

Deirdre Dalpiaz Bishop, Chief, US Census Bureau

Geographic Innovations for the 2020 Census: Reengineering Address Canvassing

Abstract:

The US Census Bureau has a simple mission for their 2020 Census: to count everyone once, only once, and in the right place. This is set against the challenging target of delivering it at a lower cost and maintaining high quality results. To do this the US Census Bureau are focusing on four key areas of innovation 1) Reengineering address canvassing 2) optimising self-response 3) utilising administrative records and third-party data 4) reengineering field operations. Of these, reengineering address canvassing will provide the most efficiency savings across the census period. In for the precious census, 150000 census enumerators were used to verify addresses. This time, most of the addresses will be verified by in-office address canvassing, with a much smaller field team used for problematic areas. The technology has been developed to allow interactive review of address units against baseline imagery, meaning the average time taken to verify census information has reduced to 72 seconds. This is expected to deliver the fiscal saving to meet the 2020 Census mission.

Notes to support the presentation:

- By the time the 2020 Census comes around, there will be 330 million people who will need to be counted. The use addresses are very important to count the right people in the right place. US Census Bureau must find a way to deliver the census at a lower cost than previous surveys. In order to design a census to meet the goal, they have looked at the biggest cost areas. The four of these are: reengineering address canvassing; optimising self-response; utilising administrative records and third-party data; and reengineering field operations.
- Today's presentation focusses on one area, reengineering address canvassing. In 2009, over 150000 address checkers canvassed the nation, and used hand-held sensors to validate the address list. This was the most costly part of the census. As a result they are looking for new ways to do this. They are now working with the Postal Service and have added 1bn new address units per year to the Census bureau list.
- A 100% office review of addresses is the goal. This can be used to add change detection from other sources. The work started in 2015, and canvassed over 11m census blocks. This was in line with the estimates. 71% of the census blocks were stable i.e. there were no changes.
- In 2009 it took around 2.5 hours to review a block – this can now be reduced to 72 seconds in the office.
- Around 200 people work in the geo section, around 135 of these are technical experts. Whose role is to look for changes.
- The interactive review tool has been developed as an in-house offering, rather than using Commercial of the Shelf Software. The review takes into account the status of Blocks, this includes areas which have been built-out, or areas where there are open spaces.
- In-field address canvassing, is a tool that has also been designed by USCB. It is an operational tool to measure and plan the work load. This also enables the users to use tablets to conduct this work.
- Future innovation, is focused on the areas that are currently very difficult to look at.