

Election Supply Chains in a Pandemic

June 17, 2020

As jurisdictions across the country look to expand voting by mail and equip polling places for COVID-19, election officials, industry suppliers, and experts have made it clear that jurisdictions must plan ahead and procure the necessary supplies as soon as possible to avoid bottlenecks in the supply chain. This memorandum details the supplies jurisdictions should consider purchasing for polling sites and for the various steps in the vote-by-mail process. It also lists some vendors offering those supplies.

Authors: Anne Warnke, Mikaela Pyatt, Grace Scullion, Sarah Maung, Frances Schroeder, William Howlett, Valeria Rincon¹

Table of Contents

Introduction	2
Vote-by-Mail	3
Timeline	3
Outbound	3
BALLOTS	3
Overview	3
Timeline	6
Useful Links	7
Supplies and Vendors	7
STORAGE	9
Overview	9
Supplies	9
Inbound	9
BALLOT DROP BOXES	9
Overview	9
Timeline	10
Useful Links	10
Supplies and Vendors	10
SORTING, VERIFICATION, and BALLOT PREPARATION	11
Overview	11
Timeline	12

¹ We would also like to thank Edward Perez of the OSET Institute for his assistance.

Useful Links	12
Supplies and Vendors	12
SCANNING and TABULATING	13
Overview	13
Timeline	14
Useful Links	15
Supplies and Vendors	15
Safe Polling-Place Design	16
Overview and Recommendations	16
Useful Links	16
Supplies and Vendors	16
Vendor Contact Information	18

Introduction

Because of the anticipated increase in vote by mail (or “absentee” voting) for the 2020 elections and the efforts to adapt polling places to be safe for voters and election staff, jurisdictions across the country are seeking to procure many of the same items, leading to concerns about gaps in the supply chain. To handle the surge in voting by mail, jurisdictions will need to expand their capacity both to send a large volume of outgoing ballots and to process incoming ballots. To facilitate social distancing, disinfect voting machines, and protect staff members, jurisdictions will also need to procure personal protective equipment (PPE), disinfectants, and other supplies.

Election officials must act now to procure the needed supplies. Election officials, suppliers, and commentators are in unanimous agreement that the key to overcoming potential gaps in the supply chain is planning ahead and procuring materials early. Anthony Albence, Delaware State Election Director, stressed the importance of the “lead time.” [Anthony Albence, EAC COVID-19 Hearing](#). As many products are built to specification, jurisdictions need to place orders as soon as possible so they are ready for the remaining summer primaries and the November general election. Jurisdictions will need to factor in the time required to comply with their state and local procurement procedures because while some states may allow for exemptions to procurement requirements if elections are considered a critical infrastructure, others may not. [Anthony Albence, EAC COVID-19 Hearing](#). Kevin Runbeck, CEO of Runbeck Election Services, a major vote-by-mail provider, said the “**decision-making...needs to be right now. We cannot gear**

up, we cannot build equipment fast enough if you wait until July to place orders.” [Kevin Runbeck, EAC COVID-19 Hearing](#). And the Brennan Center, in a report highlighting critical items in the supply chain, stressed that “jurisdictions will need to purchase and deploy critical equipment and supplies months before this November’s election.” [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#)

The following report lists supplies jurisdictions will need to procure, vendors supplying those items, likely gaps in the supply chain, and recommendations for addressing those gaps.

DISCLAIMER: The lists of supplies and vendors are not exhaustive and do not constitute an endorsement of any of the products or suppliers.

Vote-by-Mail

A. Timeline

The [EAC’s Timeline for Vote-By-Mail](#) is a useful resource for jurisdictions to consult as they plan to procure necessary supplies. They list when jurisdictions should procure items, provide projections for how long those procurements will take, and list outside parties whom jurisdictions need to work with and consult.

B. Outbound

BALLOTS

I. Overview

A significant area of concern in the supply chain is the lack of vendors who can print and mail ballots to accommodate the surge of voting by mail. While many jurisdictions already have contracts with local vendors for the paper needed for in-person ballots, printing and preparing vote-by-mail packets in large numbers requires technology and machines on a scale many jurisdictions do not have. Kevin Runbeck, CEO of Runbeck Election Services, cautioned that vote-by-mail packets are a “choke point” in the supply chain. [Kevin Runbeck, EAC COVID-19 Hearing](#).

While smaller jurisdictions, e.g. those with fewer than 25,000 registered voters, may be able to manage their ballot printing with smaller printers and “brute force” in the process of preparing ballot

packets, [Kevin Runbeck, EAC COVID-19 Hearing](#), many larger jurisdictions will likely need to partner with third-party printers to meet their jurisdictions' needs. [Brennan Center, "Preparing for Election Day: Deadlines for Running a Safe Election."](#) For jurisdictions that do choose to handle vote-by-mail internally, machines that automate the process, like folder-insertion equipment, will help speed up the process. According to David Stafford, Supervisor of Elections in Escambia County, Florida, the county, which handles all vote-by-mail requests without an outside vendor, previously relied on manual labor to prepare the ballot packages but now uses commercial folder insertion equipment to stuff ballot envelopes. [EAC, "Handling Increased Absentee and Mail Voting at the County Level - COVID19 Potential Response."](#)

Another likely "chokepoint" in the outgoing ballot process is the supply of envelopes. Because of the idiosyncrasies in ballot styles and sizes across jurisdictions and because envelopes need to include the address of specific election offices, jurisdictions will require custom envelopes. [NBC News, "Did we order enough envelopes?"](#) In the recent Wisconsin primary, localities depleted their envelope stocks, leading the state to step in to provide envelopes. [EAC, Preliminary Planning for Increased Voting by Mail/Absentee Voting Capacity - COVID19 Potential Response.](#)

Constructing a vote-by-mail packet is not as simple as stuffing a ballot into a single envelope. **For most jurisdictions, the envelope will contain the following elements:**

- **Exterior Envelope:** The exterior envelope usually has a window so that the voter's address can be printed on a document inside the packet (often on the voter's return envelope).
- **Blank Ballot:** The blank ballot must be the correct one associated with the voter's residential address. Confirming that each vote-by-mail packet contains the correct ballot is therefore a critical stage of the process.
- **Secrecy Sleeve:** Before inserting the completed ballot into the return envelope, the voter will place the ballot in a secrecy sleeve so that the election staff who open the ballot cannot see the voter's choices. The secrecy sleeve is removed only after the ballot has been disassociated from the voter's envelope to maintain the voter's anonymity.
- **Voter Instructions:** Jurisdictions usually include instructions on how to fill out and return the ballot.
- **Return Ballot Envelope:** The return ballot envelope includes the address for the correct election office and sometimes pre-paid postage. The return ballot envelope also includes state-specific attestations and a signature line for voters to confirm their identity and eligibility to vote.

According to Thayer Long, President of the Association for Print Technologies, best guesses are that third-party printers already in the election ballot industry will have the capacity to print 60 million ballots for the general election. States and counties that print ballots themselves will account

for an additional 25 million ballots. Based on estimates that, at a minimum, 100 million vote-by-mail ballots will be sent out, the remaining 15 million gap will need to be filled by new vendors stepping into the vote-by-mail space. 100 million vote-by-mail ballots is, itself, a conservative estimate, and some think as many as 135-140 million ballots will be sent out.

Indeed, according to Talking Points Memo, some experienced ballot printers have reported that they already are at capacity for the November elections because of pre-existing orders. [Talking Points Memo, Mail-In Elections Can't Be Built Overnight](#). According to Jim Suver, Vice President of Business Development at Runbeck Election Services, while the company still has the capacity to handle new jurisdictions' ballot orders, he anticipates that by the middle of July, Runbeck will reach maximum capacity. Runbeck had five mail inserters (machines to stuff the ballot) and ordered eleven more, which was the most the company's manufacturer can produce before November. [NPR, Ballot Printers Increase Capacity To Prepare for Mail Voting Surge](#). The president of the National Association of Presort Mailers, who also runs a ballot printer company, reported that vendors are hesitant to order the equipment they would need to expand capacity without contracts from election officials. [Talking Points Memo, Mail-In Elections Can't Be Built Overnight](#).

In addition to experienced vendors increasing capacity, the main increase in mailing/printing capacity will need to come from **high integrity vendors** – vendors that already meet security and compliance regulations (like printers managing medical records or financial records with HIPAA or SOC-2 compliance) but have not previously handled election mail. Election mail requires vendors that have privacy and cybersecurity protections; mail-matching technology (to prove each ballot was received by the voter); software and IT-capabilities to manage large amounts of data; and equipment that can print, stuff, and sort mail. According to Thayer Long, only about 100 companies would reasonably be able to shift to ballot production by November (Thayer Long May 11 Interview, Association for Print Technologies).

Because shifting to vote-by-mail production requires a significant initial capital investment, these vendors are hesitant to make those investments if jurisdictions cannot commit to using vote-by-mail services after the 2020 elections (Thayer Long May 11 Interview, Association for Print Technologies).

Additionally, in the election ballot industry, most professional printers also assemble and send out ballot packets. (Thayer Long May 11 Interview, Association for Print Technologies). While there may need to be greater division between the printing and mailing services to increase capacity for the 2020 elections, generally it is viewed as “not practical” to have separate companies handling the two operations in order to avoid issues of storing and transporting mail between two vendors (Thayer Long May 11 Interview, Association for Print Technologies).

II. Timeline

For the November 2020 election, the US Election Assistance Commission and the Brennan Center recommend that jurisdictions secure contracts with third-party printers and finalize their preparation no later than mid-June. [EAC Timeline](#). This will involve “setting up customer accounts, designing envelopes and artwork, preparing voter registration data and ballot quantities, and ordering necessary paper supplies.” [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#) In particular, third-party printers will also need time to make sure that counties’ voter files are integrated with their mail preparation software and match USPS addresses, [NAPM Webinar](#), and to design ballots in accordance with USPS specifications to avoid returned ballots. [Kevin Runbeck, EAC COVID-19 Hearing](#).

From the time Runbeck Election Services starts working with a jurisdiction, it currently takes four to five weeks to ramp up, plan, and print envelopes specific to that jurisdiction. But “anything jurisdictions can do to spread out that time, increases the industry’s capacity.” [Kevin Runbeck, EAC COVID-19 Hearing](#). Once external envelopes are printed and the artwork for internal envelopes and ballots are finalized, printers then wait until state law authorizes ballots to be printed and mailed to begin those processes and send out the ballot packets. In addition, the Brennan Center recommends that ballots are printed by September 2020 for the November election. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#)

Miscellaneous Recommendations:

- Jurisdictions should consider sending out test mailers now to confirm voters’ addresses. Industry average is to have 10% of test mailers return. [EAC, Preliminary Planning for Increased Voting by Mail/Absentee Voting Capacity](#).
- The Brennan Center recommends jurisdictions order ballots and envelopes in quantities of 120% of the number of registered voters in the jurisdiction to account for anticipated increases in vote-by-mail requests. [Brennan Center, “How to Protect the 2020 Votes from the Coronavirus.”](#)
- Kim Wyman, Washington Secretary of State, suggested that jurisdictions assume **at a minimum** 30% of their electorate votes by mail, regardless of current state laws. [Kim Wyman, EAC COVID-19 Hearing](#).
- Jurisdictions should consider peel and stick envelopes to avoid having voters lick envelopes. [Brennan Center, “Covid Response Memo.”](#) Oregon and Washington, however, have found that “self-sealing” envelopes caused issues with automated equipment and no longer use them.
- If postage is not provided, aim to keep ballots and envelopes below one ounce so voters can apply only one stamp. [NAPM Webinar](#).

III. Useful Links

- [CISA, “Managing an Increase in Outbound Ballots”](#)
- [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#)

IV. Supplies and Vendors

Printers for Internal Use (sorters listed under inbound mail, below, may also be useful for outgoing mail)

[Runbeck Election Services, Sollus In-house Ballot Printing](#)

[Runbeck Election Services, Sentio Ballot Printing System](#)

[Election Systems & Software, Ballot on Demand Solution](#) (usually used for on-site ballot printing at polling centers)

Suppliers Provided by National Association of Presort Mailers

[BlueCrest, AcceleJet](#)

[BlueCrest, IntelliJet](#)

[BlueCrest, Mailstream Evolution inserting solution](#) (for assembling mail ballots)

[Fluence Automation](#)

[NPI](#)

Envelope Printers

[Victor Envelope Company](#)

[Mackay Mitchell Envelope Company](#)

Envelope Insertion Vendors

[Formax](#)

[FP](#)

[KAS](#)

[Lineage](#)

[MyBinding](#)

[Neopost](#)

[Quadient](#)

[Pitney Bowes](#)

[Winkler+Dünnebier](#)

Ballot and Mail Tracking Software

[Ballot Trax](#)

[Ballot Scout](#)

Suppliers Provided by National Association of Presort Mailers

[GrayHair](#)

[Fluence](#)

Third-Party Printers

[Absolute Print Solutions](#)

[The Allied Group](#)

[Data-Mail](#)

[ElectionIQ](#)

[Fidlar Election](#)

[Integrated Voting Systems](#)

[K&H Integrated Print Solutions](#)

[Kutco Printing](#)

[L. Brown & Sons](#)

[PrintElect](#)

[Runbeck Election Services](#)

[Universal Wilde](#)

[Winkler+Dünnebier](#)

Suppliers Provided by National Association of Presort Mailers

[Kent Communication](#) (only Michigan)

[Midwest Direct](#)

[PacWest](#)

[TC Delivers](#)

[VariVerge](#)

[Mail Room Service Center](#) (only Michigan)

[Mail Services LLC](#) (only Illinois, Iowa, Kansas, Missouri, and South Dakota)

[Mailing Technical Services](#) (only Idaho, Montana, and Wyoming)

High-Integrity Printers Interested in Vote by Mail

[Sun Solutions](#)

STORAGE

I. Overview

To accommodate increased numbers of mail-in ballots, jurisdictions will need to make sure they have the physical space to store both outgoing (if handling that process internally) and incoming mail and the capacity to transport ballots, keep them secure, and document the chain of custody.

II. Supplies

- **Warehouses:** Some jurisdictions will need to rent warehouse space to accommodate increased quantities of ballots. [Kevin Runbeck, EAC COVID-19 Hearing.](#)
- **Trucks:** Printers and jurisdictions will need trucks to transport ballot packets to USPS. These trucks should be tracked with GPS while the trucks are in transit, and, upon receipt by, USPS should provide confirmation for both printers and election officials that the ballots have entered the mail. Jurisdictions will also need trucks to transport ballots from ballot boxes to storage facilities and county offices. According to Jeff Ellington, President of Runbeck Election Services, “one semi-trailer truck holds approximately 250,000 ballots.” [Jessica Huseman, “Voting by Mail Would Reduce Coronavirus Transmission but It has other Risks.](#)
- **Tamper-evident seals:** Throughout the vote-by-mail process, jurisdictions should use tamper-evident seals to ensure ballots are safe and to document the chain of custody. These should be applied to trucks transporting ballots and to doors of any storage rooms or containers holding ballots.
- Items to assist with storage and organization of ballots once received, including mail carts or cages on wheels, carts that can be locked or locked storage rooms, and colored vests or lanyards to designate workers handling and transporting ballots. [CISA, Inbound Ballot Process.](#)

C. Inbound

BALLOT DROP BOXES

I. Overview

To reduce postage costs and [to increase voter confidence in the vote-by-mail process](#), many jurisdictions opt to install secure ballot boxes where voters can return completed ballots. Ballot boxes

are locked structures that are operated by election officials and remain open from the time voters receive ballots in the mail through the close of polls Election Day. These boxes “can be staffed or unstaffed, temporary or permanent” but will require additional staff to collect ballots. [CISA, “Ballot Drop Box.”](#) While some counties have experimented with repurposing secure boxes used for other purposes, [including public library book-return boxes](#), many jurisdictions will need to purchase specially made ballot boxes that offer adequate protection. These boxes should be constructed of steel, permanently cemented to the ground, and have 24-hour security-camera surveillance. [CISA, “Ballot Drop Box.”](#) Pierce County, Washington also installed low-cost fire suppression canisters inside each box. [Election Center National Association of Election Officials, Ballot Drop Boxes in Pierce County, Washington.](#) CISA recommends jurisdictions have one drop box for every 15,000-20,000 registered voters. [CISA, “Ballot Drop Box.”](#)

II. Timeline

According to the Brennan Center, jurisdictions should choose locations and procure ballot drop boxes by the end of July 2020. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#) Ballot boxes can take four to six weeks to arrive, but jurisdictions should budget for six to eight weeks to factor in time for installation of the boxes and security measures. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#)

III. Useful Links

- [Election Center National Association of Election Officials, Ballot Drop Boxes in Pierce County, Washington: Best Practices Guide](#)
- [CISA, “Ballot Drop Box.”](#)

IV. Supplies and Vendors

[Vote Armor](#)
[Ballot Drops](#)

SORTING, VERIFICATION, and BALLOT PREPARATION

I. Overview

As with outbound mail, some jurisdictions may opt to have third-party vendors manage incoming mail, [Anthony Albence, EAC COVID-19 Hearing](#), but many will manage the process in-house.

In advance of counting ballots, jurisdictions will need to sort and verify the incoming absentee ballots. As part of this process, election officials will need to: (1) date and stamp sealed return ballots, (2) separate ballots intended for other jurisdictions and forward them to the correct jurisdiction, (3) record ballot information in voter registration databases, (4) capture signatures for review, and (5) slice open accepted ballot envelopes for counting. [CISA, Inbound Ballot Process](#). Multiple election officials with vote-by-mail experience stressed that envelope slicers were critical to speeding up the ballot preparation process. [EAC, Preliminary Planning for Increased Voting by Mail/Absentee Voting Capacity](#). For jurisdictions that do not rely on automation, Julie Marcus, Chief Deputy in the Supervisors of Elections of Pinellas County, Florida, recommended officials run tests with their staff to see how long it takes them to open and separate the components of ballots. [EAC, “Handling Increased Absentee and Mail Voting at the County Level - COVID19 Potential Response.”](#) She noted for her county, one person can manually open 100 ballots per hour. [EAC, “Handling Increased Absentee and Mail Voting at the County Level - COVID19 Potential Response.”](#)

Sorting equipment will increase the speed of this process and reduce the number of staff members needed. [CISA, Inbound Ballot Process](#). Many sorting machines are able to date and stamp ballots, slice open envelopes, and – in some cases – scan ballots to isolate signatures for review either by automatic systems or by individual review. But, as Kevin Runbeck cautioned, manufacturers are limited in what automation they can produce before the November 2020 election, and “some counties are going to wait too long and have to manually” count ballots. [Kevin Runbeck, EAC COVID-19 Hearing](#).

Some jurisdictions may consider consolidating the sorting across counties or in state capitals and then transporting ballots to counties for tabulation. National Vote at Home Inbound Ballot Webinar, May 8, 2020. A challenge for this model, however, is ensuring that ballots can be transported to counties, especially on Election Day, when there will be an influx of vote-by-mail ballots. National Vote at Home Inbound Ballot Webinar, May 8, 2020.

Because many states (sixteen states plus the District of Columbia) do not allow the processing of ballots to begin until Election Day, and in some cases not until the polls close, [Bipartisan Policy](#)

[Center, This Year, States Should Process Absentee Ballots Before Election Day](#), states that maintain those restrictions will need to ensure they have efficient scanning procedures and/or prepare voters and the media for the possibility that election results will not be available on election night. Because restrictions on early processing are usually enacted out of concern that election results will leak before Election Day, [Bipartisan Policy Center, This Year, States Should Process Absentee Ballots Before Election Day](#), many states allow for the processing of ballots before election day so long as no ballots are tabulated. [NCSL, When Absentee/Mail Ballot Processing and Counting Can Begin](#). While states vary in how much they allow officials to process ballots before election day, the first step is usually verifying voters' identities by matching their signature from the outside of the ballot envelope to state voter records. In some states, ballot envelopes can be opened and secrecy sleeves removed before Election Day so that the ballots are ready to be counted as soon as the state law allows. [NCSL, When Absentee/Mail Ballot Processing and Counting Can Begin](#).

II. Timeline

One company, Fluence Automation, recommends that jurisdictions leave 70 days from the time of order to allow for delivery and full integration of scanners. National Vote at Home Inbound Ballot Webinar, May 8, 2020. According to Runbeck Election Services, while it usually delivers sorting systems within four to six weeks from time of order, with increasing numbers of orders being placed, that timeline has lengthened to six to ten weeks. National Vote at Home Inbound Ballot Webinar, May 8, 2020. Additionally, while installation occurs in about four hours, jurisdictions should plan for installation and training to take a week. National Vote at Home Inbound Ballot Webinar, May 8, 2020.

III. Useful Links

- [Stanford Policy Lab, Signature Verification Report](#)

IV. Supplies and Vendors

Sorting Machines

[Agissar, APS 10](#)

[Agissar, APS 45](#)

[BlueCrest, Vantage Sorting Solution](#) (can include automatic signature verification technology)
[Election Systems & Software, Mail Ballot Verifier](#) (can include automatic signature verification technology)

[Fluence Automation, Criterion Apex DM](#)

[Fluence Automation, Criterion Elevate](#)

[Fluence Automation, FlatsMgr](#)

[Fluence Automation, FlexiSort](#)

[Opex, Mail Matrix](#)

[Opex, Falcon STS](#)

[Opex, MPS 40](#)

[Pitney Bowes, Olympus II](#) (can include automatic signature verification technology)

[Runbeck Election Services, Agilis Ballot Sorting System](#) (can include automatic signature verification technology)

[Runbeck Election Services, AgilisDuo Tabletop Mail Ballot Sorting System](#) (can include automatic signature verification technology)

Alternatives to Sorters

If jurisdictions are not using automatic sorting machines, they should invest in automatic date/time stamps, bar code wands, and envelope slicers. They should also make sure workstations for sorting and verification are connected to the voter registration database to record information from ballots and verify signatures, if required by state law. [CISA, Inbound Ballot Process](#).

- Envelope slicer (if not performed by the ballot sorter)
 - Vendors: [Aggisar](#), [Martin Yale](#), [Formax](#), [Opex](#), [Postmark](#), [Pitney Bowes](#), [Staplex](#)
- Barcode Scanners (these do not need to be part of the jurisdictions' certified-voting configuration and often can be commercial scanners that will enable the jurisdiction to scan the USPS Intelligent Mail barcode (IMb)).
- Automatic Date/Time Stamps

Additional Supplies: [CISA, Inbound Ballot Process](#)

- Storage racks to hold mail trays with ballot envelopes.
- Mail trays to store ballots as they are sorted
- Transfer case or mail trays
- Tracking sheets, or a computer dedicated to tracking batches
- Rubber fingers or finger moistener (if ballot quantities are being verified manually)
- Vacuum extraction system.

SCANNING and TABULATING

I. Overview

To accommodate the increase in vote by mail, jurisdictions will need to procure high-speed, central scanners to read and tabulate absentee ballots. Many jurisdictions will already have smaller scanners designed to count ballots at the precinct level. Precinct scanners can read approximately a

dozen ballots per minute while high-speed, central scanners can process as many as 300 ballots per minute. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#) The Brennan Center notes that election jurisdictions with more than 50,000 voters typically use high-speed scanners but recommends that smaller jurisdictions consider procuring high-speed scanners to accommodate the expected increase in absentee ballots. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#) In states with quick deadlines for certifying election results, officials may need additional scanners. Julie Marcus noted that because of past recounts in Florida and its quick election certification deadline, Pinellas County now has six scanners. [EAC, “Handling Increased Absentee and Mail Voting at the County Level - COVID19 Potential Response.”](#)

Any jurisdiction looking to add scanners will **need to contact their Secretary of State’s office, first, to determine the approved and certified voting-system configurations in their state.** The Secretary of State will specify both the vendors and the exact system versions of election scanners that are approved in the state. Amid the rest of the state’s COVID response, it is unlikely that states will have the time or bandwidth to certify new vendors so the existing list of pre-approved vendors will confine the range of equipment jurisdictions can use.

Next, jurisdictions should **contact their pre-existing voting-system vendor** to ensure that new scanners are fully integrated into their election system. Most voting-system vendors have relationships with suppliers of commercial scanning equipment (like Canon USA and Fujitsu) and will, in turn, buy the scanners from those companies. But jurisdictions should work through their voting-system vendor so the vendor can outfit the scanners with the correct drivers (the programming that links the scanner to the computer) and other software to integrate the scanners into a jurisdiction’s election system. The voting-system vendor will also ensure that the new equipment meets the states’ certification requirements.

Finally, jurisdictions should make sure that they have the building infrastructure and power requirements necessary to meet the needs of the scanning equipment, especially if additional scanners – whether central or precinct – are being consolidated in election offices. [CISA, Inbound Ballot Process.](#)

II. Timeline

The Brennan Center recommends jurisdictions procure high-speed scanners by May 2020 to allow for the 4 to 5 months vendors will require to fill orders (although there may be additional delays as more jurisdictions place orders). [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#) Jurisdictions need high-speed scanners in place by October 2020 in order to test devices. [Brennan Center, “Preparing for Election Day: Deadlines for Running a Safe Election.”](#)

For example, some states require counties use a “[test deck](#)” of ballots to make sure that machines accurately count the specific races in that jurisdiction and have no mechanical issues. Contra Costa County notes that testing of polling place scanners and ballot-marking devices starts one month before elections and central scanners ten days before elections. [Contra Costa County Elections](#).

III. Useful Links

- [EAC.Gov — US Voting Equipment](#)
- [CISA — Inbound Ballot Process](#)

IV. Supplies and Vendors

Central Scanners

[ClearBallot, ClearCount](#)

[Dominion Voting Systems, ImageCast Central](#)

[Election Systems & Software, DS450](#) (72 ballots per minute; better for midsize jurisdictions)

[Election Systems & Software, DS850](#) (300 ballots per minute; appropriate for large jurisdictions)

[HartIntercivic, Verity Central](#)

[Unisyn Voting Solutions, OpenElect OVCS](#)

[Unisyn Voting Solutions, OpenElect miniOVCS](#) (50 ballots per minute)

Precinct Scanners

[ClearBallot, ClearCast](#)

[Dominion Voting Systems, ImageCast Evolution](#) (also Ballot-Marking Device)

[Dominion Voting Systems, ImageCast Precinct](#)

[Election Systems & Software, DS200](#)

[HartIntercivic, VerityScan](#)

[UniSyn Voting Solutions, OpenElect OVO](#)

Safe Polling-Place Design

A. Overview and Recommendations

With [reports](#) of election workers and voters contracting COVID-19 from voting in person, jurisdictions will need to procure protective personal equipment, sanitation supplies, and other items to control crowds in order to ensure the safety of workers and the electorate in upcoming elections.

The following is a list of supplies that jurisdictions should procure. Because PPE supply chains are already taxed, jurisdictions should plan ahead, placing orders in advance, determining whether supplies can be purchased in bulk, and ensuring they have adequate storage to secure products.

B. Useful Links

- [CDC, Recommendations for Election Polling Locations](#)
- [FEMA, Addressing PPE Needs in Non-Healthcare Setting](#)

C. Supplies and Vendors

In preparing polling places, jurisdictions should plan ahead to make sure they have sufficient supplies and protocols to clean voting machines, ensure election workers have the appropriate equipment, and keep voters safely distanced. In particular, jurisdictions should procure:

- Sanitation supplies to disinfect voting machines. [See EAC, Vendor and Manufacturer Guidance on Cleaning Machines Other Election Technology](#)
- Sanitation supplies to encourage hand washing by poll workers and voters
- Personal protective equipment for poll workers
- Crowd-control supplies to ensure voters maintain social distancing
- Disposable styluses and other supplies to limit direct person-to-machine contact

Sanitation Supplies

- Alcohol-based disinfectant wipes (for cleaning electronics)
- Industrial disinfectants ([EPA, Disinfectants for Use Against SARS-CoV-2](#))
- Alcohol-based hand sanitizer containing at least 60% alcohol
- Soap, water, and drying materials (for handwashing)
- Biohazard disposable containers

Personal Protective Equipment for Poll Workers

- Surgical Masks
- Disposable Gloves
- Protective gowns
- Plexiglass barriers
- Face Shields

Crowd-Control Materials

- Tape for marking line 6-ft. interval and bright-colored flat discs to mark ground
 - Vendors: [Dino Grip](#), [Crowd Control](#), [Stop Painting](#), [Uline](#)
- Stanchions
 - Vendors: [Crowd Control Store](#), [Pro Stanchions](#)
- Take-a-number devices
 - Vendors: [Web Restaurant Store](#), [Uline](#)
- Wait-time estimation / publication software
- Signage reminding voters of social-distancing and hygiene practices

Voting Supplies

- Disposable pens (for marking ballots)
- Disposable styluses (for electronic machines)
- Q-tips or disposable coffee stirrers (for marking choices on some electronic voting machines)

PPE Clearinghouses

Several businesses and organizations have created clearinghouses where suppliers can post available PPE products and buyers from hospitals, state entities, and other large businesses can purchase supplies.

- [IBM's Rapid Supplier Connect](#) (free through August 31, 2020)
- [Project N95](#)
- [Amazon Business COVID-19 Supplies](#)
- [C19 Coalition](#) (information about suppliers and organizations that can help coordinate logistics)
- [GetUsPPE](#) (thus far just for healthcare workers)
- [Find The Masks](#)
- [Repurposing Project](#) (Ohio)

Election Kits (companies offering election-specific hygiene kits)

[ElectionIQ](#)

[Inclusion Solutions](#)

[Intab](#)

In-Person Voting Machines

Scanners for Hand-Marked Paper Ballot Voting (used in about 70% of jurisdictions)

[ClearBallot, ClearCast](#)

[Dominion Voting Systems, ImageCast Evolution](#) (also Ballot-Marking Device)

[Dominion Voting Systems, ImageCast Precinct](#)

[Election Systems & Software, DS200](#)

[HartIntercivic, VerityScan](#)

[UniSyn Voting Solutions, OpenElect OVO](#)

Ballot Marking Devices, DREs, and Accessible Voting Machines

[ClearBallot, ClearAccess](#)

[Election Systems & Software, ExpressVote](#)

[Election Systems & Software, ExpressVote XL](#)

[HartIntercivic, Verity Touch](#)

[HartIntercivic, Verity Duo](#)

[HartIntercivic, Touch Writer](#)

[MicroVote, Infinity Voting Panel](#)

[Smartmatic, Premium Voting Machine](#)

[Unisyn, OpenElect](#)

[Unisyn, OpenElect OVI-VC](#)

Vendor Contact Information

Absolute Print Solutions

Jackson, Mississippi

(866) 939-9901

Agissar

Stratford, Connecticut

(203) 375-8662

The Allied Group

Cumberland, Rhode Island

(401) 946-6100 ext. 341

Ballot Drops

St. Cloud, Minnesota
(888) 268-0297

Ballot Trax

Denver, Colorado
(877) 651-7036

Ballot Scout

(718) 923-1400

BlueCrest

Danbury, Connecticut
(440) 829-7063
Contact: Lori Swetlin (Lori.Swetlin@bluecrestinc.com)

Clear Ballot

Boston, Massachusetts
(857) 250-4961
Contact: Christopher Hanna, Director of Operations

Data-Mail

Newington, Connecticut
(860) 697-6116
Contact: Rose Flanagan, Manager Postal Strategies & Logistics

Dominion Voting Systems

Denver, Colorado
(866) 654-8683
Contact: Kay Stimson, Government Relations Manager (media@dominionvoting.com)

ElectionIQ

Akron, Ohio
(330) 333-0347

Election Systems & Software

Omaha, Nebraska

(877) 377-8683

Contacts: Katina Granger, Public Relations Manager; Kathy Rogers, SVP Government Affairs

Fidlar Election

Orlando, Florida

(800) 852-3174

Fluence Automation

Arlington Heights, Illinois

(262) 374-0673

Contact: Dave Bush (dbush@fluencemail.com)

Formax

Dover, New Hampshire

(800) 232-5535

FP

(800) 341-6052

GrayHair Software

Mount Laurel, New Jersey

(856) 924-1912

Contact: Sebastian Pistrutto (Spistrutto@grayhairsoftware.com)

Hart InterCivic

Austin, Texas

(512) 252-6400

Contact: Pete Lichtenheld, VP of Customer Success

Integrated Voting Systems

Dinuba, California

(559) 498-0281

Kent Communications

(616) 957-2120 ext. 117

Contact: Brian Quist (brianq@kentcommunications.com)

K&H Integrated Print Solutions

Seattle, Washington
(800) 451-5740

KAS

Bedfordshire, United Kingdom
44 (0) 1582 662211

Kutco Printing

Harrisburg, Pennsylvania
(717) 652-0556

L. Brown & Sons

Barre, Vermont
(802) 476-3164

Lineage

Six regional offices: Buffalo, New York; Charlotte, North Carolina; Kansas City, Kansas; Little Rock, Arkansas; Rochester, New York; Triad Region, North Carolina

Mackay Mitchell Envelope Company

Minneapolis, Minnesota
(612) 331-9311

Mail Services, LLC

Des Moines, Iowa
(515) 727-7700

Microvote Corporation

Indianapolis, Indiana
(317) 257-4900
Contact: Bernie Hirsch

Midwest Direct

Cleveland, Ohio and Pittsburgh, Pennsylvania
(330) 416-5746
Contact: Mandy Gebbie (mgebbie@mw-direct.com)

MyBinding

Hillsboro, Oregon
(800) 944-4573

NPI

Tulsa, Oklahoma
(800) 858-2651

Opex

Moorestown, New Jersey
(856) 727-1100

PacWest

Dinuba, California
559-906-2003
Eric Kozlowski (erick@thepresort.com)

Pitney Bowes

(888) 365-3009

PrintElect Services

New Bern, North Carolina
(800) 682-4500

Quadient

Dublin, Ireland
353 (0)1 6250900

Runbeck Election Services

Phoenix, Arizona
(602) 230-0510
Contact: Jim Suver

Sun Solutions

West Columbia, South Carolina
(800) 523-7058

TC Delivers

(407) 855-8262)

Contact: Jamie Freeman (jamie.freeman@tcdelivers.com)

Unisyn Voting

Vista, California

(760) 734-3233

Contact: Brian Hancock

Universal Wilde

Westwood, Massachusetts

(781) 251-2700

VariVerge

Amarillo, Texas

(888) 288-6693

Victor Envelope Company

Bensenville, Illinois

(630) 496-6359

Contact: Matt Young (myoung@victorenvelope.com)

Vote Armor

Puyallup, Washington

(253) 846-8370

Winkler+Dünnebier

Lenexa, Kansas; Duncansville, Pennsylvania

(913) 492-9880; (814) 695-5521