Survey Summary: November 2013 Address Points Survey for IGIC Business Plan

The Iowa Geographic Information Council (IGIC) received a grant from the Federal Geographic Data Committee to write business plans for the development of statewide parcels, address points, and aerial imagery. As part of the information gathering process for the address points section, a survey was conducted to understand organizational and individual needs for a statewide addressing program. The survey was open from October 28th to November 8th of 2013. This report summarizes the results from the survey.

The survey gathered input from around the state and from a variety of organizations. Over the course of the survey period, 124 participants started the survey with 91 completing the survey for a 73% completion rate. The first question was answered by all 124 respondents, while later in the survey one question received only 16 responses. The survey group consisted of a large group of county government representatives, as well as representatives of other levels of government, private industry, education, and the non-profit sector (Figure 1).



Figure 1: Survey Respondent Sector Representation

In this survey respondents were also asked to provide information about their geographic representation (Figure 2). There was representation from across the state. The largest portion of respondents (34%) reported being from Central Iowa followed by Northeast Iowa (22%).



Figure 2: Survey Respondent Geographic Representation

Perceived Benefit of a Statewide Address Points Layer

The survey asked respondents if they felt a statewide address points layer would benefit their organization. All 124 survey respondents answered this question (Figure 3). A majority of respondents (73%) indicated that a statewide address points layer would benefit their organization. The remaining respondents were either unsure if that their organization would benefit (18%) or did not think their organization would benefit (9%) from a statewide address points layer.

Survey respondents could also provide comments about their response. Thirty-four people provided additional comments ("No" or "Not Sure" = 11 and "Yes" = 23). Many of those who responded with "No" and "Not Sure," wrote comments that focused on the localized nature of their work at the municipal or county level and that they don't typically use data beyond their borders. Below are several comments which express this idea.

"We are a local municipality we would only need it [address points] for our city which we get from the county".

"Surrounding counties that we share for E911 services would be beneficial but not sure if other counties would be."

Other ideas expressed in the comments of those unsure of the benefit of a statewide layer included those who already had an address points layer and were concerned about the accuracy and comprehensiveness of a statewide layer. Another person commented that address points are not normally needed for their work.



Figure 3: Perceived Benefit of a Statewide Address Points Layer

Many of the comments supporting the creation of a statewide address points layer stated the importance of such a layer to agencies that serve multi-jurisdictional or multi-county areas for services such as emergency management, organizations providing mutual aid (fire, ambulance, utility), school districts, agricultural drainage districts and voter registration/verification. Below are several comments that represent perceived benefits of this statewide layer.

"As a county we typically are only concerned with the areas inside our jurisdiction, though EMA and emergency responders who have mutual aid responsibilities would find it [address points] useful. School districts which extend beyond county boundaries would also find it beneficial. Auditor's office may also find it useful as they verify voters."

(Emergency Management Worker) "...one of the significant challenges we face with in-state deployments is obtaining sound up-to-date GIS information for planning, deployment orders, and accounting for residents."

"Address points will be a critical component of Next Generation 9-1-1 where 9-1-1 calls are routed based on GIS data and if the system can route based on actual address points versus theoretical ranges on the road's centerline, better accuracy will result, resulting in fewer call transfers to proper dispatch agencies which could ultimately save lives."

Uses and Applications for a Statewide Address Points Layer

The next question asked survey respondents to identify potential uses for a statewide address points layer. The most common response to this question was for emergency response applications (Figure 4). Sixty-five percent (75 out of 115) of those responding to this question included emergency response in their answer to this question, which confirms the important of this statewide layer. Disasters are not confined to city or county boundaries. Additional uses for this layer included locating facilities or

customers, public notifications, permitting, and registering sex offenders. Answers provided in the "Other" category were project specific including applications in natural resources, farm management, census tracking, geocoding patron data, taxing, utility outage coordination, and general research.



Figure 4: Common Applications for Statewide Address Points Layer

Local Address Points Data Steward

Survey respondents identified the department that maintains their organization's address points. The answers varied greatly from organization to organization (Figure 5); different departments are responsible for maintaining this layer. The most common steward of the address points layer was the GIS or GIS/IT department (34%) followed by the E911 or Emergency Management (13%). The survey also found that 14% of respondents indicated that their organization was either not charged with duty of maintaining the layer (Not applicable) or that this layer does not exist or is not maintained.

As a follow up to this question, respondents were asked who respondents thought should maintain this layer. Most responded (74%) that the current position should continue to maintain them. Of those who responded that they thought this layer should be maintained by a different department, there were a wide range of individual solutions. The two most recurring ideas suggested it be maintained by a GIS/IT department or a collaborative group that included GIS.



Figure 5: Custodial Department for Address Points

Current Local Process for Updating Address Points

When survey respondents described their current process for updating the address points layer, there was again a large variation in the process. Of the 77 people surveyed, 59 people described a process for updating their address points. The remaining 18 respondents indicated that this question was not applicable because they do not maintain an address points layer or there is no process for updating address points or the layer does not exist or they did not know if a process existed.

The formality of the actual update process seems to vary greatly from an "as needed" approach to highly technical, scheduled updates. While it seems that most address point stewards were notified about address point updates and changes from the addressing authority; other address point stewards indicated that they requested updates from addressing authorities. Many respondents described a process that involved placing points using aerial photography or by collecting address points in the field using GPS. A small group of respondents described technical geoprocessing techniques or queries to maintain and update their address points layer.

Minimum Content Standard for a Statewide Address Points Database

Survey respondents identified which attributes they thought should be included as minimum standards for a statewide address points database. Ninety-eight people responded to this question. Below is a table of that graphs the responses (Figure 6). Among the "Other" fields that should be included were the following: alias, tax roll, lat/long, house number extension, person responsible for creating or updating the data, USPS city, E911 city. Several people commented that the URISA/NENA standards should be followed.



Figure 6: Minimum Content Standards for a Statewide Address Points Layer

Sub-addressing

Most respondents indicated that they are using sub-addressing (apartment numbers, suites, etc.) as part of their addressing process.



Figure 7: Use of Sub-addressing

Current Attribute Structure of Address Point Databases

Respondents shared the structure of their current address points layer by providing a list of their attribute fields. Fifty-eight people responded to this question, including 15 responses of "unknown", "not applicable", and "none exists". While the range of individual attribute fields was quite extensive, a common core was distilled which closely resembles the list for minimum standards discussed above. The most frequently reported answers included: street name, house number, zip code, full or complete address (concatenated address), direction information (pre, post, etc.), street type, city, and state.

Process for Providing Updates to a Statewide Address Points Dataset

When asked how updates should be provided to a statewide address points dataset, 49 responded that they would prefer uploading their updates to a portal followed by 29 responses for editing in a web application. The "Other" comments included a suggestion for automated nightly updates, several people were open to either option (or even something else) and some others that weren't sure.



Figure 8: Process for Providing Statewide Updates

Steward of a Statewide Address Points Product

Ninety people responded to question of who should be the data custodian of the statewide address points layer. There was an even split of 34 responses each for a) A GIS office created by an act of the lowa State Legislature and b) lowa Homeland Security and Emergency Management. A third option that was suggested was the lowa Department of Transportation which received 14 responses. Eight respondents provided "Other" suggestions including "no one at the state level," E911 Division of Iowa Homeland Security and several suggested having a private firm.

What agency or entity do you think should be the data custodian of the statewide address points end product?



Figure 9: Stewardship of a Statewide Address Points Product

Funding Ideas for a Statewide Addressing Program

Survey respondents provided ideas for funding this statewide project. The most common suggestions were variations of multiple agency partnerships including county, state, HSEM, and 911 funding. Another common suggestion was for the Iowa Legislature to pass a state appropriation for this project. Ten people suggested variations of a tax; some specific ideas included using a fraction of phone surcharge money and adding a small percentage to recorder fees or property tax or other state/local tax. "Other" suggestions included having non-government entities pay a subscription fee, funding through grants, private money, a combination of federal funding with subscription and surcharge fees, and several people questioned the need for funding this project at all.





Concerns with a Statewide Address Points Layer

When asked if they had any concerns about sharing a statewide address points layer, 84% of respondents did not express concerns. Several people raised concerns around the abuse of data for marketing and data privacy issues. Another concern was about the frequency of updates for this layer and the loss of local control.



Figure 11: Concern with a Statewide Address Points Layer

Geocoding

The next section focused on geocoding, which is the ability to convert a description of a location, i.e. a text based address 123 Main Street, Ames, Iowa, 50011, into a point on a map. The first question asked respondents how often they used address points or a geocoding service. Of the 92 people who responded, over half reported to use address points or a geocoding service on a daily basis.



Figure 12: Use of a Geocoding Service

A follow-up question asked respondents how much they spend on geocoding updates or subscriptions. This question found that two-thirds of respondents do not use a geocoding service. Of the third that do use a geocoding service, most spend less than \$500 annually on the service.



Figure 13: Annual Geocoding Expenses

Additional Comments

The additional comments section there were several comments in which respondents expressed that they felt this project was important.

"Biggest concern I have is with maintenance. Great data set to build but there must be some formal data custodian agreement that spells out responsibilities of data providers/data distribution to meet needs and expectations of end users. That's why I see homeland security as a good partner in this. Again, it is understood that street center line data is the focal point of next gen, but address points are commonly used and will be part of their plan."

"With dwindling budgets and all the options for addressing out there is this necessary compared to other things we could be putting our money into. Maybe I don't know what the benefits of this project are but what I do know is our state continues to waste money while neglecting the basic needs of our citizens, particularly where our youth are concerned. We throw money at software and computers while we have children living in government homes that continue to lack funding."

"[The address points layer] Should be protected from Public Records act if held on state level. County level is public."

"Same should be done for E911 center lines."

"To me it is always the criteria. I am sure there is 99 different critters on addressing. We have fields and wooded areas for personal rec activities that have address points, but don't have cabins, churches, cemeteries that do not. Could have 99 different ideas what an address point is."

"As always, my concern with a statewide layer is how well they are maintained. It seems like it might be "easy" to create but very hard to keep updated and accurate."

Thank you to all that participated in the survey. We appreciate your willingness to express your opinions and needs.