FEDERAL RESERVE statistical release

G.17 (419) 2025 Historical and Annual Revision

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Industrial Production and Capacity Utilization: The 2025 Annual Revision

The Federal Reserve has revised its index of industrial production (IP) and the related measures of capacity and capacity utilization. The most prominent features of the revision are the incorporation of comprehensive annual production data from the U.S. Census Bureau's 2022 Economic Census (EC), a conversion of the industry-group indexes to the 2022 North American Industry Classification System (NAICS), a conversion of the product-group indexes used for benchmarking many of the series to the 2022 North American Product Classification System (NAPCS), and the integration of survey utilization rate data for 2024.[1]

On net, the revisions to total IP for recent years are negative. The cumulative effect of these revisions leaves the level of total IP in August 2025 roughly equal to its level from February 2020, whereas IP was previously estimated to have increased 2.2 percent over that period. The largest revision to annual rates of change is in 2022, where the rate of change is revised down by 1.7 percentage points, while the revisions before 2022 are roughly offsetting on net.[2] After 2022, annual rates of change are revised up by 0.1 percentage point in 2023 and down by 0.7 percentage point in 2024.

The revisions to capacity growth for recent years are also negative; from 2022 through 2025, capacity growth is revised down in each year, with an average revision of 0.4 percentage point. The revisions from 2018 through 2021 are generally positive and average 0.1 percentage point per year. The cumulative effect of these downward revisions implies that capacity growth now averages 1.1 percent per year after 2021, revised down from 1.5 percent per year, and remains below the long-run historical average (1972–2024) of 1.9 percent.

As with IP and capacity, capacity utilization revised down in recent years. For the 2022–24 period, capacity utilization was 1.7 percentage points lower on average (annual utilization rates are reported as of the fourth quarter). Capacity utilization also revised down modestly in the previous 10 years (2012–21) by, on average, 0.5 percentage point. In the fourth quarter of 2024, capacity utilization for total industry stood at 75.5 percent, 1.7 percentage points below its previous estimate and 4.0 percentage points below its long-run (1972–2024) average.

This revision incorporated newly available annual data on both output and prices. The updated IP indexes incorporated new data for manufacturing from the 2022 EC. In addition, the indexes for metallic and nonmetallic minerals were updated with revised annual data for 2020 through 2022 and with new data for 2023 from the U.S. Geological Survey (USGS). Data on prices for 2022 from the Bureau of Labor Statistics (BLS) were also incorporated into most of the manufacturing indexes.

Revisions to IP indexes for the post-2022 period are based partly on adjustments to the correction factors that are intended to align the input and product data used for estimating monthly IP with the annual benchmark

[1] The revision affected rates of change for IP from 1972 forward. When necessary to maintain consistency with any revisions to the data for 1972 and subsequent years, the levels of production for the years before 1972 were multiplied by a constant. However, the rates of change in IP for the years before 1972 were not revised. Utilization rates and capacity growth rates were revised minimally between 1968 and 1971 but were unchanged before then.

[2] Rates of change are calculated as the percentage change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified.

data. In addition, the monthly estimates of production have been updated to include late-arriving or revised quarterly or monthly indicator data, including information from the BLS's benchmark revisions to the Current Employment Statistics. The monthly IP estimates also reflect updated seasonal factors.

The revised estimates of capacity and capacity utilization incorporate data from the Census Bureau's Quarterly Survey of Plant Capacity Utilization (QSPC) for the fourth quarter of 2024 and new data on capacity from the USGS, the Energy Information Administration, and various industry organizations. The revised capacity estimates also include new data on capital spending from the 2022 EC.

RESULTS OF THE REVISION

Industrial Production

Production by Industry Group

Manufacturing output is now estimated to have fallen about 2½ percent in 2020 before rebounding about 2¾ percent in 2021 and then declining at an average pace of about 1¼ percent per year from 2022 through 2024. The annual rate of change is revised down by about ¾ percentage point per year from 2020 through 2024, on average, with the largest downward revision occurring in 2022. These revisions noticeably change the post-2020 contour of manufacturing output, with a weaker 2021 recovery followed by a decline in 2022 rather than further growth that year, as was previously estimated. The cumulative effects of these revisions leave the level of manufacturing output in August 2025 about 1½ percent below its level from February 2020, whereas manufacturing output was previously estimated to have increased 1½ percent, on net, over that period.

Downward revisions to manufacturing output are evident in each of the manufacturing industry groups, though the most notable contributions to overall revisions were made by nondurable goods indexes. The annual rates of change of nondurable goods revised down by about ¾ percentage point, on average, from 2020 through 2024. The annual pattern of nondurables output is revised materially; in particular, the annual rate of change for 2022 is revised down by 3½ percentage points, led by downward revisions to output growth for chemicals and for plastics and rubber products. For durable goods output growth, the annual pattern is broadly similar to previous estimates, though annual rates of change are also revised down by about ¾ percentage point per year from 2020 through 2024 on average. The index for industries in scope for manufacturing IP that are not part of manufacturing under the NAICS—that is, logging and publishing—has been declining for much of its recent history; annual rates of change in this industry group are revised down by about ¼ percentage point per year, on average, from 2020 through 2024.

The contour for mining output shows a sharp decline in 2020 then strong gains from 2021 through 2023 before a modest decline in 2024. Revisions to annual rates of change for mining output are slightly negative, on net, though the growth of the index in 2021 is revised up about ½ percentage point. The rates of change for utilities output are revised up modestly, on net, with little change to the annual contour.

Production by Market Group

The index for consumer goods is estimated to have risen in 2020 and 2021 before falling from 2022 through 2024. The rates of change for the index are revised down, on net, across the 2020–24 period, with large negative revisions in 2021 and, especially, 2022. Annual growth in the output of durable consumer goods revised down about ¼ percentage point from 2020 through 2024, on average, with negative revisions concentrated largely in 2023. Downward revisions to rates of change for nondurable consumer goods output are more substantial, averaging ¾ percentage point during 2020 through 2024 and featuring particularly large negative revisions of about 1½ percentage points and 2½ percentage points in 2021 and 2022, respectively.

The index for business equipment fell significantly in 2020, recovered strongly in 2021 and 2022, and then fell in 2023 and, especially, 2024. Annual rates of change for business equipment were revised down by about 1 percentage point per year, on average, from 2020 through 2024, with a particularly large downward revision of about 3¾ percentage points in 2022. The index for defense and space equipment is revised down by about 2¼ percentage points per year, on average, from 2020 through 2024, with downward revisions in every year.

The indexes for construction supplies and business supplies are estimated to follow a similar contour to each other, falling in 2020, rising in 2021, and then declining each year from 2022 through 2024. Annual rates of change for the output of construction supplies and of business supplies are revised down by an average of about ½ percentage point and 1 percentage point, respectively, from 2020 through 2024.

The index for materials is estimated to have dropped in 2020 before rising throughout 2021 and through 2024, a pattern that is revised down modestly on average. Within materials, annual rates of change for non-energy materials are revised down modestly, on average, led by durable non-energy materials. Annual rates of change for energy materials are revised down on average.

Capacity

Total industrial capacity is estimated to have risen at a modest pace from 2022 through 2025, with capacity, on average, increasing in manufacturing, mining, and utilities. Overall capacity is expected to rise 1½ percent in 2025. Annual industrial capacity growth is revised down by an average of about ½ percentage point per year from 2022 through 2025, with the largest downward revision of about 1 percentage point occurring in 2023.

Manufacturing capacity is estimated to have grown about ½ percent per year, on average, from 2022 through 2025—a pace that is well below the long-run (1972–2024) average growth of about 2 percent per year. Capacity growth has increased sequentially from 2022 through 2025, and growth in 2025 is expected to be just over 1 percent. Average annual growth is revised down by about ½ percentage point per year from 2022 through 2025, with negative revisions to both durable goods and nondurable goods but positive revisions, on average, to other manufacturing.

Mining capacity is estimated to have risen in the 2022–24 period before modestly declining in 2025, resulting in an average annual growth rate of about 1¼ percent, above the long-run (1972–2024) average pace. Mining capacity is expected to decline about ¼ percent in 2025. The annual rate of change for mining capacity is revised down by about ½ percentage point per year, on average, from 2022 through 2025, with a larger downward revision in 2023.

Capacity for electric and gas utilities rose at a solid pace of about 3¼ percent per year, on average, from 2022 through 2025—a pace that is faster than the long-run (1972–2024) average growth rate of about 2¼ percent per year. Utilities capacity is expected to grow about 4½ percent in 2025. Revisions to the annual rates of utilities capacity growth were small on average.

Capacity Utilization

Capacity utilization for total industry moved down in 2020 to 74.5 percent, jumped to 78.3 percent in 2021, and then declined steadily to 75.5 percent in 2024, about 4 percentage points below its long-run (1972–2024) average of 79.5 percent. On average, utilization is revised down about 1½ percentage points from 2021 through 2024. In August 2025, capacity utilization is estimated to have stood at 75.8 percent.

Capacity utilization at manufacturers rose to 78.4 percent in 2021—roughly matching its long-run (1972–2024) average of 78.2 percent—and then declined, reaching 74.8 percent in 2024. Manufacturing utilization between 2021 and 2024 is revised down about 1¼ percentage points on average. In August 2025, manufacturing utilization stood at 75.6 percent.

Within manufacturing, revisions to capacity utilization rates in 2024 were mostly negative across industries. In durables manufacturing, utilization is revised down by about 1¼ percentage points, on average, from 2021 through 2024, with widely varying revision patterns across industries. Of particular note, the indexes for machinery and for transportation equipment made large contributions to negative revisions, while the index for electrical equipment, appliances, and components made partly offsetting positive contributions. In nondurables manufacturing, utilization is revised down by about 1¼ percentage points, on average, from 2021 through 2024. Of particular note, the index for chemicals made large contributions to negative revisions.

The capacity utilization rate for mining jumped to 81.5 percent in 2021 and rose thereafter to 83.4 percent in 2024, lower than its long-run (1972–2024) average rate of 85.2 percent. Utilization at mines is revised down by about 6 percentage points, on average, from 2021 through 2024, driven largely by lower utilization in oil and gas extraction and in support activities for mining.

The operating rate for electric and gas utilities has been well below its long-run (1972–2024) average of 84.3 percent since 2007 and stood at 72.2 percent in 2024; utilization in utilities is revised up by about 1 percentage point, on average, between 2021 and 2024.

TECHNICAL ASPECTS OF THE REVISION

The IP indexes represent the level of real output relative to a base year. At the monthly frequency, movements of the indexes are based on indicators that are derived using industry-specific data from a variety of government and private sources.

The monthly production indexes are anchored to annual benchmarks that are less timely but typically based on more comprehensive data. In most cases, the annual benchmark is the nominal gross output reported by the Census Bureau deflated by a suitable price index.

Annual revisions to the IP and capacity measures generally involve (1) incorporating new and revised annual benchmark data on output, prices, and value-added proportions; (2) incorporating new monthly or quarterly data that were revised or that arrived too late to be included in the regular six-month reporting window for monthly IP; (3) updating seasonal adjustment factors; (4) updating the methods used to construct the indexes; and (5) introducing changes to the industry- or market-group structure of the indexes based on changes to underlying data sources.

Because the current annual revision incorporates an EC, it includes more innovations and updates than are typical. In particular, the current revision reclassifies the IP and capacity indexes from the 2017 NAICS to the 2022 NAICS, updates the aggregation weights for some IP indexes to incorporate data on product shipments based on the 2022 NAPCS rather than the previously used 2017 NAPCS-based shipments, and updates the allocations of IP industry-group indexes to market groups based on the Bureau of Economic Analysis's (BEA) 2017 input-output (I-O) tables (the previous allocations were based on I-O tables through 2012).

Annual Benchmark Data on Output, Prices, and Value-Added Proportions

Output

The annual benchmark output indexes for IP are measures of real gross output at the six-digit NAICS

(2022) level. The Census Bureau provides annual figures for value added and the cost of materials for manufacturing industries, which can be summed to obtain nominal gross output. The benchmark indexes for this revision incorporated information for 2022 from the EC.

New annual data were also incorporated into other indexes not in the scope of the EC. The benchmark indexes for metallic and nonmetallic mineral mining were updated with newly available data from 2020 through 2023 from the USGS. Benchmarks for logging and publishing were not advanced because of a lack of new data.

Prices

To obtain individual benchmarks of real gross output, the measures of nominal gross output are deflated by annual price deflators. In general, the benchmark industry price deflators consist of price indexes from the BEA through 2011 that are extended through 2022 with the related producer price indexes (PPIs) from the BLS.[3] However, for a few selected industries, the annual price deflators are constructed by the Federal Reserve.[4]

Value-Added Proportions (Weights for Aggregation)

The IP system is organized as a hierarchical structure where the individual production indexes are combined using a version of the Fisher ideal index formula to construct broader measures of production. The weights that are used to combine individual IP measures into more aggregate measures are based on the value added from the industry, calculated as gross output less cost of materials. For IP indexes that are defined at the six-digit (or more aggregate) NAICS level, the value-added weights are derived from either the EC or the Annual Survey of Manufacturers. For IP indexes that cover only part of a six-digit NAICS industry, the aggregation weights were constructed by allocating value added (as defined by the Census Bureau) for a six-digit industry across the various components of IP that compose that industry.

The allocation of value added across each component was determined by that component's share of the industry's overall product shipments. This annual revision used data on product shipments based on the new 2022 NAPCS; previously, data on product shipments were based on the 2017 NAPCS. Missing values for specific NAPCS-based products were imputed where necessary. The incorporation of NAPCS is discussed in more detail below.

The Federal Reserve derives estimates of value added for the electric and gas utility industries from annual revenue and expense data issued by other organizations. For electric utilities, the measures of value added incorporate data from the Energy Information Administration of the U.S. Department of Energy and from the Edison Electric Institute. For gas utilities, the value-added estimates incorporate data from the American Gas Association. The weights for aggregation for mining industries are derived from value-added data from the EC. Figures for value added for mining industries in the years between the quinquennial EC are estimated based on both output and price changes for the industry.

The weights for aggregation, expressed as value added per unit of output, were estimated with data on producer prices for the period after 2022.

Conversion to the 2022 North American Industry Classification System

IP and capacity utilization are structured to follow a single-industry classification system. With this revision, the IP and capacity indexes were classified according to the 2022 NAICS; previously, they were

[3]The BEA price deflators were discontinued at the six-digit NAICS level after 2011. Overall, at the industry level, the BEA and PPI measures are quite similar, as the BEA used weighted product-level PPIs to derive its industry-level shipments deflator.

[4]For selected industries, the Federal Reserve constructs price indexes from alternative sources. These industries include computer storage device manufacturing (NAICS 334112), semiconductor and related device manufacturing (NAICS 334413), and pharmaceutical preparation manufacturing (NAICS 325412).

classified according to the 2017 NAICS. To maintain a consistent time series, the indexes were converted to the 2022 NAICS for the period from 1972 forward.

For the industrial sector, there were several differences between the 2017 and the 2022 NAICS. A few IP indexes were reclassified to reflect the new NAICS structure, including two previously unpublished indexes that were dropped because of the new structure. The reclassifications within the IP system include the following:

Gold and Silver Ore Mining

Two 2017 NAICS categories, gold ore mining (NAICS 212221) and silver ore mining (NAICS 212222), were combined into a single 2022 NAICS category: gold ore and silver ore mining (NAICS 212220). This consolidation did not affect the number of IP indexes, as the IP system maintained one index for silver ore mining and another index for gold ore mining under both the 2017 and 2022 NAICS. Benchmark data for mine production of gold and mine production of silver are available separately from the USGS, so the benchmarking of these indexes is not affected by the change to the NAICS structure. The monthly indexes are similarly informed by separate USGS data for gold and silver mining.

Hosiery, Sock, and Other Apparel Knitting Mills

Two 2017 NAICS categories, hosiery and sock mills (NAICS 31511) and other apparel knitting mills (NAICS 31519), were combined into a single 2022 NAICS category: apparel knitting mills (NAICS 31512). Because of (1) the lack of reliable product-level data tracking each index separately and (2) the small value-added proportion of each separate index, IP indexes separately tracking hosiery and sock mills (2017 NAICS 31511) and other apparel knitting mills (2017 NAICS 31519) were removed. An apparel knitting mills index will continue to be produced.

Cut and Sew Apparel Manufacturing

A single 2022 NAICS five-digit industry for cut and sew apparel manufacturing (except contractors) (NAICS 31525) was formed from three different five-digit industries under the 2017 NAICS: men's and boys' cut and sew apparel manufacturing (NAICS 31522); women's, girls', and infants' cut and sew apparel manufacturing (NAICS 31524); and other cut and sew apparel manufacturing (NAICS 31528). The IP system maintained one index for men's and boys' cut and sew apparel manufacturing and one combined index for women's, girls', and other cut and sew apparel manufacturing under the 2017 NAICS. Because of (1) the lack of reliable product-level data tracking each index separately and (2) the small value-added proportion of each separate index, these separate IP indexes have been removed. A combined index of cut and sew apparel manufacturing (except contractors) will continue to be produced.

Battery Manufacturing

Two 2017 NAICS categories, storage battery manufacturing (NAICS 335911) and primary battery manufacturing (NAICS 335912), were combined into a single 2022 NAICS category: battery manufacturing (NAICS 335910). This consolidation did not affect the number of IP indexes, as the IP system maintained separate indexes for storage battery manufacturing and primary battery manufacturing under both the 2017 and 2022 NAICS. Product-level shipments data from the Census Bureau, as well as data on lithium-ion battery production capacity from a private source, are used to construct benchmarks for the continuing indexes.

Automobile and Light Duty Motor Vehicle Manufacturing

Two 2017 NAICS categories, automobile manufacturing (NAICS 336111) and light truck and utility vehicle manufacturing (NAICS 336112), were combined into a single 2022 NAICS category: automobile and

light duty motor vehicle manufacturing (NAICS 336110). This consolidation did not affect the number of IP indexes, as the IP system maintained two indexes for automobile manufacturing and light truck and utility vehicle manufacturing under both the 2017 and 2022 NAICS. Product-level shipments data from the Census Bureau and data from private sources are used to construct benchmarks for the continuing data. Detailed private data and staff estimates are used to inform the monthly indexes.

Paper Mills

Two 2017 NAICS categories, paper (except newsprint) mills (NAICS 322121) and newsprint mills (NAICS 322122), were combined into a single 2022 NAICS category: paper mills (NAICS 322120). This consolidation did not affect the number of IP indexes, as the IP system maintained one index for paper (except newsprint) mills and newsprint mills under both the 2017 and 2022 NAICS. Product-level shipments data from the Census Bureau are used to construct benchmarks for the continuing data. Detailed private data are used to inform the monthly indexes.

Publishing

Two 2017 NAICS categories—newspaper, periodical, book, and directory publishers (NAICS 5111) and other information services (NAICS 5191)—were combined into a single 2022 NAICS category: newspaper, periodical, book, and directory publishers (NAICS 5131). Despite the consolidation, benchmark data from the 2022 Service Annual Survey provided sufficient industry detail for the number and content of relevant IP indexes to remain the same. Each IP index linked to a 2022 NAICS code beginning with 5131 includes all activities that fall under the scope of the corresponding 2017 NAICS code beginning with 5111 and omits all activities that fall outside of that scope.

Conversion to the 2022 North American Product Classification System

As noted earlier, this annual revision uses data on product shipments classified by NAPCS to construct annual benchmarks and value-added weights for those IP indexes that are defined as subsets of a given six-digit NAICS industry. Product-shipment data are also used for updating market-group allocations.

For IP indexes that are more disaggregated than the six-digit NAICS level, the calculations for the benchmarks and value-added weights involve summing product shipments for all products associated with the particular IP index. This process is complicated for a few reasons. First, the NAPCS structure is independent of the NAICS structure, so a NAPCS-NAICS crosswalk was needed. Second, NAPCS products may be produced across multiple industries and sectors, so extra care was required to map the product to the appropriate IP index. Third, the non-nested structure of NAPCS and NAICS combined with numerous instances of nondisclosed data cells introduced an additional hurdle for imputations.

With this revision, annual benchmarks and value-added weights for relevant IP indexes were calculated at the level of 2022 NAPCS categories; previously, they were calculated based on the 2017 NAPCS. The Census Bureau produces a two-directional mapping between the 2017 and 2022 NAPCS codes. Where a 2017 NAPCS code was discontinued, the closest matching 2022 NAPCS code(s) produced within the relevant NAICS industry (or industries) was (were) included in product shipments for the benchmarks. Where data were not disclosed at the desired industry disaggregation, the closest appropriate industry aggregate for the product was used to construct the benchmarks.

Updating Market-Group Allocations

The IP market groups classify industrial output according to the expected use of the output. The

categories of market groups are final products (consumer goods and equipment), intermediate products that are used as inputs outside of the industrial sector (construction and business supplies), and materials that are used as inputs within the industrial sector (materials). Most industries in the IP index have their output allocated to multiple market groups. For example, a large share of ice cream production is purchased by consumers, but a sizable share is also sold to restaurants and other businesses outside the industrial sector and, hence, is part of business supplies. The market group shares for the individual IP indexes are derived using relationships in the I-O tables issued by the BEA.

This revision updates the market-group assignments and shares based on the 2017 I-O tables. Previously, the market groups and weights had been based on the 1997, 2002, 2007, and 2012 versions of the tables. The incorporation of the 2017 I-O tables generally affected the market-group shares beginning in 2013. The shares are assumed to evolve linearly between each I-O table year and to be constant beginning with the last available year for the I-O tables.

In general, the output of an industry is not split among all of the possible market groups—just those to which a significant share (roughly 10 percent or more) of its output is destined. The I-O tables reported that a few industries sent their output to markets in amounts that surpassed that threshold for the first time in 2017. For these industries, the output was allocated to the newly important market in 2017 and in later years, and the output was also allocated to the market in previous years, with the shares for the earlier years reflecting the relatively smaller importance in the 1997, 2002, 2007, and 2012 I-O tables.

Revised Quarterly and Monthly Data

This revision incorporated source data on production, shipments, and inventories that became available or were revised after the regular six-month reporting window for monthly IP was closed. These data were released with too great of a lag to be included with monthly IP estimates but were available for inclusion in the annual revision.

Revised Seasonal Factors

The IP indexes are adjusted to remove from the underlying data the predictable movements related to timing, holiday, workday, and monthly or quarterly seasonal patterns. Individual indexes are adjusted using the Census X-13ARIMASEATS seasonal adjustment program. The seasonal factors are based on the full history of data back to 1972, where available.

Seasonal factors for indexes based on production-worker hours were updated with data through August 2025. The updated factors for the physical-product-based indexes used data through August 2025, where available.

Seasonal factors for unit motor vehicle assemblies have been updated, and projections through September 2026 are available on the Board's website at https://www.federalreserve.gov/releases/g17/mvsf.htm. These factors are based on production data through January 2025 and were revised back to January 2020. The seasonal factors explicitly incorporate the holiday schedule for the vehicle assembly lines specified in the latest collective bargaining agreements with domestic manufacturers. The seasonal factors identify production data from January 2024 and January 2025 as outliers due to unseasonably cold weather and the effect of snowstorms.

Methodological Changes to Individual Production and Capacity Indexes

Change in Source Data for One Production Index

The source data for the index for speed changers, industrial high-speed drive, and gear manufacturing and

for mechanical power transmission equipment manufacturing (NAICS 333612 and NAICS 333613, respectively) have been updated. This index previously reflected data on shipments of gears from the American Gear Manufacturers Association (AGMA) in addition to data on production-worker hours. The AGMA report was discontinued, so beginning in 2022 the series is based on production-worker hours for the industry.

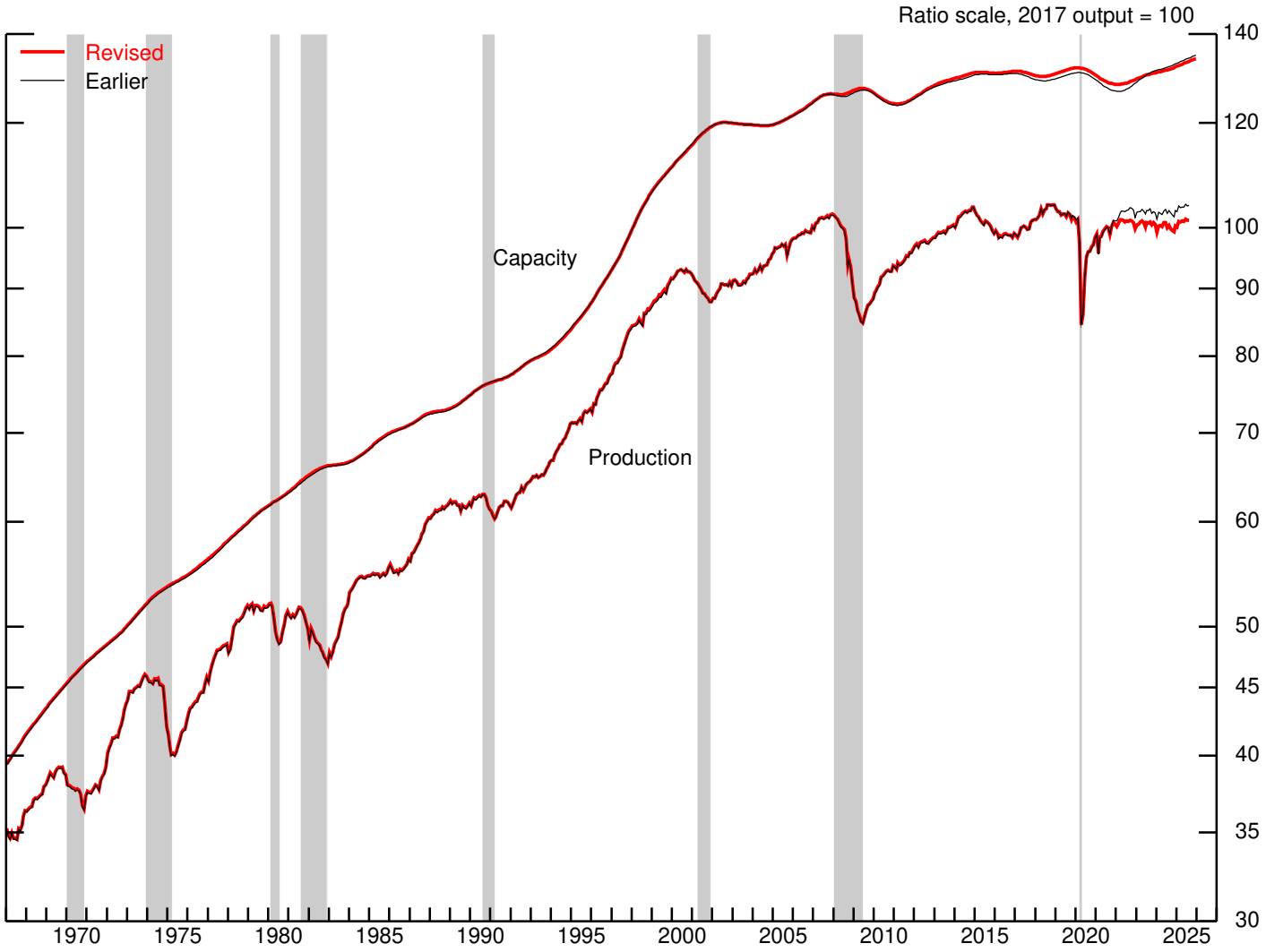
Consolidation of Individual Capacity Indexes for Textile Mills Manufacturing

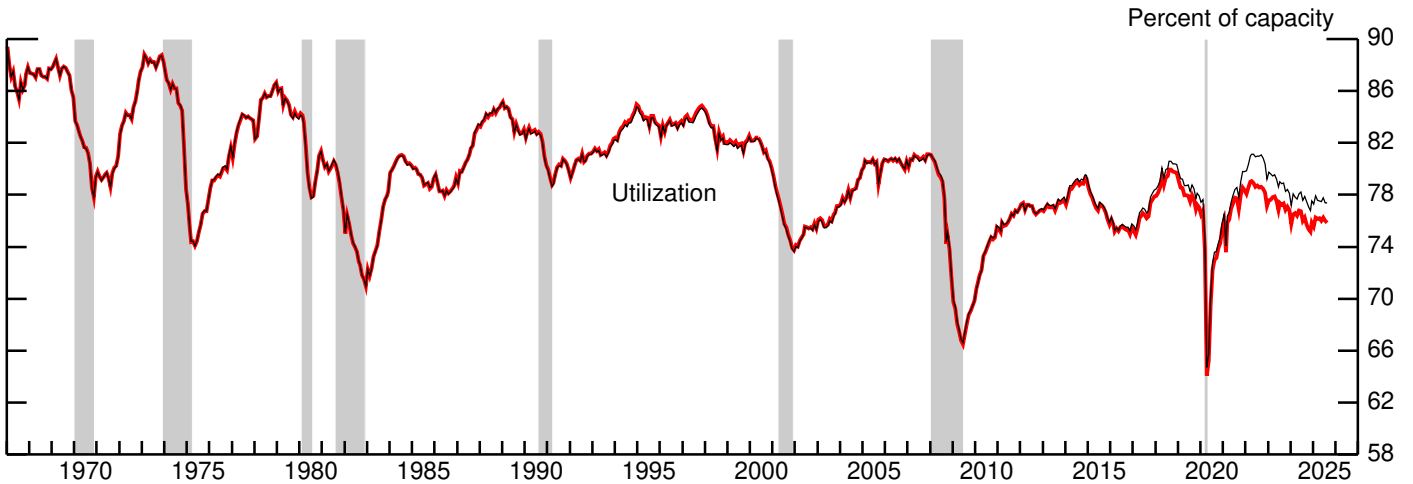
Capacity estimates for the textile mills subsector have been consolidated to the three-digit NAICS level (NAICS 313). Previously, separate capacity series were maintained for fiber, yarn, and thread mills (NAICS 3131); fabric mills (NAICS 3132); and textile and fabric finishing and fabric coating mills (NAICS 3133). This methodological update reflects recent changes to the QSPC, which implemented a revised industry classification scheme with its new sample based on the 2022 NAICS. As a result, since the first quarter of 2025, QSPC data are no longer available at the four-digit NAICS level for these textile industries. The reclassification of the QSPC accounts for structural changes in the U.S. manufacturing landscape, where certain subsectors now represent a smaller share of economic activity than when the survey was initially designed.

Data Availability and Publication Changes

Files containing the revised data and the text and tables from this release are available on the Board's website at https://www.federalreserve.gov/releases/g17, as are updated data for the annual revision and for all of the regularly issued series on IP, capacity, and capacity utilization. Other changes are listed on the Board's website at https://www.federalreserve.gov/releases/g17/g17_revision_series.htm.

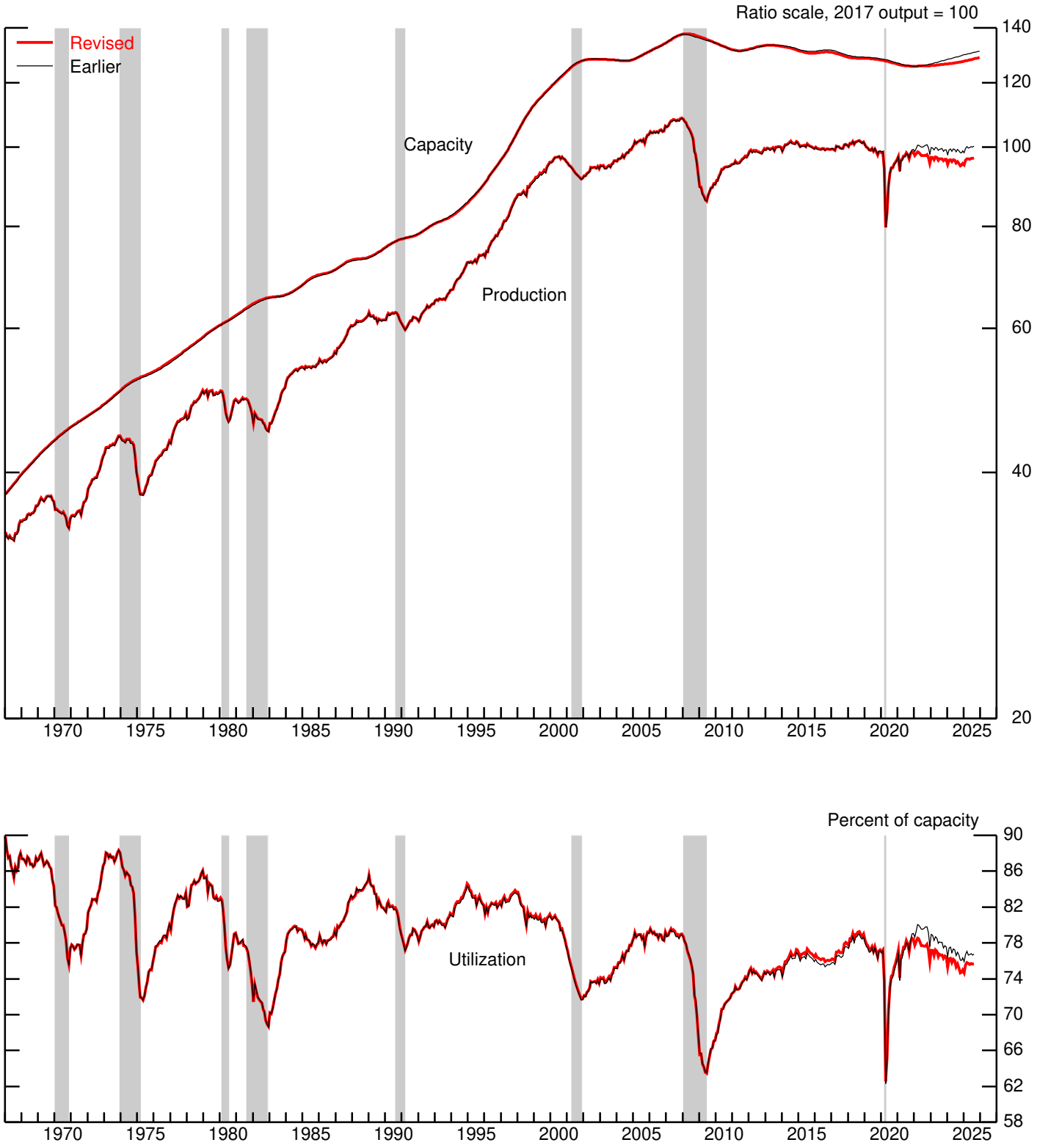
1. Total industrial production, capacity, and utilization





Note: The shaded areas represent periods of business recession as defined by the National Bureau of Economic Research (NBER).

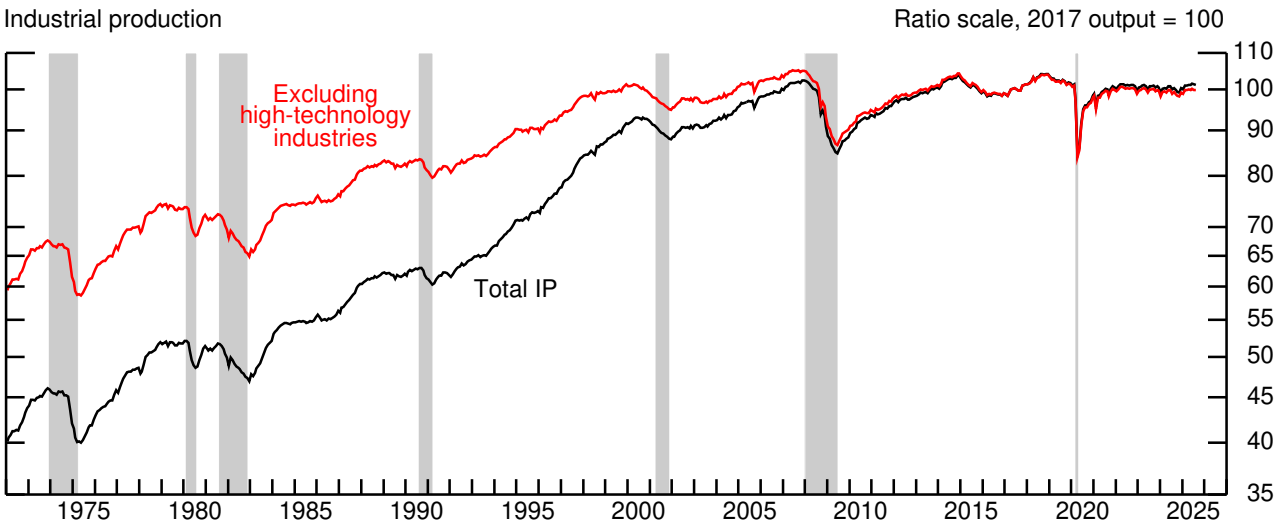
2. Manufacturing industrial production, capacity, and utilization

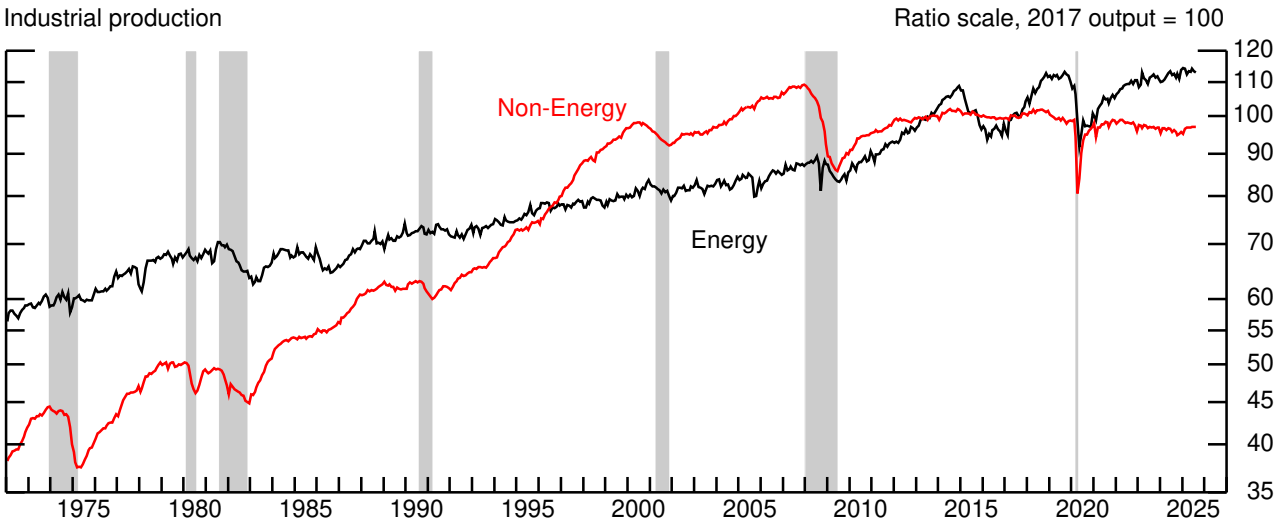


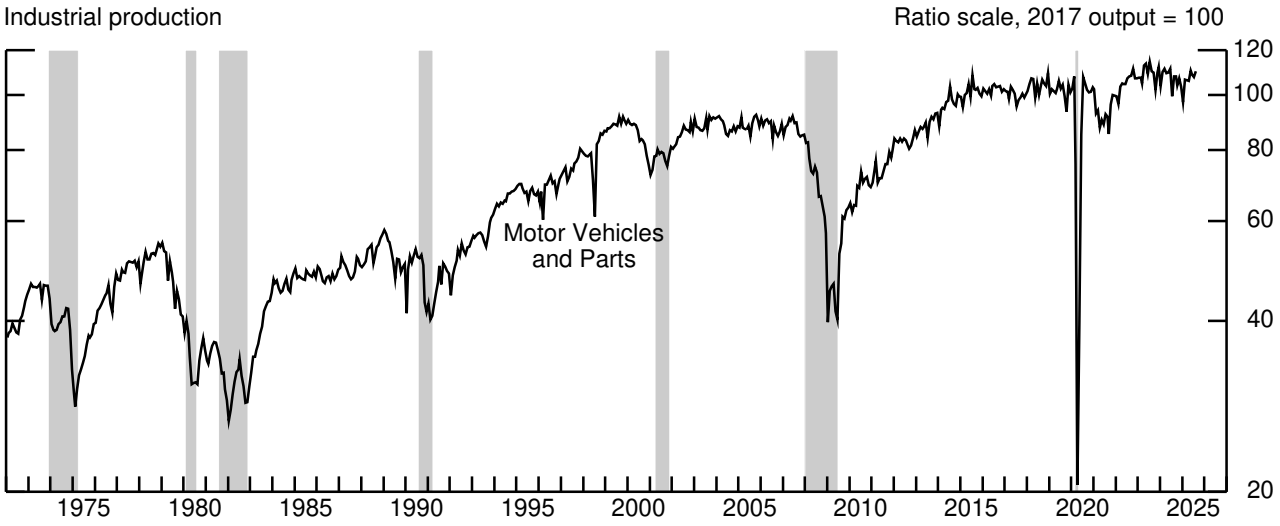
Notes: Manufacturing consists of those industries in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries--logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)--that have traditionally been considered to be manufacturing and included in the industrial sector.

The shaded areas represent periods of business recession as defined by the NBER.

3. Industrial production of selected industries

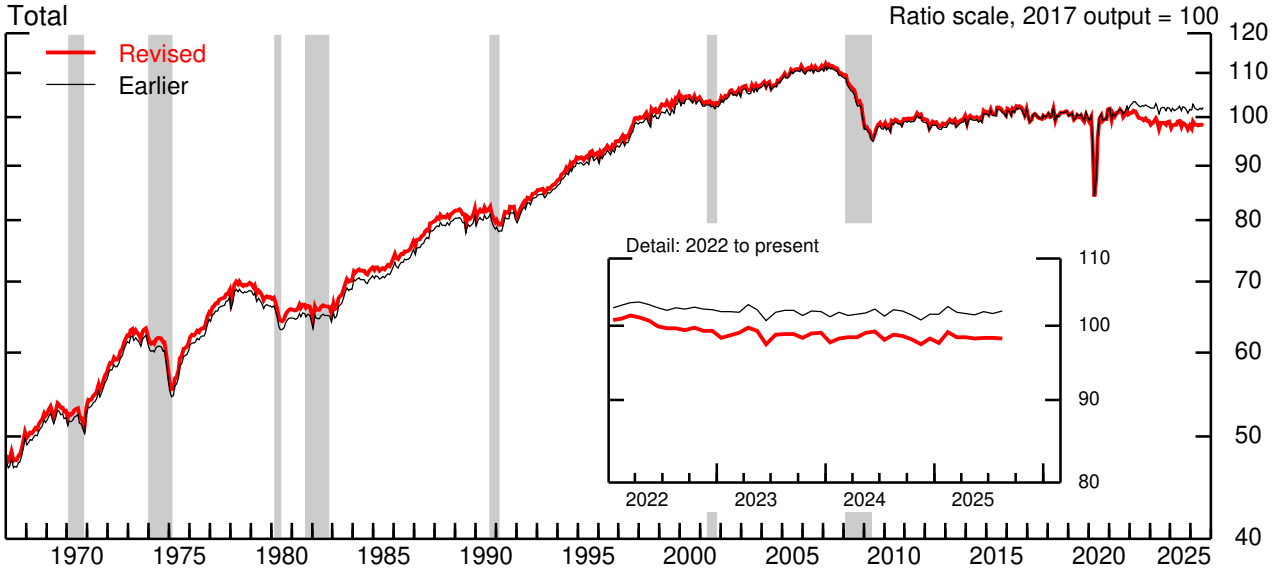


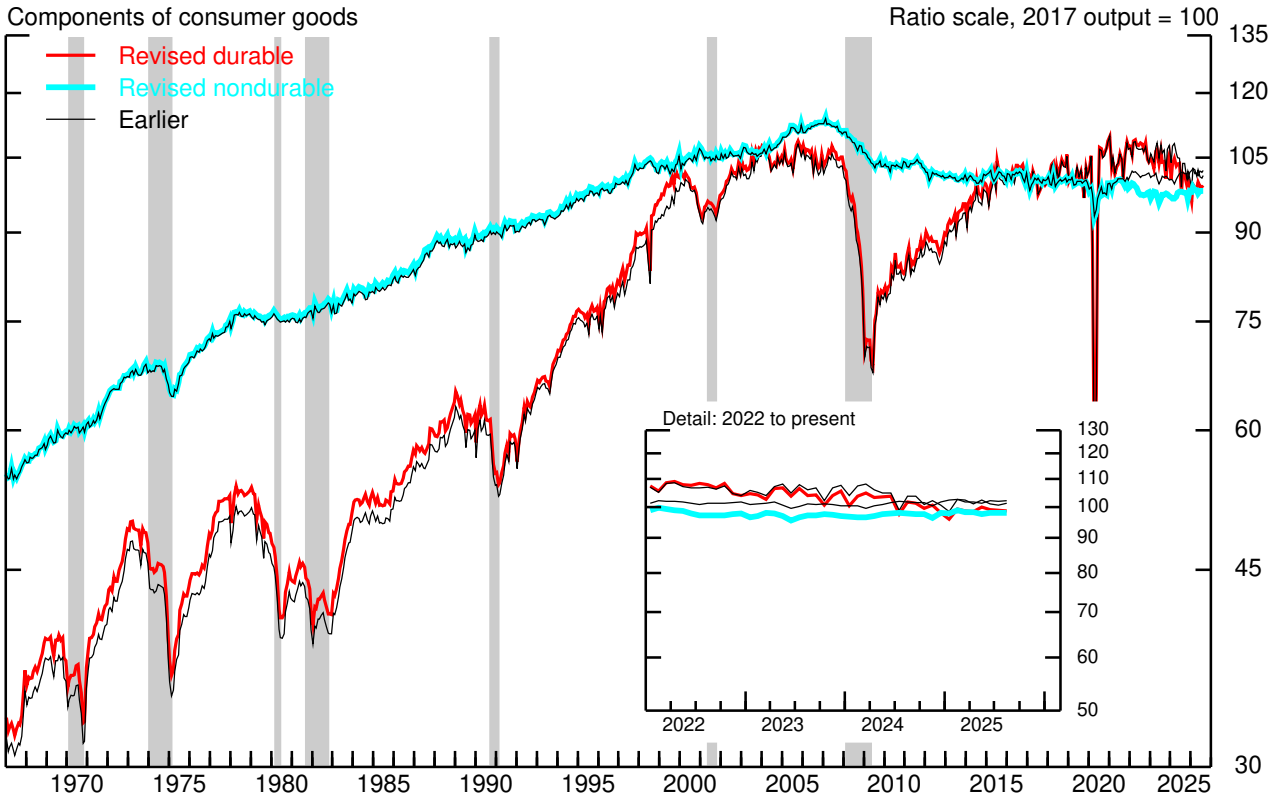




Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 3344), computers (NAICS 3341), and communications equipment (NAICS 3342).
The shaded areas represent periods of business recession as defined by the NBER.

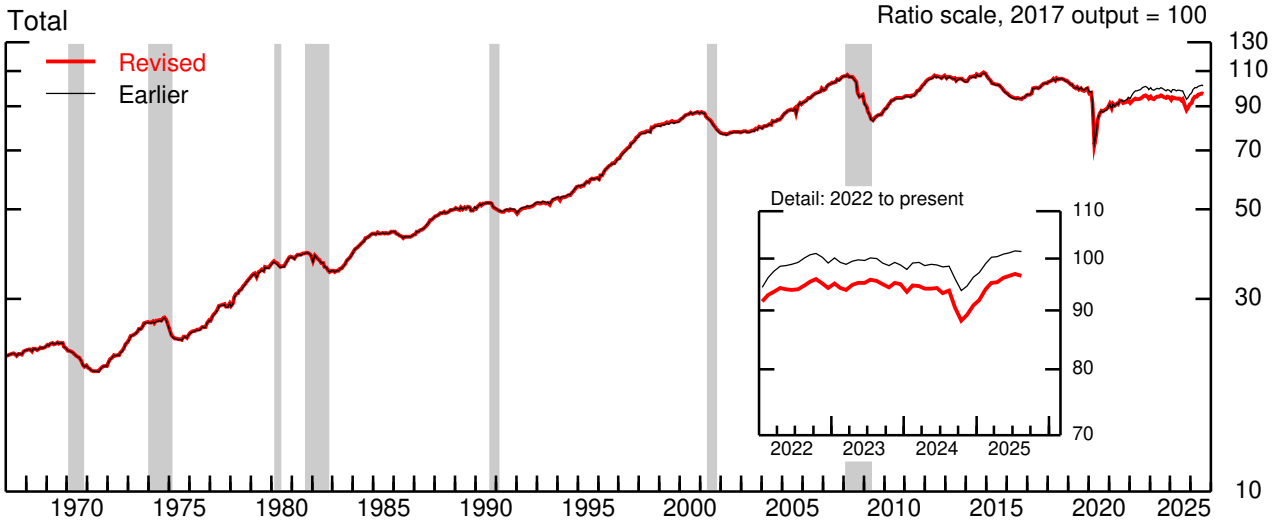
4. Consumer goods



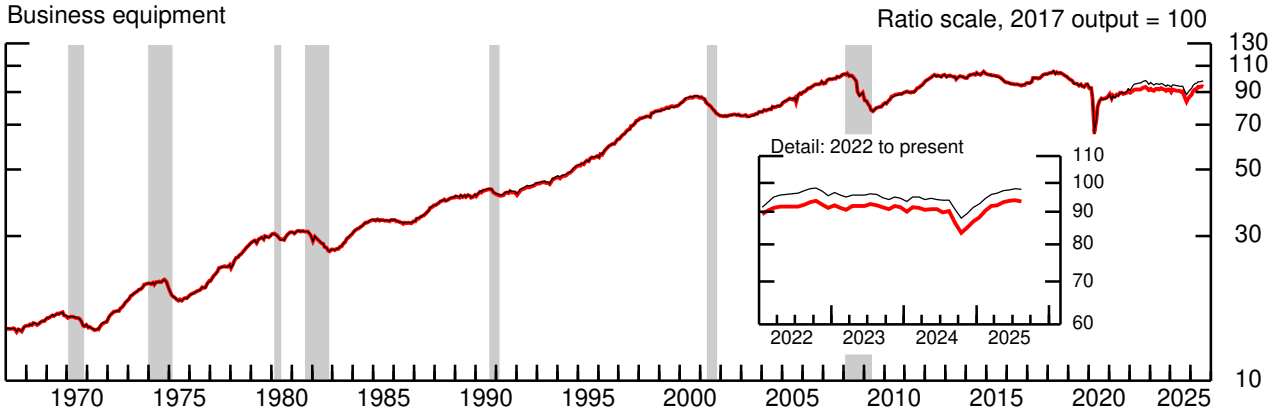


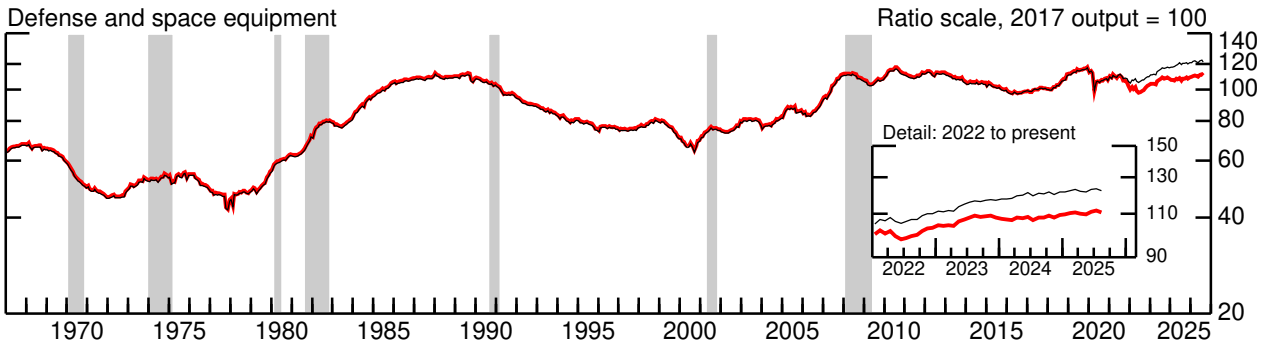
Note: The shaded areas represent periods of business recession as defined by the NBER.

5. Equipment



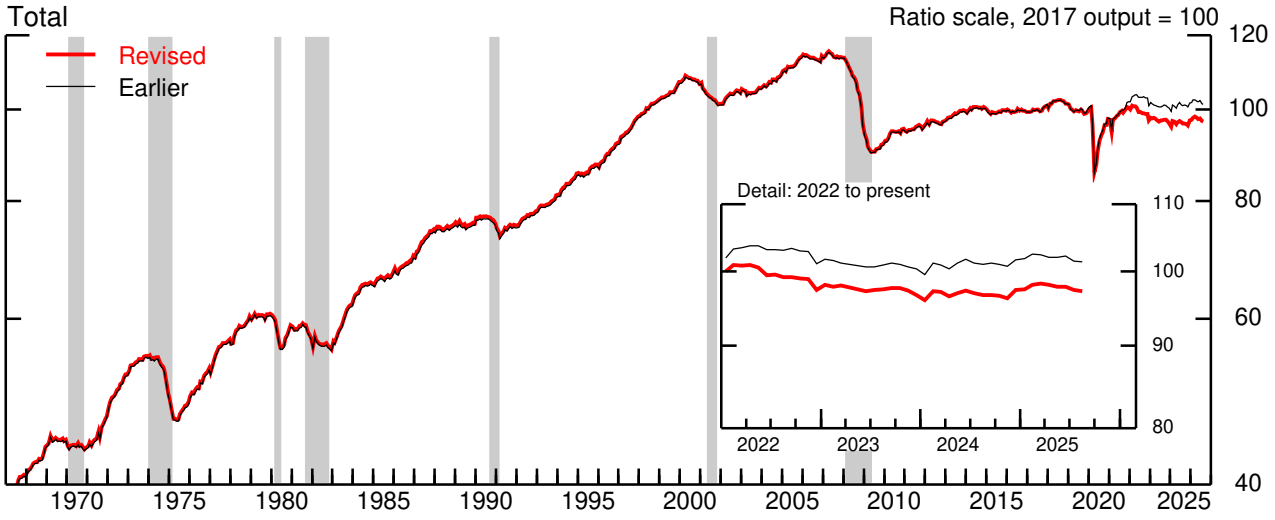
Note: Includes business equipment, defense and space equipment, oil and gas well drilling, and manufactured homes.

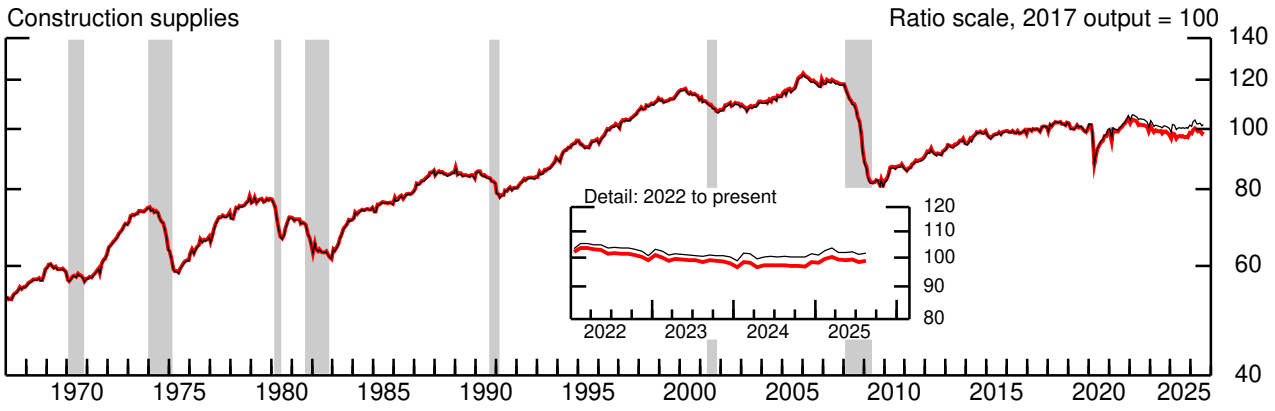


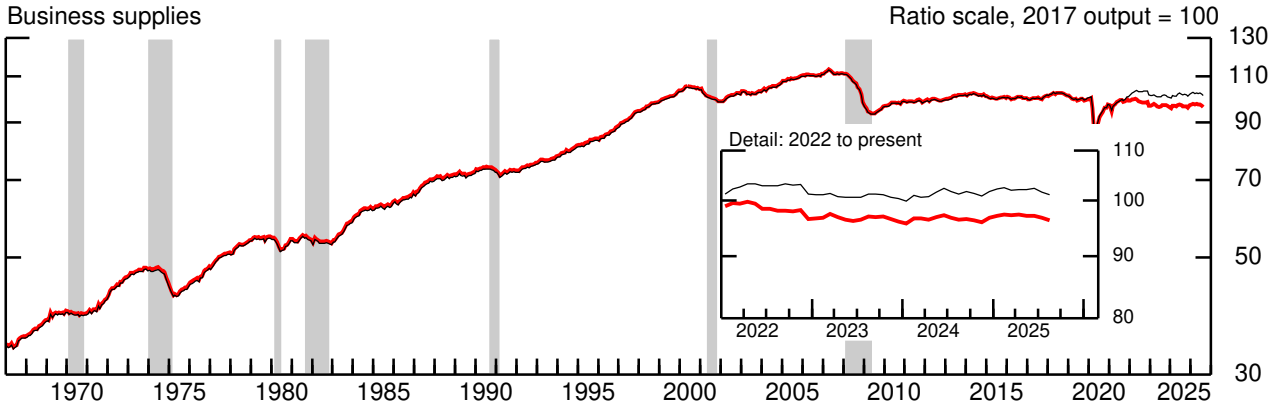


Note: The shaded areas represent periods of business recession as defined by the NBER.

6. Nonindustrial supplies

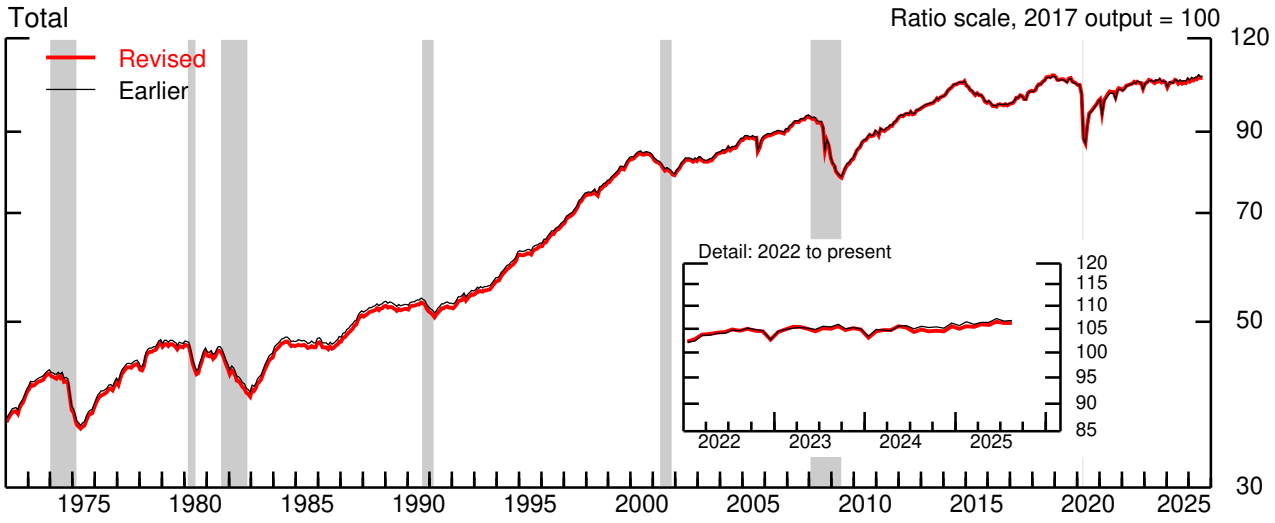


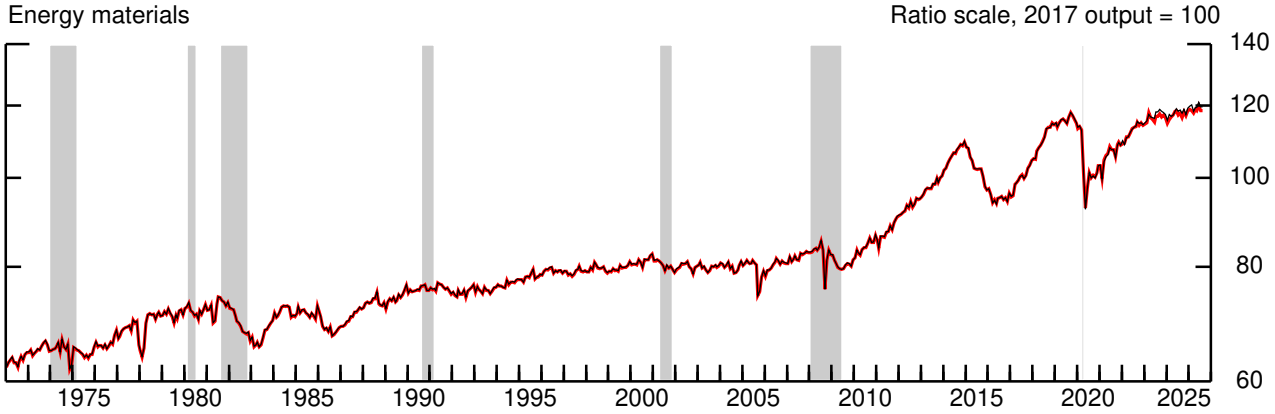


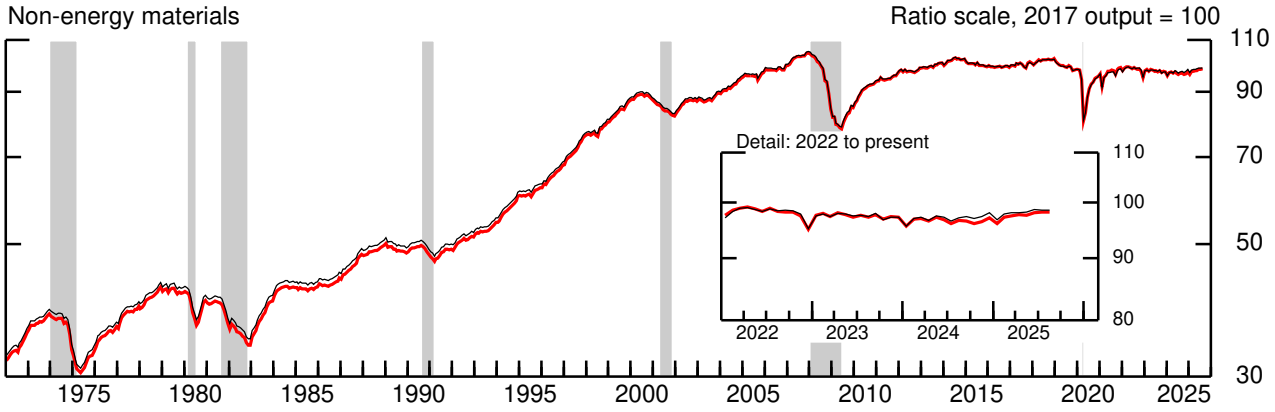


Note: The shaded areas represent periods of business recession as defined by the NBER.

7. Industrial materials

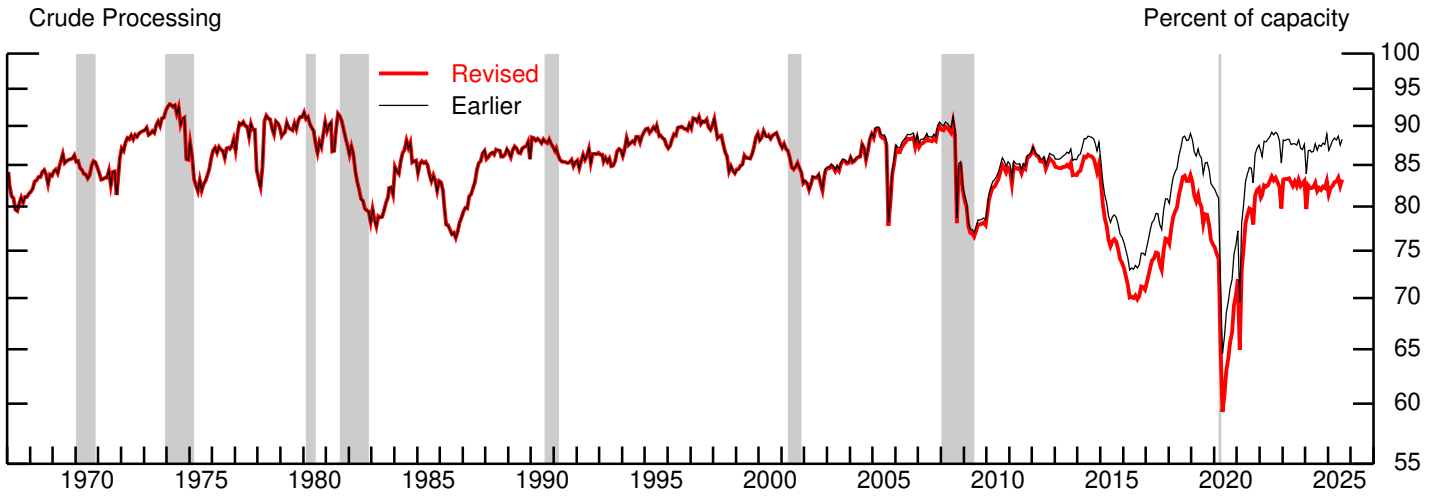


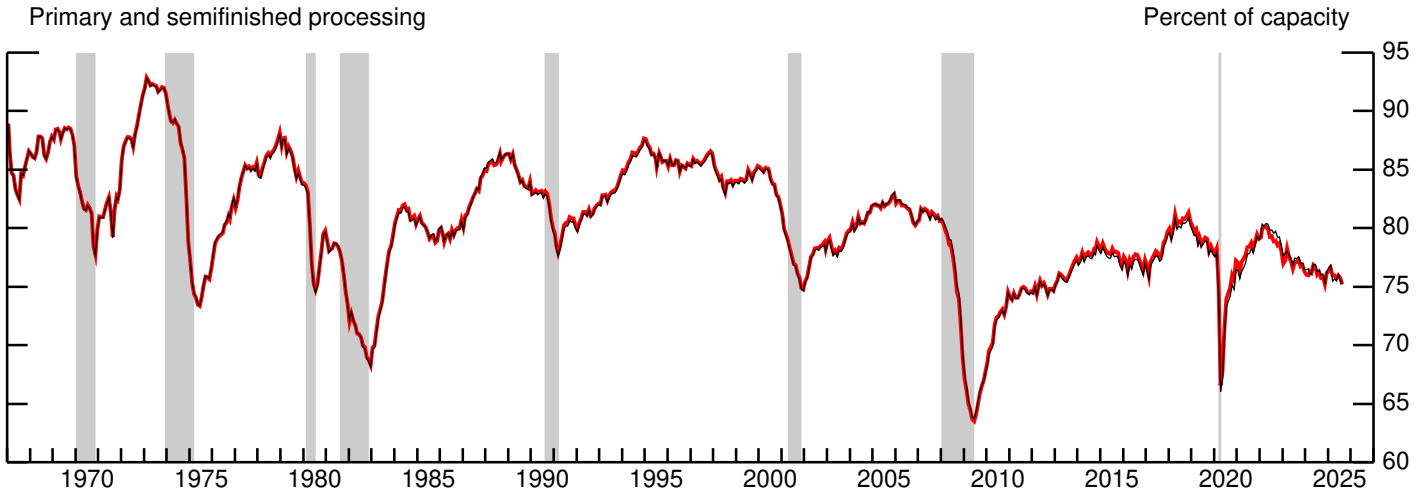


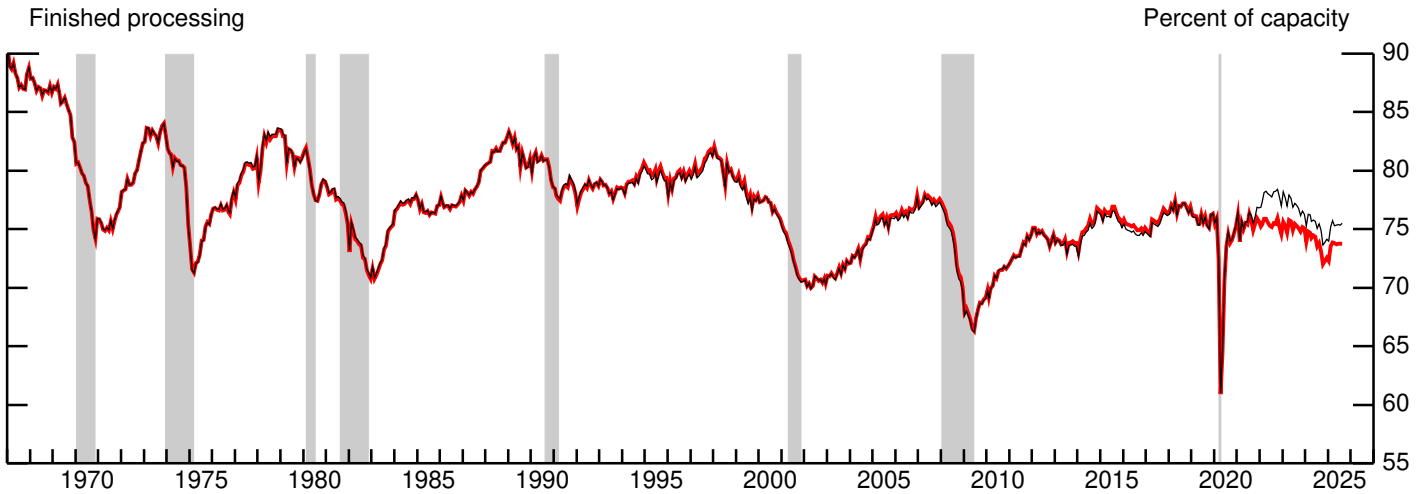


Note: The shaded areas represent periods of business recession as defined by the NBER.

8. Capacity utilization by stage of process







Note: The shaded areas represent periods of business recession as defined by the NBER.

Table 1A

INDUSTRIAL PRODUCTION: Total

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[1]
IP (*percent change*)																	
1995	.2	-.1	.2	-.2	.5	.3	-.4	1.3	.4	-.2	.3	.3	4.3	1.4	4.0	3.3	4.7
1996	-.6	1.5	-.1	1.0	.7	.8	.0	.5	.6	.0	.9	.6	2.7	8.9	5.4	5.9	4.6
1997	.2	1.2	.6	.1	.6	.5	.9	1.0	.9	.9	.8	.4	7.9	6.0	9.7	10.5	7.3
1998	.4	.2	.0	.3	.7	-.6	-.4	2.1	-.1	.7	-.1	.5	4.5	2.7	3.2	5.9	5.9
1999	.4	.6	.2	.2	.6	-.1	.6	.4	-.4	1.2	.5	.8	4.9	4.0	3.5	6.9	4.5
2000	-.1	.3	.4	.6	.3	.0	-.2	-.3	.5	-.4	.0	-.3	3.5	4.6	-.4	-1.0	3.6
2001	-.5	-.7	-.2	-.4	-.5	-.5	-.6	-.1	-.5	-.3	-.6	.0	-4.6	-4.7	-5.5	-4.2	-3.0
2002	.7	.0	.7	.5	.4	.8	.0	-.1	.1	-.2	.6	-.6	2.8	6.2	2.4	.0	.3
2003	.9	.1	-.3	-.6	.0	.1	.5	-.2	.6	.1	.7	.0	2.7	-2.8	2.7	3.8	1.4
2004	.2	.6	-.4	.4	.7	-.8	.7	.1	.1	.9	.2	.8	2.7	2.1	2.2	5.7	2.6
2005	.4	.7	-.1	.2	.1	.4	-.3	.3	-1.9	1.2	1.1	.5	5.8	2.3	-1.7	3.8	3.4
2006	.2	.0	.2	.3	.0	.3	-.1	.4	-.2	-.1	.0	1.0	4.0	2.4	1.6	.9	2.3
2007	-.3	.9	.2	.7	.1	.1	-.1	.2	.2	-.3	.5	.0	4.1	4.8	.6	1.2	2.6
2008	-.1	-.4	-.3	-.6	-.6	-.2	-.4	-1.6	-4.4	1.0	-1.3	-2.8	-1.2	-5.7	-12.2	-16.1	-3.4
2009	-2.5	-.6	-1.6	-.8	-1.0	-.4	1.1	1.1	.9	.3	.4	.4	-20.8	-10.9	6.4	6.8	-11.4
2010	1.1	.4	.7	.3	1.4	.2	.4	.4	.3	-.3	.1	1.0	8.2	7.8	5.3	1.7	5.6
2011	-.2	-.4	1.0	-.3	.1	.3	.5	.7	-.1	.7	.0	.5	2.2	1.7	4.7	4.2	3.2
2012	.6	.3	-.5	.7	.2	.0	.2	-.4	-.1	.3	.4	.2	4.0	2.6	-.1	1.9	3.1
2013	.0	.5	.4	-.1	.1	.2	-.3	.6	.5	-.1	.2	.2	3.0	1.8	1.6	2.7	2.0
2014	-.4	.8	1.0	.1	.4	.3	.2	-.2	.3	.0	.6	.0	2.8	5.6	2.2	2.2	3.0
2015	-.8	-.6	-.3	-.5	-.4	-.3	.6	-.2	-.3	-.5	-.7	-.5	-4.4	-5.4	.3	-5.4	-1.4
2016	.5	-.5	-.7	.3	-.2	.5	.1	-.2	-.1	.0	-.4	.7	-2.6	-1.3	.9	-.6	-2.2
2017	-.3	-.4	.7	1.0	.1	.2	-.2	-.4	.1	1.2	.2	.2	.0	6.0	-1.2	5.7	1.2
2018	.0	.2	.5	1.1	-.9	.8	.2	.6	.1	-.1	.1	.0	2.2	4.7	3.4	.8	3.2
2019	-.7	-.5	.0	-.6	.1	.0	-.5	.7	-.3	-.8	.5	-.2	-3.8	-2.6	-.3	-2.3	-.8
2020	-.7	.3	-3.9	-13.2	1.7	6.6	3.7	1.0	.0	.8	.4	1.3	-6.7	-41.6	43.6	7.5	-7.1
2021	.5	-3.3	2.9	.2	.9	.4	.5	-.2	-1.2	1.3	.7	-.3	1.0	6.9	1.8	3.3	4.4
2022	-.4	.6	.6	.0	-.1	-.3	.2	-.1	.2	.0	-.3	-1.2	1.0	1.9	-.2	-2.1	1.7
2023	.7	.1	.4	.2	-.3	-.8	.8	-.1	.2	-.5	.4	-.3	.3	.2	.6	-1.1	-.2
2024	-1.4	1.1	.2	-.2	.6	.0	-.9	.5	-.6	-.3	-.2	1.0	-2.6	2.7	-2.3	-1.5	-.7
2025	-.3	1.0	-.1	.2	-.1	.4	-.2	-.1					4.2	2.3			
IP (*2017=100*)																	
1995	71.3	71.2	71.3	71.2	71.5	71.8	71.5	72.4	72.7	72.6	72.8	73.0	71.3	71.5	72.2	72.8	71.9
1996	72.6	73.7	73.6	74.3	74.9	75.4	75.5	75.8	76.3	76.3	77.0	77.5	73.3	74.9	75.9	77.0	75.3
1997	77.7	78.6	79.1	79.2	79.6	80.0	80.7	81.5	82.2	82.9	83.6	84.0	78.4	79.6	81.4	83.5	80.7
1998	84.3	84.5	84.5	84.8	85.3	84.8	84.5	86.2	86.2	86.8	86.7	87.1	84.4	85.0	85.6	86.9	85.5
1999	87.5	88.0	88.2	88.4	89.0	88.9	89.4	89.8	89.4	90.5	91.0	91.7	87.9	88.8	89.6	91.0	89.3
2000	91.5	91.8	92.2	92.7	92.9	93.0	92.8	92.6	93.0	92.6	92.6	92.3	91.8	92.9	92.8	92.5	92.5
2001	91.9	91.3	91.1	90.8	90.4	89.9	89.3	89.2	88.7	88.5	88.0	87.9	91.4	90.3	89.1	88.1	89.8
2002	88.5	88.5	89.2	89.6	90.0	90.7	90.7	90.6	90.7	90.5	91.0	90.5	88.7	90.1	90.6	90.6	90.0
2003	91.2	91.3	91.1	90.6	90.5	90.7	91.1	90.9	91.5	91.6	92.2	92.3	91.2	90.6	91.2	92.0	91.3
2004	92.4	93.0	92.6	92.9	93.6	92.9	93.6	93.6	93.7	94.5	94.8	95.5	92.6	93.1	93.6	95.0	93.6
2005	95.9	96.6	96.4	96.7	96.7	97.2	96.9	97.2	95.3	96.5	97.5	98.0	96.3	96.9	96.5	97.3	96.7
2006	98.2	98.2	98.5	98.8	98.8	99.1	99.0	99.5	99.3	99.2	99.2	100.2	98.3	98.9	99.3	99.5	99.0
2007	99.8	100.8	101.0	101.6	101.7	101.8	101.7	101.9	102.1	101.8	102.3	102.4	100.5	101.7	101.9	102.2	101.6
2008	102.2	101.8	101.5	100.9	100.3	100.0	99.7	98.1	93.8	94.7	93.5	90.8	101.9	100.4	97.2	93.0	98.1
2009	88.6	88.0	86.7	85.9	85.1	84.7	85.7	86.6	87.4	87.6	88.0	88.4	87.8	85.2	86.6	88.0	86.9
2010	89.3	89.7	90.3	90.6	91.8	92.0	92.3	92.7	93.0	92.7	92.8	93.7	89.8	91.5	92.7	93.0	91.7
2011	93.5	93.1	94.1	93.8	93.9	94.2	94.6	95.3	95.2	95.9	95.8	96.4	93.6	93.9	95.0	96.0	94.6
2012	96.9	97.2	96.7	97.4	97.7	97.7	97.9	97.5	97.4	97.7	98.1	98.3	97.0	97.6	97.6	98.0	97.5
2013	98.3	98.8	99.2	99.1	99.2	99.4	99.1	99.7	100.2	100.1	100.3	100.5	98.8	99.2	99.6	100.3	99.5
2014	100.2	100.9	101.9	102.0	102.4	102.7	103.0	102.8	103.1	103.1	103.7	103.7	101.0	102.4	102.9	103.5	102.4
2015	102.9	102.2	101.9	101.3	100.9	100.6	101.2	101.0	100.8	100.3	99.5	99.0	102.3	100.9	101.0	99.6	101.0
2016	99.6	99.0	98.3	98.6	98.4	98.9	99.0	98.9	98.7	98.8	98.3	99.0	99.0	98.6	98.9	98.7	98.8
2017	98.8	98.4	99.0	100.0	100.1	100.3	100.1	99.7	99.8	101.0	101.3	101.5	98.7	100.2	99.9	101.3	100.0
2018	101.5	101.7	102.2	103.3	102.4	103.2	103.4	104.0	104.1	104.0	104.1	104.1	101.8	103.0	103.8	104.0	103.2
2019	103.4	102.8	102.9	102.3	102.4	102.4	101.9	102.6	102.3	101.4	101.9	101.7	103.0	102.4	102.3	101.7	102.3
2020	101.0	101.4	97.4	84.6	86.0	91.6	95.0	96.0	96.0	96.7	97.1	98.4	99.9	87.4	95.6	97.4	95.1
2021	98.9	95.6	98.4	98.6	99.4	99.8	100.3	100.0	98.9	100.2	100.9	100.6	97.6	99.3	99.7	100.5	99.3
2022	100.2	100.8	101.4	101.4	101.3	101.0	101.2	101.1	101.3	101.3	101.0	99.8	100.8	101.3	101.2	100.7	101.0
2023	100.5	100.6	101.0	101.3	100.9	100.1	100.9	100.8	101.0	100.5	100.9	100.6	100.7	100.8	100.9	100.6	100.8
2024	99.2	100.3	100.5	100.2	100.9	100.9	100.0	100.4	99.8	99.5	99.3	100.3	100.0	100.7	100.1	99.7	100.1
2025	100.1	101.1	101.0	101.2	101.1	101.6	101.3	101.3					100.7	101.3			

NOTE: Estimates from April 2025 through August 2025 are subject to further revision in the upcoming monthly releases.

1. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 1B

CAPACITY AND UTILIZATION: Total

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2017 output*)																	
1995	84.0	84.3	84.6	84.9	85.2	85.5	85.8	86.1	86.5	86.8	87.2	87.6	84.3	85.2	86.1	87.2	85.7
1996	88.0	88.4	88.8	89.2	89.6	90.1	90.5	90.9	91.3	91.8	92.2	92.6	88.4	89.6	90.9	92.2	90.3
1997	93.1	93.5	94.0	94.5	95.0	95.5	96.1	96.6	97.2	97.8	98.5	99.1	93.5	95.0	96.6	98.5	95.9
1998	99.8	100.5	101.1	101.8	102.4	103.0	103.6	104.2	104.7	105.2	105.7	106.2	100.5	102.4	104.2	105.7	103.2
1999	106.7	107.1	107.5	108.0	108.4	108.8	109.1	109.5	109.9	110.3	110.7	111.0	107.1	108.4	109.5	110.7	108.9
2000	111.4	111.7	112.1	112.5	112.8	113.2	113.5	113.9	114.2	114.6	114.9	115.3	111.7	112.8	113.9	114.9	113.3
2001	115.7	116.1	116.4	116.8	117.2	117.5	117.8	118.2	118.5	118.7	119.0	119.2	116.1	117.2	118.2	119.0	117.6
2002	119.4	119.6	119.8	119.9	120.0	120.0	120.1	120.1	120.1	120.1	120.0	120.0	119.6	120.0	120.1	120.0	119.9
2003	119.9	119.9	119.8	119.8	119.7	119.7	119.7	119.7	119.6	119.6	119.6	119.6	119.9	119.7	119.7	119.6	119.7
2004	119.6	119.5	119.5	119.5	119.4	119.4	119.4	119.4	119.4	119.4	119.5	119.5	119.5	119.4	119.4	119.5	119.5
2005	119.6	119.7	119.9	120.0	120.2	120.3	120.5	120.7	120.9	121.1	121.3	121.5	119.7	120.2	120.7	121.3	120.5
2006	121.7	121.9	122.1	122.3	122.5	122.7	122.9	123.2	123.5	123.7	124.0	124.3	121.9	122.5	123.2	124.0	122.9
2007	124.6	124.8	125.1	125.4	125.6	125.8	125.9	126.1	126.1	126.2	126.2	126.2	124.8	125.6	126.0	126.2	125.7
2008	126.1	126.1	126.1	126.0	126.0	126.1	126.1	126.2	126.4	126.5	126.7	126.9	126.1	126.0	126.2	126.7	126.3
2009	127.0	127.2	127.3	127.4	127.4	127.4	127.4	127.3	127.1	127.0	126.7	126.5	127.1	127.4	127.3	126.7	127.1
2010	126.3	126.0	125.8	125.5	125.2	125.0	124.8	124.6	124.4	124.3	124.2	124.1	126.0	125.2	124.6	124.2	125.0
2011	124.0	124.0	124.0	124.0	124.1	124.2	124.3	124.4	124.6	124.8	125.0	125.2	124.0	124.1	124.4	125.0	124.4
2012	125.5	125.7	125.9	126.2	126.4	126.7	126.9	127.1	127.3	127.5	127.7	127.9	125.7	126.4	127.1	127.7	126.7
2013	128.1	128.3	128.5	128.6	128.8	128.9	129.0	129.1	129.2	129.3	129.4	129.5	128.3	128.8	129.1	129.4	128.9
2014	129.7	129.8	129.9	130.0	130.1	130.2	130.3	130.5	130.6	130.7	130.8	130.9	129.8	130.1	130.5	130.8	130.3
2015	130.9	131.0	131.0	131.0	131.0	131.0	131.0	130.9	130.9	130.8	130.8	130.8	131.0	131.0	130.9	130.8	130.9
2016	130.8	130.8	130.8	130.8	130.9	130.9	131.0	131.0	131.1	131.2	131.2	131.3	130.8	130.9	131.0	131.2	131.0
2017	131.3	131.3	131.2	131.2	131.1	131.0	130.9	130.8	130.7	130.6	130.4	130.3	131.3	131.1	130.8	130.4	130.9
2018	130.2	130.1	130.1	130.0	130.0	130.0	130.1	130.2	130.2	130.3	130.5	130.6	130.2	130.0	130.2	130.5	130.2
2019	130.7	130.9	131.0	131.1	131.3	131.4	131.5	131.7	131.8	131.9	132.0	132.0	130.9	131.3	131.7	131.9	131.4
2020	132.0	132.0	132.0	132.0	131.9	131.7	131.6	131.4	131.2	131.0	130.7	130.5	132.0	131.9	131.4	130.7	131.5
2021	130.2	130.0	129.7	129.5	129.3	129.0	128.9	128.7	128.6	128.5	128.4	128.3	130.0	129.3	128.7	128.4	129.1
2022	128.3	128.3	128.3	128.3	128.4	128.5	128.6	128.7	128.9	129.0	129.2	129.3	128.3	128.4	128.7	129.2	128.6
2023	129.5	129.7	129.8	130.0	130.1	130.3	130.4	130.5	130.6	130.7	130.8	130.9	129.7	130.1	130.5	130.8	130.3
2024	131.0	131.1	131.2	131.2	131.3	131.4	131.6	131.7	131.8	131.9	132.1	132.2	131.1	131.3	131.7	132.1	131.5
2025	132.4	132.6	132.7	132.9	133.0	133.2	133.4	133.5					132.6	133.0			
Utilization (*percent*)																	
1995	84.8	84.5	84.3	83.9	84.0	84.0	83.3	84.1	84.1	83.6	83.4	83.4	84.5	83.9	83.8	83.5	83.9
1996	82.5	83.3	82.9	83.3	83.5	83.8	83.4	83.4	83.6	83.2	83.6	83.7	82.9	83.5	83.5	83.5	83.3
1997	83.4	84.0	84.1	83.8	83.8	83.7	84.0	84.3	84.6	84.8	84.9	84.7	83.9	83.8	84.3	84.8	84.2
1998	84.5	84.1	83.5	83.3	83.3	82.3	81.5	82.8	82.3	82.5	82.0	82.0	84.0	83.0	82.2	82.2	82.9
1999	82.0	82.2	82.0	81.9	82.1	81.8	81.9	82.0	81.4	82.1	82.2	82.6	82.1	81.9	81.8	82.3	82.0
2000	82.2	82.2	82.2	82.4	82.4	82.2	81.8	81.3	81.4	80.8	80.6	80.1	82.2	82.3	81.5	80.5	81.6
2001	79.4	78.7	78.2	77.7	77.1	76.5	75.8	75.5	74.9	74.5	73.9	73.8	78.8	77.1	75.4	74.1	76.3
2002	74.1	74.0	74.5	74.7	75.0	75.6	75.5	75.4	75.5	75.4	75.8	75.4	74.2	75.1	75.5	75.5	75.1
2003	76.1	76.2	76.0	75.6	75.6	75.7	76.1	76.0	76.5	76.6	77.1	77.1	76.1	75.6	76.2	77.0	76.2
2004	77.3	77.8	77.5	77.8	78.4	77.8	78.4	78.4	78.5	79.2	79.3	79.9	77.5	78.0	78.4	79.5	78.3
2005	80.1	80.7	80.5	80.5	80.5	80.8	80.4	80.5	78.8	79.7	80.4	80.7	80.4	80.6	79.9	80.3	80.3
2006	80.7	80.6	80.7	80.8	80.7	80.8	80.6	80.8	80.4	80.2	80.0	80.6	80.7	80.7	80.6	80.2	80.6
2007	80.1	80.7	80.7	81.1	81.0	80.9	80.7	80.8	80.9	80.7	81.1	81.1	80.5	81.0	80.8	81.0	80.8
2008	81.1	80.8	80.5	80.0	79.6	79.4	79.0	77.7	74.2	74.9	73.8	71.6	80.8	79.7	77.0	73.4	77.7
2009	69.7	69.2	68.1	67.5	66.8	66.5	67.3	68.1	68.8	69.0	69.4	69.9	69.0	66.9	68.0	69.4	68.4
2010	70.8	71.2	71.8	72.2	73.3	73.6	74.0	74.4	74.7	74.6	74.7	75.5	71.2	73.0	74.4	74.9	73.4
2011	75.4	75.1	75.9	75.6	75.7	75.8	76.1	76.6	76.4	76.8	76.7	76.9	75.4	75.7	76.4	76.8	76.1
2012	77.3	77.4	76.8	77.2	77.3	77.1	77.1	76.7	76.5	76.6	76.8	76.8	77.2	77.2	76.8	76.7	77.0
2013	76.8	77.0	77.2	77.1	77.0	77.1	76.8	77.2	77.5	77.4	77.5	77.6	77.0	77.1	77.2	77.5	77.2
2014	77.3	77.8	78.5	78.5	78.7	78.9	79.0	78.8	78.9	78.9	79.3	79.2	77.8	78.7	78.9	79.1	78.6
2015	78.6	78.1	77.8	77.3	77.0	76.8	77.3	77.2	77.0	76.6	76.1	75.7	78.1	77.0	77.1	76.1	77.1
2016	76.1	75.7	75.2	75.4	75.2	75.5	75.6	75.4	75.3	75.3	74.9	75.4	75.7	75.4	75.4	75.2	75.4
2017	75.2	74.9	75.4	76.2	76.4	76.6	76.5	76.2	76.4	77.4	77.6	77.9	75.2	76.4	76.3	77.6	76.4
2018	77.9	78.2	78.6	79.5	78.8	79.4	79.5	79.9	79.9	79.8	79.8	79.7	78.2	79.2	79.8	79.8	79.2
2019	79.1	78.6	78.5	78.0	78.0	77.9	77.5	77.9	77.6	76.9	77.3	77.0	78.7	78.0	77.7	77.1	77.9
2020	76.5	76.8	73.8	64.1	65.2	69.5	72.2	73.0	73.1	73.9	74.3	75.4	75.7	66.3	72.8	74.5	72.3
2021	75.9	73.6	75.8	76.1	76.9	77.3	77.8	77.7	76.9	78.0	78.6	78.4	75.1	76.8	77.5	78.3	76.9
2022	78.1	78.6	79.0	79.0	78.9	78.6	78.7	78.5	78.6	78.5	78.2	77.1	78.6	78.9	78.6	77.9	78.5
2023	77.6	77.6	77.8	77.9	77.5	76.8	77.4	77.3	77.3	76.9	77.1	76.9	77.7	77.4	77.3	76.9	77.3
2024	75.8	76.5	76.6	76.4	76.8	76.8	76.0	76.3	75.7	75.4	75.2	75.9	76.3	76.6	76.0	75.5	76.1
2025	75.6	76.3	76.1	76.2	76.0	76.2	76.0	75.8					76.0	76.2			

NOTE: Estimates from April 2025 through August 2025 are subject to further revision in the upcoming monthly releases.

Table 2
Rates Of Change in Industrial Production, Market and Industry Group Summary: 2020–24[1]

Item		Revised change (percent)					Difference between revised and earlier changes (percentage points)				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Total IP		-4.2	3.2	.1	.0	-.9	.4	-.6	-1.7	.1	-.7
Market Groups											
Final products and nonindustrial supplies		-2.7	2.2	-.8	-.8	-1.7	.4	-1.1	-2.7	.2	-.8
Consumer goods		.4	.6	-1.4	-.7	-.8	.3	-1.0	-2.1	-.1	-.3
Durable		7.0	.0	-1.5	-2.1	-3.9	.3	.2	-.2	-2.3	.2
Automotive products		9.8	-3.4	3.5	-2.4	-4.1	-.2	1.7	2.8	-3.9	2.5
Home electronics		13.5	11.4	1.8	7.8	2.1	-1.8	2.0	2.3	-12.3	-4.0
Appliances, furniture, carpeting		3.3	3.1	-8.3	-4.5	-4.4	-.6	1.4	.7	.1	-1.9
Miscellaneous goods		2.4	5.0	-8.1	-1.1	-3.7	2.1	-4.1	-7.2	.2	-2.7
Nondurable		-1.5	.9	-1.4	-.3	.0	.4	-1.4	-2.6	.5	-.5
Non-energy		.0	-.2	-2.4	.4	-.2	.3	-1.4	-3.1	.7	-.5
Foods and tobacco		1.1	-.6	-1.4	-.7	-1.7	.3	-.4	-1.0	.7	.4
Clothing		-8.8	8.9	.4	-5.9	-12.3	-.7	3.7	1.1	4.0	-2.9
Chemical products		-.7	.5	-3.6	4.9	4.9	.8	-3.2	-6.8	1.8	-1.6
Paper products		-4.4	-1.5	-7.0	-8.0	-3.5	-1.1	-1.6	-2.8	-2.0	.8
Energy		-7.3	5.2	1.2	-2.0	.7	.3	-1.1	-1.3	.0	-.4
Business equipment		-9.0	4.2	3.0	-1.0	-6.8	.9	-1.7	-3.8	1.3	-1.6
Transit		-18.0	-4.3	16.9	8.9	-18.4	1.2	-1.2	-2.3	9.3	4.3
Information processing		-6.5	11.6	2.9	-3.6	2.8	-.3	2.1	3.9	-4.4	-.6
Industrial and other		-5.9	4.1	-1.5	-3.9	-5.5	1.2	-3.2	-7.6	.2	-3.2
Defense and space equipment		-7.5	-2.7	-2.3	5.9	.2	-.2	-2.9	-4.0	-.9	-3.1
Construction supplies		-1.4	5.5	-2.9	-1.7	-1.0	-.6	.0	-1.1	-.2	-1.1
Business supplies		-2.9	2.7	-1.4	-1.0	-.2	.2	-1.2	-3.6	.6	-.8
Materials		-6.3	4.6	1.2	.9	.0	.1	.2	-.6	-.1	-.5
Non-energy		-2.7	3.4	-1.5	.2	-.6	.1	.3	-.7	.3	-1.0
Durable		-4.5	3.2	1.2	-.4	-1.8	-.2	.4	-.3	.0	-1.4
Consumer parts		-2.1	-3.7	7.8	2.8	-4.6	-.9	1.8	4.1	-1.1	-.5
Equipment parts		-6.6	6.9	2.1	-1.1	1.7	-.2	-.1	-1.1	-1.0	-2.1
Other		-4.2	3.8	-1.3	-1.0	-3.0	.0	.2	-1.4	.8	-1.6
Nondurable		.2	3.6	-5.7	1.3	1.4	.7	.1	-1.3	.9	-.4
Textile		-4.0	-5.0	-15.1	-4.5	1.5	2.5	-6.7	-7.2	2.3	-1.4
Paper		-5.1	-.9	-9.4	-3.5	1.3	3.3	-1.0	-4.8	1.7	-1.4
Chemical		1.7	6.4	-8.2	4.9	2.7	.0	-.1	-1.9	1.4	-.5
Energy		-12.3	7.2	5.0	2.0	.9	.2	-.1	-.3	-.7	.3
Industry Groups											
Manufacturing[2]		-2.5	2.6	-1.7	-.3	-1.5	.3	-.8	-2.2	.1	-.9
Manufacturing (NAICS)	31–33	-2.5	2.7	-1.7	-.1	-1.4	.4	-.8	-2.2	.2	-1.0
Durable manufacturing		-3.6	3.1	1.2	-1.3	-2.8	.1	-.2	-1.0	-.9	-1.2
Wood products	321	1.7	1.0	-2.6	-2.5	2.4	-.4	.6	2.0	-1.1	.5
Nonmetallic mineral products	327	1.5	1.3	-.1	-2.5	-3.7	1.1	-1.2	-4.6	.5	-1.0
Primary metals	331	-5.1	8.8	-.4	-.8	-2.8	-.8	2.9	4.9	-2.7	-.8
Fabricated metal products	332	-7.4	5.5	-.4	-3.0	-3.2	-.1	-.7	-2.3	-1.2	-1.6
Machinery	333	-6.3	6.4	-1.5	-4.7	-3.6	.8	-2.0	-4.9	-1.0	-2.9
Computer and electronic products	334	-1.3	7.5	3.7	-1.2	3.8	-.5	1.7	3.1	-4.1	-.7
Electrical equip., appliances, and components	335	-.2	.9	-3.4	2.0	-.5	.2	-2.9	-6.1	3.1	-3.1
Motor vehicles and parts	3361–3	2.4	-3.2	9.9	-.5	-2.8	-.4	1.9	4.1	-2.1	.7
Aerospace and miscellaneous transportation equipment	3364–9	-12.6	-2.9	5.6	4.9	-8.7	.6	-1.5	-4.1	2.0	1.2
Furniture and related products	337	-7.4	4.5	-2.3	-9.9	-4.4	-.5	1.9	1.2	.6	-.8
Miscellaneous	339	.1	3.5	-5.8	1.8	-7.6	1.3	-4.2	-9.4	1.1	-3.2
Nondurable manufacturing		-1.4	2.3	-4.6	1.3	.2	.6	-1.4	-3.5	1.4	-.7
Food, beverage, and tobacco products	311,2	1.0	-.2	-.6	-.8	-1.4	.2	-.2	-.6	.6	.4
Textile and product mills	313,4	-2.6	-2.0	-14.3	-3.2	-.4	2.1	-5.6	-4.6	3.3	.2
Apparel and leather	315,6	-8.6	8.8	.4	-5.1	-11.5	-.6	3.0	.2	3.7	-3.0
Paper	322	-2.9	-2.5	-9.3	-2.9	.1	1.2	-1.4	-3.3	.4	-1.3
Printing and support	323	-7.7	2.0	-2.7	-11.3	2.5	.5	-1.5	-3.9	-1.1	-1.3
Petroleum and coal products	324	-18.4	16.6	-6.0	4.6	1.4	.4	-1.2	-3.4	.8	-.6
Chemicals	325	.8	3.5	-6.7	4.2	3.7	.7	-2.2	-5.4	2.1	-1.1
Plastics and rubber products	326	.6	.4	-6.1	4.8	-5.6	1.1	-2.6	-6.4	4.5	-1.5
Other manufacturing (non-NAICS)	**1133,5131pt.**	-2.6	.1	-1.9	-10.2	-5.6	-.1	.4	-.2	-2.1	.4
Mining	**21**	-17.7	10.9	6.0	2.4	-.6	-.1	.5	-.1	-.3	-.2
Utilities	**2211,2**	-2.3	.3	4.1	-.9	1.9	.0	.1	.0	.3	.5
Electric	2211	-1.4	.7	2.7	.2	2.3	.1	.1	.0	.1	.3
Natural gas	2212	-8.5	-1.9	13.1	-7.4	-1.0	-.1	.1	-.2	1.2	1.6

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.

2. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing plus those industries–logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)–that have traditionally been considered to be a part of manufacturing and are included in the industrial sector.

Table 3
Rates Of Change in Industrial Production, Special Aggregates and Selected Detail: 2020–24[1]

Item		Revised change (percent)					Difference between revised and earlier changes (percentage points)				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Total industry		-4.2	3.2	.1	.0	-.9	.4	-.6	-1.7	.1	-.7
Energy		-11.8	7.2	4.5	1.1	1.0	.3	-.4	-.7	-.2	.2
Consumer products		-7.3	5.2	1.2	-2.0	.7	.3	-1.1	-1.3	.0	-.4
Commercial products		-8.5	5.8	5.0	2.0	3.1	-.3	-.3	-1.2	1.6	-.5
Oil and gas well drilling	213111	-48.8	58.2	20.3	-5.3	-5.8	-.3	-1.0	-1.1	2.6	3.4
Converted fuel		-3.6	3.3	2.3	2.0	2.4	.1	-.8	-1.0	-.3	.6
Primary energy		-16.2	9.0	6.0	2.1	.2	.2	.3	-.1	-.8	.2
Non-energy		-1.9	2.2	-1.6	-.4	-1.6	.3	-.6	-2.0	.2	-.9
Selected high-technology industries		5.1	7.5	10.2	4.2	8.0	-.8	2.5	3.7	-3.6	.4
Computers and peripheral equipment	3341	-6.4	11.9	-2.7	6.8	12.5	1.9	-6.5	-10.9	-.1	4.1
Communications equipment	3342	-1.0	27.8	23.0	3.6	5.6	-3.0	9.8	12.6	-10.8	-.9
Semiconductors and related electronic components	3344	8.9	1.4	8.2	4.0	8.2	-.6	1.9	3.2	-1.9	.5
Excluding selected high-technology industries		-2.1	2.0	-1.9	-.5	-1.9	.3	-.7	-2.2	.3	-1.0
Motor vehicles and parts	3361–3	2.4	-3.2	9.9	-.5	-2.8	-.4	1.9	4.1	-2.1	.7
Motor vehicles	3361	6.8	-8.5	17.0	-.7	-2.9	-.2	1.6	6.0	-2.0	1.2
Motor vehicle parts	3363	-1.5	-1.9	9.9	.0	-.5	-.5	2.2	2.6	-2.6	.1
Excluding motor vehicles and parts		-2.6	2.5	-2.8	-.5	-1.8	.4	-.9	-2.7	.5	-1.1
Consumer goods		.5	.5	-3.2	.0	-.8	.4	-1.5	-3.1	.5	-.5
Business equipment		-8.4	3.1	.5	-2.0	-8.8	.9	-2.1	-5.5	1.0	-2.3
Construction supplies		-1.4	5.4	-2.9	-1.7	-1.0	-.5	.0	-1.2	-.2	-1.1
Business supplies		-1.4	1.7	-4.1	-2.4	-2.0	.4	-1.7	-4.8	.4	-1.1
Materials		-3.5	4.2	-3.1	.1	-.9	.2	.1	-1.3	.7	-1.2
Measures excluding selected high-technology industries											
Total industry		-4.4	3.1	-.1	-.1	-1.1	.4	-.7	-1.8	.2	-.7
Manufacturing[2]		-2.7	2.5	-2.0	-.4	-1.7	.4	-.9	-2.4	.2	-1.0
Durable		-4.1	2.8	.7	-1.6	-3.5	.2	-.3	-1.3	-.7	-1.3
Measures excluding motor vehicles and parts											
Total industry		-4.7	3.7	-.4	.0	-.8	.4	-.7	-2.0	.2	-.7
Manufacturing[2]		-2.9	3.2	-2.5	-.3	-1.3	.4	-1.0	-2.7	.3	-1.1
Durable		-4.6	4.3	-.2	-1.5	-2.9	.2	-.6	-1.9	-.7	-1.5
Measures excluding selected high-technology industries and motor vehicles and parts											
Total industry		-4.9	3.6	-.7	-.1	-1.0	.4	-.8	-2.2	.3	-.8
Manufacturing[2]		-3.2	3.1	-2.9	-.4	-1.6	.4	-1.1	-2.9	.4	-1.1
Stage-of-process components of non-energy materials, measures of the input to											
Finished processors		-4.8	1.9	1.5	-.3	-.3	.3	.2	.0	-.4	-1.4
Primary and semifinished processors		-1.5	4.2	-3.1	.6	-.8	.0	.3	-1.1	.8	-.8
STAGE-OF-PROCESS GROUPS											
Crude		-10.7	6.6	1.4	2.8	.4	.3	-.1	-1.2	.0	-.4
Primary and semifinished		-3.8	3.4	-.5	-1.1	.0	.1	-.2	-1.2	.0	-.5
Finished		-2.2	1.6	.0	.1	-2.8	.6	-1.2	-2.7	.3	-1.0

1. See footnote 1 to table 2.
2. See footnote 2 to table 2.

Table 4

ANNUAL RATES OF CHANGE FOR INDUSTRIAL PRODUCTION: 2020–24[1]

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Total IP	-7.1	4.4	1.7	-.2	-.7	.0	.0	-1.7	-.4	-.4
MARKET GROUPS										
Consumer goods	-3.3	4.2	-.6	-1.4	-.4	.0	-.2	-2.2	-.7	-.3
Durable	-5.0	9.5	2.3	-2.5	-2.8	.5	-.4	.6	-2.0	-.9
Nondurable	-2.9	2.7	-1.5	-1.1	.3	-.1	-.2	-2.9	-.4	-.1
Business equipment	-12.8	5.7	3.7	.0	-3.0	.1	.0	-4.6	.4	-.4
Defense and space equipment	-6.0	.5	-7.3	6.3	1.1	-.4	-1.0	-5.5	-.4	-3.4
Construction supplies	-4.3	4.5	1.6	-2.6	-1.8	-.5	-.3	-1.1	-.2	-1.1
Business supplies	-6.0	4.7	.6	-1.8	-.2	-.2	.0	-3.8	-.2	-.5
Materials	-8.5	4.3	3.2	1.0	-.3	.0	.3	-.3	-.2	-.2
Non-energy	-7.2	5.1	1.4	-.7	-.9	.0	.4	-.4	.0	-.4
Energy	-10.7	3.0	5.9	3.3	.7	.1	.1	-.3	-.5	.1
INDUSTRY GROUPS										
Manufacturing[2]	-6.5	4.9	.4	-.9	-1.0	.0	.0	-2.3	-.4	-.5
Manufacturing (NAICS)	-6.5	5.0	.4	-.8	-.9	.0	.0	-2.3	-.4	-.5
Durable manufacturing	-8.9	6.0	3.0	-.5	-2.1	.0	-.1	-1.0	-.7	-1.2
Nondurable manufacturing	-3.9	3.9	-2.2	-1.0	.4	.0	.1	-3.7	-.1	.2
Other manufacturing (non-NAICS)	-7.7	2.9	.7	-8.2	-5.1	.0	.0	.0	-1.5	.1
Mining	-14.9	3.5	7.7	4.6	-1.0	-.2	.3	.3	-.2	-.1
Utilities	-2.9	2.0	3.0	-1.6	2.0	.0	.0	.0	.3	.0

1. The rates of change are calculated as the percent change in the annual averages of not seasonally adjusted industrial production indexes rather than as the percent change between the fourth quarter of one year and the fourth quarter of the next.
2. See footnote 2 to table 2.

Table 5

RATES OF CHANGE IN CAPACITY, BY INDUSTRY GROUPS: 2021–25[1]

Item	Revised change (percent)					Difference between revised and earlier changes (percentage points)				
	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
Total industry	-1.8	.6	1.3	1.0	1.5	.4	-.4	-1.1	-.2	-.1
Manufacturing[2]	-.7	.1	.4	.7	1.1	.3	-.3	-.8	-.6	-.1
Manufacturing (NAICS)	-.6	.2	.6	.8	1.2	.3	-.4	-.8	-.6	-.1
Durable manufacturing	-.2	.8	.1	1.0	1.1	.3	-.3	-.9	-.6	-.3
Nondurable manufacturing	-.7	-.4	1.0	.6	1.4	.4	-.5	-.7	-.7	.2
Other manufacturing (non-NAICS)	-5.7	-4.6	-4.6	-4.9	-5.0	-.3	.8	.4	-.3	-.7
Mining	-12.2	2.9	1.7	.9	-.3	-2.4	-.6	-1.7	1.7	-1.2
Utilities	1.3	1.9	3.0	3.2	4.4	.0	-.4	-.6	-.3	.7
Selected high-technology industries	.0	7.7	15.2	10.7	16.5	-.1	3.3	5.4	-1.3	5.7
Manufacturing[2] ex. selected high-technology industries	-.7	-.1	.1	.4	.7	.3	-.4	-1.0	-.6	-.3
STAGE-OF-PROCESS GROUPS										
Crude	-9.5	2.0	1.4	.5	-.3	-1.4	-.6	-1.4	1.0	-1.1
Primary and semifinished	-.4	.5	1.2	1.0	1.8	.6	-.2	-.5	-.5	.1
Finished	.0	.3	.4	1.2	1.6	.0	-.6	-1.2	-.6	.1

1. Rates of change are calculated as the percent change in the seasonally adjusted index from the fourth quarter of the previous year to the fourth quarter of the year specified in the column heading.
2. See footnote 2 to table 2.

Table 6

Revised and Earlier Capacity Utilization Rates, by Industry Groups

Percent of capacity, seasonally adjusted

Item		Revised Rate					Difference between revised and earlier rates (percentage points)			
		1972-2024 Ave.	2021 Q4	2022 Q4	2023 Q4	2024 Q4	2021 Q4	2022 Q4	2023 Q4	2024 Q4
Total industry		79.5	78.3	77.9	76.9	75.5	-1.2	-2.2	-1.3	-1.7
Manufacturing[1]		78.2	78.4	77.0	76.4	74.8	-.4	-1.9	-1.1	-1.4
Manufacturing (NAICS)	31–33	78.2	78.3	76.8	76.3	74.7	-.5	-2.0	-1.2	-1.4
Durable manufacturing		76.8	75.5	75.8	74.8	71.9	-.8	-1.4	-1.3	-1.7
Wood products	321	76.8	83.1	77.8	73.0	72.8	.1	-.6	-3.5	-4.6
Nonmetallic mineral products	327	73.9	79.3	80.4	79.8	77.9	-.2	-3.2	-1.1	-1.1
Primary metals	331	77.3	75.0	70.6	69.6	65.3	.4	1.2	-1.1	-2.9
Fabricated metal products	332	78.6	77.9	77.8	76.1	74.2	1.1	-.1	-.3	-1.2
Machinery	333	78.2	79.7	80.4	78.7	76.9	-1.3	-3.9	-3.2	-3.9
Computer and electronic products	334	77.1	76.0	77.8	73.6	73.9	-2.8	.7	-2.5	-1.0
Electrical equip., appliances, and components	335	81.6	78.2	78.7	84.1	85.7	-2.1	-2.7	4.0	4.4
Motor vehicles and parts	3361–3	74.5	69.0	73.1	71.5	66.4	-.5	.7	-.1	-1.3
Aerospace and miscellaneous transportation equipment	3364–9	73.5	61.0	64.3	67.2	60.9	-1.3	-4.1	-3.4	-2.6
Furniture and related products	337	77.6	82.5	79.3	71.3	68.9	2.0	2.4	1.8	-.3
Miscellaneous	339	77.2	86.7	82.7	83.8	78.4	-1.2	-3.2	1.9	4.5
Nondurable manufacturing		80.0	81.3	77.9	78.1	77.9	-.1	-2.6	-.9	-.9
Food, beverage, and tobacco products	311,2	80.2	80.5	80.8	80.6	79.7	.0	-.7	.1	.4
Textile and product mills	313,4	77.4	74.5	68.1	68.6	70.4	-.5	-2.1	.5	.4
Apparel and leather	315,6	75.8	74.4	76.8	73.4	66.8	1.0	3.8	7.8	6.2
Paper	322	86.6	90.2	82.3	79.8	80.7	1.7	-1.2	-1.7	-2.2
Printing and support	323	78.9	77.4	77.5	69.7	72.3	-.7	-2.9	-2.5	-2.0
Petroleum and coal products	324	85.4	89.4	89.3	89.6	90.7	-1.7	-.4	-1.0	-1.8
Chemicals	325	76.9	79.0	72.1	74.3	75.3	.3	-4.3	-1.8	-1.9
Plastics and rubber products	326	81.8	81.7	75.2	77.4	72.8	-.9	-4.8	.4	1.4
Other manufacturing (non-NAICS)	**1133,5131pt.**	80.0	83.2	85.6	80.6	80.0	4.1	3.3	1.1	1.7
Mining	21	85.2	81.5	84.1	84.6	83.4	-6.3	-6.1	-4.8	-6.4
Utilities	2211,2	84.3	74.4	76.0	73.2	72.2	.2	.6	1.2	1.8
Selected high-technology industries		77.4	82.7	84.6	76.4	74.6	2.1	2.4	-4.1	-2.8
Computers and peripheral equipment	3341	76.5	76.2	76.8	64.5	71.9	5.6	2.7	-11.7	-9.4
Communications equipment	3342	75.5	69.9	80.3	75.1	69.1	-2.0	7.0	.3	-2.1
Semiconductors and related electronic components	3344	79.1	88.8	87.3	78.9	76.9	3.1	.2	-4.6	-1.7
Measures excluding selected high-technology industries										
Total industry		79.6	78.2	77.8	77.0	75.5	-1.3	-2.3	-1.3	-1.6
Manufacturing[1]		78.3	78.3	76.8	76.4	74.8	-.5	-2.0	-1.1	-1.3
STAGE-OF-PROCESS GROUPS										
Crude		84.6	81.8	81.7	82.7	82.6	-5.2	-5.7	-4.5	-5.5
Primary and semifinished		80.2	79.1	78.4	76.6	75.7	.2	-.5	-.2	-.2
Finished		76.7	75.7	75.2	75.0	72.3	-.9	-2.5	-1.3	-1.6

1. See footnote 2 to table 2.

Table 7A
INDUSTRIAL PRODUCTION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual[2]
IP (*percent change*)																	
1995	.1	-.2	.3	-.3	.4	.5	-.7	1.2	.9	-.1	.1	.3	4.5	.8	3.4	4.2	5.2
1996	-.7	1.5	-.2	1.2	.8	.9	.4	.5	.8	.0	.9	.9	2.0	10.1	7.9	6.2	5.0
1997	.1	1.4	1.0	.0	.7	.6	.8	1.2	.9	.9	1.0	.5	9.4	7.2	10.7	11.5	8.5
1998	.8	.2	-.2	.5	.5	-.7	-.4	2.5	-.1	.9	.2	.6	6.0	2.1	3.5	8.0	6.7
1999	.3	.9	.0	.4	.8	-.2	.4	.6	-.4	1.4	.6	.7	5.6	4.6	3.1	8.2	5.2
2000	-.1	.2	.6	.6	.0	.1	.1	-.6	.5	-.4	-.3	-.6	3.8	4.4	-.4	-2.6	3.7
2001	-.4	-.7	-.2	-.4	-.5	-.6	-.5	-.4	-.4	-.4	-.4	.2	-5.3	-5.1	-5.8	-3.9	-3.5
2002	.6	.0	.7	.3	.5	1.0	-.1	.1	.0	-.3	.5	-.6	3.5	5.7	3.1	-.2	.4
2003	.8	-.1	.1	-.7	.0	.5	.3	-.5	.8	.1	.9	-.1	2.2	-2.0	2.4	4.2	1.4
2004	-.1	.7	.0	.3	.7	-.7	.9	.4	.0	.9	.0	.8	2.4	3.1	4.0	5.4	3.0
2005	.6	.9	-.5	.4	.3	.2	-.3	.5	-1.1	1.4	.9	.1	6.5	2.7	-.5	6.2	4.1
2006	.8	-.3	.0	.4	-.2	.3	-.3	.7	.1	-.5	.1	1.5	4.0	.7	1.1	1.6	2.6
2007	-.3	.3	.8	.6	.0	.4	.0	-.3	.3	-.2	.5	.1	4.7	5.7	.5	1.2	2.8
2008	-.2	-.7	-.4	-1.0	-.6	-.7	-1.0	-1.3	-3.5	-.7	-2.5	-3.3	-2.3	-8.1	-13.5	-22.1	-4.7
2009	-3.2	-.1	-1.8	-.7	-1.1	-.3	1.5	1.1	1.0	.1	1.0	-.1	-24.8	-10.7	8.4	7.7	-13.8
2010	1.0	.0	1.2	.8	1.3	-.1	.5	.1	.1	.0	.1	.5	7.1	10.1	4.1	1.6	6.0
2011	.0	.2	.6	-.5	.0	.1	.6	.5	.2	.5	-.2	.7	3.0	-.1	4.5	3.9	2.9
2012	.8	.4	-.5	.5	-.3	.3	-.2	-.2	-.2	-.2	.6	.7	5.4	.6	-1.3	1.0	2.6
2013	-.2	.4	-.1	-.3	.3	.2	-.8	.9	.1	.2	.0	-.2	2.7	.2	.2	1.7	.9
2014	-1.0	.9	.9	.0	.3	.3	.4	-.6	.0	-.1	.7	-.2	-1.1	4.7	1.4	.1	1.1
2015	-.6	-.7	.4	.0	.0	-.4	.8	-.3	-.3	-.1	-.3	-.3	-3.5	-.5	.8	-2.8	-.6
2016	.4	-.3	-.1	-.1	-.1	.2	.0	-.4	.2	.1	-.1	.0	-.4	-.9	-.2	-.1	-.8
2017	.1	-.1	-.3	1.2	-.1	.1	-.4	-.2	.0	1.1	.1	-.3	-.4	3.4	-2.0	3.9	.4
2018	-.3	.8	-.1	.7	-.8	.6	.1	.2	.0	-.4	-.3	.3	.3	2.4	1.6	-1.4	1.3
2019	-.9	-.6	-.3	-.6	.0	.4	-.7	.6	-.8	-.8	.8	.1	-4.7	-3.4	-1.2	-2.4	-2.0
2020	-.3	.2	-4.6	-15.2	4.3	7.7	3.7	1.6	.1	1.0	.5	.7	-5.4	-43.4	54.7	9.1	-6.5
2021	.9	-4.0	3.1	.2	1.0	.0	.9	-.5	-1.2	1.4	.6	-.1	-.5	6.1	2.0	3.0	4.9
2022	-.9	.6	.5	-.1	-.5	-.6	.0	.0	.0	.3	-.8	-1.7	-1.1	-.2	-2.0	-3.3	.4
2023	1.7	.0	-.7	.9	-.2	-.7	.4	-.1	.1	-.5	.4	-.1	.3	.2	-.8	-.9	-.9
2024	-1.5	1.3	.1	-.6	.6	-.2	-.8	.5	-.5	-.7	.2	.4	-2.0	1.1	-2.4	-2.4	-1.0
2025	-.4	1.3	.4	.0	.0	.3	.0	.1					3.9	3.1			
IP (*2017=100*)																	
1995	72.4	72.2	72.4	72.2	72.5	72.8	72.3	73.2	73.8	73.7	73.8	74.0	72.3	72.5	73.1	73.8	72.9
1996	73.5	74.6	74.5	75.4	76.0	76.7	77.0	77.4	78.0	77.9	78.7	79.3	74.2	76.0	77.5	78.7	76.6
1997	79.4	80.6	81.3	81.3	81.9	82.4	83.0	84.0	84.8	85.6	86.4	86.8	80.4	81.8	84.0	86.3	83.1
1998	87.5	87.6	87.5	87.9	88.4	87.7	87.3	89.5	89.4	90.2	90.3	90.9	87.5	88.0	88.8	90.5	88.7
1999	91.2	92.0	92.0	92.3	93.1	92.8	93.2	93.8	93.4	94.7	95.3	95.9	91.7	92.7	93.4	95.3	93.3
2000	95.9	96.1	96.6	97.2	97.2	97.3	97.4	96.8	97.3	96.9	96.6	96.0	96.2	97.2	97.1	96.5	96.8
2001	95.7	95.0	94.9	94.5	94.0	93.5	93.0	92.6	92.2	91.8	91.5	91.7	95.2	94.0	92.6	91.7	93.3
2002	92.2	92.2	92.8	93.1	93.6	94.5	94.4	94.5	94.5	94.3	94.8	94.2	92.4	93.7	94.5	94.4	93.8
2003	95.0	94.9	95.0	94.3	94.3	94.8	95.1	94.6	95.4	95.5	96.3	96.2	94.9	94.5	95.0	96.0	95.1
2004	96.1	96.8	96.8	97.1	97.8	97.1	98.0	98.4	98.4	99.3	99.3	100.1	96.6	97.3	98.3	99.6	97.9
2005	100.7	101.6	101.1	101.6	101.8	102.1	101.7	102.2	101.1	102.6	103.5	103.6	101.1	101.8	101.7	103.2	102.0
2006	104.4	104.2	104.2	104.5	104.3	104.6	104.2	105.0	105.1	104.6	104.7	106.2	104.3	104.5	104.8	105.2	104.7
2007	105.9	106.2	107.1	107.7	107.7	108.1	108.1	107.8	108.1	107.9	108.4	108.6	106.4	107.9	108.0	108.3	107.6
2008	108.3	107.6	107.1	106.1	105.4	104.7	103.7	102.4	98.9	98.2	95.8	92.5	107.7	105.4	101.7	95.5	102.6
2009	89.5	89.4	87.8	87.2	86.2	86.0	87.3	88.2	89.2	89.3	90.2	90.1	88.9	86.5	88.2	89.9	88.4
2010	91.1	91.0	92.2	92.9	94.0	94.0	94.5	94.6	94.7	94.7	94.9	95.3	91.4	93.6	94.6	95.0	93.6
2011	95.4	95.5	96.1	95.6	95.6	95.7	96.3	96.8	97.0	97.5	97.3	98.0	95.7	95.6	96.7	97.6	96.4
2012	98.8	99.2	98.7	99.2	98.9	99.1	98.9	98.8	98.5	98.4	99.0	99.6	98.9	99.1	98.7	99.0	98.9
2013	99.4	99.8	99.7	99.4	99.7	99.9	99.2	100.0	100.1	100.2	100.2	100.0	99.6	99.7	99.7	100.1	99.8
2014	99.0	99.9	100.8	100.8	101.0	101.4	101.8	101.2	101.2	101.0	101.7	101.5	99.9	101.0	101.4	101.4	100.9
2015	100.9	100.1	100.5	100.5	100.5	100.2	100.9	100.6	100.3	100.2	99.9	99.6	100.5	100.4	100.6	99.9	100.4
2016	100.0	99.7	99.6	99.5	99.4	99.7	99.7	99.3	99.5	99.5	99.4	99.4	99.8	99.5	99.5	99.5	99.6
2017	99.6	99.5	99.1	100.3	100.1	100.2	99.8	99.7	99.7	100.7	100.8	100.5	99.4	100.2	99.7	100.7	100.0
2018	100.2	101.1	101.0	101.7	100.9	101.5	101.6	101.8	101.9	101.5	101.2	101.6	100.8	101.4	101.8	101.4	101.3
2019	100.7	100.1	99.8	99.2	99.2	99.6	98.9	99.5	98.7	97.9	98.7	98.8	100.2	99.3	99.0	98.4	99.3
2020	98.5	98.6	94.1	79.8	83.2	89.6	92.9	94.4	94.4	95.4	95.9	96.6	97.1	84.2	93.9	96.0	92.8
2021	97.5	93.6	96.5	96.6	97.6	97.6	98.5	98.0	96.8	98.2	98.7	98.6	95.8	97.3	97.8	98.5	97.3
2022	97.7	98.3	98.7	98.7	98.2	97.7	97.7	97.7	97.7	97.9	97.2	95.5	98.2	98.2	97.7	96.9	97.7
2023	97.1	97.2	96.5	97.3	97.1	96.5	96.8	96.7	96.8	96.3	96.7	96.7	96.9	97.0	96.8	96.6	96.8
2024	95.2	96.5	96.6	96.0	96.6	96.4	95.6	96.1	95.6	94.9	95.1	95.5	96.1	96.4	95.8	95.2	95.8
2025	95.1	96.4	96.8	96.8	96.7	97.0	97.0	97.0					96.1	96.8			

NOTE: Estimates from April 2025 through August 2025 are subject to further revision in the upcoming monthly releases.
1. See footnote 2 to table 2.
2. Annual averages of industrial production are calculated from not seasonally adjusted indexes.

Table 7B
CAPACITY AND UTILIZATION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
Capacity (*percent of 2017 output*)																	
1995	85.7	86.1	86.4	86.7	87.1	87.5	87.9	88.3	88.7	89.1	89.6	90.0	86.1	87.1	88.3	89.6	87.7
1996	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0	94.5	95.0	95.6	96.1	91.0	92.5	94.0	95.6	93.3
1997	96.6	97.2	97.7	98.3	98.9	99.5	100.2	100.8	101.5	102.3	103.0	103.8	97.2	98.9	100.8	103.0	100.0
1998	104.6	105.4	106.2	107.0	107.7	108.5	109.2	109.8	110.4	111.0	111.6	112.2	105.4	107.7	109.8	111.6	108.6
1999	112.8	113.3	113.8	114.3	114.8	115.3	115.8	116.3	116.8	117.2	117.7	118.2	113.3	114.8	116.3	117.7	115.5
2000	118.6	119.1	119.5	120.0	120.4	120.9	121.3	121.8	122.2	122.7	123.2	123.6	119.1	120.4	121.8	123.2	121.1
2001	124.1	124.5	125.0	125.4	125.8	126.1	126.5	126.8	127.0	127.3	127.5	127.7	124.5	125.8	126.7	127.5	126.1
2002	127.8	128.0	128.1	128.1	128.2	128.2	128.2	128.2	128.2	128.2	128.2	128.2	127.9	128.2	128.2	128.2	128.1
2003	128.1	128.1	128.1	128.1	128.1	128.1	128.0	128.0	128.0	127.9	127.9	127.9	128.1	128.1	128.0	127.9	128.0
2004	127.8	127.8	127.7	127.6	127.6	127.6	127.6	127.6	127.6	127.7	127.8	127.9	127.8	127.6	127.6	127.8	127.7
2005	128.1	128.3	128.5	128.8	129.0	129.3	129.6	129.9	130.1	130.4	130.7	131.0	128.3	129.0	129.9	130.7	129.5
2006	131.2	131.5	131.7	132.0	132.2	132.4	132.7	132.9	133.2	133.5	133.8	134.1	131.5	132.2	132.9	133.8	132.6
2007	134.4	134.7	135.0	135.4	135.7	136.0	136.3	136.6	136.9	137.1	137.3	137.4	134.7	135.7	136.6	137.3	136.1
2008	137.5	137.6	137.6	137.6	137.6	137.5	137.5	137.4	137.2	137.1	137.0	136.8	137.6	137.6	137.4	137.0	137.4
2009	136.6	136.4	136.2	136.0	135.8	135.5	135.3	135.1	134.9	134.7	134.5	134.2	136.4	135.8	135.1	134.5	135.4
2010	134.0	133.8	133.6	133.4	133.2	133.0	132.8	132.6	132.3	132.2	132.0	131.8	133.8	133.2	132.6	132.0	132.9
2011	131.7	131.5	131.4	131.3	131.3	131.3	131.3	131.3	131.4	131.5	131.6	131.7	131.5	131.3	131.3	131.6	131.4
2012	131.9	132.0	132.2	132.3	132.5	132.6	132.7	132.8	133.0	133.1	133.1	133.2	132.0	132.5	132.8	133.1	132.6
2013	133.3	133.3	133.3	133.3	133.3	133.3	133.3	133.2	133.2	133.1	133.0	133.0	133.3	133.3	133.2	133.0	133.2
2014	132.9	132.8	132.7	132.6	132.5	132.4	132.2	132.1	132.0	131.8	131.6	131.5	132.8	132.5	132.1	131.6	132.3
2015	131.3	131.1	131.0	130.8	130.7	130.6	130.5	130.4	130.4	130.4	130.4	130.4	131.1	130.7	130.4	130.4	130.7
2016	130.4	130.5	130.5	130.6	130.7	130.7	130.8	130.8	130.8	130.8	130.8	130.7	130.5	130.7	130.8	130.8	130.7
2017	130.7	130.5	130.4	130.3	130.1	129.9	129.8	129.6	129.4	129.3	129.1	129.0	130.5	130.1	129.6	129.1	129.8
2018	128.9	128.8	128.7	128.7	128.6	128.6	128.6	128.6	128.5	128.5	128.5	128.5	128.8	128.6	128.6	128.5	128.6
2019	128.5	128.5	128.5	128.4	128.4	128.3	128.3	128.2	128.2	128.1	128.0	127.9	128.5	128.4	128.2	128.0	128.3
2020	127.8	127.7	127.6	127.5	127.4	127.3	127.1	127.0	126.9	126.7	126.6	126.4	127.7	127.4	127.0	126.6	127.2
2021	126.3	126.2	126.1	126.0	125.9	125.8	125.8	125.7	125.7	125.7	125.7	125.7	126.2	125.9	125.7	125.7	125.9
2022	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.8	125.8	125.8	125.8	125.9	125.7	125.7	125.8	125.8	125.8
2023	125.9	125.9	126.0	126.0	126.1	126.1	126.2	126.2	126.3	126.3	126.4	126.4	125.9	126.1	126.2	126.4	126.1
2024	126.5	126.6	126.6	126.7	126.8	126.9	126.9	127.0	127.1	127.2	127.3	127.4	126.6	126.8	127.0	127.3	126.9
2025	127.5	127.6	127.7	127.8	127.9	128.1	128.2	128.3					127.6	127.9			
Utilization (*percent*)																	
1995	84.4	83.9	83.8	83.2	83.2	83.2	82.3	82.9	83.3	82.7	82.4	82.3	84.0	83.2	82.8	82.5	83.1
1996	81.3	82.0	81.4	81.9	82.1	82.5	82.4	82.3	82.5	82.0	82.3	82.6	81.6	82.2	82.4	82.3	82.1
1997	82.2	82.9	83.2	82.7	82.8	82.8	82.9	83.3	83.5	83.7	83.9	83.7	82.8	82.8	83.3	83.7	83.1
1998	83.6	83.2	82.4	82.2	82.0	80.9	80.0	81.5	81.0	81.2	80.9	81.0	83.1	81.7	80.8	81.0	81.7
1999	80.8	81.2	80.8	80.7	81.0	80.5	80.5	80.6	80.0	80.8	81.0	81.2	80.9	80.8	80.4	81.0	80.8
2000	80.8	80.7	80.9	81.0	80.7	80.5	80.3	79.5	79.6	78.9	78.4	77.7	80.8	80.7	79.8	78.4	79.9
2001	77.1	76.3	75.9	75.4	74.7	74.1	73.5	73.0	72.6	72.2	71.8	71.8	76.5	74.7	73.0	71.9	74.0
2002	72.2	72.1	72.5	72.7	73.0	73.7	73.6	73.7	73.7	73.5	73.9	73.5	72.3	73.1	73.7	73.6	73.2
2003	74.1	74.0	74.1	73.6	73.6	74.0	74.2	73.9	74.5	74.6	75.3	75.3	74.1	73.7	74.2	75.1	74.3
2004	75.2	75.8	75.8	76.1	76.6	76.1	76.8	77.1	77.1	77.8	77.7	78.2	75.6	76.3	77.0	77.9	76.7
2005	78.6	79.2	78.7	78.9	78.9	78.9	78.5	78.7	77.7	78.6	79.2	79.1	78.8	78.9	78.3	79.0	78.8
2006	79.6	79.2	79.1	79.2	78.9	78.9	78.5	79.0	78.9	78.3	78.3	79.2	79.3	79.0	78.8	78.6	78.9
2007	78.8	78.8	79.3	79.6	79.4	79.5	79.3	78.9	79.0	78.7	79.0	79.0	79.0	79.5	79.0	78.9	79.1
2008	78.8	78.2	77.8	77.1	76.6	76.1	75.4	74.5	72.0	71.6	69.9	67.7	78.2	76.6	74.0	69.7	74.6
2009	65.6	65.6	64.5	64.1	63.5	63.4	64.5	65.3	66.1	66.3	67.1	67.1	65.2	63.7	65.3	66.8	65.3
2010	67.9	68.0	69.0	69.6	70.6	70.7	71.2	71.4	71.5	71.7	71.9	72.3	68.3	70.3	71.4	72.0	70.5
2011	72.4	72.6	73.1	72.8	72.8	72.9	73.3	73.7	73.8	74.2	74.0	74.4	72.7	72.8	73.6	74.2	73.3
2012	74.9	75.2	74.7	74.9	74.6	74.8	74.5	74.3	74.1	73.9	74.3	74.8	74.9	74.8	74.3	74.3	74.6
2013	74.6	74.9	74.8	74.5	74.8	75.0	74.4	75.1	75.1	75.3	75.3	75.2	74.7	74.8	74.9	75.3	74.9
2014	74.5	75.2	75.9	76.0	76.2	76.6	77.0	76.6	76.7	76.7	77.3	77.2	75.2	76.3	76.7	77.0	76.3
2015	76.8	76.4	76.7	76.8	76.9	76.7	77.3	77.1	76.9	76.8	76.6	76.4	76.7	76.8	77.1	76.6	76.8
2016	76.7	76.4	76.3	76.2	76.1	76.2	76.3	75.9	76.0	76.1	76.0	76.1	76.5	76.2	76.1	76.1	76.2
2017	76.2	76.2	76.0	77.0	77.0	77.1	76.9	76.9	77.0	77.9	78.0	77.9	76.1	77.0	76.9	78.0	77.0
2018	77.8	78.5	78.5	79.0	78.4	78.9	79.0	79.2	79.3	78.9	78.7	79.0	78.2	78.8	79.2	78.9	78.8
2019	78.3	77.9	77.7	77.2	77.3	77.6	77.1	77.6	77.0	76.4	77.1	77.2	78.0	77.4	77.2	76.9	77.4
2020	77.0	77.2	73.7	62.6	65.3	70.4	73.1	74.3	74.4	75.3	75.8	76.4	76.0	66.1	73.9	75.8	73.0
2021	77.2	74.1	76.5	76.7	77.5	77.6	78.3	77.9	77.0	78.1	78.6	78.4	75.9	77.3	77.7	78.4	77.3
2022	77.7	78.2	78.6	78.5	78.1	77.7	77.7	77.7	77.7	77.9	77.2	75.9	78.2	78.1	77.7	77.0	77.7
2023	77.2	77.1	76.6	77.2	77.1	76.5	76.7	76.7	76.7	76.3	76.5	76.5	77.0	76.9	76.7	76.4	76.8
2024	75.3	76.2	76.3	75.8	76.2	76.0	75.3	75.6	75.2	74.6	74.7	75.0	75.9	76.0	75.4	74.8	75.5
2025	74.6	75.5	75.8	75.7	75.6	75.7	75.7	75.6					75.3	75.7			

NOTE: Estimates from April 2025 through August 2025 are subject to further revision in the upcoming monthly releases.
1. See footnote 2 to table 2.

Table 8

ANNUAL PROPORTIONS IN INDUSTRIAL PRODUCTION, MARKET AND INDUSTRY GROUP SUMMARY

Item		2017	2018	2019	2020	2021	2022	2023	2024
Total IP		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MARKET GROUPS									
Final products and nonindustrial supplies		57.5	56.9	57.5	57.4	55.4	55.1	56.0	56.2
Consumer goods		28.1	27.6	28.3	29.2	28.1	27.5	27.8	28.0
Durable		6.1	6.0	6.2	6.3	6.2	6.2	6.3	6.2
Automotive products		3.4	3.4	3.5	3.4	3.4	3.6	3.6	3.6
Home electronics		.1	.1	.1	.1	.1	.1	.1	.1
Appliances, furniture, carpeting		.9	.8	.9	.9	.9	.8	.8	.8
Miscellaneous goods		1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7
Nondurable		22.0	21.6	22.1	22.9	21.9	21.3	21.5	21.8
Non-energy		16.7	16.2	17.3	18.1	16.2	15.6	16.2	16.7
Foods and tobacco		9.7	9.4	10.0	10.7	9.8	9.6	10.0	10.2
Clothing		.2	.2	.2	.2	.2	.2	.2	.2
Chemical products		5.1	5.0	5.4	5.5	4.8	4.3	4.6	4.9
Paper products		1.3	1.2	1.3	1.3	1.1	1.0	1.0	1.0
Energy		5.3	5.4	4.8	4.8	5.7	5.7	5.3	5.1
Business equipment		10.1	10.0	9.6	8.7	8.2	8.5	8.9	8.9
Transit		3.1	2.9	2.2	1.6	1.6	1.8	2.1	2.1
Information processing		2.1	2.0	2.1	2.1	1.9	1.9	1.9	1.9
Industrial and other		5.0	5.1	5.2	5.0	4.8	4.9	5.0	4.9
Defense and space equipment		2.1	2.0	2.1	1.9	1.6	1.5	1.6	1.6
Construction supplies		5.4	5.4	5.6	6.0	5.9	6.0	6.0	6.0
Business supplies		11.3	11.2	11.3	11.3	11.1	11.1	11.1	11.2
Materials		42.5	43.1	42.5	42.6	44.6	44.9	44.0	43.8
Non-energy		26.4	26.1	26.6	27.1	26.7	26.4	26.6	26.9
Durable		16.3	16.2	16.6	16.5	16.1	16.0	16.5	16.6
Consumer parts		3.1	3.0	3.0	2.8	2.7	2.7	2.9	2.9
Equipment parts		4.9	4.8	5.0	4.7	4.6	4.8	5.0	5.2
Other		8.3	8.3	8.5	8.9	8.8	8.6	8.6	8.5
Nondurable		10.1	9.9	10.0	10.6	10.7	10.4	10.1	10.2
Textile		.4	.4	.4	.4	.3	.3	.3	.3
Paper		1.4	1.3	1.3	1.3	1.3	1.2	1.1	1.2
Chemical		5.3	5.1	5.0	5.5	5.7	5.4	5.3	5.3
Energy		16.1	16.9	15.9	15.5	17.9	18.5	17.4	17.0
INDUSTRY GROUPS									
Manufacturing[1]		77.1	76.2	77.0	77.5	75.5	74.4	75.3	75.4
Manufacturing (NAICS)	31–33	74.8	74.1	74.9	75.5	73.7	72.7	73.6	73.8
Durable manufacturing		39.1	38.9	39.2	38.3	37.0	37.5	38.5	38.4
Wood products	321	1.4	1.4	1.5	2.0	2.0	1.9	1.7	1.7
Nonmetallic mineral products	327	2.1	2.1	2.2	2.3	2.1	2.3	2.4	2.3
Primary metals	331	2.6	2.6	2.5	2.8	3.1	2.8	2.6	2.4
Fabricated metal products	332	5.7	5.9	6.1	6.0	5.8	6.0	6.2	6.1
Machinery	333	5.4	5.5	5.7	5.4	5.2	5.4	5.5	5.4
Computer and electronic products	334	5.1	5.0	5.2	5.3	4.7	4.6	4.7	4.8
Electrical equip., appliances, and components	335	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.2
Motor vehicles and parts	3361–3	5.8	5.7	5.9	5.4	5.1	5.6	6.0	5.9
Aerospace and miscellaneous transportation equipment	3364–9	5.1	4.8	4.2	3.4	3.3	3.4	3.8	3.9
Furniture and related products	337	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1
Miscellaneous	339	2.8	2.8	2.8	2.7	2.6	2.4	2.5	2.5
Nondurable manufacturing		35.7	35.2	35.7	37.2	36.7	35.1	35.1	35.4
Food, beverage, and tobacco products	311,2	11.7	11.4	12.2	13.2	12.0	11.9	12.2	12.5
Textile and product mills	313,4	.7	.6	.7	.7	.6	.5	.5	.5
Apparel and leather	315,6	.2	.2	.2	.2	.2	.2	.2	.2
Paper	322	2.5	2.5	2.6	2.6	2.5	2.4	2.2	2.2
Printing and support	323	1.5	1.4	1.4	1.3	1.3	1.3	1.3	1.4
Petroleum and coal products	324	3.7	3.8	3.0	2.8	4.1	3.9	3.5	3.3
Chemicals	325	11.9	11.6	12.0	12.7	12.2	11.3	11.4	11.7
Plastics and rubber products	326	3.5	3.6	3.7	3.7	3.8	3.6	3.7	3.7
Other manufacturing (non-NAICS)	**1133,5131pt.**	2.2	2.1	2.1	2.0	1.8	1.8	1.7	1.6
Mining	**21**	12.1	13.0	11.9	11.2	13.9	14.4	13.2	12.5
Utilities	**2211,2**	10.8	10.8	11.1	11.3	10.6	11.2	11.5	12.0
Electric	2211	9.3	9.4	9.7	9.8	9.1	9.6	10.1	10.6
Natural gas	2212	1.5	1.4	1.5	1.5	1.5	1.6	1.5	1.5

NOTE: The IP proportion data are estimates of the industries' relative contributions to the overall change in IP between the reference year and the following year. For example, a 1 percent increase in durable goods manufacturing between 2024 and 2025 would account for a 0.384 percent increase in total IP.

1. See footnote 2 to table 2.

Table 9

INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION: SUMMARY

Seasonally adjusted

Industrial production	2017=100						Percent change						
	2025 Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	2025 Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	Aug. '24 to Aug. '25
Total index	101.0	101.2	101.1	101.6	101.3	101.3	-.1	.2	-.1	.4	-.2	-.1	.8
Previous estimates	103.5	103.6	103.7	104.2	103.8	103.9	-.3	.1	.0	.5	-.4	.1	.9
Major market groups													
Final Products	97.4	97.4	97.5	97.7	97.8	97.6	-.1	.0	.1	.2	.1	-.1	.5
Consumer goods	98.4	98.4	98.1	98.3	98.3	98.2	-.7	.0	-.2	.2	.0	-.1	-.5
Business equipment	91.9	92.2	93.3	93.6	93.9	93.6	1.6	.3	1.2	.3	.3	-.4	3.7
Nonindustrial supplies	98.3	98.1	97.8	97.8	97.3	97.2	.2	-.2	-.3	.0	-.5	-.2	.5
Construction	100.3	99.4	99.1	99.2	98.4	98.9	.8	-.9	-.3	.1	-.8	.5	1.6
Materials	105.4	105.9	105.7	106.5	106.1	106.2	-.1	.5	-.2	.8	-.4	.0	1.3
Major industry groups													
Manufacturing (see note below)	96.8	96.8	96.7	97.0	97.0	97.0	.4	.0	.0	.3	.0	.1	1.0
Previous estimates	100.2	99.7	99.9	100.1	100.0	100.3	.5	-.4	.1	.3	-.1	.2	.9
Mining	120.3	120.3	120.9	121.5	119.5	120.7	.9	.0	.5	.5	-1.6	1.0	.9
Utilities	107.0	108.8	107.7	109.2	109.1	106.9	-4.0	1.7	-1.0	1.4	-.1	-2.0	.0

Capacity utilization	Percent of capacity												Capacity growth
	Average 1972-2024	1988-89 high	1990-91 low	1994-95 high	2008-09 low	2024 Aug.	2025 Mar.[r]	Apr.[r]	May[r]	June[r]	July[r]	Aug.[r]	Aug. '24 to Aug. '25
Total industry	79.5	85.2	78.8	85.0	66.5	76.3	76.1	76.2	76.0	76.2	76.0	75.8	1.4
Previous estimates	79.6	85.2	78.7	84.8	66.6	77.9	77.6	77.5	77.5	77.8	77.4	77.4	1.5
Manufacturing (see note below)	78.2	85.5	77.2	84.6	63.4	75.6	75.8	75.7	75.6	75.7	75.7	75.6	1.0
Previous estimates	78.2	85.5	77.1	84.4	63.5	77.0	77.0	76.6	76.7	76.8	76.7	76.8	1.2
Mining	85.2	86.3	84.4	88.6	78.3	83.9	84.2	84.2	84.7	85.2	83.8	84.7	.0
Utilities	84.3	93.2	84.7	93.2	78.1	72.7	71.0	71.9	70.9	71.7	71.3	69.7	4.3
Stage-of-process groups													
Crude	84.6	87.9	84.9	90.0	76.5	82.2	82.4	82.9	83.0	83.5	82.4	83.2	.0
Primary and semifinished	80.2	86.4	77.9	87.7	63.5	76.3	76.0	76.0	75.7	76.0	75.8	75.2	1.6
Finished	76.7	83.3	77.4	80.7	66.3	73.8	73.9	73.8	73.7	73.8	73.8	73.8	1.5

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NOTE. The statistics in this release cover output, capacity, and capacity utilization in the U.S. industrial sector, which is defined by the Federal Reserve to comprise manufacturing, mining, and electric and gas utilities. Mining is defined as all industries in sector 21 of the North American Industry Classification System (NAICS); electric and gas utilities are those in NAICS sectors 2211 and 2212. Manufacturing comprises NAICS manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries (except exclusive Internet publishing). Logging and publishing are classified elsewhere in NAICS (under agriculture and information respectively), but historically they were considered to be manufacturing and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002, the Federal Reserve reclassified all of its industrial output data from the SIC system to NAICS.

Explanatory Note

The **Industrial Production and Capacity Utilization** statistical release, which is published around the middle of the month, reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. More detailed descriptions of industrial production and capacity utilization are available on the Board's website at **www.federalreserve.gov/releases/G17**. In addition, files containing data shown in the release, more detailed series that were published in the G.17 prior to December 2000, and historical data are available from the Data Download Program on the Board's website. Instructions for searching for and downloading specific series are provided as well.

Industrial Production

Coverage. The industrial production (IP) index measures the real output of the manufacturing, mining, and electric and gas utilities industries; the reference period for the index is 2017. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing *plus* those industries—logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)—that have traditionally been considered to bemanufacturing and included in the industrial sector. For the period since 2017, the total IP index has been constructed from 297 individual series based on the 2022 NAICS codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's website at **www.federalreserve.gov/releases/G17/About.htm**.

Source Data. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are typically obtained from private trade associations and from government agencies; data of this type are used to estimate monthly IP wherever possible and appropriate. Production indexes for a few industries are derived by dividing estimated nominal output (calculated using unit production and unit values or sales) by a corresponding Fisher price index; the most notable of these fall within the high-technology grouping and include semiconductors. When suitable data on physical product are not available, estimates of output are based on production-worker hours by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive annual data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. The annual data used in benchmarking the individual IP indexes are constructed from a variety of source data, such as the quinquennial *Censuses of Manufactures and Mineral Industries* and the *Annual Survey of Manufactures*, prepared by the Bureau of the Census; the *Minerals Yearbook*, prepared by the U.S. Geological Survey of the Department of the Interior; and publications of the Department of Energy.

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see the *Federal Reserve Bulletin* February 1997 and March 2001.) In the IP index, series that measure the output of an individual industry are combined using weights derived from their proportion in the total value-added output of all industries. The IP index, which extends back to 1919, is built as a chain-type index since 1972. The current formula for the growth in monthly IP (or any of the sub-aggregates) since 1972 is the geometric mean of the change in output (I), and, as can be seen below, is computed using the unit value added estimate for the current month (p_m) and the estimate for previous month:

$$\frac{I_m^A}{I_{m-1}^A} = \sqrt{\frac{\sum I_m p_{m-1}}{\sum I_{m-1} p_{m-1}} \times \frac{\sum I_m p_m}{\sum I_{m-1} p_m}}$$

The IP proportions (typically shown in the first column of the relevant tables in the monthly G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 5 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by $5/10$ percentage point (0.05 x 10% = 0.5%). To assist users with calculations, the Federal Reserve's website provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (**www.federalreserve.gov/releases/G17/ipdisk/ipweightssa.txt**).

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript "p" in tables) and subject to revision in each of the subsequent five months as new source data become available. (Revised estimates are denoted by the superscript "r" in tables.) For the first estimate of output for a given month, about 78 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 86 percent for estimates in the second month that the estimate is published, 92 percent in the third month, 95 percent in the fourth month, 98 percent in the fifth month, and 98 percent in the sixth month. Data availability by data type in 2024 is summarized in the table below:

Availability of Monthly IP Data in Publication Window
(Percent of value added in 2024; the numbers may not sum because of rounding.)

	Month of estimate					
Type of data	1st	2nd	3rd	4th	5th	6th
Physical product	33	41	48	51	54	54
Production-worker hours	44	44	44	44	44	44
IP data received	78	86	92	95	98	98
IP data estimated	22	14	8	5	2	2

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first row of the table, in the first month, a physical product indicator is available for more than one-half of the series (in terms of value added) that ultimately are based on physical product data (33 percent out of a total of 54 percent). Of the 33 percent, two-thirds (22 percent of total IP) include series that are derived from weekly physical product data and for which actual monthly data may lag up to several months. On average, quarterly product data are received for the fourth estimate of industrial production. Specifically, quarterly data are available for the third estimate of the last month of a quarter, the fourth estimate of the second month of a quarter, and the fifth estimate of the first month of a quarter.

Seasonal adjustment. Individual series are seasonally adjusted using Census X-13 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through August 2025; for other series, the factors were estimated with data through August 2025, where available. Series are pre-adjusted for the effects of holidays or the business cycle when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series. Additional documentation and X-13 specifications can be found on the Board's website at **www.federalreserve.gov/releases/G17/About.htm**.

Reliability. The average revision to the *level* of the total IP index, without regard to sign, between the first and the fourth estimates was 0.30 percent during the 1987–2025 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.24 percentage point during the 1987–2025

period. In most cases (about 85 percent), the direction of the change in output indicated by the first estimate for a given month is the same as that shown by the fourth estimate.

Rounding. The published percent changes are calculated from unrounded indexes, and may not be the same as percent changes calculated from the rounded indexes shown in the release.

Capacity Utilization

Overview. The Federal Reserve Board constructs estimates of capacity and capacity utilization for industries in manufacturing, mining, and electric and gas utilities. For a given industry, the capacity utilization rate is equal to an output index (seasonally adjusted) divided by a capacity index. The Federal Reserve Board's capacity indexes attempt to capture the concept of *sustainable maximum output*—the greatest level of output a plant can maintain within the framework of a realistic work schedule, after factoring in normal downtime and assuming sufficient availability of inputs to operate the capital in place.

Coverage. Capacity indexes are constructed for 89 detailed industries (71 in manufacturing, 16 in mining, and 2 in utilities), which mostly correspond to industries at the three- and four-digit North American Industry Classification System, or NAICS level. Estimates of capacity and utilization are available for a variety of groups, including durable and nondurable manufacturing, total manufacturing, mining, utilities, and total industry. Manufacturing consists of those industries included in the NAICS definition of manufacturing *plus* those industries—logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)—that have traditionally been considered to be manufacturing and included in the industrial sector. Also, special aggregates are available, such as high-technology industries and manufacturing excluding high-technology industries.

Source Data. The monthly rates of capacity utilization are designed to be consistent with both the monthly data on production and the periodically available data on capacity and utilization. Because there is no direct monthly information on overall industrial capacity or utilization rates, the Federal Reserve first estimates annual capacity indexes from the source data. Capacity data reported in physical units from government sources (primarily from the U.S. Geological Survey and the Department of Energy's Energy Information Administration) and trade sources are available for portions of several industries in manufacturing (for example, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 26 percent of total industrial capacity. When physical product data are unavailable for manufacturing industries, capacity indexes are based on responses to the Bureau of the Census's *Quarterly Survey of Plant Capacity* (QSPC); these industries account for about 64 percent of total industry capacity. In the absence of utilization data for a few mining and petroleum series, capacity is based on trends through peaks in production (roughly 10 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's website (**www.federalreserve.gov/releases/G17/Meth/MethCap.htm**).

Aggregation Methodology. Monthly capacity aggregates are calculated in three steps: (1) utilization aggregates are calculated on an annual basis through the most recent full year as capacity-weighted aggregates of individual utilization rates; (2) the annual aggregate capacity is derived from the corresponding production and utilization aggregates; (3) the monthly capacity aggregate is obtained by interpolating with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This survey of large companies reported, on average, higher utilization rates than those reported by establishments covered by the annual *Survey of Plant Capacity* (the primary source of factory operating rates through 2006, after which it was discontinued) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve (now based on the QSPC) roughly in line with rates formerly reported by McGraw-Hill. As a consequence, the rates reported by the Federal Reserve tend to be higher than the rates reported in the Census utilization surveys.

Perspective. Over the 1972–2024 period, the average total industry utilization rate was 79.5 percent; for manufacturing, the average factory operating rate was 78.2 percent. Industrial plants usually operate at capacity utilization rates that are well below 100 percent: none of the broad aggregates has ever reached 100 percent. For total manufacturing, utilization rates have exceeded 90 percent only in wartime. The highs and lows in capacity utilization are specific to each series and do not all occur in the same month.

References and Release Dates

References. The release for the annual revision that was published on November 24, 2025, is available on the Board's website (**www.federalreserve.gov/releases/g17/revisions/Current/DefaultRev.htm**). A summary of the annual revision that incorporated back to 1972 production and capacity indexes reclassified according to the North American Industry Classification System is available in an article in the *Federal Reserve Bulletin*, vol. 89 (April 2003), pp.151–176. A description of the aggregation methods for industrial production and capacity utilization is included in an article in the *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92. The Federal Reserve methodology for constructing industry-level measures of capital is detailed in "Capital Stock Estimates for Manufacturing Industries: Methods and Data" by Mike Mohr and Charles Gilbert (1996), which can be obtained at **www.federalreserve.gov/releases/g17/CapitalStockDocLatest.pdf.**

Industrial Production—1986 Edition contains a more detailed description of the other methods used to compile the industrial production index, plus a history of its development, a glossary of terms, and a bibliography. The major revisions to the IP indexes and capacity utilization since 1990 have been described in the *Federal Reserve Bulletin* (April 1990, June 1990, June 1993, March 1994, January 1995, January 1996, February 1997, February 1998, January 1999, March 2000, March 2001, March 2002, April 2003, Winter 2004, Winter 2005, March 2006, May 2007, August 2008, August 2009) or in online staff studies (www.federalreserve.gov/releases/g17/articles/rev2010/industrial10.pdf, www.federalreserve.gov/releases/g17/articles/rev2012/industrial12.pdf, www.federalreserve.gov/releases/g17/articles/rev2013/industrial13.pdf).

Release Schedule

The G.17 release on Industrial Production and Capacity Utilization will be issued on the following dates. The monthly releases are issued at 9:15 a.m. The annual revision is issued at noon.

2025: January 17, February 14, March 18, April 16, May 15, June 17, July 16, August 15, September 16, November 24 (annual revision), December 3, TBD, and December 16.

This release schedule is available on the Board's website at **http://www.federalreserve.gov/releases/g17**.