time before the widespread adoption of many of the technological innovations routinely used today, such as tablet computers.[202]

To be sure, some voting machines are being certified according to an "extensions clause" to the old standards, and new guidelines were drafted as early as 2007. Because many states incorporate and rely on the operative federal guidelines, though, new technologies must pass the 2005 guidelines if they are to be brought to market. Manufacturers of voting machines, however, are caught in a regulatory netherworld where the precise requirements are unclear and the rules going forward are unknowable.

As a result, the extant standards not only fail to incentivize innovation, they arguably discourage it.[203] Although economic factors play a role, the uncertainty surrounding the standards is at least partially responsible for the failure of the industry to make an effective and efficient transition to off-the-shelf technologies, software-only solutions, and "component" products. The 2005 standards were primarily designed for end-to-end products rather than components that can be interchangeable with other products to increase customization, updating technologies, and usability.[204]

Even when it works as designed, the certification process is costly and burdensome. Vendors complain about the length of time and expense (well over $1 million for a new voting machine) of receiving certification from one of the few approved testing labs.[205] Indeed, the certification process even retards improvement of existing, certified equipment as it requires additional certification for even small modifications or upgrades. As a result, the certification process simply does not fit with an election calendar. Because of the time it takes to discover flaws following an election, to develop a "fix," and then to have it certified, it is likely that the known solutions to problems discovered in one election will not be in operation for the next one.[206]

Recommendation: The standard-setting and certification process for voting machines must be reformed.

The existing certification system must be reformed. Having a certification process is fundamental to ensure the accuracy and functionality of equipment, compliance with legal requirements, and other basic standards and guidelines. It is key to addressing comprehensively a wide range of the issues the Commission has been charged with examining. But the current standards and certification process must be reformed to allow

for innovation in voting technologies, faster and less-costly certification of new products, and the certification of component (customizable and interchangeable) products and voting systems, not just end-to-end equipment.

At a minimum, the authority for standards adoption and the certification of testing laboratories cannot depend on a quorum of EAC Commissioners. The EAC has been the subject of considerable partisan and other disagreement about its broader mission. There is little prospect that these conflicts will be fully or significantly resolved, even if a fresh complement of EAC Commissioners were to take office. Either some other body within or apart from the EAC must be in charge of approving standards or the states should adapt their regulations such that federal approval is unnecessary.[207] A move away from federal certification will still require states, with the appropriate independent technical advice, to join together (as they did before HAVA with the National Association of State Election Directors) to endorse standards that give vendors and innovators sufficient guidance.[208]

Whatever form the standard-setting body might take, however, it must address the shortfalls of the existing regime. In particular, it must facilitate the development, certification and adoption of off-the-shelf and software-only products. Software-only products can be integrated with off-the-shelf commercial hardware components such as computers, laptops, tablets, scanners, printers, and even machine-readable code scanners and signature pad products.[209] Tablet computers such as iPads are common components of these new technologies.[210] They can be integrated into the check-in, voting, and verification processes in the polling place.[211] They are also capable of accepting accessibility components (or even personal devices) as plug-ins to assist voters with disabilities. In addition, solutions combining software with off-the-shelf commercial hardware have the added benefit of compatibility with recent trends in some jurisdictions toward using vote centers that require a number of different ballots in one location or require ballot print-on-demand technology.[212]

As mentioned earlier, promising technologies also exist that allow voters to "pre-fill" sample ballots at home, which can speed up the voting process in a polling place. These technologies allow the voter to read and mark a sample ballot that can be scanned at the polling place to populate the actual ballot in the privacy booth. Voters can then change and verify their choices before printing their final ballot and submitting it for counting.[213] Such technologies may improve polling place efficiency. In particular, they

might improve the voting experience for voters with disabilities who may find that their own assistive devices facilitating the creation of such sample ballots function better than what the jurisdiction provides.

The principal objection to some of these recommendations concerns the security advantages of end-to-end systems over component off-the-shelf products. These concerns are well-taken and must be considered by jurisdictions in their procurement decisions. Indeed, the Commission recognizes that most jurisdictions have come to agree with (or at least acquiesce to) scientists and advocates demanding a voter verified paper audit trail (VVPAT) from electronic voting machines. So long as such a paper trail exists, the move toward the types of technologies described here merely alters the type of device that creates the paper ballot, not the discarding of paper altogether. The Commission is convinced that commercial off-the-shelf technology can have security and auditability features built in that rival end-to-end systems. The fact that a tablet or off-the-shelf computer can be hacked or can break down does not mean such technology is inherently less secure than existing ballot marking methods if proper precautions are taken.

Recommendation: Audits of voting equipment must be conducted after each election, as part of a comprehensive audit program, and data concerning machine performance must be publicly disclosed in a common data format.

Post-election audits are a best practice of election administration in general, and especially so when it comes to the performance of voting technology.[214] The Commission recommends that jurisdictions audit their election machinery following each election to ensure both that the vote totals match the votes cast and that any problems related to machinery are reported and resolved. A critical component of this audit must be public reporting of machine performance so that jurisdictions using similar equipment become aware of any problems before they cause an election crisis.

Different types of audits perform different functions. The Commission endorses both risk-limiting audits that ensure the correct winner has been determined according to a sample of votes cast,[215] and performance audits that evaluate whether the voting technology performs as promised and expected. Too often the shortfalls of voting technology are discovered in the heat of a recount once the damage has already been done. Performance of voting equipment can and must be evaluated when election outcomes do not depend on it.

The full benefit of election audits of voting technology can only be realized if jurisdictions publicize their results. It is imperative that jurisdictions using similar machines be able to learn about problems each is experiencing.[216] The voting machine market is dominated by a relatively small number of manufacturers. It is very likely that a problem experienced by one jurisdiction is one soon to be experienced by another using the same or similar equipment. Whether the voting equipment performs as promised or fails in one or another respect, the jurisdiction must publicize the results of its audit so that all similarly situated jurisdictions can promptly learn about and fix any problems.[217]

F.   Collection and Distribution of Election Data

The Commission has endeavored to ground its findings and recommendations in the best dispassionate research that has been conducted by government agencies, academic institutions, and private citizen organizations. This research has been illuminating and helpful. At the same time, we have been struck by the gaps that remain in the endeavor to improve election administration through the use of modern management tools — tools that are regularly applied to other critical public services such as health care, transportation, and law enforcement.

Earlier in this report, we identified the need to further develop the field of election administration as a profession. A key feature of most professions is the existence of widely held performance standards about individuals and systems and established ways to assess actual performance against ideals. Indispensable to this aspiration to improve performance are data and measures concerning actual performance.

The scarcity of data concerning voting machine performance that we addressed in the prior section is emblematic of the more general data vacuum in election administration, and thus the struggles to identify which areas of election administration demand top-priority attention.[218] To be sure, jurisdictions generate mountains of data concerning elections, the most obvious of which are the vote totals for candidates. However, candidate vote totals are rarely relevant data for assessing election performance and tracking its improvement. What is needed, instead, are data about how (and when) voters encounter points of service.

The case of Election Day lines is a prime example. The lion's share of our analysis of the "line problem" comes from post-election surveys that, at best, survey a few hundred

respondents in a state. Those data are indispensable and revealing. However, the testimony the Commission heard suggests that long lines were mostly concentrated in a few counties in a state, or even among a limited number of precincts within those counties. We cannot be sure, though, because no comprehensive set of data tracks wait times, arrival times, and resource allocation across all precincts.

In contrast, it has become the norm for businesses that are concerned about customer service to gather and analyze performance data at the point of contact with customers. The parallel "big data" revolution is transforming management in many areas of the private and public sector. This revolution has helped improve customer service and build organizational efficiencies by capturing and analyzing auxiliary data associated with customer transactions. Despite the fact that elections drown in data, and political campaigns have transformed American politics by gathering and analyzing data about their supporters, election administration has largely escaped this data revolution.

Despite the fact that elections drown in data … election administration has largely escaped this data revolution.

Recommendation: Local jurisdictions should gather and report voting-related transaction data for the purpose of improving the voter experience.

Whenever a voter interacts with an election office, there is — or should be — a trace left of that transaction, whether it be registering to vote, requesting an absentee ballot, checking in at a polling place, or casting a ballot. The trace we are talking about is not who the voter voted for, but a series of hows, whens, and whys: How did the voter register? When did the voter check in at the precinct? Why was an absentee ballot rejected? Information like this — the auxiliary data associated with elections — should be an indispensable tool for making elections better.

Traditional methods of data gathering and analysis are already being used by governments at all levels to create a basic data infrastructure that helps policymakers and the public assess the quality of elections at the state and national levels. At the federal level,

this includes the biennial Voting and Registration Supplement of the Census Bureau's Current Population Survey and the Election Administration and Voting Survey (EAVS) conducted by the EAC.

Data from these federal programs, especially those sponsored by the EAC, are indispensable for assessing whether localities are complying with federal voting laws, such as the NVRA, HAVA, UOCAVA, and the MOVE Act. In this regard, it is disappointing that many counties and states still do not report to the federal government basic data, such as the number of UOCAVA ballots rejected because they missed the deadline for return or the number of voter registrations processed by motor vehicle departments. This failure to report in some instances naturally raises the question about compliance with federal voting laws — without the required data, how is anyone to know?

There is much more to using election performance data than simply checking on whether federal voting laws are being followed. Just as important are data that inform us about the positive and negative experiences of individual voters. We cannot learn much about the quality of the individual voter experience from these federal surveys, and must rely instead on state and local data programs.

Unfortunately, local efforts to gather and disseminate performance statistics at a more finely tuned level have lagged far behind the federal programs. All jurisdictions know their election returns; nearly all know how many individuals voted. Together, this information can be useful in allocating resources for future elections and diagnosing problems with voting machines. However, turnout data are rarely disseminated widely, nor analyzed in a publicly accessible way that explains the connection between, for instance, turnout and the allocation of voting booths to polling places.

It is rarer still for local jurisdictions to capture and analyze the auxiliary information that is produced by computerized voting equipment, such as the time-of-day when voters cast their ballots, so that personnel and resources can be managed more efficiently. Rarest of all are the handful of jurisdictions that organize their own data-gathering programs, such as Travis County, Texas and Orange County, California's efforts to record how long the lines are at the polling places at various times on Election Day.[219]

Provisional ballot usage is another fertile area for data collection, analysis, and data-

based progress. By identifying the reasons that provisional ballots are being cast, both those that do not count as well as those that do, jurisdictions can use the other tangential data (how a voter signed up for a permanent early voting list, where they last registered, etc.) to review statutory requirements, administrative procedures, and poll worker training curriculums, and to target outreach messages to stem the rise in costly and delayed provisional voting.

If the experience of individual voters is to improve, the availability and use of data by local jurisdictions must increase substantially. States and localities are usually not equipped to gather the data they need, or to analyze it. However, we see some feasible steps that can be undertaken to help local jurisdictions become more sophisticated consumers of the auxiliary election data they are often already producing, without overwhelming these jurisdictions.

First, local jurisdictions can learn a lot from the state of Wisconsin, which, despite having the most decentralized election administration system in the country, also has one of the most thorough election data-gathering programs.[220] Second, election machine vendors should add functionality to their voting machines, by creating standard applications that convert raw data from system log files into reports that help election administrators get a better picture of how the overall election system is performing. Third, states and localities should develop partnerships with universities and colleges, where data analytics is a growing and vibrant field. Finally, jurisdictions should more widely disseminate the auxiliary data they do produce, in standardized formats, so that members of the public who are skilled at data analytics can do their own analysis, which can be brought to the attention of local officials.

Much has been made in recent years of the puzzling gap between the technological revolution in the lives of most Americans and the technological systems voters encounter when they register and when they cast their ballots. A new technological gap is beginning to emerge, between the data analytical capacity that has improved customer service in the private sector, and the lack of data-driven efforts to improve the experience of voters. Without new management capacities and tools that draw on what is available in the private sector, the problems that gave rise to this Commission's creation are guaranteed to recur in the future.

IV. Conclusion

The United States electoral system remains a work in progress, as it has for more than 230 years. Each election reveals weaknesses in the system, which leads to calls for reform, followed by discoveries of different problems. There has never been a perfectly run election in the United States or elsewhere, and perhaps there never will. Any process that depends on human management of hundreds of millions of people, machines or paper will inevitably produce some errors.

The challenge for the system, and for this Commission, is to confront the problems revealed with each election and to institutionalize processes that allow the system to learn from one election to the next. This Report has attempted to highlight the reforms that can make a substantial difference in addressing the most recent set of concerns as well as ones that loom ominously on the horizon. Just as the Executive Order does not describe every problem related to American elections, so too this Report does not pretend to provide the only solutions. For that reason, we have included along with this report an online Appendix including more than 1,000 pages of best practices and other materials recommended by federal agencies, nonprofits, and organizations of election officials. The Commission hopes that the greatest contribution of this report will be to focus institutional energy on a select number of important policy changes, while at the same time spawning experimentation among the thousands of local officials who share the same concerns that motivated the Commission's creation.

Endnotes

1   The Commission held its first public meeting in Washington, DC, on June 21, 2013. At that meeting, the Commission set forth its intended schedule for the next few months. It also received a briefing from Senior Research Director Nathaniel Persily on the scholarly literature concerning the topics included in the Executive Order.

      The Commission held four public hearings. The first of these was held in Miami, Florida, on June 28; the second in Denver, Colorado, on August 8; the third in Philadelphia, Pennsylvania, on September 4; and the final hearing was held over two days in Cincinnati, Ohio, on September 19 and 20. At each hearing, the Commission heard testimony from election administrators, academics and other experts, and the general public. On December 3, the Commission held a final public meeting in Washington, DC, which reviewed the hearings and research presented to the Commission over the previous six months.

      Each of the public meetings and hearings was webcast. Transcripts and the archived webcast of the hearings and public meetings, along with the materials submitted, are provided in the Appendix, and are available at www.supportthevoter.gov.

2   Members of the Commission attended conferences of various organizations and met with groups interested in the Commission's business. Commissioners attended meetings of the National Association of Secretaries of State, National Association of State Election Directors, the Election Center, the International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), National Conference of State Legislatures, and the Future of California Elections.

      Groups that invited Commissioners to speak with them included the Heritage Foundation, Brookings Institution, Federal Voting Assistance Program, Reserve Officers Association, Lawyers Committee for Civil Rights Under Law, Bipartisan Policy Center, Republican National Lawyers Association, Pew Voting Information Project, Alaska Federation of Natives, Asian-American Legal Defense and Education Fund, LatinoJustice-PRLDEF, Military Voter Protection Project, Overseas Vote Foundation, Brennan Center for Justice, National Council on Disability, U.S. Postal Service, Election Assistance Commission, and the American Association of Retired Persons.

      At a virtual public meeting held by conference call on November 14, a recording of which was made available on the website and a transcript of which is provided in the Appendix, Commissioners summarized these meetings for the Commission as a whole and the public.

3   See Matt Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 19 (Sept. 19, 2013); Mark Andersen, Bay County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 12 (June 28, 2013); Bill Cowles, Orange County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 16 (June 28, 2013); Penelope Townsley, Miami-Dade County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 23 (June 28, 2013).

4   See, e.g., Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013); Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013); Scott Gessler, Colorado Secretary of State, PCEA Hearing Testimony, Denver, CO, at 11 (Aug. 8, 2013); Hillary Hall, Boulder County Clerk and Recorder, PCEA Hearing Testimony, Denver, CO, at 65 (Aug. 8, 2013).

5   See, e.g., Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadel-phia, PA, at 2 (Sept. 4, 2013) (comparing schools, whose "lobby is bigger than me").

6   See John Carbone, International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), PCEA Hearing Testimony, Philadelphia, PA, at 40 (Sept. 4, 2013) ("Most election offices are at the bottom of the political feeding chain for funding.").

7   Each state was required by HAVA to submit a state plan to the U.S. Election Assistance Commission (EAC) detailing how it would spend federal funds. Help America Vote Act (HAVA) of 2002, §§ 253-54, 42 U.S.C. §§ 15403-04 (2009). State plans are available at http://www.eac.gov/payments_and_grants/state_plans.aspx. Audits of state plans by the EAC Office of the Inspector General are available at http://www.eac.gov/inspector_general/hava_funds_audits.aspx.

8   See Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013).

9   See Jon Husted, Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 4 (Sept. 20, 2013).

10   See Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 18 (Sept. 19, 2013); Dean Logan, Los Angeles County Registrar-Recorder/County Clerk, PCEA Hearing Testimony, Denver, CO, at 4 (Aug. 8, 2013). In the nationwide survey of election officials conducted by Ansolabehere, Shaw, and Stewart, 24% of respondents listed "voting technology and voting machine capacity" as an area of election administration in significant need of improvement or update—the highest percentage of any of the categories in the survey. Stephen Ansolabehere, Daron Shaw, & Charles Stewart III, Overview of Local Election Officials Survey 17 (2013); see also Charles Stewart III, PCEA Public Meeting Presentation, Washington, DC, at slide 37 (Dec. 3, 2013).

11   See Eddie Perez, Hart Intercivic, PCEA Hearing Testimony, Cincinnati, OH, at 8 (Sept. 19, 2013); Penelope Chester, Dominion Voting Systems, PCEA Hearing Testimony, Cincinnati, OH, at 6 (Sep. 19, 2013).

12   Matt Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 10 (Sept. 19, 2013); James Long, Wyle Laboratories, PCEA Hearing Testimony, Cincinnati, OH, at 28-29 (Sept. 19, 2013); Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 33 (Sept. 19, 2013).

13   U.S. Election Assistance Commission, State Requirements and the Federal Voting System Testing and Certification Program, at 3, available at http://www.eac.gov/assets/1/Page/State%20Requirements%20and%20the%20Federal%20Voting%20System%20Testing%20and%20Certification%20Program.pdf (35 states mandate at least one element of the EAC testing and certification program.) The first and second volumes of the 2005 Voluntary Voting System Guidelines are available at http://www.eac.gov/assets/1/workflow_staging/Page/124.PDF (Volume 1) and http://www.eac.gov/assets/1/workflow_staging/Page/125.PDF (Volume 2); Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 18 (Sept. 19, 2013).

14   Josh Franklin, National Institute of Standards and Technology, PCEA Hearing Testimony, Cincinnati, OH, at 27 (Sept. 19, 2013). Information about the Technical Guidelines Development Committee is available at http://www.nist.gov/itl/vote/tgdc.cfm.

15   R. Doug Lewis, PCEA Hearing Testimony, Cincinnati, OH, at 31 (Sept. 19, 2013) ("The process is broken. It doesn't work. States now are moving to do their own testing and their own standards and [hire] their own laboratories to do some of this."); James Long, Wyle Laboratories, PCEA Hearing Testimony, Cincinnati, OH, at 28 (Sept. 19, 2013).

16   See McDermot Coutts, Director of Research and Development, Unisyn Voting Solutions, PCEA Hearing Testimony, Cincinnati, OH, at 6 (Sept. 19, 2013); Eddie Perez, Hart Intercivic, PCEA Hearing Testimony, Cincinnati, OH, at 8 (Sept. 19, 2013).

17   Dean Logan, Los Angeles County Registrar-Recorder/County Clerk, PCEA Hearing Testimony, Denver, CO, at 5 (Aug. 8, 2013).

18   Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 13 (Sept. 19, 2013).

19   Charles Stewart III, Final Report: 2012 Survey of the Performance of American Elections 124 (Draft of Feb. 25, 2013).

20   See Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 3 (Sept. 4, 2013); Susan Bucher, Palm Beach County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 14 (June 28, 2013); Charles Stewart III, Waiting to Vote in 2012, 28 Journal of Law & Politics 439 (2013).

21   See Ken Detzner, Florida Secretary of State, PCEA Hearing Testimony, Miami, FL, at 9 (June 28, 2013); Bill Cowles, Orange County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 16 (June 28, 2013).

22   In the 2006 Cooperative Congressional Election Study (CCES), 3.9% of respondents reported waiting more than 30 minutes to vote, compared to 16.6% in the 2008 study and 12.4% in the 2012 study. To take a single state as an example, although the Survey of the Performance of American Elections (SPAE) found that 30.5% of Virginia voters waited more than 30 minutes to vote in 2008 and 27.9% waited more than 30 minutes in 2012, only 1.7% waited more than 30 minutes to vote in the 2009 gubernatorial election, 0.2% in 2013. (Data from the 2006 CCES suggest that 5.3% of Virginia voters waited 30 minutes or more to vote in that midterm election.) See Charles Stewart III, Final Report: 2012 Survey of the Performance of American Elections (2013); Cooperative Congressional Election Survey, available at http://research.yougov.com/services/cces/.

23   42 U.S.C. § 1973ff et. seq., Pub. L. No. 99-410.

24   42 U.S.C. § 1973ff-7, Pub. L. No. 111-84.

25   Pew Charitable Trusts, No Time to Vote: Challenges Facing America's Overseas Military Voters (2009), available at http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Election_reform/NTTV_Report_Web.pdf.

26   See Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 30 (June 28, 2013); Office of Inspector General, U.S. Department of Defense, SPO-2010-004, 2009 Evaluation of the DoD Federal Voting Assistance Program (FVAP) (2010), available at http://www.dodig.mil/pubs/report_summary.cfm?id=342.

27   See Taeku Lee, Professor of Political Science and Law, University of California at Berkeley, PCEA Hearing Testimony, Philadelphia, PA, at 46 (Sept. 4, 2013); Michael Jones-Correa, Professor of Government, Cornell University, PCEA Hearing Testimony, Philadelphia, PA, at 48 (Sept. 4, 2013); Jerry Vattamala, Asian American Legal Defense and Education Fund, PCEA Hearing Testimony, Philadelphia, PA, at 71 (Sept. 4, 2013); Will Gonzalez, Executive Director, Ceiba, PCEA Hearing Testimony, Philadelphia, PA, at 78 (Sept. 4, 2013).

28   The EAC has voter glossaries available in six languages other than English, see U.S. Election Assistance Commission, Election Resource Library: Glossaries of Election Terminology, http://www.eac.gov/resource_library/default.aspx?CategoryId=13, as well as voter guides available in eleven languages, see U.S. Election Assistance Commission, Election Resource Library: Voter's Guides, http://www.eac.gov/resource_library/default.aspx?CategoryId=12&pg=1.

29   See PCEA Public Meeting Conference Call, at 14-15 (Nov. 14, 2013) (describing meeting with the Federation of Alaskan Natives).

30   See National Disability Rights Network, PCEA Hearing Submission, Philadelphia, PA, at 2-4. (Sept. 4, 2013); Government Accountability Office, GAO-13-538SP, Voters with Disabilities Challenges to Voting Accessibility (2013), available at http://www.gao.gov/assets/660/654099.pdf.

31   Lisa Schur, Associate Professor, Labor Studies and Employment Relations, Rutgers University, PCEA Hearing Testimony, Denver, CO, at 42 (Aug. 8, 2013); Faith Gross, Legal Center for People with Disabilities and Older People, PCEA Hearing Testimony, Denver, CO, at 64 (Aug. 8, 2013); Kermit Davis, Secretary-Treasurer, Human Factors and Ergonomics Society, PCEA Hearing Testimony, Cincinnati, OH, at 73 (Sept. 20, 2013); Diana Mairose, Hamilton County Developmental Disabilities Services, PCEA Hearing Testimony, Cincinnati, OH, at 75 (Sept. 20, 2013); Cheryl Jansen, Equip for Equality, PCEA Hearing Testimony, Cincinnati, OH, at 77 (Sept. 20, 2013).

32   Resources on accessible voting include the EAC's Election Management Guidelines chapter, "Accessibility." U.S. Election Assistance Commission, Election Management Guidelines, ch. 19, available at http://www.eac.gov/assets/1/Documents/EMG%20chapt%2019%20august%2026%202010.pdf.

33   See Estelle H. Rogers, The National Voter Registration Act at Fifteen 3 (2009), available at http://www.projectvote.org/images/publications/NVRA/THE%20NVRA%20at%20FIFTEEN--A%20Report%20to%20Congress.pdf ("[P]oor training requirements and lack of oversight and accountability of motor vehicle offices have led to problems with noncompliance, failing to forward applications to election officials in a timely manner, and non-integrated applications that violate the mandates of the NVRA."); David Becker, Director of Election Initiatives, Pew Charitable Trusts, PCEA Hearing Testimony, Cincinnati, OH, at 33 (Sept. 20, 2013).

34   See U.S. Election Assistance Commission, The Impact of the National Voter Registration Act of 1993 on the Administration of Elections for Federal Office 2011-2012, A Report to the 113th Congress 47, Table 2b (2013), available at http://www.eac.gov/assets/1/Documents/EAC_NVRA%20Report_lowres.pdf; David Becker, Pew Charitable Trusts, PCEA Hearing Testimony, Cincinnati, OH, at 3 (Sept. 20, 2013).

35   See U.S. Election Assistance Commission, The Impact of the National Voter Registration Act of 1993 on the Administration of Elections for Federal Office 2011-2012, A Report to the 113th Congress, Tables 10-11 (2013), available at http://www.eac.gov/assets/1/Documents/EAC_NVRA%20Report_lowres.pdf.

36   Estelle H. Rogers, The National Voter Registration Act at Fifteen (2009) available at http://www.projectvote.org/images/publications/NVRA/THE%20NVRA%20at%20FIFTEEN--A%20Report%20to%20Congress.pdf.

37   See Paul O'Hanlon, Disability Rights Network of Pennsylvania, PCEA Hearing Testimony, Philadelphia, PA, at 61 (Sept. 4, 2013).

38   See Paul Lux, Okaloosa County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 17 (June 28, 2013); Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 30-31 (June 28, 2013).

39   See Matt Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 10 (Sept. 19, 2013) ("[E]lection officials must be challenged to think of themselves as IT managers."); Merle King, Executive Director, Center for Election Systems at Kennesaw State University, PCEA Hearing Submission, Cincinnati, OH, at 2 (Sept. 19, 2013), available at https://www.supportthevoter.gov/files/2013/09/Merle-King-PCEA-Cincinnati-2013.pdf ("The required core competencies [of election officials] must embrace the reality that every election official is an Information Technology (IT) manager. In addition to competencies related to IT management, additional core competencies in the following disciplines should be defined: Testing and validation of systems, project management, auditing, training, ethics, information security, communication, election law and practice, accessibility and disability mitigation, human resource manage[ment], and an end-to-end knowledge of all the election systems that support elections in that jurisdiction.").

40   NASS Task Force on Emergency Preparedness for Elections, Update on Task Force Findings and Activities (2013), available at https://www.supportthevoter.gov/files/2013/08/NASS-Task-Force-on-Emergency-Prepardedness-for-Elections.pdf.

41   Eric A. Fisher & Kevin J. Coleman, Congressional Research Service, R42808, Hurricane Sandy and the 2012 Election: Fact Sheet (2012), available at http://www.nass.org/index.php?option=com_docman&task=doc_download&gid=1427&Itemid=.

42   More information on the NASS task force is available on the NASS website at http://www.nass.org/index.php?option=com_content&view=article&id=362&Itemid=515.

43   U.S. Election Assistance Commission, Effective Designs for the Administration of Federal Elections (2007), http://www.eac.gov/assets/1/Page/EAC_Effective_Election_Design.pdf.

44   The Election Center, National Task Force on Election Reform, Election 2004: Review and Recommendations by the Nation's Election Administrators (2005), available at http://www.electioncenter.org/documents/Task%20Force%20Final%20PDF.pdf.

45   These guidelines are available on the EAC's website at http://www.eac.gov/election_management_resources/election_management_guidelines.aspx.

46   U.S. Election Assistance Commission, Successful Practices for Poll Worker Recruitment, Training, and Retention (2007), available at http://www.eac.gov/election_management_resources/poll_worker_best_ practices.aspx.

47   These guides are available on the EAC's website at http://www.eac.gov/election_management_resources/ quick_start_guides.aspx.

48   State law regulation of the voter registration process, including implementation of the NVRA and HAVA mandates, is truly a "patchwork quilt." R. Michael Alvarez & Thad E. Hall, Resolving Voter Registration Problems: Making Registration Easier, Less Costly and More Accurate 2 (Caltech/MIT Voting Technology Project Working Paper No. 87, 2009), available at http://vote.caltech.edu/sites/default/files/ wp_87_pdf_4acfa68b61.pdf. A compilation by the National Association of Secretaries of State of statutory requirements and procedures for list maintenance describes the wide variations among states in the use of list maintenance procedures authorized by the NVRA, and how those procedures are implemented. National Association of Secretaries of State, NASS Report: Maintenance of State Voter Registration Lists 4-14 (2009). For example, state laws and regulations vary in how jurisdictions confirm addresses, cross-reference voter registration applications with driver's license databases, remove names upon a change-of-address notification, notify other states when a voter moves into the state, and remove convicted criminals. Id.

49   Stephen Ansolabehere & Eitan Hersh, Voter Registration: The Process and Quality of Lists, in The Measure of American Elections 1, 6, 7 (Barry C. Burden & Charles Stewart III eds.) (forthcoming 2014). An earlier version of the study is available as Stephen Ansolabehere & Eitan Hersh, The Quality of Voter Registration Records: A State-by-State Analysis 1, (2010), available at http://www.vote.caltech.edu/sites/ default/files/quality_of_voter_report_pdf_4c45d05624.pdf.

50   Stephen Ansolabehere & Charles Stewart III, Report on Registration Systems in American Elections (2013), available at https://www.supportthevoter.gov/files/2013/06/Stephen-Ansolabehere-Voter-Registration-White-Paper.pdf.

51   Voter registration systems as a whole, even after HAVA, still rely largely on outdated systems that create systemic inefficiencies and raise costs. Pew Center on the States, Upgrading Democracy: Improving America's Elections by Modernizing States' Voter Registration Systems (2010), available at http://www. pewstates.org/uploadedFiles/PCS_Assets/2010/Upgrading_Democracy_report.pdf. In particular, paper voter registration applications and manual data entry increase the risk of clerical error, and many computer systems still rely on rudimentary data matching techniques. National Research Council, Committee on State Voter Registration Databases, Improving State Voter Registration Databases: Final Report, at B-1 to B-5 (2009), available at http://www.eac.gov/assets/1/workflow_staging/Page/52.PDF (discussing matching algorithms); Justin Levitt, Wendy R. Weiser, & Ana Muñoz, Brennan Center for Justice, Making the List: Database Matching and Verification Processes for Voter Registration 4-5 (2006), available at http://brennan.3cdn.net/96ee05284dfb6a6d5d_j4m6b1cjs.pdf (discussing types of clerical and matching errors). Even simple typographical errors can come in a variety of forms. R. Michael Alvarez & Thad E. Hall, Resolving Voter Registration Problems: Making Registration Easier, Less Costly and More Accurate 7 (Caltech/MIT Voting Technology Project Working Paper No. 87, 2009), available at http:// www.vote.caltech.edu/sites/default/files/wp_87_pdf_4acfa68b61.pdf (discussing typographical errors found in Ohio's 2009 voter registration list).

52   Press Release, U.S. Census Bureau, Census Bureau Reports National Mover Rate Increases After a Record Low in 2011 (Dec. 10, 2012), available at http://www.census.gov/newsroom/releases/archives/mobility_of_the_population/cb12-240.html.

53   See Stephen Ansolabehere & Eitan Hersh, Voter Registration: The Process and Quality of Lists, in The Measure of American Elections, Table 1 (Barry C. Burden & Charles Stewart III eds.) (forthcoming 2014).

54   See id. at Figure 9.

55   Pew Center on the States, Being Online is Still Not Enough: Reviews and Recommendations for State Election Websites (2011), available at http://www.pewstates.org/research/reports/being-online-is-still-not-enough-85899376525; U.S. Election Assistance Commission, Voter Information Websites Study (2008), available at http://www.eac.gov/assets/1/workflow_staging/Page/64.PDF.

56   The states that have authorized or implemented full online registration systems are Arizona, California, Colorado, Connecticut, Georgia, Hawaii, Illinois, Indiana, Kansas, Louisiana, Maryland, Minnesota, Nevada, Oregon, South Carolina, Utah, Virginia, Washington, and West Virginia. The states utilizing a more limited version of online registration are Delaware, Michigan, New Mexico, New York, and Ohio. National Conference of State Legislatures, Online Voter Registration (2013), available at http://www.ncsl.org/research/elections-and-campaigns/electronic-or-online-voter-registration.aspx.

57   Matt A. Barreto et al., Online Voter Registration (OLVR) Systems in Arizona and Washington: Evaluating Usage, Public Confidence and Implementation Processes 16-23 (2010), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2010/online_voter_reg.pdf.

58   Wendy Underhill, NCSL Senior Policy Specialist, PCEA Hearing Testimony, Denver, CO, at 52, 55 (Aug. 8, 2013); Scott Gessler, Colorado Secretary of State, PCEA Hearing Testimony, Denver, CO, at 3 (Aug. 8, 2013); Linda Lamone, Maryland State Administrator of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 5 (Sept. 4, 2013); Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 10 (Sept. 4, 2013); Donald Palmer, Secretary, Virginia State Board of Elections, Philadelphia, PA, at 4 (Sept. 4, 2013); Josh Franklin, National Institute of Standards and Technology, PCEA Hearing Testimony, Cincinnati, OH, at 27 (Sept. 19, 2013); David Becker, Director of Election Initiatives, Pew Charitable Trust, PCEA Hearing Testimony, Cincinnati, OH, at 30 (Sept. 20, 2013); Heather Smith, President, Rock the Vote, PCEA Hearing Testimony, Cincinnati, OH, at 41 (Sept. 20, 2013).

59   See Rock the Vote, Connected OVR: A Simple Durable Approach to Online Voter Registration (Dec. 2013); Matt A. Barreto et al., Online Voter Registration (OLVR) Systems in Arizona and Washington: Evaluating Usage, Public Confidence and Implementation Processes 5 (2010), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2010/online_voter_reg.pdf (citing Arizona's use of a confirmation number for online registration transactions); Heather Smith, President, Rock the Vote, PCEA Hearing Submission, Cincinnati, OH, at 1 (Sept. 20, 2013), available at https://www.supportthevoter.gov/files/2013/06/FOCE.23-Rock-The-Vote-PCEA_Aug8-Remarks.doc.

60   Pew Center on the States, Inaccurate, Costly, and Inefficient: Evidence That America's Voter Registration System Needs an Upgrade 6-8 (2012), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pew_Upgrading_Voter_Registration.pdf; Jonathan Brater, Brennan Center for Justice, PCEA Hearing Testimony, Philadelphia, PA, at 73 (Sept. 4, 2013).

61   Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013), Jonathan Brater, Brennan Center for Justice, PCEA Hearing Testimony, Philadelphia, PA, at 73 (Sept. 4, 2013); Heather Smith, President, Rock the Vote, PCEA Hearing Testimony, Cincinnati, OH, at 42 (Sept. 20, 2013).

62   Linda Lamone, Maryland State Administrator on Elections, PCEA Hearing Testimony, Philadelphia, PA, at 5 (Sept. 4, 2013).

63   Pew Center on the States, Inaccurate, Costly, and Inefficient: Evidence That America's Voter Registration System Needs an Upgrade 7 (2012), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pew_Upgrading_Voter_Registration.pdf.

64   Matt A. Barreto et al., Online Voter Registration Systems in Arizona and Washington: Evaluating Usage, Public Confidence, and Implementation 2 (2010), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2010/online_voter_reg.pdf ("In Arizona, voters under 34 years old who registered via the Internet turned out at 93 percent in 2008 compared to a turnout rate of 73 percent for younger voters that registered 'offline.' In Washington, the same trend holds whereby young voters who registered online turned out at much higher rates than young voters who did not register online.").

65   Christopher Ponoroff, Brennan Center for Justice, Voter Registration in a Digital Age 2 (Wendy Weiser ed.) (2010), available at http://www.brennancenter.org/sites/default/files/legacy/Democracy/Paperless_Registration_FINAL.pdf.

66   Matt A. Barreto et al., Online Voter Registration Systems in Arizona and Washington: Evaluating Usage, Public Confidence, and Implementation 2 (2010), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2010/online_voter_reg.pdf; see also Monique Garcia, Quinn Signs Bill Allowing Online Voter Registration in Illinois, Chicago Tribune (July 27, 2013), available at http://articles.chicagotribune.com/2013-07-27/news/chi-quinn-to-sign-bill-allowing-online-voter-registration-in-illinois-20130726_1_online-voter-registration-voter-turnout-quinn-signs-bill (citing Cook County Clerk David Orr for the proposition that "those who register online in other states have proven more likely to vote than those who register through more traditional routes…because they usually wait until closer to Election Day to sign up, when they are paying more attention to issues and candidates.").

67   Heather Smith, President, Rock the Vote, PCEA Hearing Testimony, Cincinnati, OH, at 43 (Sept. 20, 2013); Linda Lamone, Maryland State Administrator of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 11 (Sept. 4, 2013).

68   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 2 (Sept. 4, 2013); Jon Husted, Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 3 (Sept. 20, 2013); David Orr, Cook County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 20 (Sept. 20, 2013); David Becker, Director of Election Initiatives, Pew Charitable Trusts, PCEA Hearing Testimony, Cincinnati, OH, at 30 (Sept. 20, 2013); Heather Smith, President, Rock the Vote, PCEA Hearing Testimony, Cincinnati, OH, at 42 (Sept. 20, 2013).

69   Caltech-MIT Voting Technology Project, Voting: What Is, What Could Be 51 (July 1, 2001), available at http://www.vote.caltech.edu/drupal/node/10.

70   Pew Center on the States, Upgrading Democracy: Improving America's Elections by Modernizing States' Voter Registration Systems 3 (2010), available at http://www.pewstates.org/uploadedFiles/PCS_As-

sets/2010/Upgrading_Democracy_report.pdf; Washington State Online Voter Registration, at 11, available at https://wei.sos.wa.gov/agency/osos/en/press_and_research/ElectionStatistics/vrdata/documents/electronic%20registrations/2010onlinevoterregistrationinfopacket.pdf.

71   See Rock the Vote, Connected OVR: A Simple Durable Approach to Online Voter Registration (2013).

72   Brennan Center for Justice, Voter Registration in a Digital Age: Arizona 6 n.1 (2010), (quoting telephone interview with Craig Stender (Jan. 27, 2010)), available at http://www.brennancenter.org/sites/default/files/legacy/Democracy/Paperless%20Report%20Appendix_Final%20(Arizona).pdf; see also Brennan Center for Justice, Voter Registration in a Digital Age: Washington (2010) http://www.brennancenter.org/sites/default/files/legacy/Democracy/Paperless%20Report%20Appendix_Final%20(Washington).pdf.

73   See Online Voter Registration: the Bipartisan Trend in Elections, NCSL.ORG (Nov. 12, 2013), http://www.ncsl.org/research/elections-and-campaigns/online-voter-registration-webinar.aspx ("Allowing citizens to register to vote online has proven to be astoundingly cost effective in some cases, and has improved accuracy in our nation's voter rolls. It's also a rare issue in elections administration that appeals to Democrats and Republicans alike."); Christopher Ponoroff, Brennan Center for Justice, Voter Registration in a Digital Age 9 (Wendy Weiser ed.) (2010), available at http://www.brennancenter.org/sites/default/files/legacy/Democracy/Paperless_Registration_FINAL.pdf.

74   See Rock the Vote, Connected OVR: A Simple Durable Approach to Online Voter Registration (2013).

75   The states are Alaska, Arizona, Arkansas, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Nebraska, Nevada, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Virginia, Washington, and West Virginia. See Kris W. Kobach, Kansas Secretary of State, PCEA Hearing Submission, Cincinnati, OH, at 9 (Sept. 20, 2013) (figure and list of states updated to reflect recent additions); Reid Wilson, Here's how to clean up messy voter rolls, The Wash. Post GovBeat (Nov. 3, 2013), available at http://www.washingtonpost.com/blogs/govbeat/wp/2013/11/03/heres-how-to-clean-up-messy-voter-rolls/.

76   The states currently participating are Colorado, Delaware, Maryland, Nevada, Utah, Virginia, and Washington. See Electronic Registration Information Center, available at www.ericstates.org.

77   See Shane Hamlin & Ericka Haas, ERIC: Electronic Registration Information Center, slides 19-21 (2013), available at http://ericstates.org/images/documents/ERIC_July_2013_VR_Conference_Notes.pdf (powerpoint presentation); Delaney Turner, Day Two Recap: Big data in action drives big gains for democracy, IBM: The Big Data & Analytics Hub (Nov. 5, 2013), available at http://www.ibmbigdata-hub.com/IOD/2013/blog/day-two-recap-big-data-action-drives-big-gains-democracy.

78   The IVRC uses a secure FTP site, deletes all participating states' data after running the crosscheck, and compares only certain data types (e.g., name, date of birth, address and Social Security number). Kris W. Kobach, Kansas Secretary of State, Photo ID and Electronic Poll Books and Interstate Voter Registration Crosscheck, PCEA Hearing Presentation, Cincinnati, OH, at slides 12-13 (Sept. 20, 2013). ERIC anonymizes the confidential data it receives from states when it leaves state control, rendering it unreadable to unauthorized parties; maintains tamper-proof audit logs; requires states to adhere to security standards-setting agreements; and retains an advisory board of security experts to review and improve systems. Pew Charitable Trusts State and Consumer Initiatives, Electronic Registration Information

Center (ERIC): Frequently Asked Questions (Nov. 2, 2012), http://www.pewstates.org/research/analysis/ electronic-registration-information-center-eric-frequently-asked-questions-85899426025.

79   The states in which over 50% of total registrations come from the DMV are Delaware, Georgia, Kentucky, Michigan, New York, Pennsylvania, and Rhode Island (plus the District of Columbia). U.S. Election Assistance Commission, The Impact of the National Voter Registration Act of 1993 on the Administration of Elections for Federal Office 2011-2012, A Report to the 113th Congress, Table 2a (2013), available at http://www.eac.gov/assets/1/Documents/EAC_NVRA%20Report_lowres.pdf.

80   The Election Assistance Commission's NVRA studies dating back to the 2003-2004 report and the Federal Election Commission's NVRA studies dating back to the inaugural NVRA report in 1995-1996 are available on the EAC website. See U.S. Election Assistance Commission, Research and Data, http://www.eac.gov/registration-data.

81   Pew Center on the States, Bringing Elections into the 21st Century: Voter Registration Modernization 4 n.9 (2009), available at http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Election_reform/Voter_Registration_Modernization_Brief_web.pdf.   During the 2011-12 election cycle, Delaware processed nearly 75% of its new voter registrations via its motor vehicles department; Michigan processed approximately 90%. This is in contrast to the nationwide rate of 30%. U.S. Election Assistance Commission, The Impact of the National Voter Registration Act of 1993 on the Administration of Elections for Federal Office 2011-2012, A Report to the 113th Congress, Table 2b (2013), available at http://www.eac.gov/assets/1/Documents/EAC_NVRA%20Report_lowres.pdf.

82   See Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Submission, Philadelphia, PA, at 2 (Sept. 4, 2013) (describing eSignature).

83   See Matt Crane, Arapahoe County Clerk and Recorder, PCEA Hearing Submission, Denver, CO, at 2 (Aug. 8, 2013) (noting increased number of provisional ballots lead to longer wait times).

84   See, e.g., Dawn Williams, Marshall County Auditor and Recorder/Commissioner of Elections, PCEA Hearing Submission, Cincinnati, OH, at 3 (Sept. 20, 2013), available at https://www.supportthevoter.gov/files/2013/09/Dawn-Williams-PCEA-Testimony.pdf (discussing the problem of "facility shortage" in the context of early voting).

85   Resources on polling place management include the EAC's Election Management Guidelines chapter, "Polling Place and Vote Center Management." U.S. Election Assistance Commission, Election Management Guidelines, ch. 9, available at http://www.eac.gov/assets/1/workflow_staging/Page/266.pdf.

86   Judd Choate, Colorado State Elections Director, Remarks at NASED Roundtable, Anchorage, Alaska (July 20, 2013), described in PCEA Public Meeting Conference Call, at 16 (Nov. 14, 2013).

87   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 2 (Sept. 4, 2013) ("Schools. This has become my hot topic. Half of our schools are public polling places in Delaware."); Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Presentation, Philadelphia, PA, at slide 8 (Sept. 4, 2013), available at https://www.supportthevoter.gov/files/2013/09/Elaine-Manlove-Delaware-PCEA-Presentation.ppt ("We could not conduct elections without these buildings which are accessible, well-located with adequate space and parking."); David Orr, Cook County Clerk, PCEA Hearing Submission, Cincinnati, OH, at 2 (Sept. 20, 2013), available at https://www.supportthevoter.gov/files/2013/09/David-Orr-Testimony-to-Presidential-Commission.pdf ("Elec-

tion authorities need access to schools, park districts and other public buildings to hold efficient elections. Public schools in particular often have the right attributes to make elections run more smoothly."); Doug Chapin, Election Official as Bloodhound: Newby on Searching for Polling Sites, Election Academy, Univ. of Minn. Humphrey Sch. of Pub. Affairs (Oct. 4, 2013), http://blog.lib.umn.edu/cspg/electionacademy/2013/10/election_official_as_bloodhoun.php.

88   R. Michael Alvarez et al., 2008 Survey of the Performance of American Elections, question q7 (2008), available at http://vote.caltech.edu/sites/default/files/Final%20report20090218.pdf; Charles Stewart III, 2012 Survey of the Performance of American Elections, question q6 (2012).

89   These states include Arizona, California, Delaware, Georgia, Hawaii, Illinois, Indiana, Michigan, Minnesota, Mississippi, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, Tennessee, and Wyoming. National Conference of State Legislatures, Polling Place Requirements (2013).

90   As of July, six states had considered bills to restrict access to schools on election days in 2013, compared to three last year. None passed the legislature. Jens Manuel Krogstad, Iowa joining trend of decreasing school polling places, USA Today (July 16, 2013), available at http://www.usatoday.com/story/news/nation/2013/07/15/iowa-decreases-school-polling-places/2519611/. See also Wendy Underhill, Legislatures Rethinking Schools as Polling Places, NCSL's The Thicket (Feb. 5, 2013), http://ncsl.typepad.com/the_thicket/2013/02/legislatures-rethinking-schools-as-polling-places.html.

91   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 1-2 (Sept. 4, 2013); Wendy Underhill, NCSL Senior Policy Specialist, PCEA Hearing Testimony, Denver, CO, at 50-51 (Aug. 8, 2013).

92   PCEA Public Meeting Conference Call, at 11, 16 (Nov. 14, 2013) (summarizing findings from meeting with the Bipartisan Policy Center (July 2, 2013), NASED (July 20, 2013), and Election Center (August 15-16, 2013)); see also Doug Chapin, School's Out—As a Polling Place? NJ Town Seeks New Voting Locations, Election Academy, Univ. of Minn. Humphrey Sch. of Pub. Affairs (July 30, 2013), http://blog.lib.umn.edu/cspg/electionacademy/2013/07/schools_out_-_as_a_polling_pla.php.

93   Wendy Underhill, NCSL Senior Policy Specialist, PCEA Hearing Testimony, Denver, CO, at 50 (Aug. 8, 2013) (discussing "cases where the students are not in the school but perhaps professional development for the teachers is going on"). Six states (California, Montana, Illinois, Rhode Island, New Mexico, and North Dakota) specify that schools may be closed when used as polling places, and three states specify that schools are to be used as polling places when requested, but that they should not interfere with school functions. National Conference of State Legislatures, Restrictions on Schools as Polling Places (2013); see also Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Presentation, Philadelphia, PA, at slide 9 (Sept. 4, 2013).

94   Henry E. Brady & John E. McNulty, Turning Out to Vote: The Costs of Finding and Getting to the Polling Place, 105 American Political Science Review 115 (2011); Joshua J. Dyck & James G. Gimpel, Distance, Turnout, and the Convenience of Voting, 86 Social Science Quarterly 531 (2005); Moshe Haspel & H. Gibbs Knotts, Location, Location, Location: Precinct Placement and the Costs of Voting, 67 Journal of Politics 560 (2005).

95   Larimer County, Colorado, "Vote Center Defined," http://www.co.larimer.co.us/elections/votecenter/votecenters_defined.htm. See also Robert M. Stein & Greg Vonnahme, Election Day Vote Centers

and Voter Turnout, available at http://www.nonprofitvote.org/doc_download/164-election-day-vote-centers-and-voter-turnout-stein-and-vonnahme.

96 See Maggie Toulouse Oliver, Bernalillo County Clerk, PCEA Hearing Submission, Denver, CO, at 7-9 (Aug. 8, 2013); Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Denver, CO, at 25-28 (Aug. 8, 2013); Leslie Hoffman, Yavapai County Recorder, PCEA Hearing Testimony, Denver, CO, at 65-66 (Aug. 8, 2013).

97 See Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Denver, CO, at 26 (Aug. 8, 2013).

98 See id.; Matt Crane, Arapahoe County Clerk and Recorder, PCEA Hearing Testimony, Denver, CO, at 28 (Aug. 8, 2013) (noting that most Colorado counties with vote centers saw a sharp decline in provisional ballots). About 11% of provisional ballots in 2008 were cast due to voters attempting to vote at the wrong location. Daron Shaw & Vincent Hutchings, Report on Provisional Ballots and American Elections, PCEA Hearing Submission, Denver, CO, at 7 (Aug. 8, 2013) (accompanying oral testimony of Daron Shaw). The EAVS survey suggests that showing up at the wrong polling place is the second most common reason for casting a provisional ballot. U.S. Election Assistance Commission, 2012 Election Administration and Voting Survey 13 (2013), available at http://www.eac.gov/assets/1/Page/990-050%20EAC%20VoterSurvey_508Compliant.pdf.

99 See Maggie Toulouse Oliver, Bernalillo County Clerk, PCEA Hearing Testimony, Denver, CO, at 7 (Aug. 8, 2013).

100 See Dana DeBeauvoir, Travis County Clerk, Vote Centers Add Voter Convenience, Reduce Election Day Problems, and Provide Long-Term Cost Savings, PCEA Hearing Submission, Denver, CO (Aug. 8, 2013), available at https://www.supportthevoter.gov/files/2013/08/PCEA-Dana-Debeauvoir-Travis-County-Tx-County-Clerk-Vote-Centers.pdf; Robert M. Stein, Professor of Political Science, Rice University, PCEA Hearing Testimony, Philadelphia, PA, at 33 (Sept. 4, 2013) ("But, if you look at election day vote centers, as practiced in Colorado, Texas — soon to come in some other states like Indiana — it's had a significant effect and nontrivial effect. Five to eight points on turnout.").

101 Matt Crane, Arapahoe County Clerk and Recorder, PCEA Hearing Testimony, Denver, CO, at 29 (Aug. 8, 2013) (noting increase in wait times due to provisional ballots in Arapahoe County after adoption of vote centers).

102 See, e.g., Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) (noting that "inaccurate or inactive registration often cause[s] delays in a polling place, as [poll workers] try to fix the problem for the voter" and arguing for technological solutions).

103 See Charles Stewart III, Waiting to Vote in 2012, 28 Journal of Law & Politics 439, n.37 (2013) (noting that 68% of early voters and 60% of Election Day voters reported waiting in line primarily at the check-in phase, as opposed to waiting for an available machine).

104 Neal Kelley, Orange County Registrar of Voters, PCEA Hearing Testimony, Cincinnati, OH, at 22 (Sept. 20, 2013) ("[O]ur website allows voters to ascertain their polling place location, provides a map and route information from their home address and more importantly relays information about expected turnout and wait time at their polling place in real time on Election Day."); Dana DeBeauvoir, Travis

County Clerk, PCEA Hearing Testimony, Denver, CO, at 2 (Aug. 8, 2013) ("Initially, we used Twitter reports from citizens to provide information on voting wait times. We now electronically gather information from each polling location that shows how many people have voted and approximately how long someone will have to wait in line. This information is provided on an internet page available for public viewing.").

105 Some jurisdictions utilize a "dashboard" function on their website or downloadable application that is periodically updated with current wait times. See Maggie Toulouse Oliver, Bernalillo County Clerk, PCEA Hearing Testimony, Denver, CO, at 8 (Aug. 8, 2013).

106 Charles Stewart III & Stephen Ansolabehere, Waiting in Line to Vote 15–17 (2013), available at https://www.supportthevoter.gov/files/2013/08/Waiting-in-Line-to-Vote-White-Paper-Stewart-Ansolabehere.pdf; Justin Levitt, "Fixing That": Lines at the Polling Place, 28 Journal of Law and Politics 465 (2013).

107 Charles Stewart III, Waiting to Vote in 2012, 28 Journal of Law & Politics 439, n.37 (2013) (noting that 68% of early voters and 60% of Election Day voters reported waiting in line primarily at the check-in phase, as opposed to waiting for an available machine); David Kimball, Professor of Political Science, University of Missouri-St. Louis, PCEA Hearing Testimony, Cincinnati, OH, at 34-35 (Sept. 19, 2013).

108 See Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 3 (Sept. 4, 2013); Marci Andino, Executive Director, South Carolina Election Commission Executive Director, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013). See also Douglas M. Spencer & Zachary S. Markovits, Long Lines at Polling Stations? Observations from an Election Day Field Study, 9 Election Law Journal 13, 13-17 (2010).

109 Charles Stewart III, Professor of Political Science, MIT, PCEA Hearing Testimony, Miami, FL, at 28 (June 28, 2013).

110 Stephen Graves, Professor of Management Science, Mechanical Engineering, and Engineering Systems, MIT, PCEA Hearing Testimony, Philadelphia, PA, at 38 (Sept. 4, 2013); Shane Hamlin, Washington Deputy Director of Elections and ERIC Chair, PCEA Hearing Testimony, Cincinnati, OH, at 31-32 (Sept. 20, 2013).

111 Charles Stewart III, Waiting to Vote in 2012, 28 Journal of Law & Politics 439, 455 (2013).

112 Id. at 452-55.

113 Susan Bucher, Palm Beach County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 14 (June 28, 2013); Bill Cowles, Orange County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 16 (June 28, 2013); Matt Crane, Arapahoe County Clerk and Recorder, PCEA Hearing Testimony, Denver, CO, at 29 (Aug. 8, 2013).

114 Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6-7 (Sept. 4, 2013); Tom Schedler, Louisiana Secretary of State, PCEA Hearing Submission, Philadelphia, PA, at 23 (Sept. 4, 2013), available at https://www.supportthevoter.gov/files/2013/09/Tom-Schedler-LA-SOS-PCEA-Testimony.pdf.

115 Barry C. Burden & Jeffrey Milyo, The Recruitment and Training of Poll Workers: What We Know from Scholarly Research, PCEA Hearing Submission, Cincinnati, OH, at 12 (Sept. 20, 2013), available at https://www.supportthevoter.gov/files/2013/09/Barry-Burden-Jeff-Milyo-The-Recruitment-and-

Training-of-Poll-Workers.pdf; Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013); Nina Ahmad, Chair, Philadelphia Mayor's Commission on Asian-American Affairs, PCEA Hearing Testimony, Philadelphia, PA, at 76 (Sept. 4, 2013); Carolyn Gele, SEIU, PCEA Hearing Testimony, Miami, FL, at 38 (June 28, 2013).

116 Doug Chapin, The Secret to Fixing Long Lines? Math. [Yes, Math.], Election Academy, Univ. of Minn. Humphrey Sch. of Pub. Affairs (Nov. 12, 2012), http://blog.lib.umn.edu/cspg/electionacademy/2012/11/the_secret_to_fixing_long_line.php; Doug Chapin, Report on Anchorage Ballot Problems Highlights importance of Turnout to Election Planning, Election Academy, Univ. of Minn. Humphrey Sch. of Pub. Affairs (July 9, 2012), http://blog.lib.umn.edu/cspg/electionacademy/2012/07/report_on_anchorage_ballot_pro.php; Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 6 (Sept. 20, 2013); David Orr, Cook County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 19 (Sept. 20, 2013).

117 Dana Chisnell, Field Guides to Ensuring Voter Intent: Designing Usable Ballots 27 (2013), available at https://www.supportthevoter.gov/files/2013/08/Field-Guide-Vol-01-20130620.pdf.

118 The standard models used in operations research and industrial engineering tend to recommend the allocation of more equipment to meet service demands than these simple baseline calculations. For instance, Edelstein and Edelstein recommend, as a rule of thumb, allocating twice as many machines to polling places as these baseline models would suggest. See William A. Edelstein & Arthur D. Edelstein, Queuing and Elections: Long Lines, DREs, and Paper Ballots, Proceedings of the 2010 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE '10), available at https://www.usenix.org/legacy/events/evtwote10/tech/full_papers/Edelstein.pdf.

119 Ken Detzner, Florida Secretary of State, PCEA Hearing Testimony, Miami, FL, at 2 (June 28, 2013); Bill Cowles, Orange County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 16 (June 28, 2013); Robert M. Stein, Professor of Political Science, Rice University, PCEA Hearing Testimony, Philadelphia, PA, at 28 (Sept. 4, 2013).

120 Charles Stewart III, Professor of Political Science, MIT, PCEA Hearing Testimony, Denver, CO at 39 (Aug. 8, 2013); Charles Stewart III & Daron Shaw, Lessons from the 2012 Election Administration and Voting Survey 9-11 (2013).

121 Charles Stewart III, Waiting to Vote in 2012, 28 Journal of Law & Politics 439, 460 (2013).

122 Steve Trout, Oregon State Elections Director, PCEA Hearing Testimony, Denver, CO, at 6 (Aug. 8, 2013); Sarah Johnson, Colorado Springs City Clerk, PCEA Hearing Testimony, Denver, CO, at 30 (Aug. 8, 2013); David Orr, Cook County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 18 (Sept. 20, 2013).

123 Penelope Townsley, Miami-Dade County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, video 9 at 51:06 (June 28, 2013) ("There may be an assumption that because of the long lines…there was poor planning, but I can tell you that my historical analysis told me that I was going to have a 30 percent Election Day turnout for the general election. I planned for 35 percent and above. We actually had 31 percent. I had long lines. So the issue was entirely not planning.").

124 See Stephen Graves, Professor of Management Science, Mechanical Engineering, and Engineering Systems, MIT, PCEA Hearing Testimony, Philadelphia, PA, at 33 (Sept. 4, 2013); Doug Chapin, Aaron

Strauss' Election Day Resource Calculator, Election Academy, Univ. of Minn. Humphrey Sch. of Pub. Affairs (Aug. 13, 2013), http://blog.lib.umn.edu/cspg/electionacademy/2013/08/aaron_strauss_election_day_res.php.

125   Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) ("The use of electronic poll books in Virginia has dramatically improved the accuracy and integrity of the voter check-in process, with fewer errors and more accurate voter history."); John Carbone, IACREOT, PCEA Hearing Testimony, Philadelphia, PA, at 37 (Sept. 4, 2013) ("[I]f we had the electronic poll books, [we would not have had] backups and lines.").

126   See Penelope Townsley, Miami Dade County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 23 ("[E]lection [D]day polling place [in]efficiencies have been largely attributed to our outdated voter check-in process. The paper-base[d] process significantly impacted wait times at some precincts, as voters had to be manually located on hardcopy precinct registered pages and often waited inordinate periods of time for poll workers to make phone calls to the department to determine voter eligibility.").

127   See Stephen Ansolabehere, Professor of Government, Harvard University, Election Administrators Survey, PCEA Hearing Presentation, Cincinnati, OH, at slides 5-7 (Sept. 20, 2013) available at https://www.supportthevoter.gov/files/2013/09/Steve-Ansolabehere-Survey-Presentation-PCEA.pdf (noting that electronic poll books were one of the most desired technologies among election administrators).

128   Stephen Ansolabehere, Professor of Government, Harvard University, PCEA Hearing Testimony, Cincinnati, OH (Sept. 21, 2013).

129   Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013) ("Hundreds of thousands of [well-trained] poll workers are needed on election day to effectively run polling places across the country."); Thad Hall, J. Quin Monson & Kelly D. Patterson, Poll Workers and the Vitality of Democracy: An Early Assessment, 36 PS: Political Science & Politics 647 (2003) ("Poll workers have a multitude of duties on Election Day ranging from setting up and closing down voting machines to determining when to check a voter's identification to deciding when to allow a voter to cast a provisional ballot.").

130   Doug Hill, Executive Director, County Commissioners Association of Pennsylvania, PCEA Hearing Testimony, Philadelphia, PA, at 52 (Sept. 4, 2013) ("Getting training and keeping poll worker[s] is, by far and always, our biggest hurdle."); Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013) ("Poll workers are valuable resources, but they are basically volunteers who receive limited training, they work a few days every other year, and in some cases they earn less than minimum wage."); Barry C. Burden & Jeffrey Milyo, The Recruitment and Training of Pollworkers: What We Know from Scholarly Research, PCEA Hearing Submission, Cincinnati, OH, at 5 (Sept 20, 2013) (showing the difficulty that states have in attracting poll workers).

131   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013) (stating that pollworker training typically lasts two and a half hours); see also Stephen Ansolabehere, Daron Shaw & Charles Stewart III, Overview of Local Election Officials Survey 19 (2013); Charles Stewart III, Professor of Political Science, MIT, PCEA Meeting Presentation, Washington, DC, at 22 (Dec. 3, 2013). The small number of hours of training revealed in the 2013 survey reported by Ansolabehere, Shaw, and Stewart is consistent with results reported in surveys conducted

in the past. See, e.g., Eric A. Fischer & Kevin J. Coleman, Congressional Research Service, RL34363, Election Reform and Local Election Officials: Results of Two National Surveys 50 (2008) ("On average, pollworkers received 3.5 hours of training in 2006.").

132   See David C. Kimball, et al., Poll workers and Election Administration: The View from Local Election Officials 14-16 (2009), available at http://www.umsl.edu/~kimballd/dk_bb_June09.pdf.

133   U.S. Election Assistance Commission, 2012 Election Administration and Voting Survey: A Summary of Key Findings 14 (2013).

134   Stephen Ansolabehere, Daron Shaw & Charles Stewart III, Overview of Local Election Officials Survey 15 (2013); Charles Stewart III, Professor of Political Science, MIT, PCEA Meeting Presentation, Washington, DC, at slide 20 (Dec. 3, 2013).

135   Thad Hall, J. Quin Monson & Kelly D. Patterson, Poll Workers and the Vitality of Democracy: An Early Assessment, 37 PS: Political Science & Politics 647 (2003) (noting that poll worker error "generated news coverage that could undermine the public's confidence in the electoral process.").

136   U.S. Election Assistance Commission, 2012 Election Administration and Voting Survey: A Summary of Key Findings 14 (2013).

137   U.S. Election Assistance Commission, Successful Practices for Poll Worker Recruitment, Training, and Retention (2007). For additional EAC resources, see U.S. Election Assistance Commission, Poll Worker Best Practices, http://www.eac.gov/election_management_resources/poll_worker_best_practices.aspx.

138   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 15 (Sept. 4, 2013) ("In Delaware…we employ 16 and 17 year old poll workers. I think it's one of the best things we've ever done.").

139   As of 2007, 27 states and the District of Columbia have programs whereby students age 16 and older may serve as pollworkers. Those states are Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Indiana, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, Nevada, North Dakota, Oregon, Rhode Island, South Carolina, Vermont, Washington, West Virginia, Wisconsin, and Wyoming. U.S. Election Assistance Commission, Compendium of State Poll Worker Requirements, at iv-a (2007), available at http://www.eac.gov/assets/1/Page/Poll%20Worker%20Requirements%20by%20State.pdf.

140   Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 13 (Sept. 4, 2013) ("[W]e also in Delaware use corporate poll workers. . . . Corporations share one of their employees with us for the day.").

141   See Press Release, Franklin County Board of Elections, Champions of Democracy Poll Worker Training Starts Monday (Feb. 17, 2013), available at http://vote.franklincountyohio.gov/assets/pdf/press-releases/2012-02-17-1.pdf; Press Release, Columbus Chamber of Commerce, Chamber Encouraging Participation in Champions of Democracy Program (Aug. 1, 2012), available at http://www.columbus.org/news/press-releases.dT/chamber-encouraging-participation-in-champions-of-democracy-program/.

142   See Johnson County Election Office, Making Voting Popular—Bi-State Outreach Program, available at http://www.jocoelection.org/workers/MVP-Program.htm.

143 Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 6 (Sept. 4, 2013) ("While this model for staffing polling places is necessary, it also creates issues, such as difficulty in finding poll workers, inadequate training of poll workers, [and] poll workers who are uncomfortable with the technologies that have been deployed.").

144 Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 17 (Sept. 4, 2013) (discussing turnover rates for poll workers).

145 Clyde Terry, National Council on Disability, PCEA Hearing Testimony, Philadelphia, PA, at 58 (Sept. 4, 2013) (discussing the importance of training poll workers in use of the equipment and in basic disability etiquette and awareness).

146 Barry C. Burden & Jeffrey Milyo, The Recruitment and Training of Poll Workers: What We Know From Scholarly Research, PCEA Hearing Submission, Cincinnati, OH, at 15-16 (Sept. 20, 2013).

147 See id.; Elaine Manlove, Delaware State Election Commissioner, PCEA Hearing Testimony, Philadelphia, PA, at 16 (Sept. 4, 2013) (noting that training is typically two and a half hours).

148 Lisa Schur, Associate Professor, Labor Studies and Employment Relations, Rutgers University, PCEA Hearing Testimony, Denver, CO, at 42 (Aug. 8, 2013) ("[A] two year study found that the interactive training methods were more effective than just having poll workers look at lectures.").

149 Barry C. Burden & Jeffrey Milyo, The Recruitment and Training of Poll Workers: What We Know From Scholarly Research, PCEA Hearing Submission, Cincinnati, OH, at 16 (Sept. 20, 2013).

150 Sally Williams, Director, Election Liaison Division, Michigan Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 47 (Sept. 19, 2013).

151 Poll Worker Training Information, DallasCountVotes.org, http://www.dallascountyvotes.org/training-and-education/poll-worker-information/.

152 EAC's Election Management Guidelines chapter, "Building Community Partnerships," provides a resource for working with community groups. U.S. Election Assistance Commission, Election Management Guidelines, ch. 12, available at http://www.eac.gov/assets/1/Documents/EMG%20chapt%2012%20august%2026%202010.pdf.

153 Lisa Schur, Reducing Obstacles to Voting for People with Disabilities: White Paper prepared for Presidential Commission on Election Administration 1 (2013).

154 Government Accountability Office, GAO-13-538SP Voters with Disabilities: Challenges to Voting Accessibility 1 (2013), available at http://www.gao.gov/assets/660/654099.pdf.

155 Id., at 9.

156 National Council on Independent Living, Position Statement on Polling Location Wait Times (2013); Jim Dickson, National Council on Disability Rights, Remarks at the Roundtable on Voting Accessibility at 6 (July 11, 2013); Deborah Vagins, ACLU, & Kathy Hoell, SILC, Remarks at the Roundtable on Voting Accessibility (July 11, 2013), summarized in PCEA Public Meeting Conference Call at 13 (Nov. 14, 2013); see also Dana Farmer, Disability Rights Florida, PCEA Hearing Testimony, Miami, FL, at 46 (June 28, 2013).

157   Lisa Schur, Associate Professor, Labor Studies and Employment Relations, Rutgers University, PCEA Hearing Testimony, Denver, CO, at 41 (Aug. 8, 2013) ("Among those who said they had difficulty getting inside the polling place, the most common problems were that there were steps, or that there was a long walking distance.").

158   Government Accountability Office, GAO-13-538SP, Voters with Disabilities: Challenges to Voting Accessibility 7 (2013), available at http://www.gao.gov/assets/660/654099.pdf.

159   Hillary Sklar & Fred Nisen, Disability Rights California, Best Processes to Reduce and Eliminate Accessibility Barriers for Voters with Disabilities, Presentation to the PCEA at 13-14 (Aug. 6, 2013), available at https://www.supportthevoter.gov/files/2013/06/FOCE.12-DRC-Barriers-and-Best-Processes-Voters-with-Disabilities.pdf.

160   City and County of San Francisco, Department of Elections, Pollworker Training Videos, http://sfgov2.org/index.aspx?page=837.

161   Pennsylvania Deparment of State, Election Officials' Training to Assist Voters with Disabilities (undated), available at http://www.dgsweb.state.pa.us/CMSUploads/vod/cms_asx_generator.asp?videoname=090108_program_state_electiontrainingwithdisabilities.wmv.

162   Wisconsin Government Accountability Board, Elections Division, 2009 Polling Place Accessibility Survey (2009) available at http://gab.wi.gov/sites/default/files/page/2009_polling_place_accessibility_survey_pdf_86432.pdf.

163   Wisconsin Government Accountability Board, Elections Division, Impediments Faced by Elderly Voters and Voters with Disabilities (2013), available at http://gab.wi.gov/sites/default/files/publication/65/2013_accessibility_report_pdf_44525.pdf.

164   U.S. Census Bureau, "Citizenship status by age by language spoken at home and ability to speak English for the population 5 years and over," 2010-2012 American Community Survey 3-Year Estimates.

165   James Tucker, Attorney, Wilson Eisner, PCEA Hearing Testimony, Denver, CO, at 73 (Aug. 8, 2013) ("[Language assistance] is something that consistently across the board we've seen election officials fail, sometimes intentionally, sometimes they just don't know any better, sometimes they're just completely under staffed and don't have the resources.").

166   U.S. Election Assistance Commission, Glossaries of Election Terminology, http://www.eac.gov/election_management_resources/glossaries_of_election_terminology.aspx.

167   The Greenlighting Institute, Recommendations 1 (2013), available at https://www.supportthevoter.gov/files/2013/06/FOCE.07-Greenlining.Recommendations.docx; Whitney Quesenbery, Center for Civic Design, Accessibility as Innovation: Creating a Voting System for Everyone, PCEA Hearing Submission, Philadelphia, PA, at 4-5 (Sept. 4, 2013), available at https://www.supportthevoter.gov/files/2013/09/Whitney-Quesenbery-Accessibility-as-Innovation-PCEA.pdf; Future of California Elections, Report and Recommendations for the PCEA 14 (2013), available at https://www.supportthevoter.gov/files/2013/06/FOCE-PCEA-report-FINAL.pdf.

168   Paul Gronke, Professor of Political Science, Reed College, PCEA Hearing Testimony, Denver, CO, at 47 (Aug. 8, 2013).

169 Id. at 40 ("Early voting rates climbed rapidly, growing by approximately 50% in each cycle from 2000 until 2008, finally leveling off in 2012.").

170 2012 Election Administration and Voting Survey datasets, available for download at http://www.eac. gov/research/election_administration_and_voting_survey.aspx (as analyzed by Charles Stewart III with data supplemented by local officials). Discrepancies with the Voting and Registration Supplement to the Census Current Population Survey are attributable to the different definitions the surveys and respondents may have for what constitutes an absentee or an in-person early vote, as well as the completeness of state reporting to the EAC or other sampling error in the CPS. The 2012 CPS data indicate that roughly 18 percent voted by mail or absentee and 13 percent voted in person early. See Census Bureau, Voting and Registration Supplement, Current Population Survey, available at http://dataferrett.census.gov/ (as analyzed by Paul Gronke).

171 Alaska, Arizona, California, Colorado, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Maryland, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Dakota, Utah, Vermont, Wisconsin, and Wyoming all offer no-excuse absentee voting. See National Conference of State Legislatures, Absentee and Early Voting, http://www.ncsl.org/research/elections-and-campaigns/absentee-and-early-voting.aspx#no_excuse.

172 The states with some form of early in-person voting include: Alaska, Arizona, Arkansas, California, Colorado, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Montana, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Utah, Vermont, West Virginia, Wisconsin, and Wyoming. See id.

173 Steve Trout, Oregon State Elections Director, PCEA Hearing Testimony, Denver, CO, at 21 (Aug. 8, 2013).

174 Paul Gronke, Professor of Political Science, Reed College, PCEA Hearing Testimony, Denver, CO, at 47 (Aug. 8, 2013) ("Most states begin early in-person voting 10 to 20 days before Election Day, and most end the Friday, Saturday, and some even the Monday before election day. More than one third of the states require early voting on at least one Saturday or Sunday.").

175 Id. at 48 (Aug. 8, 2013) ("It's true. I tell reporters ever[y] election cycle, where vote fraud occurs is most often associated with absentee voting, but it's also true that the frequency of vote fraud is miniscule.").

176 Wendy Underhill, NCSL Senior Policy Specialist, PCEA Hearing Testimony, Denver, CO, at 51 (Aug. 8, 2013).

177 See Dean Logan, Los Angeles County Registrar-Recorder/County Clerk, PCEA Hearing Testimony, Denver, CO, at 15 (Aug. 8, 2013) ("[I]t's clear that the voters today and certainly in the future are going to expect options."); see also Robert M. Stein & Greg Vonnahme, Voting at Non-Precinct Polling Places: A Review and Research Agenda, 10 Election Law Journal 307 (2011) (finding more positive voter experiences in states with early voting); Connie Schmidt, CERA Administrator, Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 17 (Sept. 20, 2013) (noting the benefits of early voting).

178 See, e.g., Ken Detzner, Florida Secretary of State, PCEA Hearing Testimony, Miami, FL, at 2 (June 28, 2013) (explaining Florida is one of the states that offers both early voting and no-excuse absentee voting and touting the expansion of early voting opportunities that passed in 2013 as one method to deal with

wait times in Florida); Jon Husted, Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 2 (Sept. 20, 2013) (explaining his support of expanding no-fault absentee voting to alleviate the lines during 2004 election and that "absentee voting has continued to grow in popularity with voters and elections officials alike."); Maggie Toulouse Oliver, Bernalillo County Clerk, PCEA Hearing Testimony, Denver, CO, at 7 (Aug. 8, 2013) ("The success of our election process is heavily dependent on early voting."); see also Paul Gronke, Professor of Political Science, Reed College, PCEA Hearing Testimony, Denver, CO, at 47 ("Early voting options were added to states across the nation [between 1986 and 2010] without much debate, primarily as a means to increase accessibility and convenience. Other than high profile adoptions at the election cycles in 2000 and 2004, this truly has been a quiet revolution, dramatic yet bipartisan.").

179 See Charles Stewart III, Losing Votes by Mail, 13 N.Y.U. Journal of Legislation and Public Policy 573, 579-80 (2010).

180 Id. at 597-98.

181 Amber McReynolds, Denver Director of Elections, PCEA Hearing Testimony, Denver, CO, at 69 (Aug. 8, 2013) (describing Denver's TRACE system for mail ballot tracking); Nicholas Martinez, Miami Downtown Development Authority, PCEA Hearing Testimony, Miami, FL, at 47-48 (June 28, 2013) (describing Miami's intelligent mail barcode for election mail); Seth Flaxman, PCEA Hearing Testimony, Philadelphia, PA, at 80-81 (Sept. 4, 2013) (testifying to local election officials' demand for intelligent mail barcode tracking); U.S. Election Assistance Commission, Voter Information Websites Study 11 (2008), available at http://www.eac.gov/assets/1/workflow_staging/Page/64.PDF.

182 See Press Release, U.S. Election Assistance Commission, EAC Issues Best Practices for Voter Information Websites (Nov. 24, 2008), available at http://www.eac.gov/eac_issues_best_practices_for_voter_information_web_sites_/. Orange County's website, for example, allows voters to track and verify the status of their absentee ballots. Neal Kelley, Orange County Registrar of Voters, PCEA Hearing Testimony, Cincinnati, OH, at 23 (Sept. 20, 2013).

183 Candace Grubbs, Butte County Clerk-Recorder/Registrar of Voters, Comment at Election Center National Conference, Savannah, GA (Aug. 15, 2013), summarized in PCEA Public Meeting Conference Call, at 20 (Nov. 14, 2013).

184 See Josh Franklin, National Institute of Standards and Technology, PCEA Hearing Testimony, Cincinnati, OH, at 27 (Sept. 19, 2013) (describing obstacles facing overseas voters). In 2008, civilian absentee ballots were returned at a 13% greater rate than UOCAVA ballots. Charles Stewart III, Professor of Political Science, MIT, PCEA Hearing Testimony, Denver, CO, at 39 (Aug. 8, 2013).

185 See Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 29-31 (June 28, 2013) (outlining problems with mail and military voters); Paul Lux, Okaloosa County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 17-18 (June 28, 2013) ("Voters in forward deployed areas receive mail less frequently and have problems getting mail out when the decision is do we send casualties or supplies in the helicopter versus mail. Guess who wins?").

186 See R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 9 (Sept. 20, 2013) ("In terms of military and overseas voters, we have made gigantic improvements . . . ."); Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 33 (June 28, 2013) ("The MOVE Act was clearly successful, two things, one the 45 days, giving

more time for the turn around process, the second one was the changing of how you treat the FPCA."); Dan Nolan, Vice President of Strategic Planning and Government Operations, SOE Software, PCEA Hearing Testimony, Cincinnati, OH, at 4 (Sept. 19, 2013) (praising the MOVE Act for authorizing UOCAVA voters to receive ballots electronically); Overseas Vote Foundation, OVF and US Vote 2012 Post-Election Survey Report 2 (2013), available at https://www.overseasvotefoundation.org/files/OVF_ElectionReport_2013_web.pdf.

187 In one survey, 22% of overseas voters reported that the ballots they requested were either missing or late. Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 30 (June 28, 2013); Overseas Vote Foundation, OVF and US Vote 2012 Post-Election Survey Report 2 (2013), available at https://www.overseasvotefoundation.org/files/OVF_ElectionReport_2013_web.pdf .

188 Overseas Vote Foundation, OVF and US Vote 2012 Post-Election Survey Report 6 (2013), available at https://www.overseasvotefoundation.org/files/OVF_ElectionReport_2013_web.pdf.

189 Id. at 7.

190 See Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Presentation, Miami, FL, at slide 5 (June 28, 2013) (noting one-third of FWABs are rejected, usually because the voter is not registered).

191 See Independent Review, Final Report for the Interim Voting Assistance System (IVAS) (2006) (discussing earlier efforts of online assistance for military voters).

192 Orange County, California, has a web portal allowing military and overseas voters to register, verify and update military or overseas status, print a ballot, and request future ballots, among other features. Neal Kelley, Orange County Registrar of Voters, PCEA Hearing Testimony, Cincinnati, OH, at 23 (Sept. 20, 2013). Wisconsin's voter portal website securely delivers absentee ballots to service members overseas, among other services. Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 7 (Sept. 20, 2013). See also Paul Lux, Okaloosa County Supervisor of Elections, PCEA Hearing Testimony, Miami, FL, at 18 (June 28, 2013) (advocating expanded electronic delivery and return of ballots to UOCAVA voters, though not "pure internet voting"); Donald Inbody, Senior Lecturer, Texas State University, PCEA Hearing Testimony, Miami, FL, at 31 (June 28, 2013).

193 Overseas Vote Foundation, State Website UOCAVA Support Summary 1 (2013).

194 See Donald Inbody, Texas State University, PCEA Hearing Testimony, Miami, FL, at 31-32 (June 28, 2013) (recommending printable barcoded ballots as a good practice for military voters); Linda Lamone, Maryland State Administrator of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 5 (Sept. 4, 2013) (describing Maryland's use of barcoded electronic ballot delivery for military voters).

195 According to testimony received at the Denver hearing, the National Conference of State Legislatures "has identified voting technology as the coming crisis in elections." Wendy Underhill, NCSL Senior Policy Specialist, National Conference of State Legislatures, PCEA Hearing Submission, Denver, CO, at 3 (Aug. 8, 2013).

196 Each state is required by HAVA to submit a state plan to the EAC detailing how it will spend federal funds. State plans are available at http://www.eac.gov/payments_and_grants/state_plans.aspx.

197 See Jon Husted, Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 5 (Sept. 20, 2013) ("The next time we go to the polls to elect a president, these machines will be twelve years old. That's a lifetime when it comes to technology. The cost of this falls on already strapped local governments."); Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) ("Virginia faces an issue that many states across the nation face. How do we transition and upgrade to the next generation of voting equipment as aging equipment, purchased after the enactment of HAVA, reaches the end of its lifespan[?]").

198 See, e.g., Stephen Ansolabehere, Professor of Government, Harvard University, PCEA Hearing Testimony, Cincinnati, OH, at 56 (Sept. 20, 2013) (discussing results from survey of local election officials indicating wide dissatisfaction with available technology); Dean Logan, Los Angeles County Registrar-Recorder/County Clerk, PCEA Hearing Testimony, Denver, CO, at 15 (Aug. 8, 2013) (describing Los Angeles County's "very outdated voting system"); Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 33 (Sept. 19, 2013) ("[W]e're not serving the voter with the type of equipment that's available. We're not serving the election official with the type of equipment that's available."); Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) ("The lack of innovation often results in states and localities paying for expensive but antiquated equipment."); Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Denver, CO, at 36 (Aug. 8, 2013) ("We're extremely unhappy with what the market has offered us."); Sarah Johnson, Colorado Springs City Clerk, PCEA Hearing Testimony, Denver, CO, at 37 (Aug. 8, 2013) (lamenting that voting machines "haven't been upgraded in years"); Kenneth Bennett, Information Technology Manager, GIS, Ballot Management, and Election Tally Systems Division, Los Angeles County Registrar-Recorder/County Clerk's Office, PCEA Hearing Testimony, Cincinnati, OH, at 15 (Sept. 19, 2013) (describing the difficulty of finding effective voting systems for large jurisdictions); see also Stephen Ansolabehere, Daron Shaw & Charles Stewart III, Overview of Local Election Officials Survey 17 (2013); Charles Stewart III, PCEA Public Meeting Presentation, Washington, DC, at slide 37 (Dec. 3, 2013).

199 Dean C. Logan, Towards a Voter-Oriented Voting System: General Voting System Principles for Los Angeles County (2011), available at http://www.lavote.net/Voter/VSAP/PDFS/VotingSystemPrinciples.pdf; Dana DeBeauvoir, Travis STAR Voting System: Draft Flow of Polling Place Operations, available at https://www.supportthevoter.gov/files/2013/09/Dana-Debeauvoir-STAR-Voting-System-Diagram.pdf.

200 See Kathy Rogers, Senior Vice President of Government Affairs, Election Systems & Software, PCEA Hearing Testimony, Cincinnati, OH, at 4-5 (Sept. 19, 2013) (describing the diversity of current and future market demands across jurisdictions); Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 20-21 (Sept. 19, 2013) (noting the difficulty for vendors in creating innovative systems given uncertain revenue streams); R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 31-32 (Sept. 19, 2013) (stating that political constraints, not voter demands, drive election system manufacturing choices).

201 R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Submission, Cincinnati, OH, at 4 (Sept. 20, 2013), available at https://www.supportthevoter.gov/files/2013/09/Doug-Lewis-Testimony-for-Presidential-Commission-on-Elections.pdf ("Much has been reported by states and local jurisdictions, as well as the voting equipment manufacturers, that indicate there is a continuing problem with improving and updating voting equipment. We hear continuously that the current process stifles innovation and is so convoluted that voting equipment is out of date before it gets through testing let alone before it gets purchased or implemented by a local jurisdiction."); Dana DeBeauvoir, Some of the

Challenges That Can Be Addressed with a New Type of Voting System, available at https://www.sup-portthevoter.gov/files/2013/09/Dana-Debeauvoir-Challenges-That-Can-Be-Addressed-w-New-Voting-System.pdf ("The use of proprietary software and a difficult certification process has created a disincentive for vendors to maintain updated versions of software."); Kenneth Bennett, Information Technology Manager, GIS, Ballot Management, and Election Tally Systems Division, Los Angeles County Registrar-Recorder/County Clerk's Office, PCEA Hearing Submission, Cincinnati, OH, at 2 (Sept. 19, 2013) ("We saw a dysfunctional regulatory environment. We saw a voting systems market that was not offering products that would support our elections."); Matt Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 9-10 (Sept. 19, 2013) (describing the problem of stretching existing IT systems amid uncertainty as to what new systems will be available).

202 Kenneth Bennett, Information Technology Manager, GIS, Ballot Management, and Election Tally Systems Division, Los Angeles County Registrar-Recorder/County Clerk's Office, PCEA Hearing Submission, Cincinnati, OH, at 4 (Sept. 19, 2013), available at https://www.supportthevoter.gov/files/2013/09/Kenneth-Bennett-Written-Testimony-PCEA-Cincinnati-2013-.pdf ("In light of [technology] trends in the general population, future voters are increasingly more likely to be engaged and interconnected technologically . . . . They will expect technology to be a ubiquitous utility. . . . [W]e find [some] voters who expect technology to improve the voting experience and improve the administration of election[s], by making it more efficient, convenient, informative, and accessible."); Eddie Perez, Hart Intercivic, PCEA Hearing Testimony, Cincinnati, OH, at 8 (Sept. 19, 2013) (describing the public's desire for voting systems that use "familiar, accessible technology"); Marci Andino, Executive Director, South Carolina Election Commission, PCEA Hearing Testimony, Philadelphia, PA, at 12 (Sept. 4, 2013) ("Voters want to be able to vote using their personal electronic device, whether it's a smartphone or an iPad or some other type of tablet. And I would like to see that incorporated into the next generation of voting systems.").

203 Josh Franklin, National Institute of Standards and Technology, Cincinnati, OH, at 26-27 (Sept. 19, 2013) (testifying that the current standards are not adapted to new technologies states want to use, and that because of fears of wasting money on new systems that could be made obsolete by subsequent standards, new standards are needed to drive innovation); Merle King, Executive Director, Center for Election Systems at Kennesaw State University, PCEA Hearing Testimony, Cincinnati, OH, at 30 (Sept. 19, 2013) (arguing that static standards restrict the certification process's ability to adapt to new threats).

204 David Wallick, Everyone Counts, PCEA Hearing Testimony, Denver, CO, at 74-75 (Aug. 8, 2013) (advocating software solutions instead of single-use products, and arguing that slow certification procedures hinder the implementation of off-the-shelf technology); McDermot Coutts, Director of Research and Development, Unisyn Voting Solutions, PCEA Hearing Testimony, Cincinnati, OH, at 6 (Sept. 19, 2013) (describing the problem of standards not keeping pace with technology); Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Cincinnati, OH, at 13 (Sept. 19, 2013) (stating that standards are one factor pushing officials back to inefficient paper-based voting systems).

205 Brian Hancock, Director, Voting System Testing and Certification, U.S. Election Assistance Commission, PCEA Hearing Submission, Cincinnati, OH, at 3 (Sept. 19, 2013), available at https://www.supportthevoter.gov/files/2013/09/Brian-Hancock-Testimony-for-Presidential-Commission-9.19.13.pdf ("The EAC continues to respond to both real and perceived criticisms of our current process. These criticisms have included: Time –Testing still takes too long. Cost – Testing remains too expensive. Relevance – Time and cost factors may contribute to State and local jurisdictions seeking alternatives to this process in order to run effective elections, even though they may support the EAC program in principle."); Don-

ald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) ("The current process is expensive and time-consuming."); R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 31-32 (Sept. 19, 2013) ("[T]esting takes forever and standards development take[s] forever."); John Wack, Format Developer/ Researcher, Voting System Standards, National Institute of Standards and Technology, PCEA Hearing Testimony, Cincinnati, OH, at 44 (Sept. 19, 2013) (expressing frustration with the time it currently takes to update the standards); James Long, Wyle Laboratories & Brian Hancock, Director, Voting System Testing and Certification, U.S. Election Assistance Commission, PCEA Hearing Testimony, Cincinnati, OH, at 35-37 (Sept. 19, 2013) (discussing the cost of testing); see also Josh Franklin, National Institute of Standards and Technology, PCEA Hearing Testimony, Cincinnati, OH, at 26 (Sept. 19, 2013) ("Currently I think there are two voting system test labs and one . . . awaiting EAC accreditation."); Brian Hancock, Director, Voting System Testing and Certification, U.S. Election Assistance Commission, PCEA Hearing Testimony, Cincinnati, OH, at 38 (Sept. 19, 2013) (noting that with a manufacturer declaration of conformity process, some testing could be done more quickly by non-specialized hardware labs).

206   Matt Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State, PCEA Hearing Testimony, Cincinnati, OH, at 10 (Sept. 19, 2013) (testifying that "you're talking about a one maybe two month window" after an election to submit modifications for certification).

207   R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 31 (Sept. 19, 2013) ("States now are moving to do their own testing and their own standards and [hiring] their own laboratories to do some of this."); Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 33 (Sept. 19, 2013) ("The reason why states including Wisconsin are stepping outside of the system is because we have to."); Lori Edwards, Supervisor of Elections for Polk County, PCEA Hearing Testimony, Miami, FL, at 45 (June 28, 2013) (urging the Commission to "resist the temptation of centralization and uniformity" with regard to technology standards).

208   Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, PCEA Hearing Testimony, Cincinnati, OH, at 33-34 (Sept. 19, 2013); Donald Palmer, Secretary, Virginia State Board of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 4 (Sept. 4, 2013) ("The states need a timely certification process that enhances competition and the development of new technologies."); R. Doug Lewis, Executive Director, The Election Center, PCEA Hearing Testimony, Cincinnati, OH, at 31 (Sept. 19, 2013).

209   This mirrors the Travis County, Texas approach. See Dana DeBeauvoir, Travis STAR Voting System: Draft Flow of Polling Place Operations, available at https://www.supportthevoter.gov/files/2013/09/Dana-Debeauvoir-STAR-Voting-System-Diagram.pdf.

210   In fact, iPads have been used to display and mark ballots in pilot programs for voters needing special assistance. They may be combined with a number of accessibility tools such as headphones for screen reading, alternate input devices (e.g., paddles, "sip-and-puff" devices, keyboards) and their screens can be magnified for visibility enhancement. See Steve Trout, Oregon State Elections Director, PCEA Hearing Testimony, Denver, CO, at 12 (Aug. 8, 2013).

211   Joseph Lorenzo Hall, Senior Staff Technologist, Center for Democracy & Technology, PCEA Hearing Testimony, Cincinnati, OH, at 41 (Sept. 19, 2013) (extolling the benefits of "[o]ptical scan voting systems, ballot marking devices, poll books that you can walk through a line. They would require only quick

interactions with voters and allow voters to mark ballots and register and check in very quickly.").

212   See John Carbone, IACREOT, PCEA Hearing Testimony, Philadelphia, PA, at 40 (Sept. 4, 2013) (detailing benefits from using technologies such as iPads, including making it easier to "vote anywhere").

213   See Kenneth Bennett, Information Technology Manager, GIS, Ballot Management, and Election Tally Systems Division, Los Angeles County Registrar-Recorder/County Clerk's Office, PCEA Hearing Testimony, Cincinnati, OH, at 12 (Sept. 19, 2013); Drew Davies, Oxide Design Co., PCEA Hearing Testimony, Cincinnati, OH, at 46 (Sept. 20, 2013) (describing one such "pre-fill" system using voters' own mobile devices); Linda Lamone, Maryland State Administrator of Elections, PCEA Hearing Testimony, Philadelphia, PA, at 5 (Sept. 4, 2013) (explaining Maryland's new mark-and-print ballot tool); Dianne Golden, Association of Assistive Technology Act Programs, PCEA Hearing Testimony, Cincinnati, OH, at 42 (Sept. 19, 2013) (describing potential benefits of such pre-fill systems for voters with disabilities).

214   See Brennan Center for Justice, PCEA Hearing Submission, Philadelphia, PA, at 27 (Sept. 4, 2013), available at https://www.supportthevoter.gov/files/2013/11/Testimony-of-the-Brennan-Center-for-Justice-before-the-PCEA.pdf. More than half of states conduct some form of post-election auditing, and risk-limiting audits are being conducted by a few states as a way to further test their results and procedures. Verified Voting, Post-Election Audits (2012), available at https://www.supportthevoter.gov/files/2013/09/VerifiedVoting-Post-Election-Audits.pdf.

215   See P.B. Stark & D.A. Wagner, Evidence-Based Elections, http://www.stat.berkeley.edu/~stark/Preprints/evidenceVote12.pdf; Philip B. Stark, Conservative Statistical Post-Election Audits, 2 Annals Applied Statistics 550 (2008), available at http://www.stat.berkeley.edu/~stark/Preprints/conservativeElectionAudits07.pdf; Lawrence Norden et al., The Brennan Center for Justice, Post-Election Audits: Restoring Trust in Elections (2007), available at http://www.brennancenter.org/sites/default/files/legacy/d/download_file_50227.pdf.

216   The Brennan Center has proposed a national database, accessible by election officials and others, that identifies voting system malfunctions and trends. See Lawrence Norden, Brennan Center for Justice, Voting System Failures: A Database Solution (2010), available at http://www.brennancenter.org/sites/default/files/legacy/Democracy/Voting_Machine_Failures_Online.pdf.

217   For machines that are EAC-certified, the EAC's Quality Monitoring Program can alert election officials to any anomalies. More information is available at http://www.eac.gov/testing_and_certification/quality_monitoring_program.aspx.

218   See generally Heather Gerken, The Democracy Index (2012).

219   See Dana DeBeauvoir, Travis County Clerk, PCEA Hearing Testimony, Denver, CO, at 2 (Aug. 8, 2013); Neal Kelley, Orange County Registrar of Voters, PCEA Hearing Testimony, Cincinnati, OH, at 22 (Sept. 20, 2013).

220   Kevin Kennedy, Director and General Counsel, Wisconsin Government Accountability Board, Pew Voting in America Conference 2012: The Price of Elections (Dec. 18, 2012), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/KevinKennedy.pptx.

Exhibit 72

Executive Order

Commonwealth of Pennsylvania
Governor's Office

Subject: **Extension of Deadline for Receipt of Absentee and Mail-In Ballots in Certain Counties**	*Number:* *2020-02*
[signature] ***By Direction of:*** Tom Wolf, Governor	***Date:*** **June 1, 2020**

WHEREAS,   the General Primary Election is scheduled by law to occur throughout the Commonwealth on June 2, 2020;

WHEREAS,   to date, due in large part to COVID-19, an unprecedented number of Pennsylvanians have taken advantage of absentee voting and the Commonwealth's newly implemented mail-in balloting procedure;

WHEREAS,   civil unrest over the weekend in the counties of Allegheny, Dauphin, Delaware, Erie, Montgomery and Philadelphia led to curfews, travel restrictions, and the evacuation of election offices in at least two counties, which affected the counties' efforts and impeded many voters' attempts to return their ballots;

WHEREAS,   these civil disturbances, curfews, and travel restrictions have been continuing and expanding in these counties, thereby impeding county election activities and opportunities for voters to submit their absentee and mail-in ballots, and are expected to continue into tonight and tomorrow;

WHEREAS,   on Saturday, May 30, 2020, and as amended on Monday, June 1, 2020, I, Tom Wolf, Governor of the Commonwealth of Pennsylvania, pursuant to the provisions of *Section 7301(c) of the Emergency Management Services Code, (35 Pa. C.S. §§ 7101 et seq., as amended)* proclaimed the existence of a disaster emergency in the counties of Allegheny, Dauphin, Delaware, Erie, Montgomery and Philadelphia due to the civil disturbance affecting these counties;

WHEREAS,   the civil disturbances in these affected counties have created one or more barriers to voters returning their ballots, including travel and public transportation disruptions, road closures and blockages, lack of access to ballot drop boxes, alteration of mobile ballot collection schedules, evacuations of buildings, and curfews;

WHEREAS,   *Sections 1306(c), 1308(g)(1)(ii) and 1306-D(c) of the Pennsylvania Election Code (25 P.S. §§ 3146.6(c), 3146.8(g)(1)(ii) and 3150.16(c))* provide that no civilian absentee or mail-in ballot shall be counted if it is received by the county board of elections after eight o'clock P.M., prevailing time, on the day of the primary election;

WHEREAS,   in these affected counties, it appears very likely that a large number of voters who applied for absentee or mail-in ballots by the May 26 deadline will not be able to return their ballots by the statutory deadline; and

WHEREAS,   these recent civil disturbances make it necessary and proper to extend the statutory deadline in those affected counties for receipt of voted civilian absentee and mail-in ballots to ensure that voters in those counties are not disenfranchised through no fault of their own.

NOW, THEREFORE, I, Tom Wolf, Governor of the Commonwealth of Pennsylvania, by virtue of the authority vested in me by the Constitution of the Commonwealth of Pennsylvania, the *Emergency Management Services Code*, and other laws of the Commonwealth, do hereby issue this Executive Order as follows:

1. **Deadline for Receipt of Absentee and Mail-In Ballots.** Notwithstanding the provisions of *Sections 1306(c), 1308(g)(1)(ii), and 1306-D(c) of the Pennsylvania Election Code (25 P.S. §§ 3146.6(c), 3146.8(g)(1)(ii), and 3150.16(c))* or any other provision in the laws of the Commonwealth to the contrary, for the counties of Allegheny, Dauphin, Delaware, Erie, Montgomery and Philadelphia, an otherwise valid civilian absentee or mail-in ballot shall be counted if it bears a postmark, cancellation mark, or other official indicia of the date of mailing ("postmark") of no later than Tuesday, June 2, 2020, and is received by postal mail in the office of the county board of elections no later than five o'clock P.M., prevailing time, on Tuesday, June 9, 2020.

   Further provided, however, that no civilian absentee or mail-in ballot shall be counted if it is received by any means other than postal mail after eight o'clock P.M., prevailing time, on Tuesday, June 2, 2020.

2. **Segregation of Ballots.** Absentee and mail-in ballots that are received by a county board of elections later than eight o'clock P.M., prevailing time, on Tuesday, June 2, 2020, under the authority of Paragraph 1 of this Executive Order shall be segregated from all other absentee and mail-in ballots. The segregated ballots shall be canvassed in accordance with the *Pennsylvania Election Code.*

3. **Notice.** The Office of the Secretary of the Commonwealth shall post this Executive Order in the Department of State's Bureau of Elections and Notaries, and in all other appropriate places, and shall communicate its contents to the county boards of elections, and shall take all necessary action to provide notice of this Executive Order to the general public.

4. **Effective Date.** This Executive Order shall take effect immediately and remain in effect only until 5:00 P.M., prevailing time, Thursday, July 2, 2020.

Exhibit 73

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF PENNSYLVANIA

---x

NATIONAL ASSOCIATION FOR THE ADVANCEMENT
OF COLORED PEOPLE STATE CONFERENCE OF
PENNSYLVANIA ("NAACP-SCP"), et al.

CIVIL ACTION

Plaintiffs,

— against —

FILED

JAN 29 2009

PEDRO A. CORTÉS, SECRETARY OF THE
COMMONWEALTH OF PENNSYLVANIA, et al.;

MICHAEL E. KUNZ, Clerk   No. 08-5048
By_____Dep. Clerk

Defendants.

---x

~~PROPOSED~~ ORDER

AND NOW, this **28th** day of **January**, 2009, for the reasons set forth in the

Memorandum and Order of October 29, 2008, it is hereby ORDERED that:

1.   the motion of plaintiffs for a permanent injunction is GRANTED;

2.   Defendant Pedro A. Cortés, the Secretary of the Commonwealth of Pennsylvania,

and his successors, are permanently ENJOINED to direct forthwith all county boards of elections

throughout the Commonwealth of Pennsylvania as follows:

> If 50% of electronic voting machines in a precinct are inoperable, "paper ballots,
> either printed or written and of any suitable form," for registering votes (described
> herein as "emergency back-up paper ballots") shall be distributed immediately to
> eligible voters pursuant to section 1120-A(b) of the Election Code. Emergency
> back-up paper ballots shall be used thereafter until the county board of elections is
> able to make the necessary repairs to the machine(s) or is able to place into
> operation a suitable substitute machine(s);

3.   Defendant Pedro A. Cortés, the Secretary of the Commonwealth of Pennsylvania,

and his successors, are further ENJOINED to advise, forthwith, the county boards of elections

throughout the Commonwealth of Pennsylvania of the above-described directive and the entry of

this Order.

BY THE COURT:

_____