Uniformity in Voting Systems: Looking at the Crazy Quilt of Election Technology

Since the late 1800s, the decision of whether to use voting machines to help tabulate votes, and which machine to use, has traditionally been left up to local jurisdictions. As different technology was introduced, legislatures passed requirements on what voting machines had to do. However, within those parameters it was still usually up to localities to choose (and purchase) the equipment itself. As a result, voting equipment used in the country looked like a crazy quilt.

Then the year 2000 became the year of the “hanging chad” when a punch card voting system used in Florida came under scrutiny and the whole landscape began to change. Congress soon passed the Help America Vote Act (HAVA) of 2002 that required phasing out old lever and punch card voting machines and provided a big chunk of change ($3 billion) to states to do so. The money was funneled through the state election office, rather than directly to localities, and states had to submit plans detailing how the funds would be used. As a result, some states decided that it made sense to purchase the same type of voting equipment for every jurisdiction in the state.

A patchwork is still the norm in the majority of states—counties are still the deciders of what voting equipment to use, as long as they meet state standards. But since HAVA passed, 18 states have adopted the same type of voting equipment for every jurisdiction in the state: Alabama, Alaska, Connecticut, Delaware, Georgia, Hawaii, Louisiana, Maine, Maryland, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Carolina, Utah and Vermont. Colorado is moving in that direction as well, having selected a voting system and vendor in 2015. Counties are providing the funds for the purchase of the new system and will be buying it in waves over the next several years.

These states have the same vendor and the same equipment statewide, but variations still exist on the role of the state in assisting its jurisdictions with purchasing, maintaining and implementing the systems, as well as putting statewide procedures in place on how to use the voting equipment. Even the 18 states listed above fall somewhere on a spectrum of uniformity.

Entirely Uniform System

In a truly uniform system, each jurisdiction in the state uses the exact same equipment for elections, and also uses the technology in the same way. The state may dictate procedures and train election officials as well so there is consistency from county to county.
Some disadvantages:

- Jurisdictions share vulnerability. If something goes wrong, it could go wrong for everyone in the state.
- There’s a lack of flexibility—a solution that works well for a larger county may work less well for a smaller county, or vice versa.
- It could stifle innovation.
- Unless the vendor is well-managed, the state risks becoming captive to the vendor.

Other Aspects of Uniformity in Voting Systems

Some states have adopted a degree of uniformity without approaching the level of those mentioned above.

For example, a state may use the same type of technology statewide, but that technology could be supported by different vendors, the machines themselves may be slightly different and the processes used at the local level may vary. In 2002, Michigan passed legislation (House bill 5216) requiring the state to adopt a uniform voting system. In 2003, the Secretary of State’s Office recommended adopting a precinct-based optical scan system, which was implemented and is still used throughout the state. But counties use precinct optical scanners from three different vendors. In this approach the state is not captive to a particular vendor, though it also can’t take advantage of some of the other aspects of having a truly uniform system, like being
able to use your neighbor’s equipment in case of a natural disaster.

Another variation is to use the same vendor statewide, but permitting jurisdictions to purchase different types of equipment from that vendor. Nebraska is an example. Only one vendor provides certified voting equipment in the state and all jurisdictions use paper ballots. Some jurisdictions are seeing a rise in absentee voters and have purchased high-speed optical scanners to process large numbers of ballots. Other counties work well with precinct-optical scanners, where voters feed their ballots into the scanner individually. The same vendor sells both “central count” and “precinct count” versions.

Even in a state with only one voting system vendor other vendors are always in the mix. “There are no single vendor systems,” says Merle King from Kennesaw State University’s Center for Election Systems. “Every voting system is a collection of proprietary and integrated sub systems which have multiple vendors. At best a ‘single vendor’ is an integrator.”

There is often a constellation of different peripheral election technologies used in states, which may all be managed by different vendors, or developed and managed in-house. States have everything from online voter registration systems to e-poll books to election night reporting systems (see NCSL’s Elections Technology Toolkit for more information on technology used at different points in the election process).

Which brings us to the next aspect of uniformity—data format. Elections are data-driven events that rely on databases behind the scenes. If these different systems can’t “talk” to each other through a common data format it creates inefficiencies and makes it harder to use the data to drive continuous process improvements (or to glean information about who is voting, when they’re voting and what that may mean for politicians). A Voting System Standards Committee has been working on this issue, with the goal of establishing a common language which would allow different types of voting technology to work together seamlessly.

**Things for Legislators to Consider:**

- What is meant by a uniform system and is it a desirable attribute in your state? In some cases the state taking a more central role in the election administration process may be appreciated; in others it may not be.
- Would statutes need to be “cleaned up” to allow for standardization of voting systems and procedures?
- Is a move to a uniform system sustainable? States received a large injection of funds from after 2002 but how will aging statewide systems be replaced next time?
- Evaluating the need for a new voting system is an opportunity for a state to look at its current processes and models and see if that’s really what they want going forward.

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**Then and Now: 2012 to 2016 Comparisons**

*Each issue, from now until the November general election, we will be taking a look at one major election administration topic showing how it has changed at the legislative level from one presidential year to another. This issue: Online Voter Registration*

**Amount of change:** Significant

**In 2012:** Thirteen states provided an online voter registration option for voters, in addition to traditional registration methods, such as at a motor vehicle agency or on paper: Arizona, California, Colorado, Indiana, Kansas, Louisiana, Maryland, Nevada, New York (although some argue whether it is truly online registration), Oregon, South Carolina, Utah and Washington.

**In 2016:** Thirty-one states and the District of Columbia have online voter registration systems up and running. In addition to the states that had online voter registration in 2012:

- Ten states and the District of Columbia have adopted online voter registration through legislative action since 2012: Connecticut, Georgia, Hawaii, Illinois, Massachusetts, Minnesota, Nebraska, New Mexico, Virginia and West Virginia.
- Eight states have adopted online voter registration through administrative procedures since 2012: Alabama, Alaska, Delaware, Iowa, Kentucky, Missouri, Pennsylvania and Vermont.
- An additional seven states have enacted legislation to create online voter registration, but their systems are not yet operational: Florida, Idaho, Ohio, Oklahoma, Rhode Island, Tennessee and Wisconsin.

For the adoption history of online voter registration, visit NCSL’s Online Voter Registration page.

To understand the variations among these systems, see Online Voter Registration: Trends in Development and Implementation from The Pew Charitable Trusts.
NCSL Summit Chock Full of Redistricting and Elections

NCSL’s Legislative Summit on Aug. 8-11 in Chicago, Ill. is fast approaching. The online agenda is now available for viewing and we’ve got election and redistricting programming from start to finish. It’s an election year (in case you didn’t know) so don’t miss out. Here are the sessions this year:

Monday, August 8

8:45-11:30 a.m. Field Trip: Cook County Elections: Learn about the factory-like operation that does the soup to nuts of running elections, and has recently adjusted to several new legislative changes to election policy for Illinois.

1:00-2:15 p.m. Redistricting: A Distinctively Legislative Power: Redistricting matters to every legislator in every state. With a little history and a dash of humor, learn about the criteria states use to divvy up their geography, the ways that citizens engage in this eminently political process, and the procedures they follow.

2:30-3:30 p.m. The Courts Have Ruled … But What Does it Mean for Redistricting? Learn from experts about what this year’s Supreme Court cases such as Evenwel v. Abbott and Harris v. Arizona Independent Redistricting Commission mean for the future. We’ll look at state cases that may have national implications as well.

3:30-4 p.m. Redistricting Tools: How Will the Technology Landscape Look in 2020? And Just How Will It Shape Redistricting? Just like IT applications in your agencies and departments are evolving, the solutions for redistricting will evolve as well. SaaS, IaaS, On-Premise, Hosted Services, Cloud and Stand-alone are terms you should know. Will these solutions be built for PCs, the web, tablets? Or something that we can’t imagine yet?

Tuesday, August 9

7:45-9:00 a.m. Campaign Finance: What It All Means: Campaign treasuries, PACs, super PACs, 501c4s, and independent expenditures groups—what do these phrases mean for campaign finance? We’ll also look at the impact (or lack thereof) of self-funded campaigns, contribution limits and disclosure requirements: what difference do these make, if any at all?

9:15-10:15 a.m. Identifying Where to Count People: An Update from the Census: The Census Bureau published their proposed Residence Rule this summer describing where people, including prisoners and military personnel overseas, will be counted for the 2020 Census. This session will discuss these plans and include an update to the design of the 2020 Redistricting Data Program.

10:30-11:25 a.m. Evaluating Elections One Step at a Time: “Continuous improvement” is the goal in the elections world. Election observers can watch and comment on (but not interfere with) everything from voter check-in to vote counting. Others can evaluate election analytics, with an eye toward tweaking procedures for the next election. Learn from The Carter Center and others how legislators can move their states in these directions.

11:30 a.m.-12:15 p.m. Then and Now: How Elections Have Changed since 2012: Join NCSL’s elections team to look at how elections have changed in four short years through topics such as voter ID, early and no-excuse absentee voting, same-day voter registration, and more. Be part of a lively discussion that aims to answer the question: is voting easier or harder than it was four years ago?

12:45-1:30 p.m. What to Do If You’ve Got a Disputed Election: Learn about history-making contested elections from Ned Foley, author of this year’s “Ballot Battles: The History of Disputed Elections in the United States.” Explore “what if” procedures states can adopt ahead of time, so a disputed election—including a presidential election—is less painful.

1:45-3 p.m. Three Top Topics: Caucuses v. Primaries, Post Office, and Voter Turnout: Join election experts for 20 minute talks on three important election topics.

3:15-4:30 p.m. Technology: Improving Elections One Bit or Byte at a Time? What role do legislators play in adopting new technology? What is the price for implementing new voting tools? And what about the human factor—how does all this impact our voters and our poll workers?

Wednesday, August 10

9:15-10:30 a.m. Electoral College Politics: National Popular Vote (and more): Sixteen years after a presidential election that went to the winner in the Electoral College but not the winner of the popular vote, where are we now? Join fellow legislators to discuss how the Electoral College works—or doesn’t work—and alternative proposals for change, especially the National Popular Vote Interstate Compact.

2:45-4:15 p.m. Redistricting Working Session: Join your fellow redistricting geeks for this roundtable to help guide NCSL’s redistricting work over the next few months.

Thursday, August 11

10:45 a.m.-Noon Politics 2016: State Election Preview: 6,000 legislative seats are up for grabs this November. Add to that the presidential race, a dozen gubernatorial elections and 150+ initiatives and referendums on statewide ballots, and the stakes are high for everyone in 2016. Come peer into the crystal ball.
From The Chair

Senator Gilbert Keith-Agaran chairs the Judiciary and Labor Committee in the Hawaii Senate. He represents the 5th Senate District which includes Wailuku, Waihe’e and Kahului on the island of Maui. Keith-Agaran spoke to The Canvass on June 9.

- "We want to make sure that our elections are accurate and we want to make our elections accessible to everyone who is eligible to vote. These are steps that we’ve been taking over the course of a decade now."

- "The last two years we’ve been debating in the Legislature switching to all-mail elections. In connection with that we’ve been looking at automatic voter registration. Both measures did not make it out of conference committees this year. In the interim we are going to be looking at the experience that other states have had with those options. We have to get a handle on what we want from our elections system before making big changes. Our election officials can see, though, that all-mail is coming—not only in the rise of absentee balloting but also in the difficulty of getting polling places and poll workers."

- "The way our laws are set up now in Hawaii, we are running three different elections—a mail election, a walk-in or early election, and the polls on Election Day."

- "I really admire our county clerks. They take the lead on running those three different elections I mentioned. Things can be even more challenging now because I feel like it’s no longer Election Day but Election Month with all the options available to voters and the clerks and our state elections officials have to be prepared for that."

Read the full interview with Senator Keith-Agaran.

The Election Administrator’s Perspective

Joyce Oakley is the County Clerk, Election Commissioner and Register of Deeds for Nemaha County in southeastern Nebraska. The county is home to over 7,200 residents and has one portion of land that is across the Missouri River and is accessible only by driving through Iowa or Missouri. Oakley spoke to The Canvass on June 6.

- "The number one issue is finding poll workers in a rural area and especially finding opposite party poll workers. Right now, I’m mailing letters to residents to ask them to serve as poll workers but I won’t hear back for several weeks. We appoint our poll workers, but some counties in Nebraska treat it like a jury duty notice. We used to have several high school students that would volunteer and help run our website on Election Day but we haven’t had much luck recruiting them in recent years."

- "Election ballot costs are another concern. I have two voters in our county that vote in a school district that isn’t in our county, but is just north of us. Because they are located in our county, we have to provide ballots to these voter for that school district, so I have the extra costs of ordering a minimum of 25 ballots to just 2 voters."

- "Small counties have limited funds. We never know what the costs are going to be. Having ballot-on-demand and not having to print ballots would be a huge saving to small counties. You never know how to prepare for voter turnout. Do you print ballots for 50 percent or 80 percent of your registered voters and just throw away the extras?"

- "The state senators will need to come up with a clear roadmap for the future of elections that will help counties plan. It takes time to plan and train people, especially with new technology and programming."

Read the full interview with Oakley.
Worth Noting

- California Forward has released a new report titled *Investing in California’s Democracy: Building a Partnership for Performance*. The report encourages development of a “new way to pay for elections administration that can control costs, improve voting systems and evolve the tension-filled relationship between state and county governments into a cooperative partnership.”

- Another example of the messy world of ballot access—a judge in Arizona refused to block a 2015 law that dramatically increased the number of signatures that minority party candidates need to get on the ballot, from potentially 134 signatures to over 3,000 in some cases.

- The fine folks at William and Mary Law School have released their *State Election Law eBenchbook* designed to help judges navigate the complex world of state election codes as the annual number of election law cases has doubled since 2000.

- The change to a top-two primary system in California has led to a first in the state’s history: no Republican will be on the ballot for a U.S. Senate seat. An amazing change from the state that gave the country Richard Nixon and Ronald Reagan.

- Dude, where’s my voting machines? The New York City Board of Elections is under fire after an audit showed the board lost track of over 1,400 pieces of voting equipment.

- The Louisiana Legislature has repealed a 142-year-old law that required naturalized citizens to show proof of citizenship when registering to vote.

- A New Hampshire state representative has resigned and was subsequently arrested for trying to intimidate a witness in a case of possible voter fraud after it was discovered he had moved out of the district he represented in the Legislature.

- Reuters has a look at how Native Americans have been affected by changes in voting laws over the past four years.

- Another month, another reminder from security experts that internet voting isn’t ready for primetime. This time from Stanford University.

- Language access is one of those sneaky election issues that is sure to pop up as the general election gets closer. The U.S. Election Assistance Commission’s recent *summit on language access in elections* is a great way to catch up.

- Calling all election geeks—registration is now open for the University of Minnesota’s online certification in election administration program for fall 2016.

Four new election webpages are now up and running:

- **Automatic Voter Registration**—the latest on an increasing trend in states.

- **Helping Constituents Vote**—a one-stop shop for helpful links on things like where to vote and how to get an absentee ballot. Feel free to use when interacting with constituents.

- **Election Costs: What States Pay**—a helpful breakdown on how states and localities pay for elections.

- **Webinar: Supreme Court Redistricting Cases**—it is a banner year in the Supreme Court for redistricting cases! Aside from *Evenwel v. Abbott*, the Court decided three other redistricting cases that will be important for the 2020 redistricting cycle.

Browse the most recent entries from the election team on the NCSL Blog.

Look for #NCSLElections on Twitter for all NCSL election resources and news.

Thanks for reading, let us know your news and please stay in touch.

—Wendy Underhill, Katy Owens Hubler and Dan Diorio