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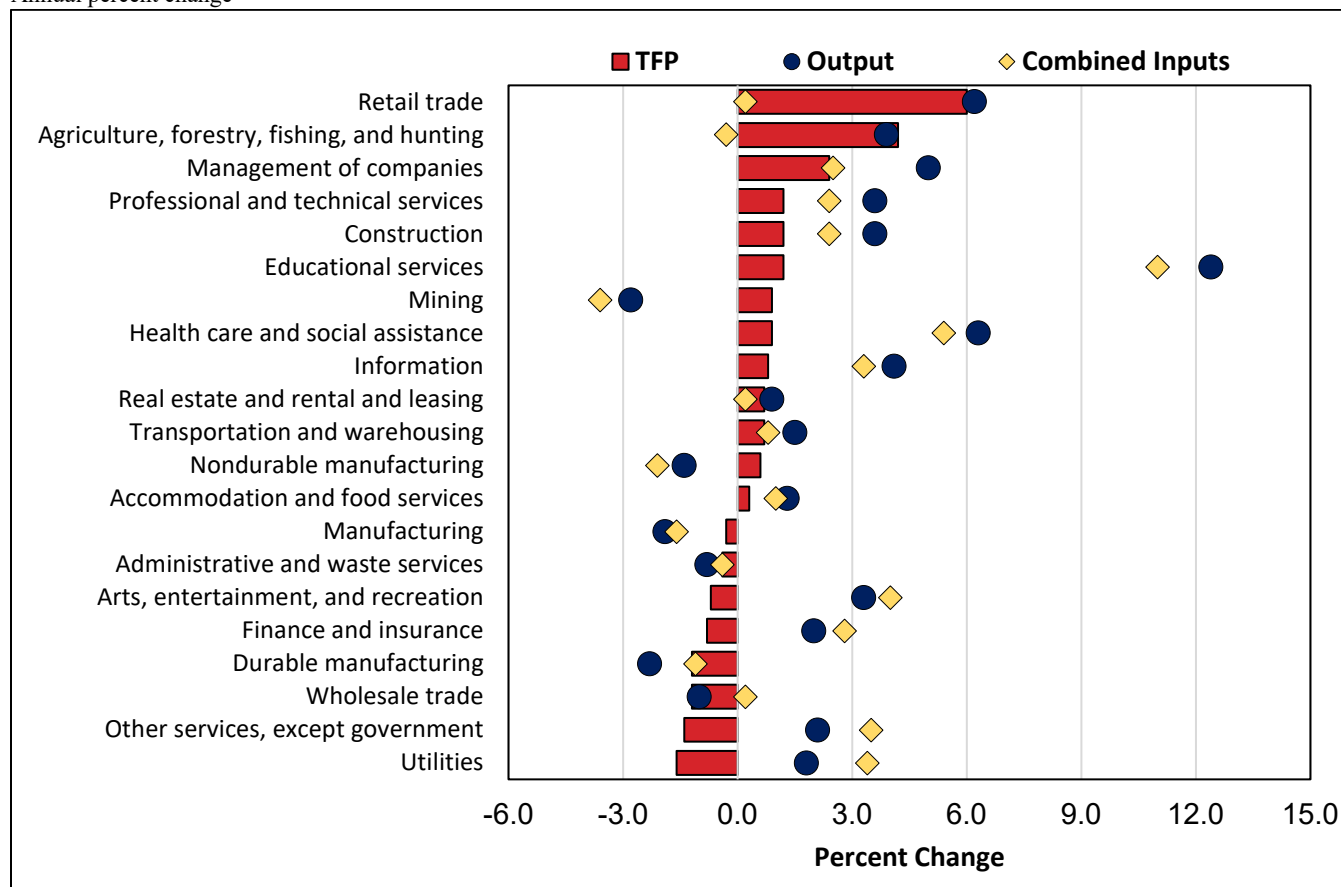
### TOTAL FACTOR PRODUCTIVITY FOR MAJOR INDUSTRIES – 2024

**Total factor productivity (TFP)** increased in 13 out of 21 major industries in 2024, the U.S. Bureau of Labor Statistics reported today, led by the retail trade and the agriculture, forestry, fishing, and hunting industries. Most of the industries that saw TFP growth were the result of increases to output outpacing increases to combined inputs of capital, labor, and the intermediate inputs of energy, materials, and services. (See chart 1.)

Output increased in 15 of 21 major industries in 2024. Of these 15 industries, all but one industry (agriculture, forestry, fishing, and hunting) had increased combined inputs in 2024. The largest increases in output (12.4 percent) and combined inputs (11.0 percent) occurred in the educational services industry. Within educational services, intermediate inputs drove the combined input growth. (See chart 1 and table 1.)

### Chart 1. Total factor productivity, output, and combined inputs, by major industry, 2024

Annual percent change



Over the current 2019-24 business cycle, 12 of 21 industries experienced TFP growth. Output growth was widespread, increasing in 17 of 21 industries over the period. The output declines occurred in the goods producing sector (mining, manufacturing, durable manufacturing, and nondurable manufacturing). Labor input grew in 16 of 21 industries during the 2019-24 cycle, demonstrating that these industries have recovered from labor losses in 2020. (See table 3.)

TFP is defined as output per unit of combined inputs. TFP shows the relationship between changes in real sectoral output and changes in the combined inputs of capital input (K), labor input (L), and intermediate inputs (energy (E), materials (M), and services (S)) used in production of final goods and services. It reflects economic growth that is not due to growth in measured KLEMS inputs, including technological change, organizational changes in the production process, and other efficiency improvements.

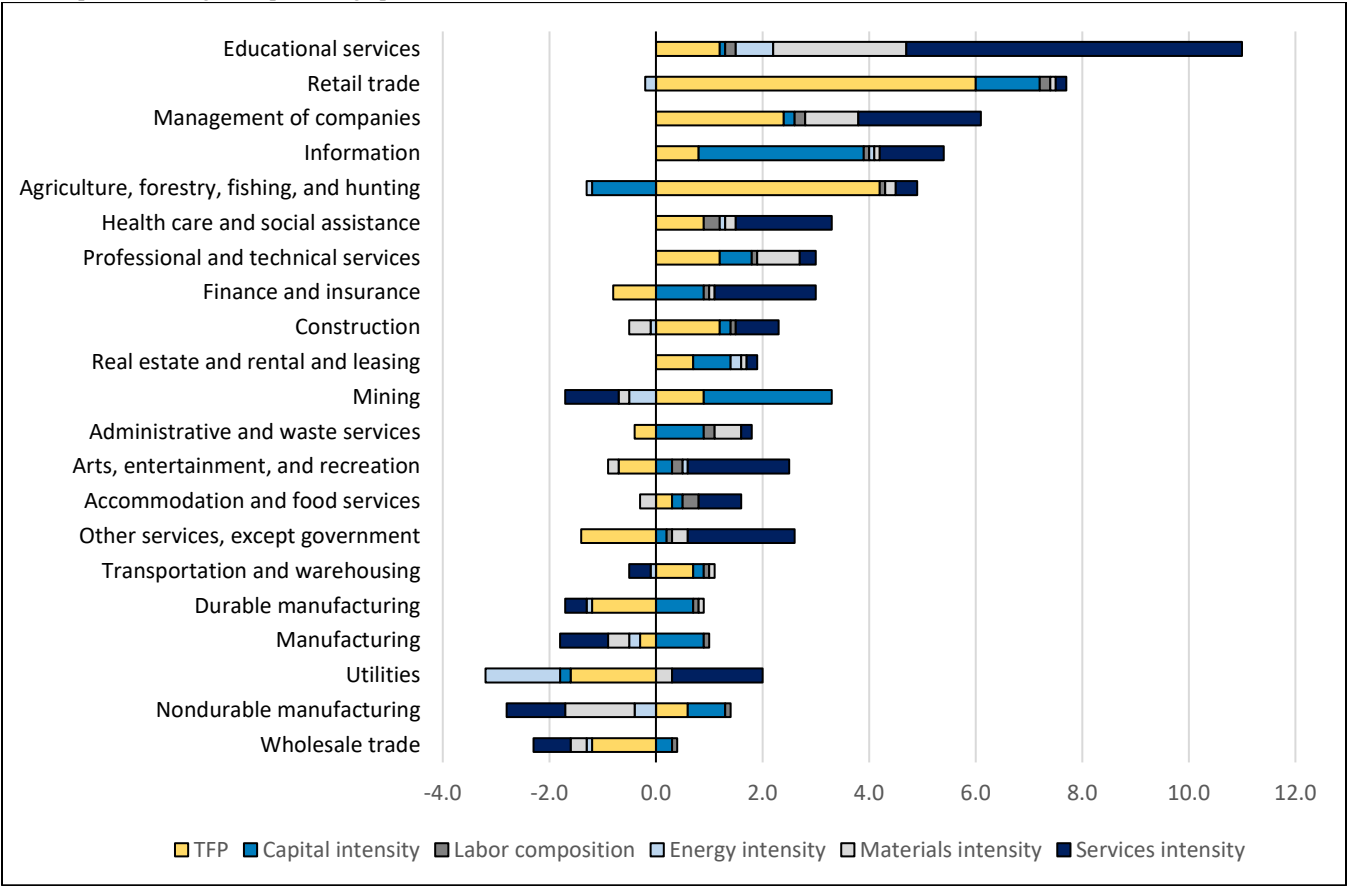
**Total factor productivity and KLEMS as sources of labor productivity growth**

Labor productivity increased in 16 of 21 industries in 2024. Labor productivity can be expressed as the sum of six components: TFP growth and the contributions of capital intensity, labor composition, energy intensity, materials intensity, and services intensity. The contribution of each KLEMS input is defined as the ratio of the services provided by that input to hours worked in the production process, weighted by its share of sectoral output. Examining input contributions and TFP changes reveals the substitution effect of increased use of an input relative to labor on an industry’s labor productivity. (See table 5 and chart 2.)

Of the 16 industries with labor productivity growth in 2024, TFP was the largest contributor in 6 industries. TFP’s contribution to labor productivity growth was strong in the retail trade and the agriculture, forestry, fishing, and hunting industries. Services intensity made a significant contribution to the 11.3-percent growth in labor productivity for the educational services industry. Service intensity also made notable positive contributions to labor productivity growth in the management of companies and the finance and insurance industries. The labor composition index estimates the effect of shifts in the composition of the workforce on hours worked, using information on age, education, sex, and relative wages as a proxy for experience. In 2024, all 21 industries measured had positive or no contribution from labor composition.

**Chart 2. Sources of labor productivity for major industries, 2024**

Annual percent change and percentage points

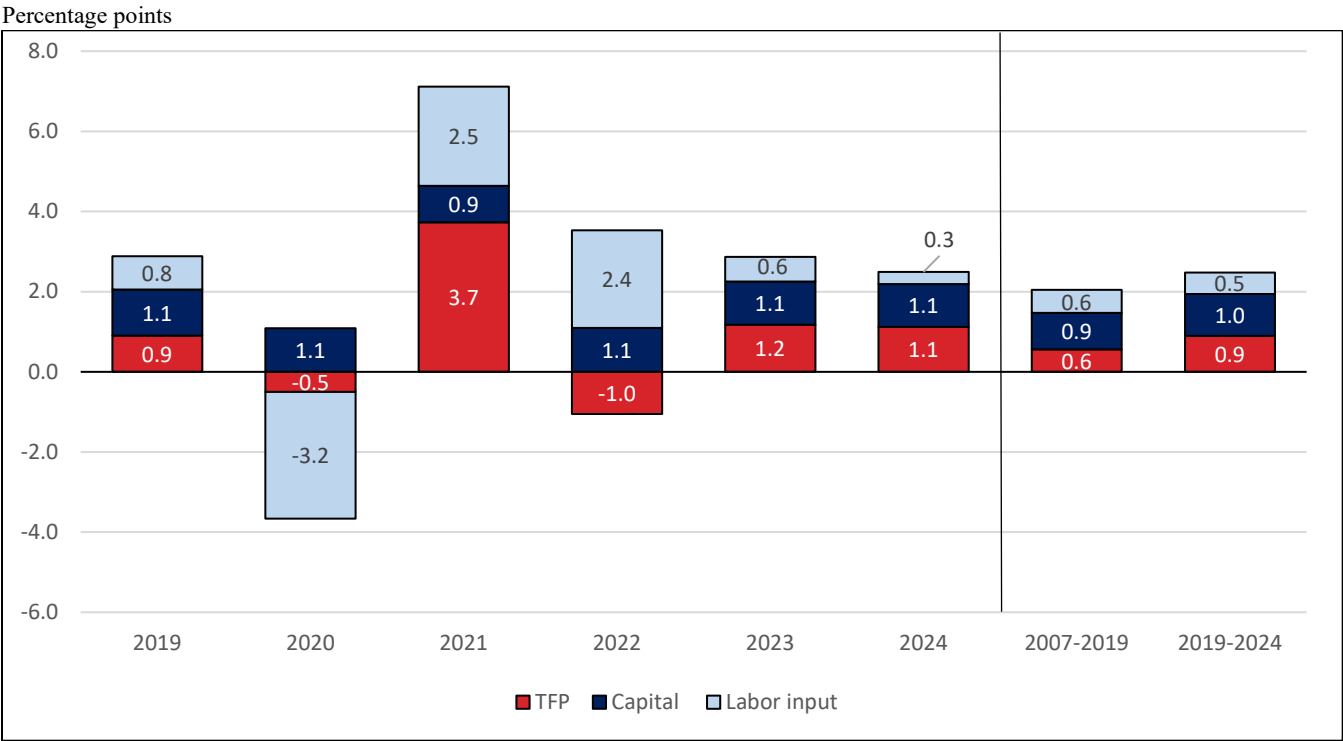


### TFP and input contributions to output

Private business sector output growth can be viewed as the sum of three components: total factor productivity, contribution of capital input, and contribution of labor input. The drivers of output growth for the private business sector in 2024 were TFP and capital, each with a 1.1-percentage-point contribution. Labor input contributed 0.3 percentage point to output growth. (See chart 3.)

Productivity growth is often viewed as a long run measure, encompassing many economic shocks like the COVID-19 pandemic. The current business cycle of 2019-24 shows similar contributions from capital and labor to aggregate output growth as the previous 2007-19 business cycle, while the contribution from TFP has increased 0.3 percentage point.

**Chart 3. Contribution to output for the private business sector, 2019-24 and select business cycles**



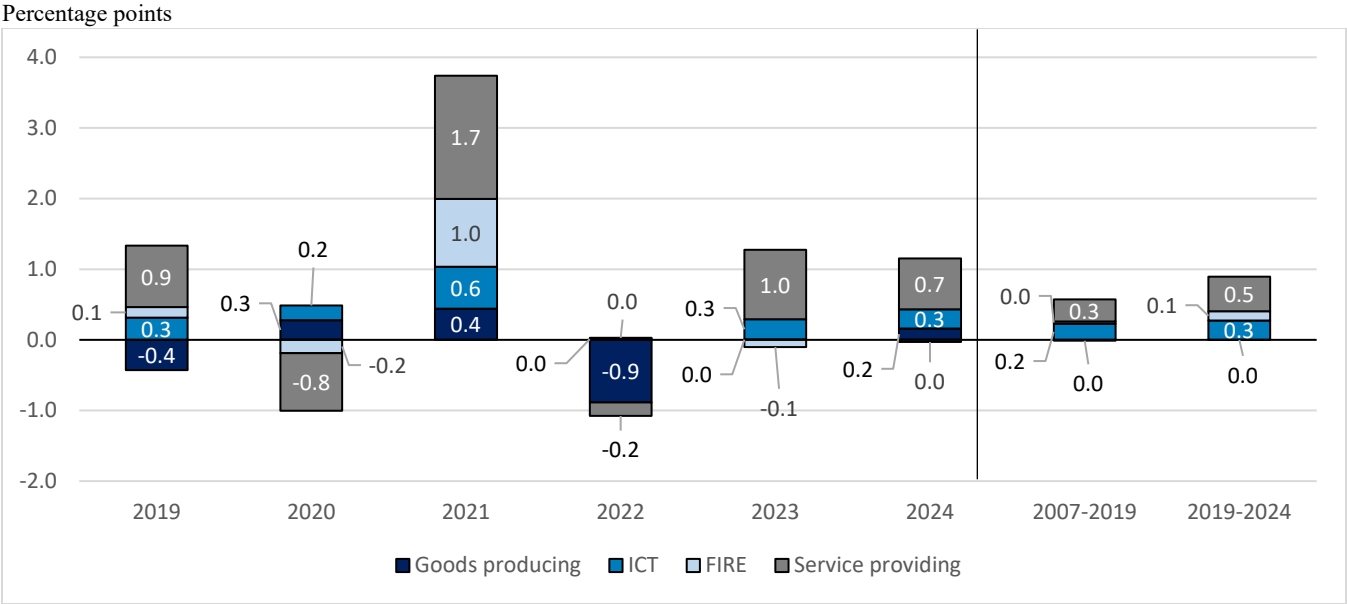
The private business sector can be divided into four broad sectors: goods producing; information and communication technology (ICT); finance, insurance, and real estate (FIRE); and service providing. Looking at these sectors provides further insights into how different sectors of the economy contribute to output. (See technical notes for industry makeup of each sector.)

### TFP's contribution to output

Total factor productivity's contribution to private business output was consistent between 2023 and 2024 (1.2-percentage-point and 1.1-percentage-point, respectively). The 2023 and 2024 contributions are similar to the pre-pandemic year of 2019 for most sectors. The service providing sector is the largest contributor in each of the 2019, 2023, and 2024 years (0.9-percentage-point, 1.0-percentage-point, and 0.7-percentage-point, respectively) led by the retail trade industry within this sector. Of note between 2019 and 2023-24 is the change in the contribution for the goods producing sector. This industry's TFP went from having a negative contribution to private business output in 2019 (-0.4-percentage-point) to a positive contribution in 2024 (0.2-percentage-point).

The increased contribution from TFP to private business output in the 2019-24 business cycle compared to the previous 2007-19 business cycle is due largely to the increased contribution of 0.2-percentage-point from the professional and technical services industry within the service providing sector. (See chart 4 and tables 6-13.)

**Chart 4. Sector contributions to TFP 2019-24 and select business cycles**



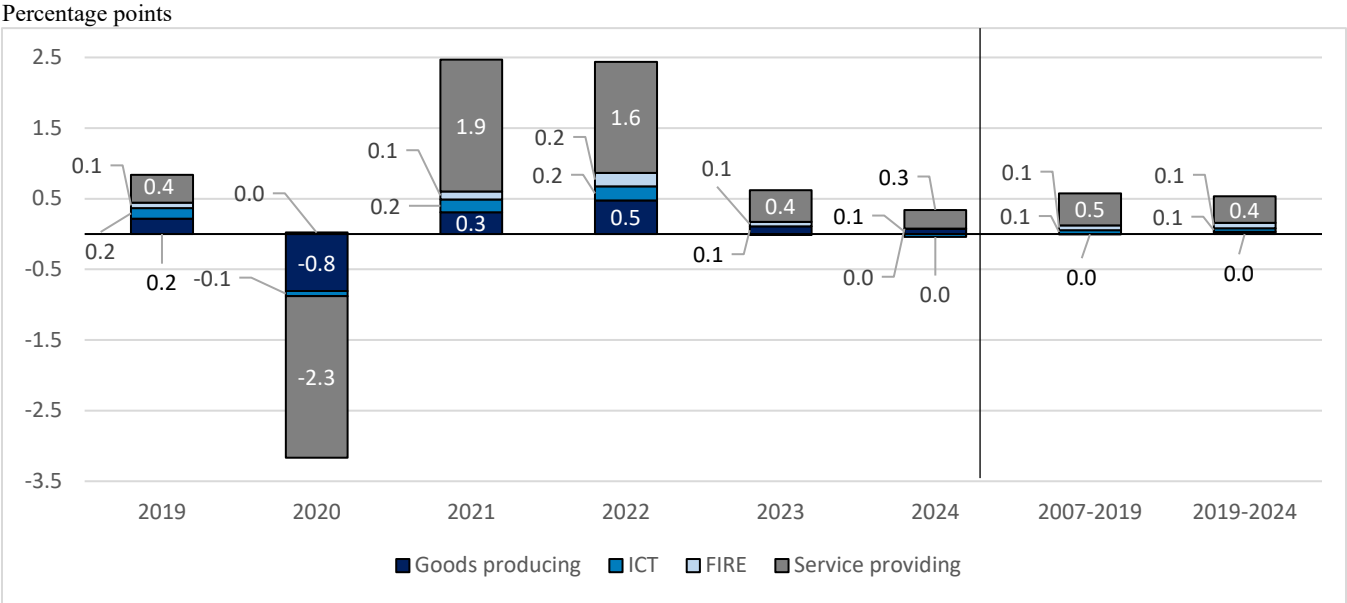
Note: Contributions may not sum due to aggregation, rounding, and integration of top line to industry

**Labor’s contribution to output**

Labor’s contribution to private business output growth decreased from 0.6-percentage-point in 2023 to 0.3-percentage-point in 2024 and was due to contribution declines in all sectors (except for ICT with a 0.0 percentage contribution in both years). (See charts 3 and 5.) Decreased contributions in the goods producing sector of durable manufacturing and the service providing industry of accommodation and food services accounted for over half of the decreased contribution.

Labor’s contribution to private business output is lower in the current 2019-24 business cycle (0.5-percentage-point) than the previous 2007-19 business cycle (0.6-percentage-point) due to a decreased contribution from the service providing sector. (See charts 3 and 5, and tables 6-13.)

**Chart 5. Sector contributions to labor 2019-24 and select business cycles**



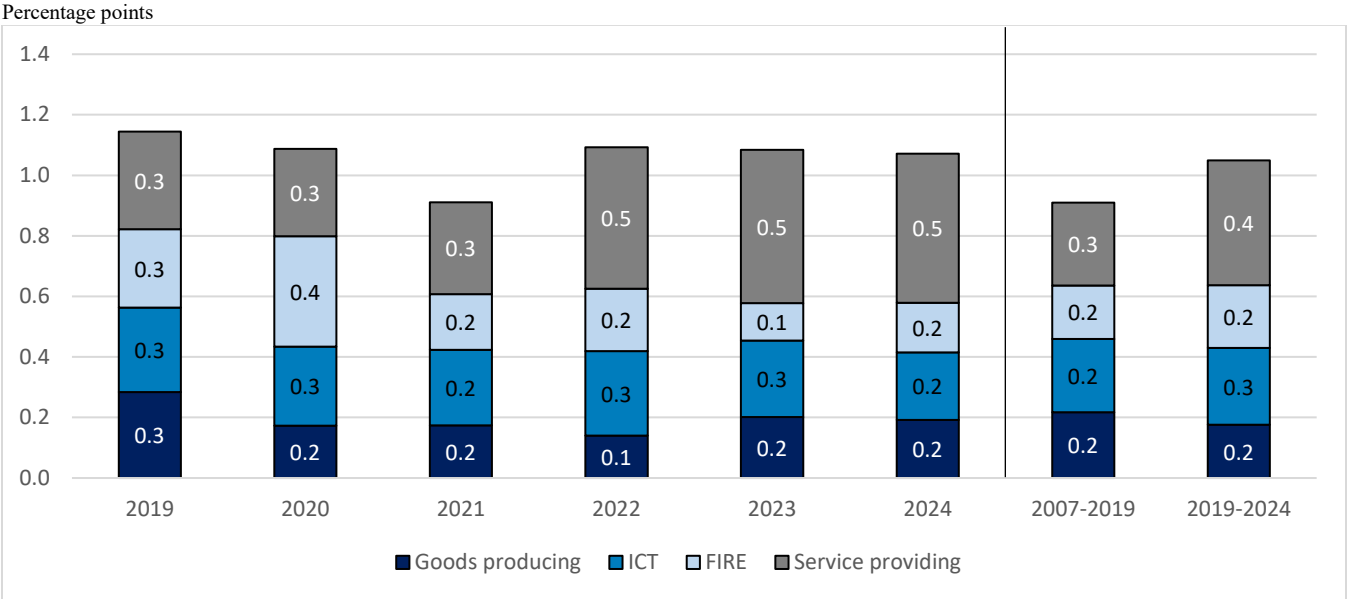
Note: Contributions may not sum due to aggregation, rounding, and integration of top line to industry

Capital’s contribution to output

All sectors’ capital contributions contributed positively to private business output growth in 2024 (1.1-percentage-point). The service-providing sector made the largest positive contribution (0.5-percentage-point).

Capital had similar positive contributions for the years 2019 to 2024 and the two most recent business cycles. The slight increase in capital contribution from the service-providing sector from the 2007-19 business cycle to the 2019-24 business cycle (0.3-percentage-point to 0.4-percentage-point, respectively) was led by the retail trade industry (0.0-percentage point to 0.1-percentage-point, respectively) and the professional and technical services industry (0.0-percentage-point to 0.1-percentage-point, respectively). (See chart 6 and tables 6-13.)

**Chart 6. Sector contributions to capital 2019-24 and select business cycles**



Note: Contributions may not sum due to aggregation, rounding, and integration of top line to industry

## **Technical Notes**

### **Goods producing sector**

This sector contains industries within agriculture, forestry, fishing, and hunting (NAICS 11), mining (NAICS 21), utilities (NAICS 22), construction (NAICS 23), and manufacturing (NAICS 31-33) except computer and electronic products (NAICS 334).

### **Information and communications technology (ICT) sector**

Information and communication technology (ICT) contains the following industries: computer and electronic products (NAICS 334), broadcasting and telecommunications (NAICS 515,517), data processing, internet publishing, and other information services (NAICS 518,519) and computer systems design and related services (NAICS 5415). This definition is generally comparable to that used by the Organization for Economic Cooperation and Development (OECD), which defines the ICT sector using the International Standard Industrial Classification (ISIC) (OECD 2011).

### **FIRE sector**

The finance, insurance, and real estate (FIRE) sector contains industries within finance and insurance (NAICS 52) and real estate and rental and leasing (NAICS 53).

### **Service providing sector**

This sector contains industries within trade (NAICS 42,44-45), transportation and warehousing (NAICS 48-49), publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), and industries within services (NAICS 54-81) except computer systems design and related services (NAICS 5415).

### **Capital input**

Data on investment for fixed assets are obtained from BEA. Data on inventories are estimated using data from BEA and additional information from IRS Corporation Income Returns. Data for land in the farm industry are obtained from USDA. Nonfarm industry detail for land is based on IRS book value data. Current-dollar value-added data, obtained from BEA, are used in estimating capital rental prices.

### **Labor input**

Hours at work data reflect Productivity and Costs data as of the September 4, 2025 “Productivity and Costs” news release (USDLE-25-1343).

Labor input is obtained by chained superlative Tornqvist aggregation of the hours at work, classified by age, education, and sex with weights determined by each group’s share of total wages. The growth rate of labor composition is defined as the difference between the growth rate of weighted labor input and the growth rate of the hours.

### **Energy, materials, and services**

Data on energy, materials, and services are obtained from BEA based on BEA annual input-output tables. Tornqvist indexes of each of these three input classes are derived at the NAICS industry level and then aggregated to the industries. Materials inputs are adjusted to exclude transactions between establishments within the same industry for goods producing industries. Services are adjusted to exclude transactions between establishments within the same industry for all non-goods producing industries.

## **Sectoral output**

The output concept used to measure total factor productivity for industries is “sectoral output”. Sectoral output equals gross output (sales, receipts, and other operating income, plus commodity taxes plus changes in inventories), excluding transactions between establishments within the same industry.

2024 manufacturing output measures are estimated based on historical relationships between BLS industrial output, BLS price indexes, and data on industrial production from the Federal Reserve Board. For select service providing industries, output measures are estimated using data from the Quarterly Services Survey from the Census Bureau. For all other nonmanufacturing industries, sectoral output is based on indexes of real quantity and cost measures from the BEA. Data sources by industry can be found at [www.bls.gov/opub/hom/opt/data.htm](http://www.bls.gov/opub/hom/opt/data.htm).

## **Other information**

Detailed information on methods used in this release can be found in the BLS Handbook of Methods Productivity and Technology section at [www.bls.gov/opub/hom/opt/home.htm](http://www.bls.gov/opub/hom/opt/home.htm).

Comprehensive tables containing more detailed data than that which is published in this news release are available upon request at 202-691-5606 or at [www.bls.gov/productivity/tables](http://www.bls.gov/productivity/tables). Industry specific contributions to output are available at [www.bls.gov/productivity/highlights/contributions-of-total-factor-productivity-major-industry-to-output.htm](http://www.bls.gov/productivity/highlights/contributions-of-total-factor-productivity-major-industry-to-output.htm).

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**Table 1. Total factor productivity and related data, 2024**

Industry	2017 NAICS Code	Percent change					
		TFP	Output	Combined Inputs	Capital Input	Labor Input	Intermediate Inputs <sup>1</sup>
Agriculture, forestry, fishing, and hunting	11	4.2	3.9	-0.3	-2.4	0.7	1.6
Mining	21	0.9	-2.8	-3.6	0.3	-4.0	-9.1
Utilities	22	-1.6	1.8	3.4	2.5	3.2	4.4
Construction	23	1.2	3.6	2.4	3.6	2.1	2.4
Manufacturing	31-33	-0.3	-1.9	-1.6	1.9	-0.6	-4.6
Durable manufacturing	321,327,33	-1.2	-2.3	-1.1	1.7	-1.2	-2.4
Nondurable manufacturing	31,322-326	0.6	-1.4	-2.1	2.1	0.6	-5.1
Wholesale trade	42	-1.2	-1.0	0.2	2.1	1.1	-1.4
Retail trade	44,45	6.0	6.2	0.2	3.6	-0.8	-1.2
Transportation and warehousing	48-49	0.7	1.5	0.8	2.1	1.2	-0.4
Information	51	0.8	4.1	3.3	6.5	-0.9	2.8
Finance and insurance	52	-0.8	2.0	2.8	2.6	0.0	7.0
Real estate and rental and leasing	53	0.7	0.9	0.2	0.7	-0.9	-0.1
Professional and technical services	54	1.2	3.6	2.4	4.6	0.8	5.1
Management of companies	55	2.4	5.0	2.5	1.2	-0.7	8.1
Administrative and waste services	56	-0.4	-0.8	-0.4	5.5	-1.9	-0.2
Educational services	61	1.2	12.4	11.0	1.5	1.6	19.5
Health care and social assistance	62	0.9	6.3	5.4	2.6	3.7	7.5
Arts, entertainment, and recreation	71	-0.7	3.3	4.0	3.5	2.3	5.4
Accommodation and food services	72	0.3	1.3	1.0	0.9	0.7	1.4
Other services, except government	81	-1.4	2.1	3.5	3.7	1.2	5.7

1. Intermediate inputs is an aggregation of energy, materials, and services

**Table 2. Total factor productivity intermediate inputs, 2024**

Industry	2017 NAICS Code	Percent change		
		Energy Input	Materials Input	Services Input
Agriculture, forestry, fishing, and hunting	11	-2.6	1.2	3.0
Mining	21	-21.6	-6.5	-8.6
Utilities	22	-3.5	14.5	15.4
Construction	23	-5.5	0.7	9.2
Manufacturing	31-33	-14.1	-2.5	-8.3
Durable manufacturing	321,327,33	-6.1	-1.1	-5.0
Nondurable manufacturing	31,322-326	-18.5	-3.1	-10.9
Wholesale trade	42	-14.1	-9.0	-0.6
Retail trade	44,45	-13.8	1.1	-0.7
Transportation and warehousing	48-49	-0.7	2.7	-0.8
Information	51	6.7	0.3	3.1
Finance and insurance	52	2.1	10.0	7.0
Real estate and rental and leasing	53	10.9	4.2	-0.6
Professional and technical services	54	6.5	13.4	2.3
Management of companies	55	-6.2	24.0	6.4
Administrative and waste services	56	0.6	3.9	-1.5
Educational services	61	33.5	38.0	15.9
Health care and social assistance	62	14.6	4.9	8.2
Arts, entertainment, and recreation	71	6.9	-1.7	6.5
Accommodation and food services	72	-0.1	-2.4	3.1
Other services, except government	81	2.4	2.7	7.3



**Table 3. Total factor productivity and related data, 2019-24**

Industry	2017 NAICS Code	Annual percent change					
		TFP	Output	Combined Inputs	Capital Input	Labor Input	Intermediate Inputs <sup>1</sup>
Agriculture, forestry, fishing, and hunting	11	1.7	1.6	-0.1	1.1	-0.6	-1.6
Mining	21	2.5	-0.6	-3.0	-1.6	-3.9	-3.3
Utilities	22	-0.2	0.3	0.6	2.8	1.3	-1.8
Construction	23	-0.7	1.5	2.2	1.8	1.1	3.4
Manufacturing	31-33	-0.1	-0.8	-0.7	1.7	0.2	-2.7
Durable manufacturing	321,327,33	-0.9	-0.8	0.0	1.5	-0.1	-0.7
Nondurable manufacturing	31,322-326	0.7	-0.7	-1.4	2.0	0.7	-3.7
Wholesale trade	42	-1.3	0.6	1.9	2.3	0.7	2.5
Retail trade	44,45	1.4	3.4	2.0	3.2	-0.5	3.6
Transportation and warehousing	48-49	-0.4	1.0	1.4	1.5	3.0	-0.4
Information	51	1.8	6.0	4.1	6.4	0.9	3.7
Finance and insurance	52	-0.4	2.4	2.9	3.1	0.9	5.6
Real estate and rental and leasing	53	1.3	3.9	2.5	1.1	1.1	3.9
Professional and technical services	54	2.5	5.2	2.7	5.7	1.7	3.4
Management of companies	55	3.0	5.0	1.9	0.3	0.9	3.8
Administrative and waste services	56	0.9	1.6	0.7	4.9	0.3	0.1
Educational services	61	0.1	2.8	2.7	1.6	0.7	4.2
Health care and social assistance	62	0.7	3.8	3.0	2.8	2.5	3.5
Arts, entertainment, and recreation	71	0.0	3.5	3.5	2.4	1.5	5.2
Accommodation and food services	72	0.6	2.1	1.5	0.5	-0.3	4.3
Other services, except government	81	-1.4	2.1	3.6	2.4	0.7	6.7

1. Intermediate inputs is an aggregation of energy, materials, and services

**Table 4. Total factor productivity intermediate inputs, 2019-24**

Industry	2017 NAICS Code	Annual percent change		
		Energy Input	Materials Input	Services Input
Agriculture, forestry, fishing, and hunting	11	-7.3	-1.4	0.4
Mining	21	-10.7	-1.1	-3.0
Utilities	22	1.2	-0.9	-5.8
Construction	23	-1.5	1.9	10.4
Manufacturing	31-33	-5.4	-2.8	-2.2
Durable manufacturing	321,327,33	-1.6	-0.8	-0.3
Nondurable manufacturing	31,322-326	-7.7	-3.4	-4.2
Wholesale trade	42	-5.3	1.6	2.7
Retail trade	44,45	-3.8	-0.8	4.7
Transportation and warehousing	48-49	-3.8	-3.1	1.3
Information	51	5.5	-0.1	4.5
Finance and insurance	52	-2.0	1.2	5.9
Real estate and rental and leasing	53	-1.7	0.5	4.3
Professional and technical services	54	2.0	6.9	2.3
Management of companies	55	-5.9	17.6	2.8
Administrative and waste services	56	-0.1	-0.2	0.3
Educational services	61	0.8	2.1	4.8
Health care and social assistance	62	5.3	0.8	4.4
Arts, entertainment, and recreation	71	3.2	-0.9	6.4
Accommodation and food services	72	0.6	-0.9	7.2
Other services, except government	81	0.6	4.7	8.0

**Table 5. Sources of labor productivity, 2024**

Industry	2017 NAICS code	Percent change	Percentage Point					
		Labor Productivity	TFP	Capital Intensity	Labor Composition	Energy Intensity	Materials Intensity	Services Intensity
Agriculture, forestry, fishing, and hunting	11	3.5	4.2	-1.2	0.1	-0.1	0.2	0.4
Mining	21	1.5	0.9	2.4	0.0	-0.5	-0.2	-1.0
Utilities	22	-1.1	-1.6	-0.2	0.0	-1.4	0.3	1.7
Construction	23	1.9	1.2	0.2	0.1	-0.1	-0.4	0.8
Manufacturing	31-33	-0.9	-0.3	0.9	0.1	-0.2	-0.4	-0.9
Durable	321,327,33	-0.8	-1.2	0.7	0.1	-0.1	0.1	-0.4
Manufacturing Nondurable								
Manufacturing	31,322-326	-1.3	0.6	0.7	0.1	-0.4	-1.3	-1.1
Wholesale trade	42	-1.9	-1.2	0.3	0.1	-0.1	-0.3	-0.7
Retail trade	44,45	7.6	6.0	1.2	0.2	-0.2	0.1	0.2
Transportation and warehousing	48-49	0.5	0.7	0.2	0.1	-0.1	0.1	-0.4
Information	51	5.3	0.8	3.1	0.1	0.1	0.1	1.2
Finance and insurance	52	2.2	-0.8	0.9	0.1	0.0	0.1	1.9
Real estate and rental and leasing	53	1.9	0.7	0.7	0.0	0.2	0.1	0.2
Professional and technical services	54	3.1	1.2	0.6	0.1	0.0	0.8	0.3
Management of companies	55	6.1	2.4	0.2	0.2	0.0	1.0	2.3
Administrative and waste services	56	1.5	-0.4	0.9	0.2	0.0	0.5	0.2
Educational services	61	11.3	1.2	0.1	0.2	0.7	2.5	6.3
Health care and social assistance	62	3.3	0.9	0.0	0.3	0.1	0.2	1.8
Arts, entertainment, and recreation	71	1.5	-0.7	0.3	0.2	0.1	-0.2	1.9
Accommodation and food services	72	1.3	0.3	0.2	0.3	0.0	-0.3	0.8
Other services, except government	81	1.1	-1.4	0.2	0.1	0.0	0.3	2.0

**Table 6. Industry contributions<sup>1</sup> to private business output by component, 2019**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	-0.43	0.28	0.22
Agriculture, forestry, fishing, and hunting	11	-0.09	0.00	0.01
Mining	21	0.11	0.08	0.01
Utilities	22	0.07	0.04	0.00
Construction	23	-0.04	0.01	0.16
Manufacturing[2]	31-33	-0.48	0.16	0.04
Durable manufacturing[2]	321,327,33	-0.19	0.06	0.03
Nondurable manufacturing	31,322-326	-0.29	0.10	0.01
<b>ICT[3]</b>	<b>51x</b>	0.32	0.28	0.15
<b>FIRE</b>	<b>52-53</b>	0.15	0.26	0.07
Finance and insurance	52	0.13	0.19	0.05
Real estate and rental and leasing	53	0.02	0.07	0.03
<b>Service providing</b>	<b>42-49,54-81</b>	0.87	0.32	0.39
Wholesale trade	42	-0.04	0.10	0.05
Retail trade	44,45	0.29	0.04	-0.12
Transportation and warehousing	48-49	-0.11	0.04	0.12
Information[4]	51	0.15	0.02	0.03
Professional and technical services[5]	54	0.21	0.06	0.09
Management of companies	55	0.13	0.00	0.05
Administrative and waste services	56	0.08	0.03	0.00
Educational services	61	-0.01	0.00	0.02
Health care and social assistance	62	0.10	0.03	0.12
Arts, entertainment, and recreation	71	0.01	0.01	0.00
Accommodation and food services	72	0.08	-0.01	0.04
Other services, except government	81	0.00	0.00	0.01

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 7. Industry contributions<sup>1</sup> to private business output by component, 2020**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	0.28	0.17	-0.81
Agriculture, forestry, fishing, and hunting	11	0.04	0.00	-0.01
Mining	21	0.21	-0.06	-0.13
Utilities	22	0.12	0.04	0.00
Construction	23	0.08	0.07	-0.28
Manufacturing[2]	31-33	-0.17	0.13	-0.39
Durable manufacturing[2]	321,327,33	-0.30	0.04	-0.33
Nondurable manufacturing	31,322-326	0.13	0.09	-0.06
<b>ICT[3]</b>	<b>51x</b>	0.21	0.26	-0.07
<b>FIRE</b>	<b>52-53</b>	-0.18	0.36	0.02
Finance and insurance	52	-0.09	0.22	0.11
Real estate and rental and leasing	53	-0.09	0.14	-0.09
<b>Service providing</b>	<b>42-49,54-81</b>	-0.80	0.29	-2.30
Wholesale trade	42	0.31	0.03	-0.21
Retail trade	44,45	-0.07	0.09	-0.17
Transportation and warehousing	48-49	-0.38	0.02	-0.13
Information[4]	51	0.11	0.01	-0.06
Professional and technical services[5]	54	0.08	0.08	-0.27
Management of companies	55	0.10	0.00	-0.04
Administrative and waste services	56	-0.03	0.04	-0.22
Educational services	61	-0.09	0.00	-0.04
Health care and social assistance	62	-0.30	0.03	-0.11
Arts, entertainment, and recreation	71	-0.20	0.00	-0.17
Accommodation and food services	72	-0.29	-0.02	-0.62
Other services, except government	81	-0.05	0.00	-0.27

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 8. Industry contributions<sup>1</sup> to private business output by component, 2021**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	0.44	0.17	0.31
Agriculture, forestry, fishing, and hunting	11	0.05	0.03	0.00
Mining	21	-0.23	-0.01	-0.03
Utilities	22	-0.08	0.05	0.00
Construction	23	-0.02	0.00	0.16
Manufacturing[2]	31-33	0.72	0.10	0.17
Durable manufacturing[2]	321,327,33	0.13	0.02	0.11
Nondurable manufacturing	31,322-326	0.59	0.08	0.06
<b>ICT[3]</b>	<b>51x</b>	0.60	0.25	0.18
<b>FIRE</b>	<b>52-53</b>	0.96	0.18	0.11
Finance and insurance	52	0.38	0.16	0.04
Real estate and rental and leasing	53	0.58	0.02	0.07
<b>Service providing</b>	<b>42-49,54-81</b>	1.73	0.30	1.88
Wholesale trade	42	-0.40	0.03	0.11
Retail trade	44,45	-0.26	0.08	0.11
Transportation and warehousing	48-49	0.27	0.01	0.27
Information[4]	51	0.31	0.02	0.09
Professional and technical services[5]	54	0.59	0.07	0.32
Management of companies	55	0.16	0.00	0.13
Administrative and waste services	56	0.23	0.02	0.24
Educational services	61	0.00	0.00	0.02
Health care and social assistance	62	0.20	0.04	0.20
Arts, entertainment, and recreation	71	0.12	0.00	0.08
Accommodation and food services	72	0.53	0.03	0.19
Other services, except government	81	-0.01	0.00	0.12

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 9. Industry contributions<sup>1</sup> to private business output by component, 2022**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	-0.89	0.14	0.47
Agriculture, forestry, fishing, and hunting	11	-0.05	0.06	-0.01
Mining	21	-0.31	-0.02	0.04
Utilities	22	-0.11	0.05	0.01
Construction	23	-0.52	-0.03	0.18
Manufacturing[2]	31-33	0.11	0.09	0.24
Durable manufacturing[2]	321,327,33	0.08	0.04	0.16
Nondurable manufacturing	31,322-326	0.03	0.04	0.08
<b>ICT[3]</b>	<b>51x</b>	0.02	0.28	0.20
<b>FIRE</b>	<b>52-53</b>	0.01	0.21	0.19
Finance and insurance	52	-0.22	0.12	0.12
Real estate and rental and leasing	53	0.23	0.08	0.07
<b>Service providing</b>	<b>42-49,54-81</b>	-0.19	0.47	1.57
Wholesale trade	42	-0.42	0.13	0.12
Retail trade	44,45	-0.30	0.08	-0.02
Transportation and warehousing	48-49	-0.20	0.01	0.21
Information[4]	51	0.05	0.06	0.11
Professional and technical services[5]	54	0.18	0.08	0.31
Management of companies	55	0.20	0.00	0.03
Administrative and waste services	56	0.15	0.03	0.18
Educational services	61	0.05	0.00	0.02
Health care and social assistance	62	0.18	0.06	0.14
Arts, entertainment, and recreation	71	0.06	0.01	0.08
Accommodation and food services	72	-0.11	0.00	0.25
Other services, except government	81	-0.03	0.01	0.14

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 10. Industry contributions<sup>1</sup> to private business output by component, 2023**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	0.01	0.20	0.11
Agriculture, forestry, fishing, and hunting	11	0.06	-0.01	0.00
Mining	21	0.67	0.00	0.01
Utilities	22	0.08	0.04	0.01
Construction	23	-0.11	0.04	0.07
Manufacturing[2]	31-33	-0.69	0.13	0.02
Durable manufacturing[2]	321,327,33	-0.38	0.04	0.05
Nondurable manufacturing	31,322-326	-0.31	0.09	-0.03
<b>ICT[3]</b>	<b>51x</b>	0.29	0.25	-0.01
<b>FIRE</b>	<b>52-53</b>	-0.10	0.12	0.06
Finance and insurance	52	-0.29	0.09	0.05
Real estate and rental and leasing	53	0.19	0.03	0.01
<b>Service providing</b>	<b>42-49,54-81</b>	0.98	0.51	0.45
Wholesale trade	42	-0.22	0.10	0.06
Retail trade	44,45	0.74	0.10	0.00
Transportation and warehousing	48-49	0.12	0.03	0.01
Information[4]	51	0.05	0.09	-0.02
Professional and technical services[5]	54	0.15	0.07	0.10
Management of companies	55	0.04	0.00	0.02
Administrative and waste services	56	-0.01	0.04	-0.07
Educational services	61	0.02	0.00	0.01
Health care and social assistance	62	0.24	0.04	0.20
Arts, entertainment, and recreation	71	0.04	0.01	0.02
Accommodation and food services	72	-0.02	0.01	0.10
Other services, except government	81	-0.15	0.01	0.04

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 11. Industry contributions<sup>1</sup> to private business output by component, 2024**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	0.16	0.19	0.07
Agriculture, forestry, fishing, and hunting	11	0.09	-0.02	0.00
Mining	21	0.02	0.00	-0.01
Utilities	22	-0.05	0.04	0.02
Construction	23	0.14	0.05	0.09
Manufacturing[2]	31-33	-0.04	0.12	-0.03
Durable manufacturing[2]	321,327,33	-0.14	0.03	-0.03
Nondurable manufacturing	31,322-326	0.11	0.09	0.00
<b>ICT[3]</b>	<b>51x</b>	0.27	0.22	-0.04
<b>FIRE</b>	<b>52-53</b>	-0.03	0.16	0.01
Finance and insurance	52	-0.13	0.12	0.02
Real estate and rental and leasing	53	0.10	0.04	-0.01
<b>Service providing</b>	<b>42-49,54-81</b>	0.72	0.49	0.26
Wholesale trade	42	-0.15	0.07	0.04
Retail trade	44,45	0.71	0.11	-0.03
Transportation and warehousing	48-49	0.06	0.03	0.04
Information[4]	51	-0.03	0.09	-0.02
Professional and technical services[5]	54	-0.01	0.07	0.09
Management of companies	55	0.09	0.00	-0.02
Administrative and waste services	56	-0.03	0.04	-0.07
Educational services	61	0.02	0.00	0.01
Health care and social assistance	62	0.12	0.04	0.16
Arts, entertainment, and recreation	71	-0.01	0.01	0.01
Accommodation and food services	72	0.02	0.01	0.02
Other services, except government	81	-0.06	0.01	0.02

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)



**Table 12. Industry contributions<sup>1</sup> to private business output by component, 2007-2019**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	-0.01	0.22	0.00
Agriculture, forestry, fishing, and hunting	11	0.02	0.00	0.00
Mining	21	0.08	0.03	0.01
Utilities	22	0.02	0.04	0.00
Construction	23	-0.02	0.00	0.00
Manufacturing[2]	31-33	-0.12	0.16	-0.02
Durable manufacturing[2]	321,327,33	-0.01	0.04	-0.01
Nondurable manufacturing	31,322-326	-0.11	0.12	0.00
<b>ICT[3]</b>	<b>51x</b>	0.23	0.24	0.06
<b>FIRE</b>	<b>52-53</b>	0.03	0.18	0.07
Finance and insurance	52	-0.04	0.10	0.05
Real estate and rental and leasing	53	0.06	0.08	0.01
<b>Service providing</b>	<b>42-49,54-81</b>	0.31	0.27	0.45
Wholesale trade	42	-0.02	0.05	0.01
Retail trade	44,45	0.13	0.04	-0.01
Transportation and warehousing	48-49	0.02	0.02	0.04
Information[4]	51	0.04	0.03	0.00
Professional and technical services[5]	54	0.05	0.04	0.07
Management of companies	55	0.03	0.00	0.07
Administrative and waste services	56	0.03	0.02	0.04
Educational services	61	0.00	0.00	0.01
Health care and social assistance	62	0.04	0.03	0.13
Arts, entertainment, and recreation	71	0.01	0.01	0.01
Accommodation and food services	72	0.01	0.01	0.05
Other services, except government	81	-0.02	0.00	0.04

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)

**Table 13. Industry contributions<sup>1</sup> to private business output by component, 2019-2024**

Industry	2017 NAICS Code	Percentage Point		
		TFP	Capital	Labor
<b>Goods producing [2]</b>	<b>11-33</b>	0.00	0.18	0.03
Agriculture, forestry, fishing, and hunting	11	0.04	0.01	0.00
Mining	21	0.07	-0.02	-0.02
Utilities	22	-0.01	0.04	0.01
Construction	23	-0.09	0.03	0.05
Manufacturing[2]	31-33	-0.02	0.11	0.00
Durable manufacturing[2]	321,327,33	-0.12	0.04	-0.01
Nondurable manufacturing	31,322-326	0.11	0.08	0.01
<b>ICT[3]</b>	<b>51x</b>	0.27	0.25	0.05
<b>FIRE</b>	<b>52-53</b>	0.13	0.21	0.08
Finance and insurance	52	-0.07	0.14	0.07
Real estate and rental and leasing	53	0.20	0.06	0.01
<b>Service providing</b>	<b>42-49,54-81</b>	0.49	0.41	0.37
Wholesale trade	42	-0.18	0.07	0.02
Retail trade	44,45	0.16	0.09	-0.02
Transportation and warehousing	48-49	-0.03	0.02	0.08
Information[4]	51	0.10	0.05	0.02
Professional and technical services[5]	54	0.20	0.08	0.11
Management of companies	55	0.12	0.00	0.02
Administrative and waste services	56	0.06	0.04	0.01
Educational services	61	0.00	0.00	0.00
Health care and social assistance	62	0.09	0.04	0.12
Arts, entertainment, and recreation	71	0.00	0.01	0.01
Accommodation and food services	72	0.03	0.01	-0.01
Other services, except government	81	-0.06	0.01	0.01

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry

2. Goods producing sector except for computer and electronic products (NAICS 334)

3. Information and communication technology sector (NAICS 51x), is the information major industry (NAICS 51) less publishing, except internet (includes software) (NAICS 511) and motion picture and sound recording (NAICS 512), plus computer and electronic products (NAICS 334) and computer systems design and related services (NAICS 5415)

4. Information sector less Broadcasting and telecommunications (NAICS 515,517) and data processing, internet publishing, and other information services (NAICS 518,519)

5. Service providing sector, except for computer systems design and related services (NAICS 5415)