

Frequently Asked Questions (FAQs)
COVID-19's Effect on the April 2021 Advance Monthly Retail Trade Survey

Data Collection

How has the collection of Advance Monthly Retail Trade Survey data been affected?

For the April 2021 Advance Monthly Sales for Retail and Food Services Report, processing and data quality were monitored throughout the month and quality metrics, including response rates, met the standards for publication.

Methodology

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

No. All estimates were released as scheduled.

Did the Census Bureau modify its usual weighting or estimation methods used to produce monthly retail estimates for April 2021?

No. Standard weighting and estimation methods were used to produce all indicator estimates for April 2021.

How did the Census Bureau treat companies that reported 0 sales in a given month?

Consistent with our normal processing, companies that temporarily closed and reported \$0 sales in a month would be tabulated with \$0 sales as long as the company was viewed to be representative of other companies in the same industry.

Has the reliability of the monthly retail estimates changed?

No. The reliability of the retail estimates as measured by the coefficients of variation for monthly totals and the standard errors for month-to-month change has not changed substantially. For the published industries, reported data for April 2021 exhibited variation similar to that measured by the 12-month medians.

Seasonal Adjustment

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

Yes. Consistent with our approach since March 2020, 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 April 2021 data month for some kinds of business. This was done in effort to ensure that the published seasonally adjusted values fully include any immediate effects. These effects are not typical April effects and so should not be permitted to influence the seasonal factors for April and surrounding months. The altered option was applied to each kind of business whose April 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 April 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 April 2021 data month?

The kinds of business that the alteration impacted may show a change in either direction from March. For these kinds of business, if the April 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 March to April closer to zero. The altered option we used determined the changes in these kinds of business to be out of the ordinary.

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.

This month, the April 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.

Additional Information

Are there additional Census Bureau resources available on the COVID-19 Pandemic?

Yes. The Census Bureau has created a [COVID-19 reference page](#) which includes links to relevant Census data sources.

Source: U. S. Census Bureau
Economic Indicators Division
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