

Department of Commerce
U.S. Census Bureau
OMB Information Collection Request
Report of Building or Zoning Permits Issued
for New Privately-Owned Housing Units (C-404)
OMB Control Number 0607-0094

Part B - Collections of Information Employing Statistical Methods

1. Universe and Respondent Selection

The target population for the survey is all permit-issuing jurisdictions in the United States. The universe and monthly sample are updated every 10 years; a new universe and sample was defined in 2013 for use beginning in 2014. A sample was selected in 2013, however, changes in coverage have resulted in a sample size of about 8,175 permit-issuing places from a universe of about 20,325 places. This sample is used to provide monthly estimates of construction authorized by building permits.

All places in the consolidated metropolitan statistical areas and selected metropolitan statistical areas were selected with certainty. In addition, about 625 places were selected with certainty because of cooperative arrangements we have with state agencies to receive data electronically. The remaining places were stratified by state and each place assigned a measure of size based on a weighted average of the number of housing units authorized in 2010, 2011, and 2012. The weights were calculated based on the ratio of annual activity in each state for each year and the grand total of activity for the state for all three years. A certainty cutoff was determined for each state with the goal of minimizing the relative standard error and the variance of the relative standard error. In each state, all places that had a measure of size greater than the predetermined cutoff were selected with certainty. The other places were selected at the rate of 1 in 10. We multiply data for the certainty places by 1 and data for the non-certainty places by 10 to generate monthly estimates for states and the United States. The average monthly unit response rate for 2017 was approximately 71 percent and the monthly total quantity response rate was approximately 81 percent.

The remaining places are canvassed annually. At the end of the year, non-respondents to the monthly survey are also asked to provide any missing data. The data from the annual respondents are combined with the data from the monthly respondents to produce an annual total. The response rate goal for the conclusion of the annual survey is 80 percent or above, which aligns with the response rate goal for the Census Bureau. Our overall unit response rate for 2017 (including both monthly and annual reporters) was about 81 percent. The overall response rate for 2017 (for both monthly and annual reporters) was about 93%.

2. Procedures for Collecting Information

Monthly estimates are produced by tabulating data weighted by the inverse of the probability of selection of the permit-issuing place for the monthly sample. Places with extreme numbers of weighted housing units are designated as outliers and receive a weight reduction designed to minimize mean squared error. The weight for all places for annual estimates is one.

All publications and news releases of the Building Permits Survey containing inferences and comparisons of key estimates based on sample data are required to have Relative Standard Errors (RSEs) that are 30 percent or lower. RSEs are computed for all estimates of units authorized at the state, division and region level by structure type. The overall average RSE for 2017 for total units was 1.6%. The average RSE for 2017 for total units at the state level was 6.1%, at the division level was 3.3% and at the region level was 2.5%.

When a report is not received, missing housing unit data are either obtained by using permits listed for Census Bureau's Survey of Construction (SOC) or are imputed. Data from the SOC are available for only about 900 permit offices for which Census Bureau field representatives list and sample the permits to be followed up to determine when the units are started, completed, and sold. If data are not reported and are not available from SOC, estimates are imputed based on the assumption that the ratio of authorizations for the current time period to the prior year total is the same for reporting and nonreporting jurisdictions in that Census Region.

3. Methods to Maximize Responses

We send form letters (Attachments D through G) and additional survey forms as part of the annual survey to delinquent monthly and annual respondents. We also periodically contact non-respondents by telephone or email to solicit their participation, and we contact higher-level government agencies to request responses from their jurisdictions. We also ask State Data Centers and members of the Federal-State Cooperative for Population Estimates for their assistance with name and address updates as well as help obtaining data for prior time periods for places that are currently delinquent to the survey. We permit respondents to provide responses in any format which best suits their needs, including: internet, fax, phone call, proprietary format files, etc.. Additionally, we provide a web site with responses to Frequently Asked Questions to help facilitate reporting.

4. Tests of Procedures or Methods

We completed an evaluation of the BPS as required by the Statistical Policy Directive on Compilation, Release, and Evaluation of Principal Federal Economic Indicators; this evaluation was submitted to the OMB in September 2017.

Additionally, testing and evaluation of the variance methods was conducted, which led to the implementation of updated variance programs in February 2015.

All changes to methodology or processing systems are tested. A redesigned interactive survey processing system was put into production in June 2018. Testing of the system included a documented test plan, numerous test cases, and fully documented testing results. Tests were performed by analysts at headquarters and the National Processing Center (NPC).

In addition, we have conducted usability testing of the online questionnaire with a sample of respondents before offering the online questionnaire to all respondents, and documented the results of the testing.

5. Contacts for Statistical Aspects and Data Collection

The Economic Indicators Division plans and coordinates the survey. This includes the design of the reporting forms, sample selection, instructions for collecting and editing the information, preparation of table formats, and tabulation and release of the data.

The contact person for questions relating to the statistical aspects of the survey is Ms. Amy Newman-Smith, Methodology Director for Manufacturing, Investment, and Construction Programs in Economic Statistical Methods Division. She can be reached on (301) 763-6595.

The contact person for questions relating to the collection and analysis of the data is Ms. Erica Filipek, Assistant Division Chief for Construction Indicator Programs in the Economic Indicators Division. She can be reached on (301) 763-5161.

Attachments:

- A. Form C-404, "Report of Building or Zoning Permits Issued for New Privately-Owned Housing Units"
- B. Letter of support from the Bureau of Economic Analysis
- C. Selected Screenshots from Centurion Instrument
- D. C-404-L1 – Initial letter for annual respondents
- E. C-404-L2 – Letter for monthly respondents not reporting 5 or more months of the year
- F. C-404-L3 – Follow-up letter for monthly respondents not reporting 1 to 4 months of the year
- G. C-404-L4 – Follow-up letter for annual non-respondents