

Frequently Asked Questions (FAQs)
COVID-19's Effects on June 2020 Monthly Reports on the
Manufacturers' Shipments, Inventories, and Orders (M3) Survey

Data Collection

Did the Census Bureau change its data collection procedures this month?

Yes. The Census Bureau utilizes a wide variety of collection methods for its surveys. Data, particularly from businesses, are collected on paper, online, fax, and through telephone interviews. Our National Processing Center (NPC) is responsible for mailing, faxing, data capture, responding to email messages, and handling inbound/outbound calls. Services offered by NPC have been limited to ensure employee safety. As a result, data collection is now occurring primarily via email requests and online reporting. Companies that have not responded may be contacted by staff in NPC or by an analyst from our headquarters.

How has the collection of the Manufacturers' Shipments, Inventories, and Orders (M3) data been affected?

Many businesses are operating in a limited capacity or have ceased operations completely. As a result, their ability to provide accurate, timely information to Census may be limited.

For the June 2020 Manufacturers' Shipments, Inventories, and Orders (M3) Survey, processing and data quality were monitored throughout the month and quality metrics fell within normal ranges for this survey.

How has companies switching to create new products changed data classification in the Manufacturers' Shipments, Inventories, and Orders (M3) survey?

Manufacturers who pivot to making goods other than their primary goods for a period of time are not reclassified into a different NAICS code based on the new products at this time. For example, if a manufacturer primarily makes motor vehicle parts (NAICS 3363) and switched to making medical equipment and supplies (NAICS 3391), the data are still being collected under motor vehicle parts (NAICS 3363).

Methodology

Were there any estimates withheld or delayed because of data collection problems?

No. All June estimates were released as scheduled.

Did the Census Bureau modify its usual estimation methods used to produce monthly manufacturing estimates for June 2020?

No. Standard estimation methods were used to produce all indicator estimates for June 2020.

Has the reliability of the monthly manufacturing estimates changed?

No. The coverage of the M3 survey panel in June 2020 was comparable to the coverage in prior months.

Seasonal Adjustment

Did the Census Bureau alter the procedures for developing seasonally adjusted estimates for monthly manufacturing data?

Yes. Similar to May, an alteration was made in an option in the Census Bureau's X-13ARIMA-SEATS seasonal adjustment software (the "additive outlier adjustment" option) for the June 2020 data month for some kinds of business. This was done in an effort to ensure that the published seasonally adjusted values fully include any immediate effects. These effects are not typical June effects and so should not be permitted to influence the seasonal factors for June and surrounding months. The altered option was applied to each kind of business whose June unadjusted value was found to be statistically untypical, as indicated by the appropriate t-statistic having a magnitude larger than a commonly used "critical value", and for which there were independent indications of an impact. Such indications confirm that a June survey value has an unusual potential to be untypical and justify the use of a standard critical value. In a usual month, every survey value is "blindly" tested, therefore a higher critical value is used, making it more difficult for the survey value to be classified as untypical.

What was the impact of altering the seasonal adjustment option (additive outlier adjustment) for the June 2020 data month?

The kinds of business that the alteration impacted may show a change in either direction from the prior month. For these kinds of business, if the current month values had been treated as typical, the program would have taken part of the change to be a seasonal effect and would have adjusted the data in a way that would have brought the adjusted percent change from the prior month to the current month closer to zero. Like in May, the altered option we used in June determined the changes in these kinds of business to be out of the ordinary. As a result, the May to June percent changes in the adjusted value were left further from zero.

How was the survey value for a kind of business determined to be out of the ordinary?

Each month, independent indications of how each kind of business performed are researched as part of our normal review of the estimates to detect reporting errors. This research includes, but is not restricted to, conversations with companies in our survey, a review of publicly available press releases from both companies and industry associations, and a review of other economic indicators.

For the last four months, the monthly value of a kind of business was considered to be out of the ordinary if it was found to be statistically untypical (as indicated by the appropriate t-statistic having a magnitude larger than a "standard" critical value) and independent sources indicated an impact.

Source: U. S. Census Bureau
Economic Indicators Division

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