

SUPPORTING STATEMENT B
U.S. Department of Commerce
U.S. Census Bureau
Monthly Wholesale Trade Survey
OMB Control No. 0607-0190

B. Collections of Information Employing Statistical Methods

- 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.**

There are approximately 4,200 merchant wholesale units included in the survey. Of this number, about 1,700 are large units and were selected with certainty (100 percent chance of selection). The remaining 2,500 respondents are small and medium-sized units and were selected with noncertainty.

The sample is a probability sample selected from merchant wholesale employers (NAICS sector 42), excluding manufacturers' sales branches and offices (MSBOs), contained in the Census Bureau's Business Register, which covers all employers who make social security payments for their employees under the Federal Insurance Contributions Act.

Data for the Monthly Wholesale Trade Survey (MWTS) are obtained at the 6-digit NAICS level with all intermediate and summary tables obtained by summation. Tabulations will include estimates on sales, inventories, and inventories-to-sales ratios. Data for the MWTS are published at the 2-, 3-, and 4-digit NAICS level and one 5-digit level for NAICS 42343, computer and computer peripheral equipment and software merchant wholesalers.

Statistical analysis of the monthly data will be based on comparison of the monthly data to:

- (1) historic monthly survey results;
- (2) the results of the Annual Integrated Economic Survey (AIES)
- (3) the results of the most recent Economic Census; and
- (4) published trade, business, and media reports.

Comparisons of the monthly estimates to current and prior year annual and monthly estimates are produced by the use of data edits that identify units exceeding predetermined tolerance cutoffs. The tolerance cutoffs specify acceptable dollar level and percent differences between the annual data, the previous annual estimates, and monthly data. Data analysis also includes research of inventories-to-sales ratios. Also, an analysis is made at the detailed NAICS level to determine if

data reported for each subsector appear acceptable.

Sample Revision: A sample revision is the process used to re-design and re-select the samples for many of the Census Bureau's surveys of the retail, wholesale, and service industries. This process is performed to:

- ensure each sample is representative of its target population
- improve the efficiency of each sample
- incorporate updates to the industry classification structure
- update questions and instructions to obtain more accurate data
- redistribute burden for small and medium size businesses

The current wholesale sample was introduced in April 2018. The next sample revision is scheduled to occur in late 2026. The next sample will be based off of the 2022 NAICS and reflect the 2022 Economic Census data. The following sections describe the methodology of the current sample.

Sampling Frame: The sampling frame used for the MWTS consists of firm units. The units consist of one or more establishments. We created these sampling units from data collected as part of the 2012 Economic Census and from establishment records contained in the Census Bureau's Business Register as of December 2015.

To create the sampling frame, we extract the records for all employer establishments located in the United States and classified in the Wholesale Trade sector as defined by the 2012 NAICS. The current sample can be considered to be on a 2017 NAICS basis because there were no changes between the 2012 and 2017 NAICS. For these establishments we extract sales, end-of-year inventories, payroll, employment, name and address information, wholesale type of operation code (TOC), as well as primary identifiers and associated Employer Identification Numbers (EINs). We use the TOC to distinguish between three different types of wholesale establishments: (1) merchant wholesale establishments, excluding manufacturers' sales branches and offices; (2) manufacturers' sales branches and offices; and (3) agents, brokers, and business electronic markets. To create the sampling units, we aggregate the establishment data for all wholesale establishments associated with the same firm identifier. In some cases, a multi-unit firm has establishments active in more than one wholesale TOC. In these situations, we create firm-level sampling units for each type of operation. No aggregation is necessary to put single-unit establishment information on a firm basis. Thus, the sampling units created for single-unit firms simultaneously represent establishment and firm information.

The sample for the Annual Wholesale Trade Survey (AWTS) consists of three separate samples – one for each wholesale TOC. The MWTS is a subsample of the selected AWTS cases that are classified as merchant wholesale establishments, excluding manufacturers' sales branches and offices.

The preliminary average response (in terms of dollar volume) to this voluntary survey was about 62 percent for sales and 64 percent for inventories for the past six months (January-June 2025). It was

62.7 percent for sales and 65.7 percent for inventories for the latest collection of July 2025. The 2025 average response (in terms of units) to this voluntary survey was about 58 percent for the past six months (January-June 2025). The preliminary unit response was 57.8 percent for the latest collection of July 2025.

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.**

Stratification: The sample for the MWTS uses a stratified, one-stage design with primary strata defined by industry. There are 42 primary strata for the merchant wholesale establishments, excluding manufacturers' sales branches and offices. We further stratify the sampling units within industry group by a measure of size (substratify) related to their annual sales. Sampling units expected to have a large effect on the precision of the estimates are selected "with certainty." This means they are sure to be selected and will represent only themselves (i.e., have a selection probability of 1 and a sampling weight of 1). Within each industry stratum, we determine a substratum boundary (or cutoff) that divides the certainty units from the noncertainty units. We base these cutoffs on a statistical analysis of data from the 2012 Economic Census. Accordingly, these values are on a 2012 sales basis. We also used this analysis to determine the number of size substrata for each industry stratum and to set preliminary sampling rates needed to achieve specified sampling variability constraints on sales estimates for different industry groups. The size substrata and sampling rates are later updated through analysis of the sampling frame.

Sample Selection: Sample selection is a two-step process and begins by identifying the units selected with certainty. If a firm's annual sales or end-of-year inventories are greater than the corresponding certainty cutoff, we select that unit into the MWTS sample with certainty.

In the second step, we subject all units not selected with certainty to sampling. To be eligible for the initial sampling, a unit had to have nonzero payroll in 2014. We stratify the units according to their major industry and their estimated sales (on a 2012 basis). Within each noncertainty stratum, we select a simple random sample of units without replacement.

The U.S. Census Bureau consolidated seven annual surveys, including the Annual Wholesale Trade Survey (AWTS) into one survey forming the Annual Integrated Economic Survey (AIES) starting with the 2023 survey year. The AIES collects annual data for all company operations at one time integrating questions from previous existing surveys while covering various trades and industry specific content. With the introduction of AIES, the future MWTS sample will be selected independently of the AIES sample, meeting the design needs of the monthlies versus those of the

annual surveys.

Sample Maintenance: We update the sample to represent EINs issued since the initial sample selection. These new EINs, called births, are EINs, recently assigned by the Internal Revenue Service (IRS), that have an active payroll filing requirement on the IRS Business Master File. An active payroll filing requirement indicates that the EIN is required to file payroll for the next quarterly period. The Social Security Administration attempts to assign industry classification to each new EIN.

EINs with an active payroll filing requirement on the IRS Business Master File we refer to as “BMF active,” and EINs with an inactive payroll filing requirement as “BMF inactive.”

We sample EIN births on a quarterly basis using a two-phase selection procedure. To be eligible for selection, a birth must either have no industry classification or be classified in an industry within the scope of the Service Annual Survey, the Annual Wholesale Trade Survey, or the Annual Retail Trade Survey, and it must meet certain criteria regarding its quarterly payroll. In the first phase, we stratify births by broad industry groups and a measure of size based on quarterly payroll. We select and canvass a relatively large sample to obtain a more reliable measure of size, consisting of sales in two recent months and a new or more detailed industry classification code. We contact births by telephone if they have not returned their questionnaire within 30 days.

Using this more reliable information, in the second phase we subject the selected births from the first phase to probability proportional-to-size sampling with overall probabilities equivalent to those used in selecting the initial MWTS sample from the December 2015 Business Register. Because of the time it takes for a new employer firm to acquire an EIN from the IRS, and because of the time needed to accomplish the two-phase birth-selection procedure, we add births to the sample approximately nine months after they begin operation.

In general, we will include any new establishments that a firm acquires—even if under new or different EINs—into sample with the same sampling status as the original firm.

Each quarter, we check against the current Business Register to determine if any EINs on the survey have become BMF inactive. Typically, we do not canvass BMF inactive EINs during the reference month. Likewise, if any EIN on the survey were BMF inactive in a previous reference month and is now BMF active on the current Business Register, we again include these EINs in the canvass. In both cases, we only tabulate data for that portion of the reference year that these EINs reported payroll to the IRS.

Because births are not represented in the monthly survey until they go through the two-phase selection procedure, an interim procedure is used to account for births during the period of time between the onset of activity and the time of birth selection. This interim procedure consists of imputing data for all EINs currently in the monthly survey that go out of business but are still on the IRS BMF.

Births are added to the monthly survey in February, May, August, and November of each year. At the same time, inactive EINs are removed from the survey. To minimize the effect of births and inactive EINs on the month-to-month change estimates, we phase in these changes by

incrementally increasing the sampling weights of the births and decreasing the sampling weights of the inactive EINs in a similar fashion. In the first month, we tabulate the births at one-third their sampling weight and tabulate the inactive EINs at two-thirds their sampling weight. In the second month, we tabulate the births at two-thirds their sampling weight and tabulate the inactive EINs at one-third their sampling weight. In the third month, we tabulate the births at their full sampling weight and the inactive EINs are dropped (sampling weight equals zero).

Estimation procedures: Estimates of monthly sales and end-of-month inventories are derived from data collected in the MWTS. Each month, units in the MWTS sample are asked to report their sales and inventories data for the month just ending. Monthly totals are computed as the sum of weighted data (reported and imputed) for all selected sampling units that meet the sample canvass and tabulation criteria. The weight for a given sampling unit is the reciprocal of its probability of selection into the MWTS sample.

The monthly totals are then benchmarked to the latest totals from the Annual Wholesale Trade Survey (AWTS). Monthly totals will tentatively be benchmarked to the 2023 AIES estimates upon their release in early 2026.

Monthly total estimates for broad industry groups (e.g., 2-, 3-, and 4-digit NAICS levels) are computed by summing the benchmarked monthly totals for the appropriate detailed industries comprising the broader industry group.

Period-to-period (e.g., month-to-month) change estimates are computed using the benchmarked monthly totals.

Variances are estimated using the method of random groups.

Seasonal adjustment: Estimates are adjusted for seasonal variation and holiday and trading-day effects where appropriate using the X-11 filter-based adjustment procedure available in the Census Bureau's X-13ARIMA-SEATS (AutoRegressive Integrated Moving Average – Signal Extraction in ARIMA Time Series) program. Seasonal adjustment models are reviewed on an annual basis.

Reduce Burden: The survey offers online or telephone reporting to reduce any burden from filling out a questionnaire on paper. In addition, respondents are emailed 1-3 times a month to remind them of reporting which is the quickest way to communicate with a respondent. The email provides the link to access the reporting screen and has the username and password to ensure easy access to the reporting instrument.

The stratified random sample design used in the MWTS uses the least number of sampling units required to produce national level estimates with the desired level of reliability, thus minimizing respondent burden. Sales and inventories data are collected from wholesale units of all sizes. The effective sampling rate for the smallest businesses is 1 in 500. The selection of a new sample every five to seven years replaces about 95 percent of the small and medium-sized units that participate in the survey, thus minimizing respondent burden by redistributing reporting requirements. The latest sample was introduced in April 2018. Currently, there is not a scheduled reselection of the MWTS sample, although it is anticipated to be late 2026.

Furthermore, units are not required to maintain additional records. The data requested are

generally carried on existing company records. Carefully prepared estimates are acceptable if book figures are not available. Finally, interviewers use computers with interactive edits of response data to conduct follow-up and delinquent interviews, thus reducing the number of calls back to respondents.

The Census Bureau accepts data prepared on a company's own form. This relieves the respondent of the burden of posting data to a report form.

The Census Bureau also uses a Full Service Account Manager (FSAM) program to reach a chosen group of large companies that cross multiple surveys. MWTS has implemented the usage of this program in order to reduce respondent burden. The Account Manager is the primary contact with the company to streamline the company's reporting across multiple surveys. Companies included in this program receive correspondence that asks the respondent to reach out to their Census Account Manager for assistance completing the survey (Attachments 8, 10).

In addition to the FSAM program, the Census Bureau also utilizes alternative data sources to reduce respondent burden. Companies have the option to report consolidated data for their entire organization in a single submission. The Census Bureau then takes on the responsibility of breaking out the data by survey. This approach shifts the burden of survey-specific data segmentation from the company to the Census Bureau, streamlining the reporting process for respondents.

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.

Contacts have the option to receive an e-mail notification (Attachments 7, 8) of when the reporting period opens online or they can receive a mailed letter (Attachment 11). The letter is mailed to businesses the last business day of each calendar month, while the e-mail is sent out a couple business days later. Responses can be provided via mail, telephone, or Internet. The option to receive MWTS forms (Attachments 2, 3) by mail will be discontinued in late 2025, but general survey forms will remain available for print online.

After the initial contact to the reporting unit each month, nonresponse follow-up procedures are performed. Companies that opt to receive e-mail notifications can receive up to 3 follow-up emails (Attachments 9, 10) each month reminding them to report. Also, the National Processing Center in Jeffersonville, Indiana, performs a telephone follow-up for all units that have not responded by a certain date. The telephone follow-up is also used if units have not completely filled out the form or have reported questionable data that may be unacceptable for the wholesale sales and inventories estimates. Units that refuse to respond to the survey are called to convey the importance of their participation.

The Census Bureau has an "800" toll-free telephone number in Jeffersonville, Indiana, to permit respondents to call in data or ask questions without extra expense. A Frequently Asked Questions section on our website also provides respondents a simple way to obtain answers to their

questions. Respondents can also report online through the "Centurion" system, which allows respondents to report 24 hours a day, 7 days a week, at their convenience.

To help maximize response, we conducted specialized efforts with companies reluctant to participate in the survey. We conduct annual review of companies that have not reported in 6 months or more, researching new contacts and the business' status. Additionally, we conduct ongoing nonresponse research for companies that we are having difficulty contacting.

The FSAM and alternative reporting methods mentioned in question three also help maximize response as they make it easier for companies to report which in turn helps boost response.

- 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.**

We continuously edit the reported data and monitor procedures for collecting monthly wholesale sales and inventories data in an effort to reduce reporting burden and improve data quality. We also document respondent feedback on question clarity and any reported burden to inform improvements for future survey rounds.

- 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.**

Direct questions regarding statistical aspects can be directed to Deanna Weidenhamer, Chief of the Retail and Wholesale Surveys Statistical Methods Branch, Economic Statistical Methods Division, U.S. Census Bureau, (301) 763-7186.

Questions regarding data collection and planning or implementation of this survey can be directed to Emma Reburn, Chief of the Wholesale Indicators Branch, Economic Indicators Division, U.S. Census Bureau, (301) 763-0259.

Attachments

1. Copy of MWTS-L1 - Initial Letter
2. Copy of SM4217-A
3. Copy of SM4217-E

4. Centurion Login Screen
5. BEA Support Letter
6. Burden Statement Screen
7. Initial E-mail
8. Initial E-mail (Full Service Account Manager companies)
9. E-mail Reminder
10. E-mail Reminder (Full Service Account Manager companies)
11. Copy of MWTS L1F(D) - Monthly Letter
12. MWTS: June 2025 Press Release