

SUPPORTING STATEMENT - PART B
U.S. Department of Commerce
U.S. Census Bureau
Quarterly Survey of Plant Capacity Utilization
(OMB Control No. 0607-0175)

A. Collection of Information Employing Statistical Methods

1. Universe and Respondent Selection

The sample for the Quarterly Survey of Plant Capacity Utilization is a continuation of the new sample that was implemented starting with the first quarter of survey year 2010, supplemented with an annual birth sample of newly identified establishments. The sample frame for the new sample was based on the Census Bureau's 2008 Business Register with updated information from the 2007 Economic Census, and this sample frame contained records for approximately 210,000 manufacturing establishments and 13,000 publishing establishments.

Sampling probabilities for the quarterly survey were assigned proportionate to total annual value of shipments. Sample allocation was determined by the priority industry requirements specified by the FRB, which included 95 industry groups that are used as publication levels and are comprised predominantly of 4-digit NAICS industries or combinations of NAICS industries. Each of these 95 industry groups was sampled independently to satisfy the total sample size constraint of approximately 7,500 establishments. The sampling procedure ensured that the allocated sample size for each industry group was exactly realized.

Until the next new sample is implemented, the sample is supplemented each year with a sample of newly identified establishments from the Business Register to account for attrition and to maintain the initial sample size. The next new sample will be selected when the results of the 2012 Economic Census are available. Before publishing estimates from the next new sample, we process both samples concurrently for two quarters and compare the estimates. This allows us to identify data errors for the next new sample and explain differences due to sample composition and response.

2. Procedures for Collecting Information

Both full production utilization rates and national emergency production utilization rates are published from the quarterly survey. The full production utilization rate for each industry group is estimated based upon those plants reporting both actual value of production and full value of production.

Simple weighted estimates of these two variables are computed by applying each plant's sampling weight to its respective data values and summing these weighted values across all reporting plants in the given industry group. The full production utilization rate for each given industry group is then calculated as the ratio of total weighted actual production to total weighted full production. A similar procedure is used to estimate the national emergency production utilization rates, using weighted values that are reported for the actual value of production and the national emergency production estimate.

The average plant hours per week in operation for each industry group are estimated based on those plants in the industry reporting plant hours. Simple weighted estimates of the plant hours are formed by applying the plant's sample weight to its respective values and adding these weighted values across the reporting plants. The average is formed as the ratio of the plant hours weighted sum to the sum of the weights for the reporting plants.

For the quarterly survey, unweighted unit response rates are approximately 70-75% at the overall survey level.

3. Methods to Maximize Response

a. Follow-up Procedures

Respondents are asked to return the initial form within 20 days. Those who do not respond to the survey receive a follow-up letter. A duplicate form is sent with the follow-up.

We telephone all plants that still have not responded after the mail follow-up and ask them to provide data via the internet, over the telephone, or return the form by mail.

b. Estimating for Missing Data

Given that we produce rates, we do not estimate data for plants not responding in time to meet publication deadlines because the imputation would merely involve ratios of weighted sums from respondents at the industry group level.

c. Reliability

For each industry group level, standard errors are published for the full production utilization rates, the national emergency production utilization rates, and the average plant hours per week.

4. Tests of Procedures or Methods

Periodically, Census Bureau staff interviews survey respondents to assess our data requests and to keep abreast of the current record keeping practices. For the quarterly survey, this includes inquiring about the frequency of the quarterly collection, response time, electronic reporting and policy pertaining to voluntary surveys.

5. Contacts for Statistical Aspects and Data Collection

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List Of Appendices

Appendix A. Form MQ-C2 and instructions

Appendix B. Copy of 2012 cover letter