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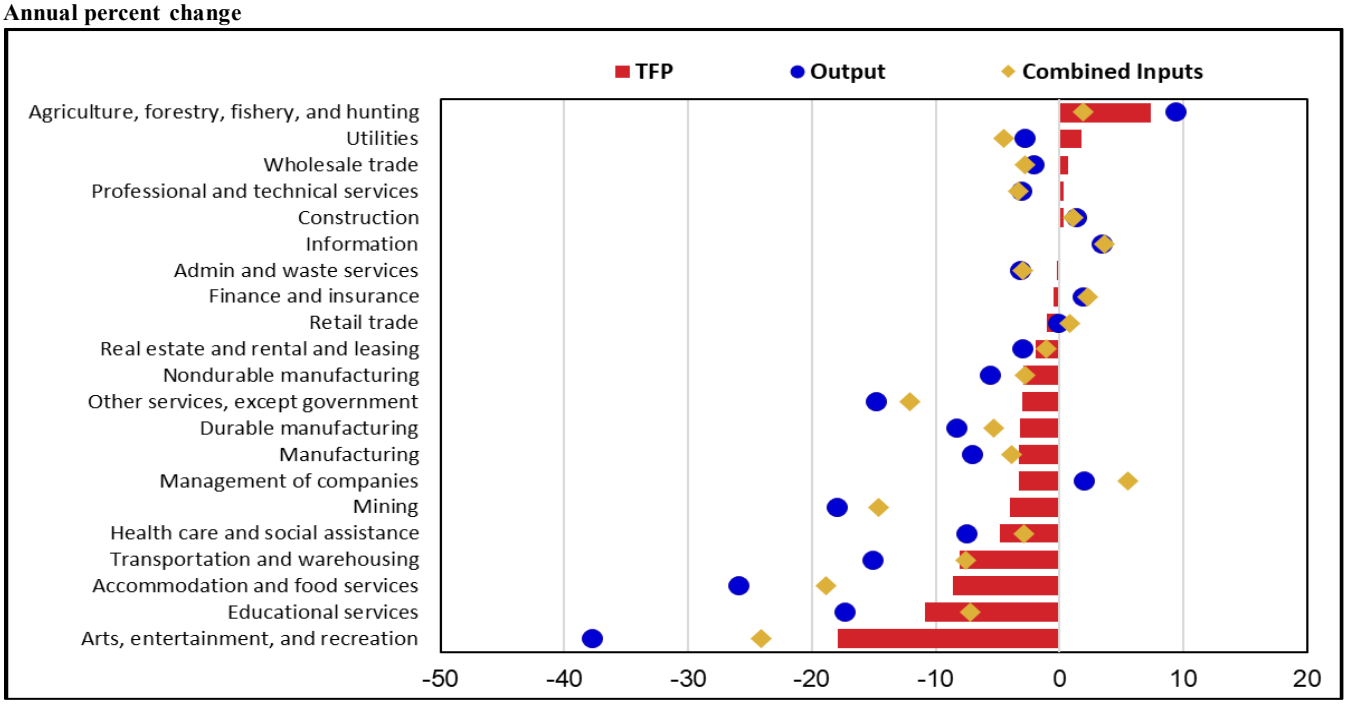
TOTAL FACTOR PRODUCTIVITY FOR MAJOR INDUSTRIES – 2020

Total factor productivity (TFP) declined in 16 out of 21 major industries measured in 2020, the U.S. Bureau of Labor Statistics (BLS) reported today. These negative TFP trends were largely due to the economic downturn caused by the COVID-19 pandemic. As with the Great Recession, the decline in TFP growth was widespread across the economy but more severe in 2020 compared to 2008-09. In 2020, the largest industry declines were in arts, entertainment, and recreation (-17.9 percent) and educational services (-10.9 percent), while the largest TFP decline during the Great Recession was in the finance and insurance industry (-5.5 percent). (See chart 1 and table 1).

The TFP declines in 2020 were primarily due to declines in real output outpacing declines in the combined inputs of capital, labor, energy, materials, and purchased business services. Among the combined inputs, labor contracted in 18 of 21 major industries measured and the combination of energy, materials, and purchased business services (intermediate inputs) declined in 15 of the industries measured. (See table 1). Out of the five industries with productivity growth, three industries had declines in both output and combined inputs.

Chart 1. Total factor productivity, output, and combined inputs, by major industry, 2020
Annual percent change



Terminology Change for Multifactor Productivity Data

The BLS Productivity program will replace the term multifactor productivity (MFP) with total factor productivity (TFP) beginning with this release. This is a change in terminology only and will not affect the data or methodology. The use of the term total factor productivity will improve the visibility and accessibility of our data and will be accompanied by changes to the BLS website and future productivity news releases.

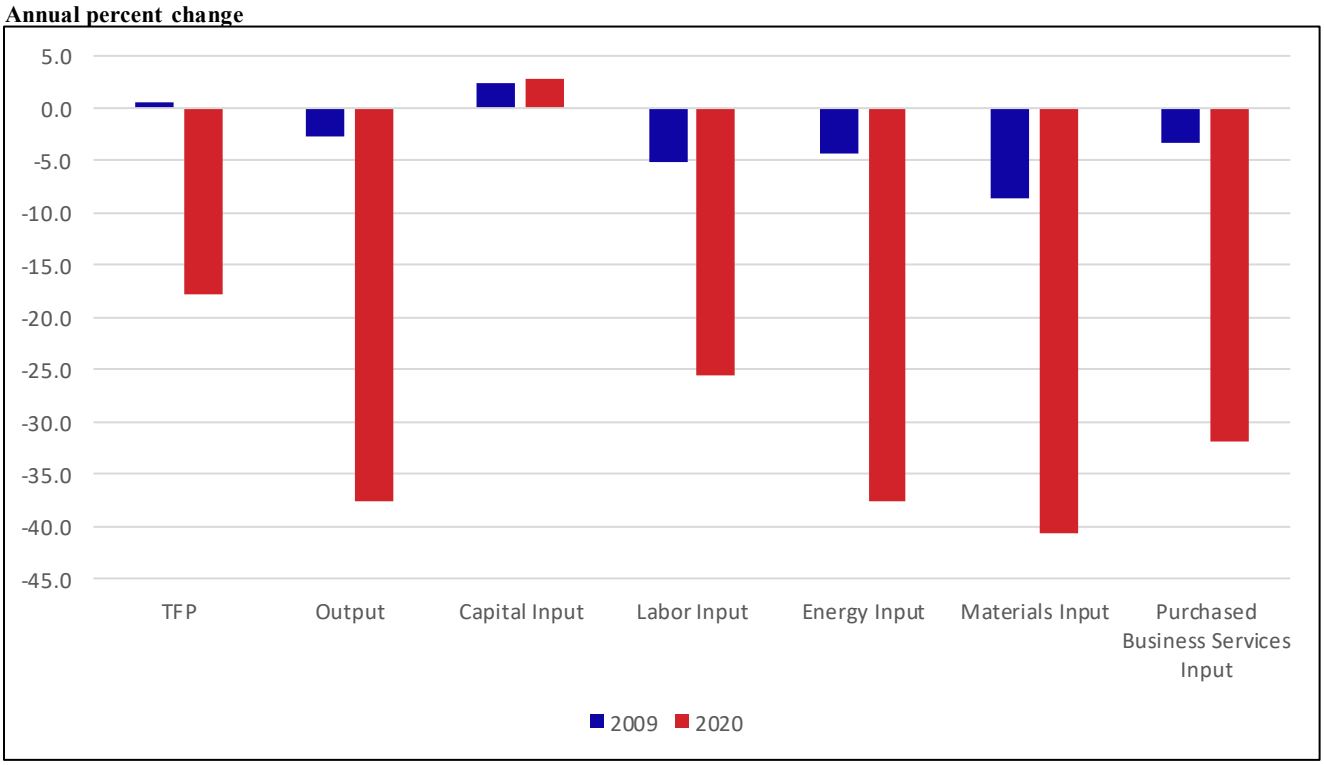
Total factor productivity is defined as output per unit of combined inputs. TFP shows the relationship between changes in real sectoral output and changes in the combined inputs of capital services (K), labor input (L), and intermediate inputs (energy (E), materials (M), and purchased business services (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.

Industry spotlight: Arts, entertainment, and recreation

The COVID-19 pandemic hit service providing industries especially hard as they rely heavily on face-to-face contact with customers. The arts, entertainment, and recreation industry had the largest decline in TFP (-17.9 percent) of the 21 major industries measured. Not only did this industry experience a record decline in output of 37.7 percent, but it also experienced historic declines in four out of the five KLEMS inputs. In 2020, labor declined 25.6 percent, energy declined 37.7 percent, materials declined 40.6 percent, and purchased business services declined 31.8 percent. The last time these four inputs declined at the same time was during the Great Recession year of 2009, however, the magnitude of the 2020 declines were much more severe. (See table 2 and chart 2).

The closure of museums, entertainment venues, sports arenas, and parks had a cascading affect beyond lost revenue of ticket sales. Widespread business closures and drastically reduced hours worked led to lower energy consumption. With no fans in the seats, there was no need for the other material inputs and purchased business services, including vendor contracts. Capital services was the only input that maintained growth because these assets, such as buildings, land, machinery, and equipment, are not easily reduced. Although the arts, entertainment, and recreation industry was hit the hardest, there were also significant KLEMS input declines in other industries, such as accommodation and food services; educational services; transportation and warehousing; other services, except government; and mining. (See tables 1 and 2.)

Chart 2. Total factor productivity, output, and KLEMS inputs, for arts, entertainment, and recreation, 2009 and 2020



Total factor productivity and KLEMS as sources of labor productivity growth

The sudden arrival of the COVID-19 pandemic forced industries to displace workers and cancel existing service contracts. As production throughout the economy dramatically declined, so did hours worked. However, hours declined at a slower rate than output which led to labor productivity declines among 12 of 21 major industries, the most since the Great Recession. (See table 5.)

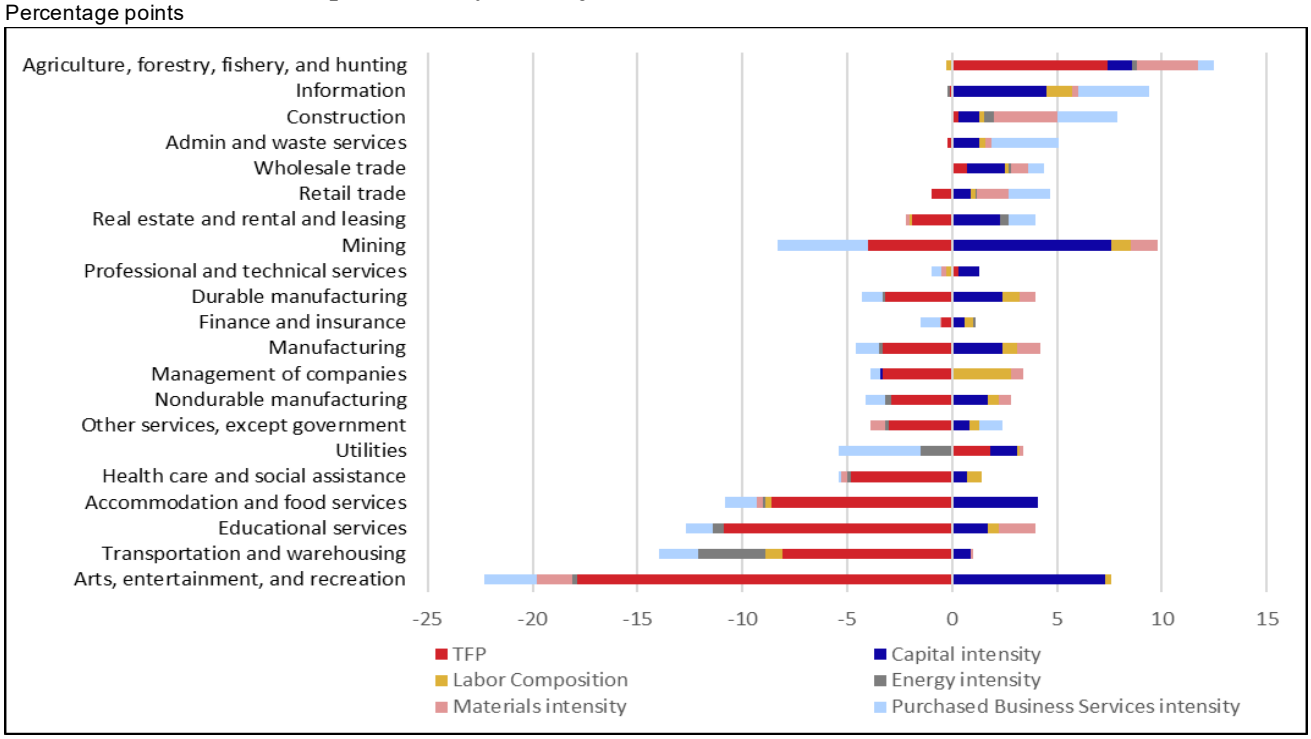
Changes in total factor productivity and combined KLEMS inputs help to explain labor productivity changes. Labor productivity can be expressed as the sum of six components: total factor productivity growth (TFP), contribution of capital intensity, contribution of labor composition, contribution of energy intensity, contribution of materials intensity, and the contribution of purchased business 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 3.)

Of the 12 industries with labor productivity declines, TFP was the largest contributor to this decline in all but two industries (utilities and finance and insurance). The largest contributor to the decline in the utilities and finance and insurance industries was purchased business services intensity. The contribution of energy intensity was negative for all but one of these industries (finance and insurance). The contribution of purchased business services intensity was negative for all but one of these industries as well (other services, except government). A negative contribution for an input of K, E, M, and S, indicates that this input declined faster than hours worked. The contribution of capital intensity was positive for most industries, keeping labor productivity from declining further.

The sixth component of labor productivity, labor composition, was a positive contributor to labor productivity in 16 of 21 major industries. The labor composition index estimates the effect of shifts in the composition of the workforce on hours worked, using information on age, education, gender, and relative wages. As industries cut hours, the composition of the workforce shifted toward more experienced workers, increasing the average wage of the industry, and having a positive impact on labor productivity.

Chart 3. Sources of labor productivity for major industries, 2020

Percentage points

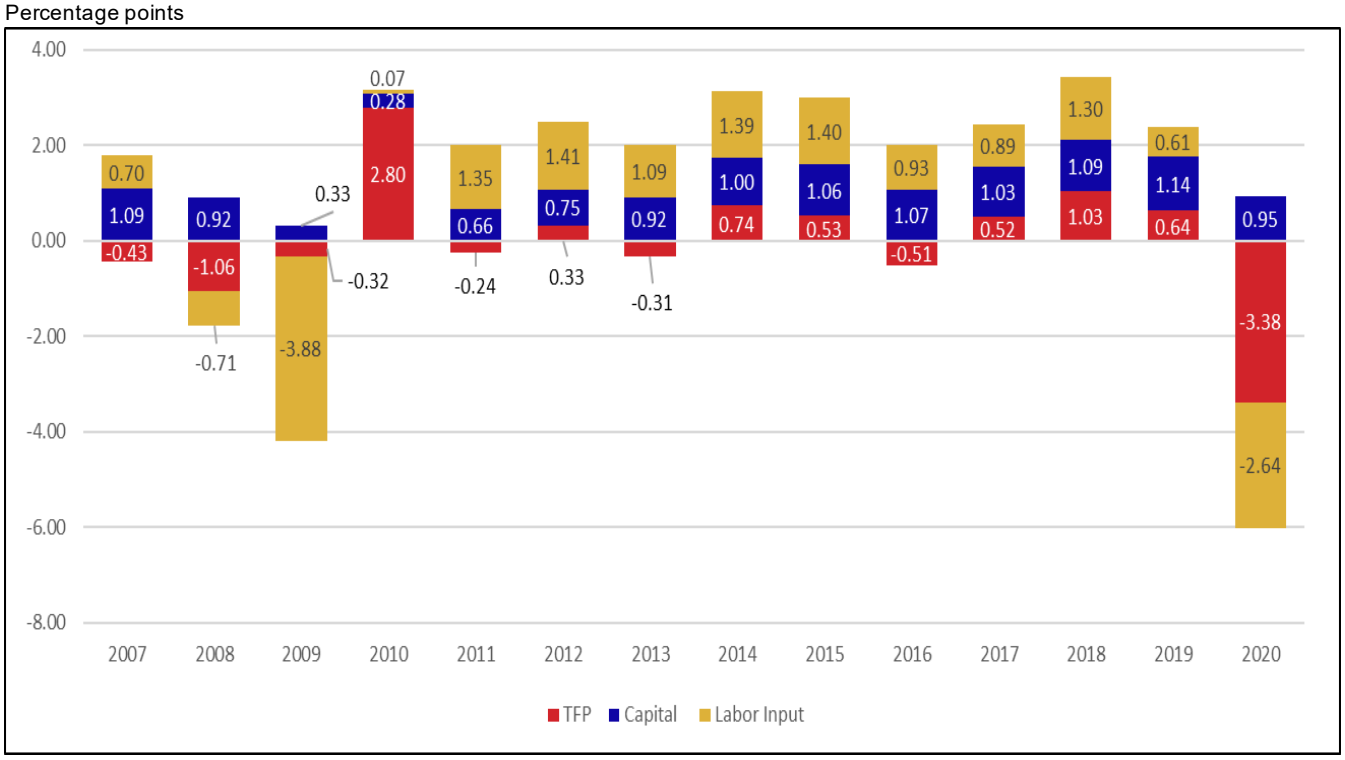


TFP and input contributions to output

The large TFP and labor productivity declines among industries in 2020 led to an overall decline in output for the private business sector. The nation's output can be viewed as the sum of three components: total factor productivity, contribution of capital services, and contribution of labor input. TFP contributed 3.38 percentage points of the decline in output, while labor input contributed 2.64 percentage points of the decline. These one-year declines are larger than the two years of combined declines in output experienced during the Great Recession of 2008-09. Notice that at the onset of the Great Recession in 2008, TFP was the predominant contributor to negative output, but as the recession continued into 2009, labor input became the primary negative driver. (See chart 4.)

Chart 4. Contributions to output for the private business sector, 2007-20

Percentage points



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

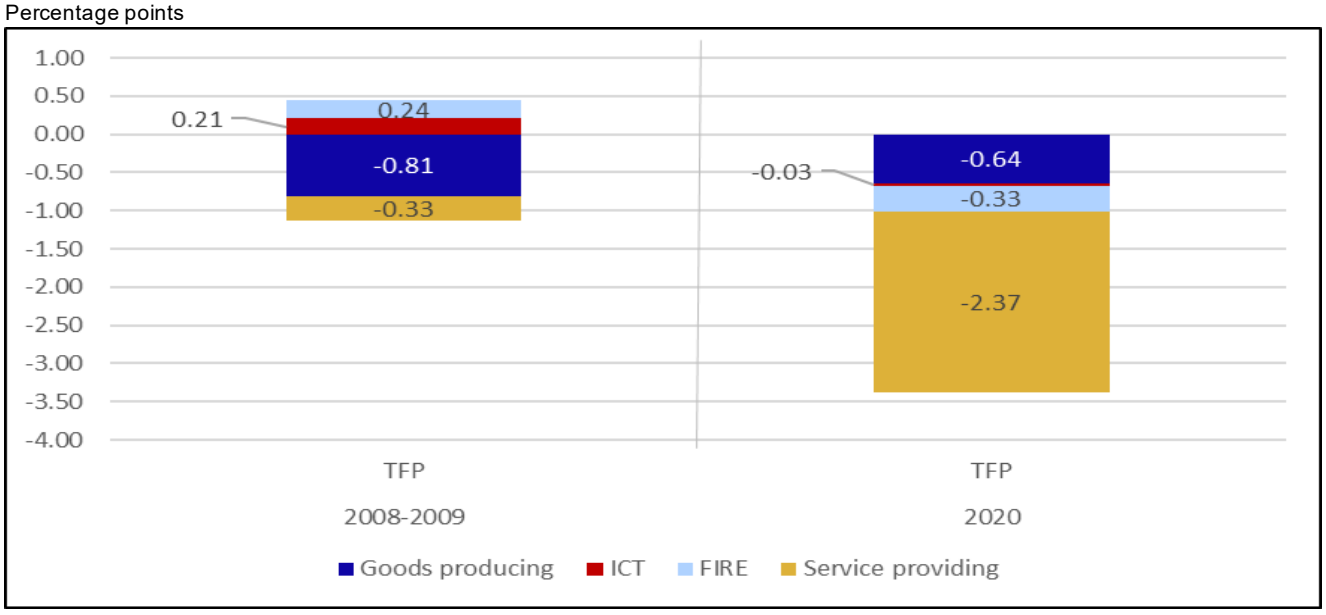
The private business sector can be divided into four sectors: goods producing; information and communication technology (ICT); finance, insurance, and real estate (FIRE); and service providing. These sectors further explain how the economic losses experienced in the U.S. in 2020 differ from the Great Recession of 2008 and 2009, with regard to the negative impact of TFP and labor input and the positive contribution of capital services. (See footnotes after table 7 for industry makeup of each sector.)

TFP contribution

The negative total factor productivity contribution of 3.38 percentage points to private business output in 2020 was widespread, with all four sectors experiencing negative contributions, led by the service providing sector which had a negative contribution of 2.37 percentage points. Among the service providing sector, transportation and warehousing and health care and social assistance were the main downward drivers both with a negative 0.62 percentage point contribution. Accommodation and food services also experienced a large decline of 0.46 percentage point. By contrast, during the Great Recession, the goods producing sector made the largest negative contribution (-0.81 percentage point) to TFP growth. (See tables 6 and 7 and chart 5.)

Chart 5. Sector contributions to TFP during economic downturns

Percentage points



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

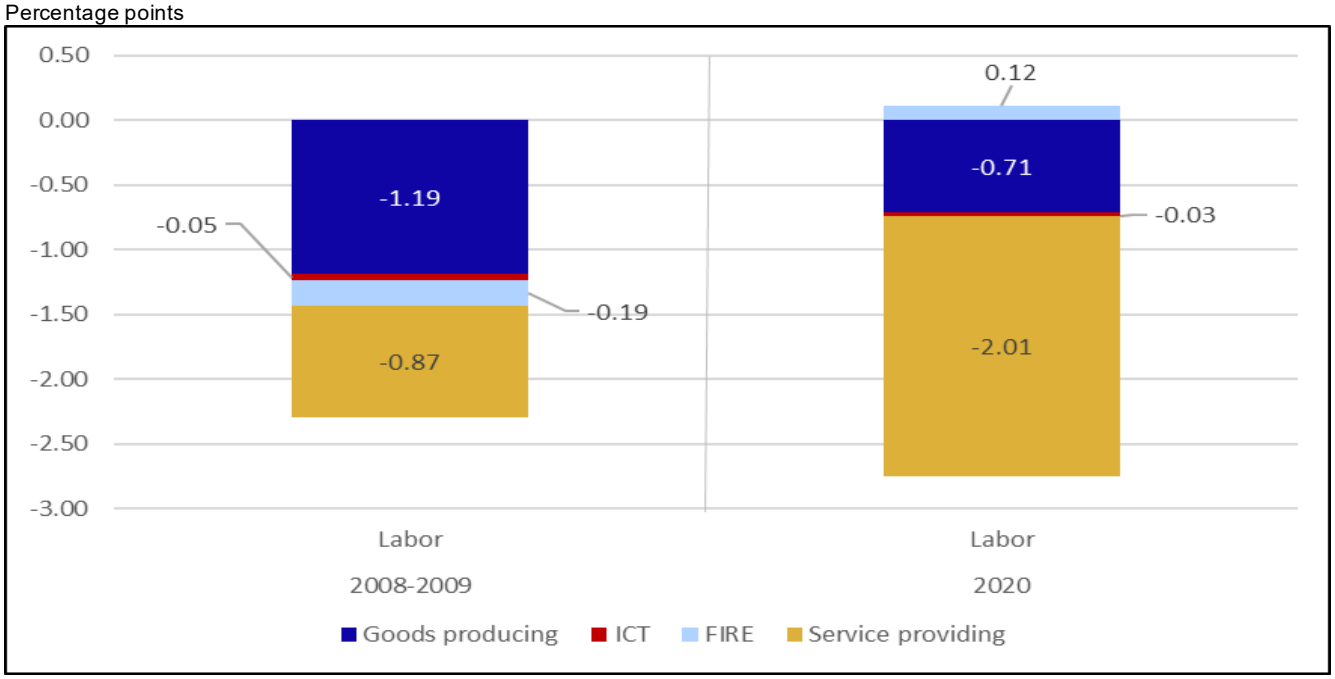
Note: 2008-09 is reported as the average annual rate of change of growth

Labor contribution

In 2020, labor input had a negative contribution to private business output, with declines in three of the four aggregated sectors. The service providing sector had the largest negative contribution in 2020 (-2.01 percentage points), led by accommodation and food service (-0.58 percentage point) and professional and technical services (-0.29 percentage point). By contrast, the largest negative labor contribution to output during the Great Recession came from the goods producing sector (-1.19). Of note is the different behavior of the FIRE sector during 2020 and the Great Recession. This sector had a small positive contribution of 0.12 percentage point in 2020 compared to a negative contribution of 0.19 percentage point in 2008-09. (See tables 6 and 7 and chart 6.)

Chart 6. Sector contributions to labor during economic downturns

Percentage points



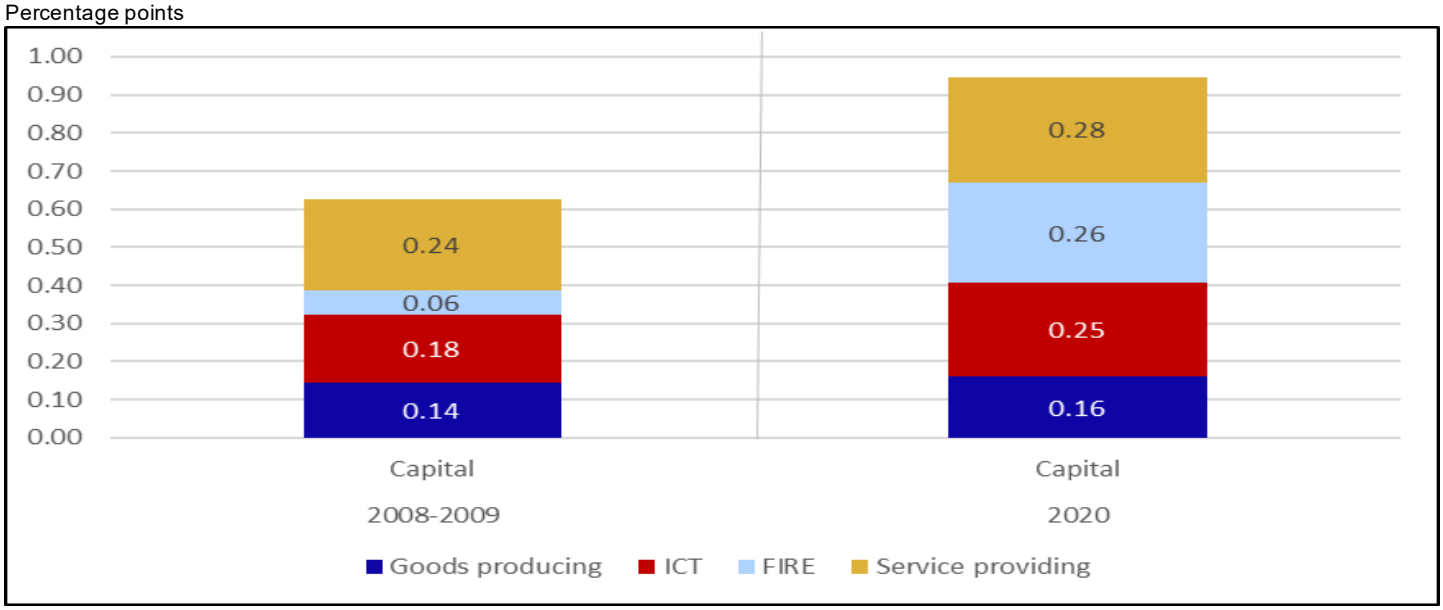
Note: Contributions may not sum due to aggregation, rounding, and integration of top line to industry

Capital contribution

Capital services positive contribution to output in 2020 kept output from declining faster. Capital services positive contribution in 2020 and during the Great Recession reflects the stability of capital stock during downturns. All sectors demonstrated a positive contribution of capital to output during both 2020 (0.95 percentage point) and the Great Recession (0.62 percentage point) but it was the large contributions of the FIRE and ICT sectors that led to the greater contribution of capital in 2020. The 0.26 percentage point contribution of the FIRE sector was driven by the finance and insurance industry with a contribution of 0.19 percentage point. During the Great Recession this industry only had a contribution of 0.02 percentage point. (See table 6 and 7 and chart 7.) The ICT sector increased its contribution of capital to output from 0.18 percentage point during the Great Recession to 0.25 percentage point.

Chart 7. Sector contributions to capital during economic downturns

Percentage points



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

Technical Notes

Special adjustment for the COVID-19 pandemic

In response to the COVID-19 global pandemic that began late in the first quarter of 2020, Congress passed multiple pieces of legislation to provide support to individuals, communities, and businesses. The size and wide scope of these subsidies impacted every industry in the private business economy. This release incorporates data from the Bureau of Economic Analysis (BEA) to distribute these subsidies into labor and capital costs, based on the usage allowed by law, for each industry. Additional information can be found on the BLS website at www.bls.gov/covid19/effects-of-covid-19-pandemic-on-productivity-and-costs-statistics.htm#Multifactor-Productivity.

Goods producing sector

This sector contains industries within agriculture, forestry, fishery, 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 services

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 2, 2021 “Productivity and Costs” news release (USDL- 21-1570). 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 purchased business services

Data on energy, materials, and purchased business 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. Purchased

business 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.

2020 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 for 1987-2019 can be found at www.bls.gov/opub/hom/msp/data.htm.

Other information

Detailed information on methods used in this release can be found in the BLS Handbook of Methods Productivity Measures: Business Sector and Major Sector section at www.bls.gov/opub/hom/msp/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/mfp/mprdload.htm. Industry specific contributions to output are available at www.bls.gov/mfp/contributions-to-output.htm.

Table 1. Total factor productivity and related data, 2020

Industry	2012 NAICS Code	Percent change					
		TFP	Output	Combined Inputs	Capital Input	Labor Input	Intermediate Inputs[1]
Agriculture, forestry, fishery, and hunting	11	7.4	9.4	1.9	0.3	-4.7	5.8
Mining	21	-4.0	-18.0	-14.6	-0.2	-14.9	-24.4
Utilities	22	1.8	-2.8	-4.5	2.4	0.0	-12.3
Construction	23	0.3	1.4	1.1	3.8	-5.7	7.1
Manufacturing	31-33	-3.3	-7.0	-3.9	1.1	-4.4	-7.0
Durable Manufacturing	321,327,33	-3.2	-8.3	-5.3	0.4	-5.9	-8.6
Nondurable Manufacturing	31,322-326	-2.9	-5.6	-2.8	1.8	-1.9	-5.3
Wholesale trade	42	0.7	-2.1	-2.8	0.8	-5.8	-2.6
Retail trade	44,45	-1.0	-0.1	0.8	1.6	-3.1	4.2
Transportation and warehousing	48-49	-8.1	-15.1	-7.6	3.2	-4.6	-14.4
Information	51	-0.1	3.4	3.6	5.9	-0.8	4.3
Finance and insurance	52	-0.5	1.9	2.3	4.3	3.3	-1.1
Real estate and rental and leasing	53	-1.9	-3.0	-1.1	1.5	-5.6	-2.0
Professional and technical services	54	0.3	-3.1	-3.3	6.6	-3.7	-5.8
Management of companies	55	-3.3	2.0	5.5	0.9	8.2	2.9
Admin and waste services	56	-0.2	-3.2	-3.0	4.6	-7.3	1.1
Educational services	61	-10.9	-17.3	-7.2	1.8	-7.8	-9.3
Health care and social assistance	62	-4.8	-7.5	-2.9	2.9	-2.0	-4.8
Arts, entertainment, and recreation	71	-17.9	-37.7	-24.1	2.7	-25.6	-33.8
Accommodation and food services	72	-8.6	-25.9	-18.9	2.0	-20.9	-24.3
Other services, except government	81	-3.0	-14.8	-12.1	1.9	-12.4	-13.2

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

Table 2. Total factor productivity intermediate inputs, 2020

Industry	2012 NAICS Code	Percent change		
		Energy Input	Materials Input	Services Input[1]
Agriculture, forestry, fishery, and hunting	11	3.4	10.7	1.2
Mining	21	-19.3	-11.5	-31.0
Utilities	22	-7.7	5.8	-19.2
Construction	23	16.1	2.2	22.1
Manufacturing	31-33	-17.4	-2.7	-14.2
Durable manufacturing	321,327,33	-15.7	-4.7	-15.7
Nondurable manufacturing	31,322-326	-17.1	-2.9	-11.4
Wholesale trade	42	-0.5	26.9	-4.4
Retail trade	44,45	1.0	24.4	1.5
Transportation and warehousing	48-49	-42.1	-1.8	-9.2
Information	51	-22.1	-1.0	6.0
Finance and insurance	52	10.8	-12.4	-1.1
Real estate and rental and leasing	53	2.4	-9.3	-1.9
Professional and technical services	54	-9.2	-6.8	-5.5
Management of companies	55	4.9	24.3	1.2
Admin and waste services	56	-8.3	-4.2	2.6
Educational services	61	-27.2	8.6	-12.2
Health care and social assistance	62	-21.8	-6.0	-4.0
Arts, entertainment, and recreation	71	-37.7	-40.6	-31.8
Accommodation and food services	72	-22.3	-22.5	-25.1
Other services, except government	81	-31.4	-17.4	-10.5

1. Purchased business services

Table 3. Total factor productivity and related data, 1987-2020

Industry	2012 NAICS Code	Average annual percent change					
		TFP	Output	Combined Inputs	Capital Input	Labor Input	Intermediate Inputs[1]
Agriculture, forestry, fishery, and hunting	11	1.2	1.4	0.2	0.3	-0.1	0.2
Mining	21	1.4	1.3	0.0	-0.1	-0.2	1.1
Utilities	22	0.5	1.3	0.7	1.7	-0.4	0.3
Construction	23	-0.7	0.6	1.3	3.0	1.2	1.1
Manufacturing	31-33	0.7	1.2	0.5	2.3	-0.5	0.2
Durable manufacturing	321,327,33	1.3	1.6	0.3	2.2	-0.5	0.1
Nondurable manufacturing	31,322-326	-0.1	0.4	0.5	2.4	-0.4	0.2
Wholesale trade	42	1.1	3.5	2.4	3.4	0.5	3.9
Retail trade	44,45	1.0	2.9	1.8	3.7	0.5	2.7
Transportation and warehousing	48-49	0.4	2.3	1.9	2.0	1.5	2.3
Information	51	0.8	5.1	4.3	6.4	0.7	5.2
Finance and insurance	52	0.0	2.9	2.9	5.1	1.5	3.0
Real estate and rental and leasing	53	-0.2	2.8	3.1	3.1	1.1	3.7
Professional and technical services	54	0.4	3.8	3.4	7.3	2.4	4.5
Management of companies	55	0.0	3.0	3.0	2.8	1.6	5.4
Admin and waste services	56	0.3	4.2	3.9	6.7	2.5	5.4
Educational services	61	-0.5	3.2	3.6	4.5	6.0	2.6
Health care and social assistance	62	-0.6	3.0	3.6	4.4	3.3	3.8
Arts, entertainment, and recreation	71	-0.3	1.8	2.2	2.9	1.1	2.9
Accommodation and food services	72	0.0	1.4	1.4	2.0	1.0	1.6
Other services, except government	81	-0.3	1.4	1.7	2.5	0.8	2.8

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

Table 4. Total factor productivity intermediate inputs, 1987-2020

Industry	2012 NAICS Code	Average annual percent change		
		Energy Input	Materials Input	Services Input[1]
Agriculture, forestry, fishery, and hunting	11	0.3	1.2	-0.4
Mining	21	-0.1	1.8	0.9
Utilities	22	-0.3	-0.9	2.8
Construction	23	2.7	1.5	0.2
Manufacturing	31-33	-2.6	0.7	-0.3
Durable manufacturing	321,327,33	-3.9	0.8	-0.6
Nondurable manufacturing	31,322-326	-1.7	0.3	0.1
Wholesale trade	42	1.7	3.7	4.1
Retail trade	44,45	0.7	3.2	2.8
Transportation and warehousing	48-49	-0.8	3.3	3.1
Information	51	1.7	3.8	6.2
Finance and insurance	52	3.5	0.4	3.1
Real estate and rental and leasing	53	9.7	0.2	3.9
Professional and technical services	54	1.3	4.9	4.6
Management of companies	55	3.9	10.3	5.0
Admin and waste services	56	0.4	4.2	6.2
Educational services	61	1.2	3.3	2.5
Health care and social assistance	62	0.3	1.6	5.1
Arts, entertainment, and recreation	71	0.9	3.7	2.8
Accommodation and food services	72	1.4	-0.7	3.7
Other services, except government	81	-1.5	2.0	3.5

1. Purchased business services

Table 5. Sources of labor productivity, 2020

Industry	2012 NAICS code	Percent change	Percentage Point					
		Labor Productivity	TFP	Capital Intensity	Labor Composition	Energy Intensity	Materials Intensity	Services[1] Intensity
Agriculture, forestry, fishery, and hunting	11	12.5	7.4	1.2	-0.3	0.2	2.9	0.8
Mining	21	1.0	-4.0	7.6	0.9	0.0	1.3	-4.3
Utilities	22	-2.1	1.8	1.3	0.1	-1.5	0.2	-3.9
Construction	23	8.2	0.3	1.0	0.2	0.5	3.0	2.9
Manufacturing	31-33	-0.4	-3.3	2.4	0.7	-0.2	1.1	-1.1
Durable Manufacturing	321,327,33	-0.3	-3.2	2.4	0.8	-0.1	0.8	-1.0
Nondurable Manufacturing	31,322-326	-1.3	-2.9	1.7	0.5	-0.3	0.6	-0.9
Wholesale trade	42	4.4	0.7	1.8	0.2	0.1	0.8	0.8
Retail trade	44,45	3.8	-1.0	0.9	0.2	0.1	1.5	2.0
Transportation and warehousing	48-49	-12.6	-8.1	0.9	-0.8	-3.2	0.1	-1.9
Information	51	9.5	-0.1	4.5	1.2	-0.1	0.3	3.4
Finance and insurance	52	-0.4	-0.5	0.6	0.4	0.1	-0.1	-0.9
Real estate and rental and leasing	53	1.8	-1.9	2.3	-0.1	0.4	-0.2	1.3
Professional and technical services	54	0.2	0.3	1.0	-0.3	0.0	-0.2	-0.5
Management of companies	55	-0.7	-3.3	-0.1	2.8	0.0	0.6	-0.5
Admin and waste services	56	4.9	-0.2	1.3	0.3	0.0	0.3	3.2
Educational services	61	-9.0	-10.9	1.7	0.5	-0.5	1.8	-1.3
Health care and social assistance	62	-3.9	-4.8	0.7	0.7	-0.2	-0.3	-0.1
Arts, entertainment, and recreation	71	-15.6	-17.9	7.3	0.3	-0.2	-1.7	-2.5
Accommodation and food services	72	-7.0	-8.6	4.1	-0.3	-0.1	-0.3	-1.5
Other services, except government	81	-1.5	-3.0	0.8	0.5	-0.2	-0.7	1.1

1. Purchased business services

Table 6. Industry contributions[1] to private business output by component, 2008-09[2]

Industry	2012 NAICS Code	Percentage Point		
		TFP	Capital	Labor
Goods producing sector	**11-33**	**-0.81**	**0.14**	**-1.19**
Agriculture, forestry, fishery, and hunting	11	0.12	-0.05	-0.01
Mining	21	0.07	0.02	-0.02
Utilities	22	-0.05	0.04	0.00
Construction	23	-0.15	-0.02	-0.59
Manufacturing	31-33	-0.80	0.15	-0.58
Durable manufacturing[3]	321,327,33	-0.60	0.03	-0.43
Nondurable manufacturing	31,322-326	-0.20	0.12	-0.16
ICT[4]	**51x**	**0.21**	**0.18**	**-0.05**
Information	51	-0.01	0.06	-0.06
FIRE	**52-53**	**0.24**	**0.06**	**-0.19**
Finance and insurance	52	0.43	0.02	-0.14
Real estate and rental and leasing	53	-0.19	0.04	-0.05
Service providing sector	**42-49,54-81**	**-0.33**	**0.24**	**-0.87**
Wholesale trade	42	-0.21	-0.02	-0.16
Retail trade	44,45	-0.06	0.01	-0.18
Transportation and warehousing	48-49	-0.02	0.01	-0.11
Professional and technical services[5]	54	0.06	0.06	-0.16
Management of companies	55	-0.14	0.01	0.05
Admin and waste services	56	0.06	0.02	-0.25
Educational services	61	0.05	0.01	0.01
Health care and social assistance	62	0.14	0.05	0.10
Arts, entertainment, and recreation	71	0.00	0.01	-0.01
Accommodation and food services	72	-0.10	0.02	-0.06
Other services, except government	81	-0.10	0.01	-0.04

1. Contributions may not sum due to aggregation, rounding, and integration of the top line to industry
2. 2008-09 is reported as the average annual rate of change of growth

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

4. 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)

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

Table 7. Industry contributions[1] to private business output by component, 2020

Industry	2012 NAICS Code	Percentage Point		
		TFP	Capital	Labor
Goods producing sector	**11-33**	**-0.64**	**0.16**	**-0.71**
Agriculture, forestry, fishery, and hunting	11	0.17	0.00	-0.02
Mining	21	-0.08	0.00	-0.08
Utilities	22	0.06	0.03	0.00
Construction	23	0.03	0.04	-0.28
Manufacturing	31-33	-0.83	0.08	-0.33
Durable manufacturing[2]	321,327,33	-0.43	0.02	-0.27
Nondurable manufacturing	31,322-326	-0.40	0.07	-0.06
ICT[3]	**51x**	**-0.03**	**0.25**	**-0.03**
Information	51	0.05	0.02	-0.02
FIRE	**52-53**	**-0.33**	**0.26**	**0.12**
Finance and insurance	52	-0.07	0.19	0.20
Real estate and rental and leasing	53	-0.26	0.07	-0.08
Service providing sector	**42-49,54-81**	**-2.37**	**0.28**	**-2.01**
Wholesale trade	42	0.08	0.02	-0.22
Retail trade	44,45	-0.11	0.03	-0.14
Transportation and warehousing	48-49	-0.62	0.03	-0.14
Professional and technical services[4]	54	0.01	0.07	-0.29
Management of companies	55	-0.14	0.00	0.18
Admin and waste services	56	-0.01	0.03	-0.27
Educational services	61	-0.14	0.00	-0.03
Health care and social assistance	62	-0.62	0.04	-0.10
Arts, entertainment, and recreation	71	-0.29	0.01	-0.16
Accommodation and food services	72	-0.46	0.02	-0.58
Other services, except government	81	-0.12	0.00	-0.23

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