

Ann Arbor City Clerk's Office

Election Assistance Commission National Competition Best Practices in Election Administration

Category: Outstanding Innovations in Elections

2019 Election Day Line Tracker



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Overview and Background

Community Overview: Ann Arbor is the fifth largest City in Michigan with a population of approximately 120,000 and over 100,000 registered voters. Elections in Michigan are very decentralized and largely managed at the local level, with the Ann Arbor City Clerk's Office responsible for hiring and training election inspectors, registering voters, issuing absentee ballots, prepping equipment and operating polling locations.

Project History: This project is the culmination of several years of study and design regarding voter wait times. In 2018, we submitted for consideration for a Clearie award, what turned out to be the first phase of our Line Tracker project. New in 2019, we have launched a public website for voters to check the wait times at their polling locations on Election Day, a first in Michigan.

Long Lines on Campus: Ann Arbor is home to the University of Michigan, a world-renowned university that has an enrollment of over 45,000 students. On Election Day, the University hosts nine of the City's 53 precincts on campus, in addition to several other "off campus" or near campus locations. Many University students choose to register and vote in Ann Arbor in national elections. In 2016, on-campus precincts experienced some of the City's longest lines, with the Michigan Union reporting over two-hour waits throughout the day. All reporting regarding wait times in 2016 was done via City field staff or other third-party reports. There was no official system in place to measure or report hour-by-hour turnout until the end of the day paperwork was submitted.

Following the 2016 Presidential Election, the Ann Arbor City Clerk's Office looked for solutions to address long lines in the busy national elections (even-year November). The Clerk's Office at that time had participated in the 2016 Election Line Count with the State of Michigan Bureau of

Elections using a paper-based, hour-by-hour tally of the number of people in line at each precinct. The project relied on busy election inspectors to record their counts and submit paperwork at the end of the evening for reporting purposes.

2018 Partnership with the University of Michigan School of Information

2018 Summer Internship with the School of Information: In the summer of 2018, staff in the City's Information Technology Department introduced the City Clerk to Scott TenBrink, Project Manager for the University of Michigan School of Information Citizen Interaction Design program. A partnership was established and two students were awarded a fellowship opportunity to study the City's line management questions. Questions from the City Clerk's Office included how to manage long lines, how does the number of people in line equate to the total amount of time in line and how long is too long for a voter to wait in line. The team worked with the City Clerk's Office to design a solution that would both help better understand voter turnout behavior and use technology to manage the line.

The 2018 solution: The University students proposed that the City Clerk work with the City's Information Technology Department to develop a simple mobile application that could be used by City staff or election inspectors to report Election Day line counts in real-time using a calculator-style tool to input counts.

The City ultimately created a web application, eliminating the need to require election inspectors to download a new application and for ease of training. This simple website asked users to select a precinct, enter the counts using the calculator, and "Submit Count." The website was designed to allow for immediate upload of line count submissions directly to the City's internal SharePoint site. The immediate availability of data allowed for post-Election reporting, as well as Election Day analysis of turnout, highlighting isolated problems, reallocation of resources, etc. as events were happening.

2018 Testing

Lessons Learned: The tool was tested during the August 7, 2018 Primary Election and again on November 6, 2018 during the General Election. Changes were made after each Election to improve the usability of the tool. In November 2018, 751 counts were received, an average of 14 per precinct for the 13-hour day. Using the line counts throughout the day, staff were able to quickly identify a few isolated line problem locations and respond with resources. Staff within City Hall could also produce confident media reports regarding voter turnout and current lines throughout the City. A download of the data was submitted to the State of Michigan in the days following the election for the State's line count study.

2019 Public Election Day Line Tracker

The 2019 Public Implementation: The City Clerk’s Office continued its partnership with the University of Michigan School of Information in the summer of 2019. A new graduate fellow, Jiahui Zhou, proposed an updated design of the tool and the opportunity for voters to access the information on Election Day, using a public facing application of the data. Based on Ms. Zhou’s designs, the City’s IT staff created a new updated reporting tool for election inspectors and a public-facing webpage for voters to check wait times in advance of arriving at their polling places on Election Day. More than one year after the project first began, the City Clerk’s Office decided it was time for the line tracker to be shared with the public. The Election Day Line Tracker was officially introduced for the public’s use at the City’s special election on November 5, 2019.

The Election Day Line Tracker is now part of the City’s election website at a2gov.org/elections.

The screenshot shows the top of the website with the URL a2gov.org. Below the navigation bar, the title "Election Day Line Tracker" is displayed in large blue font. A breadcrumb trail reads: Home » Departments » City Clerk » Elections » Election Day Line Tracker. A message says: "Save time on Election Day by checking the line length at your precinct before you go vote!". There is a "Precinct" dropdown menu with "-- Select a Precinct --" and a "Submit" button. Below this, there are three icons for "Other Resources": "State Election Page", "City Election Page", and "Contact City Clerk". At the bottom, there are navigation icons for back, forward, share, bookmark, and print. A note at the bottom says: "(Public Election Day Line Tracker on mobile device.)"

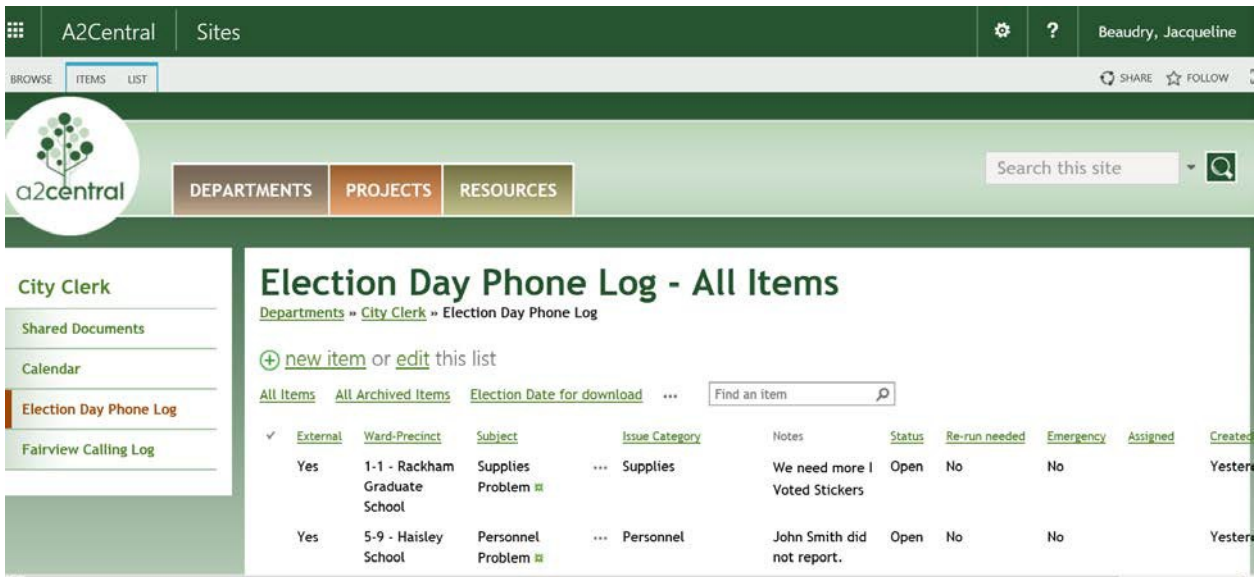
The Line Tracker features photos of each polling location, a Google map link to the polling location, a count of the number of voters in line and a projected wait time. The wait time is calculated based on the number of electronic poll books available to check-in voters and our study of electronic poll book check-in data from 2016 and 2018. The published wait time includes a “last updated” time so voters know how current the information is and also distinguishes between “no data reported” in the morning versus a 0 entered for no voters in line. The public page also includes links to resources, including the City’s election home page, an email link for the City Clerk, and a link to the Michigan Secretary of State.

This screenshot shows the details for a specific polling location. The URL is a2gov.org. The title is "Election Day Line Tracker". The breadcrumb trail is: Home » Departments » City Clerk » Elections » Election Day Line Tracker. The precinct name is "2-2 - Palmer Commons". Below the name is a photo of the polling location. The address is "100 Washtenaw Ave, Ann Arbor, MI". The "Wait Time" section shows "25 In line" and "12 Est. time (min)". A yellow box at the bottom says "Last updated at 11:07PM".

Ann Arbor voters can check Election Day lines, wait times with new online feature

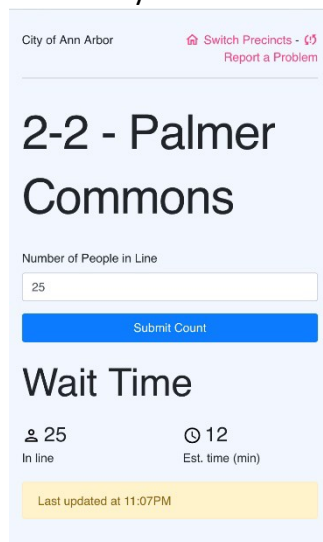
MLive, November 1, 2019

Inspectors can now report line counts to the City Clerk’s SharePoint site as they had done in 2018, with the results simultaneously populating the public webpage. The 2019 tool for election inspectors to report their line counts includes a new look and a new “Report a Problem” feature. The new “Report a Problem” feature populates a different SharePoint site, adding new “tickets” for help from election inspectors directly to the City Clerk’s existing Election Day call log, eliminating many phone calls to City Hall. Tickets that come in directly from the election inspectors via the Reporting tool are identified in SharePoint as external entries.



(City Clerk’s Office internal SharePoint site for Election Day call log.)

The election inspector Line Count tool for data collection was refreshed and updated from the 2018 version. However, for ease of election inspector training and familiarity, the page works essentially in the same way as earlier versions. The inspectors simply choose their precinct, enter their count of people in line and hit “Submit Count.” After submission, a message briefly appears confirming that the line count data was sent.



In preparation for the 2019 November election, poll workers were briefed again on the importance of collecting line counts at least once per hour. The inspectors were also alerted that the Line Tracker was now public and that there was excitement in the community following local media coverage of the tool. 719 line counts were received on November 5, a special election with only 37 consolidated precincts, averaging approximately 19 counts at each precinct over the 13-hour day.

(Election Inspector Line Tracker web entry page on mobile device.)

Project Summary and Award Qualifications

The Ann Arbor City Clerk's Office unsuccessfully submitted this project for consideration for a Clearie award in 2018. At that time, we were just finishing our testing of election inspector-submitted line count data in November 2018, for use only by the City Clerk's Office. In November 2019, having successfully launched the first publicly available tracking of line counts and estimated voter wait times in Michigan, we feel the project deserves a second consideration for outstanding innovations in elections based on the following award criteria:

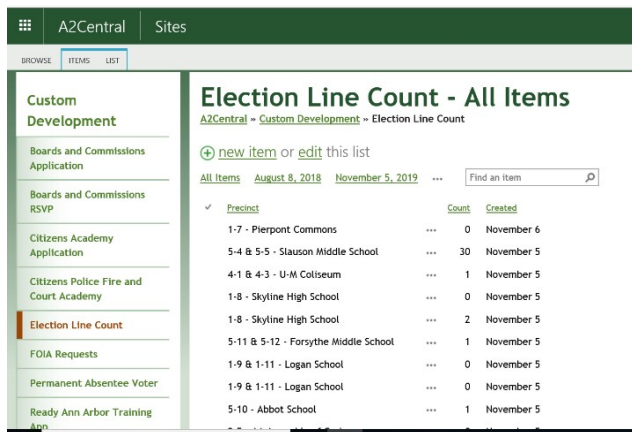
Innovation: The City of Ann Arbor is the only jurisdiction in Michigan submitting electronic real-time Election Day line counts and publicizing wait times for voters to use on Election Day. The website application was created by City staff through a partnership with the University of Michigan School of Information students who initially imagined the concept. The 2019 updates to this tool include a webpage for voters to check on the current wait times at their polling location. The webpage also allows voters to see photos of their polling location and quickly map a route to the polling place via Google maps. The page also includes quick links to contact the City Clerk's Office and the Michigan Secretary of State.

Sustainability: The tool was tested in the August 7, 2018 Primary and the November 6, 2018 General Elections. Following successful use of the application to submit line data to the City Clerk, the public webpage was created for use in November 2019. Use of the tool has eliminated the paper-based process of collecting line counts and has proven over multiple elections to be a system that can be easily replicated and repeated. No additional software was needed, as the entire process was created using existing Microsoft Office tools.

Outreach efforts: In addition to use of the data collected to target specific populations (i.e. students) regarding peak voting hours that have proven to be different in campus locations, the new public Election Day Line Tracker allows every individual voter to determine the best time to vote based on the wait times publicized at their specific polling location. The City Clerk's Office promoted the new tool in its November 2019 election communications and outreach and was picked up by MLive (Ann Arbor News) and the UM student publication, The Michigan Daily.

Cost-effectiveness: The City of Ann Arbor had the technology staff and existing software applications available to create and implement the tool and there were no additional costs to the City to test or implement this project.

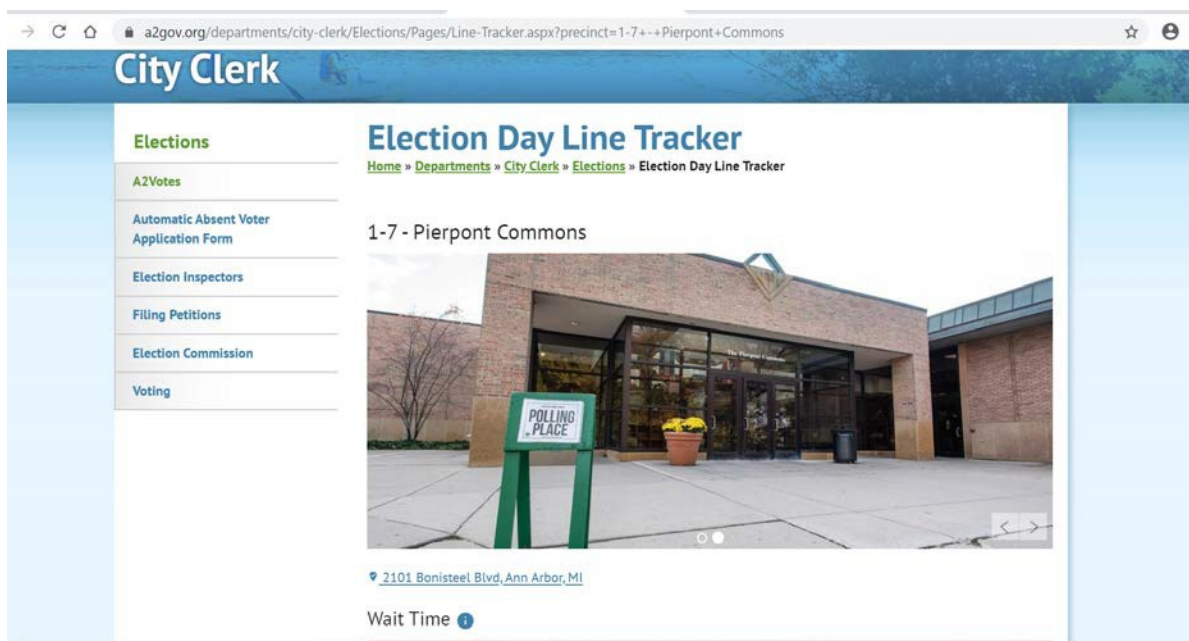
Replicability: The City of Ann Arbor has already proven over the course of three elections that the system can be repeated and reused over the course of multiple elections and years. The



(City Clerk's Office internal SharePoint site for Election Tracker Line Counts)

innovation can be shared and easily replicated by other communities with no additional software needed beyond existing web editing and content management software. Microsoft SharePoint was used for web editing to create the public page, the election inspector data entry tool, as well as the internal data collection logs (line tracker and the problem call log).

Creating Positive Results: The system was well received by election inspectors and the public. Ryan Stanton, the local reporter for MLive, covered the new Line Tracker on November 1, 2019, writing, "... the new system, if successful, could prove useful for the 2020 presidential election when turnout likely will be much higher." Following the positive press coverage and the implementation of the public line tracker, other local election officials, the Washtenaw County Clerk's Office, and the Michigan Secretary of State's Bureau of Elections all reached out with congratulations and questions about replicating the system beyond the City of Ann Arbor. Voters and election officials look forward to more widespread use in 2020 and future elections.



(A2gov.org/elections – Election Day Line Tracker public site)

From: "Beaudry, Jacqueline" <JBeaudry@a2gov.org>
Date: Mon, 25 Nov 2019 02:53:12 +0000
Subject: Outstanding Innovations Competition
To: "clearinghouse@eac.gov" <clearinghouse@eac.gov>
Cc: "Beaudry, Jacqueline" <JBeaudry@a2gov.org>

Attached is the City of Ann Arbor's submission for the 2019 Outstanding Innovations in Elections Competition. Please let me know if you have any questions or need additional information.

Best,
Jackie Beaudry

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