

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

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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 any person 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 respond to 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
- American Housing Survey (AHS), 2004, 2011, 2013, 2015
- Current Population Survey (CPS), 2000 through 2013
- National Crime Victimization Survey (NCVS), 2012
- Survey of Income and Program Participation (SIPP), Wave 1 of 2001, 2004, 2008, 2014
- Decennial Census (DEC), 2000, 2010

Unique person links are created using the Census Bureau's Protected Identification Key (PIK) process.

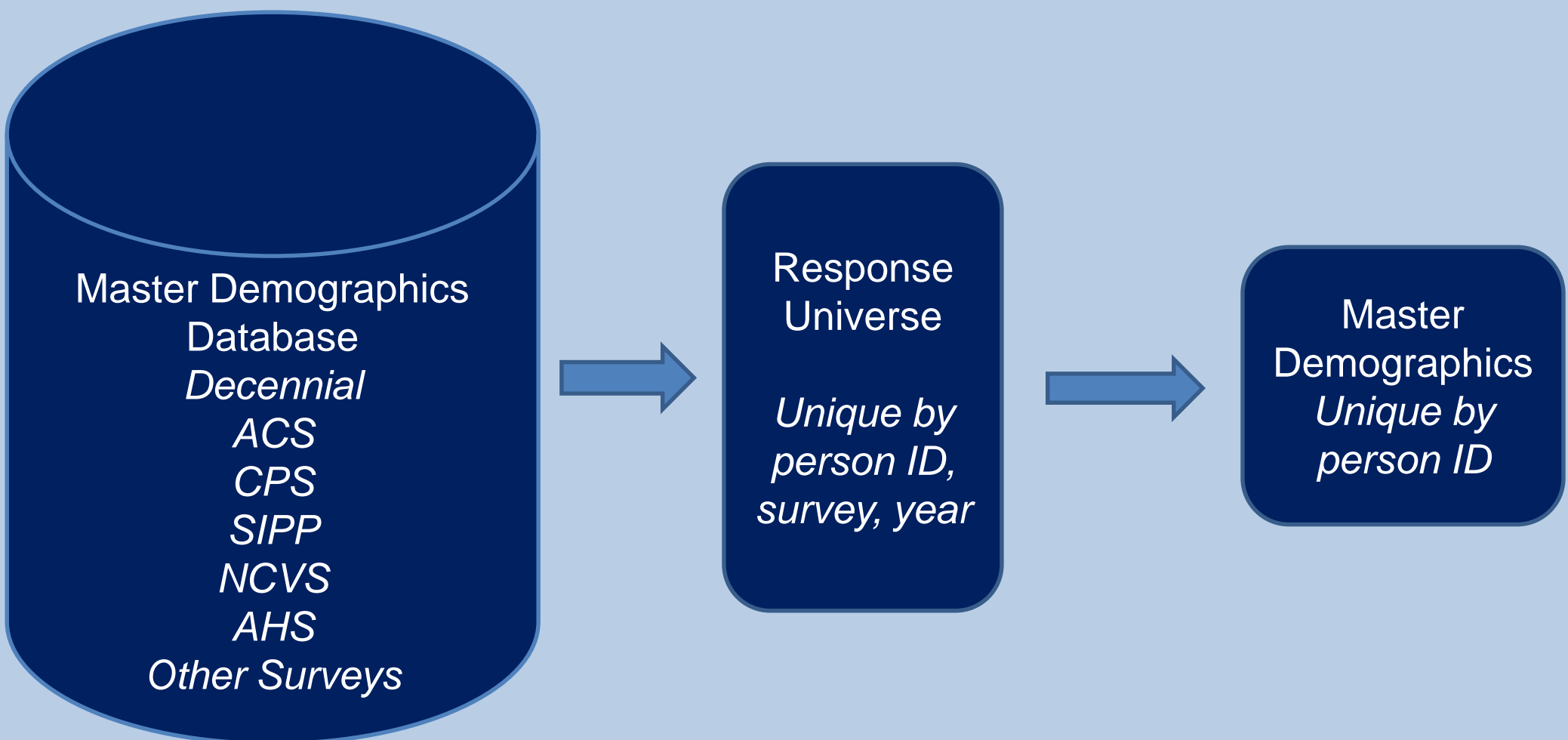
EXAMPLE OF PARTIAL TRANSLATION TABLE

Harmonized_out marital_status_h	CPS_2000_2013 a_maritl	SIPP_2001_2008 ems	SIPP_2014_2014 ems	ACS_2000_2015 mar
1=Married	1=Married - civilian spouse present	1 = Married	1 = Married	1 = Married
1=Married	2=Married - AF spouse present			
1=Married	3=Married - spouse absent (exc. Separated)	2 = Married, spouse absent	2 = Married, spouse absent	
2=Widowed	4=Widowed	3 = Widowed	3 = Widowed	2 = Widowed
3=Divorced	5=Divorced	4 = Divorced	4 = Divorced	3 = Divorced
4=Separated	6=Separated	5 = Separated	5 = Separated	4 = Separated

VARIABLES HARMONIZED FOR PROJECT

- Sex
- Race
- Ethnicity
- Birth month and year
- Marital status
- Occupation
- Citizenship
- Veteran status
- Educational attainment

GOING FROM SURVEY FILES TO A MASTER DEMOGRAPHICS FRAMEWORK



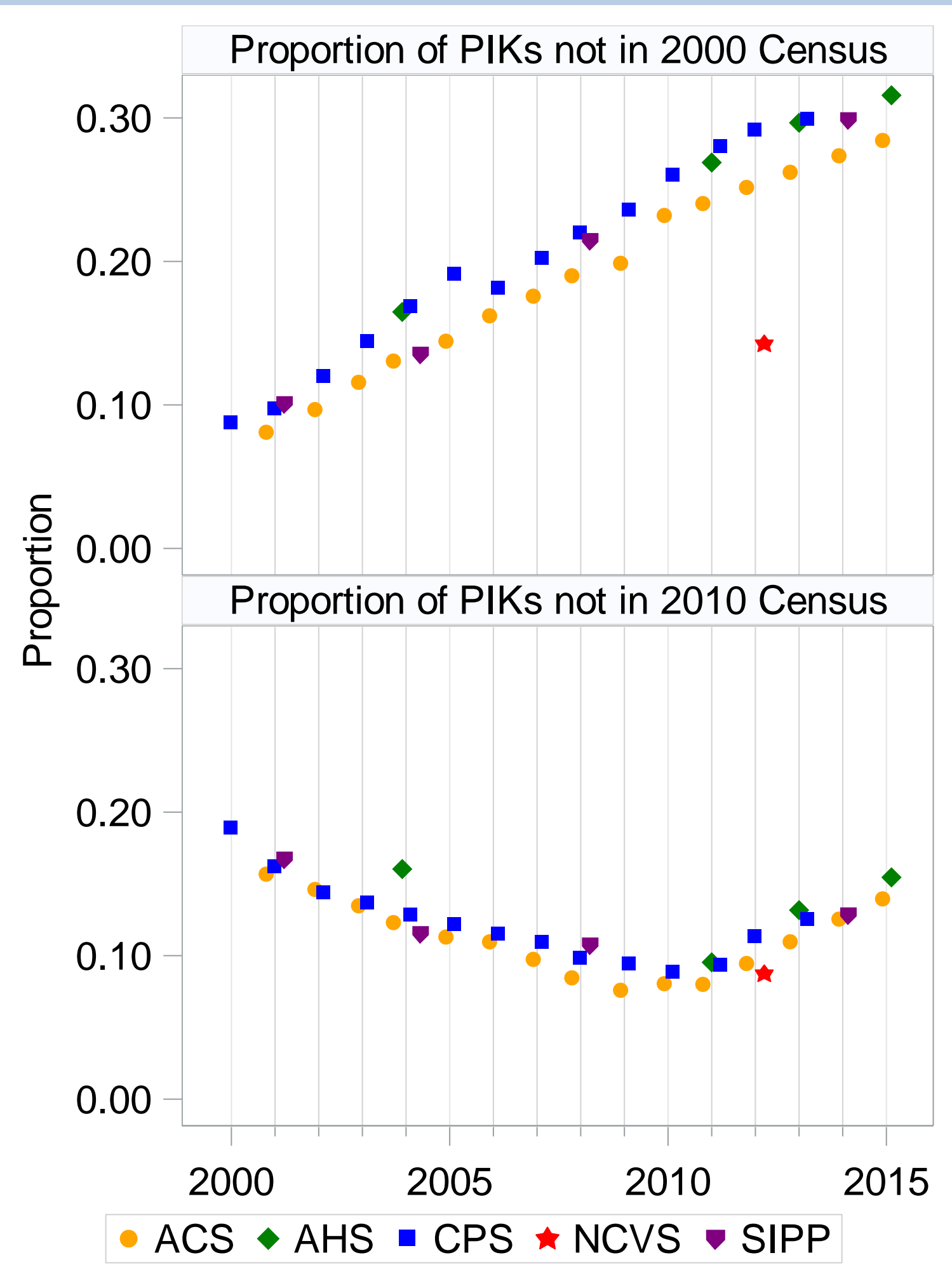
SUPERRESPONDERS: PIKS IN MORE THAN ONE HOUSEHOLD SURVEY (EXCLUDING CENSUSES) FROM 2000 TO 2015



Number of household surveys	Number of PIKs
1	47,281,383
2	4,093,450
3	216,033
4	8,356
5	446
6 or more	53
	51,599,721



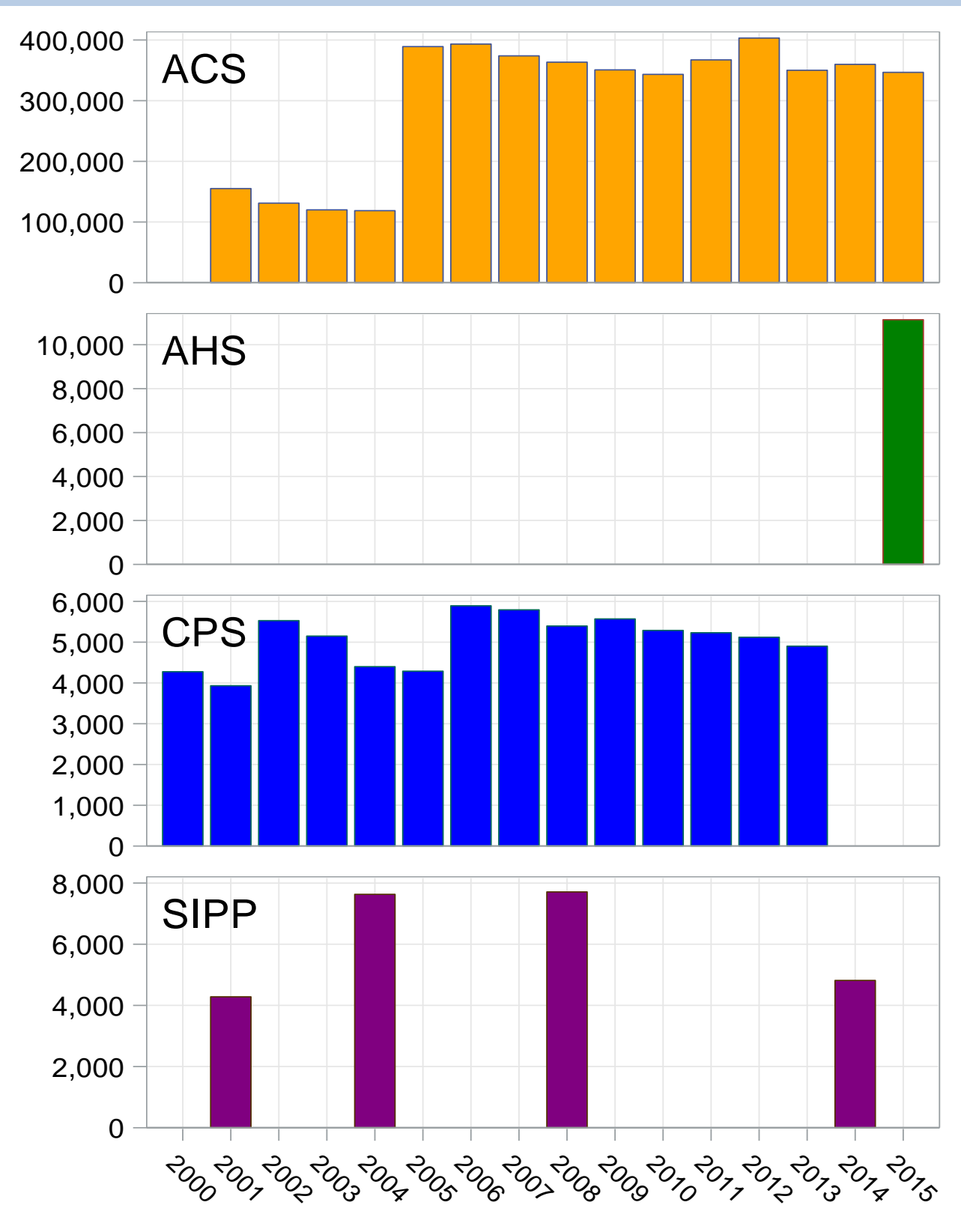
PIKS IN HOUSEHOLD SURVEYS BUT NOT CENSUSES



MORE INFORMATION ABOUT THE DATA SOURCES

ACS: <https://www.census.gov/programs-surveys/acs.html>
AHS: <https://www.census.gov/programs-surveys/ahs.html>
CPS: <https://www.census.gov/programs-surveys/cps.html>
NCVS: <https://www.bjs.gov/index.cfm?ty=dcdetail&iid=245>
SIPP: <https://www.census.gov/sipp/>
DEC: <https://www.census.gov/programs-surveys/decennial-census/decade.2010.html>

VETERANS IN MASTER DEMOGRAPHICS BY SURVEY/YEAR



Note: Veteran records in graphic 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 our data from an individual person perspective, instead of a survey-year perspective, is.

Next steps in this 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. That data can then be used to help inform decision-making related to future survey design, data collection, and program evaluation.