

**Supporting Statement B for
Paperwork Reduction Act Submissions
OMB Control Number 1028-0065
Production Estimate, Quarterly Construction Sand and Gravel and Crushed
and Broken Stone (3 forms: 9-4042-A, 9-4124-A, and 9-4142-Q)**

Terms of Clearance: None

B. Collections of Information Employing Statistical Methods

The agency should be prepared to justify its decision not to use statistical methods in any case where such methods might reduce burden or improve accuracy of results. When statistical methods are used, the following documentation should be included in the Supporting Statement to the extent that it applies to the methods proposed:

- 1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

The data collected on these forms are used to publish information on the mineral production for each State, including State rankings. Data are imputed for all non-responses. For the large majority of the published statistics, the high response rate and good imputation methodology used justify a maximum expected error of no more than plus or minus 5%. Industry acceptance of these canvasses and response to the USGS publication of the data continue to be extremely positive.

Production Estimate canvasses:

Both of the Production Estimate canvasses (USGS Forms 9-4042-A and 9-4124-A) are conducted as a complete census. The total respondent universe is approximately 1,614 establishments. On average, 65% of those establishments respond.

Construction sand and gravel and crushed and broken stone canvass:

Data are collected quarterly from approximately 100 companies from among the approximately 6,000 eligible producers. On average, 95% of establishments respond. Sample size was determined by the need to minimize respondent burden and to assure the timely processing and publication of data.

The sample panel was selected in a fashion intended to produce the best possible estimates of total production of construction aggregates at the national and State levels. The use of a continuing panel also ensures good estimates of production trends.

Total production of construction aggregates for the current quarter is estimated for each level (national and State) by multiplying the approximate total production figure from the most recent available complete industry census by the trend ratio, which is developed from the sample for that level.

2. Describe the procedures for the collection of information including:

- * **Statistical methodology for stratification and sample selection,**
- * **Estimation procedure,**
- * **Degree of accuracy needed for the purpose described in the justification,**
- * **Unusual problems requiring specialized sampling procedures, and**
- * **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

Production Estimate canvasses:

The Production Estimate canvasses do not employ sampling techniques. Data are imputed for all nonresponses. For the large majority of the published statistics, the high response rate and good imputation methodology used justify a maximum expected error of no more than plus or minus 5%. Industry acceptance of these canvasses and response to the USGS's publication of the data continue to be extremely positive.

Construction sand and gravel and crushed and broken stone canvass:

- a) The USGS quarterly telephone canvass of Construction sand and gravel and crushed and broken stone is conducted on a sample basis. Tests have proved that this is the most effective and efficient means of collecting this data. The sample, however, is not a probability sample, but a cutoff-type sample of the largest companies producing construction sand and gravel and/or crushed and broken stone.
- b) Total production of construction aggregates for the current quarter is estimated for each by multiplying the approximate total production figure from the most recent available complete industry census by the trend ratio which is developed from the sample for that level.
- c) As stated above, for this sampling to be accurate, the total industry census must be known.
- d) There are no unusual problems requiring specialized sampling procedures.
- e) The complete industry census is conducted annually. The quarterly data collections are conducted via telephone, facsimile transmission, the MIFORMS web site forms application, and electronic mail and do not reduce the overall burden.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

Data are imputed for all nonresponses by using a variety of techniques. For example, imputation of non-response data may use industry trend figures, measures of establishment size such as Mine Safety and Health Administration employee-hours data, or company annual reports.

Production Estimate canvasses:

Two weeks after the initial request, establishments not responding are contacted by telephone. For larger establishments that still do not respond, statistical assistants may phone an alternative company contact.

Construction sand and gravel and crushed and broken stone canvass:

Industry acceptance of the canvass and response to the publication of the data by the USGS continue to be extremely positive. Data are estimated or another data source is found for the few recipients who have indicated their unwillingness to participate in the ongoing canvass.

- 4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.**

Many of the USGS' information customers are also businesses that supply USGS data. The USGS is in frequent contact with companies by way of industry associations and conferences (for example, the Aluminum Association, Inc, the Portland Cement Association, the National Lime Association, the Gypsum Association, the International Copper Study Group [ICSG], and the International Lead and Zinc Study Group [ILZSG]; the USGS copper commodity specialist serves as the ICSG's statistical chair, and USGS specialists participate in ILZSG's Fall and Spring meetings; the USGS attends The Fertilizer Institute's annual outlook meeting and the USGS participates in The Sulfur Institute's market study group). Informal communications during periodic contacts with our customers allow us to determine if the published canvassed data are meeting their needs. Any feedback concerning this information collection discussed during these communications or non-response follow-up telephone contacts are used as suggestions that might facilitate clarification or ease respondent burden. Respondents are also encouraged to submit comments via a feedback link on the website. An annual letter is sent to our voluntary canvass respondents thanking them for their support and encouraging them to view our data products. At present, no formal tests are in progress that would require clearance.

- 5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

For further information concerning this information collection, please contact:
Jeffrey P. Busse, Statistician, 703-648-4914, jbusse@usgs.gov or Scott F. Sibley, Chief, Mineral Commodities Section, 703-648-4976, ssibley@usgs.gov.