

**Writing Benefit Statements  
For Projects Accessing Confidential Data**

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## **1. Why Projects Must Have Written Benefit Statements**

The Census Bureau has consistently placed the highest premium on the appropriate use of data collected or acquired in accordance with its legal authority under Title 13, United States Code. That authority requires all access to confidential data to benefit the Census Bureau's data collection programs. Written benefit statements provide documentation of how specific projects involving access to confidential data are expected to benefit the Census Bureau.

The Census Bureau approved the following list of thirteen criteria to determine whether a project delivers a benefit to the Census Bureau. All researchers wishing to access confidential data for a project must include a benefit statement specifically addressing one or more of these criteria. To ensure that the Census Bureau receives the anticipated benefits from such projects, all projects must provide technical memoranda or otherwise document the actual benefits of the project. Project output will not be reviewed for disclosure avoidance until the project's actual benefits are documented.

This guidance document explains what each of the thirteen criteria means and describes how to prepare benefit statements. If you have any questions about the attached materials or need further guidance, please contact the Policy Office.

## **2. The Benefit Criteria Projects May Meet**

1. Evaluating concepts and practices underlying Census Bureau statistical data collection and dissemination practices, including consideration of continued relevance and appropriateness of past Census Bureau procedures to changing economic and social circumstances.
2. Analyzing demographic and social or economic processes that affect Census Bureau programs, especially those that evaluate or hold promise of improving the quality of products issued by the Census Bureau.
3. Developing means of increasing the utility of Census Bureau data for analyzing public programs, public policy, and/or demographic, economic, or social conditions.
4. Conducting or facilitating Census Bureau census and survey data collection, processing or dissemination, including through activities such as administrative support, information technology support, program oversight, or auditing under appropriate legal authority.
5. Understanding and / or improving the quality of data produced through a Title 13, Chapter 5 survey, census or estimate;
6. Leading to new or improved methodology to collect, measure, or tabulate a Title 13, Chapter 5 survey, census or estimate;
7. Enhancing the data collected in a Title 13, Chapter 5 survey or census. For example:
  - a. Improving imputations for non-response;
  - b. Developing links across time or entities for data gathered in censuses and surveys authorized by Title 13, Chapter 5.
8. Identifying the limitations of, or improving, the underlying business register, household Master Address File, and industrial and geographical classification schemes used to collect the data;
9. Identifying shortcomings of current data collection programs and / or documenting new data collection needs;
10. Constructing, verifying, or improving the sampling frame for a census or survey

authorized under Title 13, Chapter 5;

11. Preparing estimates of population and characteristics of population as authorized under Title 13, Chapter 5;
12. Developing a methodology for estimating non-response to a census or survey authorized under Title 13, Chapter 5;
13. Developing statistical weights for a survey authorized under Title 13, Chapter 5.

### 3. What Each Criterion Means

Criterion 1: Evaluating concepts and practices underlying Census Bureau statistical data collection, processing, and dissemination practices, including consideration of continued relevance and appropriateness of Census Bureau procedures to changing economic and social circumstances.

*Explanation:*

This criterion can be interpreted to include evaluations such as:

- Evaluate whether the current data contain the information required to reflect changing social and economic circumstances.
- Evaluate whether published reports and data provide information relevant to these changing circumstances, and point to new dissemination methods that would improve their relevance.
- Such evaluations provide information the Census Bureau needs to decide what means, such as new questions, collection practices, or reports, would make its data continue to be relevant.

*Examples:*

- Changes in family circumstances: Grandparents rather than parents are thought to be primary caregivers of a growing proportion of children.
- Evaluating new questions about this care giving relationship can point to:
  - potential improvements in questionnaire design;
  - additional areas where new questions are needed (for example, on the grandparents' physical health, and on their responsibilities as caregivers of other family members);
  - aspects of the relationship that are most important to convey in new published statistics and reports.
- Changes in sources of health insurance coverage: the new government State Children's Health Insurance Program (SCHIP) program was intended to provide health insurance coverage to some groups of children. Because the program was new, new questions were needed to collect information on it. Evaluating the responses provides important information on the quality of the new data, and on the need for additional questions, or modifications to the questions.

- Welfare reform: The legislation was intended to change incentives for labor force participation and employment, as well as for participation in government transfer.
- Programs. Extensive analysis of post-reform data can enhance the data's relevance by providing assessments of the legislation's effectiveness. These analyses can also provide information pointing to the need to evaluate the extent of deficiencies in questionnaire content and collection practices that hinder the data's relevance for this new circumstance.

Criterion 2: Analyzing demographic and social or economic processes that affect Census Bureau programs, especially those that evaluate or hold promise of improving the quality of products issued by the Census Bureau.

*Explanation:*

New products -- reports, on-line statistics, public-use files, etc. -- may be needed to provide relevant information about changing demographic, social, or economic processes. New questions, surveys, and methods may be required to ensure that Census Bureau products continue to be relevant in a changing economy and society. Improving relevance could improve the quality of the Census Bureau's products.

*Examples:*

- Changes in the demographic composition of households -- age structure, race and ethnicity, duration of relationships -- affect assumptions underlying the specific data the Census Bureau collects. For example, assumptions about the ages at which meaningful labor force participation begins, or formal schooling begins and ends, sometimes determine which individuals are asked about such behaviors. An aging society in which people continue to participate in the labor force for many years, and so have more years to benefit from mid-life education and retraining, may invalidate those assumptions.
- New reports on, for example, numbers of workers returning to formal schooling, by age.
- Number and socioeconomic characteristics of workers who are self-employed, independent contractors, etc., supplementing information currently collected or not collected at all.
- Shifts in education patterns and employment in specific economic sectors may require information about new types of education, jobs, and employment practices. Analyzing the ability of current data to address such new and emerging patterns provides information the Census Bureau needs to consider whether it needs to modify existing occupational and employment classification systems, and questions about types of employment.

Criterion 3: Developing means of increasing the utility of Census Bureau data for analyzing public programs, public policy, and/or demographic, economic, or social conditions.

*Explanation:*

Census Bureau data are widely used to analyze existing and proposed public programs, to inform public policy decisions, and to investigate changing demographic, economic, and societal conditions. In their original forms -- publications and other public-use data -- these data may not immediately yield the required information. Specific variables and data structures frequently need to be created to make the existing data useful for particular concerns. Constructing these variables and data structures allows the existing data to be used to address an expanded set of concerns.

*Examples:*

- An individual's participation in public programs such as Medicaid depends on their own income and labor force participation and on family characteristics. Those family characteristics include family income, labor participation by other family members, and members' eligibility for employer-provided health insurance. Some of the raw material from which such individual and family information can be constructed is available on the original Census Bureau data products. But some information may not be available, or available at the level of detail required, on the public-use data. For example, Medicaid programs are administered at the county level. Access to geographic detail beyond what is available publicly may be crucial to improved modeling of program effects or outcomes, or to an accurate description of economic conditions.
- The racial and socioeconomic composition of neighborhoods is thought to matter to individuals when they consider whether to move. Although potentially relevant data have been collected in the American Housing Survey to address this hypothesis, making use of them requires access to internal data. The data can be used to (a) characterize how stable neighborhoods are over time with respect to the race and economic status of residents within an area; (b) examine how the racial composition and socioeconomic status of neighbors affect whites' and blacks' development of plans to move out of the neighborhood and their actual out-migration; and (c) examine how the perceptions of the neighborhood by individuals and their neighbors, particularly with respect to crime and the quality of schools, influences the process of moving for whites and blacks.

Criterion 4: Conducting or facilitating Census Bureau census and survey data collection, processing or dissemination, including through activities such as administrative support, information technology support, program oversight, or auditing under appropriate legal authority.

*Explanation:*

Administering Census Bureau survey and census programs may require advice, collaboration, oversight, or direct involvement of persons who are not Census Bureau employees.

*Examples:*

- While conducting the Census Bureau's programs requires many skills, some critical skills, such as administrative and information technology support, are most effectively acquired through the flexibility of contractor and other non-employee relationships.
- Appropriate oversight of the Census Bureau's operations may require direct involvement of program sponsors or others with legal oversight responsibilities. For example, program sponsors may wish to observe data collection activities, or to review in detail proposed modifications to data processing. Such review requires access to the relevant Title 13 data, such as the specific response of the observed data collection.

Criterion 5: Understanding and /or improving the quality of data produced through a Title 13, Chapter 5 survey, census or estimate;

*Explanation:*

The Census Bureau needs to understand and continually assess the quality of all the data in all surveys, censuses, and estimates, and to seek ways to improve them.

*Examples:*

- Examine little-used data. If the particular variables the project uses have not been used previously, or have been used in a very different application, then the Census Bureau benefits by having a researcher examine the data carefully. Good empirical analysis often begins with tasks such as examining where records or items are missing, where responses are extreme, or take on inconsistent values. The examination will be far more extensive than can be carried out in the routine internal consistency checks during survey processing. The examination should lead both to an assessment of this aspect of data quality, and to recommendations for directions for improvement.
- Compare similar data from different sources. Independent sources often contain measures of similar concepts. Comparing measures from independent sources that should be similar, or that should differ in predictable ways, increases the Census Bureau's knowledge of its data collection programs.

Criterion 6: Leading to new or improved methodology to collect, measure, or tabulate a Title 13, Chapter 5 survey, census or estimate;

*Explanation:*

Continually changing economic and social circumstances, and statistical and economic methodologies, require continual assessments of the Census Bureau's current practices, including drawing new inferences from analyses of its previous practices.

*Examples:*

- Analysis of existing data may show that information should be collected at a different level, for example, from persons rather than households, or from plants rather than firms.
- Analysis may show that data should be tabulated and published at a different level. For example, data tabulated at the firm level perhaps should also be tabulated at the plant level. Similarly, there may be meaningful tabulations at the household level of data currently only tabulated at the person level.

Criterion 7: Enhancing the data collected in a Title 13, Chapter 5 survey or census. For example:

- a. Improving imputations for non-response;
- b. Developing links across time or entities for data gathered in census and surveys authorized by Title 13, Chapter 5.

*Explanation:*

Existing data in a survey or census are substantial investments of resources. Applying new techniques to improve the quality of these data, for example, by applying better adjustments for non-response increases the value of these investments. Similarly, linking existing data across time or space provides additional information from them. Insights drawn from analyzing these enhanced data also provide information on potential improvements to future data collections.

*Examples:*

- Analysis of important economic or social relationships can be compared with the explicit or implied relationships used in nonresponse imputation algorithms, leading to suggestions for improving the algorithms. Such improvements enhance Census Bureau data.
- Linking external data to Census Bureau data enhances the Census Bureau data. Future researchers can make more informed inferences about economic and social relationships using these linked data. Those inferences may improve imputations for non-response or provide information about the quality of sampling frames and data collection techniques.
- Linking existing Census Bureau data by developing longitudinal files for data from businesses or households creates new data that enhance the information collected in the survey or census. While some business data have been linked extensively, those links have not been exhaustively evaluated.
- Links between business and person or household data, and links over time of person and household data, are not as extensive and have not been exhaustively evaluated. Such linkages enhance the information collected in each data set.

Criterion 8: Identifying the limitations of, or improving, the underlying business register, household Master Address File, and industrial and geographical classification schemes used to collect the data.

*Explanation:*

Important information for Census Bureau data collection efforts is provided by research that evaluates whether emerging new social and economic patterns lead to elements that are missing from the household or business sampling frames, or identifies likely sources to improve the frames.

*Examples:*

- Identify errors in geographical and industrial coding, and potential systematic causes of those errors.
- Linking data for the same households or businesses, either between two Census Bureau data sets or by linking data from other sources, can provide this kind of information.
  - an outside data set may identify businesses or individuals that should be in the Census Bureau frame but are not;
  - understanding the sources of any differences in economic or geographical coding improves the quality of Census Bureau data.

Criterion 9: Identifying shortcomings of current data collection programs and / or documenting new data collection needs.

*Explanation:*

Current Census Bureau programs may not collect sufficient information to address important questions about social, demographic, or economic populations.

*Examples:*

- No information may be collected, or there may be insufficient detail to estimate important comparisons among subgroups of these populations.
- Research may point out such deficiencies as data are used to address such questions or make such comparisons.
- Research may identify the best directions in which the Census Bureau should begin collecting data to fill these gaps. For example, research may identify the need for additional information on the materials that businesses purchase to produce their product, and may in particular identify the most important details on which information should be gathered.

Criterion 10: Constructing, verifying, or improving the sampling frame for a census or survey authorized under Title 13, Chapter 5.

*Explanation:*

Sampling frames are a fundamental building block for Census Bureau data collections. Continually evolving economic and social circumstances affect the appropriateness and completeness of existing and potential frames, and continual changes in statistical tools and methods affect the best practice techniques for using those frames.

*Examples:*

- Outside data sources can be used to construct alternative sampling frames. Linking the alternative and Census Bureau frame allows researchers to assess the Census Bureau frame and either verify it or suggest improvements.
- Alternative sampling strategies can be tested within existing sampling frames. Assessing the comparative characteristics of the alternative and existing samples provides information to verify the robustness and appropriateness of current practice, or to suggest improvements.

Criterion 11: Preparing estimates of population and characteristics of population as authorized under Title 13, Chapter 5.

*Explanation:*

Existing publications and projects may not contain all population and subgroup characteristics of relevance and interest.

*Examples:*

- Research typically yields statistics beyond those that the Census Bureau has already released. These statistics estimate specific populations and subpopulations and their characteristics.
- Such statistics include summary statistics about specific variables (means, medians, moments), and coefficient estimates that summarize behavior of subgroups of the population. These statistics increase the information available about these populations, subpopulations, and their characteristics.

Criterion 12: Developing a methodology for estimating non-response to a census or survey authorized under Title 13, Chapter 5.

*Explanation:*

Understanding patterns of nonresponse, and its sources, is of greater importance to the Census Bureau because response rates are an important indicator of data quality. Nonresponse is so important to data quality that the Census Bureau initiated, participates actively in, and supports, long-standing interagency groups that jointly explore developing better measures of response rates, sources of nonresponse, and ways to improve response rates. However, these staff resources are limited, so many important facets of nonresponse remain unexplored.

*Example:*

- Research that carefully addresses patterns of response, and the impact of nonresponse on data quality, provides important information that the Census Bureau needs to improve the quality of its data.

Criterion 13: Developing statistical weights for a survey authorized under Title 13, chapter 5.

*Explanation:*

Appropriate weights are essential to correctly presenting the data items collected in surveys.

*Examples:*

- The research may assess how survey weights are currently developed. Findings from such research are valuable to the Census Bureau in improving survey weighting.
- Particularly for external research projects, the research may address issues such as nonresponse that the researcher does not explicitly connect to the Census Bureau's processes for developing survey weights. However, Census Bureau staff may recognize that such factors are considered in developing survey weights, or should be considered. Such research findings will provide important information to the Census Bureau.

#### 4. How to Prepare Benefit Statements

1. Determine which benefit criteria the project meets. Note that a broad range of research activities and products potentially meet each benefit criterion.
2. Determine which benefit criteria the project must meet. Most projects will provide benefits under several criteria. However, a project that provides benefits under only one or two criteria shows benefits as long as those benefits are clear and strong. Some projects meet most or all criteria. For such projects, identify all the criteria it meets, but emphasize only the strongest benefits.
  - a. *All* projects are required to show at *least one* benefit.
  - b. Projects that use Federal Tax Information covered under Title 26 must show that the *predominant purpose* of their project is to benefit the Census Bureau by meeting *at least* one of criteria 5 through 13.
3. For each criterion:
  - a. State the criterion *verbatim*.
  - b. Write a clear and strong paragraph describing how the project will meet it.
4. Clear paragraphs are written in plain English for an educated layperson. Do not use Census Bureau abbreviations, or Census Bureau or technical jargon. People in other Census Bureau divisions or Directorates may review the statements. The reviewers may come from disciplines other than social science, or from your own specialty.
5. Strong paragraphs are specific about:
  - a. *What* the project will do:

"compares geographic coding for the same plant in the Annual Survey of Manufactures and the Survey of Manufacturing Technology for 1988 and 1993" vs. "examines geographic coding in two sources."

"analyzes welfare-to-work transitions of demographic groups over time in the Survey of Income and Program Participation and whether those patterns change following welfare reform" vs. "examines income and employment in a household survey."

b. *How* the project will do it:

"uses program xyz / technique to compare geographic coding for the same plant in the Annual Survey of Manufactures and the Survey of Manufacturing Technology for 1988 and 1993, and develops measures of accuracy and sources of error" vs. "examines geographic coding in two sources."

"uses program xyz / technique to analyze welfare-to-work transitions of demographic groups over time in the Survey of Income and Program Participation and whether those patterns change following welfare reform" vs. "examines income and employment in a household survey."

c. *How specifically* will the project meet Census Bureau needs, including needs of which it may currently be unaware?

"By identifying errors in geographic coding arising from the use of sampling frame x or data coding procedure y, the researcher will be able to improve the quality of the existing data and will make recommendations to the Census Bureau about how to avoid or minimize errors in future survey collections" vs. "examines geographic coding in two sources."

"Examines the effect of new question sequences on estimates of welfare-to-work transitions of demographic groups over time in the Survey of Income and Program Participation and whether estimates follow expected patterns, and will make recommendations to the Census Bureau on whether additional change are likely to be needed to assess the effects of welfare reform" vs. "examines income and employment in a household survey."

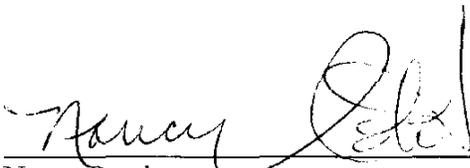
d. *Breadth* of what the project will do:

i. How many states, industries, population groups, years, surveys, censuses, will be involved?

ii. If the project's breadth is small, can it be viewed as a pilot study that assesses feasibility of methods and adequacy of data for a broader project? Are the population groups, states, years, etc., critical for specific Census Bureau products or purposes?

e. *Match* with Census Bureau needs:

- i. Does the Census Bureau already have research underway, or under discussion? If so, could an external project on this topic substitute for scarce staff resources and enhance the Census Bureau's stock of knowledge?
- ii. Should the Census Bureau be looking at this question? If so, why? Is it in the professional literature? Is it in the public debate? Could an external project on this topic substitute for scarce staff resources and enhance the Census Bureau's stock of knowledge?

  
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Nancy Potok  
Principal Associate Director and Chief Financial Officer

10/01/03  
Date