






PUBLICLY-AVAILABLE TOOL TO ESTIMATE VOTE-BY-MAIL LEAD TIMES!

Wonder how long it will take to count mail ballots after receipt or what happens if you have to adjust resources along the way? PLEJ and the Engineering for Democracy Institute (EDI) have created a publicly available tool to help election offices plan the time to process and count mail ballots—from arrival through verification, scanning, and tabulation—based on resources available.

This tool uses data-backed simulations to allow election officials to enter their specific, step-by-step vote-by-mail processing methods, voter turnout estimates, and vote-by-mail ballot arrivals to predict the time required to process all vote-by-mail ballots. This tool (i) helps address concerns that voters have regarding when election results are finalized, (ii) provides a mechanism for election officials to use to help project the lead time required to complete the counting and tabulation processes, and (iii) helps estimate end-to-end costs for the process. Rest assured, no information that you enter is saved or stored by PLEJ or EDI.

Consider using this tool to:

-  Forecast processing times and determine optimal times to bring in staff
-  Quickly estimate the impact of large-scale changes in voting patterns, processes, or deadlines
-  Evaluate operational impact of resource changes (i.e. allocation of staffing by stage, budget adjustments, changes in available equipment, or requirement shifts)



View:

- [User Guide \(bit.ly/PLEJ-VBMTU\)](#)
- [Video Tutorial \(bit.ly/PLEJ-VBME\)](#)
- [How-To Instructions on the Reverse Side](#)

VBMTIME.APP





USING THE VOTE-BY-MAIL LEAD TIME ESTIMATOR

Step 1: Go to vbmtime.app

Step 2: Select one of the convenient preset configurations, or enter the two "General Inputs" values.

Load Preset Configuration

✓ Select a preset...

- High-Speed Sorting Setup - A standard process using a high-speed sorting machine.
- High Volume Setup - Configuration for high-volume processing.
- Barcode Scanner Setup - Configuration using a barcode scanner

General Inputs

Number of Envelopes:

Average Number of Ballot Cards Per Envelope:

Step 3: Click "Add Steps" Button, use the + sign to add all of the expected stages in your vote-by-mail process.

PLEJ PARTNERSHIP FOR LARGE ELECTION JURISDICTIONS

Download the User Guide | Watch a Video Walkthrough

PROCESSING STEPS

- Arrange Incoming Envelopes into Trays +
- Count Envelopes +
- Scan Signatures & Sort Envelopes +
- Manual Signature Verification +
- Rescan & Sort Envelopes +

ADD STEPS +

Run Simulation

Step 4: Enter the necessary information for each of the stages in your VBM process.

Manual Signature Verification

Number of Stations:

Number of Staff per Station:

Select Processing Time:

Manual Verification Percent:

Signatures Checked Simultaneously:

Step 5: If interested, in financial estimates, click to the "Cost" tab and enter values.

Single Process View | Full View | **Cost**

Scan Signatures & Sort Envelopes

Cost per Station (including materials and equipment):

Hourly Wage per Staff:

Station Cost: \$0.00

Step 6: Start simulation!
(Note: Larger estimates may take time to process)

Run Simulation

Step 7: Explore your data!
 After simulation completes, a "results" window will pop up with information about each stage of the process, overall wait times, bottlenecks, and more.

Download results, or save data to compare and contrast against a future simulation as you adjust resources.

Station Wait Times:	
Scan Signatures & Sort Envelopes-1:	22 minutes
Manual Signature Verification-2:	3 minutes
Level 2 Signature Verification-3:	3 minutes
Rescan & Sort Envelopes-4:	1 minute
Open Envelopes-5:	41 minutes
Average Time that a Ballot is in the System: 1 hour 6 minutes	
Average Time that a Ballot Spends Waiting: 1 hour 6 minutes	
Required Working Hours:	2 hours 8 minutes
Required Staff:	58

Cost Breakdown	
Total Equipment & Materials Cost:	\$2,362.00
Total Labor Cost (0.87 hours):	\$766.67
Grand Total:	\$3,128.67
Cost per Station:	
Scan Signatures & Sort Envelopes	
Equipment & Materials:	\$100.00
Labor:	\$23.33
Station Total:	\$133.33
Manual Signature Verification	
Equipment & Materials:	\$500.00
Labor:	\$200.00
Station Total:	\$700.00

About PLEJ

PLEJ is a national, nonpartisan nonprofit providing a community of support to large election jurisdictions (those with 250K+ population or any of the four largest jurisdictions in the state or U.S. territory) and professional development opportunities to individuals working in the election administration space.



Wait-to-Vote Calculator votetime.app

Allows election offices to plan ahead for in-person voting by estimating wait times based on ballot length, equipment allocations, and voters in line.



Warehouse Estimator ballotstorage.app

Helps election offices estimate storage needs and off-site storage costs for ballots, equipment, and supplies per election cycle.



Precinct Design Tool votelayout.app

Allows election offices to create digital layouts of all assigned equipment, staff, etc at in-person voting locations by election type.