Roles of the Census

The US decennial census is one of the oldest continuously conducted population counts in the modern era (Sweden began a regular census a few decades prior to the US; Whitby 2020, 87–88, 91) and the first conducted for the purpose of apportioning seats in a democratically elected legislature (Emigh, Riley, and Ahmed 2016a, 145–72). Mandated by Article 1, Section 2, of the Constitution, its original and principal role is to reapportion seats in the US House of Representatives among the states every ten years based on differential population growth between the states. Since the number of representatives each state has is based on its population, the seats must be redistributed as the population changes. Since the first census was conducted as a basic head count in 1790, the scope and role of the census has constantly expanded. The ten-year census grew to incorporate more questions, and additional data programs were added to satisfy other constitutional requirements and meet the needs of a growing federal statistical system to assess the state of the nation's population and economy (Anderson 2015, 2010). Federal laws and acts of Congress require the collection of different statistics through the census to assess policies and enforce laws. Beyond reapportionment, census data is used for redistricting. Congressional districts must be redrawn every ten years in states that gain or lose seats via the reapportionment process, and they must meet certain requirements in terms of population size and geographic area and shape.

Over the course of the twentieth century and into the twenty-first, census data was increasingly used by policy makers in models that are used to distribute federal funds to state and local governments to fund schools and roads, fight poverty and hunger, and supplement health care and unemployment programs (Anderson 2015, 156–223). In fiscal year 2017, $1.504 trillion were distributed to state and local governments, nonprofits, businesses, and households using census data (Reamer 2019). The role the census has in redistributing both political power and financial resources has established it as a vibrant institution in American society, one that is sharply debated and hotly contested. Some researchers have suggested that this makes the census more relevant to civic life in the United States relative to other countries, where census taking is viewed more as a distant, bureaucratic exercise with limited impact on people's lives (Emigh, Riley, and Ahmed 2016b, 147–76).

Ultimately, census data is collected to satisfy requirements of the Constitution, acts of Congress, and a large body of federal law. As a result, every question that's asked as part of a census survey has some basis in federal law (US Census Bureau 2017). For example, data on race is collected to measure and ensure that civil rights and voting rights are being upheld and is required by dozens of different federal statutes. The questions that are asked as part of each ten-year census and the ACS are reviewed and submitted to Congress for approval prior to each count (US Census Bureau 2018). The Census Bureau cannot ask questions simply because the results may be novel or interesting or because a particular stakeholder group wants the data to be collected.

The fact that census data is high-quality, transparent, free, and in the public domain ensures that it is used widely throughout American society. Anyone can access and use census data for any purpose, and as a result the census serves as a key piece of data infrastructure on which many products, policies, and studies are built. State and local governments use census data for everything from planning and policy work to emergency management and public health. In public health, census data serves as the denominator for measuring prevalence and risk of diseases, and its variables often serve as inputs in quantitative models (Wilson et al. 2017). Businesses use census data to understand and target markets and site new locations, while journalists use it to provide context for stories that describe communities or social issues. In

academic research, social scientists use the census to understand broad social and economic trends. These stakeholders both support and contest changes to the census as they impact their specific needs.

As high-quality open datasets, census data remains relevant in the age of big data as it is designed to answer specific research and policy questions while transparently accounting for bias and error. This stands in sharp contrast to big data, which is often not designed for the purpose it is applied to and is often proprietary and opaque (Kitchin 2014, 27–46). Census data can be used to ground-truth or test big data and derived datasets to gauge their accuracy or completeness (Donnelly 2020, 17–21). Given privacy and confidentiality regulations, there is some compromise in the level of detail and accuracy that the Census Bureau can provide. Individual responses to decennial census and ACS questionnaires are confidential and not published or distributed for seventy-two years from the date of release. All census data that's released is published either as summary data (summarized by geography or subject categories) or as anonymized microdata samples (samples of individuals' responses with personal information removed). Published data can be subjected to noise (artificially inflating or deflating values by a small amount) or nondisclosure of values below a certain limit to protect privacy.

Libraries play multiple roles when it comes to census data. On the data collection side, libraries help the Census Bureau with community engagement to promote census programs (the ten-year census in particular) and to encourage people to submit the questionnaires. Public libraries serve as venues for completing the census by providing forms and computers and hosting census volunteers who can answer questions (American Library Association 2020). On the data dissemination side, librarians help their patrons and communities navigate the census by helping users find and understand the data so they can use it for their research purposes. General reference librarians field questions about finding statistics (Bauder 2014, 1–15), while many academic libraries have data services or GIS librarians on staff to assist users with advanced research needs (Rice and Southall 2016, 1–14). Librarians also use census data as data consumers, as the census is a resource for understanding library user communities. By studying data on age, sex, race, income, language, educational levels, and computer access, libraries can make decisions about collections and services based on the characteristics of their communities.

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