

APPENDIX B: AGENCY'S RESPONSE TO THE REPORT

U.S. Department of Labor

Bureau of Labor Statistics
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MEMORANDUM FOR: CAROLYN R. HANTZ
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Date: 2023.09.29 16:16:28
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SUBJECT : Management Response to Office of Inspector General Draft Report
No. 17-001-23-11-001, *BLS Could Do More to Identify Data
Limitation and Increase Transparency*

This response addresses the Office of Inspector General (OIG) Report Number 17-001-23-11-001, "*BLS Could Do More to Identify Data Limitation and Increase Transparency*." The Bureau of Labor Statistics (BLS) appreciates the opportunity to review and provide comments.

In 2021, the OIG issued its Audit Workplan that stated the following objective for this audit:

This audit will focus on how efficiently and effectively BLS is able to obtain data necessary to produce the economic information it is required to produce, and if there are other sources to obtain the necessary data.

The BLS believes that the work and analyses conducted during this audit, as well as the Report, strayed from the overall objective stated above. The report acknowledges but does not consider BLS' efforts to obtain data in an era of declining survey response. Instead, the report focuses on the impact declining response had on the reliability of economic information developed by BLS. It suggests a lack of transparency regarding data limitations and makes recommendations that do not align with the Office of Management and Budget (OMB) Statistical Policy Directives.

OIG states in its report that they found response rates for the three surveys have declined over the past 10 years. This information is a known fact that was communicated to the OIG at the beginning of the audit and is now confirmed by the audit. Additionally, BLS publishes response rate information on our public website. We appreciate OIG's recognition that the decline in response to government surveys is not unique to BLS. As a statistical agency, this matter is at the forefront of our risk management and planning. We make every effort to mitigate this risk and inform the public of the data limitations we may encounter as a result.

Concerns about the audit and report

We have three primary concerns with the information included in the report: (1) some statements are not consistent with the evidence that BLS provided the OIG during audit fieldwork, (2) OIG implies that BLS misrepresented facts and analyses, and (3) the focus of and recommendations in the report are not aligned with the OMB statistical policy directives that guide BLS statistical programs.

- (1) Some statements in the report are not consistent with the information that BLS provided the OIG during audit fieldwork.
- On page 9, OIG states that BLS has not conducted a nonresponse bias analysis or imputation assessment for the U.S. Import and Export Price Indexes (MXPI). According to BLS quality review information that was provided to the OIG during fieldwork, a nonresponse bias study was completed in 2009 for MXPI. While a more recent study may prove useful, OIG's statement that BLS has not conducted a nonresponse study is not accurate for MXPI.
 - On page 10, OIG states that BLS did not inform users of the extent that imputations were used in the Consumer Price Index (CPI) and MPXI. The BLS worked diligently to inform the public about the effect of the pandemic on data collection and data quality. The BLS respectfully disagrees with the OIG's statement that data users were not made aware of how much BLS used imputed data. The BLS shared these outreach efforts with the OIG during the audit fieldwork.
 - During the COVID-19 pandemic, BLS provided [monthly updates](#) on the impact of response rates on published indexes. These updates are archived and accessible from the [BLS Website](#). From this webpage, the public can access the special monthly reports prepared by all BLS survey programs during each month that data collection and data quality were impacted by the pandemic. Specifically, regarding the CPI and the MXPI programs, monthly reports were published from March 2020 to January 2022 for CPI and April 2020 to December 2021 for MXPI. Furthermore, notices were included in each news release directing the public to these reports. These reports present information on response rates for major price indexes, comparing them to previous periods before and during the pandemic. The additional outreach and analyses were provided to inform the public on the impact that lower response rates have on the quality of the price indexes.
 - Detailed explanations on how CPI and MXPI impute missing price data due to nonresponse is described in the [BLS Handbook of Methods](#). During the pandemic, response rates were used as the common measure of quality, and the average knowledgeable data user who accessed this information understood that the imputation rate is roughly equivalent to the inverse of response rates.
 - BLS published, and continues to publish, [information on imputation](#) for the CPI. The OIG was made aware of this information during the audit fieldwork.

(2) OIG implies that BLS misrepresented facts and analyses.

- On page 2, OIG states, “Increased transparency with regard to potential data limitations is needed to ensure BLS survey users draw correct conclusions from the data when making critical decisions, such as policy changes that affect the American people.” BLS agrees that transparency and limitations with data should be communicated to data users. However, BLS disagrees with the OIG’s assumption that BLS is not communicating potential data limitations with the public. As described above, with evidence previously provided to OIG, and in the BLS Handbook of Methods, BLS provides ample communication regarding data limitations to data users.
- On page 12, OIG states that BLS “bypassed [...] controls meant to ensure information reliability.” BLS disagrees with this characterization and considers this statement misleading. The statement implies that BLS knowingly and intentionally published data that were unreliable and/or below the high standard of quality required for publication. In this report, the OIG maintains that these guidelines are precise cutoffs and that BLS ‘bypassed controls’ in the publication of some indexes. This statement is inconsistent with the evidence that BLS provided to the OIG, some of which is highlighted below.
- On page 12, OIG states that “the MXPI program published information that did not meet publication criteria.” The report draws attention to 18 price indexes published in 2021 that did not meet what the OIG defines as criteria. However, the OIG application of the word criteria is a misrepresentation of the steps taken and guidelines used to evaluate publishability of MXPIs. The mischaracterization is based on the meaning of the word ‘criteria,’ which was used by BLS in response to an initial round of questions. BLS clarified on subsequent occasions that these criteria are guidelines that contribute to the publication decision, but they are not the only determinants of publishability. BLS directed OIG to the BLS website where the discussion of guidelines and publishability are described in the [MXPI chapter of the Handbook of Methods](#).
- On page 12, OIG states “...in Calendar Year (CY) 2021, we determined BLS published 18 of 189 MXPI indexes (10 percent) that did not meet the coverage ratio requirement of its publication criteria.” BLS stands by the quality of the indexes that were published during the period and for the indexes that the OIG considers as not having adhered to publication criteria. BLS agrees that 2021 was a year during which response rates were at historic lows because of the pandemic. These unprecedented times required thoughtful consideration of the need to provide data to the public while also explaining the limitations of the data. During 2021, the MXPI program prepared monthly reports regarding the quality of indexes. These reports were shared with the OIG. In 2021, the MXPI program closely scrutinized the publishability of each index due to a loss of prices data during the pandemic. A section regarding publishability was included in each monthly report listing which indexes were suppressed due to poor quality. An example of these reports that were prepared from April 2021 until December 2021 is below:

<https://www.bls.gov/covid19/import-export-price-indexes-covid19-impacts-january-2021.htm>

Index Suppression

Publication quality is evaluated monthly and annually. Each month, the number of respondents contacted and prices requested varies. These changes occur as the market basket is updated

monthly to add new representative items and exclude items no longer traded and as respondents establish different schedules to report price changes. Information on the data collection process provides metrics to evaluate the number and representative share of prices that support index quality. Published indexes ensure confidentiality of respondents, sample representativeness, and robustness of coverage for items and companies.

The top-level price indexes continue to be representative of total trade. Detailed indexes face greater likelihood of suppression. If the number of prices collected is insufficient to support index publication, the index's publication is suppressed for the month(s) that insufficient price data are collected.

There were no indexes where the index value and percent changes needed to be suppressed in January 2021.

(3) Recommendations are not aligned with the [OMB statistical policy directives](#) that guide BLS statistical programs.

Throughout the report, the focus on publication quality is related to imputation rates. For example, on page 5, the relation between response rates and imputations is set out in the report by saying, "Despite BLS's efforts, response rates continued to decline and nonresponse increased." This sentence is followed by the conclusion, "Therefore, BLS used imputations to mitigate item nonresponse when analyzing labor market activity and distributing essential economic information to the public." This relation is repeated further down on the same page, "As rates declined, BLS increased the use of imputations, which could have introduced estimates that deviated from actual results."

Imputations and other forms of nonresponse adjustment are standard features of statistical programs to ensure data are representative of the population. BLS provided this information to OIG during fieldwork. OIG implies that BLS made the decision to increase the use of imputations due to nonresponse. BLS would like to clarify that, due to the nature of surveys, any time BLS cannot collect or does not receive data from respondents, survey response rates decrease, and the percentage of data imputed (implicitly or explicitly) will automatically increase.

The efforts in the report to give imputation rates equal billing with response rates have no precedent in OMB statistical guidelines. BLS provided a large amount of information regarding the inverse relationship between response rates and imputation rates, described the well-founded methodological approach to use imputation in index estimation, and questioned the focus of the analysis on imputation rates instead of response rates. Despite BLS input, the OIG has maintained its focus on imputation rates. To a data user, the transparency with which BLS provides response rate information is sufficient to address any concern about imputation. However, the OIG report appears to prioritize

imputation rates over response rates, when the response rate is the preferred measure of quality as defined in the OMB statistical policy guidelines.

Response to the OIG's recommendations

With regard to the four recommendations issued by the OIG, BLS management provides the following response:

Recommendation 1: Perform a nonresponse bias study or imputation assessment to determine if bias exists in the Consumer Price Index and Import and Export Price Index economic information due to the increased use of imputations.

Management Response: BLS concurs with this recommendation given the continued decline in survey response, although we note that the CPI's Commodities and Services response rates for cumulative FY23 are 70.1%, with the latest two quarters averaging over 71% and trending upward post-pandemic, while the CPI's Housing survey is still below 70% but trending upward. In FY24, BLS will develop a plan to address this recommendation for the CPI. In FY22, BLS began planning to conduct a new nonresponse bias study for the MXPI, which we expect to be complete by FY25.

Recommendation 2: Based on the nonresponse bias study or imputation assessment, establish, as applicable, a threshold at which Consumer Price Index and Import and Export Price Index must publicly disclose the amount of imputations used. Update program policies and procedures to include the established threshold and document how to publicly disclose when the threshold is met.

Management Response: The recommendation to establish a threshold for disclosure of the amount of imputation has no known standard in survey literature. However, to comply with the recommendation, BLS will carry out a nonresponse bias study or imputation assessment as requested for the two programs. Based on the results, BLS will engage with experts and the Office of Management and Budget to evaluate the use of thresholds for imputation and establish a transparent approach to communicate with the public regarding how imputations affect the quality of published data. BLS will update policies and procedures as necessary and in accordance with OMB guidance to address the approach.

Recommendation 3: Determine if the Calendar Year 2021 Import and Export Price Index coverage ratio improved and, if not, determine the appropriate course of action.

Management Response: BLS will evaluate the coverage ratio for 2021 data and determine what course of action is appropriate. Given the long-standing concern of coverage for published price indexes, MXPI had already begun major efforts before the OIG audit to address low coverage rates by using an administrative data source to replace a third of the sample. This project will greatly increase the coverage ratio of homogeneous product areas, and it will also allow for a reallocation of resources to strengthen data collection activities for heterogeneous product areas.

Recommendation 4: Update the Import and Export Price Index Handbook of Methods to include the publication criteria that ensures the index is representative of the population as well as what exceptions can be made.

Management Response: BLS will update the MXPI Handbook of Methods chapter to describe the publication quality and limitations of the indexes, while also assuring that any statement or description does not jeopardize the exposure of respondent identifiable information.

Conclusion

The BLS welcomes review of the quality of our official statistics. Our mission to collect, calculate, and publish official statistics on prices, productivity, working conditions, and the labor market is guided by the [Office of Management and Budget Statistical Policy Directives](#). BLS strives to vet its economic and statistical concepts and results through many venues, including Federal Register Notices; by presenting to academic and business data users, such as the American Economic Association and the National Association for Business Economics; by participating on and presenting to the Federal Economic Statistical Advisory Committee; and by clearing methodology and results through the BLS Technical Advisory Committee and the BLS Data Users Advisory Committee.

The original intent of the OIG's report was focused on *how efficiently and effectively BLS is able to obtain data* and then devolved into a study of response rates, which are a well-known and understood standard of survey quality. However, the OIG report's findings focus on imputation rates, which are commonly known to be highly inversely correlated with response rates, but of which the OMB statistical policies say little. The OIG recommendations are incongruent with OMB statistical policies that guide BLS survey programs. While the BLS can comply with the recommendations put forth by the OIG, the focus of the findings on imputation rates is not consistent with traditional measures of survey and data quality, and BLS stands by the current use of response rates to evaluate data quality. Since the OIG strayed from the original focus of the audit, no recommendations were provided that could help BLS to improve the efficiency or effectiveness of obtaining data or to identify new data sources.

BLS will address the OIG recommendations in the continued interest of transparency and accountability to our data users. BLS understands and appreciates the oversight role the OIG has to assure good governance of the programs under its purview. However, BLS respectfully disagrees with the characterization in the report that BLS did not, and does not, provide transparent information and bypassed controls regarding published data. BLS exists to provide gold-standard statistical measures to the public, and we are committed to the accuracy, integrity, reliability, transparency, and accountability in all our data and programs.

If you have any questions, please contact Leslie Bennett, OIG Audit Liaison, at bennett.leslie@bls.gov.

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