

Assessing Nonresponse Bias in the U.S. Import and Export Price Indexes Survey

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Abstract

The Bureau of Labor Statistics (BLS) has recently made great strides in mitigating survey nonresponse as a source of bias in the official U.S. Import and Export Price Indexes (MXPI) by calculating prices for homogeneous goods trade categories from administrative data reported by U.S. importers and exporters. These price estimates prior to 2025 were provided by participating sampled U.S. establishments in the international price survey. The increased use of administrative data comes at a crucial time as this voluntary survey experienced decreasing response rates before that date. The Office of Management and Budget (OMB) mandates that any federal survey with response rates below established guidelines performs a nonresponse bias analysis. To address this OMB mandate and before the transition to the administrative data source, BLS analyzed the relationships of available variates to response, compared survey collected prices to preliminary administrative data price estimates, and completed a comprehensive comparative analysis of price index values calculated using publication production weights and nonresponse adjusted weights. Nonresponse bias was found to be minimal due in large part to the way in which low-level weighting and aggregate structures that are used to calculate the price indexes dampen extreme stochasticity by design.

KEYWORDS: Nonresponse Bias; Predictor Screening; Nonresponse Adjusted Sampling Weights; Response Rates

1. Introduction

1.1 Purpose and Scope of Study

The Office of Management and Budget Standards and Guidelines for Statistical Surveys circa 2006 requires that nonresponse analysis studies be performed for federal statistical surveys when response rates fall below 80 percent for establishments (initiation) and 70 percent for items (repricing). The purpose of such a study is to appropriately measure, adjust for, report, and analyze unit and item nonresponse to assess their effects on data quality and to inform users. The BLS International Price Program (IPP) previously conducted a three-phase nonresponse study that examined price change data collected from four import and four export samples fielded between 2001 and 2004 (FitzGerald, 2009). This prior study identified variables statistically related to nonresponse and using these variables calculated an adjusted set of sampling weights to use in price index calculation for the period January 2006 to January 2007. Based upon the statistical analysis of the price indexes calculated with and without adjusted weighting, the final report concluded that nonresponse did not significantly affect the data quality of the official published Import and Export Price Indexes.

Between 2016 and 2024, establishment survey unit initiation response rates ranged between 40.5 percent and 71 percent across export samples and 47.4 percent and 76 percent across import samples.¹ Internally calculated item response rates ranged between 29 percent and 58 percent for exports and 32 percent and 59

¹ See <https://www.bls.gov/osmr/response-rates/>. Accessed 09/25/2025.

percent for imports for the same period. Consequently, the BLS prepared this nonresponse analysis study of the international price survey in order to analyze more recent unit and item nonresponse to assess their effects on the data quality of the MXPis. This analysis contains three phases: (1) the examination of the possible relationships between auxiliary variables and nonresponse, (2) price distribution comparisons between survey obtained prices and prices estimated using administrative data, and (3) the examination of differences of price index values using nonresponse adjusted aggregation weights and price index values calculated with nonadjusted weights.

This study is more comprehensive in that it examines potential nonresponse bias on 1-month and 12-month price index relatives over a 5-year period for three different product classification systems for both imports and exports. The previous study reported out on a 1-year period for 61 Harmonized System (HS) import price indexes while this report covers 238 Bureau of Economic Analysis (BEA) End Use price indexes, 252 HS price indexes, and 353 North American Industry Classification System (NAICS) price indexes. Unit nonresponse, where establishments do not participate in the survey at all, is a greater concern for the potential of nonresponse bias in price index estimates than item nonresponse since it is assumed that imputation appropriately adjusts for item nonresponse at participating establishments.

1.2 Survey Sampling Overview

The sampling universe for internationally traded goods and merchandise is made up of transaction data collected by the U.S. Customs and Border Protection (CBP) and, in the case of exports to Canada, from the Canadian Customs Service. The transaction records that make up the sampling frames contain company-level information, trade volume, dollar value of trade, and the HS code identifying the product being traded. Import and export records were both divided into two dollar-balanced sampling panels. Each year an import and export sample were drawn, alternating panels yearly, allowing for full universe resampling every two years.² Sampling strata were defined within each panel using product category groupings of HS codes. Establishments are then sampled within these strata based on their total dollar value of trade. Once establishments within strata are selected, classification groups (detailed product categories based on HS codes) are selected within these establishment-stratum combinations based on an adjusted dollar value of trade. The value of trade is adjusted to ensure adequate coverage for all published price index classification systems and to address known response factors such as frequency of trade and respondent burden. These establishment-classification group combinations, or sampling groups, can be selected multiple times within a stratum. The number of times each sampling group is selected becomes the number of price quotes requested. These quotes are selected in the final stage of sampling by field economists using a method known as disaggregation to identify actual items to obtain price quotes for.

1.3 Price Index Calculation Methodology

The BLS uses a Laspeyres-type, chained, Lowe price index formula to calculate the MXPI. Fixed trade dollar values are used as quantity weights and are updated on a lagged 2-year basis. Price index values are chained to the previous month by the current month's short term relative.

² The increasingly rapid availability of this transaction data, methodological advances in price index calculations, and survey cost savings led the IPP to replace directly collected survey responses with transaction data derived prices for large portions of their price indexes in February of 2025. Going forward, paneling has been eliminated allowing for full-universe samples specific to heterogeneous product areas to be fielded every two years by alternating yearly based on the direction of trade. Apart from the elimination of panels, sampling methodology will remain much the same.

The derivation of the formula used to calculate all U.S. Import and Export Price Indexes included in this study is as follows:

$$\begin{aligned}
P_t &= \left(\frac{\sum p_{i,t} q_{i,0}}{\sum p_{i,0} q_{i,0}} \right) (100) = \left(\frac{\sum \frac{p_{i,t}}{p_{i,0}} p_{i,0} q_{i,0}}{\sum p_{i,0} q_{i,0}} \right) (100) \\
&= \left(\frac{\sum w_{i,0} r_{i,t}}{\sum w_{i,0}} \right) (100) = \left(\frac{\sum w_{i,0} r_{i,t}}{\sum w_{i,0} r_{i,t-1}} \right) \left(\frac{\sum w_{i,0} r_{i,t-1}}{\sum w_{i,0}} \right) (100) \\
&= \left(\frac{\sum w_{i,0} r_{i,t}}{\sum w_{i,0} r_{i,t-1}} \right) (P_{t-1}) = (STR_t)(LTR_{t-1}),
\end{aligned}$$

where P_t = price index of collection of items at time t ,

$p_{i,t}$ = price of item i at time t ,

$q_{i,0}$ = quantity of item i in base period 0,

$w_{i,0} = (p_{i,0})(q_{i,0})$ = total revenue of item i in base period 0,

$r_{i,t} = \frac{p_{i,t}}{p_{i,0}}$ = long term relative of item i at time t ,

$STR_t = \frac{\sum w_{i,0} r_{i,t}}{\sum w_{i,0} r_{i,t-1}}$ = short term relative of collection of items at time t , and

$LTR_t = P_t$ = long term relative of collection of items at time t .

The price index aggregation structure used for each classification system begins at the bottom with **Items**. These are goods or services with unique price-determining characteristics. The next aggregate levels are **Weight Groups**, which are groupings of items for a particular business entity within a classification group. Imputation first occurs within weight groups. The next level of aggregation, the **Classification Group**, is the lowest level (or elementary) price index in an MXPI aggregation structure and consists of relatively homogenous products. Classification groups are then aggregated to **Lower-Level Strata**, which are then in turn aggregated to **Upper-Level Strata**.

Due to changing trade patterns, price indexes are reweighted annually. The weights used in the Laspeyres formula are the trade weights reported by the Census Bureau. As mentioned, these weights have a 2-year lag. For example, the weights for the price indexes for 2025 are based on the import and export trade weights from the 2023 calendar year.

1.4 Study Approach

Much of this nonresponse bias study was focused on the identification of auxiliary variables that were related to response and using those to calculate nonresponse adjusted sets of weights using a calibration procedure. Once the adjusted weights were calculated, price index values calculated using both the adjusted and nonadjusted weights could be compared. The differences between the means calculated using the nonadjusted sampling weights and the means calculated using the adjusted sampling weights is assumed to represent the level of nonresponse bias (Fitzgerald, 2009). An additional exploratory phase compared average prices collected by the BLS to prices derived from administrative data reported by U.S. importers and exporters.

2. Data and Identification of Analytic Variables

2.1 Sampling Frames

As mentioned, the MXPI sampling frames are derived from import and export trade transaction records collected by the CBP and received from the Census Bureau and contain company-level information, trade volume, dollar value of trade, and the HS code identifying the goods being traded. Import and export transactions were both divided into two sampling panels and each year an import and export sample were drawn, alternating panels yearly. Import and export samples are designated by a leading M or X respectively followed by consequentially advancing whole numbers.

The panel breakdowns by HS chapter, as defined by the first two-digits of the HS codes, for the samples used in this analysis are as follows:

Product areas sampled in M42, M44, and M46 (Panel A):

01-24 (food and vegetables), 41-83 (crude materials), 86-96 (vehicles, instruments, arms and ammunition, and miscellaneous items)

Product areas sampled in M41, M43, and M45 (Panel B):

25-40 (minerals, chemicals, plastics, and rubber) and 84-85 (machinery and appliances)

Product areas sampled in X42, X44, and X46 (Panel A):

01-24 (food and vegetables), 25-40 (minerals, chemicals & rubber), 41-83 (crude materials), and 90-96 (miscellaneous manufactures)

Product areas sampled in X41, X43, and X45 (Panel B):

84-85 (machinery and appliances) and 87-89 (vehicles & transport equipment)

Eight samples were initially analyzed to determine appropriate calibration variables for nonresponse weight adjustment calculations. For price index calculations, four more samples were used. The initial analysis samples (M41, M42, M43, M44, X41, X42, X43, X44) and the added samples (M45, M46, X45, X46) allow for three samples from each panel for both imports and exports. The combined sample reference period – the period for trade transaction records – for these 12 samples is July 2013 through December 2019 with survey fielding dates between June 2015 and January 2021. These 12 samples provide index pricing support during the years 2019 through 2023.

2.2 Variables of Interest

Certain sampling unit characteristics were chosen to analyze to better understand any underlying relationships with response outcomes. The characteristics considered included those from the last nonresponse bias study plus two additional covariates. These characteristics were establishment size, number of quotes requested, consistency of trade, survey collection region, predominant harmonized section of trade as determined by dollar value, certainty of selection status, and historical cooperation rate where available. These variables were chosen because they are available for both respondents and nonrespondents from IPP's sample and sample frame.

Establishment Size

As a representation of establishment size, the dollar value of sampled trade was calculated for all processed sampled establishments. Several different ways of categorizing establishment size – defining various levels of size categories within panel, within sample, and within panel-specific sampling stratum; treating the size as continuous, both log-transformed and untransformed data; etc. – were examined with no real difference in consistency or strength of relationship between establishment size and refusal rate. Results from a simple quintile categorization and the slopes of least squares fitted trend lines, treating establishment size categories as independent and refusal rate as dependent, are presented in Table 1.

After excluding out-of-scope (OOS) and out-of-business (OOB) establishments, size quintiles were

determined within sample and establishments were given a rating of one to five, where one was assigned to establishments with sampled trade falling at or below the upper bound of the first quintile for the particular sample, two given to those with trade strictly above the first quintile upper limit and falling at or below the upper limit of the second quintile and so forth. There exists a slight overall positive relationship between establishment size, as defined here, and rate of refusal for the samples examined. Establishments with larger sampled dollar values of trade tend to refuse at slightly higher rates. The relationship is inconsistent at the panel and sample level with negative relationships for samples M41, M44, and X42 and for Panel A exports.

Table 1. Refusal Rates by Establishment Size

Sample/Panel/Trade Type	Size Category Rates of Refusal					Trend Line Slope
	1	2	3	4	5	
M41	23%	28%	24%	23%	24%	-0.0035
M42	20%	28%	26%	25%	27%	0.0122
M43	29%	26%	30%	32%	31%	0.0092
M44	29%	27%	27%	24%	23%	-0.0141
X41	27%	28%	31%	34%	29%	0.0095
X42	40%	36%	31%	33%	31%	-0.0221
X43	22%	29%	31%	29%	32%	0.0201
X44	31%	27%	38%	34%	39%	0.0217
Panel A Exports	36%	32%	34%	33%	34%	-0.0022
Panel A Imports	24%	27%	27%	25%	25%	0.0004
Panel B Exports	25%	29%	31%	32%	30%	0.0145
Panel B Imports	26%	27%	27%	28%	27%	0.0027
Imports	25%	27%	27%	26%	26%	0.0016
Exports	31%	30%	33%	33%	32%	0.0057
Combined	27%	29%	29%	29%	29%	0.0032

Categorical analysis provides similar results with extremely low goodness-of-fit statistics by panel. Treating the dollar value of trade as continuous, both untransformed and log transformed, shows little relationship with only some model intercepts exhibiting statistical significance.

Number of Quotes Requested

The number of price quotes requested is often seen as a possible determinate of cooperation. A lesser burden for the respondent is believed to encourage cooperation. In summary, this relationship is seen only weakly in the samples examined and is inconsistent depending on the type of model used and different quote number categorizations.

The mean number of quotes requested is approximately 6.9 over all considered samples. When excluding out-of-scope and out-of-business establishments, the mean number of quotes requested rises to 7.2. In five of the eight samples, refusal establishments had higher means for the number of quotes requested as compared to the mean number of quotes requested for cooperative establishments.

Figure 1. Refusal Rates by Number of Quotes Requested

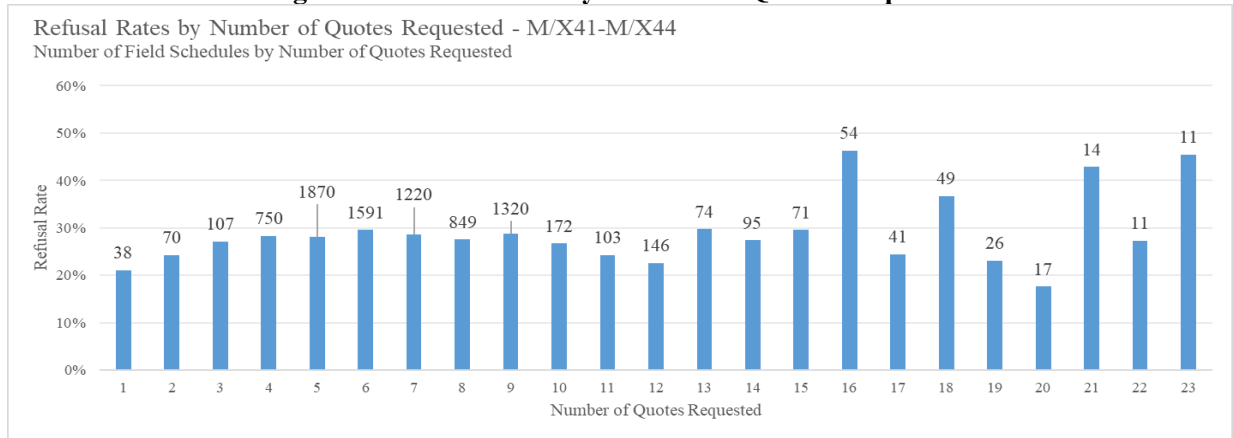
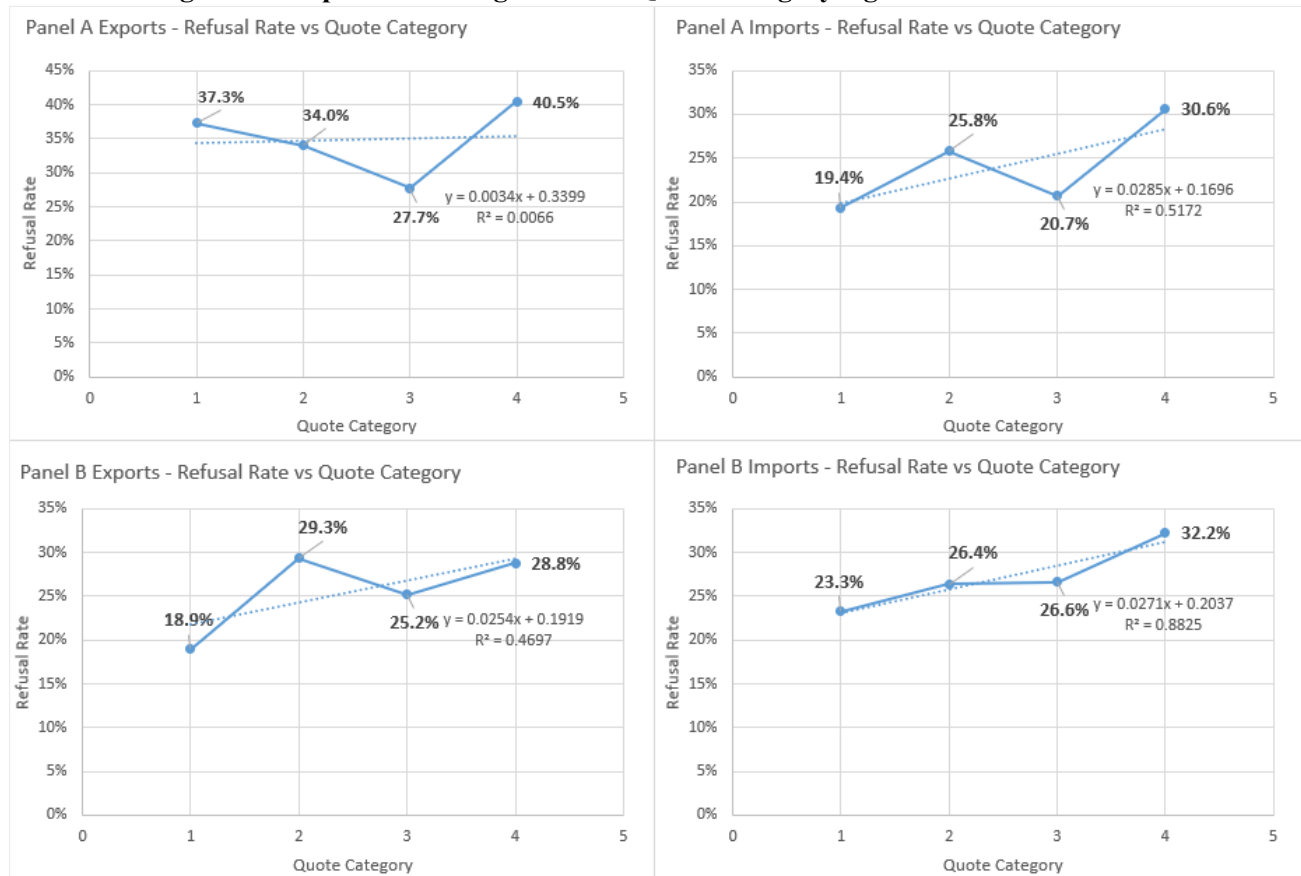


Figure 1 shows the results for the eight preliminary analysis samples and includes only field schedules resulting in cooperative and refusal national office outcomes. Bar heights represent the refusal rate at each particular number of quotes requested with the bar labels representing the number of field schedules that had that particular number of quotes requested. Refusal rates increase from one to four quotes requested, are nearly the same for schedules with 4 to 9 quotes (hovering just under 30 percent), then decreases for quotes requested 9 to 12, and vary widely between 12 and 23 quotes. Refusal rates after 23 quotes depend on too few field schedules to have much meaning and are not included.

The number of quotes with relation to national office outcome was examined by (1) treating quote categories and refusal rates as continuous; (2) treating the number of quotes and refusal rate as continuous variables; (3) logistically, treating the actual number of quotes as a continuous regressor and outcome as a categorical response; and (4) with contingency analysis by treating quote categories as ordinal and outcomes as nominal.

To ensure an adequate number of field schedules within each category, the categories used in Figure 2 were created for the number of quotes requested as follows: field schedules with quotes requested less than or equal to 3 were given a category designation of 1, a designation of 2 was given to schedules with quotes requested greater than 3 and less than or equal to 9, designation 3 was given to schedules with quotes requested greater than 9 and less than or equal to 15, and finally schedules with quotes requested greater than 15 were given a designation of 4. When considering all samples together and by trade type panels as in Figure 2, simple linear regression shows an increase in the refusal rate as the number of quotes requested increases. Summarizing the analysis by sample, linear regression shows positive relationships between quote requested categories and refusal rate for most samples considered, with the exceptions of M43, X41, and X42.

Figure 2. Simple Linear Regression of Quote Category Against Refusal Rate



Looking at simple linear regression of refusal rates by number of quotes requested (with no categorization) gives mixed results; Panel A exports and Panel B imports models show decreased refusal rates with increased quotes requested. Models were also run excluding those few field schedules with the number of quotes requested greater than 20 with little effect.

Although not presented here, when logistic regression was used to model national office outcome based on the number of quotes requested, we saw very weak models with small negative log likelihood differences translating to near-zero pseudo R-squares. These models weakly suggested that both import panels have refusal rates that increase with the number of quotes requested and both export panels have refusal rates that decrease with the number of quotes requested.

Contingency analysis adds nothing more except to reinforce that most field schedules request 4 to 9 quotes (Category 2) and the expectation of refusal does not vary widely in this category.

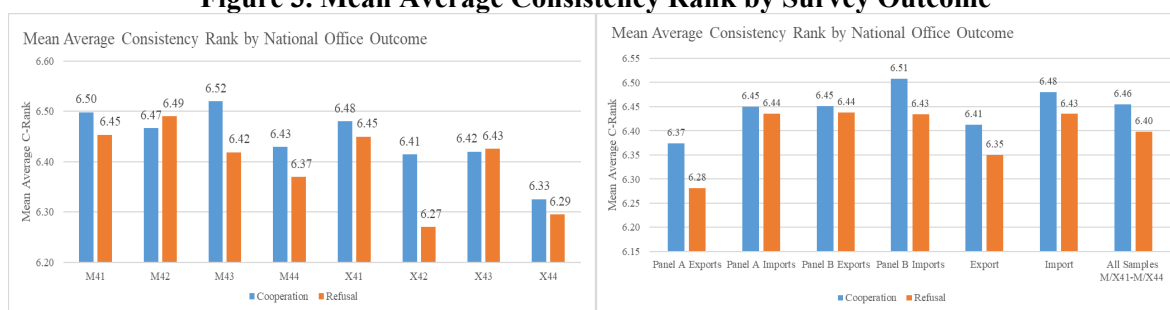
Consistency of Trade

Consistency of trade is a weak but significant factor when modeling national office outcome. For analysis, field schedules selected from the sample frame were assigned an average consistency rank over all sampled entry level index items, a minimum consistency rank, and a maximum consistency rank. Consistency ranks range from 1 to 7 and are a function of the number of months with active trade and the number of quarters with active trade during the sample reference period. Consistency ranks are assigned as follows: a consistency rank of 1 for trade in 1 month; 2 for trade in 2 months in 1 or 2 quarters; 3 for trade in 3 months in 1 or 2 quarters or trade in 4 months; 4 for trade in 3 or 4 months in 3 quarters or trade in 5 or 6 months in 2 quarters; 5 for trade in 5 to 8 months in 3 quarters or trade in 4, 5, or 6 months in 4 quarters; 6 for trade

in 9 months in 3 quarters or trade in 7 or 8 months in 4 quarters; or 7 for trade in 9 months in 4 quarters or trade in 10 or more months.

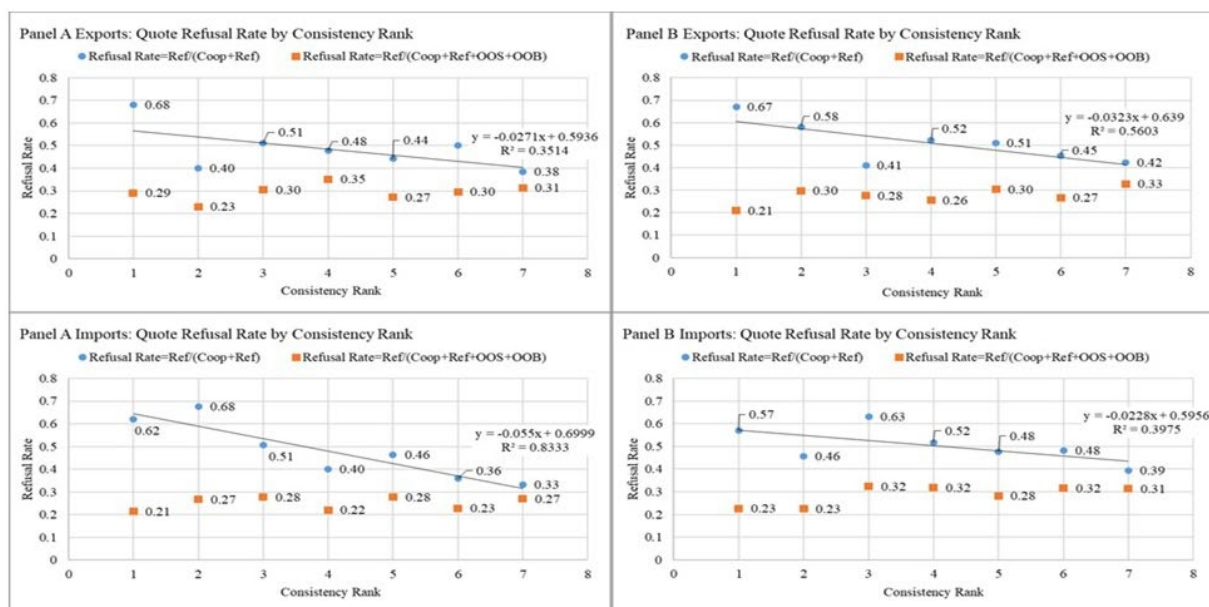
When considered at the panel and trade type levels, the mean average consistency rank was lower for field schedules that resulted in refusals for all these groupings. Looking at sample-level results, the mean average consistency ranks for establishments resulting in refusals was lower for six of the samples and higher for one import (M42) and one export (X43) (Figure 3).

Figure 3. Mean Average Consistency Rank by Survey Outcome



When considering the quote-level refusal rate, calculated as the number of quote-level refusals divided by the number of cooperative plus refusal quotes, all panels show a decrease in unit refusal rates with increased consistency ranks. Panel A imports show the greatest decline in refusal rate with increasing consistency rank, while Panel B imports show the smallest rate of decline in refusal rates (Figure 4).

Figure 4. Simple Linear Regression of Consistency of Trade Against Refusal Rate



Logistic regression at the national office level results in odds ratios greater than one, implying unit increases in average consistency result in increased cooperation, for all four panels with Panel B imports and Panel A exports showing – although still very weak – the strongest relationships.

Region

Although differences in response rates between regions are often assumed to be due to the different types

of trade in the different regions, rates were tabulated at the quote-level by sample and region and logistic regression models (predicting only cooperation or refusal) were also run for each import and export panel and for all samples combined.

The quote-level cooperation rate for region 9, the National Office, is extremely low. Much of this is due to the process chosen to close out samples that had been difficult to collect. The refusal comment was ‘no interview by sample deadline’ for slightly over 60% of unit disposition codes in region 9, the majority of which falls into samples X42 and X44 (Table 2).³

Table 2. Quote Level Response Rates Samples M/X41-M/X44

Quote Level Response by Region – Samples M/X41-M/X44										
Region	Cooperative Quotes	Refusal Quotes	Out-of-Business Quotes	Out-of-Scope Quotes	Total Quotes	Coop/ Total	Ref/ Total	OOB/ Total	OOS/ Total	Cooperation Rate
1	3816	2287	221	2002	8326	46%	27%	3%	24%	63%
3	5430	3207	158	2831	11626	47%	28%	1%	24%	63%
4	5177	4084	273	2764	12298	42%	33%	2%	22%	56%
5	7976	5548	44	3301	16869	47%	33%	0%	20%	59%
6	4844	3257	137	2072	10310	47%	32%	1%	20%	60%
8	8295	5096	342	2800	16533	50%	31%	2%	17%	62%
9	684	3264	0	315	4263	16%	77%	0%	7%	17%
All	36222	26743	1175	16085	80225	45%	33%	1%	20%	58%
All Excluding Region 9	35538	23479	1175	15770	75962	47%	31%	2%	21%	60%

Excluding region 9 produces a logistic regression model over all samples combined with a misclassification rate of 52%. Within panel, results were similar in terms of goodness-of-fit statistics.

Similar analysis was performed for the initial fielded region as opposed to the final region of collection. After excluding all sample units either initially fielded to region 9 or transferred to region 9, the degree of mismatch between initial fielded region and region of collection is approximately 11.12%. The logistic regression model for fielded region had a misclassification rate of 26.2% and an R-square value of 0.0041.

Harmonized Section of Trade

Field schedules were assigned a predominant section of harmonized trade based on the sum of their sampled trade dollar value. Exporters with predominate sampled trade in plastic and rubber had the highest refusal rate (41%), while importers of live animal and animal products had the lowest refusal rate (12%). Contingency table analysis along with logistic models show little to no relationship between section of trade and cooperation.

³ When a sample is closed out, outstanding schedules from the regions are generally sent to the National Office in order to be written-off as refusals – no interview by sample deadline.

Table 3. Refusal Rates by Predominate Area of Trade Samples M/X41-M/X44

Panel	Section	Section Description	Cooperation		Refusal	
			N	Rate	N	Rate
Panel A Exports	1	Live animal and animal products	56	72%	22	28%
	2	Vegetable products	85	87%	13	13%
	3	Animal and vegetable fats	6	86%	1	14%
	4	Prepared foodstuffs, beverages, spirits, tobacco	81	68%	39	33%
	5	Mineral products	112	63%	67	37%
	6	Chemical or allied products	252	63%	149	37%
	7	Plastic and Rubber	104	59%	73	41%
	8	Hides, leather products	8	73%	3	27%
	9	Wood	21	72%	8	28%
	10	Wood pulp, paper	54	68%	25	32%
	11	Textiles	41	64%	23	36%
	12	Footwear, apparel accessories	4	67%	2	33%
	13	Articles of stone, ceramics, glass	23	68%	11	32%
	14	Jewelry	40	77%	12	23%
	15	Base metals	114	64%	65	36%
	18	Instruments and apparatus	141	65%	76	35%
	19	Arms and ammunition	3	75%	1	25%
	20	Miscellaneous	35	67%	17	33%
Panel A Imports	1	Live animal and animal products	101	88%	14	12%
	2	Vegetable products	152	83%	31	17%
	3	Animal and vegetable fats	16	73%	6	27%
	4	Prepared foodstuffs, beverages, spirits, tobacco	168	80%	43	20%
	8	Hides, leather products	43	78%	12	22%
	9	Wood	50	81%	12	19%
	10	Wood pulp, paper	47	72%	18	28%
	11	Textiles	238	69%	107	31%
	12	Footwear, apparel accessories	80	75%	26	25%
	13	Articles of stone, ceramics, glass	57	70%	25	30%
	14	Jewelry	50	81%	12	19%
	15	Base metals	268	69%	121	31%
	17	Vehicles and transport equipment	236	78%	65	22%
	18	Instruments and apparatus	212	74%	76	26%
	19	Arms and ammunition	4	67%	2	33%
	20	Miscellaneous	229	70%	99	30%
Panel B Exports	16	Machinery	889	71%	371	29%
	17	Vehicles and transport equipment	261	72%	102	28%
	5	Mineral products	173	70%	75	30%

Panel	Section	Section Description	Cooperation		Refusal	
			N	Rate	N	Rate
Panel B Exports	6	Chemical or allied products	413	72%	163	28%
	7	Plastic and Rubber	186	71%	75	29%
	16	Machinery	1276	74%	438	26%

Certainty of Selection

If any establishment under a particular field schedule was selected with certainty, the company represented by the field schedule was said to have been selected with certainty as well.

Table 4. Refusal Rates by Certainty of Selection M/X41-M/X44

Panel/Sample/ Trade Type	Certainty Status (0=No, 1=Yes)	Cooperation		Refusal	
		N	%	N	%
Combined	0	4950	71.2%	2004	28.8%
	1	1379	73.6%	496	26.5%
Panel A Exports	0	975	65.5%	513	34.5%
	1	205	68.6%	94	31.4%
Panel A Imports	0	1655	73.5%	596	26.5%
	1	296	80.2%	73	19.8%
Panel B Exports	0	893	70.2%	380	29.9%
	1	257	73.4%	93	26.6%
Panel B Imports	0	1427	73.5%	515	26.5%
	1	621	72.5%	236	27.5%
M41	0	763	76.3%	237	23.7%
	1	313	74.2%	109	25.8%
M42	0	911	73.9%	321	26.1%
	1	168	80.0%	42	20.0%
M43	0	664	70.5%	278	29.5%
	1	308	70.8%	127	29.2%
M44	0	744	73.0%	275	27.0%
	1	128	80.5%	31	19.5%
X41	0	472	69.9%	203	30.1%
	1	131	72.0%	51	28.0%
X42	0	529	65.4%	280	34.6%
	1	112	67.1%	55	32.9%
X43	0	421	70.4%	177	29.6%
	1	126	75.0%	42	25.0%
X44	0	446	65.7%	233	34.3%
	1	93	70.5%	39	29.6%

Panel/Sample/ Trade Type	Certainty Status (0=No, 1=Yes)	Cooperation		Refusal	
		N	%	N	%
Imports	0	3082	73.5%	1111	26.5%
	1	917	74.8%	309	25.2%
Exports	0	1868	67.7%	893	32.3%
	1	462	71.2%	187	28.8%

Looking at the cooperation proportions for certainty vs noncertainty for all samples combined, the classic Z-test indicates we should reject the null hypothesis of equivalent proportions at the 0.05 significance level with a p-value of 0.0437. At the panel level, only Panel A Imports has a p-value less than 0.05. Chi-square tests results for association, by panel and all samples combined were also performed with similar results.

Historical Cooperation Rate

A measure of historical cooperation was calculated for sampled establishment by first querying their response history, then excluding the samples used for this study, calculating a historical rate of cooperation and refusal for each sampled establishment, and then matching these back to the study establishments. The cooperation rates for establishments with no historical rate of cooperation were coded as missing.

For those establishments with an assigned historical cooperation rate, the fitted logistic model had an entropy R-square of 0.1090 and a misclassification rate of 19.5%. This is simply the actual rate of refusal for these establishments – the model predicts cooperation for all establishments with history. Fitting the logistic regression again using only establishments with history gives a negative entropy R-square of 0.405, with a misclassification rate of 21.6% - which is worse than just predicting cooperative for all establishments with history.

Multivariate Analysis

To help determine variables to include in potential multivariate models, predictor screening was performed on the variables discussed above and on various “categorized” versions of these variables. Predictor screening can identify predictors that might be weak alone but strong when used in combination with other predictors. Survey disposition codes are 3-digit codes that indicate different types of cooperation, refusal, out-of-business, out-of-scope survey collection outcomes. The first digit tells the overall outcome with the next two digits designating a more detailed outcome. Screening was performed at the 1-digit unit disposition level, with the lowest disposition code selected from multiple quote outcomes within a sampled entry level item. For instance, a sample unit with 3 quotes requested for a single-entry level item may have 1 productive quote and 2 quotes coded nonproductive due to company burden. Retaining the lowest unit disposition code chooses productive over nonproductive. The predictor screening used performs random forest partitioning to evaluate the contribution of predictors on the response. The partition models are built on multiple predictors.

Using sampling stratum as a nominal regressor and consistency rank indicator variables (value coded zero or one for each of the 7 levels of consistency rank) proved to produce one of the best models. Since the vast majority of quotes have a consistency rank of 7, models that coded consistency rank based only on if they were a 7 or not were also examined, but models performed better by including all levels of consistency rank. Sampling stratum and number of quotes requested, which it is important to remember is positively related to consistency rank, presented a similarly performing model.

2.3 Selected Calibration Variables

In the above analysis, we had three significant variables that showed differences in terms of response – region, stratum, and consistency rank. Since collection region is highly correlated with stratum (different states import and export different goods) and how the samples are fielded (difficult to collect sample units are often sent back to the national office), we will only calibrate the survey weights to match stratum and consistency rank population totals from both respondents and nonrespondents.

3. Comparison of Survey Collected Prices to Prices Derived from Administrative Data

As the MXPI moved to replace much of their pricing data with administrative data, extensive research was conducted to adopt methodology on price formation. By creating index specific “bundles” of transactions based on auxiliary variables, the MXPI was able to create average prices that very accurately measure price trends (Chessa, 2021). During this research, data records for both past MXPI respondents and nonrespondents were identified and price comparisons were analyzed for more homogeneous trade areas.

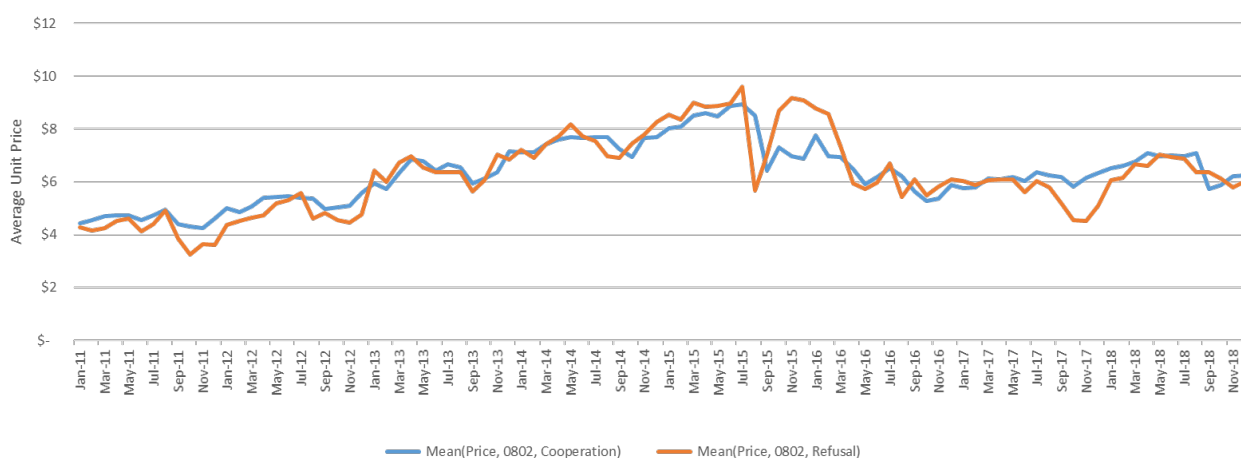
The MXPI is in a unique position because of its use of a census of international trade data that includes not only value and quantity in order to calculate unit prices, but enough other transactional information to allow the formation of elementary items. Business entities that both cooperate in the MXPI survey and those that refuse are both easily found within this trade data. Respondent establishment identification numbers (EINs) were matched to the dataset of international trade records and price levels for respondents and nonrespondents were examined and compared within a few select areas. The limited comparisons examined showed strong and consistent comparability between respondents and nonrespondents quantity weighted price levels in homogenous areas and areas with many prices. In areas with a small number of sampled company-items combinations, the available price information was sparse, but results were still informative. Although this is not the comparison of indexes using the subsets of respondents and nonrespondents and their sampled weights, quantity weighted price levels for very homogeneous areas performed well.

For example, looking at just the HS for export almonds (0802120000), the average prices reported by respondents and nonrespondents trended together, with perhaps slightly more volatility in prices seen from refusal nonrespondents. Comparing the respondent and nonrespondent monthly price series over the years 2011 through 2018 resulted in a Pearson correlation coefficient r value of 0.97.

Moving up the index tree structure within nuts provides a comparison that still shows consistency for all product groups using simple average prices. With export almonds constituting 43.5% of stratum D0802's weight for map year 2019, the average price levels still trend together (Figure 5).

Figure 5. Export Nuts Price Levels for Respondents (Cooperation) and Nonrespondents (Refusals), Jan 2011-Dec 2018

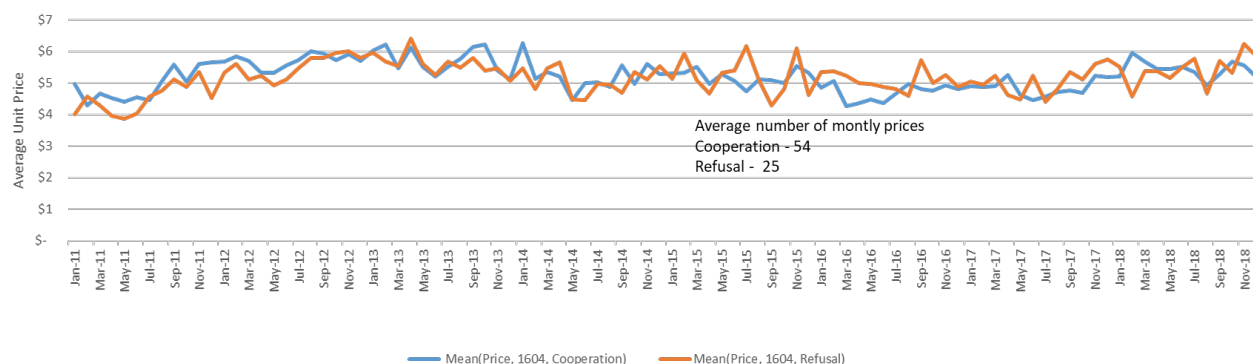
HS 0802 – D0802 Nuts nesoi, fresh or dried



Another example in a more diverse area, but with similar economic inputs, import prepared fish had enough monthly prices and was still homogenous enough to give a good, if more volatile, comparison (Figure 6).

Figure 6. Import Fish Price Levels for Respondents and Nonrespondents, Jan 2011-Dec 2018

Import HS 1604 - P1604 Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs



As the analysis moved into areas that were less homogenous and with fewer available prices from sampled company-item combination, visual comparisons began to fail but often performed better than expected for simple average price levels with no monthly imputation at the item level. Not all trade areas lend themselves to calculating and comparing price levels, due to non-homogeneity and sparsity of sampled companies, but there were enough areas to examine nonresponse bias in this novel way.

4. Nonresponse Weight Adjusted Index Comparisons

In order to calculate a nonresponse adjusted set of sampling weights, a procedure called calibration was used. In survey sampling, when a sample is drawn according to a complex sample design, data from both response variables and auxiliary variables are collected. The auxiliary variables in our case are the variables from the frame, which are known for both respondents and nonrespondents. The key to constructing a set

of calibration weights is to solve linear (or nonlinear) equations that are defined by the population and the sample weights should match them. As stated earlier, the survey weights were calibrated to match stratum and consistency rank “population” totals from both respondents and nonrespondents. The specific calibration procedure used is outlined by An (2020).

4.1 12-Month Long Term Relative Differences

Five years’ worth of price index values for the three published classification systems were calculated with and without weight adjustments. Minimum, maximum, and mean differences were computed for 12-month long term relative (LTR) price index percent changes along with the skewness and kurtosis of the distribution of differences between the calibrated and uncalibrated price index series. It is expected that indexes without significant nonresponse bias would have differences that were approximately normally distributed and tightly centered at zero. If the differences between the weight adjusted indexes and the unadjusted indexes are normally distributed, it implies that the errors are at random and that there is no underlying pattern causing consistent overestimation or underestimation of the indexes.

Results were similar across the three classification systems; differences were minimal with mean differences near zero. Price indexes related to paper products (R111, R11110, P48, Y32211) and rubber products (Y3262, Y32621, D4011, Q12700) across all three systems did exhibit substantially nonnormal distributions for the 12-month percent change differences.

For the 229 BEA End Use indexes examined, 11 price indexes had difference distributions that were substantially nonnormal with skewness values greater than 2 or less than -2 (Hair et al., 2010). Kurtosis was also examined with similar results; 15 price indexes had absolute kurtosis values greater than 7 (Table 5). The full results for published BEA End Use price indexes can be found in Appendix A Table A-1.

Table 5. BEA End Use Price Indexes with Magnitude of Skewness >2 for 12-month LTR Differences

BEA End Use Stratum Description	Stratum	LTR 12-month Percent Change			
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences
Fuel oil	Q11110	-3.7%	1.1%	-0.2%	-3.33
Other petroleum products	Q11120	-0.8%	1.8%	-0.2%	2.39
Synthetic rubber-primary	Q12700	-0.2%	0.0%	0.0%	-4.20
Apparel, footwear, and household goods	Q400	0.0%	0.0%	0.0%	3.06
Newsprint & other paper products	R111	0.0%	0.3%	0.1%	2.12
Coated and uncoated paper/paperboard	R11110	0.0%	0.3%	0.1%	2.10
Textile supplies & related materials	R121	0.0%	0.1%	0.0%	2.32
Synthetic cloth, fabric, and thread	R12135	0.0%	0.2%	0.0%	3.82
Finished textile industrial supplies	R12150	0.0%	0.1%	0.0%	2.39
Laboratory testing and control instruments	R21600	-0.1%	0.1%	0.0%	-2.16
Radios, phonographs, and tape decks	R41210	-0.1%	1.2%	0.2%	2.60

Note: Export price indexes are labeled with a Q and import price indexes are labeled with an R.

The two price indexes with the largest differences, Q11110 *Fuel oil* and Q11120 *Other petroleum products* were partially supported by secondary source pricing data, with *Fuel oil* secondary source pricing support at approximately 80 percent and *Other petroleum products* at just under 40 percent. Both indexes’ price source were completely replaced by administrative trade data as of January 2025. Of the 11 price indexes found to have substantially nonnormal differences, all but two (R21600 and R41210) were replaced completely by administrative sourced prices.

For the 216 Harmonized System price indexes examined, six indexes had differences that were substantially nonnormal but were very small in size (Table 6). *Beverages, spirits, and vinegar* (D22) had approximately 46 percent of its pricing source data, by weight, replaced with administrative trade data. D4011 *New*

pneumatic tires of rubber replaced 61 percent, P48 *Paper and paperboard; articles of paper pulp, paper or paperboard* replaced nearly 100 percent, and P6402 *Footwear, with outer soles and uppers of rubber or plastics* replaced 100 percent. The full results for published price indexes can be found in Appendix A Table A-2.

Table 6. HS Price Indexes with Magnitude of Skewness >2 for 12-month LTR Differences

Harmonized Classification System Stratum Description	Stratum	LTR 12-month Percent Change			
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences
Beverages, spirits, and vinegar	D22	-0.3%	0.1%	0.0%	-2.43
Beauty or make-up and skin-care preparations	D3304	-0.1%	0.0%	0.0%	-2.01
New pneumatic tires of rubber	D4011	0.0%	0.3%	0.0%	2.63
Paper and paperboard; articles of paper pulp, paper or paperboard	P48	0.0%	0.2%	0.0%	2.73
Footwear, with outer soles and uppers of rubber or plastics	P6402	-0.5%	0.4%	0.2%	-2.08
Microphones & stands; audio/sound amps; speakers; & headphones	P8518	-0.1%	1.2%	0.2%	2.65
Note: Export price indexes are labeled with a D and import price indexes are labeled with a P.					

For NAICS indexes, 12 of the 307 published indexes examined showed substantial nonnormality in the distribution of differences (Table 7). Of these, four began utilizing fully administrative data sourced prices. Similar to the results for the other two classification systems, the adjusted and unadjusted NAICS indexes did not significantly diverge at any point. The full results for published indexes can be found in Appendix A Table A-3.

Table 7. NAICS End Use Price Indexes with Magnitude of Skewness >2 for 12-month LTR Differences

North America Industry Classification System Stratum Description	Stratum	LTR 12-month Percent Change			
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences
Fruit and vegetable preserving and specialty food manufacturing	Y3114	0.0%	0.0%	0.0%	-2.17
Pulp mills	Y32211	0.0%	0.5%	0.1%	2.80
Rubber product manufacturing	Y3262	0.0%	0.1%	0.0%	3.68
Tire manufacturing	Y32621	0.0%	0.3%	0.0%	2.65
Glass and glass product manufacturing	Y3272	-0.9%	0.0%	-0.1%	-2.80
Fabricated metal product manufacturing	Y332	-0.2%	0.1%	0.0%	-2.21
Analytical laboratory instrument manufacturing	Y334516	0.0%	0.0%	0.0%	5.91
Oil and gas extraction	Z211	-0.6%	0.2%	0.0%	-4.58
Breweries	Z31212	-0.1%	0.0%	0.0%	-2.01
All other chemical product and prep. manufacturing	Z32599	-0.2%	0.0%	0.0%	-2.10
Switchgear and switchboard apparatus manufacturing	Z335313	-1.1%	-0.5%	-0.6%	-2.22
Heavy duty truck manufacturing	Z33612	0.0%	0.0%	0.0%	-2.30
Note: Export price indexes are labeled with a Y and import price indexes are labeled with a Z.					

4.2 Short Term Relative Differences

The differences between the short-term relatives (STRs) for the adjusted and nonadjusted price indexes were also examined. The STR differences were examined as 5-year series and as single year series. For the 5-year series of STR differences the Student's t-test was used to test the null hypothesis that the mean of these differences was zero. In addition to administrative data supported indexes, price indexes that were published for less than five years were excluded from the 5-year series analysis. For the single year series, the Wilcoxon signed rank test was used to test this hypothesis due to the smaller sample size of only twelve months.

The t-test for the five years' worth of BEA STR differences failed to reject the null hypotheses for 96 percent of the published import price indexes and 95 percent of the published export price indexes at the

0.05 level. With regard to magnitude of change, about 63 percent of the price index estimates differed on average by a tenth of a percent or less. Approximately 89 percent of the price indexes were within 0.2 percent of each other and 99 percent of the price indexes differed by 0.4 percent on average or less. See Appendix B Table B-1.

The t-test for the five years' worth of Harmonized System STR differences failed to reject the null hypotheses for 94 percent of the published import price indexes and 95 percent of the published export price indexes at the 0.05 level. Approximately 94 percent of the price index estimates differed on average by a tenth of a percent or less. See Appendix B Table B-2.

For the five years' worth of NAICS STR differences, the t-test failed to reject the null hypotheses for 96 percent of the published import price indexes and 96 percent of the published export price indexes at the 0.05 level. Approximately 94 percent of the price index estimates differed on average by a tenth of a percent or less. When looking at the absolute maximum differences, 87 percent of price indexes have differences of less than 0.5 percent for all five years of STRs. See Appendix B Table B-3.

The final test of price index differences used yearly sets of STRs and tested the equivalence of the medians to zero using the Wilcoxon signed-rank test. The percentage of price indexes that failed to reject the null hypothesis, that the median of pairwise differences is different from zero, at the 0.05 level are presented in the summary table below (Table 8) with full yearly results for each index classification system in Appendix C.

Table 8. Price Indexes with Wilcoxon Signed-Rank Test P-value \geq .05 for 1-month STR Differences

Number and Percentage of Indexes with Wilcoxon Signed-Rank Test P-value \geq .05										
Indexes/Year	2019		2020		2021		2022		2023	
BEA Exports	100 of 104	96%	100 of 105	95%	90 of 100	90%	91 of 97	94%	79 of 85	93%
BEA Imports	109 of 122	89%	112 of 120	93%	110 of 121	91%	113 of 118	96%	104 of 113	92%
HS Exports	79 of 81	98%	73 of 81	90%	74 of 81	91%	70 of 77	91%	77 of 82	94%
HS Imports	117 of 132	89%	114 of 119	96%	112 of 122	92%	110 of 117	94%	106 of 115	92%
NAICS Exports	88 of 94	94%	113 of 114	99%	101 of 114	89%	106 of 112	95%	107 of 116	92%
NAICS Imports	119 of 132	90%	153 of 167	92%	151 of 167	90%	156 of 165	95%	151 of 166	91%
Overall	612 of 665	92%	665 of 706	94%	638 of 705	90%	646 of 686	94%	624 of 677	92%

5. Conclusion

In 2006, OMB released a set of Standards and Guidelines for Statistical Surveys for all federal agencies. Guideline 3.2.10 mandated that any federal survey with an item response rate below 70 percent conduct a nonresponse analysis. Because the IPP's Import and Export Price Index Survey has not consistently achieved a 70 percent response rate at the item level for many years this study was conducted to evaluate the quality of the important Principal Federal Economic Indicator of Import and Export Price Indexes. This was the second such study undertaken by BLS to see if these published price index estimates are at risk of nonresponse error. As with the 2009 study, nonresponse bias does not appear to be an issue for the MXPI estimates due in large part to fixed index weights from the classification group level up through index aggregation.

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Appendix A

The tables in appendix A examine the differences between the monthly 12-month long term relatives for price indexes calculated with nonresponse adjusted weights and those calculated with unadjusted weights for the five year period 2019 through 2023. The distributions of differences between the calibrated and uncalibrated price index series were analyzed using their skewness and the kurtosis. Those indexes with an absolute value of skewness greater than 2 or a kurtosis with absolute value greater than 7 (kurtosis – 3 greater than 4) are shaded red in these tables. Export price index stratum labels begin with Q, D, or Y, depending on classification system, and import price index labels begin with an R, P, or Z.

Table A-1. 12-Month Percent Change Differences for BEA End Use Export and Import Price Indexes, 2019-2023

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
All commodities	Q	-0.2%	0.4%	0.1%	0.52	-0.01
Foods, feeds, & beverages	Q0	-0.2%	0.2%	0.0%	-0.51	0.67
Agricultural foods, feeds & beverages, excluding distilled beverages	Q00	-0.3%	0.2%	0.0%	-0.93	1.69
Wheat and rice	Q000	-0.1%	0.1%	0.0%	-0.02	2.75
Soybeans & other oil seeds	Q001	0.0%	0.0%	0.0%	0.12	1.85
Soybeans and soybean by-products, prior to the extraction of oil	Q00100	0.0%	0.0%	0.0%	0.02	1.69
Feedstuff	Q002	-1.2%	1.0%	0.0%	-0.34	3.78
Other animal feeds, n.e.s.	Q00220	-2.7%	2.0%	0.0%	-0.67	2.57
Other agricultural foods	Q003	-0.2%	0.4%	0.1%	0.12	-0.68
Meat, poultry & other edible animal products (Dec. 2006=100)	Q00300	-0.4%	0.4%	0.1%	-0.64	-0.31
Dairy products & eggs (Dec. 2017=100)	Q00310	-1.1%	1.4%	0.2%	-0.38	-0.11
Fruit and fruit preparations, including fruit juices	Q00320	-0.7%	0.4%	-0.2%	0.09	-0.60
Vegetables and vegetable preparations and juices (Dec. 2018=100)	Q00330	-0.1%	0.0%	0.0%	-1.15	-0.43
Nuts & preparations (Dec. 2014=100)	Q00340	-0.2%	0.3%	0.0%	0.52	0.24
Bakery & confectionery products (Dec. 2016=100)	Q00350	-0.1%	0.6%	0.1%	0.91	-0.03
Other foods and food preparations (lard, soft bev, spices), n.e.s.	Q00360	-0.3%	1.2%	0.3%	0.54	-0.50
Nonagricultural foods (fish, distilled beverages)	Q01	-1.7%	0.3%	-0.3%	-1.39	0.72
Fish and shellfish (Dec. 2016=100)	Q01000	-2.4%	0.5%	-0.4%	-1.36	0.64
Industrial supplies & materials	Q1	-0.4%	0.7%	0.1%	0.56	-0.30
Agricultural industrial supplies & materials	Q10	-0.4%	0.6%	0.0%	0.41	-0.39
Cotton, incl linters-raw (Dec. 2005=100)	Q100	-0.9%	1.3%	-0.1%	0.59	0.90
Other agricultural materials	Q101	-0.4%	0.5%	0.0%	0.25	-0.72

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Fuels & lubricants	Q11	-1.2%	2.3%	0.1%	0.85	1.42
Coals & related fuels	Q110	-0.9%	1.0%	0.1%	-0.15	-0.20
Other coal & related fuels (Dec. 2012=100)	Q11020	-0.1%	0.3%	0.1%	-0.47	-1.01
Petroleum & petroleum products	Q111	-1.3%	2.4%	0.0%	1.12	3.12
Fuel oil	Q11110	-3.7%	1.1%	-0.2%	-3.33	14.67
Other petroleum products	Q11120	-0.8%	1.8%	-0.2%	2.39	7.13
Gas-natural (Dec. 2014=100)	Q112	-2.5%	0.3%	-0.4%	-1.73	2.17
Nonagricultural supplies & materials excluding fuels & building materials	Q12	-0.4%	0.4%	0.0%	0.60	3.12
Iron and steel products	Q121	0.0%	0.1%	0.0%	0.16	-1.35
Nonferrous & other metals	Q122	-0.6%	0.1%	-0.1%	-0.83	-0.50
Aluminum & alumina	Q12200	-0.7%	0.5%	-0.1%	-0.35	-0.55
Copper (Dec. 2008=100)	Q12210	-4.2%	0.2%	-0.7%	-1.34	0.07
Nonmonetary gold	Q12260	-0.2%	0.2%	0.0%	-0.27	0.23
Other precious metals (Dec. 2001=100)	Q12270	-0.5%	0.5%	0.0%	0.06	-1.42
Other nonferrous metals	Q12290	-0.4%	0.8%	0.1%	0.80	0.17
Finished metal shapes	Q123	0.0%	0.1%	0.0%	0.75	-1.00
Paper & paper base stocks	Q124	-2.3%	0.1%	-0.9%	-0.61	-1.06
Woodpulp and recovered paper	Q12420	-3.7%	0.0%	-1.0%	-1.08	-0.51
Linerboard, newsprint, and other paper/paperboard	Q12430	-2.1%	0.3%	-0.6%	-0.86	-0.66
Chemicals, excluding medicinals	Q125	-0.4%	1.7%	0.2%	1.40	0.95
Plastic materials	Q12500	-0.5%	2.5%	0.4%	1.55	1.62
Fertilizers, pesticides, & insecticides (Dec. 2012=100)	Q12510	-0.1%	0.1%	0.0%	-0.26	-1.35
Industrial inorganic chemicals	Q12530	-0.1%	0.1%	0.0%	-0.41	4.17
Industrial organic chemicals	Q12540	-0.1%	0.1%	0.0%	0.38	-0.13
Other chemicals, excluding medicinals	Q12550	-0.9%	3.1%	0.5%	1.24	0.34
Industrial textile fibers, yarn, and fabric (Dec. 2008=100)	Q126	-0.4%	0.1%	0.0%	-1.64	2.20
Other nonagricultural industrial supplies and materials	Q127	-0.9%	0.2%	-0.1%	-0.84	-0.23
Synthetic rubber-primary (Dec. 2008=100)	Q12700	-0.2%	0.0%	0.0%	-4.20	19.37
Industrial rubber products (Dec. 2013=100)	Q12750	0.0%	0.0%	0.0%	-0.99	-0.55
Mineral supplies-manufactured	Q12760	0.0%	0.0%	0.0%	-0.46	-0.55
Other goods manufactured and unmanufactured	Q12770	-1.2%	0.4%	-0.2%	-0.45	-1.01
Selected building materials	Q13	-0.9%	0.4%	-0.1%	-1.00	0.67
Lumber & other wood supplies	Q131	-0.7%	0.4%	0.0%	-0.52	-0.74
Logs, lumber, plywood and veneers	Q13100	-0.9%	0.5%	-0.1%	-0.60	-0.64
Miscellaneous building materials,	Q132	-0.3%	0.0%	-0.1%	-1.27	0.13

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
excluding wood						
Other building materials, exclude wood and glass (Dec. 2016=100)	Q13210	-1.6%	0.5%	-0.3%	-0.77	-0.13
Capital goods	Q2	-0.1%	0.1%	0.0%	-0.28	-0.29
Electrical generating equipment	Q20	-0.4%	0.1%	-0.1%	-0.26	-1.39
Generators, transformers & access (Dec. 2012=100)	Q20000	0.0%	0.0%	0.0%	-0.79	-0.87
Electric apparatus and parts, n.e.s.	Q20005	-0.5%	0.1%	-0.2%	-0.21	-1.45
Nonelectrical machinery	Q21	-0.1%	0.1%	0.0%	-0.57	-0.65
Oil drilling, mining, and construction machinery and equipment	Q210	-0.3%	0.8%	0.1%	1.01	-0.29
Excavating, paving & construction machinery	Q21030	-0.5%	0.6%	0.0%	0.65	1.22
Industrial and service machinery	Q211	-0.1%	0.2%	0.1%	0.48	-0.51
Industrial engines, pumps, & compressors	Q21100	-0.3%	0.3%	0.1%	-0.16	0.24
Metal working machine tools and rolling mill machines	Q21120	0.0%	0.0%	0.0%	-0.27	-0.37
Measuring, testing & control instruments	Q21160	-0.2%	0.1%	-0.1%	0.23	-0.98
Materials handling equipment	Q21170	-0.1%	0.3%	0.1%	0.87	1.49
Other industrial machinery	Q21180	-0.1%	0.3%	0.1%	-0.04	-1.45
Photo and other service industry machines	Q21190	-0.2%	0.0%	-0.1%	0.36	-2.24
Agricultural machinery and equipment (Dec. 2016=100)	Q212	-0.2%	0.3%	0.0%	0.33	7.05
Computers, peripherals, and semiconductors	Q213	-0.3%	0.2%	-0.2%	0.97	1.74
Computers	Q21300	-1.6%	0.5%	-0.4%	-0.41	-0.65
Computer peripherals, accessories and parts	Q21301	-0.8%	0.8%	-0.1%	0.09	-0.66
Semiconductors	Q21320	-0.5%	0.2%	-0.1%	-0.53	-0.67
Telecommunications equipment	Q214	-0.3%	0.1%	-0.1%	-0.50	-0.83
Scientific and medical machinery	Q216	-0.2%	0.4%	0.1%	0.08	-1.32
Laboratory testing & control instruments	Q21600	-0.3%	0.1%	-0.1%	-1.02	-0.25
Other scientific, medical and hospital equipment	Q21610	-0.2%	0.5%	0.1%	-0.25	-0.99
Transportation equipment excluding motor vehicles (Dec. 2001=100)	Q22	-0.1%	0.2%	0.0%	0.33	0.04
Civilian aircraft, aircraft engines, and parts thereof	Q220	-0.1%	0.1%	0.0%	-0.48	0.17
Parts for civilian aircraft	Q22010	-0.2%	0.2%	0.0%	-0.13	-0.82
Automotive vehicles, parts & engines	Q3	-0.1%	0.2%	0.0%	-0.14	0.12
Passenger cars, new and used	Q300	-0.2%	0.1%	0.0%	-0.73	-0.21
Vehicles designed to transport goods	Q301	0.0%	0.0%	0.0%	-1.25	0.89
Parts, engines, bodies & chassis	Q302	-0.2%	0.3%	0.1%	0.20	0.02
Engines and engine parts for automotive vehicles	Q30200	-0.1%	0.3%	0.0%	1.09	-0.39

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Nonengine parts & accessories	Q30230	-0.3%	0.3%	0.1%	-0.08	0.61
Consumer goods, excluding automotives	Q4	0.0%	0.6%	0.2%	0.04	-1.36
Nondurables, manufactured	Q40	-0.2%	0.8%	0.3%	-0.06	-1.64
Apparel, footwear, and household goods (Dec. 2016=100)	Q400	0.0%	0.0%	0.0%	3.06	10.60
Textile apparel and footwear (Dec. 2016=100)	Q40000	0.0%	0.0%	0.0%	0.28	-2.13
Other consumer nondurables	Q401	-0.2%	0.9%	0.4%	-0.08	-1.66
Medicinal, dental, and pharmaceutical preparatory materials	Q40100	-0.2%	1.1%	0.5%	-0.06	-1.69
Toiletries & cosmetics	Q40120	-0.3%	0.4%	0.1%	-0.09	0.10
Other products (notions & writing articles)	Q40140	-0.1%	0.0%	0.0%	-0.09	-0.92
Durables, manufactured	Q41	-0.1%	0.6%	0.1%	0.90	-0.72
Household goods	Q410	-0.1%	0.1%	0.0%	-0.30	-1.17
Furniture and household items (Dec. 2007=100)	Q41000	0.0%	0.1%	0.0%	0.34	-1.11
Household and kitchen appliances	Q41030	-0.1%	0.1%	0.0%	-0.20	-0.46
Miscellaneous household goods	Q41050	-0.2%	0.1%	0.0%	-0.13	-1.03
Recreational equip & materials	Q411	-0.4%	0.4%	0.0%	-0.12	-1.14
Toys, shooting and sporting goods	Q41120	-0.6%	0.6%	0.0%	-0.03	-0.93
Home entertainment equipment (Dec. 2009=100)	Q412	-0.1%	0.4%	0.2%	-0.01	-2.16
Nonmanufactured consumer goods (Dec. 2018=100)	Q42	0.0%	0.0%	0.0%	0.69	0.94
All commodities	R	-0.1%	0.1%	0.0%	0.30	-0.79
Foods, feeds, & beverages	R0	-0.1%	0.1%	0.0%	-0.27	-0.22
Agricultural foods, feeds & beverages, excluding distilled beverages	R00	-0.1%	0.0%	0.0%	-0.21	-0.63
Green coffee, cocoa beans, sugar	R000	-1.4%	0.7%	-0.4%	0.50	-1.09
Green coffee (Dec. 2007=100)	R00000	-1.9%	0.8%	-0.6%	0.41	-0.91
Other agricultural foods	R001	-0.1%	0.1%	0.0%	-0.26	-1.11
Meat, poultry & other edible animal products	R00100	-0.1%	0.3%	0.0%	0.81	1.05
Fruit and fruit preparations including frozen juices	R00120	-0.4%	0.5%	0.0%	0.67	0.20
Vegetables and vegetable preparations	R00130	-0.2%	0.2%	0.0%	0.07	1.44
Food oils & oilseeds (Dec. 2007=100)	R00150	-0.2%	0.5%	0.1%	0.61	0.68
Bakery & confectionery products	R00160	-0.1%	0.1%	0.0%	0.69	-0.86
Other animal & vegetable preparations & products (Dec. 2015=100)	R00180	-0.7%	0.0%	-0.2%	-1.13	-0.27
Wine, beer, & related products	R00190	-0.2%	0.1%	0.0%	-0.69	0.73
Feedstuff and foodgrains (Dec. 2013=100)	R002	0.0%	0.1%	0.0%	1.16	-0.53
Nonagricultural foods (fish, distilled beverages)	R01	-0.3%	0.3%	0.0%	-0.01	0.38

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Fish & shellfish	R01000	-0.4%	0.2%	0.0%	-1.13	0.81
Distilled alcoholic beverages	R01010	-0.1%	0.5%	0.1%	1.31	0.39
Industrial supplies & materials	R1	-0.3%	0.3%	0.0%	0.02	-0.68
Fuels & lubricants	R10	-1.1%	1.1%	-0.1%	0.19	0.37
Petroleum & petroleum products	R100	-1.2%	1.1%	-0.2%	0.13	0.21
Fuel oil	R10010	-7.3%	5.3%	-1.7%	-0.03	-0.08
Other petroleum products	R10020	-1.2%	1.4%	0.2%	0.21	0.78
Fuels, n.e.s.-coals & gas	R101	-0.7%	1.1%	0.2%	0.29	0.46
Gas-natural	R10110	-1.0%	1.9%	0.2%	1.03	0.41
Paper & paper base stocks	R11	-0.5%	0.4%	0.0%	-0.36	2.10
Newsprint & other paper products	R111	0.0%	0.3%	0.1%	2.12	4.60
Coated and uncoated paper/paperboard	R11110	0.0%	0.3%	0.1%	2.10	4.37
Materials associated with nondurable supplies & materials	R12	-0.1%	0.1%	0.0%	0.04	-1.68
Agricultural products used for industrial supplies and materials	R120	-0.7%	0.4%	-0.1%	-0.73	-0.77
Other agricultural products (tobacco, waxes, nonfood oils)	R12070	-0.9%	0.2%	-0.2%	-1.11	-0.63
Textile supplies & related materials	R121	0.0%	0.1%	0.0%	2.32	6.75
Synthetic cloth, fabric, and thread	R12135	0.0%	0.2%	0.0%	3.82	14.02
Finished textile industrial supplies (Dec. 2011=100)	R12150	0.0%	0.1%	0.0%	2.39	5.69
Chemicals, excluding medicinals	R125	-0.1%	0.1%	0.0%	-0.43	-0.84
Plastic materials	R12500	-0.5%	0.5%	0.0%	-0.02	-0.71
Fertilizers, pesticides & insecticides (Dec. 2007=100)	R12510	-1.1%	0.8%	0.1%	-0.81	0.20
Industrial inorganic chemicals (Dec. 2016=100)	R12530	-0.1%	0.1%	0.0%	-0.39	-0.23
Industrial organic chemicals (Dec. 2012=100)	R12540	-0.1%	0.3%	0.0%	0.66	-0.24
Other chemicals (coloring agents)	R12550	-0.1%	0.2%	0.1%	-0.14	-0.61
Selected building materials	R13	-0.1%	0.1%	0.0%	-0.63	-0.75
Lumber and other unfinished building materials	R130	-0.2%	0.3%	0.1%	0.22	-1.22
Lumber & wood in the rough	R13000	-0.3%	0.7%	0.1%	0.96	0.16
Stone, sand, cement and lime	R13020	0.0%	0.7%	0.3%	0.64	-1.49
Building materials, finished	R131	-0.2%	0.1%	0.0%	-0.60	-0.14
Nontextile floor & wall coverings; mach. parts of china (Dec. 2007=100)	R13120	-0.1%	0.0%	0.0%	-0.74	-0.74
Unfinished metals related to durable goods	R14	-0.2%	0.6%	0.1%	1.03	0.32
Steelmaking & ferroalloying matls	R140	0.0%	0.3%	0.1%	1.24	0.88
Iron & steel mill products	R141	-1.5%	2.9%	0.2%	0.68	-0.59
Major nonferrous metals-crude	R142	-0.1%	0.1%	0.0%	-0.91	-0.59
Bauxite, alumina, aluminum, and	R14200	0.0%	0.1%	0.0%	1.20	-0.48

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
products thereof						
Other precious metals	R14280	-0.6%	0.1%	-0.1%	-1.26	-0.23
Finished metals related to durable goods	R15	-0.1%	0.3%	0.1%	0.13	-1.08
Iron & steel products, except advanced manufacturing	R150	0.0%	0.1%	0.0%	1.26	0.82
Iron & steel advanced manufacturing	R151	-0.5%	1.0%	0.1%	0.75	-0.47
Finished metals shapes and advanced manufacturing	R152	-0.1%	0.1%	0.0%	-0.01	2.42
Nonmetals related to durable goods	R16	-0.1%	0.2%	0.0%	0.83	0.54
Finished nonmetals (boxes, belting, glass, etc.)	R161	-0.1%	0.2%	0.0%	0.74	0.47
Other finished nonmetals (boxes, belting, glass, etc.)	R16120	-0.1%	0.2%	0.0%	0.73	0.46
Capital goods	R2	-0.1%	0.2%	0.0%	0.11	-0.50
Electric generating equipment	R20	-0.5%	0.1%	-0.1%	-1.31	0.54
Generators, transformers & access	R20000	-0.2%	0.1%	0.0%	-0.60	-0.76
Electric apparatus & parts, n.e.s.	R20005	-0.7%	0.2%	-0.1%	-1.29	0.45
Nonelectrical machinery	R21	-0.2%	0.3%	0.1%	-0.14	-0.61
Oil drilling, mining, and construction machinery and equipment	R210	-0.3%	0.3%	0.0%	-0.53	-0.77
Excavating, paving & construction machinery	R21030	-0.1%	0.4%	0.2%	0.47	-0.66
Industrial and service machinery	R211	-0.1%	0.1%	0.0%	0.52	-0.34
Industrial engines, pumps, & compressors	R21100	-0.1%	0.1%	0.0%	0.07	0.01
Metal working machine tools and rolling mills	R21120	0.0%	0.2%	0.1%	0.48	-0.81
Measuring, testing & control instruments	R21160	-0.1%	0.1%	0.0%	-0.01	-1.04
Materials handling equipment	R21170	-0.7%	0.3%	-0.2%	-0.42	-0.70
Other industrial machines	R21180	-0.1%	0.2%	0.0%	0.96	0.76
Photo & other service industry machinery	R21190	-0.1%	0.1%	0.0%	-0.58	-0.35
Agricultural machinery and equipment	R212	0.1%	0.5%	0.3%	-0.51	-1.40
Computers, peripherals and semiconductors	R213	-0.5%	0.8%	0.2%	0.20	-0.57
Computers	R21300	-0.1%	3.0%	0.6%	1.55	1.65
Computer accessories, peripherals, and parts	R21301	-1.7%	0.9%	-0.1%	-1.00	-0.20
Semiconductors	R21320	-0.6%	0.6%	0.0%	-0.11	-1.27
Telecommunications equipment	R214	-0.1%	0.1%	0.0%	-0.81	0.24
Business machinery and equipment, except computers	R215	-0.6%	0.2%	0.0%	-1.91	4.56
Scientific and medical machinery	R216	-0.2%	0.1%	0.0%	-0.79	0.47
Laboratory testing and control instruments (Dec. 2016=100)	R21600	-0.1%	0.1%	0.0%	-2.16	4.93
Other scientific, medical, and hospital equipment	R21610	-0.2%	0.1%	0.0%	-0.77	0.43

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Transportation equipment excluding motor vehicles (Dec. 2001=100)	R22	-0.2%	0.2%	0.0%	1.08	1.34
Civilian aircraft, engines part	R220	-0.2%	0.2%	0.0%	0.31	-0.83
Parts for civilian aircraft (Dec. 2012=100)	R22010	-0.3%	0.6%	0.1%	1.10	1.73
Engines for civilian aircraft	R22020	-0.2%	0.1%	0.0%	-0.50	-0.89
Automotive vehicles, parts & engines	R3	0.0%	0.0%	0.0%	-0.82	-1.01
Passenger cars, new and used	R300	-0.1%	0.0%	0.0%	-0.89	-0.85
Parts, engines, bodies and chassis	R302	0.0%	0.0%	0.0%	-0.81	0.76
Engines and engine parts for automotive vehicles (Dec. 2004=100)	R30200	0.0%	0.0%	0.0%	0.07	-0.65
Automotive tires & tubes (Dec. 2004=100)	R30220	0.0%	0.0%	0.0%	0.58	-0.79
Non-engine parts & accessories (Dec. 2003=100)	R30230	0.0%	0.0%	0.0%	-0.44	-0.50
Consumer goods, excluding automobiles	R4	0.0%	0.0%	0.0%	-0.17	-0.76
Nondurables, manufactured	R40	-0.1%	0.0%	0.0%	-0.24	-0.40
Apparel, footwear, and household goods	R400	-0.1%	0.0%	0.0%	-0.50	0.03
Cotton apparel and household goods	R40000	-0.1%	0.0%	0.0%	-0.03	-0.87
Apparel and household goods for other textiles	R40020	0.0%	0.1%	0.0%	-0.58	-0.27
Nontextile apparel and household goods	R40030	-1.1%	0.6%	-0.1%	-0.67	-0.17
Footwear of leather, rubber, or other materials	R40040	-1.0%	0.2%	-0.1%	-1.84	4.14
Sporting/camping apparel and footwear	R40050	-0.1%	0.1%	0.0%	0.48	-0.40
Other consumer nondurables	R401	-0.1%	0.1%	0.0%	0.70	-0.62
Medicinal, dental and pharmaceutical preparatory materials	R40100	-0.1%	0.1%	0.0%	0.66	-0.55
Toiletries and cosmetics (Dec. 2017=100)	R40120	0.0%	0.4%	0.2%	0.14	-1.24
Other products (notions, writing supplies, tobacco products, etc)	R40140	0.0%	0.0%	0.0%	-1.67	2.41
Durables, manufactured	R41	-0.1%	0.1%	0.0%	0.46	-0.54
Household goods	R410	-0.1%	0.0%	0.0%	-0.34	-0.70
Furniture, household items	R41000	-0.2%	0.1%	0.0%	-0.09	-0.97
Cookware, chinaware, cutlery for the house and garden	R41020	0.0%	0.1%	0.0%	0.35	-0.93
Household and kitchen appliances	R41030	-0.1%	0.0%	0.0%	-0.98	0.40
Other Household Goods, nes	R41050	-0.1%	0.0%	0.0%	-0.33	-1.30
Recreational equipment and materials	R411	0.0%	0.2%	0.1%	0.63	-0.26
Motorcycles & parts (Dec. 2001=100)	R41100	-0.1%	0.0%	0.0%	-0.59	-0.54
Toys, shooting & sporting goods	R41120	0.0%	0.3%	0.1%	0.84	-0.10
Photo & optical equipment (Dec. 2011=100)	R41130	-0.1%	0.0%	0.0%	-0.91	0.04
Musical instruments and parts (Dec. 2010=100)	R41140	0.0%	0.1%	0.0%	1.15	-0.61

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Home entertainment equipment	R412	-0.4%	0.5%	0.1%	0.11	-0.98
Television and video receivers	R41200	-0.5%	0.3%	0.0%	-0.62	0.48
Radios, phonographs, and tape decks (Dec. 2012=100)	R41210	-0.1%	1.2%	0.2%	2.60	6.75
Coins, gems, jewelry, and collectibles	R413	-0.9%	0.4%	-0.3%	0.62	0.36
Jewelry (watches, rings, etc)	R41310	-1.1%	0.3%	-0.5%	0.35	1.10
Nonmanufactured consumer goods	R42	0.0%	0.1%	0.0%	1.33	3.00
Nonmanufactured consumer durables	R421	0.0%	0.0%	0.0%	-0.02	-0.43

Table A-2. 12-Month Percent Changes Differences for HS Export and Import Price Indexes, 2019-2023

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Live animals; animal products	DI	-0.4%	0.4%	0.0%	0.06	0.11
Meat & edible meat offal (Dec. 2006=100)	D02	-0.4%	0.5%	0.0%	-0.30	0.27
Meat of swine (pork), fresh, chilled or frozen	D0203	0.0%	0.2%	0.1%	-0.63	-1.69
Fish and crustaceans, mollusks and aquatic invertebrates (Dec. 2016=100)	D03	-0.4%	0.4%	0.0%	-0.25	-1.07
Vegetable products	DII	-0.1%	0.1%	0.0%	-0.14	-1.2
Edible fruit and nuts; peel of citrus fruit or melons	D08	-0.4%	0.3%	-0.1%	-0.10	-1.17
Nuts nesoi, fresh or dried (Dec. 2015=100)	D0802	-0.3%	0.3%	0.0%	0.52	0.26
Cereals	D10	0.0%	0.0%	0.0%	1.56	1.58
Oilseeds and misc. grains, seeds, fruits, plants, straw and fodder	D12	0.0%	0.0%	0.0%	-0.39	0.03
Prepared foodstuffs, beverages, and tobacco	DIV	-0.5%	0.8%	0.2%	0.36	-0.06
Miscellaneous edible preparations (Dec. 2017=100)	D21	-0.4%	1.7%	0.5%	0.34	-0.73
Food preparations nesoi	D2106	-0.2%	2.4%	1.2%	-0.06	-0.84
Beverages, spirits, and vinegar (Dec. 2008=100)	D22	-0.3%	0.1%	0.0%	-2.43	6.44
Residues and waste from the food industries; prepared animal feed	D23	-2.3%	1.8%	0.0%	-0.49	4.33
Mineral products	DV	-1.2%	2.8%	0.3%	0.87	0.92
Ores, slag and ash (Dec. 2012=100)	D26	-3.3%	0.4%	-0.7%	-1.17	-0.41
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	D27	-1.3%	3.3%	0.3%	1.06	1.47
Coal, briquettes and similar solid fuels manufactured from coal	D2701	-1.5%	1.5%	0.1%	-0.24	-0.12
Petroleum oils & oils from bituminous minerals (excl crude) & products, nes	D2710	-0.6%	1.2%	-0.1%	1.70	5.54
Petroleum gases and other gaseous hydrocarbons (Dec. 2014=100)	D2711	-7.4%	12.5%	1.7%	0.59	0.84
Products of the chemical or allied industries	DVI	-0.3%	1.3%	0.4%	0.63	-0.66
Inorganic chemicals	D28	0.0%	0.1%	0.0%	0.28	-1.41
Organic chemicals	D29	0.0%	0.1%	0.0%	0.14	-0.46
Pharmaceutical products	D30	-0.2%	1.3%	0.5%	-0.01	-1.58
Human and animal blood, prepared; other blood frctns (Dec. 2014=100)	D3002	-0.4%	1.7%	0.3%	0.97	-0.23
Medicaments	D3004	0.0%	2.9%	0.9%	1.12	-0.55
Tanning or dyeing extracts, dyes, paints varnish, putty, & inks (Dec. 2015=100)	D32	-0.1%	0.3%	0.2%	-0.73	-0.64
Essential oils and resinoids; perfumery cosmetic or toilet preparations	D33	-0.2%	0.3%	0.0%	1.01	-0.19
Beauty or make-up and skin-care preparations	D3304	-0.1%	0.0%	0.0%	-2.01	2.51

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Soap; lubricants; waxes, polishing or scouring products; candles, pastes	D34	-0.1%	0.4%	0.2%	-0.04	-1.34
Miscellaneous chemical products	D38	-0.9%	3.9%	0.6%	1.25	0.28
Composite diagnostic or laboratory reagents (Dec. 2001=100)	D3822	-1.1%	0.4%	0.0%	-1.50	1.3
Plastics and articles thereof; rubber and articles thereof	DVII	-0.6%	1.1%	0.1%	0.95	1.61
Plastics and articles thereof	D39	-0.7%	1.4%	0.1%	1.18	1.95
Polymers of ethylene, in primary forms	D3901	-0.6%	6.6%	1.7%	1.13	0.15
Plates, sheets, films, etc., of plastic; laminated, etc.	D3920	-0.3%	0.2%	-0.1%	0.22	-1.31
Rubber and articles thereof	D40	-0.4%	0.1%	-0.1%	-1.18	-0.21
New pneumatic tires of rubber (Dec. 2013=100)	D4011	0.0%	0.3%	0.0%	2.63	6.81
Wood, wood charcoal, cork, straw, baskets and wickerwork (Dec. 2014=100)	DIX	-0.5%	0.3%	0.0%	-0.49	-1.05
Woodpulp, recovered paper, and paper products	DX	-1.3%	0.0%	-0.4%	-0.90	-0.46
Woodpulp and recovered paper	D47	-3.3%	0.1%	-0.9%	-0.77	-1.12
Paper and paperboard; articles of paper pulp, paper or paperboard	D48	-0.8%	0.2%	-0.2%	-1.18	0.26
Textile and textile articles	DXI	-0.4%	0.3%	-0.1%	0.38	2.85
Cotton, including yarns and woven fabrics thereof	D52	-0.8%	1.0%	-0.1%	0.42	1.95
Cotton, not carded or combed (Dec. 2018=100)	D5201	-0.9%	1.3%	-0.1%	0.49	1.89
Stone, plaster, cement, asbestos, ceramics, glass etc.	DXIII	-0.7%	0.7%	0.0%	0.24	0.24
Glass and glassware	D70	0.0%	0.0%	0.0%	-1.56	1.21
Pearls, stones, precious metals, imitation jewelry, and coins	DXIV	-0.1%	0.5%	0.1%	0.91	-0.31
Gold (including gold plated with platinum), unwrought (Dec. 2001=100)	D7108	-0.7%	0.7%	-0.1%	-0.34	-0.28
Platinum, unwrought, semimanufactured or in powder form	D7110	-0.1%	0.4%	0.2%	0.17	-1.1
Waste and scrap of precious metals	D7112	-0.1%	0.8%	0.3%	0.64	-1.23
Base metals and articles of base metals	DXV	-0.1%	0.1%	0.0%	0.00	-0.76
Iron and steel	D72	0.0%	0.0%	0.0%	-1.96	3.54
Copper and articles thereof	D74	-0.2%	0.1%	0.0%	-1.56	1.75
Aluminum and articles thereof	D76	-0.7%	0.5%	-0.1%	-0.46	-0.52
Miscellaneous articles of base metal	D83	0.0%	0.0%	0.0%	0.40	-2.1
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	DXVI	-0.1%	0.1%	0.0%	0.57	1.26
Machinery and mechanical appliances; parts thereof	D84	-0.1%	0.2%	0.0%	0.76	-0.33
Diesel & semi-diesel internal Cumbus. piston engines (Dec. 2018=100)	D8408	0.0%	0.0%	0.0%	-1.09	0.66
Pumps for liquids; liquid elevators; parts thereof	D8413	0.0%	0.0%	0.0%	1.18	-0.51
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	D8414	-0.2%	0.3%	0.1%	-0.76	1.22

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Centrifuges & filtering/purifying machinery and parts	D8421	-0.2%	1.0%	0.4%	-0.16	-0.91
Parts for materials handling & construction machines	D8431	0.0%	0.0%	0.0%	-0.24	-1.29
Printing mach., machines ancillary to printing; parts thereof (Dec. 2013=100)	D8443	-0.1%	0.1%	0.0%	-0.52	-1.06
Computer equipment	D8471	-1.0%	0.4%	-0.2%	-0.32	-0.72
Electrical machinery and equipment and parts and accessories thereof	D85	-0.3%	0.1%	-0.1%	-0.21	-1.42
Electrical apparatus for line telephony or line telegraphy; videophones; parts	D8517	-0.3%	0.1%	-0.1%	-0.60	-0.66
Electrical circuit switching, protecting or connection app of 1000 volts or less	D8536	-0.6%	0.1%	-0.1%	-1.16	0.61
Electric control or distribution equipment (Dec. 2016=100)	D8537	-0.1%	0.1%	0.0%	0.40	-1.5
Semiconductors; L.E.D.s; mounted crystals; parts thereof (Dec. 2017=100)	D8541	-0.3%	0.0%	-0.1%	-1.18	-0.42
Electronic integrated circuits and micro assemblies; parts thereof	D8542	-0.5%	0.2%	-0.1%	-0.15	-0.76
Insulated conductors; optical fiber cables w/individually sheathed fibers	D8544	-0.2%	0.1%	0.0%	0.44	-0.66
Vehicles, aircraft, vessels and associated transport equipment	DXVII	-0.1%	0.2%	0.0%	0.55	-0.73
Motor vehicles and their parts	D87	-0.1%	0.2%	0.0%	0.40	-0.33
Tractors other than work trucks	D8701	-0.2%	-0.1%	-0.2%	0.33	-0.63
Automobiles and other motor vehicles inc minivans, 4-dr specialty vehicles	D8703	-0.2%	0.1%	0.0%	-0.53	-0.58
Motor vehicles for the transport of goods	D8704	0.0%	0.1%	0.0%	0.45	-1.21
Parts and access of tractors, buses, automobiles, trucks, spec. vehicles	D8708	-0.4%	0.4%	0.1%	-0.17	0.92
Parts, nesoi, of civil aircraft and spacecraft (exc. military)	D8803	-0.2%	0.3%	0.0%	-0.07	-0.79
Optical, photo, measuring, medical & musical instruments; & timepieces	DXVIII	-0.1%	0.2%	0.0%	-0.22	-0.58
Instruments/appliances used in medical surgical, dental, veterinarian sciences	D9018	-0.3%	0.5%	0.2%	-0.13	-1.18
Instruments and apparatus for physical or chemical analysis	D9027	0.0%	0.2%	0.1%	0.39	-1.12
Oscilloscopes, spectrum analyzers etc., and parts	D9030	-0.3%	-0.1%	-0.2%	0.04	-2.06
Measuring or checking instruments, and appliances n.e.s. (Dec. 2001=100)	D9031	-0.9%	0.1%	-0.3%	-0.65	-0.82
Miscellaneous manufactured articles	DXX	-0.4%	0.2%	0.0%	-0.51	-0.7
Furniture; stuffed furnishings; lamps and lighting fittings nesoi;	D94	-0.4%	0.1%	-0.1%	-1.36	0.35
Toys, games and sports equipment; parts and accessories thereof	D95	-0.5%	0.5%	0.0%	0.22	-1.34
Live animals; animal products	PI	-0.3%	0.1%	-0.1%	-0.25	0.11
Meat and edible meat offal	P02	-0.2%	0.3%	0.0%	0.79	1.89
Fish and crustaceans, molluscs and other aquatic invertebrates	P03	-0.6%	0.2%	-0.1%	-0.73	0.56
Fish fillets and other fish meat, fresh, chilled, frzn, (Dec. 2008=100)	P0304	-1.0%	0.6%	-0.2%	0.04	0.18

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Crustaceans, live, fresh, chilled, etc; in shell or not; cooked or uncooked	P0306	-0.5%	0.3%	-0.1%	-0.52	0.7
Vegetable products	PII	-0.3%	0.2%	-0.1%	-0.16	-0.73
Edible vegetables, roots, and tubers	P07	-0.2%	0.3%	0.0%	0.03	1.63
Edible fruit and nuts; peel of citrus fruit or melons	P08	-0.5%	0.4%	0.0%	0.16	0.5
Coffee, tea, mate and spices	P09	-1.5%	0.8%	-0.4%	0.34	-0.94
Coffee, roasted or unroasted, decaf; coffee husks and skins (Dec. 2007=100)	P0901	-1.9%	0.8%	-0.6%	0.29	-0.87
Animal or vegetable fats and oils (Dec. 2009=100)	PIII	-0.2%	0.5%	0.1%	0.75	1.71
Prepared foodstuffs, beverages, and tobacco	PIV	-0.1%	0.1%	0.0%	-0.42	-0.84
Edible preps of meat, of fish, or of aquatic invertebrates (Dec. 2004=100)	P16	-0.2%	0.4%	0.2%	-0.20	-1.05
Sugars and sugar confectionary	P17	-0.1%	0.1%	0.0%	-0.24	-1.28
Cocoa and cocoa preparations (Dec. 2009=100)	P18	-0.2%	0.3%	0.0%	0.74	1.59
Preparations of vegetables, fruit, nuts, or other parts of plants	P20	-0.1%	0.1%	0.0%	0.52	0.09
Beverages, spirits, and vinegar	P22	-0.2%	0.2%	0.0%	0.73	-0.5
Wine of fresh grapes, including fortified wine	P2204	-0.3%	0.2%	0.0%	-0.39	-0.11
Ethyl alcohol undenatured less than 80% alcohol (Dec. 2001=100)	P2208	-0.1%	0.5%	0.1%	1.31	0.39
Mineral products	PV	-1.3%	1.1%	-0.1%	-0.04	0.6
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	P27	-1.4%	1.2%	-0.1%	0.20	1.02
Petroleum oils (not crude), bituminous oils, & products thereof, nesoi	P2710	-3.5%	2.4%	-0.6%	-0.27	-0.44
Petroleum gases and other gaseous hydrocarbons	P2711	-0.9%	1.5%	0.2%	0.80	0.54
Products of the chemical or allied industries	PVI	-0.1%	0.1%	0.0%	0.32	-0.77
Inorganic chemicals	P28	-0.3%	0.3%	0.0%	-0.43	1.12
Organic chemicals	P29	-0.1%	0.1%	0.0%	0.53	-0.72
Heterocyclic compounds with nitrogen hetero-atoms only (Dec. 2016=100)	P2933	0.0%	0.9%	0.2%	1.17	-0.52
Nucleic acids and their salts, other heterocyclic compounds (Dec. 2009=100)	P2934	-1.0%	0.1%	-0.2%	-1.09	-0.64
Pharmaceutical products	P30	-0.1%	0.1%	0.0%	0.58	-0.71
Human and animal blood, prep; antisera & other blood fractions (Dec. 2014=100)	P3002	-0.4%	0.3%	-0.1%	-0.06	-1.11
Medicaments (except vaccines, band., pharmaceuticals) (Dec. 2001=100)	P3004	-0.3%	0.3%	0.0%	0.12	-1.19
Essential oils and resinoids (Dec. 2016=100)	P33	-0.1%	0.1%	0.0%	-0.20	-1.18
Miscellaneous chemical products	P38	-0.1%	0.1%	0.0%	-0.63	-0.64
Plastics and articles thereof; rubber and articles thereof	PVII	-0.1%	0.3%	0.0%	0.71	-0.47
Plastics and articles thereof	P39	-0.3%	0.3%	0.0%	0.36	-0.4

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Plates, sheets, film, foil, & strips of plastics	P3920	0.2%	0.8%	0.4%	1.16	0.84
Articles for the conveyance or packing of goods, of plastics (Dec. 2003=100)	P3923	-0.3%	0.3%	0.1%	-0.62	-0.81
Articles of plastic, polymers & resins of heading 3901 to 3914, nesoi	P3926	-1.1%	0.5%	-0.2%	-0.25	-1.26
Rubber and articles thereof	P40	-0.2%	0.3%	0.1%	-1.08	1.7
New pneumatic tires of rubber (Dec. 2004=100)	P4011	0.0%	0.0%	0.0%	0.37	-1.18
Raw hides, skins, leather, furskins, travel goods, etc	PVIII	0.0%	0.0%	0.0%	1.59	1.54
Articles of leather; travel goods, bags, etc. of various materials	P42	0.0%	0.1%	0.0%	0.45	-0.78
Travel goods and handbags (Dec. 2015=100)	P4202	0.0%	0.0%	0.0%	1.27	0.91
Wood, wood charcoal, cork, straw, basketware and wickerwork	PIX	-0.3%	0.2%	0.0%	-0.34	-0.68
Wood and articles of wood; wood charcoal	P44	-0.3%	0.1%	-0.1%	-0.88	-0.81
Wood sawn or chipped lengthwise, sliced or peeled (Dec. 2013=100)	P4407	-0.3%	0.7%	0.2%	-0.11	-1.65
Woodpulp, recovered paper, and paper products	PX	-0.3%	0.3%	0.0%	0.18	4.34
Paper and paperboard; articles of paper pulp, paper or paperboard	P48	0.0%	0.2%	0.0%	2.73	8
Textile and textile articles	PXI	0.0%	0.1%	0.0%	0.02	-0.58
Articles of apparel and clothing accessories, knitted or crocheted	P61	-0.1%	0.1%	0.0%	0.97	-0.27
Knitted sweaters, pullovers, sweatshirts, vests and similar art. (Dec. 2015=100)	P6110	0.0%	0.2%	0.1%	0.57	-1.2
Articles of apparel and clothing accessories, not knitted or crocheted	P62	-0.2%	0.1%	0.0%	-0.62	0.52
Men or boys suits, ensembles, suit-type jackets, blazers & trousers	P6203	-0.2%	0.1%	-0.1%	-0.03	-0.88
Women or girls suits, dresses, skirts; not knitted (Dec. 2017=100)	P6204	-0.5%	0.1%	-0.1%	-0.74	-0.2
Made-up or worn textile articles	P63	-0.1%	0.5%	0.2%	0.52	-1.1
Headgear, umbrellas, artificial flowers, etc.	PXII	-0.4%	0.1%	0.0%	-1.28	3.39
Footwear and parts of such articles	P64	-0.4%	0.2%	0.0%	-0.93	2.03
Footwear, with outer soles and uppers of rubber or plastics (Dec. 2016=100)	P6402	-0.5%	0.4%	0.2%	-2.08	3.05
Footwear with uppers of leathers	P6403	-0.2%	0.2%	0.0%	0.74	-0.84
Footwear with uppers of textile materials	P6404	-0.1%	0.0%	0.0%	-0.40	-2
Stone, plaster, cement, asbestos, ceramics, glass etc.	PXIII	0.0%	0.3%	0.1%	1.11	-0.5
Articles of stone, plaster, cement, asbestos, or mica	P68	0.0%	0.6%	0.3%	0.00	-2.17
Glass and glassware	P70	0.0%	0.2%	0.1%	0.19	-1.81
Pearls, stones, precious metals, imitation jewelry, and coins	PXIV	-0.2%	0.1%	-0.1%	1.00	0.08
Platinum, unwrought, semi-mfg or powder	P7110	-0.7%	0.1%	-0.1%	-1.71	1.36
Base metals and articles of base metals	PXV	-0.1%	0.3%	0.0%	0.41	-0.67

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Iron and steel	P72	-0.6%	1.4%	0.2%	0.75	-0.72
Articles of iron or steel	P73	-0.2%	0.2%	0.0%	0.24	-0.45
Screws, bolts, nuts, rivets, cotters, and washers	P7318	-0.3%	0.6%	0.1%	0.48	-1.48
Aluminum and articles thereof	P76	0.0%	0.0%	0.0%	1.11	-0.67
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof	P82	0.0%	0.0%	0.0%	0.26	-0.95
Miscellaneous articles of base metal	P83	-0.2%	0.2%	0.0%	-0.04	-0.06
Mountings and other hardware for furniture, doors, and windows	P8302	0.0%	0.1%	0.0%	-0.30	0.38
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	PXVI	-0.1%	0.2%	0.0%	0.03	-0.47
Machinery and mechanical appliances; parts thereof	P84	-0.2%	0.4%	0.1%	0.16	-0.57
Spark-ignition internal combustion piston engines	P8407	-0.1%	0.0%	0.0%	-0.73	-1.49
Parts for spark-ignition and diesel internal combustion piston engines	P8409	0.0%	0.0%	0.0%	0.32	-0.78
Turbojets, turbopropellers and other gas turbines, and parts thereof	P8411	-0.1%	0.1%	0.0%	0.03	-1.9
Engines & motors, nesoi, & parts thereof (Dec. 2012=100)	P8412	0.0%	0.1%	0.0%	1.07	0.7
Pumps for liquids; liquid elevators; parts thereof	P8413	0.0%	0.1%	0.0%	0.77	-0.77
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	P8414	0.0%	0.0%	0.0%	-0.50	-0.44
Air conditioning machines and parts thereof (Dec. 2014=100)	P8415	-0.1%	0.7%	0.1%	0.99	0.1
Refrigerators, freezers, heat pumps; and parts (Dec. 2006=100)	P8418	-0.2%	0.1%	-0.1%	0.78	0.54
Centrifuges & filtering/purifying machinery and parts (Dec. 2017=100)	P8421	0.0%	0.1%	0.0%	1.56	1.37
Self-propelled earth-moving, tamping, & road roller machines (Dec. 2012=100)	P8429	0.0%	0.2%	0.1%	0.39	-0.4
Parts for materials handling & construction machines	P8431	-0.6%	0.5%	0.1%	-0.47	-0.44
Printing machinery, machines ancillary to printing; & parts (Dec. 2012=100)	P8443	-0.1%	0.1%	0.0%	-0.01	-0.49
Computer equipment	P8471	-0.2%	2.5%	0.5%	1.55	1.76
Parts and accessories, n.e.s.o.i., for computers and other office machines	P8473	-4.6%	2.4%	-0.2%	-1.02	-0.06
Machines & appliances having functions n.e.s.; parts thereof (Dec. 2016=100)	P8479	-0.2%	0.4%	0.1%	0.17	-0.8
Taps, cocks, valves & similar appliances; parts thereof	P8481	-0.5%	0.4%	-0.1%	0.41	0.84
Parts for transmitting power (clutches, shafts, gears & boxes, pulleys, etc)	P8483	-0.1%	0.0%	-0.1%	0.85	-0.1
Electrical machinery and equip, sound and TV recorders & reproducers, parts	P85	-0.2%	0.1%	0.0%	-0.38	-0.65
Electric motors and generators (excludes generating sets)	P8501	-0.3%	0.2%	0.0%	-0.44	-1
Electrical transformers, inductors & static converters (rectifiers); parts	P8504	-0.1%	0.4%	0.2%	0.00	-1.67

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Vehicular electric lighting equipment, and defrosters; (Dec. 2014=100)	P8512	0.0%	0.0%	0.0%	-0.49	-0.16
Electrothermic domestic appliances; water & space heaters; resistors	P8516	-0.1%	0.2%	0.0%	0.24	-0.01
Electrical apparatus for line telephony or line telegraphy; videophones; parts	P8517	-0.2%	0.1%	0.0%	-0.47	-0.49
Microphones & stands; audio/sound amps; speakers; & headphones (Dec. 2012=100)	P8518	-0.1%	1.2%	0.2%	2.65	6.92
Prepared unrecorded media for sound or similar recording (Dec. 2004=100)	P8523	-3.4%	1.9%	-0.2%	-0.93	-0.6
Radio & TV transmission apparatus; video cameras & camera recorders; TV cameras	P8525	-0.1%	0.1%	0.0%	-0.16	-1.24
TV reception apparatus; video monitors & video projectors	P8528	-0.1%	0.2%	0.0%	-0.36	0.94
Electrical circuit switching, protecting or connection app. of 1000 volts or less	P8536	-0.6%	0.6%	0.0%	-0.35	1.9
Semiconductor devices; L.E.D.s; mounted crystals; parts thereof (Dec. 2018=100)	P8541	-0.6%	0.0%	-0.3%	0.00	0.01
Electronic integrated circuits and micro assemblies; parts thereof	P8542	-0.7%	0.6%	0.1%	-0.43	0.77
Electrical machines & apparatus, func. n.e.s.o.i.; parts (Dec. 2014=100)	P8543	0.1%	0.2%	0.1%	-0.45	-1.68
Insulated conductors (Dec. 2010=100)	P8544	-0.1%	0.1%	0.0%	0.24	0.9
Vehicles, aircraft, vessels and associated transport equipment	PXVII	0.0%	0.0%	0.0%	0.11	-1.69
Motor vehicles and their parts	P87	0.0%	0.0%	0.0%	-0.01	-1.76
Tractors (other than work trucks of heading 8709) (Dec. 2017=100)	P8701	-0.1%	0.3%	0.1%	0.34	-1.27
Motor vehicles designed to transport people	P8703	-0.1%	0.0%	0.0%	-0.84	-0.82
Parts of tractors, buses, automobiles, trucks, spec. vehicles	P8708	0.0%	0.0%	0.0%	0.73	-0.97
Aircraft, spacecraft, and parts thereof (Dec. 2002=100)	P88	-0.1%	0.4%	0.1%	0.09	-1.33
Parts, nesoi, of civil aircraft and spacecraft (Dec. 2012=100)	P8803	0.0%	0.2%	0.1%	0.55	-0.71
Optical, photo, measuring, medical & musical instruments; & timepieces	PXVIII	-0.1%	0.1%	-0.1%	1.14	0.15
Optical, photographic, measuring and medical instruments	P90	-0.1%	0.1%	-0.1%	0.85	-0.15
Instruments/appliances used in medical, surgical, dental, veterinarian sciences	P9018	-0.4%	0.2%	0.0%	-0.46	0.82
Orthopedic appliances; artificial body parts; hearing aids, etc (Dec. 2003=100)	P9021	-1.1%	0.2%	-0.3%	-0.68	-0.63
Instruments and apparatus for physical or chemical analysis (Dec. 2006=100)	P9027	0.0%	0.1%	0.1%	1.01	-0.62
Measuring instruments, appliances, and machines, nesoi (Dec. 2013=100)	P9031	-0.1%	0.1%	0.0%	0.27	1.25
Miscellaneous manufactured articles	PXX	-0.1%	0.1%	0.0%	-0.51	-0.19
Furniture & stuffed furnishings; lamps & lighting fittings, nesoi; prefab bldgs	P94	-0.2%	0.0%	0.0%	-0.61	0.14
Seats other than barber, dental and similar chairs (Dec. 2001=100)	P9401	0.0%	0.1%	0.0%	0.67	0.01

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Furniture other than seats, nesoi (Dec. 2001=100)	P9403	-0.3%	-0.1%	-0.2%	-1.39	1.21
Lamps, lighting fixtures, & illuminated signs and parts thereof	P9405	-0.2%	0.2%	0.0%	-0.22	0.67
Toys, games and sports equipment; parts and accessories thereof	P95	0.1%	0.3%	0.1%	0.62	-0.59
Articles for arcade, table or games parts thereof (Dec. 2018=100)	P9504	0.0%	0.0%	0.0%	1.35	2.87
Articles & equipment for sports nesoi; parts & accessories thereof	P9506	-0.1%	0.8%	0.2%	0.80	-0.07
Miscellaneous manufactured articles	P96	0.0%	0.0%	0.0%	-0.70	0.93

Table A-3. 12-Month Percent Changes Differences for NAICS Export and Import Price Indexes, 2019-2023

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Nonmanufacturing	YNONMANU	-1.4%	1.8%	0.3%	-0.09	0.14
Agriculture, forestry, fishing and hunting	Y11	-0.1%	0.1%	0.0%	0.23	-0.58
Crop production	Y111	-0.2%	0.1%	0.0%	0.22	-0.57
Oilseed and grain farming	Y1111	0.0%	0.0%	0.0%	-1.51	4.67
Fruit and tree nut farming	Y1113	-0.4%	0.3%	-0.1%	0.17	-0.94
Noncitrus fruit and tree nut farming	Y11133	-0.5%	0.4%	-0.1%	0.18	-0.71
Tree nut farming	Y111335	-0.1%	0.3%	0.1%	0.75	-0.39
Other crop farming	Y1119	-0.2%	0.6%	0.1%	1.00	-0.28
Cotton farming	Y11192	-0.9%	1.3%	-0.1%	0.49	1.89
Mining	Y21	-2.8%	4.4%	0.5%	0.48	1.15
Oil and gas extraction	Y211	-0.1%	0.6%	0.2%	0.04	-1.12
Natural gas extraction	Y21113	-0.1%	0.9%	0.4%	0.20	-0.76
Mining (except oil and gas)	Y212	-1.9%	1.2%	-0.3%	-0.13	-0.57
Coal mining	Y2121	-1.5%	1.5%	0.1%	-0.24	-0.12
Metal ore mining	Y2122	-3.4%	0.6%	-0.7%	-1.13	-0.41
Manufacturing	YMANU	-0.1%	0.2%	0.0%	0.00	0.03
Manufacturing, part 1	Y31	-0.3%	0.3%	0.1%	-0.13	-0.48
Food manufacturing	Y311	-0.4%	0.4%	0.1%	-0.29	-0.08
Grain and oilseed milling	Y3112	-2.1%	1.5%	-0.1%	-0.35	2.34
Starch and vegetable fats and oils manufacturing	Y31122	-2.8%	1.9%	-0.2%	-0.36	2.47
Soybean and other oilseed processing	Y311224	-1.3%	2.4%	-0.2%	1.41	3.75
Fruit and vegetable preserving and specialty food manufacturing	Y3114	0.0%	0.0%	0.0%	-2.17	2.9
Dairy product manufacturing	Y3115	-0.8%	1.0%	0.2%	-0.39	-0.1
Animal slaughtering and processing	Y3116	-0.4%	0.5%	0.1%	-0.24	-0.12
Animal (except poultry) slaughtering	Y311611	-0.3%	0.6%	0.2%	-0.15	-0.99
Other food manufacturing	Y3119	-0.5%	1.5%	0.5%	0.09	-0.89
All other food manufacturing	Y31199	-0.9%	2.6%	0.9%	0.11	-0.8
Beverage and tobacco product manufacturing	Y312	-0.3%	0.2%	0.0%	-1.19	5.94
Beverage manufacturing	Y3121	-0.3%	0.2%	0.0%	-1.19	6.2
Manufacturing, part 2	Y32	-0.4%	0.7%	0.1%	0.28	0.38
Wood product manufacturing	Y321	-0.7%	0.3%	-0.1%	-0.63	-0.75
Paper manufacturing	Y322	-1.5%	0.2%	-0.3%	-1.10	-0.25
Pulp, paper, and paperboard mills	Y3221	-3.1%	0.4%	-1.0%	-0.65	-1.08
Pulp mills	Y32211	0.0%	0.5%	0.1%	2.80	8.16
Converted paper product manufacturing	Y3222	-0.1%	0.5%	0.1%	0.53	-1.05

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Petroleum and coal products manufacturing	Y324	-0.9%	0.7%	-0.2%	0.46	2.61
Chemical manufacturing	Y325	-0.3%	1.3%	0.3%	0.99	-0.09
Basic chemical manufacturing	Y3251	-0.8%	2.1%	0.3%	1.29	1.01
Other basic inorganic chemical manufacturing	Y32518	-2.5%	4.5%	0.3%	1.21	2.78
Other basic organic chemical manufacturing	Y32519	-0.2%	0.0%	-0.1%	-0.76	-0.09
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Y3252	-0.5%	2.2%	0.3%	1.50	1.42
Resin and synthetic rubber manufacturing	Y32521	-0.5%	2.4%	0.4%	1.52	1.5
Plastics material and resin manufacturing	Y325211	-0.5%	2.8%	0.5%	1.16	0.34
Synthetic rubber manufacturing	Y325212	0.0%	0.3%	0.0%	1.64	1.33
Pesticide, fertilizer, and other agri. chemical manufacturing	Y3253	-0.1%	0.0%	-0.1%	1.81	2.09
Pharmaceutical and medicine manufacturing	Y3254	-0.1%	1.1%	0.4%	0.10	-1.66
Pharmaceutical preparation manufacturing	Y325412	0.0%	2.3%	0.9%	0.67	-1.42
In-vitro diagnostic substance manufacturing	Y325413	-0.5%	0.3%	0.1%	-1.46	1.28
Biological product (except diagnostic) manufacturing	Y325414	0.9%	1.7%	1.3%	-0.02	-2.13
Paint, coating, and adhesive manufacturing	Y3255	-0.4%	0.3%	0.1%	-1.50	1.03
Soap, cleaning compound, and toilet preparation manufacturing	Y3256	-0.2%	0.3%	0.1%	-0.64	-0.18
Soap and cleaning compound manufacturing	Y32561	-0.2%	0.6%	0.2%	0.30	-1.02
Toilet preparation manufacturing	Y32562	-0.3%	0.5%	0.0%	0.59	0.05
Plastics and rubber products manufacturing	Y326	-0.9%	0.3%	-0.1%	-0.80	-0.44
Plastics product manufacturing	Y3261	0.2%	0.4%	0.3%	0.39	-1.9
Plastic packing materials & unlaminated film and sheet manufacturing	Y32611	-0.1%	0.0%	0.0%	-0.54	-0.85
Unlaminated plastic film and sheet (except packing) manufacturing	Y326113	-0.2%	0.1%	0.0%	-0.61	-0.58
Rubber product manufacturing	Y3262	0.0%	0.1%	0.0%	3.68	15.49
Tire manufacturing	Y32621	0.0%	0.3%	0.0%	2.65	6.87
Nonmetallic mineral product manufacturing	Y327	-0.4%	0.3%	0.0%	-0.90	3.09
Glass and glass product manufacturing	Y3272	-0.9%	0.0%	-0.1%	-2.80	6.89
Manufacturing, part 3	Y33	0.0%	0.0%	0.0%	-0.15	-0.52
Primary metal manufacturing	Y331	-0.3%	0.1%	0.0%	-1.05	2.15
Alumina and aluminum production and processing	Y3313	-0.1%	0.6%	0.1%	1.52	3.05
Nonferrous metal (except aluminum) production and processing	Y3314	-0.4%	0.2%	0.0%	-1.24	2.25
Nonferrous metal (except aluminum) smelting and refining	Y33141	-0.1%	0.2%	0.0%	0.43	-0.15
Nonferrous metal (except copper and aluminum) rolling, drawing,	Y33149	-0.5%	0.2%	-0.1%	-1.41	3.02

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
extruding,						
Nonferrous metal (except copper and aluminum) rolling, drawing, and	Y331491	-0.1%	0.0%	0.0%	0.07	-0.86
Secondary smelting, refining, and alloying of nonferrous metal	Y331492	-0.1%	0.3%	0.0%	1.37	1.04
Fabricated metal product manufacturing	Y332	-0.2%	0.1%	0.0%	-2.21	4.25
Metal valve manufacturing	Y33291	-0.2%	0.0%	-0.1%	-0.48	-1.89
Machinery manufacturing	Y333	-0.1%	0.3%	0.1%	0.72	0.8
Agriculture, construction, and mining machinery manufacturing	Y3331	-0.3%	0.5%	0.0%	0.74	-0.37
Agricultural implement manufacturing	Y33311	-0.4%	0.2%	-0.1%	-0.13	-0.98
Farm machinery and equipment manufacturing	Y333111	-0.1%	0.2%	0.0%	0.73	2.48
Construction machinery manufacturing	Y33312	-0.5%	1.1%	0.1%	0.99	-0.2
Commercial and service industry machinery manufacturing	Y3333	-0.4%	0.5%	0.1%	-0.14	-1.36
Metalworking machinery manufacturing	Y3335	0.0%	0.0%	0.0%	-0.73	-0.63
Engine, turbine, and power transmission equipment manufacturing	Y3336	-0.4%	0.3%	0.0%	-0.23	0.12
Other engine equipment manufacturing	Y333618	0.0%	0.2%	0.1%	0.73	-0.6
Other general purpose machinery manufacturing	Y3339	0.0%	0.3%	0.1%	-0.25	-1.35
Pump and compressor manufacturing	Y33391	0.0%	0.1%	0.0%	1.39	0.79
Material handling equipment manufacturing	Y33392	0.0%	0.2%	0.0%	1.00	-0.52
All other general purpose machinery manufacturing	Y33399	-0.1%	0.4%	0.2%	0.02	-1.29
All other miscellaneous general purpose machinery manufacturing	Y333999	0.1%	0.5%	0.3%	0.73	-1.11
Computer and electronic product manufacturing	Y334	-0.2%	0.1%	-0.1%	0.45	1.07
Computer and peripheral equipment manufacturing	Y3341	-0.7%	0.5%	-0.2%	0.10	-0.88
Electronic computer manufacturing	Y334111	-0.9%	0.5%	-0.2%	-0.10	-1.08
Communications equipment manufacturing	Y3342	-0.3%	0.1%	-0.1%	-0.68	-0.68
Radio and TV broadcasting and wireless equipment	Y33422	-0.2%	0.1%	0.0%	-1.01	0.97
Audio and video equipment manufacturing	Y3343	0.0%	0.2%	0.1%	0.00	-2.16
Semiconductor and other electronic component manufacturing	Y3344	-0.4%	0.2%	-0.1%	-0.08	-0.88
Semiconductor and related device manufacturing	Y334413	-0.2%	0.1%	-0.1%	0.60	-0.74
Navigational, measuring, electromedical, and control instruments	Y3345	-0.1%	0.2%	0.0%	0.44	-0.6
Electromedical and electrotherapeutic apparatus manufacturing	Y334510	0.0%	0.5%	0.2%	0.80	-1.13
Search and detection instrument manufacturing	Y334511	0.0%	0.0%	0.0%	1.11	1.03

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Instruments and related products manufacturing	Y334513	-0.1%	0.0%	0.0%	-1.00	-1.08
Analytical laboratory instrument manufacturing	Y334516	0.0%	0.0%	0.0%	5.91	35.28
Electrical equipment, appliance, and component manufacturing	Y335	-0.4%	0.0%	-0.1%	-0.32	-1.35
Electrical equipment manufacturing	Y3353	-0.8%	0.1%	-0.3%	-0.73	-1.45
Motor and generator manufacturing	Y335312	-0.1%	0.0%	0.0%	-0.04	-1.85
Other electrical equipment and component manufacturing	Y3359	-0.2%	0.0%	-0.1%	-0.08	-1.32
Wiring device manufacturing	Y33593	-0.6%	0.1%	-0.2%	-0.62	-0.93
Current-carrying wiring device manufacturing	Y335931	-0.6%	0.1%	-0.2%	-0.62	-0.93
Transportation equipment manufacturing	Y336	-0.1%	0.1%	0.0%	-0.15	-0.85
Motor vehicle manufacturing	Y3361	-0.1%	0.1%	0.0%	-0.44	-0.55
Automobile and light duty motor vehicle manufacturing	Y33611	-0.1%	0.1%	0.0%	-0.51	-0.52
Automobile manufacturing	Y336111	-0.1%	0.1%	0.0%	-0.27	-1.27
Light truck and utility vehicle manufacturing	Y336112	0.0%	0.0%	0.0%	0.56	-1.36
Heavy duty truck manufacturing	Y33612	0.0%	0.0%	0.0%	-0.61	-1.56
Motor vehicle body and trailer manufacturing	Y3362	-0.5%	0.4%	-0.1%	0.41	-0.16
Motor vehicle body manufacturing	Y336211	-0.8%	0.1%	-0.3%	-0.42	-0.79
Motor vehicle parts manufacturing	Y3363	-0.3%	0.5%	0.1%	0.52	-0.41
Motor vehicle electrical and electronic equipment manufacturing	Y33632	-0.2%	0.2%	0.0%	0.71	-0.83
Motor vehicle transmission and power train parts manu.	Y33635	0.0%	0.2%	0.1%	0.41	-1.01
Other motor vehicle parts manufacturing	Y33639	-0.2%	1.9%	0.4%	1.07	-0.62
Aerospace product and parts manufacturing	Y3364	-0.2%	0.1%	0.0%	-0.48	0.39
Other aircraft parts and auxiliary equipment manufacturing	Y336413	-0.2%	0.3%	0.1%	-0.69	-0.58
Furniture and related product manufacturing	Y337	0.0%	0.1%	0.0%	-0.08	-0.9
Miscellaneous manufacturing	Y339	-0.1%	0.5%	0.1%	0.99	-0.63
Medical equipment and supplies manufacturing	Y3391	-0.2%	0.4%	0.1%	0.33	-0.68
Surgical and medical instrument manufacturing	Y339112	-0.4%	0.3%	0.0%	-0.25	-0.91
Surgical appliance and supplies manufacturing	Y339113	0.0%	0.2%	0.1%	0.19	-1.07
Other miscellaneous manufacturing	Y3399	-0.2%	0.9%	0.2%	1.07	-0.56
Jewelry and silverware manufacturing	Y33991	-0.1%	1.2%	0.4%	0.73	-1.45
All other miscellaneous manufacturing	Y33999	0.0%	0.0%	0.0%	-0.66	-1.46
Nonmanufacturing	ZNONMANU	-0.4%	0.3%	0.0%	-0.99	13.8
Agriculture, forestry, fishing and hunting	Z11	-0.3%	0.1%	-0.1%	-0.46	-0.23
Crop production	Z111	-0.3%	0.1%	-0.1%	0.10	-1.24

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Vegetable and melon farming	Z1112	-0.2%	0.3%	0.0%	-0.06	0.72
Fruit and tree nut farming	Z1113	-0.5%	0.2%	-0.2%	0.20	-1.31
Noncitrus fruit and tree nut farming	Z11133	-0.5%	0.2%	-0.1%	-0.19	-1.31
Other noncitrus fruit farming	Z111339	-0.9%	0.3%	-0.3%	-0.01	-1.4
Mining	Z21	-0.5%	0.4%	0.0%	-1.22	14.46
Oil and gas extraction	Z211	-0.6%	0.2%	0.0%	-4.58	28.6
Natural gas extraction	Z21113	-0.9%	1.5%	0.2%	0.72	-0.04
Manufacturing	ZMANU	-0.1%	0.1%	0.0%	0.29	-0.97
Manufacturing, part 1	Z31	-0.1%	0.0%	0.0%	-0.66	0.14
Food manufacturing	Z311	-0.1%	0.1%	0.0%	-0.03	-0.91
Grain and oilseed milling	Z3112	-0.1%	0.3%	0.1%	0.39	-0.62
Starch and vegetable fats and oils manufacturing	Z31122	-0.2%	0.4%	0.1%	0.41	-0.44
Soybean and other oilseed processing	Z311224	-0.2%	0.3%	0.0%	0.29	-0.4
Sugar and confectionery product manufacturing	Z3113	-0.2%	0.2%	0.0%	0.09	-0.43
Fruit and vegetable preserving and specialty food manufacturing	Z3114	-0.1%	0.1%	0.0%	0.50	0.16
Fruit and vegetable canning, pickling, and drying	Z31142	-0.1%	0.1%	0.0%	0.24	-0.77
Animal slaughtering and processing	Z3116	-0.1%	0.3%	0.0%	0.76	0.76
Animal (except poultry) slaughtering	Z311611	-0.1%	0.2%	0.0%	0.44	-0.05
Seafood product preparation and packaging	Z3117	-0.5%	0.2%	-0.1%	-1.08	0.58
Other food manufacturing	Z3119	0.0%	0.3%	0.1%	0.54	-1.05
Beverage and tobacco product manufacturing	Z312	-0.2%	0.2%	0.0%	0.64	-0.55
Beverage manufacturing	Z3121	-0.2%	0.2%	0.0%	0.70	-0.53
Breweries	Z31212	-0.1%	0.0%	0.0%	-2.01	3.63
Wineries	Z31213	-0.3%	0.2%	0.0%	-0.60	0.15
Distilleries	Z31214	-0.1%	0.6%	0.1%	1.46	1.03
Textile mills	Z313	0.0%	0.1%	0.0%	0.54	-1.44
Fabric mills	Z3132	0.0%	0.2%	0.1%	0.58	-1.51
Textile product mills	Z314	-0.1%	0.3%	0.1%	0.42	-1.14
Textile furnishings mills	Z3141	-0.2%	0.1%	0.0%	0.03	-0.77
Curtain and linen mills	Z31412	-0.2%	0.1%	0.0%	0.04	-0.78
Other textile product mills	Z3149	0.0%	0.8%	0.3%	0.41	-0.95
All other textile product mills	Z31499	0.0%	1.1%	0.4%	0.43	-0.96
Apparel manufacturing	Z315	-0.1%	0.0%	0.0%	-1.26	1.03
Cut and sew apparel manufacturing	Z3152	-0.1%	0.0%	0.0%	-1.00	0.35
Men and boys cut and sew apparel manufacturing	Z31522	-0.1%	0.1%	0.0%	-0.45	-1.19
Women and girls cut and sew apparel manufacturing	Z31524	-0.1%	0.1%	0.0%	-0.14	-0.83

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Apparel accessories and other apparel manufacturing	Z3159	-0.1%	0.3%	0.1%	0.29	2.99
Leather and allied product manufacturing	Z316	-0.4%	0.1%	-0.1%	-1.65	3.95
Footwear manufacturing	Z3162	-0.6%	0.2%	-0.1%	-1.69	4.28
Other leather and allied product manufacturing	Z3169	0.0%	0.0%	0.0%	1.85	2.3
Manufacturing, part 2	Z32	-0.4%	0.2%	-0.1%	-0.51	-0.9
Wood product manufacturing	Z321	-0.3%	0.1%	-0.1%	-0.95	-0.61
Sawmills and wood preservation	Z3211	-0.3%	0.7%	0.2%	-0.32	-1.21
Veneer, plywood, and engineered wood product manufacturing	Z3212	-0.4%	0.0%	-0.1%	-0.91	0.29
Paper manufacturing	Z322	-0.2%	0.3%	0.0%	0.46	0.45
Pulp, paper, and paperboard mills	Z3221	-0.7%	0.5%	0.0%	-0.31	2.78
Converted paper product manufacturing	Z3222	-0.2%	0.2%	0.0%	0.69	0.21
Paper bag and coated and treated paper manufacturing	Z32222	-0.4%	0.4%	0.2%	-0.36	-0.96
Petroleum and coal products manufacturing	Z324	-3.3%	2.2%	-0.6%	-0.28	-0.46
Chemical manufacturing	Z325	-0.1%	0.1%	0.0%	0.59	-0.9
Basic chemical manufacturing	Z3251	-0.3%	0.2%	0.0%	-0.19	-0.97
Other basic inorganic chemical manufacturing	Z32518	-1.0%	1.1%	0.2%	-0.27	-1.3
Other basic organic chemical manufacturing	Z32519	-0.1%	0.1%	0.0%	0.34	-0.68
All other basic organic chemical manufacturing	Z325199	-0.1%	0.2%	0.0%	0.54	-1.06
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Z3252	0.0%	0.2%	0.1%	0.13	1.03
Resin and synthetic rubber manufacturing	Z32521	0.0%	0.1%	0.1%	-1.62	3.46
Pesticide, fertilizer, other agricult. chemical manufacturing	Z3253	-0.7%	0.8%	0.1%	0.06	0.34
Fertilizer manufacturing	Z32531	-0.7%	0.5%	-0.1%	-0.10	-1.46
Pharmaceutical and medicine manufacturing	Z3254	-0.1%	0.1%	0.0%	0.65	-0.62
Pharmaceutical preparation manufacturing	Z325412	-0.3%	0.3%	-0.1%	0.74	-0.12
Biological product (except diagnostic) manufacturing	Z325414	-0.4%	0.3%	0.0%	-0.33	-1.24
Other chemical product and preparation manufacturing	Z3259	-0.1%	0.0%	0.0%	-0.41	-0.88
All other chemical product and prep. manufacturing	Z32599	-0.2%	0.0%	0.0%	-2.10	3.63
Plastics and rubber products manufacturing	Z326	-0.2%	0.2%	0.0%	-0.22	-0.49
Plastics product manufacturing	Z3261	-0.4%	0.3%	0.0%	-0.37	-0.39
Plastics packaging materials and film and sheet manufacturing	Z32611	-0.6%	0.7%	0.0%	0.67	-0.01
Unlaminated plastics film and sheet (except packaging) manufacturing	Z326113	-0.2%	0.8%	0.1%	0.69	-0.66
Other plastics product manufacturing	Z32619	-0.4%	0.3%	0.0%	-0.56	-0.19
Rubber product manufacturing	Z3262	-0.1%	0.2%	0.0%	1.09	1.85

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Tire manufacturing	Z32621	0.0%	0.0%	0.0%	0.35	-1.18
Nonmetallic mineral product manufacturing	Z327	0.0%	0.2%	0.1%	0.66	-1
Other nonmetallic mineral product manufacturing	Z3279	0.0%	0.5%	0.2%	0.72	-1.51
All other nonmetallic mineral product manufacturing	Z32799	0.0%	0.7%	0.2%	0.74	-1.52
Manufacturing, part 3	Z33	-0.1%	0.1%	0.0%	0.01	-0.25
Primary metal manufacturing	Z331	-0.2%	0.5%	0.1%	0.68	-0.01
Iron and steel mills and ferroalloy manufacturing	Z3311	-1.0%	1.8%	0.1%	0.63	-0.69
Alumina and aluminum production and processing	Z3313	0.0%	0.0%	0.0%	0.97	-0.76
Nonferrous metal (except aluminum) production and processing	Z3314	-0.3%	0.1%	0.0%	-1.02	-0.64
Nonferrous metal (except aluminum) smelting and refining	Z33141	0.0%	0.0%	0.0%	-0.24	-0.13
Nonferrous metal products manufacturing, not made from copper or aluminum	Z33149	0.0%	0.1%	0.1%	-0.90	-0.34
Fabricated metal product manufacturing	Z332	-0.1%	0.1%	0.0%	0.54	-1.1
Cutlery and handtool manufacturing	Z3322	0.0%	0.1%	0.0%	-0.13	-1.21
Metal kitchen cookware, utensil, cutlery, and flatware (except precious	Z332215	-0.1%	0.1%	0.0%	-0.97	0.58
Hardware manufacturing	Z3325	-0.1%	0.2%	0.1%	-0.02	-1.33
Machine shops; and screw, nut, and bolt manufacturing	Z3327	-0.6%	2.0%	0.2%	1.00	-0.14
Other fabricated metal product manufacturing	Z3329	-0.2%	0.2%	0.0%	1.09	1.82
Metal valve manufacturing	Z33291	-0.4%	0.4%	0.0%	0.37	0.53
Industrial valve manufacturing	Z332911	-0.6%	0.3%	-0.1%	-0.05	0.89
All other fabricated metal product manufacturing	Z33299	-0.2%	0.1%	-0.1%	0.41	-0.96
Machinery manufacturing	Z333	0.0%	0.1%	0.0%	0.04	-1.1
Agriculture, construction, and mining machinery manufacturing	Z3331	-0.3%	0.2%	0.0%	-1.02	-0.37
Agricultural implement manufacturing	Z33311	-0.2%	0.4%	0.1%	0.10	-1.14
Farm machinery and equipment manufacturing	Z333111	0.1%	0.4%	0.3%	-0.51	-1.23
Construction machinery manufacturing	Z33312	-0.4%	0.3%	0.0%	-1.01	-0.5
Industrial machinery manufacturing	Z3332	-0.2%	0.2%	0.0%	-0.15	0.21
Industrial machinery manufacturing	Z33324	-0.1%	0.0%	0.0%	-1.19	0.09
Other industrial machinery manufacturing	Z333249	0.0%	0.0%	0.0%	0.02	-2.05
Commercial and service industry machinery manufacturing	Z3333	-0.1%	0.2%	0.0%	0.49	-0.44
Optical instrument and lens manufacturing	Z333314	-0.1%	0.0%	0.0%	-0.90	-1.12
Other commercial and service industry machinery manufacturing	Z333318	0.0%	0.2%	0.1%	-0.15	-0.8

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Ventilation, heating, air-conditioning, and commercial refrigeration equipment	Z3334	-0.1%	0.4%	0.1%	0.93	0.04
Air-conditioning and warm air heating equipment and commercial and industrial	Z333415	0.0%	0.6%	0.3%	0.68	-0.76
Metalworking machinery manufacturing	Z3335	0.0%	0.0%	0.0%	-0.73	0.44
Machine tool manufacturing	Z333517	0.0%	0.0%	0.0%	0.36	-1.82
Engine, turbine, and power transmission equipment manufacturing	Z3336	-0.1%	0.3%	0.0%	0.28	-0.9
Other engine equipment manufacturing	Z333618	-0.1%	0.0%	-0.1%	0.23	-1.32
Other general purpose machinery manufacturing	Z3339	0.0%	0.1%	0.0%	0.53	-1.09
Pump and compressor manufacturing	Z33391	-0.1%	0.0%	0.0%	-1.86	4.5
Measuring, dispensing, and other pumping equipment manufacturing	Z333914	0.0%	0.0%	0.0%	-0.90	-1.25
Material handling equipment manufacturing	Z33392	-0.4%	0.0%	-0.1%	-1.14	-0.49
Industrial truck, tractor, trailer, and stacker machinery manufacturing	Z333924	-0.1%	0.0%	0.0%	-0.33	-0.19
All other general purpose machinery manufacturing	Z33399	0.0%	0.1%	0.1%	-0.27	-1.2
All other miscellaneous general purpose machinery manufacturing	Z333999	-0.2%	0.2%	0.0%	0.27	-0.94
Computer and electronic product manufacturing	Z334	-0.3%	0.4%	0.1%	-0.24	-0.32
Computer and peripheral equipment manufacturing	Z3341	-0.1%	1.9%	0.4%	1.52	1.73
Electronic computer manufacturing	Z334111	-0.1%	0.2%	0.0%	0.65	0.82
Computer terminal and other computer peripheral equipment manufacturing	Z334118	-0.1%	0.2%	0.0%	0.70	-0.69
Communications equipment manufacturing	Z3342	-0.1%	0.1%	0.0%	-0.22	-0.61
Audio and video equipment manufacturing	Z3343	-0.4%	0.5%	0.1%	0.23	-0.89
Semiconductor and other electronic component manufacturing	Z3344	-1.4%	0.9%	-0.1%	-0.72	-0.35
Semiconductor and related device manufacturing	Z334413	-0.6%	0.3%	-0.1%	-0.38	-0.04
Printed circuit assembly (electronic assembly) manufacturing	Z334418	0.2%	2.0%	0.7%	1.45	2.48
Navigational, measuring, electromedical, and control instruments	Z3345	-0.2%	0.0%	0.0%	-1.67	2.79
Electromedical and electrotherapeutic apparatus manufacturing	Z334510	-0.6%	0.0%	-0.1%	-1.25	-0.29
Instrument manufacturing for measuring and testing electricity	Z334515	0.0%	0.0%	0.0%	0.30	-1.48
Analytical laboratory instrument manufacturing	Z334516	0.0%	0.0%	0.0%	-0.02	-0.8
Other measuring and controlling device manufacturing	Z334519	-0.3%	0.0%	-0.2%	0.45	-1.21
Manufacturing and reproducing	Z3346	-3.2%	1.8%	-0.1%	-0.91	-0.62

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
magnetic and optical media						
Blank magnetic and optical recording media manufacturing	Z334613	-0.4%	2.0%	0.7%	-0.06	-1.12
Electrical equipment, appliance, and component manufacturing	Z335	-0.3%	0.0%	-0.1%	-1.29	0.28
Electric lighting equipment manufacturing	Z3351	-0.2%	0.1%	0.0%	-0.32	-0.14
Lighting fixture manufacturing	Z33512	-0.2%	0.2%	0.0%	-0.40	0.51
Other lighting equipment manufacturing	Z335129	0.1%	0.3%	0.2%	0.63	-0.86
Household appliance manufacturing	Z3352	-0.1%	0.0%	0.0%	-0.93	0.22
Small electrical appliance manufacturing	Z33521	0.0%	0.1%	0.0%	0.34	-0.64
Major household appliance manufacturing	Z33522	-0.2%	0.0%	-0.1%	0.47	-0.11
Electrical equipment manufacturing	Z3353	-0.4%	0.2%	-0.1%	0.84	0.39
Motor and generator manufacturing	Z335312	-0.2%	0.1%	0.0%	-0.20	-1.49
Switchgear and switchboard apparatus manufacturing	Z335313	-1.1%	-0.5%	-0.6%	-2.22	4.06
Communication and energy wire and cable manufacturing	Z33592	-0.3%	0.2%	0.0%	0.02	0.6
Other communication and energy wire manufacturing	Z335929	-0.2%	0.2%	0.0%	-0.03	0.54
All other electrical equipment and component manufacturing	Z33599	-0.1%	0.3%	0.1%	-0.37	-1.25
All other miscellaneous electrical equipment and component manufacturing	Z335999	-0.1%	0.1%	0.0%	-0.16	-0.57
Transportation equipment manufacturing	Z336	0.0%	0.0%	0.0%	-0.53	-1.01
Motor vehicle manufacturing	Z3361	-0.1%	0.0%	0.0%	-0.81	-0.82
Automobile and light duty motor vehicle manufacturing	Z33611	-0.1%	0.0%	0.0%	-0.81	-0.82
Automobile manufacturing	Z336111	0.0%	0.0%	0.0%	-1.69	2.91
Heavy duty truck manufacturing	Z33612	0.0%	0.0%	0.0%	-2.30	3.53
Motor vehicle parts manufacturing	Z3363	0.0%	0.0%	0.0%	0.28	-0.11
Motor vehicle gasoline engine and engine parts manufacturing	Z33631	0.0%	0.0%	0.0%	-0.89	0.37
Motor vehicle electrical and electronic equipment manufacturing	Z33632	0.0%	0.0%	0.0%	-0.17	-0.38
Motor vehicle steering and suspension components manufacturing	Z33633	0.0%	0.0%	0.0%	-1.00	0.48
Motor vehicle brake system manufacturing	Z33634	0.0%	0.0%	0.0%	1.22	1.6
Motor vehicle transmission and power train parts manufacturing	Z33635	0.0%	0.0%	0.0%	0.67	-0.39
Motor vehicle seating and interior trim manufacturing	Z33636	0.0%	0.0%	0.0%	0.84	0.22
Other motor vehicle parts manufacturing	Z33639	0.0%	0.0%	0.0%	-0.10	-0.45
Aerospace product and parts manufacturing	Z3364	-0.1%	0.2%	0.0%	1.11	0.54
Aircraft engine and engine parts manufacturing	Z336412	-0.1%	0.1%	0.0%	0.03	-1.9

Stratum Description	Stratum	LTR 12-month Percent Change				
		Minimum Difference	Maximum Difference	Mean of Differences	Skewness of Differences	Kurtosis -3 of Differences
Other aircraft parts and auxiliary equipment manufacturing	Z336413	0.0%	0.2%	0.1%	0.78	0.3
Other transportation equipment manufacturing	Z3369	-0.1%	0.2%	0.0%	0.25	-0.97
Motorcycle, bicycle, and parts manufacturing	Z336991	-0.1%	0.3%	0.1%	-0.01	-1.2
Furniture and related product manufacturing	Z337	-0.2%	0.1%	0.0%	-0.52	-0.1
Household and institutional furniture and kitchen cabinet manufacturing	Z3371	-0.2%	0.1%	-0.1%	-0.16	-1.13
Upholstered household furniture manufacturing	Z337121	-0.1%	0.1%	0.0%	-0.04	0.73
Nonupholstered wood household furniture manufacturing	Z337122	-0.7%	0.2%	-0.2%	-0.27	-0.9
Institutional furniture manufacturing	Z337127	0.0%	0.1%	0.0%	0.58	1.21
Office furniture (including fixtures) manufacturing	Z3372	-0.3%	0.2%	0.0%	-1.91	5.08
Showcase, partition, shelving, and locker manufacturing	Z337215	-0.1%	0.0%	0.0%	0.78	-0.11
Miscellaneous manufacturing	Z339	-0.2%	0.1%	0.0%	0.05	0.16
Medical equipment and supplies manufacturing	Z3391	-0.3%	0.2%	-0.1%	0.46	-0.35
Surgical and medical instrument manufacturing	Z339112	-0.3%	0.5%	0.1%	0.63	-0.81
Surgical appliance and supplies manufacturing	Z339113	-0.7%	0.2%	-0.2%	-0.72	-0.85
Other miscellaneous manufacturing	Z3399	-0.1%	0.1%	0.0%	-0.40	-0.52
Jewelry and silverware manufacturing	Z33991	-0.5%	0.1%	-0.2%	-0.18	0.29
Sporting and athletic goods manufacturing	Z33992	-0.1%	0.7%	0.2%	0.81	-0.08
Doll, toy, and game manufacturing	Z33993	-0.1%	0.5%	0.1%	0.45	-0.64
All other miscellaneous manufacturing	Z33999	-0.1%	0.1%	0.0%	-0.41	-0.24
All other miscellaneous manufacturing	Z339999	-0.2%	0.1%	0.0%	-0.62	-0.95

Appendix B

The differences between the short term price index relatives for nonresponse adjusted and unadjusted indexes were analyzed and the Wilcoxon signed-rank test was applied to these pairwise differences. P-values less than or equal to 0.05 for the test are shaded red in tables B-1 through B-3. Export price index stratum labels begin with Q, D, or Y, depending on classification system, and import price index labels begin with an R, P, or Z. Price indexes that were not published for a full five years and those with secondary source pricing are not included in these tables. Yearly results for price indexes that were published for less than five years can be found in Appendix C.

Table B-1. STR Differences 2019-2023 for BEA Export and Import Price Indexes Students' T-test Results

BEA End Use Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
All commodities	Q	-0.13%	0.11%	0.00%	0.76
Foods, feeds, & beverages	Q0	-0.14%	0.13%	0.00%	0.80
Agricultural foods, feeds & beverages, excluding distilled beverages	Q00	-0.15%	0.14%	0.00%	0.74
Wheat and rice	Q000	-0.06%	0.07%	0.00%	0.68
Soybeans & other oil seeds	Q001	-0.02%	0.01%	0.00%	0.75
Soybeans and soybean by-products, prior to the extraction of oil	Q00100	-0.02%	0.01%	0.00%	0.76
Feedstuff	Q002	-0.43%	0.61%	0.01%	0.67
Other animal feeds, n.e.s.	Q00220	-1.00%	1.49%	0.02%	0.72
Other agricultural foods	Q003	-0.12%	0.13%	0.00%	0.48
Meat, poultry & other edible animal products	Q00300	-0.36%	0.35%	-0.01%	0.73
Dairy products & eggs	Q00310	-0.86%	0.67%	0.00%	0.97
Fruit and fruit preparations, including fruit juices	Q00320	-0.26%	0.27%	0.01%	0.23
Vegetables and vegetable preparations and juices	Q00330	-0.03%	0.04%	0.00%	0.54
Nuts & preparations	Q00340	-0.16%	0.15%	0.00%	0.55
Bakery & confectionery products	Q00350	-0.46%	0.23%	-0.01%	0.53
Other foods and food preparations (lard, soft bev, spices), n.e.s.	Q00360	-0.26%	0.31%	-0.02%	0.09
Nonagricultural foods (fish, distilled beverages)	Q01	-0.68%	0.59%	0.01%	0.71
Fish and shellfish	Q01000	-1.00%	0.83%	0.01%	0.71
Industrial supplies & materials	Q1	-0.27%	0.20%	0.00%	0.93
Agricultural industrial supplies & materials	Q10	-0.38%	0.15%	0.00%	0.89
Cotton, incl linters-raw (Dec. 2005=100)	Q100	-0.83%	0.49%	0.01%	0.68
Other agricultural materials	Q101	-0.34%	0.16%	0.00%	0.67
Fuels & lubricants	Q11	-0.75%	0.66%	0.00%	0.92
Coals & related fuels	Q110	-0.48%	0.78%	0.00%	0.93
Other coal & related fuels	Q11020	-0.38%	0.21%	-0.01%	0.65
Petroleum & petroleum products	Q111	-0.86%	0.75%	0.01%	0.85
Fuel oil	Q11110	-1.20%	2.20%	0.00%	0.92
Other petroleum products	Q11120	-0.79%	0.72%	0.01%	0.59
Gas-natural	Q112	-3.15%	1.98%	-0.01%	0.95
Nonagricultural supplies & materials excluding fuels & building materials	Q12	-0.20%	0.10%	0.00%	0.94
Iron and steel products	Q121	-0.03%	0.02%	0.00%	0.59
Nonferrous & other metals	Q122	-0.18%	0.30%	0.00%	0.63
Aluminum & alumina	Q12200	-0.43%	0.25%	0.00%	0.92
Copper	Q12210	-0.15%	2.20%	0.04%	0.34
Nonmonetary gold	Q12260	-0.18%	0.14%	0.00%	0.85
Other precious metals (Dec. 2001=100)	Q12270	-0.40%	0.28%	0.00%	0.87
Other nonferrous metals	Q12290	-0.90%	0.29%	-0.02%	0.26
Finished metal shapes	Q123	-0.02%	0.02%	0.00%	0.02
Paper & paper base stocks	Q124	-0.23%	0.71%	0.04%	0.06
Woodpulp and recovered paper	Q12420	-0.54%	1.30%	0.06%	0.05
Linerboard, newsprint, and other paper/paperboard	Q12430	-0.29%	1.50%	0.03%	0.44

BEA End Use Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Chemicals, excluding medicinals	Q125	-0.44%	0.25%	-0.01%	0.36
Plastic materials	Q12500	-0.76%	0.31%	-0.02%	0.30
Fertilizers, pesticides, & insecticides	Q12510	-0.03%	0.08%	0.00%	0.19
Industrial inorganic chemicals	Q12530	-0.07%	0.05%	0.00%	0.86
Industrial organic chemicals	Q12540	-0.09%	0.11%	0.00%	0.76
Other chemicals, excluding medicinals	Q12550	-1.80%	0.39%	-0.03%	0.42
Industrial textile fibers, yarn, and fabric	Q126	-0.13%	0.30%	0.00%	0.80
Other nonagricultural industrial supplies and materials	Q127	-0.07%	0.45%	0.01%	0.37
Synthetic rubber-primary	Q12700	0.00%	0.17%	0.01%	0.26
Industrial rubber products	Q12750	-0.02%	0.11%	0.00%	0.63
Mineral supplies-manufactured	Q12760	0.00%	0.03%	0.00%	0.33
Other goods manufactured and unmanufactured	Q12770	-0.11%	0.60%	0.01%	0.53
Selected building materials	Q13	-0.22%	0.21%	0.01%	0.30
Lumber & other wood supplies	Q131	-0.22%	0.08%	0.00%	0.55
Logs, lumber, plywood and veneers	Q13100	-0.27%	0.10%	0.00%	0.56
Miscellaneous building materials, excluding wood	Q132	-0.11%	0.15%	0.01%	0.39
Other building materials, exclude wood and glass	Q13210	-0.41%	0.45%	0.03%	0.18
Capital goods	Q2	-0.04%	0.03%	0.00%	0.53
Electrical generating equipment	Q20	-0.03%	0.17%	0.01%	0.02
Generators, transformers & access	Q20000	-0.02%	0.02%	0.00%	0.63
Electric apparatus and parts, n.e.s.	Q20005	-0.04%	0.22%	0.01%	0.02
Nonelectrical machinery	Q21	-0.05%	0.05%	0.00%	0.89
Oil drilling, mining, and construction machinery and equipment	Q210	-0.44%	0.12%	0.00%	0.66
Excavating, paving & construction machinery	Q21030	-0.32%	0.22%	0.00%	0.73
Industrial and service machinery	Q211	-0.15%	0.04%	0.00%	0.18
Industrial engines, pumps, & compressors	Q21100	-0.24%	0.14%	-0.01%	0.50
Metal working machine tools and rolling mill machines	Q21120	-0.02%	0.01%	0.00%	0.87
Measuring, testing & control instruments	Q21160	-0.06%	0.15%	0.00%	0.34
Materials handling equipment	Q21170	-0.11%	0.10%	0.00%	0.40
Other industrial machinery	Q21180	-0.19%	0.04%	-0.01%	0.05
Photo and other service industry machines	Q21190	-0.03%	0.20%	0.01%	0.47
Agricultural machinery and equipment	Q212	-0.23%	0.19%	0.00%	0.74
Computers, peripherals, and semiconductors	Q213	-0.17%	0.17%	0.01%	0.26
Computers	Q21300	-0.44%	0.64%	0.03%	0.24
Computer peripherals, accessories and parts	Q21301	-0.51%	0.33%	-0.01%	0.58
Semiconductors	Q21320	-0.06%	0.17%	0.01%	0.05
Telecommunications equipment	Q214	-0.22%	0.19%	0.01%	0.34
Scientific and medical machinery	Q216	-0.09%	0.28%	0.00%	0.78
Laboratory testing & control instruments	Q21600	-0.10%	0.17%	0.00%	0.53
Other scientific, medical and hospital equipment	Q21610	-0.12%	0.38%	0.00%	0.70
Transportation equipment excluding motor vehicles (Dec. 2001=100)	Q22	-0.17%	0.08%	0.00%	0.93
Civilian aircraft, aircraft engines, and parts thereof	Q220	-0.17%	0.08%	0.00%	0.60
Parts for civilian aircraft	Q22010	-0.09%	0.08%	0.00%	0.35
Automotive vehicles, parts & engines	Q3	-0.08%	0.06%	0.00%	0.60
Passenger cars, new and used	Q300	-0.05%	0.14%	0.00%	0.49
Vehicles designed to transport goods	Q301	-0.03%	0.04%	0.00%	0.94
Parts, engines, bodies & chassis	Q302	-0.15%	0.11%	0.00%	0.90
Engines and engine parts for automotive vehicles	Q30200	-0.27%	0.05%	0.00%	0.55
Nonengine parts & accessories	Q30230	-0.22%	0.16%	0.00%	0.71
Consumer goods, excluding automobiles	Q4	-0.35%	0.23%	-0.01%	0.25
Nondurables, manufactured	Q40	-0.62%	0.42%	-0.01%	0.38
Apparel, footwear, and household goods	Q400	0.00%	0.00%	0.00%	0.03
Textile apparel and footwear	Q40000	0.00%	0.00%	0.00%	0.79
Other consumer nondurables	Q401	-0.68%	0.48%	-0.02%	0.34
Medicinal, dental, and pharmaceutical preparatory materials	Q40100	-0.89%	0.71%	-0.02%	0.34
Toiletries & cosmetics	Q40120	-0.38%	0.18%	0.00%	0.83
Other products (notions & writing articles)	Q40140	-0.04%	0.06%	0.00%	0.25
Durables, manufactured	Q41	-0.47%	0.09%	-0.01%	0.34
Household goods	Q410	-0.08%	0.18%	0.00%	0.61

BEA End Use Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Furniture and household items	Q41000	-0.03%	0.02%	0.00%	0.24
Household and kitchen appliances	Q41030	-0.05%	0.04%	0.00%	0.52
Miscellaneous household goods	Q41050	-0.12%	0.28%	0.01%	0.41
Recreational equip & materials	Q411	-0.21%	0.17%	0.00%	0.97
Toys, shooting and sporting goods	Q41120	-0.31%	0.22%	0.00%	0.92
Home entertainment equipment	Q412	-0.39%	0.03%	-0.01%	0.40
Nonmanufactured consumer goods	Q42	0.00%	0.00%	0.00%	0.75
All commodities	R	-0.03%	0.04%	0.00%	0.94
Foods, feeds, & beverages	R0	-0.06%	0.04%	0.00%	0.41
Agricultural foods, feeds & beverages, excluding distilled beverages	R00	-0.07%	0.05%	0.00%	0.23
Green coffee, cocoa beans, sugar	R000	-0.30%	0.32%	0.02%	0.25
Green coffee	R00000	-0.41%	0.39%	0.03%	0.08
Other agricultural foods	R001	-0.08%	0.08%	0.00%	0.50
Meat, poultry & other edible animal products	R00100	-0.15%	0.07%	0.00%	0.86
Fruit and fruit preparations including frozen juices	R00120	-0.36%	0.33%	0.00%	0.97
Vegetables and vegetable preparations	R00130	-0.41%	0.23%	0.00%	0.79
Food oils & oilseeds	R00150	-0.33%	0.10%	-0.01%	0.22
Bakery & confectionery products	R00160	-0.08%	0.07%	0.00%	0.95
Other animal & vegetable preparations & products	R00180	-0.03%	0.41%	0.01%	0.12
Wine, beer, & related products	R00190	-0.05%	0.06%	0.00%	0.24
Feedstuff and foodgrains	R002	-0.02%	0.01%	0.00%	0.26
Nonagricultural foods (fish, distilled beverages)	R01	-0.11%	0.11%	0.00%	0.57
Fish & shellfish	R01000	-0.13%	0.17%	0.00%	0.74
Distilled alcoholic beverages	R01010	-0.18%	0.06%	-0.01%	0.06
Industrial supplies & materials	R1	-0.15%	0.12%	0.00%	0.69
Fuels & lubricants	R10	-0.49%	0.36%	0.01%	0.66
Petroleum & petroleum products	R100	-0.52%	0.39%	0.01%	0.59
Fuel oil	R10010	-3.22%	2.30%	0.09%	0.40
Other petroleum products	R10020	-0.77%	0.86%	-0.02%	0.55
Fuels, n.e.s.-coals & gas	R101	-0.56%	1.38%	0.00%	0.96
Gas-natural	R10110	-0.64%	1.94%	0.01%	0.83
Paper & paper base stocks	R11	-0.52%	0.33%	0.00%	0.96
Newsprint & other paper products	R111	-0.34%	0.12%	-0.01%	0.61
Coated and uncoated paper/paperboard	R11110	-0.38%	0.12%	-0.01%	0.58
Materials associated with nondurable supplies & materials	R12	-0.06%	0.07%	0.00%	0.55
Agricultural products used for industrial supplies and materials	R120	-0.15%	0.68%	0.00%	0.75
Other agricultural products (tobacco, waxes, nonfood oils)	R12070	-0.21%	0.79%	0.00%	0.74
Textile supplies & related materials	R121	-0.13%	0.01%	0.00%	0.10
Synthetic cloth, fabric, and thread	R12135	-0.26%	0.01%	-0.01%	0.31
Finished textile industrial supplies	R12150	-0.05%	0.00%	0.00%	0.08
Chemicals, excluding medicinals	R125	-0.08%	0.06%	0.00%	0.37
Plastic materials	R12500	-0.25%	0.17%	0.00%	0.85
Fertilizers, pesticides & insecticides	R12510	-0.56%	0.25%	-0.01%	0.40
Industrial inorganic chemicals	R12530	-0.04%	0.03%	0.00%	0.73
Industrial organic chemicals	R12540	-0.10%	0.30%	0.00%	0.69
Other chemicals (coloring agents)	R12550	-0.35%	0.03%	-0.01%	0.10
Selected building materials	R13	-0.10%	0.16%	0.00%	0.75
Lumber and other unfinished building materials	R130	-0.26%	0.36%	-0.01%	0.54
Lumber & wood in the rough	R13000	-0.45%	0.92%	-0.02%	0.70
Stone, sand, cement and lime	R13020	-0.60%	0.02%	-0.02%	0.17
Building materials, finished	R131	-0.04%	0.04%	0.00%	0.25
Nontextile floor & wall coverings; mach. parts of china	R13120	-0.02%	0.02%	0.00%	0.42
Unfinished metals related to durable goods	R14	-0.17%	0.12%	0.00%	0.66
Steelmaking & ferroalloying matls	R140	-0.08%	0.05%	-0.01%	0.07
Iron & steel mill products	R141	-0.85%	0.57%	-0.01%	0.77
Major nonferrous metals-crude	R142	-0.01%	0.09%	0.00%	0.51
Bauxite, alumina, aluminum, and products thereof	R14200	-0.03%	0.00%	0.00%	0.20
Other precious metals	R14280	-0.03%	0.35%	0.01%	0.40

BEA End Use Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Finished metals related to durable goods	R15	-0.06%	0.08%	0.00%	0.25
Iron & steel products, except advanced manufacturing	R150	-0.07%	0.06%	0.00%	0.40
Iron & steel advanced manufacturing	R151	-0.23%	0.20%	0.00%	0.72
Finished metals shapes and advanced manufacturing	R152	-0.08%	0.16%	0.00%	0.81
Nonmetals related to durable goods	R16	-0.06%	0.04%	0.00%	0.42
Finished nonmetals (boxes, belting, glass, etc.)	R161	-0.09%	0.05%	0.00%	0.51
Other finished nonmetals (boxes, belting, glass, etc.)	R16120	-0.09%	0.05%	0.00%	0.51
Capital goods	R2	-0.11%	0.08%	0.00%	0.21
Electric generating equipment	R20	-0.15%	0.17%	0.01%	0.19
Generators, transformers & access	R20000	-0.06%	0.10%	0.00%	0.87
Electric apparatus & parts, n.e.s.	R20005	-0.22%	0.24%	0.01%	0.21
Nonelectrical machinery	R21	-0.14%	0.10%	-0.01%	0.13
Oil drilling, mining, and construction machinery and equipment	R210	-0.18%	0.12%	0.00%	0.42
Excavating, paving & construction machinery	R21030	-0.26%	0.12%	-0.01%	0.13
Industrial and service machinery	R211	-0.03%	0.03%	0.00%	0.81
Industrial engines, pumps, & compressors	R21100	-0.03%	0.09%	0.00%	0.59
Metal working machine tools and rolling mills	R21120	-0.11%	0.02%	0.00%	0.11
Measuring, testing & control instruments	R21160	-0.07%	0.10%	0.00%	0.97
Materials handling equipment	R21170	-0.19%	0.25%	0.01%	0.35
Other industrial machines	R21180	-0.06%	0.10%	0.00%	0.83
Photo & other service industry machinery	R21190	-0.07%	0.10%	0.00%	0.72
Agricultural machinery and equipment	R212	-0.34%	0.30%	-0.02%	0.29
Computers, peripherals and semiconductors	R213	-0.42%	0.27%	-0.02%	0.12
Computers	R21300	-1.29%	0.51%	-0.08%	0.02
Computer accessories, peripherals, and parts	R21301	-0.41%	0.50%	0.02%	0.22
Semiconductors	R21320	-0.28%	0.55%	0.00%	0.85
Telecommunications equipment	R214	-0.05%	0.06%	0.00%	0.40
Business machinery and equipment, except computers	R215	-0.06%	0.45%	0.01%	0.42
Scientific and medical machinery	R216	-0.09%	0.13%	0.00%	0.66
Laboratory testing and control instruments	R21600	-0.03%	0.03%	0.00%	0.53
Other scientific, medical, and hospital equipment	R21610	-0.11%	0.15%	0.00%	0.64
Transportation equipment excluding motor vehicles (Dec. 2001=100)	R22	-0.09%	0.14%	0.00%	0.73
Civilian aircraft, engines part	R220	-0.09%	0.14%	0.00%	0.55
Parts for civilian aircraft	R22010	-0.35%	0.30%	-0.01%	0.30
Engines for civilian aircraft	R22020	-0.04%	0.25%	0.00%	0.43
Automotive vehicles, parts & engines	R3	-0.02%	0.03%	0.00%	0.36
Passenger cars, new and used	R300	-0.04%	0.04%	0.00%	0.82
Parts, engines, bodies and chassis	R302	0.00%	0.00%	0.00%	0.72
Engines and engine parts for automotive vehicles (Dec. 2004=100)	R30200	0.00%	0.00%	0.00%	0.47
Automotive tires & tubes (Dec. 2004=100)	R30220	0.00%	0.00%	0.00%	0.70
Non-engine parts & accessories (Dec. 2003=100)	R30230	0.00%	0.00%	0.00%	0.26
Consumer goods, excluding automobiles	R4	-0.02%	0.04%	0.00%	0.26
Nondurables, manufactured	R40	-0.03%	0.05%	0.00%	0.32
Apparel, footwear, and household goods	R400	-0.03%	0.07%	0.00%	0.62
Cotton apparel and household goods	R40000	-0.06%	0.07%	0.00%	0.29
Apparel and household goods for other textiles	R40020	-0.04%	0.04%	0.00%	0.13
Nontextile apparel and household goods	R40030	-0.17%	0.16%	0.00%	0.62
Footwear of leather, rubber, or other materials	R40040	-0.20%	0.50%	0.01%	0.62
Sporting/camping apparel and footwear	R40050	-0.07%	0.06%	0.00%	0.82
Other consumer nondurables	R401	-0.05%	0.08%	0.00%	0.43
Medicinal, dental and pharmaceutical preparatory materials	R40100	-0.06%	0.10%	0.00%	0.33
Toiletries and cosmetics	R40120	-0.08%	0.04%	-0.01%	0.00
Other products (notions, writing supplies, tobacco products, etc)	R40140	-0.01%	0.02%	0.00%	0.40
Durables, manufactured	R41	-0.05%	0.05%	0.00%	0.53
Household goods	R410	-0.03%	0.04%	0.00%	0.06
Furniture, household items	R41000	-0.14%	0.12%	0.01%	0.24
Cookware, chinaware, cutlery for the house and garden	R41020	-0.09%	0.11%	0.00%	0.93

BEA End Use Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Household and kitchen appliances	R41030	-0.07%	0.06%	0.00%	0.46
Other Household Goods, nes	R41050	-0.04%	0.10%	0.00%	0.29
Recreational equipment and materials	R411	-0.10%	0.04%	-0.01%	0.02
Motorcycles & parts (Dec. 2001=100)	R41100	-0.13%	0.10%	0.00%	0.31
Toys, shooting & sporting goods	R41120	-0.13%	0.05%	-0.01%	0.01
Photo & optical equipment	R41130	-0.03%	0.05%	0.00%	0.46
Musical instruments and parts	R41140	-0.09%	0.01%	0.00%	0.23
Home entertainment equipment	R412	-0.23%	0.15%	-0.01%	0.22
Television and video receivers	R41200	-0.17%	0.20%	0.00%	0.86
Radios, phonographs, and tape decks	R41210	-0.55%	0.05%	-0.03%	0.04
Coins, gems, jewelry, and collectibles	R413	-0.44%	0.47%	0.02%	0.20
Jewelry (watches, rings, etc)	R41310	-0.50%	0.53%	0.03%	0.26
Nonmanufactured consumer goods	R42	-0.05%	0.02%	0.00%	0.43
Nonmanufactured consumer durables	R421	-0.01%	0.01%	0.00%	0.76

Table B-2. STR Differences 2019-2023 for HS Export and Import Price Indexes Students' T-test Results

Harmonized System Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Live animals; animal products	D1	-0.32%	0.31%	0.00%	0.91
Meat & edible meat offal	D02	-0.44%	0.41%	0.00%	0.86
Meat of swine (pork), fresh, chilled or frozen	D0203	-0.16%	0.20%	0.00%	0.83
Fish and crustaceans, mollusks and aquatic invertebrates	D03	-0.96%	0.51%	-0.01%	0.77
Vegetable products	D11	-0.03%	0.04%	0.00%	0.39
Edible fruit and nuts; peel of citrus fruit or melons	D08	-0.14%	0.17%	0.01%	0.29
Nuts nesoi, fresh or dried	D0802	-0.17%	0.16%	0.00%	0.58
Cereals	D10	-0.03%	0.01%	0.00%	0.49
Oilseeds and misc. grains, seeds, fruits, plants, straw and fodder	D12	-0.03%	0.02%	0.00%	0.95
Prepared foodstuffs, beverages, and tobacco	D14	-0.33%	0.31%	-0.01%	0.31
Miscellaneous edible preparations	D21	-0.48%	0.44%	-0.04%	0.05
Food preparations nesoi	D2106	-0.47%	0.62%	-0.09%	0.02
Beverages, spirits, and vinegar	D22	-0.38%	0.20%	0.00%	0.77
Residues and waste from the food industries; prepared animal feed	D23	-0.87%	1.30%	0.01%	0.71
Mineral products	DV	-0.72%	0.66%	-0.01%	0.82
Ores, slag and ash	D26	-0.47%	1.91%	0.03%	0.45
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	D27	-0.77%	0.71%	-0.01%	0.82
Coal, briquettes and similar solid fuels manufactured from coal	D2701	-0.63%	1.05%	0.00%	0.99
Petroleum oils & oils from bituminous minerals (excl crude) & products, nes	D2710	-0.78%	0.29%	0.00%	0.94
Petroleum gases and other gaseous hydrocarbons	D2711	-4.78%	4.91%	-0.02%	0.90
Products of the chemical or allied industries	DV1	-0.56%	0.16%	-0.02%	0.15
Inorganic chemicals	D28	-0.07%	0.04%	0.00%	0.74
Organic chemicals	D29	-0.04%	0.25%	0.01%	0.32
Pharmaceutical products	D30	-0.90%	0.10%	-0.04%	0.09
Human and animal blood, prepared; other blood frctns	D3002	-1.33%	0.23%	-0.02%	0.40
Medicaments	D3004	-2.00%	0.15%	-0.06%	0.10
Tanning or dyeing extracts, dyes, paints varnish, putty, & inks	D32	-0.24%	0.27%	0.01%	0.53
Essential oils and resinoids; perfumery cosmetic or toilet preparations	D33	-0.34%	0.14%	0.00%	0.83
Beauty or make-up and skin-care preparations	D3304	-0.01%	0.38%	0.02%	0.22
Soap; lubricants; waxes, polishing or scouring products; candles, pastes	D34	-0.22%	0.05%	-0.01%	0.05
Miscellaneous chemical products	D38	-2.22%	0.51%	-0.04%	0.38
Composite diagnostic or laboratory reagents	D3822	-0.16%	1.05%	0.01%	0.59
Plastics and articles thereof; rubber and articles thereof	DVII	-0.44%	0.25%	-0.01%	0.66
Plastics and articles thereof	D39	-0.51%	0.26%	-0.01%	0.60
Polymers of ethylene, in primary forms	D3901	-1.35%	0.52%	-0.08%	0.19
Plates, sheets, films, etc., of plastic; laminated, etc.	D3920	-0.07%	0.28%	0.00%	0.66
Rubber and articles thereof	D40	-0.10%	0.16%	0.01%	0.22
New pneumatic tires of rubber	D4011	-0.28%	0.05%	-0.01%	0.44
Wood, wood charcoal, cork, straw, baskets and wickerwork	DIX	-0.21%	0.06%	0.00%	0.50
Woodpulp, recovered paper, and paper products	DX	-0.18%	0.34%	0.02%	0.04
Woodpulp and recovered paper	D47	-0.66%	0.96%	0.06%	0.08
Paper and paperboard; articles of paper pulp, paper or paperboard	D48	-0.19%	0.67%	0.01%	0.57
Textile and textile articles	DXI	-0.28%	0.37%	0.01%	0.46
Cotton, including yarns and woven fabrics thereof	D52	-0.70%	0.45%	0.01%	0.74
Cotton, not carded or combed	D5201	-0.83%	0.49%	0.01%	0.67
Stone, plaster, cement, asbestos, ceramics, glass etc.	DXIII	-0.23%	0.36%	0.01%	0.58
Glass and glassware	D70	0.00%	0.00%	0.00%	0.03
Pearls, stones, precious metals, imitation jewelry, and coins	DXIV	-0.47%	0.24%	-0.01%	0.51
Gold (including gold plated with platinum), unwrought	D7108	-0.58%	0.47%	0.00%	0.77
Platinum, unwrought, semimanufactured or in powder form	D7110	-0.62%	0.26%	-0.01%	0.67
Waste and scrap of precious metals	D7112	-0.21%	0.23%	-0.02%	0.25
Base metals and articles of base metals	DXV	-0.05%	0.07%	0.00%	0.60
Iron and steel	D72	-0.02%	0.00%	0.00%	0.09
Copper and articles thereof	D74	-0.15%	0.10%	0.00%	0.77
Aluminum and articles thereof	D76	-0.28%	0.23%	0.00%	0.98
Miscellaneous articles of base metal	D83	-0.01%	0.07%	0.00%	0.26
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	DXVI	-0.06%	0.04%	0.00%	0.49
Machinery and mechanical appliances; parts thereof	D84	-0.11%	0.06%	0.00%	0.63

Harmonized System Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Diesel & semi-diesel internal Cumbus. piston engines	D8408	-0.02%	0.02%	0.00%	0.64
Pumps for liquids; liquid elevators; parts thereof	D8413	-0.02%	0.01%	0.00%	0.39
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	D8414	-0.18%	0.32%	-0.01%	0.18
Centrifuges & filtering/purifying machinery and parts	D8421	-0.77%	0.06%	-0.03%	0.12
Parts for materials handling & construction machines	D8431	-0.12%	0.22%	0.01%	0.22
Printing mach., machines ancillary to printing; parts thereof	D8443	-0.05%	0.06%	0.00%	0.51
Computer equipment	D8471	-0.32%	0.43%	0.02%	0.25
Electrical machinery and equipment and parts and accessories thereof	D85	-0.03%	0.10%	0.01%	0.03
Electrical apparatus for line telephony or line telegraphy; videophones; parts	D8517	-0.16%	0.17%	0.00%	0.50
Electrical circuit switching, protecting or connection app of 1000 volts or less	D8536	-0.13%	0.23%	0.01%	0.29
Electric control or distribution equipment	D8537	-0.09%	0.04%	0.00%	0.99
Semiconductors; L.E.D.s; mounted crystals; parts thereof	D8541	-0.02%	0.18%	0.00%	0.26
Electronic integrated circuits and micro assemblies; parts thereof	D8542	-0.07%	0.19%	0.01%	0.13
Insulated conductors; optical fiber cables w/individually sheathed fibers	D8544	-0.12%	0.07%	0.00%	0.34
Vehicles, aircraft, vessels and associated transport equipment	DXVII	-0.08%	0.05%	0.00%	0.98
Motor vehicles and their parts	D87	-0.09%	0.07%	0.00%	0.77
Tractors other than work trucks	D8701	-0.03%	0.08%	0.00%	0.22
Automobiles and other motor vehicles inc minivans, 4-dr specialty vehicles	D8703	-0.09%	0.14%	0.00%	0.84
Motor vehicles for the transport of goods	D8704	-0.05%	0.06%	0.00%	0.77
Parts and access of tractors, buses, automobiles, trucks, spec. vehicles	D8708	-0.27%	0.21%	0.00%	0.63
Parts, nesoi, of civil aircraft and spacecraft (exc. military)	D8803	-0.10%	0.09%	0.00%	0.28
Optical, photo, measuring, medical & musical instruments; & timepieces	DXVIII	-0.05%	0.16%	0.00%	0.45
Instruments/appliances used in medical surgical, dental, veterinarian sciences	D9018	-0.15%	0.54%	0.00%	0.92
Instruments and apparatus for physical or chemical analysis	D9027	-0.10%	0.02%	0.00%	0.10
Oscilloscopes, spectrum analyzers etc., and parts	D9030	-0.07%	0.72%	0.03%	0.16
Measuring or checking instruments, and appliances n.e.s.	D9031	-0.28%	0.55%	0.02%	0.25
Miscellaneous manufactured articles	DXX	-0.08%	0.16%	0.00%	0.64
Furniture; stuffed furnishings; lamps and lighting fittings nesoi;	D94	-0.15%	0.28%	0.00%	0.56
Toys, games and sports equipment; parts and accessories thereof	D95	-0.21%	0.27%	0.00%	0.72
Live animals; animal products	PI	-0.08%	0.13%	0.00%	0.32
Meat and edible meat offal	P02	-0.17%	0.13%	0.00%	0.92
Fish and crustaceans, molluscs and other aquatic invertebrates	P03	-0.16%	0.19%	0.01%	0.38
Fish fillets and other fish meat, fresh, chilled, frzn,	P0304	-0.43%	0.50%	0.01%	0.51
Crustaceans, live, fresh, chilled, etc; in shell or not; cooked or uncooked	P0306	-0.10%	0.25%	0.01%	0.38
Vegetable products	PII	-0.16%	0.17%	0.00%	0.53
Edible vegetables, roots, and tubers	P07	-0.49%	0.26%	0.00%	0.82
Edible fruit and nuts; peel of citrus fruit or melons	P08	-0.39%	0.38%	0.00%	0.99
Coffee, tea, mate and spices	P09	-0.37%	0.33%	0.02%	0.10
Coffee, roasted or unroasted, decaf; coffee husks and skins	P0901	-0.41%	0.39%	0.03%	0.09
Animal or vegetable fats and oils	PIII	-0.38%	0.11%	-0.01%	0.23
Prepared foodstuffs, beverages, and tobacco	PIV	-0.03%	0.06%	0.00%	0.62
Edible preps of meat, of fish, or of aquatic invertebrates	P16	-0.21%	0.12%	-0.01%	0.06
Sugars and sugar confectionary	P17	-0.50%	0.32%	-0.01%	0.73
Cocoa and cocoa preparations	P18	-0.22%	0.19%	-0.01%	0.47
Preparations of vegetables, fruit, nuts, or other parts of plants	P20	-0.09%	0.05%	0.00%	0.24
Beverages, spirits, and vinegar	P22	-0.06%	0.05%	0.00%	0.79
Wine of fresh grapes, including fortified wine	P2204	-0.07%	0.06%	0.00%	0.58
Ethyl alcohol undenatured less than 80% alcohol	P2208	-0.18%	0.06%	-0.01%	0.06
Mineral products	PV	-0.51%	0.40%	0.01%	0.62
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	P27	-0.55%	0.41%	0.01%	0.62
Petroleum oils (not crude), bituminous oils, & products thereof, nesoi	P2710	-1.53%	1.18%	0.03%	0.54
Petroleum gases and other gaseous hydrocarbons	P2711	-0.54%	1.30%	0.00%	0.93
Products of the chemical or allied industries	PVI	-0.06%	0.07%	0.00%	0.74
Inorganic chemicals	P28	-0.17%	0.16%	0.00%	0.97
Organic chemicals	P29	-0.07%	0.17%	0.00%	0.46
Heterocyclic compounds with nitrogen hetero-atoms only	P2933	-0.26%	0.77%	0.00%	0.96
Nucleic acids and their salts, other heterocyclic compounds	P2934	-0.30%	0.65%	0.01%	0.37
Pharmaceutical products	P30	-0.07%	0.11%	0.00%	0.40
Human and animal blood, prep; antisera & other blood fractions	P3002	-0.22%	0.31%	0.00%	0.68

Harmonized System Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Medicaments (except vaccines, band., pharmaceuticals)	P3004	-0.15%	0.18%	0.00%	0.61
Essential oils and resinoids	P33	-0.03%	0.03%	0.00%	0.99
Miscellaneous chemical products	P38	-0.44%	0.04%	-0.01%	0.18
Plastics and articles thereof; rubber and articles thereof	PVII	-0.08%	0.06%	0.00%	0.54
Plastics and articles thereof	P39	-0.08%	0.07%	0.00%	0.98
Plates, sheets, film, foil, & strips of plastics	P3920	-0.50%	0.34%	0.01%	0.75
Articles for the conveyance or packing of goods, of plastics	P3923	-0.19%	0.17%	0.00%	0.98
Articles of plastic, polymers & resins of heading 3901 to 3914, nesoi	P3926	-0.15%	0.15%	0.00%	0.81
Rubber and articles thereof	P40	-0.12%	0.07%	-0.01%	0.16
New pneumatic tires of rubber	P4011	0.00%	0.01%	0.00%	0.08
Raw hides, skins, leather, furskins, travel goods, etc	PVIII	-0.02%	0.03%	0.00%	0.22
Articles of leather; travel goods, bags, etc. of various materials	P42	-0.04%	0.03%	0.00%	0.15
Travel goods and handbags	P4202	-0.02%	0.03%	0.00%	0.99
Wood, wood charcoal, cork, straw, basketware and wickerwork	PIX	-0.15%	0.29%	0.00%	0.94
Wood and articles of wood; wood charcoal	P44	-0.03%	0.03%	0.00%	0.21
Wood sawn or chipped lengthwise, sliced or peeled	P4407	-0.45%	0.92%	-0.03%	0.70
Woodpulp, recovered paper, and paper products	PX	-0.25%	0.16%	0.00%	0.90
Paper and paperboard; articles of paper pulp, paper or paperboard	P48	-0.21%	0.08%	0.00%	0.61
Textile and textile articles	PXI	-0.03%	0.03%	0.00%	0.67
Articles of apparel and clothing accessories, knitted or crocheted	P61	-0.04%	0.05%	0.00%	0.80
Knitted sweaters, pullovers, sweatshirts, vests and similar art.	P6110	-0.12%	0.09%	-0.01%	0.19
Articles of apparel and clothing accessories, not knitted or crocheted	P62	-0.09%	0.06%	0.00%	0.30
Men or boys suits, ensembles, suit-type jackets, blazers & trousers	P6203	-0.15%	0.17%	0.00%	0.56
Women or girls suits, dresses, skirts; not knitted	P6204	-0.05%	0.26%	0.01%	0.14
Made-up or worn textile articles	P63	-0.14%	0.10%	-0.01%	0.22
Headgear, umbrellas, artificial flowers, etc.	PXII	-0.14%	0.17%	0.00%	0.98
Footwear and parts of such articles	P64	-0.15%	0.18%	0.00%	0.88
Footwear, with outer soles and uppers of rubber or plastics	P6402	-0.08%	0.51%	0.01%	0.65
Footwear with uppers of leathers	P6403	-0.25%	0.11%	0.00%	0.94
Footwear with uppers of textile materials	P6404	-0.10%	0.09%	0.00%	0.59
Stone, plaster, cement, asbestos, ceramics, glass etc.	PXIII	-0.20%	0.01%	-0.01%	0.14
Articles of stone, plaster, cement, asbestos, or mica	P68	-0.51%	0.01%	-0.01%	0.32
Glass and glassware	P70	-0.10%	0.00%	-0.01%	0.05
Pearls, stones, precious metals, imitation jewelry, and coins	PXIV	-0.08%	0.11%	0.01%	0.16
Platinum, unwrought, semi-mfg or powder	P7110	-0.05%	0.48%	0.01%	0.46
Base metals and articles of base metals	PXV	-0.09%	0.08%	0.00%	0.64
Iron and steel	P72	-0.41%	0.25%	-0.01%	0.60
Articles of iron or steel	P73	-0.06%	0.08%	0.00%	0.77
Screws, bolts, nuts, rivets, cotters, and washers	P7318	-0.29%	0.40%	0.00%	0.87
Aluminum and articles thereof	P76	-0.02%	0.00%	0.00%	0.13
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof	P82	-0.01%	0.01%	0.00%	0.77
Miscellaneous articles of base metal	P83	-0.05%	0.08%	0.00%	0.64
Mountings and other hardware for furniture, doors, and windows	P8302	-0.06%	0.05%	0.00%	0.62
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	PXVI	-0.11%	0.08%	0.00%	0.19
Machinery and mechanical appliances; parts thereof	P84	-0.22%	0.14%	-0.01%	0.10
Spark-ignition internal combustion piston engines	P8407	-0.01%	0.07%	0.00%	0.31
Parts for spark-ignition and diesel internal combustion piston engines	P8409	-0.01%	0.03%	0.00%	0.82
Turbojets, turbopropellers and other gas turbines, and parts thereof	P8411	-0.04%	0.25%	0.01%	0.34
Engines & motors, nesoi, & parts thereof	P8412	-0.06%	0.06%	0.00%	0.60
Pumps for liquids; liquid elevators; parts thereof	P8413	-0.06%	0.08%	0.00%	0.35
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	P8414	-0.01%	0.03%	0.00%	0.34
Air conditioning machines and parts thereof	P8415	-0.18%	0.13%	-0.01%	0.24
Refrigerators, freezers, heat pumps; and parts	P8418	-0.04%	0.15%	0.00%	0.29
Centrifuges & filtering/purifying machinery and parts	P8421	-0.33%	0.03%	-0.01%	0.22
Self-propelled earth-moving, tamping, & road roller machines	P8429	-0.26%	0.06%	-0.01%	0.08
Parts for materials handling & construction machines	P8431	-0.47%	0.37%	0.00%	0.75
Printing machinery, machines ancillary to printing; & parts	P8443	-0.03%	0.04%	0.00%	0.70
Computer equipment	P8471	-1.05%	0.42%	-0.06%	0.03
Parts and accessories, n.e.s.o.i., for computers and other office machines	P8473	-0.94%	1.42%	0.06%	0.20
Machines & appliances having functions n.e.s.; parts thereof	P8479	-0.10%	0.14%	-0.01%	0.13
Taps, cocks, valves & similar appliances; parts thereof	P8481	-0.22%	0.26%	0.00%	0.74
Parts for transmitting power (clutches, shafts, gears & boxes, pulleys, etc)	P8483	-0.09%	0.10%	0.01%	0.40

Harmonized System Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-value
Electrical machinery and equip, sound and TV recorders & reproducers, parts	P85	-0.04%	0.10%	0.00%	0.56
Electric motors and generators (excludes generating sets)	P8501	-0.12%	0.13%	0.00%	0.76
Electrical transformers, inductors & static converters (rectifiers); parts	P8504	-0.19%	0.06%	-0.01%	0.30
Vehicular electric lighting equipment, and defrosters;	P8512	0.00%	0.00%	0.00%	0.93
Electrothermic domestic appliances; water & space heaters; resistors	P8516	-0.19%	0.15%	0.00%	0.56
Electrical apparatus for line telephony or line telegraphy; videophones; parts	P8517	-0.03%	0.07%	0.00%	0.47
Microphones & stands; audio/sound amps; speakers; & headphones	P8518	-0.55%	0.05%	-0.03%	0.04
Prepared unrecorded media for sound or similar recording	P8523	-0.91%	3.79%	0.00%	0.94
Radio & TV transmission apparatus; video cameras & camera recorders; TV cameras	P8525	-0.07%	0.09%	0.00%	1.00
TV reception apparatus; video monitors & video projectors	P8528	-0.09%	0.24%	0.00%	0.71
Electrical circuit switching, protecting or connection app. of 1000 volts or less	P8536	-0.37%	0.32%	0.01%	0.37
Semiconductor devices; L.E.D.s; mounted crystals; parts thereof	P8541	-0.50%	0.31%	0.01%	0.35
Electronic integrated circuits and micro assemblies; parts thereof	P8542	-0.38%	0.18%	0.00%	0.90
Electrical machines & apparatus, func. n.e.s.o.i.; parts	P8543	-0.10%	0.02%	-0.01%	0.03
Insulated conductors	P8544	-0.12%	0.11%	0.00%	0.92
Vehicles, aircraft, vessels and associated transport equipment	PXVII	-0.01%	0.02%	0.00%	0.79
Motor vehicles and their parts	P87	-0.02%	0.03%	0.00%	0.36
Tractors (other than work trucks of heading 8709)	P8701	-0.21%	0.14%	-0.01%	0.23
Motor vehicles designed to transport people	P8703	-0.04%	0.04%	0.00%	0.77
Parts of tractors, buses, automobiles, trucks, spec. vehicles	P8708	0.00%	0.00%	0.00%	0.17
Aircraft, spacecraft, and parts thereof	P88	-0.16%	0.07%	-0.01%	0.07
Parts, nesoi, of civil aircraft and spacecraft	P8803	-0.07%	0.02%	0.00%	0.07
Optical, photo, measuring, medical & musical instruments; & timepieces	PXVIII	-0.06%	0.06%	0.00%	0.08
Optical, photographic, measuring and medical instruments	P90	-0.06%	0.07%	0.00%	0.10
Instruments/appliances used in medical, surgical, dental, veterinarian sciences	P9018	-0.21%	0.24%	0.00%	0.54
Orthopedic appliances; artificial body parts; hearing aids, etc	P9021	-0.12%	0.31%	0.02%	0.06
Instruments and apparatus for physical or chemical analysis	P9027	-0.11%	0.02%	0.00%	0.12
Measuring instruments, appliances, and machines, nesoi	P9031	-0.13%	0.11%	0.00%	0.72
Miscellaneous manufactured articles	PXX	-0.07%	0.05%	0.00%	0.58
Furniture & stuffed furnishings; lamps & lighting fittings, nesoi; prefab bldgs	P94	-0.09%	0.08%	0.00%	0.22
Seats other than barber, dental and similar chairs	P9401	-0.03%	0.01%	0.00%	0.05
Furniture other than seats, nesoi	P9403	-0.21%	0.19%	0.02%	0.05
Lamps, lighting fixtures, & illuminated signs and parts thereof	P9405	-0.13%	0.11%	0.00%	0.94
Toys, games and sports equipment; parts and accessories thereof	P95	-0.12%	0.05%	-0.01%	0.02
Articles for arcade, table or games parts thereof	P9504	0.00%	0.00%	0.00%	0.62
Articles & equipment for sports nesoi; parts & accessories thereof	P9506	-0.44%	0.18%	-0.02%	0.24
Miscellaneous manufactured articles	P96	-0.02%	0.03%	0.00%	0.72

Table B-3. STR Differences 2019-2023 for NAICS Export and Import Price Indexes Students' T-test Results

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
Nonmanufacturing	YNONMANU	-0.81%	0.74%	0.0%	0.90
Agriculture, forestry, fishing and hunting	Y11	-0.09%	0.04%	0.0%	0.30
Crop production	Y111	-0.10%	0.04%	0.0%	0.28
Oilseed and grain farming	Y1111	0.00%	0.01%	0.0%	0.11
Fruit and tree nut farming	Y1113	-0.15%	0.17%	0.0%	0.17
Noncitrus fruit and tree nut farming	Y11133	-0.16%	0.17%	0.0%	0.16
Tree nut farming	Y111335	-0.17%	0.12%	0.0%	0.90
Other crop farming	Y1119	-0.60%	0.29%	0.0%	0.58
Cotton farming	Y11192	-0.83%	0.49%	0.0%	0.67
Mining	Y21	-1.62%	1.72%	0.0%	0.91
Oil and gas extraction	Y211	-0.23%	0.42%	0.0%	0.68
Natural gas extraction	Y21113	-0.34%	0.36%	0.0%	0.48
Mining (except oil and gas)	Y212	-0.49%	0.91%	0.0%	0.52
Coal mining	Y2121	-0.63%	1.05%	0.0%	0.99
Metal ore mining	Y2122	-0.50%	1.94%	0.0%	0.47
Manufacturing	YMANU	-0.07%	0.04%	0.0%	0.70
Manufacturing, part 1	Y31	-0.19%	0.17%	0.0%	0.63
Food manufacturing	Y311	-0.27%	0.26%	0.0%	0.58
Grain and oilseed milling	Y3112	-0.79%	1.24%	0.0%	0.59
Starch and vegetable fats and oils manufacturing	Y31122	-0.97%	1.63%	0.0%	0.55
Soybean and other oilseed processing	Y311224	-1.16%	0.57%	0.0%	0.73
Fruit and vegetable preserving and specialty food manufacturing	Y3114	0.00%	0.00%	0.0%	0.32
Dairy product manufacturing	Y3115	-0.63%	0.50%	0.0%	0.96
Animal slaughtering and processing	Y3116	-0.31%	0.30%	0.0%	0.47
Animal (except poultry) slaughtering	Y311611	-0.40%	0.23%	0.0%	0.60
Other food manufacturing	Y3119	-0.32%	0.15%	0.0%	0.01
All other food manufacturing	Y31199	-0.57%	0.26%	-0.1%	0.01
Beverage and tobacco product manufacturing	Y312	-0.18%	0.14%	0.0%	0.71
Beverage manufacturing	Y3121	-0.21%	0.16%	0.0%	0.71
Manufacturing, part 2	Y32	-0.22%	0.10%	0.0%	0.69
Wood product manufacturing	Y321	-0.16%	0.08%	0.0%	0.85
Paper manufacturing	Y322	-0.20%	0.49%	0.0%	0.20
Pulp, paper, and paperboard mills	Y3221	-0.42%	1.01%	0.0%	0.16
Pulp mills	Y32211	-0.36%	0.04%	0.0%	0.16
Converted paper product manufacturing	Y3222	-0.21%	0.09%	0.0%	0.08
Petroleum and coal products manufacturing	Y324	-0.76%	0.30%	0.0%	0.62
Chemical manufacturing	Y325	-0.40%	0.19%	0.0%	0.22
Basic chemical manufacturing	Y3251	-1.08%	0.30%	0.0%	0.45
Other basic inorganic chemical manufacturing	Y32518	-3.41%	0.77%	-0.1%	0.33
Other basic organic chemical manufacturing	Y32519	-0.10%	0.10%	0.0%	0.30
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Y3252	-0.72%	0.29%	0.0%	0.31
Resin and synthetic rubber manufacturing	Y32521	-0.74%	0.30%	0.0%	0.30
Plastics material and resin manufacturing	Y325211	-0.81%	0.33%	0.0%	0.33
Synthetic rubber manufacturing	Y325212	-0.15%	0.17%	0.0%	0.96
Pesticide, fertilizer, and other agri. chemical manufacturing	Y3253	-0.02%	0.09%	0.0%	0.12
Pharmaceutical and medicine manufacturing	Y3254	-0.72%	0.72%	0.0%	0.43
Pharmaceutical preparation manufacturing	Y325412	-1.59%	0.14%	-0.1%	0.12
In-vitro diagnostic substance manufacturing	Y325413	-0.09%	0.23%	0.0%	0.94
Biological product (except diagnostic) manufacturing	Y325414	-1.33%	0.23%	0.0%	0.48
Paint, coating, and adhesive manufacturing	Y3255	-0.45%	0.29%	0.0%	0.85
Soap, cleaning compound, and toilet preparation manufacturing	Y3256	-0.28%	0.13%	0.0%	0.51
Soap and cleaning compound manufacturing	Y32561	-0.24%	0.06%	0.0%	0.10
Toilet preparation manufacturing	Y32562	-0.49%	0.24%	0.0%	0.94
Plastics and rubber products manufacturing	Y326	-0.08%	0.43%	0.0%	0.53
Plastics product manufacturing	Y3261	-0.11%	0.03%	0.0%	0.03
Plastic packing materials & unlaminated film and sheet	Y32611	-0.04%	0.11%	0.0%	0.53

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
manufacturing					
Unlaminated plastic film and sheet (except packing) manufacturing	Y326113	-0.07%	0.17%	0.0%	0.60
Rubber product manufacturing	Y3262	-0.13%	0.02%	0.0%	0.44
Tire manufacturing	Y32621	-0.27%	0.05%	0.0%	0.44
Nonmetallic mineral product manufacturing	Y327	-0.12%	0.24%	0.0%	0.55
Glass and glass product manufacturing	Y3272	0.00%	0.53%	0.0%	0.13
Manufacturing, part 3	Y33	-0.05%	0.02%	0.0%	0.82
Primary metal manufacturing	Y331	-0.08%	0.12%	0.0%	0.96
Alumina and aluminum production and processing	Y3313	-0.43%	0.07%	0.0%	0.13
Nonferrous metal (except aluminum) production and processing	Y3314	-0.14%	0.19%	0.0%	0.55
Nonferrous metal (except aluminum) smelting and refining	Y33141	-0.10%	0.11%	0.0%	0.59
Nonferrous metal (except copper and aluminum) rolling, drawing, extruding,	Y33149	-0.17%	0.23%	0.0%	0.54
Nonferrous metal (except copper and aluminum) rolling, drawing, and	Y331491	-0.03%	0.04%	0.0%	0.39
Secondary smelting, refining, and alloying of nonferrous metal	Y331492	-0.21%	0.30%	0.0%	0.46
Fabricated metal product manufacturing	Y332	-0.02%	0.07%	0.0%	0.36
Metal valve manufacturing	Y33291	-0.01%	0.12%	0.0%	0.16
Machinery manufacturing	Y333	-0.14%	0.05%	0.0%	0.25
Agriculture, construction, and mining machinery manufacturing	Y3331	-0.35%	0.09%	0.0%	0.96
Agricultural implement manufacturing	Y33311	-0.15%	0.17%	0.0%	0.47
Farm machinery and equipment manufacturing	Y333111	-0.18%	0.15%	0.0%	0.83
Construction machinery manufacturing	Y33312	-0.60%	0.17%	0.0%	0.74
Commercial and service industry machinery manufacturing	Y3333	-0.46%	0.17%	0.0%	0.45
Metalworking machinery manufacturing	Y3335	-0.01%	0.01%	0.0%	0.65
Engine, turbine, and power transmission equipment manufacturing	Y3336	-0.27%	0.17%	0.0%	0.89
Other engine equipment manufacturing	Y333618	-0.08%	0.05%	0.0%	0.21
Other general purpose machinery manufacturing	Y3339	-0.24%	0.06%	0.0%	0.06
Pump and compressor manufacturing	Y33391	-0.08%	0.04%	0.0%	0.55
Material handling equipment manufacturing	Y33392	-0.09%	0.09%	0.0%	0.43
All other general purpose machinery manufacturing	Y33399	-0.40%	0.07%	0.0%	0.16
All other miscellaneous general purpose machinery manufacturing	Y333999	-0.25%	0.06%	0.0%	0.13
Computer and electronic product manufacturing	Y334	-0.09%	0.07%	0.0%	0.30
Computer and peripheral equipment manufacturing	Y3341	-0.37%	0.31%	0.0%	0.77
Electronic computer manufacturing	Y334111	-0.46%	0.72%	0.0%	0.16
Communications equipment manufacturing	Y3342	-0.14%	0.16%	0.0%	0.46
Radio and TV broadcasting and wireless equipment	Y33422	-0.16%	0.18%	0.0%	0.76
Audio and video equipment manufacturing	Y3343	-0.39%	0.02%	0.0%	0.18
Semiconductor and other electronic component manufacturing	Y3344	-0.05%	0.14%	0.0%	0.14
Semiconductor and related device manufacturing	Y334413	-0.03%	0.17%	0.0%	0.08
Navigational, measuring, electromedical, and control instruments	Y3345	-0.08%	0.06%	0.0%	0.82
Electromedical and electrotherapeutic apparatus manufacturing	Y334510	-0.34%	0.01%	0.0%	0.08
Search and detection instrument manufacturing	Y334511	-0.01%	0.02%	0.0%	0.66
Instruments and related products manufacturing	Y334513	-0.01%	0.07%	0.0%	0.43
Analytical laboratory instrument manufacturing	Y334516	0.00%	0.00%	0.0%	0.14
Electrical equipment, appliance, and component manufacturing	Y335	-0.03%	0.17%	0.0%	0.02
Electrical equipment manufacturing	Y3353	-0.04%	0.50%	0.0%	0.18
Motor and generator manufacturing	Y335312	-0.02%	0.04%	0.0%	0.76
Other electrical equipment and component manufacturing	Y3359	-0.04%	0.05%	0.0%	0.04
Wiring device manufacturing	Y33593	-0.08%	0.26%	0.0%	0.11
Current-carrying wiring device manufacturing	Y335931	-0.08%	0.26%	0.0%	0.11
Transportation equipment manufacturing	Y336	-0.06%	0.05%	0.0%	0.89
Motor vehicle manufacturing	Y3361	-0.07%	0.10%	0.0%	0.88
Automobile and light duty motor vehicle manufacturing	Y33611	-0.07%	0.12%	0.0%	0.90
Automobile manufacturing	Y336111	-0.05%	0.07%	0.0%	0.85
Light truck and utility vehicle manufacturing	Y336112	-0.01%	0.00%	0.0%	0.05

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
Heavy duty truck manufacturing	Y33612	-0.01%	0.03%	0.0%	0.35
Motor vehicle body and trailer manufacturing	Y3362	-0.12%	0.25%	0.0%	0.07
Motor vehicle body manufacturing	Y336211	-0.11%	0.23%	0.0%	0.07
Motor vehicle parts manufacturing	Y3363	-0.25%	0.16%	0.0%	0.68
Motor vehicle electrical and electronic equipment manufacturing	Y33632	-0.19%	0.06%	0.0%	0.57
Motor vehicle transmission and power train parts manu.	Y33635	-0.08%	0.05%	0.0%	0.55
Other motor vehicle parts manufacturing	Y33639	-0.88%	0.11%	0.0%	0.11
Aerospace product and parts manufacturing	Y3364	-0.18%	0.08%	0.0%	0.61
Other aircraft parts and auxiliary equipment manufacturing	Y336413	-0.10%	0.09%	0.0%	0.42
Furniture and related product manufacturing	Y337	-0.02%	0.01%	0.0%	0.16
Miscellaneous manufacturing	Y339	-0.39%	0.14%	0.0%	0.48
Medical equipment and supplies manufacturing	Y3391	-0.14%	0.33%	0.0%	0.71
Surgical and medical instrument manufacturing	Y339112	-0.22%	0.12%	0.0%	0.44
Surgical appliance and supplies manufacturing	Y339113	-0.13%	0.04%	0.0%	0.20
Other miscellaneous manufacturing	Y3399	-0.70%	0.05%	0.0%	0.35
Jewelry and silverware manufacturing	Y33991	-0.97%	0.09%	0.0%	0.32
All other miscellaneous manufacturing	Y33999	-0.01%	0.01%	0.0%	0.51
Nonmanufacturing	ZNONMANU	-0.29%	0.41%	0.0%	0.66
Agriculture, forestry, fishing and hunting	Z11	-0.12%	0.16%	0.0%	0.38
Crop production	Z111	-0.17%	0.17%	0.0%	0.28
Vegetable and melon farming	Z1112	-0.50%	0.30%	0.0%	0.85
Fruit and tree nut farming	Z1113	-0.19%	0.21%	0.0%	0.16
Noncitrus fruit and tree nut farming	Z11133	-0.18%	0.13%	0.0%	0.20
Other noncitrus fruit farming	Z111339	-0.17%	0.16%	0.0%	0.20
Mining	Z21	-0.37%	0.54%	0.0%	0.75
Oil and gas extraction	Z211	-0.38%	0.55%	0.0%	0.90
Natural gas extraction	Z21113	-0.54%	0.55%	0.0%	0.75
Manufacturing	ZMANU	-0.04%	0.04%	0.0%	0.90
Manufacturing, part 1	Z31	-0.02%	0.03%	0.0%	0.97
Food manufacturing	Z311	-0.04%	0.05%	0.0%	0.76
Grain and oilseed milling	Z3112	-0.20%	0.07%	0.0%	0.20
Starch and vegetable fats and oils manufacturing	Z31122	-0.27%	0.11%	0.0%	0.19
Soybean and other oilseed processing	Z311224	-0.13%	0.10%	0.0%	0.30
Sugar and confectionery product manufacturing	Z3113	-0.31%	0.31%	0.0%	0.90
Fruit and vegetable preserving and specialty food manufacturing	Z3114	-0.09%	0.06%	0.0%	0.17
Fruit and vegetable canning, pickling, and drying	Z31142	-0.13%	0.08%	0.0%	0.59
Animal slaughtering and processing	Z3116	-0.15%	0.07%	0.0%	0.91
Animal (except poultry) slaughtering	Z311611	-0.16%	0.08%	0.0%	0.74
Seafood product preparation and packaging	Z3117	-0.14%	0.19%	0.0%	0.73
Other food manufacturing	Z3119	-0.20%	0.06%	0.0%	0.09
Beverage and tobacco product manufacturing	Z312	-0.05%	0.04%	0.0%	0.79
Beverage manufacturing	Z3121	-0.06%	0.04%	0.0%	0.84
Breweries	Z31212	-0.04%	0.04%	0.0%	0.57
Wineries	Z31213	-0.08%	0.06%	0.0%	0.65
Distilleries	Z31214	-0.22%	0.08%	0.0%	0.09
Textile mills	Z313	-0.05%	0.01%	0.0%	0.02
Fabric mills	Z3132	-0.07%	0.02%	0.0%	0.07
Textile product mills	Z314	-0.07%	0.06%	0.0%	0.33
Textile furnishings mills	Z3141	-0.10%	0.11%	0.0%	0.17
Curtain and linen mills	Z31412	-0.12%	0.14%	0.0%	0.16
Other textile product mills	Z3149	-0.23%	0.09%	0.0%	0.02
All other textile product mills	Z31499	-0.31%	0.12%	0.0%	0.02
Apparel manufacturing	Z315	-0.04%	0.03%	0.0%	0.83
Cut and sew apparel manufacturing	Z3152	-0.02%	0.03%	0.0%	0.60
Men and boys cut and sew apparel manufacturing	Z31522	-0.06%	0.06%	0.0%	0.74
Women and girls cut and sew apparel manufacturing	Z31524	-0.05%	0.04%	0.0%	0.72
Apparel accessories and other apparel manufacturing	Z3159	-0.24%	0.17%	0.0%	0.51
Leather and allied product manufacturing	Z316	-0.10%	0.21%	0.0%	0.69
Footwear manufacturing	Z3162	-0.14%	0.30%	0.0%	0.71

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
Other leather and allied product manufacturing	Z3169	-0.02%	0.03%	0.0%	0.96
Manufacturing, part 2	Z32	-0.14%	0.15%	0.0%	0.44
Wood product manufacturing	Z321	-0.04%	0.03%	0.0%	0.22
Sawmills and wood preservation	Z3211	-0.45%	0.92%	0.0%	0.70
Veneer, plywood, and engineered wood product manufacturing	Z3212	-0.06%	0.10%	0.0%	0.10
Paper manufacturing	Z322	-0.30%	0.20%	0.0%	0.96
Pulp, paper, and paperboard mills	Z3221	-0.64%	0.42%	0.0%	0.75
Converted paper product manufacturing	Z3222	-0.16%	0.11%	0.0%	0.45
Paper bag and coated and treated paper manufacturing	Z32222	-0.29%	0.20%	0.0%	0.48
Petroleum and coal products manufacturing	Z324	-1.43%	1.11%	0.0%	0.54
Chemical manufacturing	Z325	-0.06%	0.06%	0.0%	0.67
Basic chemical manufacturing	Z3251	-0.17%	0.16%	0.0%	0.62
Other basic inorganic chemical manufacturing	Z32518	-0.75%	0.50%	0.0%	0.53
Other basic organic chemical manufacturing	Z32519	-0.07%	0.20%	0.0%	0.22
All other basic organic chemical manufacturing	Z325199	-0.07%	0.16%	0.0%	0.55
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Z3252	-0.08%	0.08%	0.0%	0.08
Resin and synthetic rubber manufacturing	Z32521	-0.08%	0.09%	0.0%	0.16
Pesticide, fertilizer, other agricult. chemical manufacturing	Z3253	-0.52%	0.30%	0.0%	0.59
Fertilizer manufacturing	Z32531	-0.45%	0.34%	0.0%	0.73
Pharmaceutical and medicine manufacturing	Z3254	-0.06%	0.10%	0.0%	0.57
Pharmaceutical preparation manufacturing	Z325412	-0.13%	0.15%	0.0%	0.77
Biological product (except diagnostic) manufacturing	Z325414	-0.22%	0.31%	0.0%	0.68
Other chemical product and preparation manufacturing	Z3259	-0.09%	0.05%	0.0%	0.90
All other chemical product and prep. manufacturing	Z32599	-0.16%	0.09%	0.0%	0.57
Plastics and rubber products manufacturing	Z326	-0.05%	0.05%	0.0%	0.89
Plastics product manufacturing	Z3261	-0.10%	0.06%	0.0%	0.94
Plastics packaging materials and film and sheet manufacturing	Z32611	-0.36%	0.23%	0.0%	0.70
Unlaminated plastics film and sheet (except packaging) manufacturing	Z326113	-0.38%	0.26%	0.0%	0.74
Other plastics product manufacturing	Z32619	-0.06%	0.08%	0.0%	0.64
Rubber product manufacturing	Z3262	-0.13%	0.15%	0.0%	0.77
Tire manufacturing	Z32621	0.00%	0.01%	0.0%	0.08
Nonmetallic mineral product manufacturing	Z327	-0.17%	0.01%	0.0%	0.09
Other nonmetallic mineral product manufacturing	Z3279	-0.44%	0.01%	0.0%	0.24
All other nonmetallic mineral product manufacturing	Z32799	-0.55%	0.01%	0.0%	0.29
Manufacturing, part 3	Z33	-0.05%	0.04%	0.0%	0.27
Primary metal manufacturing	Z331	-0.16%	0.10%	0.0%	0.72
Iron and steel mills and ferroalloy manufacturing	Z3311	-0.51%	0.38%	0.0%	0.78
Alumina and aluminum production and processing	Z3313	-0.03%	0.00%	0.0%	0.10
Nonferrous metal (except aluminum) production and processing	Z3314	-0.04%	0.20%	0.0%	0.79
Nonferrous metal (except aluminum) smelting and refining	Z33141	0.00%	0.00%	0.0%	0.96
Nonferrous metal products manufacturing, not made from copper or aluminum	Z33149	-0.05%	0.03%	0.0%	0.17
Fabricated metal product manufacturing	Z332	-0.05%	0.05%	0.0%	0.90
Cutlery and handtool manufacturing	Z3322	-0.05%	0.02%	0.0%	0.40
Metal kitchen cookware, utensil, cutlery, and flatware (except precious	Z332215	-0.04%	0.02%	0.0%	0.63
Hardware manufacturing	Z3325	-0.07%	0.13%	0.0%	0.83
Machine shops; and screw, nut, and bolt manufacturing	Z3327	-0.45%	0.38%	0.0%	0.65
Other fabricated metal product manufacturing	Z3329	-0.10%	0.09%	0.0%	0.72
Metal valve manufacturing	Z33291	-0.18%	0.20%	0.0%	0.95
Industrial valve manufacturing	Z332911	-0.23%	0.36%	0.0%	0.46
All other fabricated metal product manufacturing	Z33299	-0.05%	0.09%	0.0%	0.28
Machinery manufacturing	Z333	-0.03%	0.02%	0.0%	0.18
Agriculture, construction, and mining machinery manufacturing	Z3331	-0.12%	0.12%	0.0%	0.40
Agricultural implement manufacturing	Z33311	-0.22%	0.23%	0.0%	0.34
Farm machinery and equipment manufacturing	Z333111	-0.25%	0.26%	0.0%	0.31
Construction machinery manufacturing	Z33312	-0.17%	0.20%	0.0%	0.63
Industrial machinery manufacturing	Z3332	-0.14%	0.09%	0.0%	0.47

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
Industrial machinery manufacturing	Z33324	-0.01%	0.02%	0.0%	0.04
Other industrial machinery manufacturing	Z333249	0.00%	0.03%	0.0%	0.16
Commercial and service industry machinery manufacturing	Z3333	-0.11%	0.08%	0.0%	0.62
Optical instrument and lens manufacturing	Z333314	-0.01%	0.05%	0.0%	0.09
Other commercial and service industry machinery manufacturing	Z333318	-0.13%	0.04%	0.0%	0.09
Ventilation, heating, air-conditioning, and commercial refrigeration equipment	Z3334	-0.09%	0.07%	0.0%	0.18
Air-conditioning and warm air heating equipment and commercial and industrial	Z333415	-0.13%	0.10%	0.0%	0.11
Metalworking machinery manufacturing	Z3335	-0.07%	0.01%	0.0%	0.23
Machine tool manufacturing	Z333517	-0.04%	0.02%	0.0%	0.79
Engine, turbine, and power transmission equipment manufacturing	Z3336	-0.08%	0.08%	0.0%	0.55
Other engine equipment manufacturing	Z333618	-0.01%	0.12%	0.0%	0.25
Other general purpose machinery manufacturing	Z3339	-0.02%	0.05%	0.0%	0.37
Pump and compressor manufacturing	Z33391	-0.02%	0.07%	0.0%	0.16
Measuring, dispensing, and other pumping equipment manufacturing	Z333914	0.00%	0.07%	0.0%	0.25
Material handling equipment manufacturing	Z33392	-0.03%	0.27%	0.0%	0.18
Industrial truck, tractor, trailer, and stacker machinery manufacturing	Z333924	-0.03%	0.03%	0.0%	0.11
All other general purpose machinery manufacturing	Z33399	-0.04%	0.07%	0.0%	0.01
All other miscellaneous general purpose machinery manufacturing	Z333999	-0.06%	0.09%	0.0%	0.36
Computer and electronic product manufacturing	Z334	-0.18%	0.12%	0.0%	0.10
Computer and peripheral equipment manufacturing	Z3341	-0.81%	0.32%	0.0%	0.03
Electronic computer manufacturing	Z334111	-0.11%	0.37%	0.0%	0.81
Computer terminal and other computer peripheral equipment manufacturing	Z334118	-0.16%	0.07%	0.0%	0.82
Communications equipment manufacturing	Z3342	-0.03%	0.07%	0.0%	0.63
Audio and video equipment manufacturing	Z3343	-0.23%	0.15%	0.0%	0.35
Semiconductor and other electronic component manufacturing	Z3344	-0.31%	0.40%	0.0%	0.33
Semiconductor and related device manufacturing	Z334413	-0.29%	0.15%	0.0%	0.69
Printed circuit assembly (electronic assembly) manufacturing	Z334418	-0.75%	0.31%	-0.1%	0.11
Navigational, measuring, electromedical, and control instruments	Z3345	-0.11%	0.16%	0.0%	0.56
Electromedical and electrotherapeutic apparatus manufacturing	Z334510	-0.10%	0.56%	0.0%	0.36
Instrument manufacturing for measuring and testing electricity	Z334515	-0.01%	0.02%	0.0%	0.31
Analytical laboratory instrument manufacturing	Z334516	-0.02%	0.02%	0.0%	0.43
Other measuring and controlling device manufacturing	Z334519	-0.04%	0.10%	0.0%	0.13
Manufacturing and reproducing magnetic and optical media	Z3346	-0.88%	3.58%	0.0%	0.96
Blank magnetic and optical recording media manufacturing	Z334613	-0.94%	0.66%	-0.1%	0.04
Electrical equipment, appliance, and component manufacturing	Z335	-0.07%	0.10%	0.0%	0.10
Electric lighting equipment manufacturing	Z3351	-0.12%	0.09%	0.0%	0.90
Lighting fixture manufacturing	Z33512	-0.13%	0.10%	0.0%	0.87
Other lighting equipment manufacturing	Z335129	-0.29%	0.05%	0.0%	0.17
Household appliance manufacturing	Z3352	-0.07%	0.06%	0.0%	0.53
Small electrical appliance manufacturing	Z33521	-0.10%	0.09%	0.0%	0.48
Major household appliance manufacturing	Z33522	-0.06%	0.11%	0.0%	0.21
Electrical equipment manufacturing	Z3353	-0.30%	0.16%	0.0%	0.22
Motor and generator manufacturing	Z335312	-0.09%	0.10%	0.0%	0.65
Switchgear and switchboard apparatus manufacturing	Z335313	-0.77%	0.45%	0.0%	0.72
Communication and energy wire and cable manufacturing	Z33592	-0.21%	0.23%	0.0%	0.97
Other communication and energy wire manufacturing	Z335929	-0.05%	0.12%	0.0%	0.92
All other electrical equipment and component manufacturing	Z33599	-0.14%	0.12%	0.0%	0.31
All other miscellaneous electrical equipment and component manufacturing	Z335999	-0.14%	0.13%	0.0%	0.41
Transportation equipment manufacturing	Z336	-0.01%	0.03%	0.0%	0.29
Motor vehicle manufacturing	Z3361	-0.03%	0.06%	0.0%	0.21
Automobile and light duty motor vehicle manufacturing	Z33611	-0.03%	0.06%	0.0%	0.21
Automobile manufacturing	Z336111	-0.04%	0.04%	0.0%	0.83

NAICS Stratum Description	Stratum	STR Differences 2019-2023 - T-test Results			
		Minimum Difference	Maximum Difference	Mean of Differences	P-Value
Heavy duty truck manufacturing	Z33612	0.00%	0.00%	0.0%	0.23
Motor vehicle parts manufacturing	Z3363	0.00%	0.00%	0.0%	0.37
Motor vehicle gasoline engine and engine parts manufacturing	Z33631	0.00%	0.00%	0.0%	0.64
Motor vehicle electrical and electronic equipment manufacturing	Z33632	0.00%	0.00%	0.0%	0.61
Motor vehicle steering and suspension components manufacturing	Z33633	0.00%	0.00%	0.0%	0.33
Motor vehicle brake system manufacturing	Z33634	0.00%	0.00%	0.0%	0.81
Motor vehicle transmission and power train parts manufacturing	Z33635	0.00%	0.00%	0.0%	0.47
Motor vehicle seating and interior trim manufacturing	Z33636	0.00%	0.00%	0.0%	0.71
Other motor vehicle parts manufacturing	Z33639	0.00%	0.00%	0.0%	0.51
Aerospace product and parts manufacturing	Z3364	-0.07%	0.07%	0.0%	0.65
Aircraft engine and engine parts manufacturing	Z336412	-0.03%	0.08%	0.0%	0.63
Other aircraft parts and auxiliary equipment manufacturing	Z336413	-0.07%	0.02%	0.0%	0.11
Other transportation equipment manufacturing	Z3369	-0.05%	0.05%	0.0%	0.21
Motorcycle, bicycle, and parts manufacturing	Z336991	-0.06%	0.04%	0.0%	0.09
Furniture and related product manufacturing	Z337	-0.11%	0.10%	0.0%	0.15
Household and institutional furniture and kitchen cabinet manufacturing	Z3371	-0.14%	0.13%	0.0%	0.21
Upholstered household furniture manufacturing	Z337121	-0.11%	0.04%	0.0%	0.69
Nonupholstered wood household furniture manufacturing	Z337122	-0.44%	0.38%	0.0%	0.49
Institutional furniture manufacturing	Z337127	-0.04%	0.03%	0.0%	0.34
Office furniture (including fixtures) manufacturing	Z3372	-0.07%	0.28%	0.0%	0.46
Showcase, partition, shelving, and locker manufacturing	Z337215	-0.02%	0.03%	0.0%	0.48
Miscellaneous manufacturing	Z339	-0.06%	0.07%	0.0%	0.35
Medical equipment and supplies manufacturing	Z3391	-0.10%	0.16%	0.0%	0.18
Surgical and medical instrument manufacturing	Z339112	-0.28%	0.13%	0.0%	0.34
Surgical appliance and supplies manufacturing	Z339113	-0.16%	0.23%	0.0%	0.26
Other miscellaneous manufacturing	Z3399	-0.09%	0.10%	0.0%	0.78
Jewelry and silverware manufacturing	Z33991	-0.22%	0.26%	0.0%	0.22
Sporting and athletic goods manufacturing	Z33992	-0.41%	0.16%	0.0%	0.23
Doll, toy, and game manufacturing	Z33993	-0.25%	0.08%	0.0%	0.06
All other miscellaneous manufacturing	Z33999	-0.05%	0.05%	0.0%	0.71
All other miscellaneous manufacturing	Z339999	-0.07%	0.19%	0.0%	0.78

Appendix C

The tables in appendix C represent the comparison results between the monthly price index short term relatives calculated using nonresponse adjusted weights and those calculated with production weights for the period spanning January 2019 to December 2023. Export price index stratum labels begin with Q, D, or Y, depending on classification system, and import price index labels begin with an R, P, or Z. Entries shaded in red have a p-value for the Wilcoxon signed-rank test of less than or equal to 0.05. In these cases we should not accept the null hypotheses that the difference of the median values is zero.

Table C-1. Results of Wilcoxon Signed-Rank Tests for BEA End Use Export and Import Price Indexes

BEA End Use Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
All commodities	Q	0.266	-0.03%	0.05%	0.424	-0.05%	0.06%	0.569	-0.13%	0.11%	0.470	-0.03%	0.05%	0.424	-0.04%	0.02%
Foods, feeds, & beverages	Q0	0.970	-0.03%	0.13%	0.733	-0.14%	0.12%	0.301	-0.04%	0.03%	0.204	-0.04%	0.04%	0.677	-0.05%	0.04%
Agricultural foods, feeds & beverages, excluding distilled beverages	Q00	0.850	-0.03%	0.14%	0.850	-0.15%	0.12%	0.339	-0.04%	0.03%	0.064	-0.04%	0.05%	1.000	-0.03%	0.03%
Wheat and rice	Q000	0.301	-0.02%	0.07%	0.850	-0.01%	0.00%	0.151	0.00%	0.01%	0.791	-0.06%	0.02%	0.359	0.00%	0.00%
Soybeans & other oil seeds	Q001	0.733	0.00%	0.00%	0.791	-0.02%	0.01%	0.470	0.00%	0.00%	0.850	0.00%	0.01%	0.569	0.00%	0.00%
Soybeans and soybean by-products, prior to the extraction of oil	Q00100	0.791	0.00%	0.00%	0.791	-0.02%	0.01%	0.470	0.00%	0.00%	0.850	0.00%	0.01%	0.569	0.00%	0.00%
Feedstuff	Q002	0.470	-0.12%	0.61%	0.266	-0.43%	0.20%	0.266	-0.09%	0.10%	0.470	-0.06%	0.14%	0.910	-0.01%	0.00%
Other animal feeds, n.e.s.	Q00220	0.519	-0.27%	1.49%	0.339	-1.00%	0.48%	0.470	-0.24%	0.16%	0.569	-0.14%	0.30%	n.p.	n.p.	n.p.
Other agricultural foods	Q003	0.970	-0.06%	0.07%	0.380	-0.12%	0.13%	0.110	-0.05%	0.02%	0.092	-0.09%	0.11%	1.000	-0.05%	0.04%
Meat, poultry & other edible animal products	Q00300	0.733	-0.24%	0.22%	0.569	-0.36%	0.35%	0.424	-0.13%	0.07%	0.301	-0.16%	0.12%	0.970	-0.14%	0.11%
Dairy products & eggs	Q00310	0.910	-0.39%	0.67%	0.677	-0.86%	0.59%	0.424	-0.01%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Fruit and fruit preparations, including fruit juices	Q00320	0.470	-0.07%	0.18%	0.151	-0.08%	0.27%	0.850	-0.26%	0.22%	0.733	-0.09%	0.17%	0.677	-0.03%	0.00%
Vegetables and vegetable preparations and juices	Q00330	0.569	-0.03%	0.04%	0.850	0.00%	0.04%	0.850	0.00%	0.01%	0.380	0.00%	0.00%	0.034	0.00%	0.00%
Nuts & preparations	Q00340	0.677	-0.06%	0.15%	0.733	-0.08%	0.11%	0.970	-0.08%	0.08%	1.000	-0.16%	0.05%	0.470	-0.12%	0.07%
Bakery & confectionery products	Q00350	0.470	0.00%	0.08%	0.424	-0.08%	0.05%	0.791	-0.14%	0.12%	0.850	-0.46%	0.23%	0.052	-0.14%	0.00%
Other foods and food preparations (lard, soft bev, spices), n.e.s.	Q00360	0.791	-0.26%	0.11%	0.052	-0.06%	0.10%	0.129	-0.08%	0.12%	0.043	-0.23%	0.31%	0.021	0.00%	0.11%
Nonagricultural foods (fish, distilled beverages)	Q01	0.519	-0.13%	0.13%	0.339	-0.12%	0.06%	0.677	-0.23%	0.10%	0.677	-0.24%	0.59%	0.791	-0.68%	0.54%
Fish and shellfish	Q01000	0.380	-0.17%	0.15%	0.339	-0.18%	0.09%	0.677	-0.33%	0.15%	0.677	-0.33%	0.83%	0.733	-1.00%	0.77%
Industrial supplies & materials	Q1	0.301	-0.09%	0.20%	0.519	-0.19%	0.19%	0.850	-0.27%	0.20%	0.380	-0.04%	0.14%	0.110	-0.02%	0.03%
Agricultural industrial supplies & materials	Q10	0.151	-0.05%	0.03%	0.380	-0.05%	0.15%	0.622	-0.38%	0.08%	0.151	-0.07%	0.07%	0.970	0.00%	0.02%
Cotton, incl linters-raw	Q100	0.910	-0.09%	0.07%	0.129	-0.07%	0.35%	0.910	-0.83%	0.11%	0.293	-0.02%	0.49%	n.p.	n.p.	n.p.
Other agricultural materials	Q101	0.380	-0.08%	0.05%	1.000	-0.15%	0.16%	0.470	-0.05%	0.07%	0.092	-0.34%	0.12%	0.677	0.00%	0.03%
Fuels & lubricants	Q11	0.301	-0.32%	0.66%	0.910	-0.75%	0.58%	0.791	-0.54%	0.30%	0.233	-0.09%	0.21%	0.176	-0.04%	0.05%
Coals & related fuels	Q110	n.p.	n.p.	n.p.	0.733	-0.12%	0.05%	0.733	-0.47%	0.78%	0.677	-0.48%	0.28%	n.p.	n.p.	n.p.
Other coal & related fuels	Q11020	0.791	-0.38%	0.21%	0.622	-0.18%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Petroleum & petroleum products	Q111	0.424	-0.44%	0.75%	0.970	-0.86%	0.65%	0.677	-0.64%	0.38%	0.910	-0.13%	0.09%	0.424	-0.05%	0.10%
Fuel oil	Q11110	0.733	-0.61%	0.31%	0.380	-1.20%	2.20%	0.791	-0.07%	0.10%	0.622	-0.18%	0.25%	0.110	-0.03%	0.15%
Other petroleum products	Q11120	0.733	-0.16%	0.21%	0.850	-0.79%	0.72%	0.339	-0.12%	0.21%	0.733	-0.26%	0.12%	0.519	-0.14%	0.25%
Gas-natural (Dec. 2014=100)	Q112	1.000	0.00%	0.00%	1.000	-3.15%	1.98%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Nonagricultural supplies & materials excluding fuels & building materials	Q12	0.970	-0.02%	0.04%	0.791	-0.03%	0.01%	1.000	-0.20%	0.10%	0.791	-0.06%	0.10%	0.970	-0.01%	0.04%
Steelmaking & ferroalloying materials	Q120	n.p.	n.p.	n.p.	0.791	-0.01%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Iron and steel products	Q121	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	-0.01%	0.02%	0.569	-0.03%	0.00%	n.p.	n.p.	n.p.
Iron & steel mill products	Q12100	n.p.	n.p.	n.p.	0.677	0.00%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

BEA End Use Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Nonferrous & other metals	Q122	0.970	-0.18%	0.05%	0.204	-0.04%	0.05%	0.850	-0.06%	0.30%	0.519	-0.12%	0.09%	0.424	-0.04%	0.04%
Aluminum & alumina	Q12200	0.151	-0.43%	0.20%	0.092	-0.17%	0.22%	0.622	-0.18%	0.09%	0.791	-0.14%	0.25%	0.233	-0.16%	0.23%
Copper	Q12210	0.622	-0.15%	0.10%	0.470	-0.11%	0.11%	0.301	-0.09%	2.20%	0.470	-0.14%	0.07%	0.339	-0.01%	0.01%
Nonmonetary gold	Q12260	0.638	-0.01%	0.02%	0.470	-0.03%	0.01%	0.791	-0.18%	0.09%	0.519	-0.05%	0.14%	0.266	0.00%	0.00%
Other precious metals	Q12270	0.339	-0.04%	0.28%	0.677	-0.12%	0.15%	0.791	-0.15%	0.13%	1.000	-0.40%	0.21%	0.077	-0.18%	0.06%
Other nonferrous metals	Q12290	0.470	-0.90%	0.29%	0.677	-0.05%	0.03%	0.622	-0.30%	0.08%	0.733	-0.04%	0.10%	0.791	-0.01%	0.01%
Finished metal shapes	Q123	0.910	-0.01%	0.02%	0.677	0.00%	0.01%	0.151	-0.02%	0.00%	0.002	-0.02%	0.00%	n.p.	n.p.	n.p.
Paper & paper base stocks	Q124	0.233	-0.23%	0.13%	0.380	-0.19%	0.16%	0.077	-0.10%	0.71%	0.850	-0.11%	0.42%	n.p.	n.p.	n.p.
Woodpulp and recovered paper	Q12420	0.622	-0.16%	0.41%	0.519	-0.54%	0.39%	0.021	-0.03%	1.30%	0.424	-0.09%	0.08%	0.413	-0.09%	0.79%
Linerboard, newsprint, and other paper/paperboard	Q12430	0.301	-0.29%	0.05%	0.027	-0.02%	0.05%	0.791	-0.20%	1.50%	0.233	-0.20%	0.72%	n.p.	n.p.	n.p.
Chemicals, excluding medicinals	Q125	0.569	-0.04%	0.07%	0.204	-0.06%	0.05%	0.519	-0.44%	0.25%	0.970	-0.12%	0.16%	0.791	-0.01%	0.07%
Plastic materials	Q12500	0.519	-0.07%	0.09%	0.380	-0.19%	0.15%	0.910	-0.76%	0.31%	0.970	-0.26%	0.15%	0.622	-0.09%	0.15%
Fertilizers, pesticides, & insecticides	Q12510	0.519	-0.02%	0.07%	n.p.	n.p.	n.p.	0.470	-0.01%	0.08%	0.129	-0.03%	0.00%	0.813	0.00%	0.00%
Industrial inorganic chemicals	Q12530	0.233	-0.02%	0.05%	0.110	-0.07%	0.00%	0.519	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Industrial organic chemicals	Q12540	0.380	-0.04%	0.03%	0.519	-0.07%	0.05%	0.910	-0.08%	0.06%	0.970	-0.09%	0.11%	n.p.	n.p.	n.p.
Other chemicals, excluding medicinals	Q12550	0.791	-0.07%	0.30%	0.733	-0.05%	0.05%	0.622	-1.80%	0.39%	0.622	-0.40%	0.39%	0.233	-0.08%	0.08%
Industrial textile fibers, yarn, and fabric	Q126	0.424	-0.04%	0.04%	0.569	-0.06%	0.04%	0.791	-0.03%	0.03%	0.970	-0.13%	0.30%	n.p.	n.p.	n.p.
Other nonagricultural industrial supplies and materials	Q127	0.569	-0.05%	0.01%	0.064	-0.07%	0.00%	0.470	-0.01%	0.38%	0.970	-0.07%	0.45%	0.233	-0.01%	0.05%
Synthetic rubber-primary	Q12700	0.791	0.00%	0.17%	0.233	0.00%	0.01%	0.266	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Industrial rubber products	Q12750	0.677	-0.02%	0.11%	0.129	-0.01%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Mineral supplies-manufactured	Q12760	0.531	0.00%	0.00%	1.000	0.00%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other goods manufactured and unmanufactured	Q12770	0.129	-0.09%	0.02%	0.064	-0.11%	0.01%	0.301	-0.02%	0.59%	0.569	-0.10%	0.60%	n.p.	n.p.	n.p.
Selected building materials	Q13	0.791	-0.06%	0.21%	0.266	-0.22%	0.17%	0.970	-0.11%	0.14%	0.791	-0.11%	0.07%	0.569	-0.01%	0.01%
Lumber & other wood supplies	Q131	0.012	-0.13%	0.02%	0.129	-0.03%	0.08%	0.005	-0.01%	0.04%	0.233	-0.22%	0.01%	0.850	-0.03%	0.03%
Logs, lumber, plywood and veneers	Q13100	0.012	-0.15%	0.03%	0.092	-0.04%	0.10%	0.012	-0.02%	0.07%	0.301	-0.27%	0.02%	0.850	-0.06%	0.04%
Miscellaneous building materials, excluding wood	Q132	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.301	-0.11%	0.15%	0.733	0.00%	0.02%
Other building materials, exclude wood and glass	Q13210	0.569	-0.05%	0.40%	0.266	-0.41%	0.31%	0.850	-0.34%	0.45%	0.301	-0.15%	0.21%	0.791	0.00%	0.02%
Capital goods	Q2	0.266	-0.03%	0.01%	0.850	-0.03%	0.03%	0.043	-0.01%	0.02%	0.677	-0.03%	0.03%	0.204	-0.04%	0.02%
Electrical generating equipment	Q20	0.110	-0.02%	0.00%	0.233	-0.02%	0.02%	0.043	-0.03%	0.07%	0.266	-0.02%	0.17%	0.034	-0.01%	0.12%
Generators, transformers & access	Q20000	0.129	-0.02%	0.01%	0.233	-0.01%	0.00%	1.000	-0.01%	0.01%	1.000	0.00%	0.02%	n.p.	n.p.	n.p.
Electric apparatus and parts, n.e.s.	Q20005	0.129	-0.02%	0.01%	0.233	-0.02%	0.02%	0.034	-0.04%	0.09%	0.424	-0.02%	0.22%	0.016	-0.01%	0.15%
Nonelectrical machinery	Q21	0.034	-0.03%	0.01%	0.791	-0.05%	0.05%	0.110	-0.02%	0.03%	0.791	-0.05%	0.04%	0.791	-0.04%	0.03%
Oil drilling, mining, and construction machinery and equipment	Q210	0.380	-0.05%	0.01%	0.176	-0.01%	0.02%	0.009	0.00%	0.12%	0.380	-0.44%	0.04%	0.052	-0.01%	0.07%
Excavating, paving & construction machinery	Q21030	0.677	-0.08%	0.01%	0.622	-0.01%	0.04%	0.021	-0.01%	0.22%	0.733	-0.32%	0.05%	0.034	0.00%	0.11%
Industrial and service machinery	Q211	0.791	-0.05%	0.01%	0.470	-0.08%	0.00%	0.791	-0.01%	0.01%	0.519	-0.04%	0.04%	0.910	-0.15%	0.04%
Industrial engines, pumps, & compressors	Q21100	0.569	-0.22%	0.05%	0.470	-0.04%	0.01%	0.519	-0.08%	0.03%	0.910	-0.24%	0.14%	n.p.	n.p.	n.p.
Metal working machine tools and rolling mill machines	Q21120	0.966	-0.02%	0.01%	0.677	-0.01%	0.00%	0.151	-0.01%	0.01%	0.791	-0.02%	0.01%	0.064	0.00%	0.01%
Measuring, testing & control instruments	Q21160	0.733	-0.06%	0.10%	0.622	0.00%	0.10%	0.052	-0.01%	0.04%	0.733	-0.04%	0.15%	0.043	-0.02%	0.00%
Materials handling equipment	Q21170	0.850	-0.02%	0.01%	0.027	-0.03%	0.00%	0.301	-0.05%	0.05%	0.204	-0.11%	0.05%	0.970	-0.03%	0.10%
Other industrial machinery	Q21180	0.733	-0.03%	0.03%	0.339	-0.19%	0.03%	0.470	-0.03%	0.01%	0.850	-0.07%	0.04%	0.077	-0.06%	0.01%
Photo and other service industry machines	Q21190	0.850	-0.03%	0.20%	0.470	-0.02%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Agricultural machinery and equipment	Q212	0.910	0.00%	0.01%	0.733	-0.06%	0.01%	0.176	-0.01%	0.01%	0.622	-0.23%	0.19%	0.339	-0.01%	0.00%
Computers, peripherals, and semiconductors	Q213	0.052	-0.17%	0.02%	0.380	-0.05%	0.17%	0.151	-0.04%	0.10%	0.850	-0.07%	0.13%	0.176	-0.04%	0.07%
Computers	Q21300	0.791	-0.18%	0.10%	0.301	-0.25%	0.64%	0.424	-0.25%	0.19%	0.733	-0.36%	0.34%	0.569	-0.44%	0.40%
Computer peripherals, accessories and parts	Q21301	0.176	-0.51%	0.07%	0.470	-0.06%	0.16%	0.569	-0.06%	0.33%	0.339	-0.27%	0.07%	0.791	-0.09%	0.10%
Semiconductors	Q21320	0.339	-0.06%	0.09%	1.000	-0.06%	0.02%	0.021	-0.02%	0.05%	0.129	-0.03%	0.17%	0.064	-0.02%	0.05%
Telecommunications equipment	Q214	0.910	-0.06%	0.05%	0.233	-0.06%	0.02%	0.677	-0.04%	0.04%	0.380	-0.02%	0.12%	0.176	-0.22%	0.19%
Scientific and medical machinery	Q216	0.569	-0.07%	0.28%	0.021	-0.09%	0.00%	0.791	-0.03%	0.04%	0.043	-0.05%	0.05%	0.064	-0.09%	0.01%
Laboratory testing & control instruments	Q21600	0.380	-0.03%	0.02%	0.204	0.00%	0.02%	0.233	-0.10%	0.17%	0.677	-0.02%	0.01%	0.233	-0.04%	0.01%
Other scientific, medical and hospital equipment	Q21610	0.791	-0.10%	0.38%	0.021	-0.12%	0.00%	0.151	-0.04%	0.00%	0.034	-0.06%	0.06%	0.092	-0.12%	0.01%
Transportation equipment excluding motor vehicles	Q22	0.733	-0.09%	0.07%	0.569	-0.04%	0.03%	0.850	-0.02%	0.05%	0.733	-0.03%	0.06%	0.151	-0.17%	0.08%
Civilian aircraft, aircraft engines, and parts thereof	Q220	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.850	-0.02%	0.05%	0.791	-0.03%	0.06%	0.151	-0.17%	0.08%
Parts for civilian aircraft	Q22010	0.110	-0.06%	0.04%	0.791	-0.02%	0.03%	0.003	0.00%	0.08%	0.129	-0.05%	0.00%	0.110	-0.09%	0.03%

BEA End Use Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Automotive vehicles, parts & engines	Q3	0.129	-0.01%	0.05%	0.233	-0.01%	0.00%	1.000	-0.01%	0.01%	0.677	-0.08%	0.01%	0.204	-0.04%	0.06%
Passenger cars, new and used	Q300	0.945	-0.01%	0.14%	0.677	-0.02%	0.01%	0.831	0.00%	0.01%	0.733	-0.05%	0.07%	0.622	-0.04%	0.01%
Vehicles designed to transport goods	Q301	0.569	-0.03%	0.04%	0.380	-0.01%	0.01%	0.970	0.00%	0.01%	0.007	-0.01%	0.00%	0.970	-0.01%	0.01%
Parts, engines, bodies & chassis	Q302	0.424	-0.02%	0.07%	0.970	-0.02%	0.01%	0.569	-0.02%	0.01%	0.519	-0.15%	0.03%	0.204	-0.04%	0.11%
Engines and engine parts for automotive vehicles	Q30200	0.204	-0.01%	0.01%	0.206	-0.01%	0.02%	0.985	-0.01%	0.00%	0.077	-0.27%	0.02%	0.910	-0.01%	0.05%
Nonengine parts & accessories	Q30230	0.380	-0.03%	0.09%	0.791	-0.03%	0.01%	0.791	-0.02%	0.01%	0.677	-0.22%	0.04%	0.266	-0.06%	0.16%
Consumer goods, excluding automobiles	Q4	0.233	-0.03%	0.23%	0.677	-0.05%	0.03%	0.129	-0.21%	0.01%	0.970	-0.04%	0.04%	0.910	-0.35%	0.02%
Nondurables, manufactured	Q40	0.733	-0.03%	0.42%	0.677	-0.10%	0.05%	0.301	-0.43%	0.01%	0.176	-0.03%	0.06%	0.910	-0.62%	0.06%
Apparel, footwear, and household goods	Q400	0.129	0.00%	0.00%	0.413	0.00%	0.00%	0.063	0.00%	0.00%	0.994	0.00%	0.00%	n.p.	n.p.	n.p.
Textile apparel and footwear	Q40000	0.465	0.00%	0.00%	0.563	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other consumer nondurables	Q401	0.733	-0.04%	0.48%	0.677	-0.11%	0.06%	0.301	-0.48%	0.01%	0.176	-0.03%	0.06%	0.622	-0.68%	0.04%
Medicinal, dental, and pharmaceutical preparatory materials	Q40100	0.519	-0.06%	0.71%	0.910	-0.16%	0.09%	0.176	-0.69%	0.02%	0.470	-0.03%	0.09%	0.622	-0.89%	0.05%
Toiletries & cosmetics	Q40120	0.043	-0.02%	0.14%	0.569	-0.07%	0.01%	0.339	-0.38%	0.03%	0.970	-0.02%	0.18%	0.424	-0.02%	0.00%
Other products (notions & writing articles)	Q40140	0.733	-0.02%	0.04%	0.791	-0.04%	0.04%	0.850	-0.01%	0.06%	0.910	-0.04%	0.05%	0.846	0.00%	0.00%
Durables, manufactured	Q41	0.110	-0.05%	0.09%	1.000	-0.05%	0.03%	0.850	-0.47%	0.03%	0.339	-0.08%	0.01%	0.622	-0.05%	0.04%
Household goods	Q410	0.339	-0.04%	0.18%	0.470	-0.05%	0.07%	0.677	-0.03%	0.03%	0.380	-0.04%	0.02%	0.733	-0.08%	0.08%
Furniture and household items	Q41000	0.959	-0.03%	0.02%	0.145	-0.02%	0.00%	0.563	-0.01%	0.00%	0.981	0.00%	0.00%	n.p.	n.p.	n.p.
Household and kitchen appliances	Q41030	0.176	-0.04%	0.00%	0.266	-0.02%	0.00%	0.850	-0.01%	0.04%	0.791	-0.05%	0.01%	0.970	0.00%	0.00%
Miscellaneous household goods	Q41050	0.339	-0.05%	0.28%	0.733	-0.07%	0.10%	1.000	-0.05%	0.04%	0.733	-0.02%	0.02%	0.519	-0.12%	0.11%
Recreational equip & materials	Q411	0.569	-0.01%	0.05%	0.064	0.00%	0.07%	0.339	-0.05%	0.17%	0.129	-0.21%	0.03%	0.233	-0.04%	0.02%
Pleasure boats and parts including motors	Q41110	0.168	-0.01%	0.32%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Toys, shooting and sporting goods	Q41120	0.633	-0.01%	0.01%	0.032	0.00%	0.11%	0.465	-0.06%	0.22%	0.040	-0.31%	0.04%	0.519	-0.05%	0.02%
Home entertainment equipment	Q412	0.622	0.00%	0.00%	0.322	-0.39%	0.01%	0.092	0.00%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Coins, gems, jewelry & collectibles	Q413	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.470	-0.01%	0.05%
Jewelry	Q41310	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.492	0.00%	0.06%
Nonmanufactured consumer goods	Q42	0.750	0.00%	0.00%	0.797	0.00%	0.00%	0.831	0.00%	0.00%	0.424	0.00%	0.00%	0.922	0.00%	0.00%
All commodities	R	0.733	-0.03%	0.03%	0.850	-0.03%	0.02%	0.424	-0.02%	0.02%	0.519	-0.02%	0.04%	0.733	-0.02%	0.02%
Foods, feeds, & beverages	R0	0.850	-0.06%	0.04%	0.910	-0.04%	0.02%	0.850	-0.02%	0.04%	0.380	-0.03%	0.04%	0.339	-0.01%	0.01%
Agricultural foods, feeds & beverages, excluding distilled beverages	R00	0.470	-0.07%	0.05%	0.380	-0.03%	0.04%	0.380	-0.02%	0.03%	0.622	-0.04%	0.05%	0.233	-0.02%	0.02%
Green coffee, cocoa beans, sugar	R000	0.380	-0.15%	0.19%	0.176	-0.06%	0.30%	0.233	-0.12%	0.32%	0.519	-0.30%	0.18%	0.569	-0.19%	0.07%
Green coffee	R00000	0.110	-0.15%	0.23%	0.266	-0.14%	0.39%	0.002	-0.01%	0.35%	0.176	-0.41%	0.22%	1.000	0.00%	0.00%
Other agricultural foods	R001	0.677	-0.08%	0.07%	0.850	-0.03%	0.02%	0.622	-0.03%	0.02%	0.519	-0.03%	0.08%	0.110	-0.01%	0.02%
Meat, poultry & other edible animal products	R00100	0.470	-0.02%	0.04%	0.677	-0.15%	0.07%	0.569	-0.07%	0.07%	0.569	-0.03%	0.03%	0.380	-0.01%	0.01%
Fruit and fruit preparations including frozen juices	R00120	1.000	-0.36%	0.33%	0.970	-0.14%	0.05%	0.733	-0.17%	0.13%	0.519	-0.18%	0.12%	0.151	-0.03%	0.13%
Vegetables and vegetable preparations	R00130	0.339	-0.41%	0.23%	0.910	-0.13%	0.11%	0.910	-0.02%	0.02%	0.733	-0.01%	0.00%	0.831	-0.06%	0.02%
Food oils & oilseeds	R00150	0.910	-0.33%	0.10%	0.677	-0.11%	0.07%	0.733	-0.12%	0.09%	0.910	-0.02%	0.05%	0.791	-0.07%	0.04%
Bakery & confectionery products	R00160	0.470	-0.05%	0.03%	0.677	-0.01%	0.07%	0.380	-0.01%	0.02%	0.470	-0.08%	0.04%	1.000	-0.01%	0.03%
Other animal & vegetable preparations & products	R00180	0.791	-0.02%	0.04%	0.910	-0.02%	0.02%	0.301	-0.02%	0.04%	0.424	-0.03%	0.41%	0.339	-0.02%	0.03%
Wine, beer, & related products	R00190	0.424	-0.05%	0.03%	0.622	-0.04%	0.03%	0.910	-0.01%	0.03%	0.003	-0.03%	0.00%	0.034	-0.02%	0.06%
Feedstuff and foodgrains	R002	0.677	-0.01%	0.00%	0.470	0.00%	0.00%	1.000	0.00%	0.00%	0.211	-0.02%	0.01%	0.000	0.00%	0.00%
Nonagricultural foods (fish, distilled beverages)	R01	0.092	-0.05%	0.01%	0.622	-0.11%	0.09%	0.622	-0.06%	0.11%	0.301	-0.02%	0.08%	0.733	-0.05%	0.02%
Fish & shellfish	R01000	0.850	-0.07%	0.03%	0.970	-0.13%	0.14%	0.677	-0.09%	0.17%	0.519	-0.03%	0.11%	0.850	-0.05%	0.03%
Distilled alcoholic beverages	R01010	0.003	-0.18%	0.00%	0.110	-0.13%	0.01%	0.970	-0.02%	0.04%	0.910	-0.02%	0.06%	0.000	0.00%	0.00%
Industrial supplies & materials	R1	0.622	-0.05%	0.08%	0.970	-0.15%	0.08%	1.000	-0.06%	0.07%	0.970	-0.06%	0.12%	0.519	-0.05%	0.05%
Fuels & lubricants	R10	0.519	-0.14%	0.20%	0.970	-0.49%	0.19%	0.519	-0.06%	0.11%	0.622	-0.18%	0.36%	0.470	-0.13%	0.11%
Petroleum & petroleum products	R100	0.339	-0.13%	0.26%	1.000	-0.52%	0.20%	0.301	-0.07%	0.12%	0.622	-0.18%	0.39%	0.470	-0.14%	0.12%
Fuel oil	R10010	0.622	-0.51%	1.14%	0.910	-3.22%	1.67%	0.129	-0.36%	1.01%	0.622	-1.26%	2.30%	0.000	0.00%	0.00%
Other petroleum products	R10020	1.000	-0.34%	0.24%	0.791	-0.15%	0.22%	0.301	-0.24%	0.12%	0.910	-0.47%	0.86%	0.622	-0.77%	0.66%
Fuels, n.e.s.-coals & gas	R101	0.339	-0.56%	1.38%	0.519	-0.13%	0.30%	0.733	-0.50%	0.13%	0.970	-0.13%	0.11%	0.850	-0.19%	0.50%
Gas-natural	R10110	0.380	-0.64%	1.94%	0.791	-0.22%	0.40%	0.622	-0.63%	0.11%	0.850	-0.15%	0.14%	0.791	-0.15%	0.55%
Paper & paper base stocks	R11	0.970	-0.23%	0.13%	0.151	-0.07%	0.06%	0.850	-0.52%	0.33%	0.266	-0.03%	0.17%	0.500	0.00%	0.00%
Newsprint & other paper products	R111	0.301	-0.34%	0.12%	0.001	-0.05%	0.00%	0.266	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

BEA End Use Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Coated and uncoated paper/paperboard	R11110	0.301	-0.38%	0.12%	0.001	-0.05%	0.00%	0.301	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Materials associated with nondurable supplies & materials	R12	0.519	-0.06%	0.03%	0.034	-0.02%	0.01%	0.850	-0.02%	0.05%	0.380	-0.03%	0.03%	0.064	-0.01%	0.07%
Agricultural products used for industrial supplies and materials	R120	0.791	-0.14%	0.09%	0.151	-0.14%	0.05%	0.733	-0.15%	0.10%	0.677	-0.02%	0.02%	0.850	-0.01%	0.68%
Other agricultural products (tobacco, waxes, nonfood oils)	R12070	0.339	-0.16%	0.05%	0.970	-0.21%	0.06%	0.850	-0.06%	0.07%	0.850	-0.03%	0.03%	0.519	-0.05%	0.79%
Textile supplies & related materials	R121	0.176	-0.13%	0.00%	0.791	0.00%	0.00%	0.970	-0.02%	0.00%	0.622	-0.02%	0.01%	0.470	0.00%	0.00%
Synthetic cloth, fabric, and thread	R12135	0.677	-0.26%	0.01%	0.791	-0.01%	0.01%	0.380	0.00%	0.00%	0.622	0.00%	0.00%	n.p.	n.p.	n.p.
Finished textile industrial supplies	R12150	0.176	-0.05%	0.00%	0.791	-0.01%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Chemicals, excluding medicinals	R125	0.380	-0.08%	0.05%	0.110	-0.02%	0.02%	0.733	-0.03%	0.06%	0.424	-0.04%	0.03%	0.970	-0.02%	0.02%
Plastic materials	R12500	0.043	-0.06%	0.02%	0.176	-0.04%	0.01%	0.339	-0.25%	0.14%	0.110	-0.10%	0.17%	0.677	-0.08%	0.10%
Fertilizers, pesticides & insecticides	R12510	0.677	-0.56%	0.07%	0.519	-0.20%	0.11%	0.266	-0.30%	0.25%	0.077	-0.22%	0.06%	0.622	-0.01%	0.02%
Industrial inorganic chemicals	R12530	0.791	-0.04%	0.03%	0.077	0.00%	0.01%	0.266	-0.01%	0.01%	0.052	-0.02%	0.01%	1.000	0.00%	0.00%
Industrial organic chemicals	R12540	0.176	-0.02%	0.30%	0.339	-0.02%	0.02%	0.233	-0.02%	0.06%	0.002	-0.10%	0.00%	0.110	-0.01%	0.00%
Other chemicals (coloring agents)	R12550	0.470	-0.35%	0.01%	0.151	-0.03%	0.01%	0.043	0.00%	0.01%	1.000	-0.08%	0.03%	0.021	-0.01%	0.01%
Selected building materials	R13	0.850	-0.08%	0.16%	0.204	-0.02%	0.02%	0.910	-0.03%	0.01%	0.791	-0.10%	0.01%	0.380	0.00%	0.00%
Lumber and other unfinished building materials	R130	0.850	-0.17%	0.36%	0.380	-0.02%	0.03%	0.970	-0.04%	0.01%	0.910	-0.26%	0.01%	0.622	0.00%	0.01%
Lumber & wood in the rough	R13000	0.519	-0.45%	0.92%	0.438	0.00%	0.00%	1.000	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Stone, sand, cement and lime	R13020	n.p.	n.p.	n.p.	0.677	-0.08%	0.01%	0.791	-0.13%	0.01%	0.910	-0.60%	0.02%	0.970	-0.01%	0.02%
Building materials, finished	R131	0.733	-0.02%	0.04%	0.129	-0.02%	0.03%	0.791	-0.04%	0.02%	0.129	0.00%	0.02%	n.p.	n.p.	n.p.
Nontextile floor & wall coverings; mach. parts of china	R13120	0.176	-0.01%	0.01%	1.000	-0.01%	0.02%	0.910	-0.02%	0.01%	0.733	0.00%	0.01%	0.677	-0.01%	0.00%
Unfinished metals related to durable goods	R14	0.204	-0.02%	0.07%	0.910	-0.17%	0.11%	0.339	-0.14%	0.12%	0.970	-0.05%	0.09%	0.470	-0.01%	0.01%
Steelmaking & ferroalloying mats	R140	0.910	-0.02%	0.03%	0.339	-0.05%	0.03%	0.151	-0.08%	0.03%	0.339	-0.05%	0.05%	0.791	-0.07%	0.02%
Iron & steel mill products	R141	0.519	-0.06%	0.31%	0.677	-0.85%	0.50%	0.519	-0.58%	0.44%	0.970	-0.36%	0.57%	n.p.	n.p.	n.p.
Major nonferrous metals-crude	R142	0.733	0.00%	0.00%	0.339	0.00%	0.09%	0.110	-0.01%	0.01%	0.970	-0.01%	0.01%	0.970	-0.01%	0.01%
Bauxite, alumina, aluminum, and products thereof	R14200	0.034	0.00%	0.00%	0.970	0.00%	0.00%	0.482	-0.03%	0.00%	0.375	0.00%	0.00%	1.000	0.00%	0.00%
Other precious metals	R14280	0.970	-0.01%	0.01%	0.910	-0.01%	0.35%	0.569	-0.03%	0.02%	0.970	-0.03%	0.03%	0.910	-0.02%	0.03%
Finished metals related to durable goods	R15	0.110	-0.01%	0.08%	0.910	-0.03%	0.04%	0.034	-0.06%	0.04%	0.791	-0.06%	0.04%	0.001	-0.06%	0.00%
Iron & steel products, except advanced manufacturing	R150	1.000	-0.02%	0.01%	0.850	-0.01%	0.02%	0.301	-0.07%	0.06%	0.176	-0.02%	0.01%	0.380	0.00%	0.00%
Iron & steel advanced manufacturing	R151	0.077	-0.02%	0.15%	0.424	-0.10%	0.15%	0.027	-0.23%	0.14%	0.233	-0.16%	0.20%	0.064	-0.12%	0.04%
Finished metals shapes and advanced manufacturing	R152	0.339	-0.01%	0.16%	0.043	-0.01%	0.00%	0.910	-0.02%	0.04%	0.791	-0.08%	0.02%	n.p.	n.p.	n.p.
Nonmetals related to durable goods	R16	0.970	-0.03%	0.04%	0.733	-0.06%	0.04%	0.622	-0.04%	0.04%	0.129	-0.06%	0.04%	0.733	-0.06%	0.03%
Finished nonmetals (boxes, belting, glass, etc.)	R161	0.970	-0.03%	0.05%	0.733	-0.07%	0.05%	0.677	-0.05%	0.05%	0.622	-0.09%	0.02%	0.204	-0.02%	0.00%
Other finished nonmetals (boxes, belting, glass, etc.)	R16120	0.970	-0.03%	0.05%	0.733	-0.07%	0.05%	0.677	-0.05%	0.05%	0.622	-0.09%	0.02%	0.204	-0.02%	0.00%
Capital goods	R2	0.424	-0.11%	0.08%	0.850	-0.04%	0.05%	0.043	-0.04%	0.02%	0.569	-0.02%	0.04%	0.910	-0.02%	0.02%
Electric generating equipment	R20	0.339	-0.02%	0.03%	0.519	-0.02%	0.01%	0.064	-0.01%	0.02%	0.910	-0.15%	0.05%	0.016	-0.05%	0.17%
Generators, transformers & access	R20000	0.266	-0.03%	0.01%	0.850	-0.04%	0.03%	0.266	-0.03%	0.10%	0.910	-0.06%	0.06%	0.622	-0.05%	0.04%
Electric apparatus & parts, n.e.s.	R20005	0.519	-0.01%	0.04%	0.910	-0.01%	0.02%	0.970	-0.02%	0.03%	0.970	-0.22%	0.07%	0.021	-0.08%	0.24%
Nonelectrical machinery	R21	0.339	-0.14%	0.10%	0.733	-0.05%	0.07%	0.027	-0.05%	0.02%	0.970	-0.03%	0.05%	0.110	-0.03%	0.01%
Oil drilling, mining, and construction machinery and equipment	R210	0.424	-0.02%	0.07%	0.077	-0.18%	0.01%	0.204	-0.16%	0.12%	0.910	-0.06%	0.10%	0.043	-0.09%	0.02%
Excavating, paving & construction machinery	R21030	0.677	-0.05%	0.12%	0.052	-0.26%	0.01%	0.380	-0.25%	0.10%	0.791	-0.08%	0.07%	0.092	-0.11%	0.02%
Industrial and service machinery	R211	0.569	-0.01%	0.01%	0.470	-0.01%	0.02%	0.622	-0.02%	0.03%	0.733	-0.03%	0.03%	0.424	-0.03%	0.01%
Industrial engines, pumps, & compressors	R21100	0.850	-0.03%	0.05%	0.733	-0.02%	0.02%	0.380	-0.03%	0.09%	0.470	-0.01%	0.04%	0.204	0.00%	0.01%
Food & tobacco processing machines	R21110	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.077	-0.09%	0.05%
Metal working machine tools and rolling mills	R21120	0.077	0.00%	0.01%	0.519	-0.03%	0.00%	0.301	-0.11%	0.01%	0.301	-0.01%	0.02%	0.110	-0.05%	0.01%
Measuring, testing & control instruments	R21160	0.007	-0.05%	0.00%	0.850	-0.04%	0.10%	0.233	-0.04%	0.01%	0.677	-0.02%	0.09%	0.470	-0.07%	0.04%
Materials handling equipment	R21170	0.622	-0.05%	0.03%	0.850	-0.02%	0.12%	0.424	-0.02%	0.25%	0.791	-0.19%	0.19%	0.233	-0.16%	0.06%
Other industrial machines	R21180	0.733	-0.05%	0.02%	1.000	-0.01%	0.04%	1.000	-0.05%	0.05%	1.000	-0.04%	0.10%	0.380	-0.06%	0.03%
Photo & other service industry machinery	R21190	0.677	-0.01%	0.10%	0.034	0.00%	0.00%	0.733	-0.07%	0.02%	0.002	-0.04%	0.00%	0.519	-0.01%	0.01%
Agricultural machinery and equipment	R212	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.110	-0.09%	0.30%	0.301	-0.34%	0.01%	0.622	-0.26%	0.01%
Computers, peripherals and semiconductors	R213	0.266	-0.42%	0.27%	0.519	-0.15%	0.19%	0.016	-0.14%	0.05%	0.569	-0.04%	0.15%	0.301	-0.06%	0.03%
Computers	R21300	0.027	-1.29%	0.51%	0.733	-0.03%	0.06%	0.052	-0.29%	0.02%	0.339	-0.10%	0.37%	0.622	-0.06%	0.04%
Computer accessories, peripherals, and parts	R21301	0.001	-0.02%	0.50%	0.301	-0.41%	0.46%	0.470	-0.23%	0.09%	0.380	-0.11%	0.09%	1.000	-0.15%	0.11%

BEA End Use Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Semiconductors	R21320	0.470	-0.28%	0.55%	0.850	-0.15%	0.05%	0.233	-0.22%	0.09%	0.151	-0.13%	0.12%	0.380	-0.18%	0.03%
Telecommunications equipment	R214	0.027	-0.01%	0.06%	0.092	-0.02%	0.00%	0.791	-0.02%	0.05%	0.380	0.00%	0.01%	0.233	-0.05%	0.04%
Business machinery and equipment, except computers	R215	0.002	0.00%	0.45%	0.622	-0.03%	0.07%	0.043	-0.05%	0.06%	0.052	-0.03%	0.03%	0.301	-0.06%	0.02%
Scientific and medical machinery	R216	0.027	-0.02%	0.13%	0.266	-0.04%	0.01%	0.380	-0.03%	0.05%	0.791	-0.07%	0.02%	0.519	-0.09%	0.08%
Laboratory testing and control instruments	R21600	0.380	-0.02%	0.01%	0.064	-0.01%	0.01%	0.233	-0.02%	0.01%	0.339	-0.03%	0.00%	0.677	-0.02%	0.03%
Other scientific, medical, and hospital equipment	R21610	0.021	-0.02%	0.15%	0.266	-0.05%	0.01%	0.424	-0.04%	0.06%	0.791	-0.08%	0.02%	0.424	-0.10%	0.10%
Transportation equipment excluding motor vehicles	R22	0.569	-0.02%	0.06%	0.677	-0.01%	0.02%	0.733	-0.03%	0.01%	0.110	-0.08%	0.02%	0.380	-0.09%	0.14%
Civilian aircraft, engines part	R220	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.733	-0.03%	0.01%	0.110	-0.08%	0.02%	0.380	-0.09%	0.14%
Civilian aircraft, complete	R22000	0.577	-0.22%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.380	-0.09%	0.06%
Parts for civilian aircraft	R22010	0.850	-0.02%	0.01%	0.569	-0.03%	0.02%	0.021	-0.09%	0.01%	0.233	-0.35%	0.04%	0.569	-0.26%	0.30%
Engines for civilian aircraft	R22020	0.970	-0.04%	0.25%	0.622	-0.04%	0.01%	0.204	-0.01%	0.02%	0.970	-0.03%	0.01%	0.129	-0.01%	0.08%
Automotive vehicles, parts & engines	R3	0.176	0.00%	0.03%	0.266	0.00%	0.02%	0.301	0.00%	0.00%	0.064	-0.01%	0.00%	0.850	-0.02%	0.00%
Passenger cars, new and used	R300	0.641	-0.01%	0.01%	0.695	-0.01%	0.04%	0.310	-0.01%	0.00%	0.064	-0.02%	0.01%	0.426	-0.04%	0.00%
Vehicles designed to transport goods	R301	0.176	-0.01%	0.13%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.850	0.00%	0.00%
Parts, engines, bodies and chassis	R302	0.250	0.00%	0.00%	0.875	0.00%	0.00%	1.000	0.00%	0.00%	0.781	0.00%	0.00%	0.719	0.00%	0.00%
Engines and engine parts for automotive vehicles	R30200	0.055	0.00%	0.00%	0.094	0.00%	0.00%	0.813	0.00%	0.00%	0.500	0.00%	0.00%	0.328	0.00%	0.00%
Automotive tires & tubes	R30220	0.641	0.00%	0.00%	1.000	0.00%	0.00%	0.188	0.00%	0.00%	0.438	0.00%	0.00%	0.625	0.00%	0.00%
Non-engine parts & accessories	R30230	1.000	0.00%	0.00%	0.625	0.00%	0.00%	1.000	0.00%	0.00%	0.750	0.00%	0.00%	0.563	0.00%	0.00%
Consumer goods, excluding automobiles	R4	0.266	-0.01%	0.01%	0.301	-0.01%	0.01%	0.791	-0.01%	0.02%	0.910	-0.02%	0.01%	1.000	-0.01%	0.04%
Nondurables, manufactured	R40	0.569	-0.01%	0.02%	0.519	-0.02%	0.02%	0.622	-0.03%	0.04%	0.519	-0.01%	0.04%	0.850	-0.01%	0.05%
Apparel, footwear, and household goods	R400	0.850	-0.02%	0.02%	0.424	-0.01%	0.03%	0.677	-0.02%	0.01%	0.622	-0.02%	0.04%	0.519	-0.03%	0.07%
Cotton apparel and household goods	R40000	0.470	-0.05%	0.07%	0.733	-0.01%	0.01%	0.677	-0.03%	0.03%	0.677	-0.06%	0.04%	0.569	-0.01%	0.04%
Apparel and household goods for other textiles	R40020	0.110	-0.01%	0.01%	0.339	-0.03%	0.02%	0.266	-0.03%	0.04%	0.791	-0.04%	0.04%	0.339	-0.03%	0.01%
Nontextile apparel and household goods	R40030	0.677	-0.04%	0.08%	0.003	-0.01%	0.16%	0.021	-0.17%	0.02%	0.910	-0.03%	0.02%	0.151	-0.05%	0.02%
Footwear of leather, rubber, or other materials	R40040	0.301	-0.05%	0.01%	0.791	-0.17%	0.14%	0.733	-0.01%	0.06%	0.677	-0.06%	0.05%	0.733	-0.20%	0.50%
Sporting/camping apparel and footwear	R40050	0.850	-0.04%	0.06%	0.791	-0.07%	0.06%	0.110	0.00%	0.01%	0.470	0.00%	0.03%	0.176	-0.04%	0.01%
Other consumer nondurables	R401	0.519	-0.02%	0.04%	0.850	-0.05%	0.02%	0.622	-0.05%	0.08%	0.850	-0.02%	0.06%	0.301	-0.02%	0.05%
Medicinal, dental and pharmaceutical preparatory materials	R40100	0.677	-0.03%	0.05%	0.850	-0.06%	0.02%	0.622	-0.05%	0.10%	0.519	-0.03%	0.08%	0.301	-0.03%	0.06%
Toiletries and cosmetics	R40120	0.301	-0.01%	0.03%	0.380	-0.04%	0.04%	0.012	-0.03%	0.02%	0.002	-0.08%	0.00%	0.106	-0.01%	0.00%
Other products (notions, writing supplies, tobacco products, etc)	R40140	0.339	-0.01%	0.00%	0.569	0.00%	0.00%	0.910	-0.01%	0.01%	0.910	-0.01%	0.02%	0.519	0.00%	0.02%
Durables, manufactured	R41	0.016	0.00%	0.01%	0.380	-0.02%	0.05%	0.850	-0.02%	0.03%	0.677	-0.05%	0.03%	0.850	-0.02%	0.03%
Household goods	R410	0.002	0.00%	0.02%	0.470	-0.01%	0.03%	0.677	-0.01%	0.01%	0.519	-0.02%	0.03%	0.850	-0.03%	0.04%
Furniture, household items	R41000	0.021	-0.01%	0.09%	0.424	-0.02%	0.01%	0.233	-0.06%	0.02%	0.519	-0.01%	0.08%	0.339	-0.14%	0.12%
Glassware and ceramics	R41010	0.424	0.00%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Cookware, chinaware, cutlery for the house and garden	R41020	0.380	-0.09%	0.11%	0.002	0.00%	0.01%	0.176	-0.02%	0.07%	0.622	0.00%	0.00%	n.p.	n.p.	n.p.
Household and kitchen appliances	R41030	0.176	0.00%	0.01%	0.733	0.00%	0.01%	0.622	-0.02%	0.01%	0.110	-0.04%	0.06%	1.000	-0.07%	0.04%
Other Household Goods, nes	R41050	0.092	0.00%	0.02%	0.380	-0.01%	0.05%	0.380	-0.01%	0.01%	0.622	-0.04%	0.04%	0.110	-0.03%	0.10%
Recreational equipment and materials	R411	0.910	-0.10%	0.01%	0.052	-0.04%	0.03%	0.092	-0.05%	0.02%	0.850	-0.07%	0.04%	0.204	-0.03%	0.01%
Motorcycles & parts	R41100	0.850	-0.13%	0.10%	0.791	-0.01%	0.04%	0.092	-0.01%	0.01%	0.010	0.00%	0.02%	0.298	-0.01%	0.05%
Toys, shooting & sporting goods	R41120	0.910	-0.13%	0.01%	0.064	-0.06%	0.03%	0.110	-0.06%	0.03%	0.850	-0.09%	0.05%	0.204	-0.05%	0.01%
Photo & optical equipment	R41130	0.258	0.00%	0.05%	0.029	0.00%	0.00%	0.543	-0.03%	0.00%	0.424	0.00%	0.00%	n.p.	n.p.	n.p.
Musical instruments and parts	R41140	0.380	-0.03%	0.00%	0.146	0.00%	0.00%	0.176	0.00%	0.00%	0.106	-0.09%	0.00%	0.846	0.00%	0.00%
Home entertainment equipment	R412	0.677	-0.03%	0.01%	0.470	-0.13%	0.11%	0.733	-0.13%	0.15%	0.129	-0.23%	0.04%	0.266	-0.08%	0.01%
Television and video receivers	R41200	0.677	-0.04%	0.01%	0.204	-0.17%	0.15%	0.910	-0.15%	0.20%	0.519	-0.09%	0.06%	0.791	-0.01%	0.02%
Radios, phonographs, and tape decks	R41210	0.677	-0.01%	0.00%	0.311	-0.15%	0.01%	0.469	-0.08%	0.05%	0.301	-0.55%	0.05%	n.p.	n.p.	n.p.
Coins, gems, jewelry, and collectibles	R413	0.092	-0.01%	0.11%	0.129	-0.11%	0.32%	0.380	-0.04%	0.45%	0.850	-0.44%	0.47%	0.569	-0.19%	0.25%
Jewelry (watches, rings, etc)	R41310	0.176	-0.01%	0.16%	0.301	-0.12%	0.40%	0.850	-0.04%	0.50%	0.970	-0.50%	0.53%	n.p.	n.p.	n.p.
Nonmanufactured consumer goods	R42	0.339	-0.05%	0.00%	0.424	-0.02%	0.01%	0.359	0.00%	0.01%	0.110	0.00%	0.01%	0.424	0.00%	0.02%
Nonmanufactured consumer durables	R421	0.077	-0.01%	0.00%	0.266	0.00%	0.00%	0.250	0.00%	0.01%	0.204	0.00%	0.01%	0.438	0.00%	0.00%
n.p. – The price index was not published during this period.																

Table C-2. Results of Wilcoxon Signed-Rank Tests for HS Export and Import Price Indexes

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Live animals; animal products	D1	0.850	-0.18%	0.17%	0.677	-0.32%	0.31%	0.380	-0.13%	0.07%	0.791	-0.13%	0.18%	0.850	-0.20%	0.10%
Meat & edible meat offal	D02	0.733	-0.34%	0.29%	0.622	-0.43%	0.42%	0.519	-0.19%	0.10%	0.850	-0.17%	0.16%	0.970	-0.17%	0.13%
Meat of swine (pork), fresh, chilled or frozen	D0203	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.266	-0.16%	0.20%	1.000	0.00%	0.00%
Fish and crustaceans, mollusks and aquatic invertebrates	D03	0.622	-0.05%	0.06%	0.910	-0.08%	0.07%	0.677	-0.41%	0.19%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.850	-0.96%	0.55%
Dairy products, eggs and honey	D04	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.380	-0.01%	0.03%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Vegetable products	DII	0.380	-0.02%	0.04%	0.266	-0.02%	0.03%	0.622	-0.02%	0.01%	0.519	-0.03%	0.01%	0.850	-0.01%	0.01%
Edible fruit and nuts; peel of citrus fruit or melons	D08	0.380	-0.06%	0.14%	0.077	-0.06%	0.17%	0.733	-0.14%	0.07%	0.970	-0.11%	0.06%	0.850	-0.07%	0.05%
Nuts nesoi, fresh or dried	D0802	0.677	-0.06%	0.17%	0.791	-0.09%	0.12%	0.970	-0.08%	0.08%	0.970	-0.18%	0.05%	0.569	-0.13%	0.07%
Cereals	D10	0.547	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%	1.000	-0.03%	0.01%	1.000	0.00%	0.00%
Oilseeds and misc. grains, seeds, fruits, plants, straw and fodder	D12	0.151	-0.01%	0.01%	0.677	-0.03%	0.02%	0.910	-0.01%	0.01%	0.850	-0.01%	0.01%	0.910	0.00%	0.01%
Prepared foodstuffs, beverages, and tobacco	DIV	0.791	-0.13%	0.31%	0.970	-0.22%	0.16%	0.970	-0.08%	0.03%	0.042	-0.32%	0.13%	0.733	-0.01%	0.00%
Preparations of vegetables, fruit, nuts or other parts of plants	D20	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.164	0.00%	0.00%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Miscellaneous edible preparations	D21	0.733	-0.48%	0.20%	0.067	-0.08%	0.13%	0.129	-0.11%	0.16%	0.042	-0.32%	0.44%	1.000	0.00%	0.00%
Food preparations nesoi	D2106	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.129	-0.16%	0.24%	0.042	-0.47%	0.64%	1.000	0.00%	0.00%
Beverages, spirits, and vinegar	D22	0.733	-0.38%	0.19%	0.733	-0.09%	0.04%	0.266	0.00%	0.00%	0.320	0.00%	0.00%	0.875	0.00%	0.00%
Residues and waste from the food industries; prepared animal feed	D23	0.569	-0.26%	1.29%	0.569	-0.92%	0.40%	0.380	-0.13%	0.10%	0.577	-0.10%	0.19%	0.301	-0.01%	0.01%
Mineral products	DV	0.339	-0.30%	0.67%	0.970	-0.67%	0.63%	0.733	-0.38%	0.22%	0.470	-0.20%	0.33%	0.204	-0.05%	0.05%
Ores, slag and ash	D26	0.970	-0.47%	0.22%	0.733	-0.03%	0.03%	0.850	-0.11%	1.85%	0.831	-0.03%	0.01%	0.380	-0.01%	0.01%
Mineral fuels, oils and residuials, bituminous substances and mineral waxes	D27	0.380	-0.32%	0.71%	0.970	-0.72%	0.68%	0.677	-0.39%	0.22%	0.470	-0.21%	0.35%	0.204	-0.05%	0.05%
Coal, briquettes and similar solid fuels manufactured from coal	D2701	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.622	-0.19%	0.13%	0.733	-0.59%	0.73%	0.733	-0.73%	0.33%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Petroleum oils & oils from bituminous minerals (excl crude) & products, nes	D2710	0.910	-0.26%	0.09%	0.519	-0.63%	0.48%	0.850	-0.10%	0.07%	0.970	-0.17%	0.19%	0.176	-0.05%	0.18%
Petroleum gases and other gaseous hydrocarbons	D2711	0.266	-2.26%	4.92%	0.470	-4.34%	4.73%	0.266	-0.96%	0.16%	0.519	-0.35%	0.42%	0.677	-0.01%	0.02%
Petroleum coke, petroleum bitumen and residues of petroleum oils	D2713	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.910	-0.69%	0.61%
Products of the chemical or allied industries	DVI	0.092	-0.02%	0.05%	0.622	-0.07%	0.04%	0.424	-0.53%	0.16%	0.733	-0.10%	0.15%	0.424	-0.41%	0.03%
Inorganic chemicals	D28	0.970	-0.04%	0.04%	0.622	-0.07%	0.03%	0.677	0.00%	0.00%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Organic chemicals	D29	0.064	-0.01%	0.25%	0.622	-0.04%	0.02%	0.791	-0.04%	0.05%	0.519	-0.04%	0.04%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Pharmaceutical products	D30	0.791	-0.07%	0.06%	0.850	-0.18%	0.09%	0.151	-0.76%	0.02%	0.424	-0.04%	0.10%	0.622	-0.90%	0.05%
Human and animal blood, prepared; other blood frctns	D3002	0.970	-0.17%	0.12%	0.791	-0.09%	0.20%	0.791	-0.20%	0.02%	0.052	-0.02%	0.24%	0.027	-1.28%	0.01%
Medicaments	D3004	0.206	-0.05%	0.04%	0.677	-0.41%	0.11%	0.064	-1.90%	0.02%	0.677	-0.07%	0.10%	0.424	-0.44%	0.15%
Tanning or dyeing extracts, dyes, paints varnish, putty, & inks	D32	0.301	-0.15%	0.26%	1.000	-0.24%	0.04%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Essential oils and resinoids; perfumery cosmetic or toilet preparations	D33	0.151	-0.01%	0.12%	0.831	-0.04%	0.05%	0.569	-0.33%	0.03%	0.910	-0.01%	0.14%	0.064	0.00%	0.06%
Beauty or make-up and skin-care preparations	D3304	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.339	-0.01%	0.37%	0.500	0.00%	0.00%
Soap; lubricants; waxes, polishing or scouring products; candles, pastes	D34	0.064	-0.06%	0.05%	0.733	-0.22%	0.01%	1.000	-0.02%	0.03%	0.322	-0.08%	0.03%	0.129	-0.06%	0.00%
Miscellaneous chemical products	D38	0.677	-0.07%	0.27%	0.424	-0.05%	0.07%	0.733	-1.80%	0.51%	0.569	-0.48%	0.52%	0.791	-0.03%	0.06%
Composite diagnostic or laboratory reagents	D3822	0.677	-0.15%	1.16%	0.365	-0.04%	0.00%	0.129	-0.10%	0.04%	0.005	-0.09%	0.01%	0.424	-0.05%	0.23%
Plastics and articles thereof; rubber and articles thereof	DVII	0.470	-0.05%	0.04%	0.176	-0.09%	0.03%	0.970	-0.41%	0.18%	0.791	-0.08%	0.24%	0.380	-0.04%	0.04%
Plastics and articles thereof	D39	0.519	-0.06%	0.05%	0.176	-0.10%	0.04%	0.970	-0.47%	0.21%	0.850	-0.10%	0.26%	0.339	-0.04%	0.05%
Polymers of ethylene, in primary forms	D3901	0.301	-0.24%	0.25%	0.470	-0.52%	0.44%	0.424	-1.21%	0.53%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Polyacetals, epoxide resins, alkyds, carbs in primary forms	D3907	0.204	0.00%	0.00%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Plates, sheets, films, etc., of plastic; laminated, etc.	D3920	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.151	-0.05%	0.04%	0.233	-0.09%	0.28%	0.042	-0.01%	0.03%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Articles of plastics, polymers, and resins, nes.	D3926	1.000	-0.26%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.042	-0.20%	1.69%	n.p.	n.p.	n.p.
Rubber and articles thereof	D40	0.850	-0.10%	0.05%	0.092	0.00%	0.02%	0.791	0.00%	0.02%	0.339	-0.05%	0.16%	0.733	0.00%	0.02%
New pneumatic tires of rubber	D4011	0.733	-0.29%	0.05%	0.301	0.00%	0.04%	0.016	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Wood, wood charcoal, cork, straw, baskets and wickerwork	DIX	0.012	-0.08%	0.01%	0.204	-0.02%	0.06%	0.003	-0.01%	0.04%	0.176	-0.23%	0.01%	0.733	-0.04%	0.04%
Woodpulp, recovered paper, and paper products	DX	0.339	-0.14%	0.11%	0.424	-0.18%	0.15%	0.151	-0.07%	0.33%	0.910	-0.05%	0.20%	0.677	-0.02%	0.21%
Woodpulp and recovered paper	D47	n.p.	n.p.	n.p.	0.519	-0.63%	0.47%	0.064	-0.04%	0.92%	0.850	-0.07%	0.05%	0.898	-0.09%	0.75%
Chemical woodpulp, soda or sulfate, except dissolving grades	D4703	n.p.	n.p.	n.p.	1.000	-0.06%	0.05%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	1.000	0.00%	0.00%
Paper and paperboard; articles of paper pulp, paper or paperboard	D48	0.339	-0.19%	0.04%	0.092	-0.02%	0.05%	0.424	-0.12%	0.67%	0.151	-0.10%	0.36%	0.622	-0.01%	0.03%
Textile and textile articles	DX1	0.204	-0.02%	0.02%	0.012	-0.01%	0.06%	0.677	-0.28%	0.04%	0.266	-0.06%	0.35%	n.p.	n.p.	n.p.
Cotton, including yarns and woven fabrics thereof	D52	0.176	-0.07%	0.07%	0.042	-0.05%	0.25%	0.910	-0.72%	0.09%	0.339	-0.01%	0.42%	0.844	0.00%	0.00%
Cotton, not carded or combed	D5201	0.910	-0.10%	0.07%	0.129	-0.07%	0.33%	0.910	-0.85%	0.10%	0.424	-0.02%	0.46%	0.563	0.00%	0.00%
Stone, plaster, cement, asbestos, ceramics, glass etc.	DXIII	0.027	0.00%	0.36%	0.009	0.00%	0.08%	0.110	-0.24%	0.01%	0.432	0.00%	0.00%	0.641	0.00%	0.00%
Glass and glassware	D70	n.p.	n.p.	n.p.	0.005	0.00%	0.00%	0.067	0.00%	0.00%	0.492	0.00%	0.00%	0.945	0.00%	0.00%
Pearls, stones, precious metals, imitation jewelry, and coins	DXIV	0.204	-0.04%	0.04%	0.970	-0.07%	0.06%	0.569	-0.48%	0.11%	0.970	-0.12%	0.23%	0.301	-0.03%	0.01%
Gold (including gold plated with platinum), unwrought	D7108	0.700	-0.02%	0.02%	0.470	-0.03%	0.01%	0.733	-0.55%	0.32%	0.519	-0.06%	0.46%	0.266	0.00%	0.00%
Platinum, unwrought, semimanufactured or in powder form	D7110	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.733	-0.25%	0.19%	0.519	-0.60%	0.25%	0.910	-0.11%	0.11%
Waste and scrap of precious metals	D7112	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.339	-0.03%	0.21%	0.380	-0.11%	0.15%	0.052	-0.23%	0.06%
Articles of jewelry and parts thereof, of precious metal	D7113	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.301	0.00%	0.05%
Base metals and articles of base metals	DXV	0.622	-0.03%	0.07%	0.470	-0.04%	0.04%	0.910	-0.05%	0.01%	0.791	-0.02%	0.03%	0.677	-0.02%	0.02%
Iron and steel	D72	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	-0.01%	0.00%	0.519	-0.01%	0.00%	n.p.	n.p.	n.p.
Copper and articles thereof	D74	0.424	-0.14%	0.10%	0.677	-0.08%	0.09%	0.970	-0.03%	0.03%	0.733	-0.04%	0.01%	0.500	0.00%	0.00%
Aluminum and articles thereof	D76	0.266	-0.27%	0.17%	0.129	-0.13%	0.21%	0.622	-0.22%	0.10%	0.850	-0.09%	0.17%	0.266	-0.13%	0.14%
Miscellaneous articles of base metal	D83	0.733	-0.01%	0.07%	0.496	0.00%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.539	-0.01%	0.02%
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	DXVI	0.339	-0.06%	0.01%	0.791	-0.03%	0.04%	0.176	-0.01%	0.03%	1.000	-0.04%	0.03%	0.077	-0.04%	0.03%
Machinery and mechanical appliances; parts thereof	D84	0.339	-0.11%	0.03%	0.791	-0.05%	0.06%	0.204	-0.02%	0.03%	0.266	-0.08%	0.03%	0.380	-0.05%	0.05%
Spark-ignition internal combustion piston engines	D8407	0.111	-0.02%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.250	0.00%	0.00%
Diesel & semi-diesel internal Cumbus. piston engines	D8408	0.966	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.301	-0.01%	0.01%	0.622	-0.02%	0.00%
Pumps for liquids; liquid elevators; parts thereof	D8413	0.622	-0.02%	0.01%	0.233	0.00%	0.00%	0.765	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	D8414	0.339	-0.02%	0.01%	0.042	-0.04%	0.00%	0.622	-0.16%	0.07%	0.176	-0.13%	0.01%	0.129	-0.18%	0.31%
Centrifuges & filtering/purifying machinery and parts	D8421	0.910	-0.03%	0.04%	0.677	-0.76%	0.05%	0.092	-0.02%	0.04%	0.910	-0.46%	0.06%	0.151	-0.25%	0.03%
Parts for materials handling & construction machines	D8431	0.301	-0.12%	0.02%	0.734	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.151	-0.02%	0.22%
Printing mach., machines ancillary to printing; parts thereof	D8443	0.481	-0.05%	0.06%	0.424	-0.03%	0.06%	0.569	-0.03%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Computer equipment	D8471	0.910	-0.11%	0.05%	0.339	-0.17%	0.43%	0.424	-0.17%	0.13%	0.733	-0.25%	0.23%	0.569	-0.32%	0.27%
Parts and accessories, n.e.s.o.i., for computers and other office machines	D8473	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	-0.13%	0.10%
Machines & appliances having individual functions, n.e.s.o.i.; parts thereof	D8479	0.496	-0.07%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Taps, cocks, valves & similar appliances; parts thereof	D8481	0.850	-0.01%	0.17%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Machines used solely for manufacture of semiconductor boules	D8486	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.06%	0.02%
Electrical machinery and equipment and parts and accessories thereof	D85	0.380	-0.02%	0.03%	0.301	-0.03%	0.01%	0.042	-0.01%	0.03%	0.110	-0.03%	0.10%	0.092	-0.02%	0.05%
Electrical apparatus for line telephony or line telegraphy; videophones; parts	D8517	0.677	-0.04%	0.05%	0.970	-0.06%	0.02%	0.677	-0.07%	0.04%	0.233	-0.02%	0.12%	0.519	-0.16%	0.17%
Electrical circuit switching, protecting or connection app of 1000 volts or less	D8536	0.092	-0.03%	0.02%	0.898	-0.04%	0.06%	0.151	-0.13%	0.22%	0.424	-0.05%	0.01%	0.470	-0.02%	0.15%
Electric control or distribution equipment	D8537	0.519	-0.09%	0.04%	0.203	0.00%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Semiconductors; L.E.D.s; mounted crystals; parts thereof	D8541	0.791	-0.01%	0.01%	0.835	-0.01%	0.01%	0.007	-0.02%	0.00%	0.064	0.00%	0.18%	1.000	-0.02%	0.00%
Electronic integrated circuits and micro assemblies;	D8542	0.204	-0.07%	0.09%	0.970	-0.07%	0.02%	0.021	-0.03%	0.06%	0.850	-0.03%	0.20%	0.002	-0.01%	0.05%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
parts thereof																
Insulated conductors; optical fiber cables w/individually sheathed fibers	D8544	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.677	-0.03%	0.07%	0.339	-0.13%	0.05%	0.677	-0.04%	0.05%	0.301	-0.02%	0.02%
Vehicles, aircraft, vessels and associated transport equipment	DXVII	0.204	-0.01%	0.02%	0.176	-0.01%	0.01%	0.052	-0.01%	0.02%	0.791	-0.08%	0.01%	0.850	-0.03%	0.05%
Motor vehicles and their parts	D87	0.129	-0.02%	0.04%	0.301	-0.01%	0.01%	0.301	-0.01%	0.01%	0.791	-0.09%	0.02%	0.151	-0.04%	0.07%
Tractors other than work trucks	D8701	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.733	-0.03%	0.04%	0.266	-0.02%	0.08%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.850	-0.03%	0.01%
Automobiles and other motor vehicles inc minivans, 4-dr specialty vehicles	D8703	0.850	-0.09%	0.16%	0.677	-0.02%	0.01%	0.733	0.00%	0.01%	0.733	-0.05%	0.07%	0.339	-0.04%	0.01%
Motor vehicles for the transport of goods	D8704	0.970	-0.05%	0.06%	0.000	-0.02%	0.00%	0.007	0.00%	0.02%	0.092	-0.04%	0.00%	1.000	-0.02%	0.04%
Parts and access of tractors, buses, automobiles, trucks, spec. vehicles	D8708	0.380	-0.04%	0.10%	0.569	-0.03%	0.02%	0.733	-0.03%	0.01%	0.677	-0.27%	0.04%	0.129	-0.07%	0.21%
Parts, nesoi, of civil aircraft and spacecraft (exc. military)	D8803	0.151	-0.06%	0.04%	0.850	-0.02%	0.03%	0.009	-0.01%	0.09%	0.151	-0.06%	0.00%	0.042	-0.10%	0.03%
Optical, photo, measuring, medical & musical instruments; & timepieces	DXVIII	0.850	-0.03%	0.16%	0.677	-0.04%	0.02%	0.850	-0.03%	0.03%	0.016	0.00%	0.05%	0.077	-0.05%	0.01%
Instruments/appliances used in medical surgical, dental, veterinarian sciences	D9018	0.850	-0.11%	0.55%	0.021	-0.14%	0.00%	0.151	-0.02%	0.01%	0.034	-0.07%	0.07%	0.077	-0.15%	0.01%
Hearing aids; artificial body parts; and orthopedic app.	D9021	0.520	-0.03%	0.76%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.465	0.00%	0.04%
Instruments and apparatus for physical or chemical analysis	D9027	0.910	-0.02%	0.01%	0.424	0.00%	0.02%	0.129	-0.01%	0.00%	0.129	-0.09%	0.01%	0.677	-0.03%	0.00%
Oscilloscopes, spectrum analyzers etc., and parts	D9030	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.164	0.00%	0.73%	0.063	0.00%	0.25%	0.250	-0.07%	0.12%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Measuring or checking instruments, and appliances n.e.s.	D9031	0.850	-0.28%	0.38%	0.320	-0.01%	0.06%	0.052	-0.01%	0.14%	0.233	-0.13%	0.51%	0.338	-0.04%	0.01%
Miscellaneous manufactured articles	DXX	0.622	-0.08%	0.03%	0.027	-0.01%	0.16%	0.791	-0.03%	0.09%	0.077	-0.08%	0.01%	0.176	-0.05%	0.01%
Furniture; stuffed furnishings; lamps and lighting fittings nesoi;	D94	0.677	-0.15%	0.06%	0.102	-0.02%	0.28%	0.365	-0.01%	0.00%	1.000	0.00%	0.00%	0.031	-0.03%	0.00%
Seats other than barber, dental and similar chairs	D9401	0.156	-0.01%	0.03%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Toys, games and sports equipment; parts and accessories thereof	D95	0.625	0.00%	0.00%	0.055	0.00%	0.12%	1.000	-0.06%	0.26%	0.175	-0.20%	0.03%	0.470	-0.10%	0.03%
Live animals; animal products	PI	1.000	-0.04%	0.02%	0.622	-0.08%	0.13%	0.470	-0.03%	0.07%	0.129	-0.02%	0.07%	0.850	-0.02%	0.02%
Meat and edible meat offal	P02	0.922	-0.04%	0.04%	0.622	-0.16%	0.12%	0.733	-0.12%	0.12%	0.677	-0.03%	0.03%	0.910	-0.03%	0.03%
Meat of bovine animals, fresh or chilled	P0201	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.000	0.00%	0.00%
Fish and crustaceans, molluscs and other aquatic invertebrates	P03	0.910	-0.09%	0.04%	0.850	-0.17%	0.19%	0.301	-0.09%	0.18%	0.151	-0.04%	0.13%	0.850	-0.03%	0.04%
Fish fillets and other fish meat, fresh, chilled, frzn.	P0304	1.000	-0.08%	0.08%	0.970	-0.44%	0.50%	0.470	-0.29%	0.41%	0.266	-0.10%	0.40%	0.791	-0.10%	0.14%
Crustaceans, live, fresh, chilled, etc; in shell or not; cooked or uncooked	P0306	0.910	-0.10%	0.03%	0.850	-0.03%	0.24%	0.622	-0.06%	0.26%	0.424	-0.06%	0.06%	0.266	0.00%	0.00%
Vegetable products	PII	0.519	-0.16%	0.15%	0.519	-0.05%	0.06%	0.092	-0.05%	0.06%	0.424	-0.09%	0.05%	0.424	-0.01%	0.03%
Edible vegetables, roots, and tubers	P07	0.301	-0.54%	0.25%	0.910	-0.16%	0.14%	0.791	-0.03%	0.02%	0.176	-0.01%	0.00%	0.791	-0.05%	0.02%
Edible fruit and nuts; peel of citrus fruit or melons	P08	0.850	-0.37%	0.33%	0.970	-0.13%	0.05%	0.677	-0.17%	0.14%	0.910	-0.16%	0.11%	0.077	-0.03%	0.07%
Coffee, tea, mate and spices	P09	0.110	-0.10%	0.16%	0.380	-0.08%	0.26%	0.001	-0.01%	0.40%	0.176	-0.37%	0.20%	0.813	0.00%	0.00%
Coffee, roasted or unroasted, decaf; coffee husks and skins	P0901	0.129	-0.13%	0.22%	0.266	-0.14%	0.38%	0.002	-0.01%	0.37%	0.176	-0.40%	0.21%	1.000	0.00%	0.00%
Animal or vegetable fats and oils	PIII	0.910	-0.38%	0.11%	0.677	-0.11%	0.08%	0.733	-0.13%	0.09%	0.519	-0.03%	0.04%	0.733	-0.03%	0.03%
Prepared foodstuffs, beverages, and tobacco	PIV	0.176	-0.03%	0.02%	0.677	-0.03%	0.01%	1.000	-0.03%	0.03%	0.791	-0.03%	0.06%	0.042	-0.01%	0.02%
Edible preps of meat, of fish, or of aquatic invertebrates	P16	0.733	-0.21%	0.05%	0.266	-0.17%	0.05%	1.000	-0.11%	0.11%	0.102	-0.12%	0.02%	0.970	-0.01%	0.04%
Sugars and sugar confectionary	P17	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.831	-0.50%	0.31%	1.000	0.00%	0.00%
Cocoa and cocoa preparations	P18	0.569	-0.17%	0.04%	0.677	-0.22%	0.19%	1.000	-0.05%	0.02%	1.000	-0.02%	0.02%	0.791	-0.09%	0.09%
Preparations of vegetables, fruit, nuts, or other parts of plants	P20	0.970	-0.09%	0.05%	0.638	0.00%	0.01%	0.027	-0.03%	0.00%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Miscellaneous edible preparations	P21	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.424	0.00%	0.00%
Food preparations nesoi	P2106	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.000	0.00%	0.00%
Beverages, spirits, and vinegar	P22	0.151	-0.05%	0.01%	0.677	-0.04%	0.01%	0.204	-0.01%	0.02%	1.000	-0.01%	0.03%	0.021	-0.01%	0.05%
Beer, ale, porter, stout and the like	P2203	0.831	-0.04%	0.04%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.000	0.00%	0.00%
Wine of fresh grapes, including fortified wine	P2204	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.519	-0.07%	0.03%	0.791	-0.02%	0.06%	0.007	-0.07%	0.01%	0.034	-0.03%	0.06%
Ethyl alcohol undenatured less than 80% alcohol	P2208	0.003	-0.17%	0.00%	0.110	-0.12%	0.01%	0.910	-0.02%	0.04%	0.910	-0.02%	0.06%	1.000	0.00%	0.00%
Mineral products	PV	0.733	-0.14%	0.14%	0.910	-0.45%	0.29%	0.470	-0.06%	0.11%	0.622	-0.20%	0.42%	0.569	-0.24%	0.21%
Mineral fuels, oils and residuals, bituminous substances and mineral waxes	P27	0.733	-0.15%	0.14%	0.910	-0.49%	0.33%	0.470	-0.06%	0.11%	0.622	-0.20%	0.43%	0.569	-0.24%	0.22%
Petroleum oils (not crude), bituminous oils, & products thereof, nesoi	P2710	0.470	-0.22%	0.39%	0.850	-1.52%	0.81%	0.339	-0.24%	0.42%	0.622	-0.65%	1.21%	0.569	-0.48%	0.38%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Petroleum gases and other gaseous hydrocarbons	P2711	0.266	-0.68%	1.08%	0.733	-0.12%	0.36%	0.622	-0.53%	0.09%	0.910	-0.14%	0.13%	0.970	-0.34%	0.42%
Products of the chemical or allied industries	PV1	0.266	-0.06%	0.04%	0.569	-0.04%	0.02%	0.424	-0.03%	0.07%	0.733	-0.02%	0.06%	0.266	-0.02%	0.03%
Inorganic chemicals	P28	0.850	-0.17%	0.17%	0.970	-0.05%	0.07%	0.470	-0.16%	0.13%	0.034	-0.11%	0.00%	0.313	0.00%	0.00%
Organic chemicals	P29	0.380	0.00%	0.17%	0.970	-0.04%	0.06%	0.424	-0.01%	0.01%	0.301	-0.07%	0.05%	0.110	-0.01%	0.04%
Heterocyclic compounds with nitrogen hetero-atoms only	P2933	0.092	-0.04%	0.77%	0.470	0.00%	0.01%	0.850	-0.01%	0.00%	0.000	-0.27%	0.00%	1.000	0.00%	0.00%
Nucleic acids and their salts, other heterocyclic compounds	P2934	0.677	-0.28%	0.04%	0.204	-0.07%	0.03%	0.176	-0.04%	0.18%	0.569	-0.02%	0.63%	0.966	-0.01%	0.00%
Pharmaceutical products	P30	0.677	-0.03%	0.06%	0.791	-0.07%	0.02%	0.677	-0.06%	0.11%	0.910	-0.03%	0.09%	0.301	-0.03%	0.05%
Human and animal blood, prep; antisera & other blood fractions	P3002	0.622	-0.04%	0.02%	1.000	-0.22%	0.30%	0.970	-0.07%	0.01%	0.850	-0.02%	0.19%	0.910	-0.10%	0.00%
Medicaments (except vaccines, band., pharmaceuticals)	P3004	0.733	-0.04%	0.10%	0.850	-0.15%	0.03%	0.677	-0.10%	0.18%	0.569	-0.15%	0.16%	0.077	-0.03%	0.16%
Fertilizers	P31	0.380	-0.88%	0.11%	n.p.	n.p.	n.p.	0.266	-0.42%	0.34%	n.p.	n.p.	n.p.	0.733	-0.02%	0.04%
Tanning extracts; dye, pigments, varnish, paints & putty	P32	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.577	0.00%	0.00%
Essential oils and resinoids	P33	0.233	-0.01%	0.03%	0.945	-0.03%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Miscellaneous chemical products	P38	0.622	-0.44%	0.01%	0.622	-0.03%	0.04%	0.092	-0.03%	0.04%	0.365	-0.05%	0.01%	0.042	-0.01%	0.02%
Plastics and articles thereof; rubber and articles thereof	PV11	0.850	-0.02%	0.06%	0.301	-0.03%	0.04%	0.176	-0.06%	0.04%	0.424	-0.08%	0.03%	0.301	-0.03%	0.02%
Plastics and articles thereof	P39	0.424	-0.04%	0.06%	0.052	-0.04%	0.07%	0.151	-0.08%	0.04%	0.266	-0.06%	0.03%	0.850	-0.03%	0.02%
Plates, sheets, film, foil, & strips of plastics	P3920	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.278	-0.36%	0.34%	0.380	-0.50%	0.03%	n.p.	n.p.	n.p.
Articles for the conveyance or packing of goods, of plastics	P3923	0.262	0.00%	0.16%	0.910	-0.19%	0.17%	0.151	-0.03%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Tableware, kitchenware, other articles of plastics	P3924	0.275	-0.06%	0.18%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Articles of plastic, polymers & resins of heading 3901 to 3914, nesoi	P3926	0.007	-0.05%	0.02%	0.007	-0.02%	0.14%	0.016	-0.16%	0.02%	n.p.	n.p.	n.p.	0.733	0.00%	0.01%
Rubber and articles thereof	P40	0.339	-0.04%	0.06%	0.052	-0.04%	0.01%	0.339	-0.06%	0.07%	0.380	-0.12%	0.04%	0.733	-0.11%	0.02%
New pneumatic tires of rubber	P4011	0.424	0.00%	0.00%	0.129	0.00%	0.00%	0.052	0.00%	0.00%	0.092	0.00%	0.00%	0.151	0.00%	0.01%
Raw hides, skins, leather, furskins, travel goods, etc	PV111	0.005	-0.01%	0.00%	0.570	-0.02%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Articles of leather; travel goods, bags, etc. of various materials	P42	0.034	-0.01%	0.00%	0.970	-0.02%	0.03%	0.622	-0.04%	0.03%	0.791	-0.03%	0.01%	n.p.	n.p.	n.p.
Travel goods and handbags	P4202	0.301	-0.01%	0.01%	0.380	-0.02%	0.03%	0.850	-0.02%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Wood, wood charcoal, cork, straw, basketware and wickerwork	PIX	0.569	-0.14%	0.29%	0.064	-0.02%	0.03%	0.910	-0.04%	0.02%	0.791	0.00%	0.01%	n.p.	n.p.	n.p.
Wood and articles of wood; wood charcoal	P44	n.p.	n.p.	n.p.	0.064	-0.02%	0.03%	0.970	-0.04%	0.02%	0.791	0.00%	0.01%	n.p.	n.p.	n.p.
Wood sawn or chipped lengthwise, sliced or peeled	P4407	0.470	-0.45%	0.89%	1.000	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Woodpulp, recovered paper, and paper products	PX	0.850	-0.14%	0.10%	0.519	-0.04%	0.04%	0.850	-0.25%	0.16%	0.910	-0.02%	0.03%	0.380	0.00%	0.00%
Paper and paperboard; articles of paper pulp, paper or paperboard	P48	0.301	-0.22%	0.08%	0.003	-0.03%	0.00%	0.339	0.00%	0.00%	0.910	0.00%	0.00%	n.p.	n.p.	n.p.
Textile and textile articles	PX1	0.970	-0.02%	0.03%	0.424	-0.02%	0.01%	0.733	-0.01%	0.01%	1.000	-0.03%	0.03%	0.569	-0.01%	0.00%
Articles of apparel and clothing accessories, knitted or crocheted	P61	0.110	-0.04%	0.05%	0.622	-0.01%	0.01%	0.622	-0.01%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Knitted sweaters, pullovers, sweatshirts, vests and similar art.	P6110	0.424	-0.12%	0.08%	0.791	-0.01%	0.03%	0.052	-0.06%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Articles of apparel and clothing accessories, not knitted or crocheted	P62	0.042	-0.01%	0.06%	0.301	-0.01%	0.01%	0.424	-0.03%	0.05%	0.850	-0.10%	0.06%	0.175	0.00%	0.00%
Men or boys suits, ensembles, suit-type jackets, blazers & trousers	P6203	0.970	-0.03%	0.15%	0.970	-0.02%	0.02%	0.204	-0.15%	0.17%	0.677	-0.14%	0.12%	1.000	0.00%	0.00%
Women or girls suits, dresses, skirts; not knitted	P6204	0.622	-0.03%	0.07%	0.569	-0.03%	0.06%	0.380	-0.04%	0.05%	0.668	-0.05%	0.25%	1.000	0.00%	0.00%
Made-up or worn textile articles	P63	0.424	-0.05%	0.06%	0.700	-0.14%	0.10%	0.012	-0.11%	0.00%	0.791	-0.05%	0.05%	n.p.	n.p.	n.p.
Made-up articles of textile materials, nes	P6307	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.233	-0.04%	0.00%	n.p.	n.p.	n.p.
Headgear, umbrellas, artificial flowers, etc.	PX11	0.380	-0.03%	0.02%	1.000	-0.09%	0.10%	0.092	-0.01%	0.02%	0.339	-0.04%	0.03%	0.470	-0.14%	0.17%
Footwear and parts of such articles	P64	0.151	-0.03%	0.03%	0.850	-0.11%	0.12%	0.470	-0.01%	0.03%	0.204	-0.05%	0.03%	0.519	-0.15%	0.18%
Footwear, with outer soles and uppers of rubber or plastics	P6402	0.021	-0.08%	0.03%	0.039	-0.05%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Footwear with uppers of leathers	P6403	0.266	-0.06%	0.01%	0.677	-0.25%	0.02%	0.677	-0.02%	0.11%	0.424	-0.02%	0.09%	0.625	0.00%	0.00%
Footwear with uppers of textile materials	P6404	n.p.	n.p.	n.p.	0.519	-0.10%	0.09%	0.569	-0.03%	0.02%	n.p.	n.p.	n.p.	0.077	-0.07%	0.00%
Stone, plaster, cement, asbestos, ceramics, glass etc.	PX111	0.677	-0.01%	0.01%	0.677	-0.03%	0.01%	0.850	-0.02%	0.00%	0.019	-0.20%	0.00%	0.910	0.00%	0.00%
Articles of stone, plaster, cement, asbestos, or mica	P68	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.01%	0.01%	0.577	-0.52%	0.01%	0.622	-0.01%	0.01%
Ceramic products	P69	0.902	0.00%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Glass and glassware	P70	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.005	-0.09%	0.00%	0.733	0.00%	0.00%
Pearls, stones, precious metals, imitation jewelry, and coins	PX14	0.791	0.00%	0.03%	0.064	-0.01%	0.08%	0.622	-0.01%	0.11%	0.519	-0.09%	0.08%	0.622	-0.06%	0.08%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Platinum, unwrought, semi-mfg or powder	P7110	n.p.	n.p.	n.p.	0.622	-0.03%	0.43%	0.569	-0.03%	0.03%	0.970	-0.04%	0.05%	0.910	-0.03%	0.05%
Base metals and articles of base metals	PXV	0.092	-0.01%	0.04%	0.970	-0.09%	0.05%	0.110	-0.06%	0.03%	0.519	-0.03%	0.08%	0.002	-0.02%	0.00%
Iron and steel	P72	0.424	-0.04%	0.17%	0.622	-0.43%	0.26%	0.380	-0.25%	0.21%	0.910	-0.15%	0.23%	n.p.	n.p.	n.p.
Articles of iron or steel	P73	0.204	-0.01%	0.04%	0.622	-0.03%	0.04%	0.027	-0.06%	0.02%	0.266	-0.05%	0.08%	0.005	-0.06%	0.01%
Structures (excluding prefab buildings of heading 9406) and parts thereof	P7308	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.380	-0.23%	0.09%
Screws, bolts, nuts, rivets, cotters, and washers	P7318	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.470	-0.28%	0.39%	0.042	-0.14%	0.05%
Copper and articles thereof	P74	0.970	-0.02%	0.03%	0.233	0.00%	0.00%	0.109	0.00%	0.00%	0.438	0.00%	0.00%	1.000	0.00%	0.00%
Aluminum and articles thereof	P76	0.016	0.00%	0.00%	0.110	0.00%	0.00%	0.297	-0.02%	0.00%	0.569	0.00%	0.00%	0.875	0.00%	0.00%
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof	P82	0.064	0.00%	0.01%	0.733	0.00%	0.00%	0.052	-0.01%	0.00%	0.638	-0.01%	0.01%	0.970	-0.01%	0.01%
Miscellaneous articles of base metal	P83	0.110	-0.02%	0.08%	0.765	-0.03%	0.03%	0.970	-0.04%	0.02%	0.850	-0.05%	0.04%	0.850	-0.04%	0.02%
Mountings and other hardware for furniture, doors, and windows	P8302	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.677	-0.06%	0.05%	0.301	-0.03%	0.04%
Machinery, electrical equipment, TV image and sound recorders, parts, etc.	PXVI	0.519	-0.11%	0.08%	0.424	-0.04%	0.04%	0.021	-0.03%	0.02%	0.266	-0.02%	0.05%	0.622	-0.01%	0.02%
Machinery and mechanical appliances; parts thereof	P84	0.233	-0.22%	0.14%	0.380	-0.08%	0.08%	0.077	-0.07%	0.02%	0.380	-0.03%	0.07%	0.622	-0.05%	0.02%
Spark-ignition internal combustion piston engines	P8407	n.p.	n.p.	n.p.	0.970	0.00%	0.01%	0.850	0.00%	0.06%	0.569	-0.01%	0.00%	0.970	0.00%	0.00%
Parts for spark-ignition and diesel internal combustion piston engines	P8409	0.791	0.00%	0.00%	0.339	-0.01%	0.01%	0.910	0.00%	0.03%	0.380	-0.01%	0.01%	0.266	0.00%	0.01%
Turbojets, turbopropellers and other gas turbines, and parts thereof	P8411	0.970	-0.04%	0.25%	n.p.	n.p.	n.p.	0.204	-0.01%	0.02%	0.970	-0.03%	0.01%	0.129	-0.01%	0.08%
Engines & motors, nesoi, & parts thereof	P8412	0.424	-0.06%	0.02%	0.910	-0.03%	0.00%	0.791	-0.06%	0.06%	0.609	0.00%	0.01%	0.383	0.00%	0.00%
Pumps for liquids; liquid elevators; parts thereof	P8413	0.733	-0.06%	0.08%	0.970	-0.04%	0.03%	0.266	-0.02%	0.00%	0.910	-0.01%	0.00%	1.000	0.00%	0.00%
Air or vacuum pumps, compressors and fans; vent & recycling hoods; parts	P8414	0.569	0.00%	0.03%	0.151	0.00%	0.01%	0.569	-0.01%	0.00%	0.110	0.00%	0.00%	0.677	-0.01%	0.00%
Air conditioning machines and parts thereof	P8415	0.129	0.00%	0.02%	0.027	0.00%	0.02%	0.092	-0.11%	0.05%	0.791	-0.17%	0.13%	0.339	-0.15%	0.06%
Refrigerators, freezers, heat pumps; and parts	P8418	0.733	-0.01%	0.01%	n.p.	n.p.	n.p.	0.110	-0.02%	0.02%	0.677	-0.05%	0.14%	0.519	-0.04%	0.11%
Nonelectric water heaters and parts	P8419	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.339	-0.11%	0.01%
Centrifuges & filtering/purifying machinery and parts	P8421	0.677	-0.32%	0.00%	1.000	0.00%	0.01%	0.380	0.00%	0.00%	0.470	-0.07%	0.03%	0.077	-0.03%	0.02%
Self-propelled earth-moving, tamping, & road roller machines	P8429	0.003	-0.04%	0.00%	0.301	-0.09%	0.01%	0.424	-0.07%	0.06%	0.695	-0.13%	0.04%	0.652	-0.27%	0.01%
Parts for materials handling & construction machines	P8431	0.910	-0.08%	0.17%	0.151	-0.31%	0.02%	0.470	-0.45%	0.18%	0.970	-0.09%	0.37%	0.339	-0.07%	0.03%
Printing machinery, machines ancillary to printing; & parts	P8443	0.970	-0.03%	0.04%	0.850	-0.01%	0.02%	0.007	-0.03%	0.01%	0.970	-0.02%	0.02%	0.470	-0.03%	0.04%
Powered hand tools, nonelectric, and parts thereof	P8467	0.690	-0.02%	0.41%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.129	-0.02%	0.01%
Computer equipment	P8471	0.027	-1.05%	0.42%	0.910	-0.02%	0.07%	0.129	-0.26%	0.02%	0.176	-0.08%	0.30%	0.733	-0.06%	0.03%
Parts and accessories, n.e.s.o.i., for computers and other office machines	P8473	0.001	-0.06%	1.45%	0.424	-0.95%	1.00%	0.569	-0.62%	0.22%	0.266	-0.22%	0.24%	0.733	-0.38%	0.26%
Machines & appliances having functions n.e.s.; parts thereof	P8479	0.850	-0.07%	0.02%	0.042	-0.07%	0.04%	0.052	-0.04%	0.04%	0.733	-0.10%	0.07%	0.733	-0.04%	0.14%
Taps, cocks, valves & similar appliances; parts thereof	P8481	0.791	-0.01%	0.03%	0.204	-0.01%	0.18%	0.470	-0.02%	0.04%	0.910	-0.21%	0.26%	0.970	-0.15%	0.09%
Parts for transmitting power (clutches, shafts, gears & boxes, pulleys, etc)	P8483	1.000	-0.09%	0.10%	0.250	-0.02%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Machines used for manufacture of semiconductor wafers	P8486	0.151	-0.02%	0.05%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Electrical machinery and equip, sound and TV recorders & reproducers, parts	P85	0.129	-0.02%	0.10%	0.970	-0.02%	0.04%	0.519	-0.04%	0.01%	0.677	-0.04%	0.02%	0.424	-0.04%	0.04%
Electric motors and generators (excludes generating sets)	P8501	0.910	-0.05%	0.02%	0.677	-0.08%	0.07%	0.233	-0.05%	0.12%	0.569	-0.12%	0.04%	0.910	-0.04%	0.03%
Electrical transformers, inductors & static converters (rectifiers); parts	P8504	0.850	-0.04%	0.04%	0.176	-0.19%	0.05%	0.569	-0.07%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Electric storage batteries, and parts thereof	P8507	0.752	-0.40%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Vehicular electric lighting equipment, and defrosters;	P8512	0.910	0.00%	0.00%	0.742	0.00%	0.00%	0.496	0.00%	0.00%	0.875	0.00%	0.00%	0.250	0.00%	0.00%
Electrothermic domestic appliances; water & space heaters; resistors	P8516	0.850	-0.02%	0.00%	0.733	-0.01%	0.02%	0.622	-0.05%	0.01%	0.233	-0.13%	0.15%	0.791	-0.20%	0.01%
Electrical apparatus for line telephony or line telegraphy; videophones; parts	P8517	0.176	-0.01%	0.04%	0.733	0.00%	0.07%	0.791	0.00%	0.01%	0.204	-0.03%	0.00%	0.233	-0.03%	0.07%
Microphones & stands; audio/sound amps; speakers; & headphones	P8518	0.765	-0.02%	0.01%	0.520	-0.12%	0.01%	1.000	-0.08%	0.05%	0.301	-0.55%	0.04%	n.p.	n.p.	n.p.

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Prepared unrecorded media for sound or similar recording	P8523	0.110	-0.11%	3.69%	0.064	-0.13%	0.15%	0.052	-0.52%	0.10%	0.910	-0.54%	0.61%	0.204	-0.96%	0.18%
Radio & TV transmission apparatus; video cameras & camera recorders; TV cameras	P8525	0.622	-0.03%	0.03%	0.850	-0.03%	0.09%	0.424	-0.05%	0.03%	0.695	-0.07%	0.00%	0.156	0.00%	0.05%
TV reception apparatus; video monitors & video projectors	P8528	0.233	-0.05%	0.02%	n.p.	n.p.	n.p.	0.970	-0.09%	0.24%	0.970	-0.09%	0.06%	0.339	-0.01%	0.02%
Electrical circuit switching, protecting or connection app. of 1000 volts or less	P8536	0.910	-0.03%	0.11%	0.850	-0.05%	0.00%	0.301	-0.01%	0.11%	0.380	-0.36%	0.31%	0.001	0.00%	0.22%
Electric control or distribution equipment	P8537	0.240	-0.01%	0.22%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Semiconductor devices; L.E.D.s; mounted crystals; parts thereof	P8541	0.733	-0.50%	0.14%	0.380	-0.04%	0.30%	0.064	-0.01%	0.25%	0.266	-0.08%	0.04%	n.p.	n.p.	n.p.
Electronic integrated circuits and micro assemblies; parts thereof	P8542	0.110	-0.09%	0.10%	0.850	-0.23%	0.07%	0.380	-0.38%	0.11%	0.129	-0.05%	0.18%	n.p.	n.p.	n.p.
Electrical machines & apparatus, func. n.e.s.o.i.; parts	P8543	0.569	-0.03%	0.00%	0.266	-0.05%	0.00%	0.052	-0.10%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Insulated conductors	P8544	0.677	-0.02%	0.04%	0.970	-0.03%	0.03%	0.339	-0.05%	0.11%	0.910	0.00%	0.00%	0.519	-0.12%	0.11%
Vehicles, aircraft, vessels and associated transport equipment	PXVII	0.622	-0.01%	0.01%	0.519	0.00%	0.02%	0.424	0.00%	0.01%	0.042	-0.01%	0.00%	0.791	-0.01%	0.00%
Motor vehicles and their parts	P87	0.301	0.00%	0.01%	0.677	0.00%	0.02%	0.470	0.00%	0.01%	0.519	-0.01%	0.00%	0.569	-0.02%	0.00%
Tractors (other than work trucks of heading 8709)	P8701	0.045	0.00%	0.00%	0.322	-0.01%	0.00%	0.129	-0.04%	0.14%	0.151	-0.21%	0.01%	0.850	-0.16%	0.01%
Motor vehicles designed to transport people	P8703	0.652	-0.01%	0.01%	0.700	-0.01%	0.04%	0.826	-0.01%	0.00%	0.064	-0.02%	0.01%	0.432	-0.04%	0.00%
Motor vehicles for the transport of goods	P8704	0.077	0.00%	0.17%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Parts of tractors, buses, automobiles, trucks, spec. vehicles	P8708	0.042	0.00%	0.00%	0.578	0.00%	0.00%	0.375	0.00%	0.00%	0.470	0.00%	0.00%	0.380	0.00%	0.00%
Aircraft, spacecraft, and parts thereof	P88	0.092	-0.10%	0.00%	n.p.	n.p.	n.p.	0.339	-0.04%	0.02%	0.176	-0.16%	0.03%	0.850	-0.02%	0.07%
Other aircraft, nesoi; spacecraft & launch vehicles	P8802	0.719	-0.22%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.380	-0.09%	0.06%
Parts, nesoi, of civil aircraft and spacecraft	P8803	0.677	-0.02%	0.01%	0.519	-0.03%	0.02%	0.021	-0.07%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Optical, photo, measuring, medical & musical instruments; & timepieces	PXVIII	0.064	-0.01%	0.06%	0.733	-0.02%	0.03%	0.204	0.00%	0.03%	0.176	-0.01%	0.04%	0.519	-0.06%	0.05%
Optical, photographic, measuring and medical instruments	P90	0.077	-0.01%	0.07%	0.569	-0.02%	0.03%	0.151	0.00%	0.03%	0.129	-0.01%	0.04%	0.519	-0.06%	0.05%
Instruments/appliances used in medical, surgical, dental, veterinarian sciences	P9018	0.021	-0.02%	0.24%	0.339	-0.07%	0.03%	0.064	0.00%	0.09%	0.677	-0.02%	0.03%	0.424	-0.21%	0.17%
Mechano-therapy appliances	P9019	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.577	-0.03%	0.02%	n.p.	n.p.	n.p.
Orthopedic appliances; artificial body parts; hearing aids, etc	P9021	0.052	0.00%	0.16%	0.204	-0.01%	0.23%	0.016	0.00%	0.09%	0.791	-0.05%	0.30%	0.622	-0.12%	0.07%
Instruments and apparatus for physical or chemical analysis	P9027	0.569	-0.02%	0.01%	0.064	-0.10%	0.00%	0.266	-0.02%	0.01%	0.233	-0.01%	0.00%	0.519	-0.02%	0.02%
Measuring instruments, appliances, and machines, nesoi	P9031	0.077	-0.13%	0.03%	0.019	0.00%	0.11%	0.570	0.00%	0.02%	0.055	0.00%	0.00%	n.p.	n.p.	n.p.
Automatic regulating or controlling instruments and parts	P9032	0.791	-0.10%	0.11%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Clocks and watches and parts thereof	P91	0.424	-0.01%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Miscellaneous manufactured articles	PXX	0.092	-0.03%	0.04%	0.176	-0.02%	0.01%	0.129	-0.03%	0.01%	0.622	-0.05%	0.02%	0.850	-0.07%	0.05%
Furniture & stuffed furnishings; lamps & lighting fittings, nesoi; prefab bldgs	P94	0.012	-0.01%	0.05%	0.424	-0.02%	0.01%	0.339	-0.03%	0.02%	0.424	-0.03%	0.04%	0.339	-0.09%	0.08%
Seats other than barber, dental and similar chairs	P9401	0.519	-0.01%	0.00%	0.424	-0.01%	0.00%	0.569	-0.03%	0.01%	0.733	-0.02%	0.01%	0.110	-0.02%	0.01%
Furniture other than seats, nesoi	P9403	0.034	-0.02%	0.15%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.233	-0.02%	0.11%	0.301	-0.21%	0.19%
Lamps, lighting fixtures, & illuminated signs and parts thereof	P9405	0.622	-0.03%	0.11%	0.970	-0.11%	0.04%	0.519	-0.13%	0.05%	0.677	-0.13%	0.06%	n.p.	n.p.	n.p.
Toys, games and sports equipment; parts and accessories thereof	P95	0.791	-0.12%	0.01%	0.151	-0.05%	0.03%	0.424	-0.08%	0.03%	0.569	-0.11%	0.05%	0.339	-0.08%	0.02%
Toys nesoi; models; puzzles; parts and accessories thereof	P9503	0.380	-0.26%	0.02%	n.p.	n.p.	n.p.	0.622	-0.06%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Articles for arcade, table or games parts thereof	P9504	0.269	0.00%	0.00%	0.621	0.00%	0.00%	0.577	0.00%	0.00%	0.001	0.00%	0.00%	0.049	0.00%	0.00%
Articles & equipment for sports nesoi; parts & accessories thereof	P9506	0.250	-0.01%	0.03%	0.711	-0.24%	0.00%	0.151	-0.44%	0.17%	0.064	-0.43%	0.18%	0.470	-0.01%	0.01%
Miscellaneous manufactured articles	P96	1.000	0.00%	0.00%	0.469	0.00%	0.00%	0.266	-0.02%	0.01%	0.375	-0.01%	0.00%	0.465	0.00%	0.03%
n.p. – The price index was not published during this period.																

Table C-3. Results of Wilcoxon Signed-Rank Tests for NAICS Export and Import Price Indexes

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Nonmanufacturing	YNONMANU	0.339	-0.28%	0.73%	0.569	-0.78%	0.67%	0.622	-0.34%	0.20%	0.424	-0.12%	0.23%	0.301	-0.05%	0.02%
Agriculture, forestry, fishing and hunting	Y11	0.301	-0.02%	0.03%	0.064	-0.01%	0.04%	0.470	-0.09%	0.02%	0.204	0.00%	0.03%	0.233	-0.01%	0.01%
Crop production	Y111	0.301	-0.02%	0.03%	0.064	-0.01%	0.04%	0.470	-0.10%	0.02%	0.129	-0.01%	0.03%	0.424	-0.01%	0.01%
Oilseed and grain farming	Y1111	0.339	0.00%	0.01%	0.733	0.00%	0.00%	0.791	0.00%	0.01%	0.733	0.00%	0.00%	0.500	0.00%	0.00%
Fruit and tree nut farming	Y1113	0.339	-0.07%	0.15%	0.092	-0.06%	0.18%	0.850	-0.15%	0.09%	0.850	-0.12%	0.08%	0.569	-0.08%	0.06%
Noncitrus fruit and tree nut farming	Y11133	0.470	-0.07%	0.16%	0.092	-0.07%	0.18%	0.910	-0.16%	0.14%	0.970	-0.13%	0.10%	0.569	-0.08%	0.06%
Tree nut farming	Y111335	n.p.	n.p.	n.p.	0.791	-0.09%	0.12%	0.970	-0.08%	0.08%	0.970	-0.18%	0.05%	0.569	-0.13%	0.07%
Other crop farming	Y1119	0.176	-0.06%	0.04%	n.p.	n.p.	n.p.	0.850	-0.62%	0.07%	0.569	-0.03%	0.27%	0.380	0.00%	0.03%
Cotton farming	Y11192	0.910	-0.10%	0.07%	0.129	-0.07%	0.33%	0.910	-0.85%	0.10%	0.339	-0.02%	0.46%	1.000	0.00%	0.00%
Mining	Y21	0.339	-0.59%	1.75%	0.424	-1.51%	1.26%	0.677	-0.43%	0.25%	0.424	-0.18%	0.37%	0.339	-0.08%	0.03%
Oil and gas extraction	Y211	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.569	-0.23%	0.41%	0.424	-0.01%	0.01%
Natural gas extraction	Y21113	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	-0.35%	0.42%	0.677	-0.01%	0.02%
Mining (except oil and gas)	Y212	0.470	-0.25%	0.49%	0.424	-0.11%	0.03%	0.677	-0.30%	0.88%	0.733	-0.43%	0.17%	0.622	-0.48%	0.21%
Coal mining	Y2121	n.p.	n.p.	n.p.	0.622	-0.19%	0.13%	0.733	-0.59%	0.73%	0.733	-0.73%	0.33%	n.p.	n.p.	n.p.
Metal ore mining	Y2122	0.910	-0.50%	0.23%	0.910	-0.03%	0.05%	0.850	-0.11%	1.88%	0.850	-0.10%	0.11%	0.339	-0.01%	0.02%
Copper, nickel, lead, and zinc mining	Y21223	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.301	-0.01%	0.02%
Manufacturing	YMANU	0.791	-0.01%	0.03%	0.850	-0.02%	0.02%	0.850	-0.07%	0.04%	0.733	-0.02%	0.02%	0.424	-0.05%	0.02%
Manufacturing, part 1	Y31	0.791	-0.06%	0.17%	0.850	-0.19%	0.15%	0.380	-0.05%	0.03%	0.266	-0.07%	0.07%	0.424	-0.05%	0.03%
Food manufacturing	Y311	0.791	-0.08%	0.25%	0.910	-0.28%	0.21%	0.569	-0.07%	0.05%	0.204	-0.10%	0.09%	0.622	-0.09%	0.04%
Grain and oilseed milling	Y3112	0.677	-0.23%	1.23%	0.380	-0.84%	0.35%	0.092	-0.09%	0.20%	0.850	-0.14%	0.19%	0.677	-0.01%	0.02%
Starch and vegetable fats and oils manufacturing	Y31122	0.622	-0.31%	1.63%	0.301	-1.05%	0.45%	0.077	-0.10%	0.24%	0.791	-0.18%	0.24%	0.850	-0.01%	0.02%
Soybean and other oilseed processing	Y311224	n.p.	n.p.	n.p.	0.204	-1.27%	0.53%	0.052	-0.14%	0.30%	0.850	-0.19%	0.53%	0.910	-0.01%	0.02%
Fruit and vegetable preserving and specialty food manufacturing	Y3114	n.p.	n.p.	n.p.	0.850	0.00%	0.00%	0.910	0.00%	0.00%	0.110	0.00%	0.00%	0.359	0.00%	0.00%
Dairy product manufacturing	Y3115	0.733	-0.37%	0.48%	0.791	-0.63%	0.49%	0.569	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Dairy product (except frozen) manufacturing	Y31151	n.p.	n.p.	n.p.	0.910	-0.63%	0.49%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Animal slaughtering and processing	Y3116	0.424	-0.24%	0.18%	0.519	-0.31%	0.30%	0.339	-0.16%	0.07%	0.301	-0.14%	0.11%	0.791	-0.08%	0.13%
Animal (except poultry) slaughtering	Y311611	n.p.	n.p.	n.p.	0.622	-0.40%	0.23%	0.677	-0.08%	0.11%	0.077	-0.34%	0.08%	0.092	-0.01%	0.01%
Poultry processing	Y311615	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.40%	0.58%
Seafood product preparation and packaging	Y3117	0.569	-0.06%	0.07%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other food manufacturing	Y3119	0.791	-0.32%	0.14%	0.052	-0.07%	0.14%	0.001	-0.13%	0.02%	0.021	-0.29%	0.15%	0.297	0.00%	0.00%
All other food manufacturing	Y31199	0.791	-0.58%	0.27%	0.052	-0.13%	0.24%	0.002	-0.23%	0.03%	0.009	-0.45%	0.26%	0.250	0.00%	0.00%
Beverage and tobacco product manufacturing	Y312	0.064	-0.01%	0.01%	0.569	-0.18%	0.14%	0.622	0.00%	0.02%	0.519	-0.01%	0.00%	0.359	0.00%	0.00%
Beverage manufacturing	Y3121	0.110	-0.01%	0.01%	0.569	-0.21%	0.17%	1.000	0.00%	0.02%	0.129	0.00%	0.00%	0.813	0.00%	0.00%
Manufacturing, part 2	Y32	0.470	-0.03%	0.06%	0.970	-0.08%	0.06%	0.910	-0.20%	0.10%	0.850	-0.06%	0.06%	0.569	-0.17%	0.03%
Wood product manufacturing	Y321	0.009	-0.10%	0.02%	0.204	-0.03%	0.08%	0.003	-0.01%	0.05%	0.176	-0.17%	0.02%	0.092	-0.01%	0.00%
Paper manufacturing	Y322	0.569	-0.20%	0.01%	0.151	-0.02%	0.05%	0.204	-0.10%	0.48%	0.176	-0.07%	0.20%	0.519	-0.01%	0.02%
Pulp, paper, and paperboard mills	Y3221	0.339	-0.42%	0.02%	0.470	-0.02%	0.02%	0.027	-0.12%	0.98%	0.519	-0.11%	0.40%	n.p.	n.p.	n.p.
Pulp mills	Y32211	0.266	-0.35%	0.03%	1.000	-0.05%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.938	0.00%	0.00%
Converted paper product manufacturing	Y3222	0.910	-0.02%	0.01%	0.519	-0.02%	0.09%	0.110	-0.20%	0.01%	0.233	-0.06%	0.00%	0.733	0.00%	0.00%
Paper bag and coated and treated paper manufacturing	Y32222	0.677	-0.04%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Petroleum and coal products manufacturing	Y324	1.000	-0.20%	0.11%	0.204	-0.62%	0.48%	0.233	-0.09%	0.16%	0.910	-0.20%	0.19%	0.266	-0.07%	0.17%
Chemical manufacturing	Y325	0.052	-0.01%	0.19%	0.176	-0.05%	0.03%	0.301	-0.38%	0.17%	0.677	-0.05%	0.10%	0.339	-0.27%	0.04%
Basic chemical manufacturing	Y3251	0.910	-0.04%	0.04%	0.910	-0.03%	0.02%	0.622	-0.96%	0.29%	0.970	-0.18%	0.28%	0.910	-0.02%	0.03%
Other basic inorganic chemical manufacturing	Y32518	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.910	-2.44%	0.77%	0.850	-0.54%	0.72%	0.003	-0.27%	0.01%
Other basic organic chemical manufacturing	Y32519	0.791	-0.04%	0.03%	0.850	-0.04%	0.03%	0.910	-0.04%	0.03%	0.791	-0.10%	0.10%	0.470	-0.02%	0.09%
Cyclic crude, intermediate, and gum and wood chemical manufacturing	Y325194	n.p.	n.p.	n.p.	0.301	-0.27%	0.08%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Y3252	0.519	-0.06%	0.08%	0.380	-0.16%	0.13%	0.910	-0.64%	0.30%	0.970	-0.25%	0.15%	0.622	-0.08%	0.14%
Resin and synthetic rubber manufacturing	Y32521	0.519	-0.07%	0.09%	0.380	-0.17%	0.14%	0.910	-0.66%	0.31%	0.970	-0.27%	0.16%	0.622	-0.09%	0.14%
Plastics material and resin manufacturing	Y325211	n.p.	n.p.	n.p.	0.470	-0.20%	0.16%	0.910	-0.71%	0.33%	0.970	-0.30%	0.19%	0.622	-0.10%	0.17%
Synthetic rubber manufacturing	Y325212	n.p.	n.p.	n.p.	0.622	-0.15%	0.16%	0.470	0.00%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Pesticide, fertilizer, and other agri. chemical manufacturing	Y3253	0.470	-0.02%	0.09%	n.p.	n.p.	n.p.	0.677	-0.01%	0.08%	0.129	-0.01%	0.00%	n.p.	n.p.	n.p.
Pharmaceutical and medicine manufacturing	Y3254	1.000	-0.06%	0.76%	0.850	-0.15%	0.07%	0.077	-0.66%	0.01%	0.791	-0.04%	0.08%	0.850	-0.72%	0.06%
Pharmaceutical preparation manufacturing	Y325412	n.p.	n.p.	n.p.	0.733	-0.33%	0.09%	0.064	-1.53%	0.02%	0.519	-0.06%	0.08%	0.424	-0.40%	0.14%
In-vitro diagnostic substance manufacturing	Y325413	n.p.	n.p.	n.p.	0.301	-0.03%	0.00%	0.129	-0.09%	0.04%	0.003	-0.08%	0.01%	0.424	-0.05%	0.22%
Biological product (except diagnostic) manufacturing	Y325414	n.p.	n.p.	n.p.	0.734	-0.09%	0.20%	n.p.	n.p.	n.p.	0.052	-0.02%	0.24%	0.027	-1.28%	0.01%
Paint, coating, and adhesive manufacturing	Y3255	0.077	-0.04%	0.29%	0.910	-0.26%	0.04%	n.p.	n.p.	n.p.	0.676	-0.43%	0.13%	n.p.	n.p.	n.p.

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Soap, cleaning compound, and toilet preparation manufacturing	Y3256	0.034	-0.03%	0.09%	1.000	-0.08%	0.00%	0.380	-0.28%	0.02%	0.970	-0.03%	0.13%	0.129	-0.03%	0.00%
Soap and cleaning compound manufacturing	Y32561	0.064	-0.07%	0.06%	0.970	-0.24%	0.01%	0.380	-0.02%	0.03%	0.520	-0.06%	0.02%	0.110	-0.06%	0.00%
Surface active agent manufacturing	Y325613	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.206	-0.01%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Toilet preparation manufacturing	Y32562	0.092	-0.01%	0.16%	0.970	-0.05%	0.07%	0.519	-0.47%	0.04%	0.470	0.00%	0.23%	0.844	0.00%	0.00%
Other chemical product and preparation manufacturing	Y3259	1.000	-0.04%	0.05%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
All other chemical product and preparation manufacturing	Y32599	1.000	-0.05%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
All other miscellaneous chemical product and preparation manufacturing	Y325998	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.021	-0.11%	0.02%
Plastics and rubber products manufacturing	Y326	0.339	-0.07%	0.02%	0.052	-0.08%	0.01%	0.301	-0.01%	0.42%	0.380	-0.08%	0.40%	0.677	-0.02%	0.07%
Plastics product manufacturing	Y3261	0.339	-0.10%	0.03%	0.426	-0.11%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Plastic packing materials & unlaminated film and sheet manufacturing	Y32611	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.850	-0.05%	0.11%	0.176	0.00%	0.02%
Unlaminated plastic film and sheet (except packing) manufacturing	Y326113	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.08%	0.17%	0.054	-0.01%	0.02%
Other plastics product manufacturing	Y32619	0.519	-0.22%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Rubber product manufacturing	Y3262	0.791	-0.13%	0.02%	0.424	0.00%	0.02%	0.034	0.00%	0.00%	0.002	0.00%	0.00%	1.000	0.00%	0.00%
Tire manufacturing	Y32621	0.569	-0.28%	0.05%	0.301	0.00%	0.04%	0.016	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Semiconductor machinery manufacturing	Y333242	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.06%	0.02%
Other industrial machinery manufacturing	Y333249	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.850	-0.05%	0.13%
Computer terminal and other computer peripheral equipment manufacturing	Y334118	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.850	-0.11%	0.10%
Nonmetallic mineral product manufacturing	Y3327	0.077	0.00%	0.24%	0.791	0.00%	0.00%	0.042	-0.12%	0.00%	0.850	-0.02%	0.07%	0.569	0.00%	0.00%
Glass and glass product manufacturing	Y3272	0.008	0.00%	0.52%	0.313	0.00%	0.01%	n.p.	n.p.	n.p.	0.102	0.00%	0.00%	0.641	0.00%	0.00%
Manufacturing, part 3	Y33	0.622	-0.02%	0.02%	0.569	-0.02%	0.02%	0.129	-0.05%	0.02%	0.910	-0.03%	0.02%	0.233	-0.02%	0.02%
Primary metal manufacturing	Y331	0.424	-0.05%	0.01%	0.910	-0.05%	0.04%	0.791	-0.05%	0.02%	0.733	-0.08%	0.11%	0.569	-0.01%	0.01%
Alumina and aluminum production and processing	Y3313	0.519	-0.42%	0.01%	0.339	-0.14%	0.02%	0.233	-0.06%	0.03%	0.424	-0.06%	0.06%	0.734	0.00%	0.00%
Nonferrous metal (except aluminum) production and processing	Y3314	0.677	-0.02%	0.02%	0.970	-0.07%	0.08%	0.733	-0.05%	0.03%	0.622	-0.14%	0.17%	0.339	-0.01%	0.01%
Nonferrous metal (except aluminum) smelting and refining	Y33141	0.677	-0.03%	0.03%	0.970	-0.10%	0.10%	0.622	-0.11%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Nonferrous metal (except copper and aluminum) rolling, drawing, extruding,	Y33149	0.424	0.00%	0.00%	0.910	0.00%	0.00%	0.791	-0.06%	0.04%	0.677	-0.17%	0.20%	0.470	-0.01%	0.02%
Nonferrous metal (except copper and aluminum) rolling, drawing, and	Y331491	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.622	0.00%	0.00%	0.380	-0.03%	0.04%	0.677	0.00%	0.01%
Secondary smelting, refining, and alloying of nonferrous metal	Y331492	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.622	-0.21%	0.26%	0.470	-0.01%	0.02%
Fabricated metal product manufacturing	Y332	0.002	-0.01%	0.07%	0.151	-0.02%	0.00%	0.233	-0.01%	0.01%	0.129	-0.01%	0.01%	n.p.	n.p.	n.p.
Other fabricated metal product manufacturing	Y3329	0.470	-0.01%	0.06%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Metal valve manufacturing	Y33291	0.677	-0.01%	0.12%	0.820	-0.01%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Machinery manufacturing	Y333	0.301	-0.04%	0.01%	0.016	-0.07%	0.00%	0.064	-0.01%	0.02%	0.519	-0.13%	0.04%	0.733	-0.14%	0.05%
Agriculture, construction, and mining machinery manufacturing	Y3331	0.519	-0.06%	0.05%	0.470	-0.02%	0.01%	0.002	-0.01%	0.09%	0.380	-0.35%	0.09%	0.021	0.00%	0.06%
Agricultural implement manufacturing	Y33311	0.151	-0.06%	0.05%	0.301	-0.07%	0.03%	0.470	-0.04%	0.14%	0.677	-0.15%	0.17%	0.042	-0.01%	0.15%
Farm machinery and equipment manufacturing	Y333111	n.p.	n.p.	n.p.	0.470	-0.04%	0.01%	0.470	-0.02%	0.06%	0.677	-0.17%	0.15%	0.380	-0.01%	0.00%
Construction machinery manufacturing	Y33312	0.569	-0.12%	0.09%	0.733	-0.02%	0.02%	0.001	0.00%	0.17%	0.129	-0.60%	0.06%	0.052	-0.02%	0.10%
Industrial machinery manufacturing	Y3332	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.910	-0.05%	0.01%
Commercial and service industry machinery manufacturing	Y3333	0.424	0.00%	0.02%	0.064	-0.45%	0.00%	0.204	-0.16%	0.17%	0.301	-0.07%	0.07%	0.176	-0.23%	0.02%
Ventilation, heating, air-conditioning, and refrigeration manu.	Y3334	0.622	-0.02%	0.07%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Metalworking machinery manufacturing	Y3335	0.055	-0.01%	0.00%	0.970	-0.01%	0.00%	0.151	-0.01%	0.01%	0.970	0.00%	0.01%	0.064	0.00%	0.01%
Engine, turbine, and power transmission equipment manufacturing	Y3336	0.850	-0.23%	0.06%	0.791	-0.02%	0.01%	0.910	-0.04%	0.04%	0.733	-0.27%	0.17%	n.p.	n.p.	n.p.
Other engine equipment manufacturing	Y333618	n.p.	n.p.	n.p.	0.301	-0.04%	0.00%	0.470	-0.06%	0.05%	0.301	-0.08%	0.00%	0.970	-0.01%	0.01%
Other general purpose machinery manufacturing	Y3339	0.470	-0.01%	0.01%	0.569	-0.24%	0.04%	1.000	-0.02%	0.01%	0.204	-0.09%	0.02%	0.064	-0.09%	0.06%
Pump and compressor manufacturing	Y33391	0.569	-0.01%	0.01%	0.176	-0.02%	0.00%	0.266	-0.08%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Air and gas compressor manufacturing	Y333912	n.p.	n.p.	n.p.	0.164	-0.04%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.064	-0.25%	0.37%
Material handling equipment manufacturing	Y33392	0.042	0.00%	0.01%	0.791	-0.01%	0.01%	0.266	-0.09%	0.02%	n.p.	n.p.	n.p.	0.339	-0.03%	0.09%
All other general purpose machinery manufacturing	Y33399	0.569	-0.02%	0.01%	0.622	-0.40%	0.07%	0.380	-0.01%	0.02%	0.470	-0.16%	0.03%	0.176	-0.14%	0.03%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
All other miscellaneous general purpose machinery manufacturing	Y333999	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.622	-0.26%	0.06%	0.151	-0.20%	0.04%
Computer and electronic product manufacturing	Y334	0.052	-0.09%	0.01%	0.569	-0.03%	0.07%	0.204	-0.03%	0.06%	0.910	-0.04%	0.07%	0.301	-0.02%	0.03%
Computer and peripheral equipment manufacturing	Y3341	0.129	-0.37%	0.07%	0.266	-0.10%	0.31%	0.339	-0.09%	0.19%	0.470	-0.17%	0.10%	0.569	-0.15%	0.13%
Electronic computer manufacturing	Y334111	n.p.	n.p.	n.p.	0.266	-0.28%	0.73%	0.424	-0.27%	0.21%	0.733	-0.37%	0.34%	0.569	-0.46%	0.41%
Communications equipment manufacturing	Y3342	0.677	-0.03%	0.04%	0.791	-0.05%	0.02%	0.569	-0.06%	0.04%	0.204	-0.02%	0.12%	0.569	-0.14%	0.16%
Radio and TV broadcasting and wireless equipment	Y33422	0.622	-0.04%	0.05%	0.791	-0.06%	0.01%	0.677	-0.07%	0.04%	0.470	-0.02%	0.05%	0.569	-0.16%	0.18%
Audio and video equipment manufacturing	Y3343	0.375	-0.39%	0.00%	0.361	-0.22%	0.01%	0.264	-0.02%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Semiconductor and other electronic component manufacturing	Y3344	0.204	-0.05%	0.06%	0.569	-0.05%	0.02%	0.092	-0.02%	0.04%	0.791	-0.02%	0.14%	0.002	0.00%	0.04%
Semiconductor and related device manufacturing	Y334413	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.021	-0.03%	0.05%	0.850	-0.03%	0.17%	n.p.	n.p.	n.p.
Navigational, measuring, electromedical, and control instruments	Y3345	0.677	-0.03%	0.05%	0.677	-0.01%	0.06%	0.519	-0.02%	0.01%	0.733	-0.03%	0.05%	0.677	-0.08%	0.03%
Electromedical and electrotherapeutic apparatus manufacturing	Y334510	n.p.	n.p.	n.p.	0.064	-0.08%	0.00%	0.129	-0.02%	0.01%	0.791	-0.01%	0.01%	0.569	-0.31%	0.01%
Search and detection instrument manufacturing	Y334511	n.p.	n.p.	n.p.	0.547	0.00%	0.01%	0.339	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Instruments and related products manufacturing	Y334513	n.p.	n.p.	n.p.	0.151	-0.01%	0.07%	0.160	0.00%	0.00%	0.067	0.00%	0.00%	n.p.	n.p.	n.p.
Instrument manufacturing for measuring and testing electricity	Y334515	n.p.	n.p.	n.p.	0.078	0.00%	0.39%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Analytical laboratory instrument manufacturing	Y334516	n.p.	n.p.	n.p.	0.110	0.00%	0.00%	0.129	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%
Electrical equipment, appliance, and component manufacturing	Y335	0.233	-0.03%	0.01%	0.151	-0.01%	0.05%	0.007	0.00%	0.07%	0.424	-0.02%	0.16%	0.077	-0.01%	0.12%
Household appliance manufacturing	Y3352	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	0.00%	0.00%
Electrical equipment manufacturing	Y3353	0.339	-0.04%	0.01%	0.910	-0.02%	0.02%	0.110	0.00%	0.11%	0.266	-0.01%	0.49%	n.p.	n.p.	n.p.
Motor and generator manufacturing	Y335312	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.970	-0.01%	0.03%	0.622	0.00%	0.04%	0.519	-0.02%	0.01%
Other electrical equipment and component manufacturing	Y3359	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.005	0.00%	0.05%	0.677	-0.04%	0.01%	0.470	0.00%	0.05%
Wiring device manufacturing	Y33593	n.p.	n.p.	n.p.	0.569	-0.01%	0.01%	0.057	-0.02%	0.15%	0.910	-0.08%	0.02%	0.206	-0.02%	0.25%
Current-carrying wiring device manufacturing	Y335931	n.p.	n.p.	n.p.	0.569	-0.01%	0.01%	0.054	-0.02%	0.15%	0.910	-0.08%	0.02%	0.206	-0.02%	0.25%
Transportation equipment manufacturing	Y336	1.000	-0.03%	0.05%	0.339	-0.02%	0.01%	0.791	-0.02%	0.03%	0.339	-0.06%	0.02%	0.034	-0.06%	0.04%
Motor vehicle manufacturing	Y3361	0.380	-0.07%	0.11%	1.000	-0.01%	0.01%	0.339	0.00%	0.01%	1.000	-0.04%	0.05%	0.970	-0.03%	0.01%
Automobile and light duty motor vehicle manufacturing	Y33611	0.380	-0.07%	0.13%	0.970	-0.02%	0.01%	0.470	0.00%	0.01%	1.000	-0.04%	0.05%	0.569	-0.03%	0.01%
Automobile manufacturing	Y336111	n.p.	n.p.	n.p.	0.677	-0.02%	0.01%	0.831	0.00%	0.01%	0.733	-0.05%	0.07%	0.622	-0.04%	0.01%
Light truck and utility vehicle manufacturing	Y336112	n.p.	n.p.	n.p.	0.638	0.00%	0.00%	0.846	0.00%	0.00%	0.020	-0.01%	0.00%	1.000	0.00%	0.00%
Heavy duty truck manufacturing	Y33612	n.p.	n.p.	n.p.	0.077	0.00%	0.00%	0.301	0.00%	0.03%	0.233	0.00%	0.00%	0.622	-0.01%	0.01%
Motor vehicle body and trailer manufacturing	Y3362	0.622	-0.12%	0.24%	0.233	-0.08%	0.08%	0.470	-0.03%	0.10%	0.266	-0.04%	0.16%	0.898	-0.02%	0.02%
Motor vehicle body manufacturing	Y336211	n.p.	n.p.	n.p.	0.519	-0.11%	0.11%	0.569	-0.03%	0.15%	0.266	-0.06%	0.23%	0.970	-0.05%	0.02%
Motor vehicle parts manufacturing	Y3363	0.052	-0.01%	0.05%	0.380	-0.03%	0.02%	0.380	-0.02%	0.02%	0.110	-0.25%	0.02%	0.129	-0.06%	0.15%
Motor vehicle gasoline engine and engine parts manufacturing	Y33631	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.733	0.00%	0.01%
Motor vehicle electrical and electronic equipment manufacturing	Y33632	0.458	-0.01%	0.01%	0.922	-0.05%	0.06%	0.157	-0.22%	0.00%	0.910	-0.03%	0.03%	0.424	-0.01%	0.06%
Motor vehicle transmission and power train parts manu.	Y33635	0.470	-0.03%	0.05%	0.110	-0.08%	0.01%	0.677	-0.04%	0.03%	n.p.	n.p.	n.p.	0.970	-0.01%	0.05%
Other motor vehicle parts manufacturing	Y33639	0.001	0.00%	0.02%	0.850	-0.02%	0.11%	0.301	-0.08%	0.04%	0.110	-0.85%	0.05%	n.p.	n.p.	n.p.
Aerospace product and parts manufacturing	Y3364	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.03%	0.05%	0.791	-0.04%	0.06%	0.151	-0.17%	0.08%
Other aircraft parts and auxiliary equipment manufacturing	Y336413	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.009	-0.01%	0.09%	0.151	-0.06%	0.00%	0.042	-0.10%	0.03%
Furniture and related product manufacturing	Y337	0.765	0.00%	0.01%	0.711	-0.02%	0.00%	0.691	-0.01%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Miscellaneous manufacturing	Y339	0.233	-0.05%	0.14%	0.677	-0.05%	0.02%	0.970	-0.39%	0.02%	0.519	-0.06%	0.03%	0.204	-0.03%	0.01%
Medical equipment and supplies manufacturing	Y3391	0.850	-0.09%	0.34%	0.233	-0.14%	0.02%	0.424	-0.05%	0.01%	0.077	-0.05%	0.06%	0.092	-0.04%	0.02%
Surgical and medical instrument manufacturing	Y339112	n.p.	n.p.	n.p.	0.266	-0.22%	0.04%	0.519	-0.02%	0.01%	0.034	-0.10%	0.13%	0.042	-0.09%	0.02%
Surgical appliance and supplies manufacturing	Y339113	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.733	-0.13%	0.01%	0.176	-0.09%	0.01%	0.850	0.00%	0.04%
Other miscellaneous manufacturing	Y3399	0.233	-0.06%	0.04%	0.519	-0.08%	0.04%	0.266	-0.71%	0.04%	0.910	-0.11%	0.05%	0.970	-0.02%	0.01%
Jewelry and silverware manufacturing	Y33991	n.p.	n.p.	n.p.	1.000	-0.12%	0.04%	0.424	-0.99%	0.02%	0.622	-0.17%	0.09%	0.910	-0.01%	0.01%
All other miscellaneous manufacturing	Y33999	0.204	0.00%	0.01%	0.055	-0.01%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.198	0.00%	0.00%
Nonmanufacturing	ZNONMANU	0.424	-0.42%	0.04%	0.910	-0.02%	0.02%	0.850	-0.03%	0.02%	0.622	-0.03%	0.02%	0.622	-0.31%	0.34%
Agriculture, forestry, fishing and hunting	Z11	0.519	-0.12%	0.15%	0.677	-0.05%	0.05%	0.233	-0.06%	0.05%	0.622	-0.08%	0.05%	1.000	-0.02%	0.04%
Crop production	Z111	0.470	-0.17%	0.16%	0.176	-0.06%	0.07%	0.151	-0.06%	0.06%	0.622	-0.10%	0.07%	0.970	-0.03%	0.05%
Vegetable and melon farming	Z1112	0.339	-0.58%	0.30%	0.791	-0.18%	0.13%	0.424	-0.05%	0.08%	0.339	-0.03%	0.08%	n.p.	n.p.	n.p.
Fruit and tree nut farming	Z1113	0.424	-0.18%	0.19%	0.092	-0.06%	0.12%	0.129	-0.11%	0.12%	0.733	-0.17%	0.12%	0.677	-0.05%	0.09%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Noncitrus fruit and tree nut farming	Z11133	n.p.	n.p.	n.p.	0.092	-0.06%	0.12%	0.129	-0.12%	0.12%	0.677	-0.18%	0.13%	0.677	-0.05%	0.09%
Other noncitrus fruit farming	Z111339	n.p.	n.p.	n.p.	0.233	-0.06%	0.16%	0.027	-0.10%	0.17%	0.380	-0.19%	0.17%	0.733	-0.05%	0.03%
Animal production	Z112	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.966	-0.01%	0.03%
Mining	Z21	0.064	-0.62%	0.01%	0.910	-0.03%	0.03%	0.569	-0.04%	0.01%	1.000	-0.01%	0.01%	0.733	-0.35%	0.42%
Oil and gas extraction	Z211	0.496	-0.64%	0.01%	0.519	-0.03%	0.02%	0.380	-0.04%	0.01%	0.850	-0.01%	0.02%	0.850	-0.34%	0.42%
Natural gas extraction	Z21113	n.p.	n.p.	n.p.	0.733	-0.12%	0.36%	0.622	-0.53%	0.09%	0.910	-0.14%	0.13%	0.970	-0.34%	0.42%
Mining (except oil and gas)	Z212	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.034	0.00%	0.06%	n.p.	n.p.	n.p.	0.733	-0.02%	0.02%
Manufacturing	ZMANU	0.677	-0.04%	0.03%	0.791	-0.03%	0.03%	0.339	-0.02%	0.02%	0.569	-0.02%	0.04%	0.733	-0.02%	0.01%
Manufacturing, part 1	Z31	0.266	-0.02%	0.01%	0.677	-0.02%	0.01%	0.519	-0.01%	0.01%	0.519	-0.01%	0.03%	0.733	-0.01%	0.03%
Food manufacturing	Z311	0.266	-0.03%	0.02%	0.733	-0.04%	0.04%	0.569	-0.03%	0.03%	0.301	-0.04%	0.05%	0.519	-0.01%	0.01%
Grain and oilseed milling	Z3112	0.850	-0.20%	0.07%	0.569	-0.09%	0.06%	0.733	-0.09%	0.06%	0.733	-0.02%	0.04%	0.910	-0.04%	0.02%
Starch and vegetable fats and oils manufacturing	Z31122	0.791	-0.27%	0.11%	0.622	-0.13%	0.08%	0.791	-0.12%	0.08%	0.970	-0.02%	0.05%	0.791	-0.06%	0.03%
Soybean and other oilseed processing	Z311224	n.p.	n.p.	n.p.	0.622	-0.14%	0.08%	0.733	-0.12%	0.09%	0.970	-0.02%	0.06%	0.791	-0.07%	0.03%
Sugar and confectionery product manufacturing	Z3113	n.p.	n.p.	n.p.	0.301	-0.13%	0.13%	0.970	-0.25%	0.32%	0.850	-0.31%	0.24%	0.204	0.00%	0.00%
Fruit and vegetable preserving and specialty food manufacturing	Z3114	0.791	-0.09%	0.06%	0.850	0.00%	0.01%	0.064	-0.04%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Fruit and vegetable canning, pickling, and drying	Z31142	0.791	-0.13%	0.08%	1.000	0.00%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Animal slaughtering and processing	Z3116	0.380	-0.03%	0.04%	0.733	-0.14%	0.08%	0.470	-0.08%	0.07%	0.569	-0.03%	0.03%	0.970	-0.01%	0.02%
Animal (except poultry) slaughtering	Z311611	n.p.	n.p.	n.p.	0.733	-0.15%	0.08%	0.470	-0.08%	0.08%	0.622	-0.03%	0.03%	0.970	-0.01%	0.02%
Seafood product preparation and packaging	Z3117	0.733	-0.06%	0.03%	0.910	-0.15%	0.15%	0.569	-0.10%	0.18%	0.470	-0.04%	0.12%	0.850	-0.06%	0.04%
Other food manufacturing	Z3119	0.569	-0.06%	0.01%	0.677	-0.20%	0.04%	0.380	-0.06%	0.07%	0.791	-0.06%	0.00%	0.021	0.00%	0.00%
All other food manufacturing	Z31199	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.016	0.00%	0.00%
Beverage and tobacco product manufacturing	Z312	0.129	-0.05%	0.01%	0.569	-0.04%	0.01%	0.204	-0.01%	0.02%	0.791	-0.01%	0.03%	0.012	-0.01%	0.04%
Beverage manufacturing	Z3121	0.129	-0.06%	0.01%	0.569	-0.05%	0.01%	0.204	-0.01%	0.02%	0.791	-0.01%	0.04%	0.012	-0.01%	0.04%
Breweries	Z31212	0.831	-0.04%	0.04%	0.151	0.00%	0.04%	0.765	0.00%	0.00%	0.910	0.00%	0.00%	1.000	0.00%	0.00%
Wineries	Z31213	0.301	-0.08%	0.05%	0.266	-0.06%	0.02%	1.000	-0.01%	0.04%	0.002	-0.05%	0.00%	0.034	-0.02%	0.06%
Distilleries	Z31214	0.003	-0.20%	0.00%	0.765	-0.14%	0.01%	0.638	-0.02%	0.03%	0.622	-0.02%	0.00%	1.000	0.00%	0.00%
Textile mills	Z313	0.301	-0.03%	0.00%	0.970	-0.01%	0.00%	0.380	-0.05%	0.00%	0.677	-0.03%	0.01%	n.p.	n.p.	n.p.
Fabric mills	Z3132	0.110	-0.01%	0.00%	0.966	0.00%	0.00%	0.110	-0.07%	0.00%	0.470	-0.05%	0.02%	n.p.	n.p.	n.p.
Textile product mills	Z314	0.339	-0.03%	0.04%	0.339	-0.07%	0.06%	0.001	-0.06%	0.00%	0.850	-0.04%	0.05%	n.p.	n.p.	n.p.
Textile furnishings mills	Z3141	0.002	0.00%	0.06%	0.151	-0.03%	0.05%	0.034	-0.01%	0.00%	0.850	-0.10%	0.11%	n.p.	n.p.	n.p.
Curtain and linen mills	Z31412	0.002	0.00%	0.07%	0.129	-0.04%	0.06%	0.034	-0.01%	0.00%	0.850	-0.12%	0.14%	n.p.	n.p.	n.p.
Other textile product mills	Z3149	0.052	-0.11%	0.00%	0.791	-0.23%	0.09%	0.380	-0.18%	0.00%	0.002	0.00%	0.00%	n.p.	n.p.	n.p.
All other textile product mills	Z31499	0.129	-0.16%	0.00%	0.677	-0.32%	0.13%	0.424	-0.26%	0.00%	0.027	0.00%	0.00%	n.p.	n.p.	n.p.
Apparel manufacturing	Z315	0.970	-0.02%	0.03%	0.176	-0.01%	0.00%	0.339	-0.01%	0.02%	1.000	-0.04%	0.03%	0.519	-0.01%	0.01%
Cut and sew apparel manufacturing	Z3152	0.970	-0.02%	0.03%	0.380	0.00%	0.00%	0.301	-0.01%	0.03%	0.733	-0.01%	0.02%	0.733	-0.01%	0.01%
Men and boys cut and sew apparel manufacturing	Z31522	0.176	-0.01%	0.05%	0.176	-0.02%	0.01%	0.910	-0.02%	0.06%	0.970	-0.04%	0.03%	0.077	-0.06%	0.00%
Women and girls cut and sew apparel manufacturing	Z31524	0.519	-0.05%	0.02%	0.380	0.00%	0.01%	0.380	-0.02%	0.04%	0.850	-0.03%	0.03%	n.p.	n.p.	n.p.
Apparel accessories and other apparel manufacturing	Z3159	0.470	-0.05%	0.01%	0.151	-0.02%	0.01%	0.339	-0.06%	0.13%	0.733	-0.24%	0.16%	0.301	-0.01%	0.03%
Leather and allied product manufacturing	Z316	0.110	-0.02%	0.02%	0.850	-0.09%	0.08%	0.677	-0.01%	0.04%	0.266	-0.03%	0.03%	0.622	-0.10%	0.21%
Footwear manufacturing	Z3162	0.151	-0.03%	0.03%	0.970	-0.13%	0.11%	0.519	-0.01%	0.04%	0.266	-0.04%	0.04%	0.622	-0.14%	0.30%
Other leather and allied product manufacturing	Z3169	0.380	-0.01%	0.01%	0.652	-0.02%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Manufacturing, part 2	Z32	0.569	-0.07%	0.05%	0.970	-0.13%	0.08%	0.733	-0.06%	0.09%	0.470	-0.08%	0.15%	0.791	-0.05%	0.04%
Wood product manufacturing	Z321	n.p.	n.p.	n.p.	0.092	-0.02%	0.03%	0.791	-0.05%	0.02%	0.791	0.00%	0.02%	n.p.	n.p.	n.p.
Sawmills and wood preservation	Z3211	0.470	-0.45%	0.88%	0.875	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Veneer, plywood, and engineered wood product manufacturing	Z3212	0.677	-0.02%	0.10%	0.820	-0.05%	0.07%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Paper manufacturing	Z322	0.470	-0.09%	0.12%	0.380	-0.09%	0.05%	0.970	-0.30%	0.19%	0.301	-0.02%	0.08%	0.176	0.00%	0.00%
Pulp, paper, and paperboard mills	Z3221	0.380	-0.23%	0.15%	0.380	-0.09%	0.09%	0.910	-0.62%	0.40%	0.339	-0.04%	0.21%	0.742	0.00%	0.00%
Paper mills	Z32212	n.p.	n.p.	n.p.	0.910	-0.06%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Converted paper product manufacturing	Z3222	0.301	-0.16%	0.10%	0.233	-0.13%	0.11%	0.791	-0.03%	0.00%	0.966	0.00%	0.00%	0.042	0.00%	0.00%
Paper bag and coated and treated paper manufacturing	Z32222	0.204	-0.29%	0.19%	0.233	-0.26%	0.21%	0.470	-0.06%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Petroleum and coal products manufacturing	Z324	0.424	-0.21%	0.34%	0.850	-1.40%	0.75%	0.339	-0.22%	0.40%	0.622	-0.62%	1.16%	0.569	-0.45%	0.36%
Chemical manufacturing	Z325	0.519	-0.06%	0.02%	0.339	-0.03%	0.02%	0.622	-0.02%	0.05%	0.850	-0.02%	0.06%	0.424	-0.01%	0.05%
Basic chemical manufacturing	Z3251	0.733	-0.17%	0.16%	0.301	-0.03%	0.04%	0.064	-0.02%	0.15%	0.301	-0.08%	0.05%	0.677	-0.01%	0.11%
Other basic inorganic chemical manufacturing	Z32518	0.301	-0.72%	0.08%	0.470	-0.25%	0.19%	0.622	-0.09%	0.41%	n.p.	n.p.	n.p.	0.021	-0.02%	0.01%
Other basic organic chemical manufacturing	Z32519	0.129	-0.01%	0.20%	0.733	-0.02%	0.02%	0.064	-0.01%	0.05%	0.034	-0.07%	0.01%	0.042	0.00%	0.16%
All other basic organic chemical manufacturing	Z325199	n.p.	n.p.	n.p.	0.850	-0.03%	0.02%	0.064	-0.02%	0.05%	0.052	-0.07%	0.01%	0.052	0.00%	0.16%
Resin, synthetic rubber, and artificial synthetic fibers and filaments	Z3252	0.021	-0.08%	0.02%	0.426	-0.04%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.677	-0.07%	0.07%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Resin and synthetic rubber manufacturing	Z32521	0.042	-0.05%	0.02%	0.359	-0.04%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.677	-0.08%	0.08%
Plastics material and resin manufacturing	Z325211	n.p.	n.p.	n.p.	0.359	-0.05%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.677	-0.10%	0.10%
Pesticide, fertilizer, other agricult. chemical manufacturing	Z3253	0.850	-0.16%	0.15%	0.519	-0.09%	0.12%	0.424	-0.35%	0.29%	0.092	-0.48%	0.04%	0.266	-0.02%	0.03%
Fertilizer manufacturing	Z32531	n.p.	n.p.	n.p.	0.622	-0.10%	0.16%	0.424	-0.41%	0.33%	n.p.	n.p.	n.p.	0.301	-0.03%	0.03%
Pharmaceutical and medicine manufacturing	Z3254	0.677	-0.05%	0.04%	0.970	-0.06%	0.02%	0.622	-0.05%	0.10%	0.791	-0.03%	0.08%	0.301	-0.02%	0.05%
Medicinal and botanical manufacturing	Z325411	n.p.	n.p.	n.p.	0.820	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.424	-0.01%	0.02%
Pharmaceutical preparation manufacturing	Z325412	n.p.	n.p.	n.p.	0.910	-0.12%	0.03%	0.677	-0.08%	0.15%	0.677	-0.13%	0.15%	0.077	-0.03%	0.15%
In-vitro diagnostic substance manufacturing	Z325413	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.500	0.00%	0.00%
Biological product (except diagnostic) manufacturing	Z325414	n.p.	n.p.	n.p.	1.000	-0.22%	0.30%	0.970	-0.07%	0.01%	0.850	-0.02%	0.19%	0.910	-0.11%	0.00%
Soap, cleaning compound, and toilet preparation manufacturing	Z3256	0.301	-0.01%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.001	-0.07%	0.00%	n.p.	n.p.	n.p.
Toilet preparation manufacturing	Z32562	0.301	-0.01%	0.04%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.001	-0.11%	0.01%	n.p.	n.p.	n.p.
Other chemical product and preparation manufacturing	Z3259	0.027	-0.05%	0.04%	0.733	-0.01%	0.01%	0.151	-0.01%	0.01%	0.266	-0.09%	0.05%	0.791	0.00%	0.00%
Printing ink manufacturing	Z32591	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.672	0.00%	0.00%
All other chemical product and prep. manufacturing	Z32599	0.034	0.00%	0.00%	0.791	0.00%	0.00%	0.569	-0.01%	0.01%	0.176	-0.15%	0.09%	n.p.	n.p.	n.p.
All other miscellaneous chemical product and preparation manufacturing	Z325998	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.250	0.00%	0.00%
Plastics and rubber products manufacturing	Z326	0.850	-0.04%	0.02%	0.005	-0.01%	0.04%	0.339	-0.04%	0.03%	0.204	-0.04%	0.05%	0.910	-0.05%	0.02%
Plastics product manufacturing	Z3261	0.677	-0.04%	0.03%	0.005	-0.01%	0.06%	0.233	-0.07%	0.05%	0.850	-0.10%	0.02%	0.970	-0.02%	0.01%
Plastics packaging materials and film and sheet manufacturing	Z32611	n.p.	n.p.	n.p.	0.733	-0.13%	0.13%	0.622	-0.22%	0.23%	0.339	-0.36%	0.12%	0.470	0.00%	0.01%
Unlaminated plastics film and sheet (except packaging) manufacturing	Z326113	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.622	-0.25%	0.26%	0.339	-0.38%	0.12%	0.465	0.00%	0.01%
Other plastics product manufacturing	Z32619	0.092	-0.02%	0.08%	0.005	-0.01%	0.07%	0.009	-0.07%	0.02%	0.339	-0.03%	0.01%	0.012	0.00%	0.01%
Rubber product manufacturing	Z3262	0.176	-0.04%	0.03%	0.042	0.00%	0.00%	0.569	-0.01%	0.01%	0.470	-0.12%	0.15%	0.850	-0.13%	0.06%
Tire manufacturing	Z32621	0.622	0.00%	0.00%	0.129	0.00%	0.00%	0.052	0.00%	0.00%	0.092	0.00%	0.00%	0.151	0.00%	0.01%
Nonmetallic mineral product manufacturing	Z327	0.850	-0.01%	0.01%	0.569	-0.02%	0.01%	0.233	-0.03%	0.01%	0.016	-0.17%	0.01%	0.622	0.00%	0.00%
Clay product and refractory manufacturing	Z3271	0.677	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other nonmetallic mineral product manufacturing	Z3279	n.p.	n.p.	n.p.	0.791	-0.01%	0.00%	0.266	0.00%	0.00%	0.204	-0.45%	0.01%	0.339	0.00%	0.00%
All other nonmetallic mineral product manufacturing	Z32799	n.p.	n.p.	n.p.	0.850	-0.02%	0.00%	0.424	-0.01%	0.00%	0.791	-0.55%	0.01%	0.380	0.00%	0.00%
Manufacturing, part 3	Z33	0.791	-0.05%	0.04%	0.233	-0.03%	0.02%	0.052	-0.02%	0.00%	0.301	-0.01%	0.03%	0.622	-0.01%	0.02%
Primary metal manufacturing	Z331	0.424	-0.02%	0.07%	0.850	-0.17%	0.10%	0.339	-0.11%	0.10%	0.791	-0.05%	0.07%	0.266	-0.02%	0.01%
Iron and steel mills and ferroalloy manufacturing	Z3311	0.569	-0.05%	0.21%	0.569	-0.52%	0.31%	0.569	-0.32%	0.30%	0.970	-0.23%	0.37%	n.p.	n.p.	n.p.
Alumina and aluminum production and processing	Z3313	0.052	-0.01%	0.00%	0.791	0.00%	0.00%	0.110	-0.03%	0.00%	0.339	0.00%	0.00%	0.156	0.00%	0.00%
Nonferrous metal (except aluminum) production and processing	Z3314	0.470	0.00%	0.00%	0.266	-0.01%	0.18%	0.380	-0.02%	0.02%	0.569	-0.05%	0.02%	0.622	-0.04%	0.01%
Nonferrous metal (except aluminum) smelting and refining	Z33141	0.791	0.00%	0.00%	0.622	0.00%	0.00%	0.733	0.00%	0.00%	0.733	0.00%	0.00%	0.850	0.00%	0.00%
Nonferrous metal products manufacturing, not made from copper or aluminum	Z33149	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.569	-0.05%	0.03%	0.677	-0.05%	0.01%
Fabricated metal product manufacturing	Z332	0.110	-0.01%	0.02%	0.380	-0.02%	0.05%	0.064	-0.04%	0.03%	0.791	-0.04%	0.05%	0.077	-0.03%	0.01%
Cutlery and handtool manufacturing	Z3322	0.622	-0.05%	0.02%	0.176	0.00%	0.00%	0.470	-0.02%	0.01%	0.910	-0.01%	0.00%	0.424	-0.02%	0.01%
Metal kitchen cookware, utensil, cutlery, and flatware (except precious	Z332215	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.424	-0.04%	0.02%	0.733	-0.01%	0.01%	0.266	-0.03%	0.02%
Saw blade and hand tool manufacturing	Z332216	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.339	-0.01%	0.01%
Hardware manufacturing	Z3325	0.791	-0.02%	0.13%	n.p.	n.p.	n.p.	0.910	-0.06%	0.03%	0.519	-0.07%	0.05%	0.064	-0.06%	0.03%
Machine shops; and screw, nut, and bolt manufacturing	Z3327	0.110	-0.04%	0.30%	0.519	-0.21%	0.37%	0.027	-0.42%	0.27%	0.470	-0.27%	0.37%	0.042	-0.13%	0.05%
Other fabricated metal product manufacturing	Z3329	0.470	-0.03%	0.02%	0.569	-0.01%	0.07%	0.519	-0.02%	0.03%	1.000	-0.09%	0.09%	0.569	-0.06%	0.03%
Metal valve manufacturing	Z33291	0.677	-0.02%	0.03%	0.470	-0.02%	0.13%	0.791	-0.05%	0.06%	0.970	-0.18%	0.20%	0.850	-0.14%	0.07%
Industrial valve manufacturing	Z332911	n.p.	n.p.	n.p.	0.204	-0.01%	0.21%	0.424	-0.03%	0.05%	0.850	-0.23%	0.35%	0.850	-0.12%	0.10%
All other fabricated metal product manufacturing	Z33299	0.151	-0.04%	0.05%	0.791	-0.02%	0.05%	0.850	-0.04%	0.09%	0.519	-0.01%	0.04%	0.569	-0.05%	0.02%
Machinery manufacturing	Z333	0.339	0.00%	0.01%	0.034	-0.01%	0.00%	0.733	-0.03%	0.02%	0.622	-0.03%	0.02%	0.176	-0.03%	0.01%
Agriculture, construction, and mining machinery manufacturing	Z3331	0.569	-0.05%	0.06%	0.027	-0.03%	0.01%	0.151	-0.12%	0.12%	0.301	-0.11%	0.05%	0.151	-0.08%	0.02%
Agricultural implement manufacturing	Z33311	0.005	0.00%	0.00%	0.380	-0.01%	0.00%	0.424	-0.07%	0.00%	0.470	-0.21%	0.00%	0.470	-0.19%	0.01%
Farm machinery and equipment manufacturing	Z333111	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.424	-0.08%	0.26%	0.233	-0.25%	0.00%	0.970	-0.23%	0.01%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Construction machinery manufacturing	Z33312	0.519	-0.08%	0.09%	0.034	-0.05%	0.01%	0.077	-0.17%	0.20%	0.470	-0.11%	0.08%	0.176	-0.10%	0.04%
Industrial machinery manufacturing	Z3332	0.064	-0.01%	0.02%	0.204	-0.01%	0.02%	0.176	-0.01%	0.02%	0.042	-0.04%	0.08%	1.000	-0.14%	0.03%
Industrial machinery manufacturing	Z33324	0.064	-0.01%	0.02%	0.359	-0.01%	0.02%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Semiconductor machinery manufacturing	Z333242	n.p.	n.p.	n.p.	0.496	-0.02%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other industrial machinery manufacturing	Z333249	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.266	0.00%	0.00%	0.204	0.00%	0.03%	0.677	0.00%	0.00%
Commercial and service industry machinery manufacturing	Z3333	0.470	-0.03%	0.00%	0.151	0.00%	0.07%	0.176	0.00%	0.00%	0.791	-0.07%	0.02%	0.791	-0.11%	0.07%
Optical instrument and lens manufacturing	Z333314	n.p.	n.p.	n.p.	0.496	0.00%	0.00%	n.p.	n.p.	n.p.	0.916	-0.01%	0.00%	0.094	0.00%	0.05%
Other commercial and service industry machinery manufacturing	Z333318	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.110	0.00%	0.00%	1.000	-0.13%	0.04%	0.064	-0.06%	0.03%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment	Z3334	0.092	0.00%	0.02%	0.424	-0.01%	0.01%	0.151	-0.06%	0.03%	0.519	-0.09%	0.07%	0.233	-0.08%	0.03%
Air-conditioning and warm air heating equipment and commercial and industrial	Z333415	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.151	-0.08%	0.04%	0.677	-0.13%	0.10%	0.266	-0.12%	0.04%
Metalworking machinery manufacturing	Z3335	0.176	0.00%	0.00%	n.p.	n.p.	n.p.	0.569	-0.07%	0.01%	0.424	0.00%	0.01%	0.176	-0.03%	0.01%
Machine tool manufacturing	Z333517	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.519	-0.04%	0.02%	0.519	0.00%	0.01%	0.204	0.00%	0.01%
Engine, turbine, and power transmission equipment manufacturing	Z3336	0.301	-0.02%	0.03%	0.791	-0.02%	0.02%	0.380	0.00%	0.08%	0.042	-0.04%	0.01%	0.910	-0.08%	0.03%
Other engine equipment manufacturing	Z333618	n.p.	n.p.	n.p.	0.910	-0.01%	0.00%	0.301	0.00%	0.12%	0.129	-0.01%	0.08%	0.016	0.00%	0.02%
Other general purpose machinery manufacturing	Z3339	0.176	-0.02%	0.04%	0.092	-0.01%	0.01%	0.034	-0.02%	0.00%	0.850	-0.01%	0.05%	0.110	-0.01%	0.02%
Pump and compressor manufacturing	Z33391	0.266	-0.02%	0.07%	0.266	0.00%	0.03%	0.002	0.00%	0.00%	0.129	-0.01%	0.01%	0.677	-0.01%	0.01%
Measuring, dispensing, and other pumping equipment manufacturing	Z333914	n.p.	n.p.	n.p.	0.424	0.00%	0.08%	0.791	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%
Material handling equipment manufacturing	Z33392	0.791	-0.03%	0.04%	0.380	-0.01%	0.01%	0.077	-0.01%	0.02%	0.204	-0.02%	0.27%	0.850	-0.02%	0.01%
Industrial truck, tractor, trailer, and stacker machinery manufacturing	Z333924	n.p.	n.p.	n.p.	0.519	-0.01%	0.02%	0.129	-0.03%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
All other general purpose machinery manufacturing	Z33399	0.077	-0.04%	0.07%	0.042	-0.02%	0.01%	0.005	-0.04%	0.00%	0.622	-0.03%	0.02%	0.151	-0.01%	0.03%
Power-driven handtool manufacturing	Z333991	n.p.	n.p.	n.p.	0.129	0.00%	0.05%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
All other miscellaneous general purpose machinery manufacturing	Z333999	n.p.	n.p.	n.p.	0.052	-0.04%	0.02%	0.064	-0.03%	0.02%	0.569	-0.06%	0.05%	0.850	-0.03%	0.09%
Computer and electronic product manufacturing	Z334	0.301	-0.18%	0.13%	0.301	-0.07%	0.08%	0.007	-0.07%	0.03%	0.233	-0.03%	0.08%	0.176	-0.02%	0.01%
Computer and peripheral equipment manufacturing	Z3341	0.027	-0.81%	0.32%	0.910	-0.01%	0.06%	0.204	-0.20%	0.02%	0.129	-0.06%	0.25%	0.470	-0.04%	0.03%
Electronic computer manufacturing	Z334111	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.380	-0.11%	0.36%	0.470	-0.06%	0.04%
Computer terminal and other computer peripheral equipment manufacturing	Z334118	n.p.	n.p.	n.p.	0.677	-0.01%	0.04%	0.077	-0.01%	0.06%	0.970	-0.11%	0.07%	0.176	-0.16%	0.03%
Communications equipment manufacturing	Z3342	0.301	-0.01%	0.03%	0.910	0.00%	0.07%	0.910	-0.01%	0.01%	0.204	-0.03%	0.00%	0.233	-0.02%	0.06%
Audio and video equipment manufacturing	Z3343	0.110	-0.03%	0.01%	0.850	-0.13%	0.11%	0.424	-0.12%	0.15%	0.176	-0.23%	0.04%	0.424	-0.08%	0.01%
Semiconductor and other electronic component manufacturing	Z3344	0.021	-0.21%	0.33%	0.424	-0.31%	0.39%	0.204	-0.21%	0.12%	0.677	-0.09%	0.08%	0.910	-0.13%	0.08%
Semiconductor and related device manufacturing	Z334413	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.30%	0.09%	0.151	-0.04%	0.15%	0.622	-0.05%	0.08%
Electronic coil, transformer, and other inductor manufacturing	Z334416	n.p.	n.p.	n.p.	0.039	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Printed circuit assembly (electronic assembly) manufacturing	Z334418	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.622	-0.74%	0.27%	0.233	-0.25%	0.28%	0.910	-0.46%	0.31%
Navigational, measuring, electromedical, and control instruments	Z3345	0.424	-0.01%	0.03%	1.000	-0.02%	0.03%	0.733	-0.02%	0.03%	0.519	-0.01%	0.00%	0.266	-0.12%	0.16%
Electromedical and electrotherapeutic apparatus manufacturing	Z334510	n.p.	n.p.	n.p.	0.034	0.00%	0.01%	0.176	0.00%	0.01%	0.339	-0.01%	0.00%	0.622	-0.11%	0.56%
Instruments and related products manufacturing	Z334513	n.p.	n.p.	n.p.	0.652	-0.02%	0.22%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Instrument manufacturing for measuring and testing electricity	Z334515	n.p.	n.p.	n.p.	0.092	0.00%	0.00%	0.850	0.00%	0.02%	0.700	-0.01%	0.00%	n.p.	n.p.	n.p.
Analytical laboratory instrument manufacturing	Z334516	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.266	-0.02%	0.01%	0.266	-0.01%	0.00%	0.519	-0.02%	0.02%
Other measuring and controlling device manufacturing	Z334519	n.p.	n.p.	n.p.	0.077	-0.01%	0.10%	0.850	-0.04%	0.07%	n.p.	n.p.	n.p.	0.339	0.00%	0.00%
Manufacturing and reproducing magnetic and optical media	Z3346	0.110	-0.11%	3.49%	0.092	-0.12%	0.14%	0.052	-0.50%	0.09%	0.910	-0.52%	0.60%	0.204	-0.93%	0.17%
Blank magnetic and optical recording media manufacturing	Z334613	n.p.	n.p.	n.p.	0.064	-0.13%	0.16%	0.052	-0.54%	0.10%	0.910	-0.55%	0.64%	0.176	-0.99%	0.18%
Electrical equipment, appliance, and component manufacturing	Z335	0.470	-0.01%	0.03%	0.569	-0.03%	0.01%	0.424	-0.03%	0.03%	0.519	-0.07%	0.04%	0.027	-0.04%	0.10%
Electric lighting equipment manufacturing	Z3351	0.622	-0.02%	0.09%	0.970	-0.09%	0.04%	0.569	-0.11%	0.04%	1.000	-0.12%	0.04%	0.092	0.00%	0.00%
Lighting fixture manufacturing	Z33512	0.622	-0.03%	0.10%	0.970	-0.10%	0.04%	0.519	-0.12%	0.05%	0.622	-0.13%	0.06%	0.733	0.00%	0.00%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Other lighting equipment manufacturing	Z335129	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.233	-0.07%	0.03%	0.910	-0.28%	0.05%	n.p.	n.p.	n.p.
Household appliance manufacturing	Z3352	0.204	-0.01%	0.00%	0.151	0.00%	0.01%	0.569	-0.02%	0.01%	0.110	-0.04%	0.06%	0.910	-0.07%	0.04%
Small electrical appliance manufacturing	Z33521	0.622	-0.01%	0.00%	0.519	0.00%	0.00%	0.677	-0.04%	0.01%	0.204	-0.10%	0.09%	0.110	-0.08%	0.01%
Major household appliance manufacturing	Z33522	0.278	0.00%	0.01%	n.p.	n.p.	n.p.	0.034	-0.03%	0.01%	0.233	-0.03%	0.10%	0.850	-0.06%	0.08%
Electrical equipment manufacturing	Z3353	0.233	-0.01%	0.07%	0.339	-0.01%	0.06%	0.027	-0.01%	0.03%	0.791	-0.29%	0.14%	0.003	0.00%	0.16%
Motor and generator manufacturing	Z335312	n.p.	n.p.	n.p.	0.569	-0.05%	0.05%	0.233	-0.04%	0.09%	0.470	-0.09%	0.03%	0.970	-0.03%	0.03%
Switchgear and switchboard apparatus manufacturing	Z335313	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.910	-0.74%	0.37%	0.001	0.00%	0.46%
Relay and industrial control manufacturing	Z335314	n.p.	n.p.	n.p.	0.301	-0.02%	0.08%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other electrical equipment and component manufacturing	Z3359	0.176	-0.02%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Battery manufacturing	Z33591	0.625	-0.35%	0.03%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Communication and energy wire and cable manufacturing	Z33592	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.204	-0.12%	0.22%	0.910	-0.01%	0.01%	0.677	-0.20%	0.21%
Other communication and energy wire manufacturing	Z335929	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.052	-0.05%	0.02%	0.677	-0.01%	0.02%	0.266	-0.01%	0.12%
Wiring device manufacturing	Z33593	0.380	-0.01%	0.27%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Current-carrying wiring device manufacturing	Z335931	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.021	-0.01%	0.53%
All other electrical equipment and component manufacturing	Z33599	0.339	-0.04%	0.03%	0.129	-0.10%	0.02%	0.850	-0.14%	0.12%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
All other miscellaneous electrical equipment and component manufacturing	Z335999	n.p.	n.p.	n.p.	0.129	-0.10%	0.02%	0.850	-0.15%	0.13%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Transportation equipment manufacturing	Z336	0.034	0.00%	0.03%	0.339	0.00%	0.02%	0.470	-0.01%	0.00%	0.077	-0.01%	0.00%	0.677	-0.01%	0.00%
Motor vehicle manufacturing	Z3361	0.110	0.00%	0.06%	0.519	0.00%	0.04%	0.850	0.00%	0.00%	0.064	-0.02%	0.01%	0.470	-0.03%	0.00%
Automobile and light duty motor vehicle manufacturing	Z33611	0.092	-0.01%	0.06%	0.519	0.00%	0.04%	0.850	0.00%	0.00%	0.064	-0.02%	0.01%	0.519	-0.04%	0.00%
Automobile manufacturing	Z336111	n.p.	n.p.	n.p.	0.677	-0.01%	0.04%	0.289	-0.01%	0.00%	0.064	-0.02%	0.01%	0.426	-0.04%	0.00%
Heavy duty truck manufacturing	Z33612	0.685	0.00%	0.00%	0.859	0.00%	0.00%	0.016	0.00%	0.00%	0.344	0.00%	0.00%	0.719	0.00%	0.00%
Motor vehicle parts manufacturing	Z3363	0.820	0.00%	0.00%	1.000	0.00%	0.00%	0.688	0.00%	0.00%	0.813	0.00%	0.00%	0.844	0.00%	0.00%
Motor vehicle gasoline engine and engine parts manufacturing	Z33631	0.375	0.00%	0.00%	0.813	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%
Motor vehicle electrical and electronic equipment manufacturing	Z33632	0.844	0.00%	0.00%	0.250	0.00%	0.00%	1.000	0.00%	0.00%	0.129	0.00%	0.00%	0.109	0.00%	0.00%
Motor vehicle steering and suspension components manufacturing	Z33633	0.625	0.00%	0.00%	1.000	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Motor vehicle brake system manufacturing	Z33634	1.000	0.00%	0.00%	0.844	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%
Motor vehicle transmission and power train parts manufacturing	Z33635	0.250	0.00%	0.00%	0.297	0.00%	0.00%	1.000	0.00%	0.00%	0.688	0.00%	0.00%	0.844	0.00%	0.00%
Motor vehicle seating and interior trim manufacturing	Z33636	0.469	0.00%	0.00%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.938	0.00%	0.00%	n.p.	0.00%	0.00%
Other motor vehicle parts manufacturing	Z33639	0.938	0.00%	0.00%	0.313	0.00%	0.00%	0.625	0.00%	0.00%	1.000	0.00%	0.00%	1.000	0.00%	0.00%
Aerospace product and parts manufacturing	Z3364	0.569	-0.02%	0.07%	0.622	-0.01%	0.02%	0.791	-0.02%	0.01%	0.110	-0.07%	0.02%	0.519	-0.01%	0.07%
Aircraft manufacturing	Z336411	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.380	-0.09%	0.06%
Aircraft engine and engine parts manufacturing	Z336412	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.204	-0.01%	0.02%	0.970	-0.03%	0.01%	0.129	-0.01%	0.08%
Other aircraft parts and auxiliary equipment manufacturing	Z336413	n.p.	n.p.	n.p.	0.519	-0.03%	0.02%	0.021	-0.07%	0.01%	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other transportation equipment manufacturing	Z3369	0.569	-0.05%	0.05%	0.034	-0.01%	0.01%	0.021	-0.04%	0.01%	0.301	-0.03%	0.03%	0.354	-0.01%	0.01%
Motorcycle, bicycle, and parts manufacturing	Z336991	n.p.	n.p.	n.p.	0.034	-0.01%	0.01%	0.064	-0.06%	0.01%	0.301	-0.05%	0.04%	0.375	-0.02%	0.02%
Furniture and related product manufacturing	Z337	0.021	-0.01%	0.08%	0.519	-0.01%	0.01%	0.380	-0.04%	0.03%	0.470	-0.01%	0.06%	0.339	-0.11%	0.10%
Household and institutional furniture and kitchen cabinet manufacturing	Z3371	0.129	-0.01%	0.10%	0.424	-0.01%	0.02%	0.677	-0.06%	0.03%	0.470	-0.01%	0.08%	0.339	-0.14%	0.13%
Household and institutional furniture manufacturing	Z33712	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.339	-0.15%	0.13%
Upholstered household furniture manufacturing	Z337121	n.p.	n.p.	n.p.	0.266	-0.02%	0.02%	0.910	-0.11%	0.03%	0.266	-0.03%	0.04%	0.970	-0.02%	0.03%
Nonupholstered wood household furniture manufacturing	Z337122	n.p.	n.p.	n.p.	0.424	-0.03%	0.03%	0.204	-0.11%	0.07%	0.176	-0.04%	0.19%	0.301	-0.43%	0.39%
Institutional furniture manufacturing	Z337127	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.791	-0.04%	0.02%	0.339	-0.04%	0.03%
Office furniture (including fixtures) manufacturing	Z3372	0.519	-0.03%	0.28%	0.850	-0.03%	0.03%	0.970	-0.07%	0.06%	0.733	-0.03%	0.01%	0.339	-0.01%	0.03%
Showcase, partition, shelving, and locker manufacturing	Z337215	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	0.765	-0.02%	0.02%	0.301	-0.01%	0.03%
Miscellaneous manufacturing	Z339	0.129	-0.02%	0.05%	0.970	-0.02%	0.03%	0.622	-0.02%	0.07%	0.910	-0.06%	0.07%	0.850	-0.05%	0.06%
Medical equipment and supplies manufacturing	Z3391	0.005	-0.01%	0.16%	0.339	-0.04%	0.09%	0.301	-0.03%	0.07%	0.301	-0.07%	0.06%	0.204	-0.10%	0.02%
Surgical and medical instrument manufacturing	Z339112	n.p.	n.p.	n.p.	0.380	-0.10%	0.09%	0.052	0.00%	0.13%	0.677	-0.03%	0.04%	0.092	-0.28%	0.03%

Stratum Description	Stratum	2019			2020			2021			2022			2023		
		P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference	P-Value	Minimum Difference	Maximum Difference
Surgical appliance and supplies manufacturing	Z339113	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.110	-0.02%	0.11%	0.791	-0.08%	0.05%	0.519	-0.16%	0.23%	0.470	-0.05%	0.06%
Ophthalmic goods manufacturing	Z339115	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.004	0.00%	0.01%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.000	0.00%	0.00%
Other miscellaneous manufacturing	Z3399	0.850	-0.04%	0.01%	0.677	-0.04%	0.06%	0.791	-0.03%	0.09%	0.677	-0.09%	0.10%	0.470	-0.05%	0.08%
Jewelry and silverware manufacturing	Z33991	0.519	-0.01%	0.05%	0.380	-0.05%	0.14%	1.000	-0.02%	0.22%	0.339	-0.22%	0.24%	0.519	-0.11%	0.25%
Sporting and athletic goods manufacturing	Z33992	0.102	-0.01%	0.02%	0.622	-0.22%	0.00%	0.176	-0.40%	0.16%	0.092	-0.37%	0.15%	0.424	-0.01%	0.01%
Doll, toy, and game manufacturing	Z33993	0.380	-0.25%	0.01%	0.470	-0.11%	0.07%	0.677	-0.06%	0.06%	0.339	-0.17%	0.08%	0.176	-0.08%	0.01%
All other miscellaneous manufacturing	Z33999	0.910	-0.01%	0.05%	0.677	-0.05%	0.02%	0.791	-0.04%	0.04%	0.519	-0.04%	0.04%	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
All other miscellaneous manufacturing	Z339999	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.012	-0.01%	0.00%	0.970	-0.07%	0.06%	0.733	-0.06%	0.06%	0.622	-0.03%	0.18%
<i>n.p.</i> – The price index was not published during this period.																