Reflecting Our Changing Culture and Society: How the U.S. Census Bureau Modifies its Survey Questions

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Abstract: The various census survey questions provide important clues to the changing nature of the US culture; thus the process for modifying questions is important and often time consuming. This paper begins with an overview of data collection the Census Bureau engages in, then discusses the process for question modification and the standards of the modification process. Finally, there are examples of some of the changes to census survey questions from the following categories: multilingual supplemental materials, question format, method of test administration, general content, race, disability, and marriage and family.

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Introduction

The decennial census is said to reflect the changing culture of the United States. The American Community Survey is now a more accurate reflection of the changing culture of the United States because it is administered yearly. These measures, as well as the Current Population Survey, the Economic Survey, and the Puerto Rico Community Survey, reflect the culture in the questions asked on them; thus choosing questions for these surveys is very important. What follows is a brief overview of these measures, an examination of the process to choose questions as well as the standards and constraints they must adhere to, and finally examples of some of the changes made to questions.

Types of Censuses and Surveys

There are many federal agencies that keep statistical information about the U.S. The Census Bureau is just one agency, and it collects information for more than just the decennial census; thus the standards for questions and the process for question modification also apply to other statistical data collected by the Census Bureau. In addition to the decennial census, the Census Bureau also administers the yearly American Community Survey (ACS) and the yearly Puerto Rico Community Survey (PRCS). These surveys measure the same information as the decennial census, sometimes in greater detail, and are administered yearly to a small sample population giving a more accurate picture of the nation. The PRCS measures the same information as the ACS, but it is customized for Puerto Rico. The Census Bureau also administers the Economic Census once every five years to measure the national and local economies. Finally, the Census Bureau works with the Bureau of Labor Statistics to conduct the Current Population Survey (CPS). The CPS is a monthly survey of about 50,000 households and it measures
employment, unemployment, earnings, hours of work, and other labor statistics. You can view these statistics broken down into incredibly detailed categories such as race, age, sex, marital status, and educational attainment; there are times when the CPS can provide a higher level of detail about some socioeconomic factors other than labor statistics than the ACS and the decennial census can because of this breakdown.¹

**Constraints, Standards, and the Process**

Questions will change to reflect the changing nature of society; however, the questions are constrained by certain factors. Questions are constrained due to the mandatory reporting requirements; with so much information that must be reported and measured, there is not enough time or resources to deal with superfluous information. Also, the burden of taking the time to complete the long form and the ACS places on people is a consideration that leads to restricting questions.

Long form questions historically faced the following constraints:²

- A federal law calling for the use of census data for a particular program had to exist (mandatory).
- A federal law or regulation required the use of data that could only be gathered by the census, or the data collected by the proposed question would be used for case law requirements imposed by the federal court system (required).
- The data were necessary for Census Bureau operational needs and there was no explicit requirement for the use of the data as explained with the first two constraints (programmatic).

In order to constrain the ACS questions, the Census Bureau works with the Office of Management and Budget (OMB) and the Interagency Committee for the ACS. This committee is co-chaired by the Census Bureau and the OMB, and consists of representatives from more than 30 federal departments and agencies that use census data. They justify the addition of questions based on whether or not there are statutes or legislative documents requiring these questions, and whether or not they fall within the long form constraints.³

The 2003 ACS form only contained questions that were listed as “mandatory” or “required” based on the aforementioned constraints. In 2006, the OMB and Census Bureau decided to be more flexible in their allowance of question changes. Questions must still be necessary, but factors in addition to those listed above, such as frequency of information need and level of geography, will be considered. Legislation is not always required in order to justify changes, and in some cases question modification may be allowed based on an agency’s justifications.⁴
All new proposed questions must meet the requirements set out in the ACS Content Policy guidelines, and must also go through a Content Change Process. In this process, subcommittees review question sets and provide feedback on designing new sets. Census Bureau staff review the recommendations but, before the recommendations can be incorporated, the content changes must meet the following content change requirements:

- ACS content can only be added once a year, and only after pre-testing, often including a field test, has been completed and the OMB has given final approval.
- The requesting federal agency works with the Census Bureau to develop draft questions and develops a plan to pretest the questions. This must be submitted as a proposal to the OMB and Census Bureau, and the proposed methods must comply with the standards set forth in the Census Bureau Standard: Pre-testing Questionnaires and Related Materials for Surveys and Censuses.
- If the proposal is approved, pre-testing of questions and alternate questions must take place.

Just as there are standards for the modification of questions, there are also standards for the pre-testing materials. Statistical standards for the surveys and for the censuses themselves are set by the Census Bureau’s Methodology and Standards Council. According to the Census Bureau Methodology and Standards Council, “the minimal standard is that a census or survey questionnaire must “work.” This means that the questions (new or revised) can be administered properly by interviewers (if relevant) and understood and answered by respondents, and do not adversely affect survey cooperation.” Evidence to determine if a question works is based on its use in prior surveys or in tests conducted by the Census Bureau itself or by other organizations. If there is insufficient evidence that a questionnaire works, it is then subjected to a questionnaire pretest. This minimal standard is applied to English language census forms, questions that have been used in previous Census Bureau surveys, modification of questions that have been previously asked, response rates that indicate a question is performing poorly, decisions of subject-matter experts saying a revision is necessary, policy or program changes requiring new surveys or questions, and legislative changes mandating new surveys. Clearly there are many circumstances that allow this minimum standard.

Although the minimum standard is that a questionnaire must “work,” there are recommended standards. “The standards are not required for all data collections, but are recommended for surveys and censuses in which special circumstances apply.” The Census Bureau has been working to phase in recommended standards related to policy implications, supplemental instruments and materials, and electronic self-administered tests.

There are also standards for the pretest methods used to test the questionnaires. Acceptable pretest methods include pre-field techniques which happen during the preliminary stages of questionnaire development; these techniques include respondent focus groups, exploratory/feasibility company and site visits, cognitive interviews,
usability tests, and expert reviews. In addition to pre-field techniques, field techniques are used to evaluate questionnaires under field conditions; these techniques include behavior coding of interviewer/respondent interactions, interviewer debriefings, analysts’ feedback, respondent debriefings, split sample tests, and analysis of various rates, failures, and distributions.\(^9\) If multiple modes of questionnaire administration are to be used, then all of the versions must be tested.

In addition to simply working with a committee to determine whether or not existing questions should be modified, the Census Bureau examines the responses and statistical data to determine whether or not content must be modified; various reports are created to determine how effective data and the form itself are. For example, in a paper reporting new content for the 2008 ACS, an examination of the 2006 ACS determined that it did not have a toll-free number on it for people to call if they had questions about completing the form, and this could have impacted the accuracy of responses; this same report also looked at how the grid-sequential format impacted completing questions based on relationship status.\(^10\) Also, a report entitled *2006 Questionnaire Design and Experimental Research Survey: Demographic Questions Analysis* examined possible problems with questions related to age on the census.\(^11\)

Clearly this is a meticulous process that involves a lot of trial and error. Questions are not modified lightly, and all modifications must be necessary.

**Modifications**

Question modification can be the addition, deletion, or revision of questions. Each possible change is studied and tested prior to implementation, and the Census Bureau presents many working papers and research reports throughout the process of considering these changes. Following are some examples of the types of modifications that have been made to census questions.

**Multilingual Supplemental Materials**

In an attempt to make sure that everyone answering the questions understands them, the Census Bureau tested the use of multilingual brochures in April through June of 2009. Brochures were mailed in English, Spanish, Chinese, Russian, and Korean. One-third of the respondents received the brochure with pre-notice, one third received it with the initial questionnaire, and one-third did not receive the brochure. The results were favorable for using the brochure.\(^12\)

**Question Format**

The Census Bureau evaluates the question formats. For example, it evaluated whether or not forced-choice questions or mark-all-that-apply questions were better suited to gather
information on health insurance for the 2006 ACS. Forced-choice questions allow an “either/or” answer, and force the respondents to choose one option. “Mark-all-that-apply” allows respondents to choose more than one item, and this may mean that no items apply. Formats like these are evaluated because, although forced-choice forces everyone to respond, the quantity of responses does not always equate to quality responses. Thus the Census Bureau attempts to determine if the format of the questions impedes the accuracy of the responses.

Method of Test Administration

Census and ACS questions have consisted of home visits, paper forms, telephone surveys, and telephone follow-ups. Each method of administration has been evaluated for effectiveness. In 2011, the Census Bureau proposed testing the possibility of using the Internet for the ACS and Puerto Rico Community Survey (PRCS). The “Internet Test,” as its being called, was tested in March 2011; a telephone content re-interview survey was also done. The results of this test will be known in late 2011. According to the Census Bureau, this method of testing is “designed to present stimuli consistent with other ACS data collection modes to minimize potential mode effects, but at the same time take advantage of the technology to improve data quality.”

Content

Survey content is, of course, constantly evaluated and modified. Questions range from items owned by a household, to race, to disability, to marriage and family issues. Some of the content does not evoke a strong response from respondents; however some of the content ends up being rather controversial. The following are controversial and non-controversial content change examples.

General

There are many general questions on the census, with the number of people in a household being one of the most general. Sometimes general questions relate to items owned, and in those cases the questions clearly are signs of the changing culture; this is the case when comparing the ownership of electronic items. The 1960 Census asked about television ownership; however, in 2010, the Census Bureau included in its content test new questions about computer ownership and Internet access. The tests for 2010 content also included questions about parental place of birth. Questions regarding food stamps; veteran identification and period of service; public assistance income; and wages, salary, interest, and dividends were modified for 2010.
Race categories

The 2000 Census was the first time that respondents were allowed to choose more than one race. This was a giant leap forward in terms of gathering accurate census data because people who are biracial or multiracial could now choose more than one category; however the various categories for African American respondents to check their race caused controversy in 2000 and 2010. According to Jeffrey Passel at the Pew Research Center, the history of the census and how it deals with race reflects terms that have come in and out of favor over the years. The timeline below is a depiction of how terms for race have changed based on the evidence in his article for the Pew Research Center:

1850-1880: Codes for enumerators were generally “white,” “black,” and “mulatto.”

1870: “Chinese” and “Indian” were added.

1890: “Japanese,” “quadroon,” and “octoroon” were added.

1900: This is the first appearance of “negro” with a lowercase “n” in the instructions; there was no mention of “quadroon” or “octoroon.”

1910: The data item was called “color or race” for the first time. Instructions called for marking “white,” “mulatto” (for those who had “some proportion or trace of perceptible negro blood”), “black” (for those who were “evidently full blooded negroes”), and “other.”

1930: In this census, the term “Negro” was used and capitalized. The term “Mexican” was added.

1940: The “Mexican” category was eliminated.

1950: The categories “White,” “Negro,” “American Indian,” “Japanese,” “Filipino,” were used, and other races could be spelled out.

1960: The categories “Hawaiian,” “Part Hawaiian,” “Aleut,” and “Eskimo” were added.

1970: Self-identification was in place for this and later censuses. The following categories were used: “White,” “Negro or Black,” “Indian (Amer.),” “Japanese,” “Chinese,” “Filipino,” “Hawaiian,” “Korean,” “Other” (with write-in).

1980: The African American category was listed as “Black or Negro,” and the following categories were added: “Vietnamese,” “Asian Indian,” “Guamanian,” “Samoan,” “Eskimo,” and “Aleut.”

1990: “Asian” and “Pacific Islander” categories were grouped together and there was an “Other API” category with a write-in.
2000: This is the first time respondents could pick multiple races. The following categories were used: “Black, African American, or Negro,” “American Indian or Alaska Native” with a write-in for tribe, “Guamanian or Chamorro,” “Native Hawaiian,” “Other Asian” with a write-in, “Other Pacific Islander” with a write-in, and “Some other race” with a write-in.

2010: Includes a note that Hispanic origins are not races.

Many of the changes to race and ethnicity that occurred after the 1990 census were the result of the OMB’s revisions to its Statistical Policy Directive No. 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting. Prior to the revisions, Hispanic origin had been listed as an ethnicity and there were options to choose either “Hispanic” or “Not Hispanic.” Those categories became “Hispanic or Latino” and “Not Hispanic or Latino.” According to the OMB, this change was made, “because regional usage of the terms differs – Hispanic is commonly used in the eastern portion of the United States, whereas Latino is commonly used in the western portion – this change may contribute to improved response rates.” The term “Spanish origin” was also deemed acceptable. The revisions to this directive were also what prompted allowing people to choose multiple races, but it denied allowing the use of the term “multiracial” and instead suggested that people be allowed to choose different races. Finally, these revisions also declined to incorporate the addition of an “Arab” or “Middle Eastern” ethnic category.

These adjustments have been made not just because of the need to accommodate the changing racial make-up of society, but also because, after 1970, people self-identified as a particular race rather than having a census worker decide how to determine their races. Although the inclusion of the term “Negro” has caused controversy, the census has retained that terminology along with two other popular African American racial terms in order to include every possible term by which someone may self-identify.

Disability

Disability is another topic that is often difficult to define, particularly since there are some people who may be disabled but do not consider themselves to be disabled. Questions about disability have been included in the census since 1830; however, no commonly accepted set of disability questions existed. For Census 2000, a federal interagency work group was formed to create a set of six questions. This group consisted of staff from the Social Security Administration, the Department of Health and Human Services, the Census Bureau, and others. The work group identified three domains that reflect broad disability classifications: “sensory impairments (seeing, hearing); physical impairments (walking, lifting, climbing stairs, reaching, carrying); and mental/emotional/cognitive impairments (learning, remembering, concentrating).” This was further divided into three types of specific functions: activities of daily living like dressing and bathing, instrumental activities of daily living like going to the store or the doctor’s office, and working at a job or business. After field testing and multiple
proposals, the workgroup distilled these items down to six questions, which are listed below (Example 1). Listed below are also the Census 1990 questions (Example 2).

Example 1

2000 Census Disability Question Set (all questions are answered by checking “yes” or “no”)

16. Does this person have any of the following long lasting conditions:
   a. Blindness, deafness, or a severe vision or hearing impairment?
   b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?

17. Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty doing any of the following activities?
   a. Learning, remembering, or concentrating?
   b. Dressing, bathing, or getting around inside the home?
   c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor’s office?
   d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business?

Example 2

1990 Census Disability Question Set (all questions are answered by checking “yes” or “no”)

18. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which -
   a. Limits the kind or amount of work this person can do at a job?
   b. Prevents this person from working at a job?

19. Because of a health condition that has lasted for 6 or more months, does this person have any difficulty –
   a. Going outside the home alone, for example, to shop or visit a doctor’s office?
   b. Taking care of his or her own personal needs, such as bathing, dressing, or getting around inside the home?
Marriage and family

Throughout the years, the census has had its marriage and family content revised many times. Questions relating to single parenting, unmarried couples with children and other cohabitation questions continue to be changed as society changes. For example, the Current Population Survey now shows two-parent unmarried family group and one-parent unmarried family group tables; the addition of these tables was possible after a question was added asking whether unmarried adults were living with a boyfriend, girlfriend, or partner, and after other parent indicators were added in 2007. Identifying unmarried partners means that the Census Bureau and Bureau of Labor Statistics can track families in which the parents, whether they are same or opposite sex, cohabitate but are not married. “Previously in the CPS, children with two unmarried parents were tabulated under single parent families.” The addition of those questions made it possible to give a more accurate reflection of society and to break down labor and family statistics in combination with same sex partner breakdowns thus allowing an incredible level of detail for same sex partner households. “It is not possible to get this level of detail with the decennial census data or with the American Community Survey data.” Although CPS can get more detailed than ACS, the ACS does have questions that show estimates of same sex couples. Also, the decennial census has updated its editing process to accurately reflect the number of same sex couples in the U.S.

Recording same sex couples has had a troubled history and it’s still a controversial issue. The 2000 Census was the first time that, when a household consisted of a married couple and both spouses reported the same sex, no imputations were made and the respondent reported as being the spouse was edited to being the “unmarried partner.” This was a change from 1990 when, in this situation, the relationship category of “spouse” remained the same, but the sex of the partner was changed to the opposite sex of the householder. Census 2000 was a major step forward toward accurately portraying the household make-up of U.S. couples; it was also an easy fix to say that the couples were “unmarried partners” rather than actual spouses because, in 2000, no U.S. state allowed same sex marriages. It wasn’t until 2004 that individual states began to grant same sex marriages, making this change from “spouse” to “unmarried partner” controversial. Since then, working papers and reports have been done that measure the number of same sex couples in the U.S., and there have even been attempts to look back at 1990 Census information and determine the actual number of same sex couples then. Despite these attempts, and despite the fact that individual states are allowing same sex marriages, the census surveys can still only count same sex partners as “unmarried partners” and not “spouses” because the Census Bureau is a federal agency and is bound by the federal Defense of Marriage Act. The Defense of Marriage Act, H.R. 3396, defines marriage as, “a legal union between one man and one woman as husband and wife, and the word ‘spouse’ refers only to a person of the opposite sex who is a husband or wife.”
Conclusion

Much work goes into modifying the census survey questions, and no changes are made lightly. All proposed modifications go through a content change process and must meet certain standards. Despite this process, there are always things that can be done to gain a more accurate picture of our nation, and so the modification process is always happening. This constant desire to evaluate content and modify it when necessary can make it difficult to track changes over time since question sets may change from decennial census to decennial census, but the modifications should ultimately prove helpful; also, the addition of the annual ACS and PRCS should make it easier to track changes. Clearly every attempt is made to accurately reflect the changes in society, whether it is a change in question content, question format, test administration, or even a change in the way question data is recorded.


3 Ibid., 5-1-5-2.

4 Ibid., 5-4.

5 Ibid., 5-5.


7 Ibid., 2.

8 Ibid., 2.

9 Ibid., Attachment A.


14 Tancreto, FY2010 ACS Methods, slide 28.

15 Ibid., slide 12 and 15.


18 Ibid.


20 Ibid., 29.

21 Ibid., 23.


25 Ibid., 3.

Author Biography

Christina Steffy of Hamburg, Pa., will complete her MLIS at Rutgers, the State University of New Jersey, in summer 2011. In addition to taking a full-time course load, she is a writing tutor and an adjunct instructor at Reading Area Community College in Pennsylvania where she teaches English courses as well as a Library Internet Research Strategies course. She also volunteers for Schuylkill Valley Community Library in Leesport, Pa., does contract public relations and marketing for Sunbury Press in Harrisburg, Pa., and does freelance writing for various publications and organizations in Berks County, Pa. In summer 2011 she will complete an internship in the library at Millersville University of Pennsylvania; this internship will focus on outreach and reference services. Upon graduation Christina would like to pursue a career in librarianship focusing on outreach and reference services, particularly in government documents and legal research, and then work in library administration.

Christina received a B.A. English/Professional Writing with a Public Relations minor as well as a B.A. Speech Communications with minors in Spanish and Political Science; both degrees are from Kutztown University of Pennsylvania.

In her free time, Christina enjoys reading, writing, yoga, and blogging about her MLIS journey as well as education.
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