Election Turnout and Wait Times

2018 General Election

Montgomery County Board of Elections
Overall turnout was up significantly

More than 410,000 voters (63%) was a large increase from recent, similar elections

- 2010 General: 51%
- 2014 General: 39%
- 2018 General: 63%
More voters are voting before Election Day

2014 General: 20%
2018 General: 37%

- 28% of voters casting ballots used early voting
- 9% of voters casting ballots voted by mail
- 9 precincts had more than half their voters use early or absentee voting
Early Voting Turnout as a % of Actual Voters

- < 20%
- 20.0 - 24.9%
- 25.0 - 29.9%
- 30.0 - 34.9%
- 35% or more
Equipment Allocation

Utilized MIT VTP’s Line Optimization tool to determine equipment based upon expected voter turnout* and SBE’s recommendations

*Formula found at Election Assistance Commission
Factors in Allocations

- Election Day turnout
- Percentage of elderly in precinct
- Percentage of Section 203 population
- Other factors
Scanner Allocation

- 3-4 Scanners = 8%
- 2 Scanners = 88%
- 1 Scanner = 4%

Two polling places had a scanner added on Election Day – 07-19 & 07-23
Methodology
How we determine wait times

Information from wait time cards reported by voters

Survey of Chief Judges asking questions about wait times and resource allocation

Wait Time = waiting time at all stations
(check in, ballot distribution, voting booths, and scanners)
“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... and the efficient allocation of resources.”
Wait Times

Short to no wait for most voters

76% of polling places never exceeded a 30-minute peak wait time on Election Day

The average wait time for a typical voter was approximately 7 minutes with an average peak wait time of 20 minutes across all polling places

A dozen polling places had very long wait times of 1-2 hours at their peak times
Wait Times: Four Comparison Groups

- **Moderate Wait Group**
  - 45 polling places
  - Peak wait: 35-55 minutes

- **Long Wait Group**
  - 12 polling places
  - Peak wait: 60-120 minutes

- **Short Wait Group**
  - 77 polling places
  - Peak wait: 20-30 minutes

- **No Wait Group**
  - 102 polling places
  - Peak wait: 15 minutes or less
No Wait

102 polling places saw little to no wait

MAX 10-15
AVERAGE 2
VOTERS 896
Short Wait

77 polling places peaked at 20-30 minutes

MAX 20-30
AVERAGE 5
VOTERS 1,128
Moderate Wait

45 polling places waited 35-55 minutes at peak

MAX 35-55
AVERAGE 13
VOTERS 1,402
Long Wait

12 polling places exceeded an hour wait

MAX 60-120
AVERAGE 30
VOTERS 1,556
Peak Wait Times By Precinct

- 15 minutes or less
- 20-30 minutes
- 35-55 minutes
- 60 minutes or more
CONTRIBUTING FACTORS

2018 GENERAL ELECTION
3-Card Ballot

- A longer ballot on three pages added pressure on workers and equipment
- Three pages added valuable seconds to each voter’s scanning time
- Increases likelihood of scanner jams
# of Cards – Election Day

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 General</td>
<td>516,598</td>
</tr>
<tr>
<td>2018 General</td>
<td>754,293</td>
</tr>
</tbody>
</table>
Chief Judges reported wanting more voting booths (72%) and scanners (44%).

Allocations did meet and often exceeded state requirements.
Equipment Breakdowns

- Scanner jams and errors
- Backup scanners were not available (all in use)
- Humidity increased jam frequency
- Chief Judges understanding of the bypass procedure
- Response time was slow
Slow Process at Scanning Units

- Frequent corrections meant repeat line trips
- Blank pages present a failsafe message
- Scanner judge instructions too slow and not clear enough
Larger Voter Turnout and Heavier Peaks

<table>
<thead>
<tr>
<th>Group</th>
<th># of Actual Voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long group</td>
<td>1,556</td>
</tr>
<tr>
<td>Moderate group</td>
<td>1,402</td>
</tr>
<tr>
<td>Short group</td>
<td>1,128</td>
</tr>
<tr>
<td>No wait group</td>
<td>895</td>
</tr>
</tbody>
</table>
### Election Worker Staffing

<table>
<thead>
<tr>
<th>Group</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election Workers by Group</td>
<td></td>
</tr>
<tr>
<td>Long group</td>
<td>11.8</td>
</tr>
<tr>
<td>Moderate group</td>
<td>11.5</td>
</tr>
<tr>
<td>Short group</td>
<td>10.8</td>
</tr>
<tr>
<td>No wait group</td>
<td>11.0</td>
</tr>
</tbody>
</table>
Size of Polling Places

Most polling places had sufficient space, but 20% of Chief Judges reported needing more room.
Voting Behavior

- The arrival patterns and voting choices of voters will continue to be difficult to predict with more voting options.
- Factors like weather and voter excitement can impact the timing of voting.
Non-factors

- Chief Judges reported largely having sufficient pollbooks (83%)
- Early Voting turnout did not impact Election Day lines significantly aside from a few exceptions
Explanations for Long Wait Group
<table>
<thead>
<tr>
<th>Location Code</th>
<th>Location Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-06</td>
<td>Hallie Wells Middle School</td>
</tr>
<tr>
<td>04-03</td>
<td>Carver Educational Services Center</td>
</tr>
<tr>
<td>04-08/33</td>
<td>Garrett Park Elementary School</td>
</tr>
<tr>
<td>04-10</td>
<td>Tilden Middle School</td>
</tr>
<tr>
<td>04-14</td>
<td>College Gardens Middle School</td>
</tr>
<tr>
<td>05-04</td>
<td>Riderwood Village</td>
</tr>
<tr>
<td>05-06</td>
<td>White Oak Middle School</td>
</tr>
<tr>
<td>05-23</td>
<td>Praisner Community Recreation Center</td>
</tr>
<tr>
<td>07-15</td>
<td>Thomas W. Pyle Middle School</td>
</tr>
<tr>
<td>07-19</td>
<td>Wyngate Elementary School</td>
</tr>
<tr>
<td>13-05</td>
<td>Silver Spring Library</td>
</tr>
<tr>
<td>13-38</td>
<td>Cedar Lane Unitarian Universalist Church</td>
</tr>
</tbody>
</table>
More than 150 provisional ballots

02-06  Hallie Wells Middle School
04-03  Carver Educational Services Center
04-08/33  Garrett Park Elementary School
04-10  Tilden Middle School
04-14  College Gardens Middle School
05-04  Riderwood Village
05-06  White Oak Middle School
05-23  Praisner Community Recreation Center
07-15  Thomas W. Pyle Middle School
07-19  Wyngate Elementary School
13-05  Silver Spring Library
13-38  Cedar Lane Unitarian Universalist Church
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-06</td>
<td>Hallie Wells Middle School</td>
</tr>
<tr>
<td>04-03</td>
<td>Carver Educational Services Center</td>
</tr>
<tr>
<td>04-08/33</td>
<td>Garrett Park Elementary School</td>
</tr>
<tr>
<td>04-10</td>
<td>Tilden Middle School</td>
</tr>
<tr>
<td>04-14</td>
<td>College Gardens Elementary School</td>
</tr>
<tr>
<td>05-04</td>
<td>Riderwood Village</td>
</tr>
<tr>
<td>05-06</td>
<td>White Oak Middle School</td>
</tr>
<tr>
<td>05-23</td>
<td>Praisner Community Recreation Center</td>
</tr>
<tr>
<td>07-15</td>
<td>Thomas W. Pyle Middle School</td>
</tr>
<tr>
<td>07-19</td>
<td>Wyngate Elementary School</td>
</tr>
<tr>
<td>13-05</td>
<td>Silver Spring Library</td>
</tr>
<tr>
<td>13-38</td>
<td>Cedar Lane Unitarian Universalist Church</td>
</tr>
</tbody>
</table>
Over 75% of voters voting on Election Day

02-06  Hallie Wells Middle School
04-03  Carver Educational Services Center
04-08/33  Garrett Park Elementary School
04-10  Tilden Middle School
04-14  College Gardens Middle School
05-04  **Riderwood Village**
05-06  White Oak Middle School
05-23  Praisner Community Recreation Center
07-15  Thomas W. Pyle Middle School
07-19  Wyngate Elementary School
13-05  Silver Spring Library
13-38  Cedar Lane Unitarian Universalist Church
Voter-to-worker ratio of 150 or more

02-06  Hallie Wells Middle School
04-03  Carver Educational Services Center
04-08/33  Garrett Park Elementary School
04-10  Tilden Middle School
04-14  College Gardens Middle School
05-04  Riderwood Village
05-06  White Oak Middle School
05-23  Praisner Community Recreation Center
07-15  Thomas W. Pyle Middle School
07-19  Wyngate Elementary School
13-05  Silver Spring Library
13-38  Cedar Lane Unitarian Universalist Church
Significant/repeated equipment malfunctions

02-06 Hallie Wells Middle School
04-03 Carver Educational Services Center
04-08/33 Garrett Park Elementary School
04-10 Tilden Middle School
04-14 College Gardens Middle School
05-04 Riderwood Village
05-06 White Oak Middle School
05-23 Praisner Community Recreation Center
07-15 Thomas W. Pyle Middle School
07-19 Wyngate Elementary School
13-05 Silver Spring Library
13-38 Cedar Lane Unitarian Universalist Church
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-06</td>
<td>Hallie Wells Middle School</td>
</tr>
<tr>
<td>04-03</td>
<td>Carver Educational Services Center</td>
</tr>
<tr>
<td>04-08/33</td>
<td>Garrett Park Elementary School</td>
</tr>
<tr>
<td>04-10</td>
<td>Tilden Middle School</td>
</tr>
<tr>
<td>04-14</td>
<td>College Gardens Middle School</td>
</tr>
<tr>
<td>05-04</td>
<td>Riderwood Village</td>
</tr>
<tr>
<td>05-06</td>
<td>White Oak Middle School</td>
</tr>
<tr>
<td>05-23</td>
<td>Praisner Community Recreation Center</td>
</tr>
<tr>
<td>07-15</td>
<td>Thomas W. Pyle Middle School</td>
</tr>
<tr>
<td>07-19</td>
<td>Wyngate Elementary School</td>
</tr>
<tr>
<td>13-05</td>
<td>Silver Spring Library</td>
</tr>
<tr>
<td>13-38</td>
<td>Cedar Lane Unitarian Universalist Church</td>
</tr>
</tbody>
</table>
Very large surge of voters **late** in the day

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-06</td>
<td>Hallie Wells Middle School</td>
</tr>
<tr>
<td>04-03</td>
<td>Carver Educational Services Center</td>
</tr>
<tr>
<td>04-08/33</td>
<td>Garrett Park Elementary School</td>
</tr>
<tr>
<td>04-10</td>
<td>Tilden Middle School</td>
</tr>
<tr>
<td>04-14</td>
<td>College Gardens Middle School</td>
</tr>
<tr>
<td>05-04</td>
<td>Riderwood Village</td>
</tr>
<tr>
<td>05-06</td>
<td><strong>White Oak Middle School</strong></td>
</tr>
<tr>
<td>05-23</td>
<td><strong>Praisner Community Recreation Center</strong></td>
</tr>
<tr>
<td>07-15</td>
<td>Thomas W. Pyle Middle School</td>
</tr>
<tr>
<td>07-19</td>
<td>Wyngate Elementary School</td>
</tr>
<tr>
<td>13-05</td>
<td><strong>Silver Spring Library</strong></td>
</tr>
<tr>
<td>13-38</td>
<td>Cedar Lane Unitarian Universalist Church</td>
</tr>
</tbody>
</table>
Very large surge of voters early in the day

02-06  Hallie Wells Middle School
04-03  Carver Educational Services Center
04-08/33  Garrett Park Elementary School
04-10  Tilden Middle School
04-14  College Gardens Middle School
05-04  Riderwood Village
05-06  White Oak Middle School
05-23  Praisner Community Recreation Center
07-15  Thomas W. Pyle Middle School
07-19  Wyngate Elementary School
13-05  Silver Spring Library
13-38  Cedar Lane Unitarian Universalist Church
<table>
<thead>
<tr>
<th>Precinct</th>
<th>Location</th>
<th>Longest Wait Time</th>
<th>Last Ck-in</th>
<th>Last scan</th>
<th>Average Wait Minutes</th>
<th>ballot</th>
</tr>
</thead>
<tbody>
<tr>
<td>005-23</td>
<td>Praisner RCC</td>
<td>120 9:09pm</td>
<td>9:47PM</td>
<td>50 Y</td>
<td>40 N</td>
<td>1679</td>
</tr>
<tr>
<td>007-19</td>
<td>Wyngate ES**</td>
<td>110 7:59PM</td>
<td>8:23PM</td>
<td>43 N</td>
<td>1947</td>
<td>1380</td>
</tr>
<tr>
<td>013-05</td>
<td>SS Library</td>
<td>105 9:31PM</td>
<td>9:39PM</td>
<td>40 N</td>
<td>1393</td>
<td>1376</td>
</tr>
<tr>
<td>004-14</td>
<td>College Gardens</td>
<td>90 8:49PM</td>
<td>9:01PM</td>
<td>35 Y</td>
<td>947</td>
<td>1817</td>
</tr>
<tr>
<td>005-04</td>
<td>Riderwood Village</td>
<td>90 8:01PM</td>
<td>8:12PM</td>
<td>25 N/Y</td>
<td>1394</td>
<td>1845</td>
</tr>
<tr>
<td>004-08/33</td>
<td>Garrett Pk ES</td>
<td>70 8:02PM</td>
<td>8:55PM</td>
<td>23 N</td>
<td>1574</td>
<td>1498</td>
</tr>
<tr>
<td>005-06</td>
<td>White Oak MS</td>
<td></td>
<td>9:17PM</td>
<td>39 Y</td>
<td>35 N</td>
<td>1498</td>
</tr>
<tr>
<td>004-09</td>
<td>Carver ESC</td>
<td></td>
<td>9:04PM</td>
<td>35 N</td>
<td>1845</td>
<td>1161</td>
</tr>
</tbody>
</table>
Acquire Additional Scanners

- Additional scanners could reduce lines on Election Day and may be needed if a 3-page ballot arises again
- Scanners needed in reserve in case of malfunction
Staff Recommendations

Add Additional Voting Booths

- Quality control on existing booths
- Order additional/replacement booths
- Provide more privacy screens for seated voting to easily increase capacity at low cost
Staff Recommendations

Improve Allocation Process

• Expand resource allocations at heavy turnout sites
• Link equipment allocations to ratios (e.g. – each pollbook is 5 booths, 1 scanner, etc.)
• Increase staffing numbers at the busiest polling places
Staff Recommendations

Improve Allocation Process

• Update allocations for populations with special needs or voting patterns
• Factor in how automatic and same-day registration could impact processing times and equipment needs
Staff Recommendations

Improve Tech Support Network

- Expand technical training for roamers already in the field
- Create an IT rover network to more quickly respond to reported issues
- Expand use of county IT staff for cost effectiveness
Examine Voting Rooms

• Check if alternative facility options might provide a better voting room
• Use alternative layouts to use space effectively
• Make sure layouts are maximizing space usage
Add and Update Signage

- Reduce election worker traffic control duties by adding large signs with numbers (e.g. – “1 – Check In Here”) so voters know where to go next in the polling place
- Numbers are a universal language
Assign Line Managers

- At certain locations, provide floating workers to help direct voters to their correct location
- Provide maps that detail the proper polling place to reference
- Separate provisional votes from regular voters at certain sites
Montgomery County Board of Elections
Report and Analysis by Eric Olsen, Operations Specialist
Contributions by Louise Warner, Janet Ross, Jessica White, Leslie Woods, Jessica Jones, and Deborah Hamer
January 28, 2019