

Supporting Statement - Part B
U.S. Department Of Commerce
U.S. Census Bureau
2012 Economic Census Covering the Construction Sector
OMB Control No. 0607-0935

B. Collections of Information Employing Statistical Methods

1. Universe and Respondent Selection

Approximately 650,000 establishments with payroll have construction activity as their primary type of business. These establishments are stratified into two groups: establishments of multi-establishment firms and single-establishment firms. The expected number of establishments for each of these strata and the corresponding expected sample for the 2012 construction sector are given in the table below. Approximately 130,000 establishments will receive the report forms and instruction sheets as shown in Attachments B and C respectively. Response rates shown reflect response rates from this information collection in 2007.

Stratum	Universe	Sample	Response Rate
Establishments of multi-establishment firms	18,000	18,000	.88
Single-establishment firms	632,000	112,000	.83
Total	650,000	130,000	.84

2. Procedures for Collecting Information

a. Mail Selection Procedures

The census will select establishments with paid employees for its mail canvass from a frame obtained from the U.S. Census Bureau's Business Register. To be eligible for selection, an establishment will be required to satisfy the following conditions: (i) it must be classified in the construction industry sector; (ii) it must be an active operating establishment of a multi-establishment firm, or it must be a single-establishment firm with payroll; and (iii) it must be located in one of the 50 states or the District of Columbia. Mail selection procedures will distinguish the following groups of establishments:

(1) Establishments of Multi-Establishment Firms

Selection procedures will assign all active construction establishments of multi-establishment firms to the mail component of the potential respondent universe. We estimate that the census mail canvass for the 2012 construction sector will include approximately 18,000 establishments of multi-establishment firms.

(2) Single-Establishment Firms With Payroll

We will use a stratified probability-proportionate-to-size (PPS) sample strategy for selecting the sample of single-establishment firms. The population of eligible single-establishment firms will be partitioned into State by NAICS strata. Within each stratum, each establishment will be assigned a probability of selection that is a function of its relative size within the stratum (payroll) and a stratum-specific reliability constraint. The larger establishments in a stratum may have probabilities equal to 1.00. Within each stratum, an independent sample will be selected. We will use a fixed sample size selection method for selecting the sample. This technique considerably improves the reliability of the resulting survey estimates by eliminating the variability associated with a variable sample size. The impact of the multi-establishment firms within each stratum will be taken into account in deriving the target sample size from the single-establishment firm population. We estimate that the mail canvass for the 2012 construction sector will include approximately 112,000 establishments of single-establishment firms.

b. Estimation procedures

Within sampled strata, estimates are formed by multiplying the census data from each sampled case by the inverse of the probability of selection and summing for all sampled cases.

Data for non-responding cases are estimated using the response patterns of the responding cases.

c. Required Accuracy

(1) Sampling Error

The estimates developed from this sample survey are apt to differ somewhat from the results of a complete census covering all companies in the construction universe and conducted under essentially the same conditions as the sample survey. We provide estimates of the magnitude of the sampling errors -- the differences between the estimates obtained and the results theoretically obtainable from a comparable complete coverage census -- by the standard errors of the estimates included in the publications.

Due to the large size of the construction sample, estimates at the national level are reliable and accomplish the purposes listed in Section 2. The degree of accuracy is a consideration only for NAICS estimates at the state level. At the state by 3-digit subsector level, for 2007, the standard error of the estimate for value of business done by construction establishments was two percent or less for the majority of the subsectors.

(2) Nonsampling Error

The accuracy of all census data is influenced by nonsampling errors, such as those affecting coverage, administrative records, questionnaire design, reporting, processing, and tabulation. Although we make no direct measurement of nonsampling errors, we take precautionary steps in all phases of planning, report form development, data collection, processing, and tabulation to minimize their influence.

d. Problems Requiring Specialized Sampling Procedures

There are no known problems that will require specialized sampling procedures for the 2012 census.

e. Use of Periodic Data Collection to Reduce Burden

The census uses periodic (5-year) data collection, as required by Title 13 United States Code, Section 131.

3. Methods to Maximize Response

This information collection will maximize response through the following means: (i) mailing materials that emphasize the mandatory and confidential nature of census reports, as provided by Title 13 United States Code; (ii) effective census questionnaires and instructions that try to simplify reporting and minimize response burden; (iii) toll-free assistance for any business that has questions about completing its census report; and (iv) systematic mail follow-up for non-response, supplemented by telephone follow-up for selected firms. We expect to maintain or improve the level of response obtained by the 2007 census. This level of response will yield accuracy and reliability that are adequate for intended uses of economic census data.

4. Tests of Procedures or Methods

This information collection will use procedures that are based on a considerable body of experience with the economic census and surveys. Previous economic censuses also have been the subject of evaluation studies that have examined methodology, conceptual

issues, and related statistical questions. As a result, the procedures used by the 2012 Economic Census are very well tested.

5. Contacts

Statistical methodology is developed under the direction of Paul L. Hsen; Assistant Division Chief for Research and Methodology; Manufacturing and Construction Division; U.S. Census Bureau, Washington, DC 20233 (301-763-4586).

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Attachments

- A. Key survey estimates and their definitions
- B. Construction Census Forms CC-23601, CC-23701, CC-23801, CC-23802, CC-23803, and CC-23804
- C. Construction Census Form Instructions