Integrating Survey Respondents: Leveraging Existing Household Survey Data to Inform Decision-Making

Suzann M. Dorinski, Misty L. Hogeman, Social, Economic, and Housing Statistics Division (SEHSD), U.S. Census Bureau

MOTIVATION
The U.S. Census Bureau collects information from persons, households, and businesses in approximately 130 surveys every year. Once a decade, it gathers core demographic information on the entire U.S. population via the Decennial Census. The Master Demographics project is a pilot to create a core set of high-quality demographics on anyone who has ever been surveyed by the Census Bureau between 2000 and the present. The project has 3 goals:
- Improve business processes and efficiencies within the Bureau so that we can better serve customer and client needs.
- Improve our ability to find and study small populations to become better informed about their needs and status.
- Create high-quality master demographics for as many people as possible, which can then be linked to administrative records from other federal agencies to help them better understand the populations they serve.

DATA
• American Community Survey (ACS), 2001 through 2015
• Current Population Survey (CPS), 2000 through 2013
• National Crime Victimization Survey (NCVS), 2012
• Decennial Census (DEC), 2000, 2010

Unique person links are created using the Census Bureau’s Protected Identification Methodology to link respondents across surveys and years. The project has 3 goals:
- Improve business processes and efficiencies within the Bureau so that we can better serve customer and client needs.
- Improve our ability to find and study small populations to become better informed about their needs and status.
- Create high-quality master demographics for as many people as possible, which can then be linked to administrative records from other federal agencies to help them better understand the populations they serve.

SUPERRESPONDERS: PIKS IN MORE THAN ONE HOUSEHOLD SURVEY (EXCLUDING CENSUSES) FROM 2000 TO 2015

EXAMPLE OF PARTIAL TRANSLATION TABLE

<table>
<thead>
<tr>
<th>SIPP_2001_2008</th>
<th>4 = Divorced</th>
</tr>
</thead>
<tbody>
<tr>
<td>47,281,383</td>
<td></td>
</tr>
</tbody>
</table>

ACS_2000_2015

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>4,093,450</th>
</tr>
</thead>
</table>

CPS_2000_2013

<table>
<thead>
<tr>
<th>4=Widowed</th>
<th>2 = Married, spouse absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5=Divorced</td>
<td>3 = Divorced</td>
</tr>
<tr>
<td>6=Separated</td>
<td></td>
</tr>
</tbody>
</table>

SIPP_2014_2014

| 6=Separated    |                           |

VETERANS IN MASTER DEMOGRAPHICS BY SURVEY/YEAR

Note: Veteran records in graphics are PIKed records with harmonized variables from Master Demographics. The American Community Survey (ACS) transitioned to full implementation from 2004 to 2005 and there was a large increase in sample size.

CONCLUSION AND NEXT STEPS
Here we described the process used to harmonize and integrate household survey data into a Response Universe and a core list of Master Demographics. The harmonization and integration process was originally developed at the Minnesota Population Center through the IPUMS projects. Borrowing from their generously available documentation online, we developed internal protocols to create the Response Universe. While the process is not unique to Census, examining survey data from an individual person perspective, instead of a survey-year perspective, is.

Next steps in the work involve creating processes that will take the harmonized and integrated data and streamline it into core Master Demographics of anyone ever surveyed by the Census Bureau. This data can then be used to help inform decision-making related to future survey design, data collection, and program evaluation.

This poster is released to inform interested parties of ongoing research and to encourage discussion. Any views expressed are those of the authors and not necessarily those of the U.S. Census Bureau.