

Election Day Command Centers:

An Invaluable Tool in Election Administration

“Excessive wait times are avoidable if the jurisdiction has undergone proper planning and develops systems to inform the responsible authorities when a breakdown occurs.”

- The American Voting Experience: Report and Recommendations of the Presidential Commission on Election Administration

Things will go wrong on Election Day: voting machines malfunction, polling places lose power or flood, voting equipment is inadequate to handle the volume of voters, or a state’s voter registration database becomes inaccessible, rendering it difficult to check-in voters, among many other potential issues. No matter the cause, each potential issue risks tilting a polling place or an entire jurisdiction into crisis that results in longer lines to vote. In order to effectively address problems on Election Day, administrators must be able to receive communications from the field about issues affecting voting, assign remedies, and track their resolution.

On Election Day 2012, in a handful of jurisdictions, things went very wrong. During his victory speech in 2012, President Obama noted the millions of American voters who were forced to wait to vote for extended periods of time. “We have to fix that,” he said. Those five words led to the creation, in 2013, of the Presidential Commission on Election Administration (PCEA).

The PCEA’s mission was to identify best practices in election administration and to make recommendations to improve the voting experience. Commission co-chairs Robert F. Bauer and Benjamin L. Ginsberg, formerly the general counsels for competing presidential campaigns, brought bipartisan leadership to the commission, which was also comprised of distinguished election administrators and representatives of successful customer service-oriented businesses.

In January 2014, after six months of public hearings and consultations with state and local election officials, academic experts, and organizations involved in various aspects of election administration, the PCEA presented its findings in a report to President Obama and Vice President Biden.



One of the main focuses of the report was reducing lines at polling places on Election Day. On this, the PCEA found that, as a general rule, no voter should have to wait more than half an hour to vote. The commission believed that this 30-minute standard was achievable if election administrators planned and allocated resources appropriately. It also recognized, however, that even with extensive preparation, there will be processes that break down during voting and lead to lines at polling places.

To reduce the impact of problems at the polling place during voting, jurisdictions must have systems in place for reporting issues to the proper officials and tracking those reports in order to ensure that they are addressed in a timely manner. Without proper planning and systems in place, the risk increases for exceeding the commission's recommended standard that no voter should have to wait longer than 30 minutes to vote.

Election administrators have a variety of tools at their disposal to respond to problems on Election Day. They may have access to county or local government infrastructure, to local law enforcement, to field staff roving the jurisdiction to provide IT and other support, and to communications networks for coordinating between polling places, elections headquarters, and field staff. Taken together, these tools form an Election Day command center, which is a centralized system for reporting, recording, and assigning responsibility for problems and tracking their resolution.

Election day command centers must perform certain basic functions including communications and resource/personnel management. A command center should provide communication mechanisms for poll workers and other staff to report issues for resolution. If a voting machine breaks, for example, poll workers should be able to communicate that information to the election headquarters for mitigation before lines develop.

Once information is received from the field, a functional command center allows those responsible for decision making to communicate with the polling place and the proper internal elections office departments to find a workable solution. The command center infrastructure should provide some type of personnel and resource management mechanism that allows elections office staff to assign jobs to appropriate workers, such as field technicians, and to track the progress of issue resolution. Resolution tracking will ensure that issues are addressed and that election administrators are aware of how long it is taking to address them.

Command Center: The databases, systems, and personnel available to a jurisdiction's election administrator that are used on Election Day to address issues at polling places that affect the voting experience.

Command centers differ both in the breadth of their reach and their architecture. In some jurisdictions, administrators choose to purchase vendor-supplied, all-inclusive command center products. Over the last decade, manufacturers have expanded the non-voting system technology available for purchase. These offerings include electronic poll books (EPBs) and command center solutions, though the EPB market has received far greater attention.

In other jurisdictions, the election administrator uses available resources within local government to build an Election Day command center. The administrator could leverage existing local government systems such as 3-1-1 to manage incoming information from the field and to assign responsibility for mitigation to the appropriate staff.

Other administrators have the resources to build their own, in-house command centers situated and staffed exclusively by the elections team using hardware and software solutions that fit their budgets. In-house command centers can be built with commercial, off-the-shelf (COTS) technology as well. A jurisdiction could purchase hardware, such as smartphones and tablets, as well as different types of mapping, personnel, and project management software that are not specifically designed for elections, and adapt them to local needs.

Whichever approach a jurisdiction takes, a command center must provide the election administrator the capability to effectively respond to challenges on Election Day. The Bipartisan Policy Center and Presidential Commission on Election Administration do not endorse one approach over another. A jurisdiction of 1 million voters needs a much more sophisticated system than a jurisdiction with a few thousand voters. Financial resources are also a concern. Some jurisdictions will be able to afford systems with many features and capabilities. Other jurisdictions will need more cost-effective systems. It is clear, however, that all election administrators must devote time and resources to considering how to manage crises on Election Day.

In this initial report on command centers, we highlight two jurisdictions: the Kansas City Elections Board and the Maricopa County Elections Division. Both of these jurisdictions created their command centers in-house though each took a unique approach. A forthcoming final report will include case studies from jurisdictions that rely on existing 3-1-1 systems as well as ones that rely on vendor-provided solutions.

Command centers benefit election administrators in responding to the challenges and breakdowns that inevitably occur on Election Day. A plan and system for tackling those issues is an essential component to improving the American voting experience by keeping wait times from growing to unacceptable lengths.

Maricopa County, Arizona

Jurisdiction Overview

In a general election, Maricopa County operates approximately 650 polling locations with about 4,900 pollworkers and 120 field rovers. There are approximately 2,200,000 registered voters in the county.

Command Center System

The system in Maricopa County was created entirely in-house. Using full-time staff, the county constructed a centralized reporting system that captures communications from the field on Election Day and integrates the data into various components of its election management system.

The System in Action

An issue at a polling place on Election Day is reported by phone to elections headquarters by a poll worker, field rover, voter observer, etc. From there, the election administration problem journeys through Maricopa's command center until it is resolved.

- **Collecting the information:** The issue is entered by staff into the command center database. Data include precinct numbers, precinct names, and/or polling place facility names. This first step creates a new record in the system. Each record is time stamped at every step in the process.

- **Compiling data:** Databases linked to the command center infrastructure auto-populate with information on where the polling place is located, contact information for the lead poll worker, and the assigned field rover for that location.
- **Identifying the problem:** Elections office staff select pre-determined categories (such as voter registration, early voting, voting system, language assistance, or lengthy lines), which generates an email notice to the manager responsible for that department. A text entry field is used to describe the nature of the issue as well as a “Help” function that provides information on common issues that arise in each of the given areas.
- **Assigning responsibility:** Information coming in from polling places is immediately emailed to the appropriate manager upon data input. A hyperlink to the record can be shared with additional staff as needed. Once the manager opens the email, the status of the record changes to “pending” in the command center database. This status change is time stamped and becomes one way of tracking accountability of issues and the timeliness of their resolution.

For issues that require a field rover visit, a hyperlink to the report appears on the screen of the radio dispatcher assigned to that field rover. The dispatcher notifies the field rover via two-way radio that the rover needs to call in for instructions. After the dispatcher describes the nature of the issue, the dispatcher notes in the issue record that a field rover has been dispatched.

- **Tracking resolution:** If the issue is successfully resolved during the initial call for assistance or after the field rover’s engagement, the report is closed. If additional action is necessary, the report remains pending until the field rover reports back that it has been resolved.

Performance reports can be run on and after Election Day on all open or pending records representing issues at the polls. The reports can also be filtered by category of issue or by precinct. Additionally, the command center database can be used to generate “snapshot” reports showing the number of issues that were reported on an hourly basis, and how many issues were reported in each category. In both cases, the total number of issues reported is provided, but also the number of precincts where those issues were reported. This functionality allows command center staff to determine whether an issue is widespread or occurring only in a handful of precincts.

- **Follow up:** All data generated through the command center is exported for later analysis. Maricopa County has decided to include metrics based on the command center database, such as the timely resolution of issues, into employee evaluations and performance management plans.

The data collected during Election Day is invaluable for planning for future elections. For example, after Election Day using command center data, election office personnel can evaluate performance issues at specific facilities and with specific poll workers. Staff can use this information to make informed decisions about whether to rehire a given poll worker or to locate a polling place at a given facility in future elections. In addition, staff can use database-generated reports to assess the relative effectiveness of the allocation and use of supplies in the field as well as the reported formation of lines at polling places on Election Day. These reports guide future election administration decisions.

The Maricopa County command center efficiently mitigates issues on Election Day. The command center’s architecture that generates emails to managers with responsibility for finding solutions and tracking their performance has improved responsiveness to problems at the polls.

One area for potential improvement is at the point of data entry. Currently the command center is used as a mechanism to capture and categorize calls coming in from the polls. Poll workers, troubleshooters, voters, and other stakeholders do not have the ability to directly enter information into the system. Adding that functionality could improve effectiveness.

Kansas City, Missouri

Jurisdiction Overview

In a general election, Kansas City operates 365 precincts in 130 to 150 polling locations with 900-1,200 pollworkers and 75 field rovers. There are approximately 220,000 registered voters in Kansas City.

Command Center System

The Kansas City Board of Elections staff designed the jurisdiction's command center in-house using commercially available technology. The system utilizes software available from Google, as well as tablets and smartphones, to report and record issues that need to be addressed, to assign responsibility to the proper staff for addressing issues, and to track the progress of issue resolution.

The main components of Kansas City's command center are Google Forms and Google Coordinate.

Google Forms is a free service that allows users to create customized, fillable online documents. The data that is submitted then populate a corresponding spreadsheet to which only the creator has access. Google Forms can be accessed via web browser or through a Google app for mobile devices.

Google Coordinate is a web and mobile app that functions as a workforce management tool. It shows the location of workers on a map and allows users to assign jobs to the nearest worker available. A dispatcher can assign jobs on a computer, tablet, or smartphone to workers in the field who typically access the app on a mobile device. Their devices also communicate their current locations back to the dispatcher through the app.

Kansas City uses a combination of these technologies as the main architecture of its command center.

The System in Action

When an issue occurs on Election Day, it can be reported to the command center through several channels.

- **Collecting the information:** Typically, a poll worker calls into the election board headquarters to report a problem at the polling place on Election Day. In November 2015, the elections board piloted a program where poll workers could directly input problems online without calling headquarters. The system also allows for input from voters through a separate portal.
- **Compiling data:** Staff at election headquarters enter data about the issue into a "Service Call Form" created using Google Forms. The form must be used for all service calls and includes inputs for data about the polling place, the nature of the issue, poll worker contact information, and a timestamp of when the issue was reported. Much of this information is selected through standardized drop-down menus for consistency. Other elections board staff, such as division and field supervisors, can directly enter information into the Service Call Form as well.

- **Identifying the problem:** The data in the form automatically populates a spreadsheet, which the command center dispatchers constantly monitor. The dispatcher determines whether the issue can be resolved over the phone or whether it needs to be assigned to a field rover.
- **Assigning responsibility:** If a problem cannot be resolved over the phone, the command center dispatcher creates a “job” in Google Coordinate. The job includes polling place location, nature of the issue, and other pertinent information taken from the spreadsheet. The dispatcher uses the Google Coordinate map, which shows the location of all of their field technicians, to assign the job to the nearest available worker. Technicians are alerted of new assignments on a tablet or smart phone through the Google Coordinate app.
- **Tracking resolution:** Technicians mark assignments as “accepted” before leaving for the location of the service call, as “checked-in” when arriving at a location, and as “completed” when service is complete. This data is communicated back to the dispatcher at the command center. The dispatcher updates the tracking spreadsheet with progress and timestamps as each of these status changes are made.
- **Follow up:** In addition to managing issues as they occur on Election Day, the board of elections uses the command center database as a resource management tool. For example, the database creates a record for when the ballot inventory is checked out of the warehouse on Election Day and when it returns back from the field. For additional one off analyses, election office staff use spreadsheets generated by the system.

Kansas City was able to build its command center at low cost. The Google Forms element of the command center is free. Google Coordinate, which is a part of Google Maps, costs approximately \$24 per month per user. The Kansas City Elections Board only pays for the months that they use it, that is, only during elections and not year-round.

This system also requires the use of tablets and smartphone devices. Each field technician must have a smartphone or tablet. During the November 2015 pilot, polling places also had access to a smartphone or tablet. Field technicians require access to mobile broadband, and polling places require an Internet connection. To operate the system, the command center can be controlled at headquarters from a computer with Internet access. In the case of the tablets, for those that need mobile broadband, Kansas City’s data plan provides 1 gigabyte for three months per tablet at a cost of \$25 per month per tablet. This allows the elections board to pay for data during a short period of time rather than for an entire year.



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