



## Elections GeoSummit Notes

Thank you to all who attended the Elections GeoSummit in Washington, DC on August 14, 2019. Below are notes that were taken during the event. If you have notes that you took and are comfortable sharing, please do send them to Jamie Chesser at [jamie.chesser@nsgic.org](mailto:jamie.chesser@nsgic.org). Thank you.

### Question from Keynote

BPro Neil McClure - where did you get your address points; how do you standardize non standardized addresses  
Answer: from voters and other efforts NG911; non standard addresses - preload data (USPS might not like it)

MIT - question about return on investment for using GIS with splits

### Case Study Panel

Summaries:

WA: modernization brought rural counties to the top; the interface is the most important; this allows counties not to have to purchase a really expensive system; and they can still participate and get the data to you; counties provided data e911 files, shapefiles, or their manual process with references; 39 counties - 39 conversations with 39 GIS analysts

WI: helps overall data quality

Data quality, accuracy, where you get it all very important; for precincts and wards; addresses will be great to get the NG911; data maintenance important

NC: not a good source of address points; good address list for geocoding; pulled address from e911 and county address points best; Geocoded addresses were not the best.

UT: motivation completely 2010 census 2012 redistricting

NC: users not as technical as the GIS staff; make sure everything is user friendly

UT: leadership this will drive the paradigm shift

Consolidation of IT workers connected UT IT and GIS to elections

Questions:

UT - our data was better together; no ones data was perfect; success clerks had ability to update address points - improving them; they maintained local control



NC: merging precincts - web app - bring counties in this way

## Pilot Projects Panel

Moderator: Ken Nelson

### Brad Neuhauser (Minnesota)

MnGeo setup in 2009. Focus on data sharing and standards. Uses data to produce statewide geocoder, currently about 5 years old. Cascading geocoder has several layers of input for address matching (addresses, parcels, etc).

Worked together for voter auditing. Matched ~1.8 million voter registered addresses (with precincts) through address geocoder. Most geocoded to accurate acceptable locator, but some geocoded to levels not acceptable. Did precinct comparison (did geocoded address equal precinct defined in original data).

Many addresses initially did not match. Used Esri geocoder as a compliment to state geocoder. Most did find match, but ~0.8% did not match. Going through manual process to assign these addresses to an acceptable location.

Issues that came up; multiple points one location, precinct changes, lack of geocoder data (tribal).

What's next. Continue with analysis. Data sharing agreements. Costs (esri geocoder) and staff resources.

### Wayne Bena (Nebraska)

Nebraska has 1.2 million registered voters. Nebraska is unique. Elections run in May and November of even-numbered years. Every race in Nebraska happens during that time frame. Nebraska has been touted as one of the most complicated ballots in the united states with 5050 different ballot styles.

**Why GIS?** Want to make sure voters get correct ballot. There was a module already in system that could be enabled. Chose Sarpy county as the pilot project to test due to the fact they had already expressed interest.

Process to migrate VRS (voter registration system) to address points.

Using address points can help other applications within state government. Address points from NG911 will be beneficial to this endeavor.



## Michael Moser (Pennsylvania)

PA is a top down voter registration database. Wanted to start from ground up, including governance and best practices. Currently based on street ranges. Will put out elections system RFP coming up with heavy GIS requirements.

Really focusing on governance side. Pilot consisted of 14 counties that participated. Good disbursement of counties that represent different populations and levels of technology.

Main goal assemble statewide boundary GIS layers.

**Achievements;** documented the process and best practices document for redistricting, assembled formal map layers for precincts and polling places, and educating elections office.

Focused on services-oriented processes (web services).

**Pilot barriers.** Some counties we unable to respond to questions about data. Lack of documentation at county and state level.

## David Tackett (West Virginia)

VIP - Voter Information Project - recognized voter behavior going to search engine to understand where to vote and who was on the ballot. Drive people to a trusted source (state level data, representatives, county level, etc). Recognized how decentralized data is. At state level, couldn't speak intelligently about accuracy voting districts.

Discovered lack of formality in maintaining data, which causes a lack of transparency, confidence, etc.

Wants precinct assignment to be an automated process.

**Next steps:** GIS funding and integration. Establish cooperative governance and maintenance. Wants to model existing proven state models.

## Jared Dearing (Kentucky)

Kentucky had 4 ties in elections last year. Need to be able to draw lines appropriately. 'Maps' are the foundation of our democracy.

Key initiative for this project is establishing stakeholders to support aggregation and sharing of GIS data.

Starting to understand who has data, what their needs are, etc. Tangible effects LRC (legislative research council) reached out to say budget will be given for 2 GIS staff.



Wanted 1 to remain in LRC to have a pipeline of communication. Should save a couple hundred thousand per election in ballot re-dos.

This is about voter confidence. If we were not telling a voter where to vote, we were not doing our jobs.

## Pilot Projects Panel

Moderator: Neil MacGaffey

### When did the lightbulb go off?

- David Tackett - Lack of updated statewide voting districts. It's a civic responsibility
- Michael Moser - Getting expertise from larger 'body' like other states, share best practices, expertise. Realization it's a problem assigning precincts to street ranges. Wanted to take advantage of this project to build a better process and build confidence.
- Wayne Bena - Right people, right time.
- Jared Dearing - Believes 5-10% voting for the wrong elections. Elections are being affected by this. Excited about NSGIC. Wants to help push things in the right direction by national effort.
- Brad Neuhauser - Wanted to figure out, through analysis of the backend, what is going on?

### What was the best and most effective platform for engaging with network?

- Michael Moser - Mix informal and formal. Formally shared general timeline expected output of pilot (recommendations). Getting feedback directly from counties.
- Brad Neuhauser - Mostly just working at a state level between agencies. Plans to communicate with counties, probably at statewide conference.
- David Tackett - Created geo-enabled elections sub-committee. Has association of counties, introduced the fact that they were laying the groundwork.
- Jared Dearing - Small workgroup with county clerks. Even if there was a law that required counties to turn maps into GIS data, some would not. Would need to be a funded mandate.
- Wayne Bena - Take things slow, find out if things are correct. Connection limited to Sarpy county Pilot.

### What motivated surveys? What was the content?

- Jared Dearing - County clerks have lot of info, but not all uniform. Some counties no IT staff, but process lots of things that have nothing to do with elections. Wanted to create baseline of what exists currently. Where are you at



(progress)? What capabilities do you have? What do you collect?

- David Tackett - Is it contracted? Is it in house staff? Asked questions about the historical process. Historically most maps are centered around redistricting process.

**What is the best approach to take when gathering elections data? Have you run into any barriers and how did you get past those?**

- Brad Neuhauser - Smaller jurisdictions sometime give maps, even ones that are hard to read. Requires follow-up for explanation. Need to keep up with annexations.
- With geocoding, what was your decision-making process or determining at what 'percentage' do you determine a match?
- Audience answer (MN) - need to have a better methodology for examining matches.
- Greg Grube (WI) - color code matches (good, less than good, bad). Not a rooftop (not good).
- Nebraska -Minimum match score was defined only at 100%
- Bert (UT) - Looking at state 911 database. Did test 10,000 customer phone bill addresses. Reported states geocoding reference datasets was only able to find 75% of registered addresses. UT determined addresses that didn't match because addresses needed to be fixed/standardized first.
- Bert (UT) - Should set match for EITHER zip or place name.

**If you needed something from legislator, what would it be?**

- Jared Dearing - Money. Resources. Always. Need to build up counties. Need IT ambassadors, cyber security, etc. to go around to each county and support them.
- Michael Moser - Money. More resources. More staff. Encourage ways to establish relationship state/counties.
- David Tackett - Money. Formality of policy that includes modernization of the process.
- Wayne Bena - Time. Election security sucking up the oxygen in the room. Need a little more help to free more time for staff. So... money.
- Cy Smith - local governments don't want to share data with each other. Laws to mandate sharing are important.

## Best Practices Panel

Moderator: Bert Granberg

NSGIC working on assembling best practices document for geo-enabled elections.

Key piece to not just think about elections, think about government efficiencies across organizations (911, etc.).

- Greg Grube - Getting precinct layer, understanding where it came from, and figuring out its format (digital, analog map,



etc.) critical. Create smallest possible ballot areas in GIS. Have a unique identifier (not random, i.e. OSCID).

- Neil MacGaffey - Understand what it is you need, and what you may already have (geocoder, etc.).

### **What is the role of technology in implementing these best practices?**

- Kim Brace - Tech has changed dramatically. It's only gotten better. Today, we have google and google maps with better aerial imagery. Census has done a lot of work to make corrections to their TIGER files. TIGER data at one point was using rough sketch or township boundaries for an area, which were not accurate. Data later updated and is resolved for this area. Take advantage of technology as much as you can (geocode all data for checking).
- County clerks really like having imagery for moving address points to rooftops

## **Additional Notes**

### **Geo-Enabled Elections Pilot Project Panel:**

*From Pennsylvania:*

- Mike mentioned developing RFP and using RFP language provided by NSGIC elections website
- PA performed a pilot of the pilot - 14 counties
- Mike shared an annual conference for elections is coming up in PA - Mike will present on the GEE pilot they are doing
- Statewide layer of boundaries - goal
- PA would like to expand the process to all the other counties - 67
- They would like to take a service-oriented process - hosted a county comes in real time to states

How do you tackle the authoritative set of data?

*From Pennsylvania:*

- Mike Moser it is really about who owns the data, or who should own the data
- In PA, the data they have obtained is so very different - some spatial some not - such a variety
- In PA, everybody is willing to roll up their sleeves and adopt the technology and the methodology as they see it will help them with redistricting

*From Kentucky*

- If we mandate maps and digital data of districts/precincts of our counties can they do this work - it will have to be funded.



Best Practices team to add to best practices the idea of running your addresses against a few commercial datasets and geocoders; use place name geocoders

- Question from Wendy Underhill - Elections NCSL (National Conference of State Legislatures) - What do you need from your legislators?
- From Kentucky: We need to build up our counties; next big infrastructure push - IT in counties; people go to McDonalds for WIFI; Election offices need more resources.

#### **Best Practices Panel:**

- No Taxation without representation - Bert's point share data freely (assessor's office has all this data for taxation purposes)
- Paul Stenbjorn: The commodity we manage is the public trust in their elections. We must protect the integrity of the process.
- Using GIS can inherently improve the perception of better security within elections
- Does the spatial audit term stick?  
Alternative:
  - Location audit
  - Geographic audit
  - Spatial audit
  - District precinct audit
- Follow up: Jamie to send information to participants about the NAD - National Address Database
- Next steps - more mature adoptions with states who are currently piloting
- Fertile ground for government agency cooperation and collaboration
- Provide the best tools to election officials and the public - right ballot right voter
- Prescriptive policy is a next step: (reporting changes up in time for elections) as well as the recording of annexations - codifying this and reporting it.

## **National Address Database**

**The topic of the National Address Database or NAD came up during the Elections GeoSummit. Here is some information about this work.**

USDOT and Census worked together to initiate a NAD starting in 2015. Three initial pilot projects helped to develop workflows and minimum content guidelines. USDOT has been performing the technical work to ingest address point data from multiple states into the NAD. There are about 47M address points in the NAD now from 23 states, some complete and some partial. The NAD has been publicly released twice,



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with some updates. The program is woefully underfunded, with one contracted FTE doing the technical work at USDOT in the Office of the CIO. This [NAD Status presentation](#) was made for the Coalition of Geospatial Organizations in July 2019.

The [link to the NAD website](#) includes the updated coverage map and release of version 3.0.