After Action Reports

Line Management Analysis

Kara C. Rahn



The Balancing Act

- Long lines in high turn-out elections
- Meeting the expectations of the PA Election Code
- Balancing the resources available
- Improved overall voter experience



About Chester County

- ~350,000 registered voters
- 228 precincts of varying sizes
- Primarily paper (hand marked) ballots with optical scanners. Plus 1 DRE machine in each.
- Eight elections in a four-year cycle
 - Four Primary
 - Four General
- Voter turn-out varies greatly from election to election
- ~1200 poll workers (average of 5 per precinct)



Collecting the Data

- Modeled after Caltech/MIT research, we are collecting data from each precinct to show the number of voters in line at the top of each hour.
- From this, we can deduct if the resources at that precinct are adequate.
- Because no election is the same, the data collection may take a few years to fine tune, but we can make educated forecasts.



Sample #1

Election Date: 11/07/2017

of

Lines:

First

Voter: 7:01 am

Last

Voter: 7:50 pm

Total

Voters: 696

Line		
Range:	A-L	M-Z
7:00 AM	10	1
8:00 AM	9	3
9:00 AM	2	10
10:00 AM	0	_0_
11:00 AM	0	0
12:00 PM	0	0
1:00 PM	0	0
2:00 PM	0	0
3:00 PM	0	0
4:00 PM	0	2
5:00 PM	2	0
6:00 PM	0	0
7:00 PM	2	1
8:00 PM	0	0

30% turnout

Morning Rush



Sample #2

Election Date: 05/15/2018

of Lines:

First Voter: 7:00 am

1

Last Voter: 8:00 pm

Total

Voters: 395

Line Range: A-Z 7:00 AM 4 8:00 AM 5 9:00 AM 10:00 AM 11:00 AM 3 12:00 PM 6 1:00 PM 3 2:00 PM 3 5 3:00 PM 5 4:00 PM 5:00 PM 6:00 PM 3 5 7:00 PM 8:00 PM 0

16% turnout

Small line all day



CHESTER COUNTY, PA

Numbered List of Voters

	*
NUMBERED LIST OF VOTERS	
Ballot #	List of Voters
DI	51
RI	52
R2	53
D2	54
23	55
R3	56
RY	57
LS	58
04	59
D5	60
26	61
16	62
	63
	64
	Ballot # D1 R1 R2 D2 D3 R3 R4 R5 D4 D5 D6



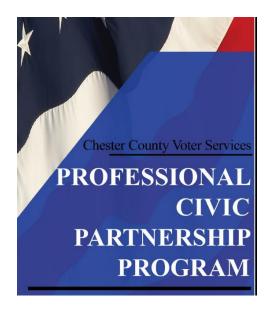
Technology & People

- Technology like "e-poll books" will absolutely help at check in.
- When deciding between hand marked paper ballots an a kiosk-type machine, counties must consider line management.
- There will be a learning curve for both poll workers and voters as new technology is introduced.
- Our poll workers will remain our most critical resource and asset to the voting experience.



Taking the Show on the Road

- Civic Partnership with businesses
- Rotaries and other clubs
- College students
- High school students
- In precinct surveying





Thank you

Kara C. Rahn, Director Chester County Voter Services

www.chesco.org/elections

krahn@chesco.org

