

**Wednesday, April 17**

### **Community Addressing Conference Formal Opening**

The U.S. Census Bureau Geography Division Chief welcomed the group to the conference and thanked everyone for their attendance and participation. He explained that the purpose of the conference is to report on progress made since the [2011 Address Summit](#), and to get the reaction and input of participants on the Bureau's direction for the Geographic Support System Initiative (GSS-I), the associated Partnership Program plans, and a new data harvesting tool.

He also emphasized that hosting conferences is not an easy task for the Census Bureau, given stringent oversight and budgetary constraints. Nevertheless, this address work and sharing of expertise is so important to the Census Bureau's mission that administrators at both the Census and the Department of Commerce approved moving forward with the conference.

### **GSS Initiative Update Presentation**

The Geography Division Chief then provided an [overview of the GSS-I](#) emphasizing what's been accomplished since the 2011 Address Summit. He highlighted the difference between the expensive and intensive address canvassing operation leading into the 2010 Census and the goal of a targeted address canvassing operation leading into 2020. This goal will mean an emphasis on quality, and the rigorous measurement of quality, over time.

### ***Questions/Discussion***

A conference attendee noted that a lot of effort had gone into the work flows used to measure quality, and he asked if those tools and processes could be shared with partners. The Geography Division Chief responded that this is the goal, but it's still early. Refinement and automation of the tools and processes is ongoing. But if partners can perform data processing and refinement on their end, it's a win-win for both the Census Bureau and for partners.

Another attendee asked about the quality indicators, and whether they are nailed down and able to assess quality as desired. Several Census Bureau staff responded that this is a major challenge for the Census Bureau, to be able to determine quality without an authoritative source. Currently, the status is just past the intellectual phase, and the Census Bureau is working closely with statisticians to refine the models.

An attendee informed the group that she was excited and had just had a vision of a continuous feedback loop driven by web services. The Geography Division Chief agreed that he shared this vision, with a goal of making a system that is efficient but not intrusive. However, not all partners are in the same place. Another Census Bureau staffer added that the demonstration of Community TIGER on Friday would show how such a vision might work in the real world.

This system will work right now on the spatial data, but not directly on the address data. The Census Bureau needs to collaborate with partners on how the feedback loop will work for addresses.

An attendee asked for more details on what the Census Bureau will do when it finds areas with address data of poor quality. The Geography Division Chief responded that under Title 13 the Census Bureau can't respond with feedback on individual addresses. But he would like to move toward some sort of summary indicators. The Census Bureau is working with its lawyers and policy experts on this issue. The Census Bureau knows that partnerships must be two way. The [GAO December 2012 report](#) stated that roads and address data collection is a duplicative process in the federal government.. [The FGDC's National geospatial Advisory Committee \(NGAC\) in a December 2012 report](#) emphasized the need for a national address database. The report states that the Census Bureau is the one agency that has the expertise and scope to manage this.

An attendee pointed out that local governments in Alabama that participated in some of Phase 1 – preliminary projects from the presentation were supporters of the Census Bureau's work but were disappointed by the level of feedback they received. A Census Bureau staffer responded, saying that he is committed to feedback. The Census needs to define what feedback should look like, and plans to engage with participants in another pilot to scope this out.

A conference participant asked if the Census Bureau can use E-911 where available and then provide the addresses back to partner providers as address ranges. The Census Bureau Division Chief replied that we need to know when an E-911 address is not a postal address. He thinks the Census needs to come to a good understanding of E-911.

An attendee continued on the E-911 thread, adding that he sees a disconnect between unit numbers and E-911. Responders want to see general addresses so that they can know about other calls to the same building. For example, fire departments just want to be close to the location, and they like to see patterns of calls to the same area that could indicate a problem like a gas leak. Specific addresses are a problem for first responders.

An attendee returned the conversation to feedback loops, stating that if Title 13 means that locals can't get feedback it's crucial to do an end run around this. If locals can't get feedback directly, at least they should be given the tools to assess their data themselves. The Geography Division Chief explained that after the 2010 Census the Census Bureau had addresses, which are sensitive. Now the Census Bureau is working toward tract-level indicators of address quality. He agreed that we need to work something out, and discussions with lawyers and policy experts are ongoing.

The same attendee suggested one alternative might be a hosted software solution that allows localities to host their data. Not everyone would buy in to such a system, but it would at least be good to standardize and help locals. The Geography Division Chief agreed that this is a good

idea, and said that a national address database where someone other than the Census Bureau has the authority to collect the data is an attractive option.

### **Thursday Morning, April 18**

#### **Address Summit Pilot Update**

Census staff opened the day with a presentation [reviewing the Address Summit](#) held in September 2011 in Shepherdstown, WV. At that summit the group brainstormed possible pilot projects and five were implemented. The Census Bureau designed pilot teams composed of Census Bureau employees and external stakeholders. The next step is to take the recommendations from the pilots and use them to inform the Geography Division's Geographic Support System and other future work.

#### **Address Authority Outreach and Support for Data Sharing Pilot**

Census staff presented this pilot which focused on the need to identify an addressing authority for each partner. The pilot invited 56 participants to engage in a GIS inventory questionnaire, and concluded that the methods used were viable tools for collecting address authority information and details on the data they collect.

#### **FGDC Address Standards and Implementation Pilot**

A public sector partner explained that the purpose of this pilot is to assist locals in implementing the Federal Geographic Data Committee (FGDC) address standard. The pilot confirmed that there are few existing free- or low- cost tools and training to facilitate implementation of address standards. The pilot recommends that such training materials be developed along with a working group.

#### **Federal/State/Tribal/Local Address Management Coordination Pilot**

One of the pilot participants presented the results of this pilot which focused on creating a model for coordination between various types of local partners. The pilot concluded that the local-state/tribe-Census model is viable, though Title 13 restrictions presented a challenge even in the pilot.

#### **Data Sharing – Local, State, USPS, and Census Pilot**

A pilot participant presented the data sharing pilot, which emphasized the participation of the United States Postal Service (USPS) and what can be shared without explicit Title 13 agreements. Overall match rates were high when comparing local data to both Census and USPS data, with most discrepancies occurring for secondary or sub-addresses. However, low

levels of feedback or complex feedback processes from both the Census Bureau and the USPS dis-incentivize local participation.

### **Hidden/Hard to Capture Address Pilot**

A pilot participant introduced this pilot. He emphasized that “hidden” addresses are not necessarily hidden in the traditional sense of the word, but may be thought of as “difficult to enumerate.” The pilot attempts to offer suggestions on how to take lessons learned to other places in the country. In the pilot study area (a part of Queens County, NY) 16 percent of addresses were deemed “hidden,” and the pilot suggests several areas of continuing research.

### **Questions/Discussion**

A questioner asked if the data sharing pilot compared the results of address matches between the Census Bureau and the USPS. The pilot presenter said that there wasn’t enough feedback to make this comparison, but that most failures in matching were due to sub-unit matches. A Census pilot participant added that the Census discrepancies were with minor problems like “apartment” vs. “unit,” which is encouraging since these problems are minor.

A questioner asked the Hidden/Hard to Capture presenter if permit data could be used to locate illegal subdivision of buildings. The presenter responded that the pilot created its own estimates of housing units by block using both permits and certificates of occupancy. They stayed away from new construction since those adds are fairly obvious.

A questioner asked the Hidden/Hard to Capture presenter if he had any recommendations for finding hidden units in places that don’t have the kinds of resources used in the pilot. The presenter pointed out that it’s definitely a tough problem but at least in the City of New York finance and public safety are good places to start, as is some type of program like the Local Update of Census Addresses (LUCA). The Geography Division Chief added that he agrees that we need to deal with these issues throughout the decade in some sort of ongoing LUCA-like program.

A questioner spoke about two takeaways from the pilots. There is both the need for address standards and for GIS inventories. She asked if it was possible for partners to start encouraging localities to use GIS inventories and to get access to address standards training. A Census Bureau employee responded that training materials and guides are currently in draft form and the plan is to share these. The Geography Division Chief added that the Census Bureau needs to prioritize the recommendations from the pilots and move forward on them, but the first step before doing that is the engagement taking place at the conference.

A member of the audience suggested that the problem isn’t a complete lack of tools for addressing, but rather there are lots of them and we need to think about something different. Production tools exist in CAD and other proprietary formats. She recommended that we think

of FGDC as a publication, or extraction, from these entrenched, unlikely to be significantly modified, systems.

A conference participant provided a series of additional recommendations focused around regional address summits.

- Pre-submission data collaboration
- GIS inventory/partnerships
- State/region zip code assessment
- Outreach and training
- Focus on targeted address canvassing
- Forwarding lessons learned from pilots to regional working groups

### **Geographic Partnership Program Plans**

A Census Bureau employee provided an overview of [the Geographic Support System Initiative \(GSS-I\) Partnership Program](#) and encouraged everyone to take a look at the draft address, spatial, and metadata standards in the binders. The goal is to increase partnership and data sharing, starting with 56 Phase 1 participants, to be expanded to additional partners and to include Community TIGER in phase 2.

### ***Geographic Partnership Program Plans Discussion***

An attendee suggested that partners could work together more easily if the Census Bureau wasn't in the room with its Title 13 constraints, and proposed a 2-phase approach where address lists are created in some new forum and then handed off to the Census Bureau. The Geography Division Chief responded that the Census Bureau is looking at a model like this. Another attendee spoke of a project that she's working on that is successfully crowdsourcing data, but noted that if the Census Bureau crowdsources address data Title 13 restricts it. The Geography Division Chief clarified that crowdsourcing to him is telling someone about data, as opposed to Volunteered Geographic Information where people change the data. The Census Bureau is working toward a crowdsourcing approach relying on "trusted partners," for spatial data.

A questioner asked who might facilitate an address database. Might it be the states or does the Census Bureau facilitate? The Geography Division Chief responded that the [NGAC report](#) describes the Census Bureau as the right agency for this role. Coordinating this work is a cost- and resource-saving issue even at the federal level.

An attendee pressed for more details on who else might serve as the umbrella organization for address data. The Geography Division Chief offered an example for comparison. For creation of the national broadband map the National Telecommunications and Information Administration (NTIA) serves as the authority and grant-maker.

A questioner asked whether the Census Bureau would communicate with existing partners for the second phase of the program. Similarly, another attendee suggested that the map of partners is deceiving, since New York State provided the data for the three county partners. Both seemed to agree that there is a communication challenge here, since it's confusing when counties hear of one pilot directly and are simultaneously working on a different pilot through the state. A Census Bureau attendee agreed that this is an issue the Census Bureau has been trying to nutshell. The goal of Phase 2 is to go to every state, and to always alert state partners when working with counties.

A questioner asked for specific details on the commercial data that the Census Bureau has been evaluating. The Geography Division Chief responded that so far the Census Bureau has worked with several vendors to understand how those companies do their work, both in terms of spatial and address data. However, if procurement of commercial data happens it will be through the normal procurement process.

### **Partner File Processing: Address Updates**

A Census Bureau employee presented information on the [GSS-I address partnership program](#). It's quite a bit different from the traditional LUCA program since the Census Bureau is trying to harvest all types of files from local partners, in any format. Some files are perfect, but some are challenges, requiring interactive work to map from schema to schema. The end result is that the Census Bureau is putting local data into an FGDC compatible format, and an important goal is to determine how best to provide feedback on this.

### **Partner File Processing: Spatial Updates**

A Census Bureau staffer explained (LINK LINK) the importance of [spatial data to geocoding and address listing](#), and the workflows used at the Census Bureau for updating the MAFTIGER Database with partner data.

### **Partner File Processing Discussion**

An attendee offered a suggestion for feedback. Instead of feedback based on Census geographies, one possibility might be to create a grid and provide feedback by grid squares. He noted that some of his work involves evaluation by grids, and that the approach has also been used successfully to create spatial reports while simultaneously hiding the precise locations of endangered species. Another attendee added that he has used gridding to report on Ebola cases, in order to work within Health Information Privacy (HIPAA) constraints. A Census Bureau participant asked anyone working with grids to please provide more info offline so that she and others could take a look at these precedents.

An attendee asked if there could be a process whereby local partners could identify changes to their data rather than sending the entire file. She also suggested that the Feature Manipulation Engine (FME) transformations could be offloaded to the local partners, and they could update

the transformers as necessary. The Address Updates presenter responded that yes, the goal is to get only transactions, and that on the second point he's optimistic that this is possible. His team is experimenting with FME server as a technical solution.

A conference participant marveled at the complicated spatial and address processing occurring within the Census Bureau, and asked that the Census Bureau make information on these workflows available to state partners. He wants to avoid remaking these same points and reinventing the same workflows at the state level. A Census Bureau employee responded that much of the complication internal to the Census is related to our topology model. The prototype for making the processing available to partners is Community TIGER, which will be the focus of Friday's discussion. Community TIGER will allow local partners to map from their formats to Census and FGDC standards.

An attendee said that Oregon is working on this process locally. They are using standards to take local data and extract, transform, and load it into an aggregated dataset. But this requires funding. It's nonetheless important for lots of work, like public safety and the Census Bureau. A Census staff member responded that his team is getting ETL down to a science, and he would love to be able to farm out discrepancy resolution to partners.

Similarly, another attendee suggested that many states are legislatively the authority for spatial data aggregation, but there are issues with cleaning up and aggregating local data. How should states aggregate various local data sets without losing data that is important to the Census Bureau, since the processes and standards of the individual local jurisdictions are important? The Address Updates presenter said this is definitely a problem, since in some cases he has to ask how county #1 data is related to county #2 data within the same file. At a minimum, the Census Bureau needs to know how data was constructed at the county level, and what the states did to aggregate it. An attendee suggested that menu-driven choices could be useful, and the Census Bureau presenter agreed that this is where he is headed, trying to determine a specific set of questions to ask about each file.

A conference participant asked about data sharing agreements. He's taking an informal approach between the state and counties. Will this be OK, or will the Census Bureau need to see something formal? The Geography Division Chief responded that it depends on the agreement type. Processes tend to work best when there is legislation indicating how states and locals relate. But that said, the Census Bureau must perform due diligence to make sure that all local authorities can fully participate. Another Census Bureau employee added that his team is working on written definitions of "authoritative" and "trusted" sources, and when complete it will be publicized.

An attendee requested that two items be put on the "parking lot" list for discussion. First, there's a terminology challenge since people tend to call different jurisdictions by different names. For example, what some call a Minor Civil Division others call a Tax District. Second, there's confusion at the local level about the Census Bureau's identity. Many locals don't realize that the Census Bureau is made up of a lot of different programs and employees. When

the locals get two calls from “the Census,” it can be confusing. She suggested more outreach, identity streamlining, and a strong web presence.

### **Thursday Afternoon, April 18**

#### **Geo-Statistical Analysis and Getting to a Decision on Targeted Address Canvassing**

A Census Bureau employee presented on the [Census Bureau’s work toward targeted address canvassing](#). He emphasized that the 2010 Address Canvassing operation has created a baseline set of data for evaluating where things have changed and where they have not. There is a continuum of measures between either “must perform address canvassing” and “definitely not necessary.” The general plan is to score each Census tract based on a weighted set of variables.

#### ***Targeted Address Canvassing Discussion***

An attendee asked how the presence of hidden units was measured in the scoring system. The presenter responded that in the presented example it was entirely based on local knowledge.

A conference participant asked how the Census Bureau could capture unusual change, like the population growth related to the North Dakota gas drilling boom. The Census Bureau presenter stated that the Census Bureau needs to be provided clues by working with local governments. That part of North Dakota is the type of area where a canvassing may be necessary, and local expertise feeding into the models will be key.

One audience member suggested that the Census Bureau should do some random canvassing of non-targeted areas to provide an indication of the correctness of the models. He also suggested that it might be a good idea to have some amount of canvassing be politically allocated, for example by Governors. The Census Bureau presenter thought that these were both good ideas, and also added that field efficiency is a consideration. For example, if two tracts targeted for canvassing bookend a tract not targeted, the stable tract might be canvassed.

A participant asked about the timeline for Targeted Address Canvassing. The Census Bureau presenter explained that the Census Bureau will make a recommendation by September 2014, and then there will be some additional operations beyond that. Any actual canvassing will take place in 2019. The decision will be made based on the data and models run as of around 2013, and then that model, as well as more incoming spatial and address updates will continue through the decade. He hopes to see the territory targeted for canvassing get smaller and smaller as the process evolves.

A conference attendee noted that local governments are concerned that a targeted address canvas means that some of their populations will be missed, and there’s a possible perception

that governments with good address lists will, in effect, be penalized. He also asked if anyone could comment on the percent of the country that would be canvassed in a targeted operation. On the second question, the Census Bureau presenter responded that he didn't know the percent, but that it would be based on the results of the modeling. On the first question, he hopes that we can all agree that if a local government provides an address list and it compares favorably, then we don't need to canvas. If, however, conditions on the ground suggest that the list isn't good then local partners should collaborate with the Census Bureau on what needs to be done. The Geography Division Chief jumped in to add that these are great questions, and he emphasized that whatever is done it will be data-driven. In addition, there will be fail safes such as mailing in forms if someone is missed, as well as some sort of LUCA-like program.

### **Breakout Small Group Discussions/Feedback – Session 1: Partnership Program SWOT**

Small teams formed to brainstorm and report on the [Strengths, Weaknesses, Opportunities, and Threats associated with partnership programs](#).

### **Breakout Small Group Discussions/Feedback – Session 2: TAC Questions**

Small teams resumed to brainstorm and report back on the following three [Targeted Address Canvassing questions](#).

1. *What kinds of housing and address conditions characterize an area that would require canvassing?*
2. *What characterizes an area that would not require canvassing?*
3. *What kinds of data sets are available for your jurisdiction that could help assess whether canvassing is necessary in any given area?*

## **Friday Morning, April 19**

### **Community TIGER**

The presenter from the Census Bureau began by introducing the group to [Community TIGER](#). He highlighted the fact that local partners are the authoritative source for legal boundaries, and the accuracy of these is important, with hundreds of billions of federal dollars allocated based on population counts.

He also emphasized that where partners see roads and boundaries, inside the Census Bureau these are managed topologically, modeled on nodes and edges. So when a road is re-aligned, for example, it can impact more than just the road itself – nearby nodes may need to be

rubber-sheeted, new interactions may be created with other features, and the movement of the road may result in legal boundary changes in higher-level geographies.

This is a complicated process and the Census Bureau would like to be able to show local partners how their authoritative data is integrated into TIGER. This is the idea behind Community TIGER. By putting TIGER in the public cloud, local authorities can upload their address and spatial data, and over time this data would become built up to the point where only changes/transactions would be sent to the Census Bureau.

Another Census Bureau employee stepped in to provide an overview of Community TIGER. It's intended to be a set of tools to let partners improve their data locally before sending it to the Census Bureau. Many of the same tools are then run in the cloud for confirmation. Lastly there are built-in feedback loops from within the cloud system, giving partners some types of feedback much more rapidly than from traditional Census Bureau partnership programs.

Two visitors from ESRI demonstrated the Community TIGER proof of concept. The steps demonstrated would typically start with a data analysis of partner data by itself, using FME-style translators to upload the data to the cloud and determine errors that must be fixed before continuing. This step is followed by a content analysis comparing and showing adds and other changes when comparing the local dataset to TIGER.

### ***Community TIGER Discussion Throughout the Demo***

An attendee asked about the extensiveness of the address de-duplication tools. A Census Bureau employee responded that at the moment the tools are ESRI's locator service with TIGER data as a reference. The methodology used to match and geocode is all within ESRI's service.

An attendee asked if locals will need to build any change management. A Census Bureau employee said that this isn't necessary; the burden will be entirely on the system.

Another participant said that his first reaction is a concern about duplicating efforts. If he's already maintaining relationships and validating data, why repeat that step in Community TIGER? A Census Bureau employee pointed out a couple of reasons why going through Community TIGER would be a good idea. First, individual partner data relates spatially within a network of surrounding jurisdictions. Second, there is the concept of "community," where others get to look at and share your data. That said, if there are restrictions on data sharing from local partners the Census Bureau still plans to take any local data directly, with the understanding that it will at some point end up in Community TIGER specifically, and the public domain generally, through one of the feedback loops.

The Geography Division Chief added that he hopes that governments with good processes will not have trouble modifying their workflows slightly to include Community TIGER. Local partners with less strong systems will start with Community TIGER from scratch, and the Census Bureau needs to determine how far it can reach out to these partners.

There was some specific feedback on the content reviewer demo

- It would be nice to be able to add some other service as a base map
- It should be possible to get info on the vintage of the base maps, like the aerial imagery
- The “redline” tool should be renamed
- It would be helpful to get estimates on the timing and expected performance for uploads, especially of large datasets
- For large datasets that take time email notification would be helpful

There were some questions on the persistence of notifications. If a local partner indicates that something should not be deleted and then uploads a new dataset months later, do they need to indicate the same thing repeatedly? The plan is that all of these notifications will be stored in a history, so all comments made from local partners to the Census Bureau should persist.

An attendee asked how the system would control for redundancy in authority, like the overlap between Los Angeles County and the city of Los Angeles. A Census Bureau staffer responded that the Census’ partnership programs need to play a role. But the system can handle duplicate updates from overlapping partners, and it’s up to the Census Bureau to determine how and whether to take these updates. In this same vein, an attendee suggested that the polygons for partners and their authorities could be mapped in the system. Another attendee added that you might have different stewards in the same space for different content, so it would be helpful to filter authority by type of content.

She also asked if Community TIGER might be used for the Boundary and Annexation Survey (BAS). The Geography Division Chief responded that he’s given this a lot of thought, but for now the plan is to take one step at a time. Community TIGER might also provide the much-discussed LUCA-like solution. But for now he needs partners to continue to react to this. What he doesn’t want is a lot of tools for many programs – the best solution is meeting the needs of multiple programs with few tools.

There was also specific feedback on the partner toolbox for upload

- The ability to split local data into pieces is important
- Getting ahold of the slide with the ESRI extensions required would be helpful, though the proof of concept stage is really intended for power users
- Getting access to the model geodatabase would be helpful
- There was a suggestion for a roles and permissions committee to handle rules on who can get access to a community’s portal into Community TIGER
- The ability to fix problems in either the local data or in the post-ETL format is important

There was some general discussion on the relationship between Community TIGER and LocalGov and E911. Currently there’s no tie-in between Community TIGER and these other programs, given the specific requirements of the Census Bureau. But local partners don’t really

want to see a situation where they have to work with three different programs and three different toolboxes. The Geography Division Chief asked what the response would be if the Census Bureau added these requirements to the LocalGov program. ESRI envisions a scenario where a community maps participant in the ESRI ecosystem could run processes that feed both LocalGov and the Census Bureau. A participant added that for smaller governments it would be helpful if these tools could be built right into ArcMap.

An attendee/ESRI employee explained a little bit of the contribution model behind ESRI's Community Maps. The idea is that there might be options to "share with"... Census, Open Street Map, none, etc. In the latest version of Community Maps ESRI has adopted the local government data model, in effect saying that if you are contributing then ESRI will perform the ETL, thereby lowering the bar to participation.

A conference attendee asked for details on what it will cost local governments to get into this ecosystem. Specifically, how will this process work for shops that don't have any ESRI licenses? Using Community Maps for comparison, right now ESRI is targeting ESRI users but are eager to get non-ESRI users into the system. The Geography Division Chief added that one condition of Community TIGER is that there is no cost to users, whatever that ultimately means. Similarly, an attendee asked if the editing component of Community TIGER could be performed in the cloud, since many governments will not invest past the ArcView license. A Census Bureau employee responded that the functionality is not yet in the prototype, but is planned.

An audience member asked about the frequency of updates and update versions. If a local government uploads a file and then uploads a new version some months later, how will the first transaction relate to the second? Will the first transaction be visible? A Census Bureau employee explained that when Community TIGER performs change detection it does so against both TIGER and all previous revisions from a partner. So the second upload change detection will include any changes from the first upload.

A conference attendee suggested that there might be issues with state aggregators who upload but who can't actually change local data. The Census Bureau presenter responded that the system can carve out work and responses for any entity. So the Census Bureau could provide feedback based on local jurisdictions. Similarly, an attendee asked if there could be a "viewer" option for states so they can monitor what's going on with locals within their jurisdiction.

An audience member asked about the balance between auto feedback and human feedback from the Census Bureau. The Census Bureau presenter explained that all error checks were immediate and provided automatically. However, any feedback from the Census Bureau comes only after the data is uploaded into the live MAFTIGER database. Feedback on what exactly happens to uploaded data is something the Census Bureau must consider.

There were also some questions about data that doesn't make it into the Census' database. What prevents a local editor from making the same submissions repeatedly? A Census Bureau presenter pointed out that there will be a history of contributions, so the local contributor

won't see something as an "add" repeatedly. But the Census Bureau does need to communicate this type of feedback.

### **Next Steps and Closing Comments**

The Geography Division Chief thanked everyone for all of the helpful discussion and comments. He noted the level of effort put forth by Census staff to make this conference happen, and he assured attendees that staff would move forward with the great ideas coming out of the conference. [Meeting notes, presentations, and breakout sessions are available online.](#)