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**PRODUCTIVITY AND COSTS BY INDUSTRY:
 SELECTED SERVICE-PROVIDING INDUSTRIES, 2015**

Labor productivity rose in 15 of 28 selected service-providing industries in 2015, the U.S. Bureau of Labor Statistics reported today. This was fewer than in 2014, when labor productivity increased in 20 of 28 industries. In 2015 output increased in fewer industries than in 2014, while hours worked increased in more industries than in 2014.

Unit labor costs declined in 10 industries in 2015. Each of the industries with declines in unit labor costs also recorded increases in productivity. Increases in labor productivity counter the impact of rising hourly compensation on unit labor costs facing employers.

Productivity and cost measures are published in this release for the first time for amusement parks and arcades, and for specialized freight trucking.

Chart 1. Selected service-providing industries with the largest changes in productivity, 2015

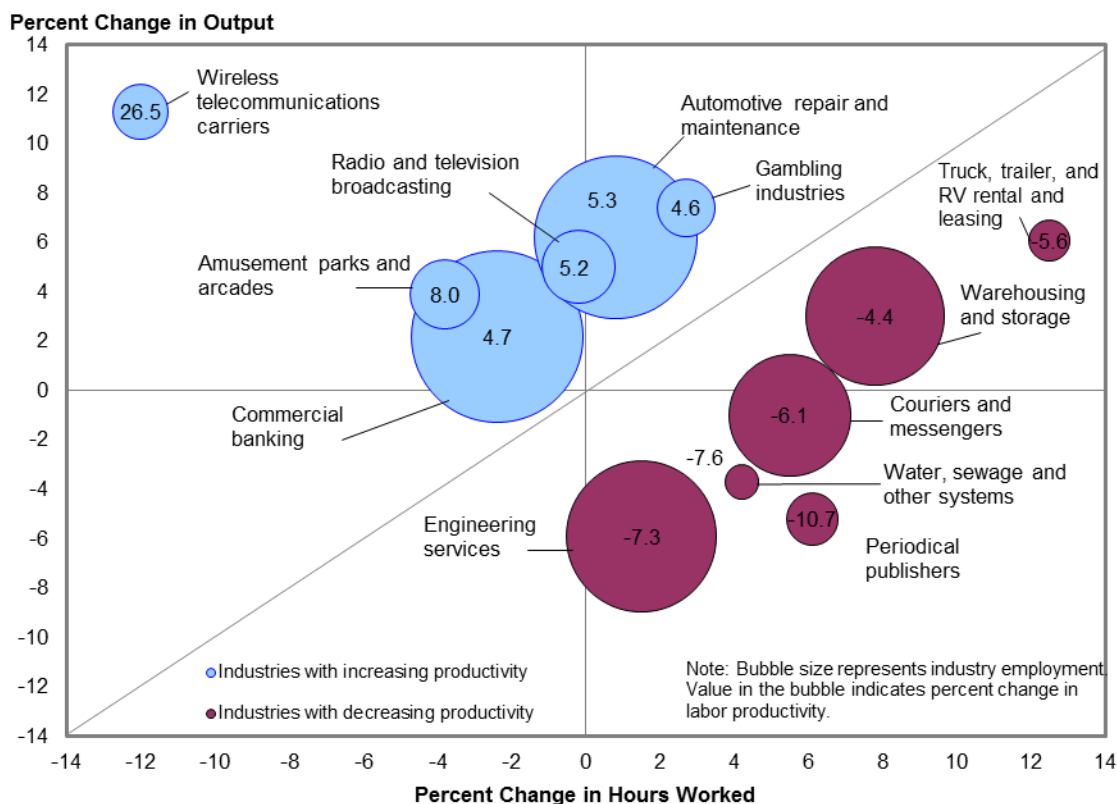
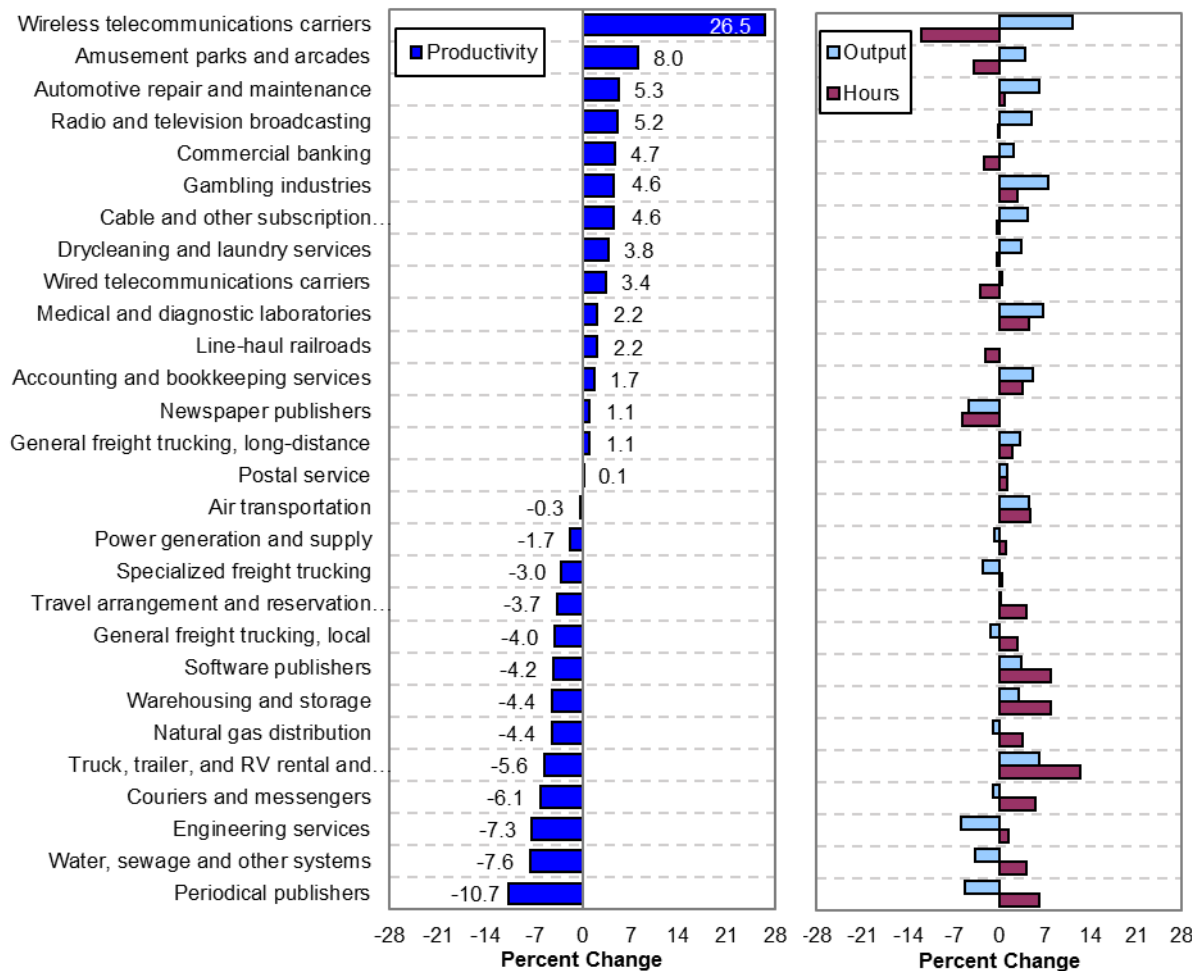


Chart 1 shows the selected service-providing industries with the largest changes in productivity in 2015. Industries above the diagonal line had growth in output greater than growth in hours worked, resulting in positive productivity growth. In contrast, industries below the diagonal line exhibited declining productivity as hours worked increased and, in most cases, output declined.

Trends in Labor Productivity in 2015

- Labor productivity increased in 15 of 28 industries in 2015. (See chart 2.) Among those with increasing productivity, output grew in all but two. Hours worked declined in 9 of the 28 industries.
- Productivity gains of at least 8.0 percent occurred in two industries where output increases coincided with declines in hours worked: wireless telecommunications carriers (26.5 percent) and amusement parks and arcades (8.0 percent).
- Four industries recorded output gains of at least 3.0 percent but had productivity declines because of larger increases in hours worked: truck, trailer, and RV rental and leasing (-5.6 percent), warehousing and storage (-4.4 percent), software publishers (-4.2 percent), and air transportation (-0.3 percent).

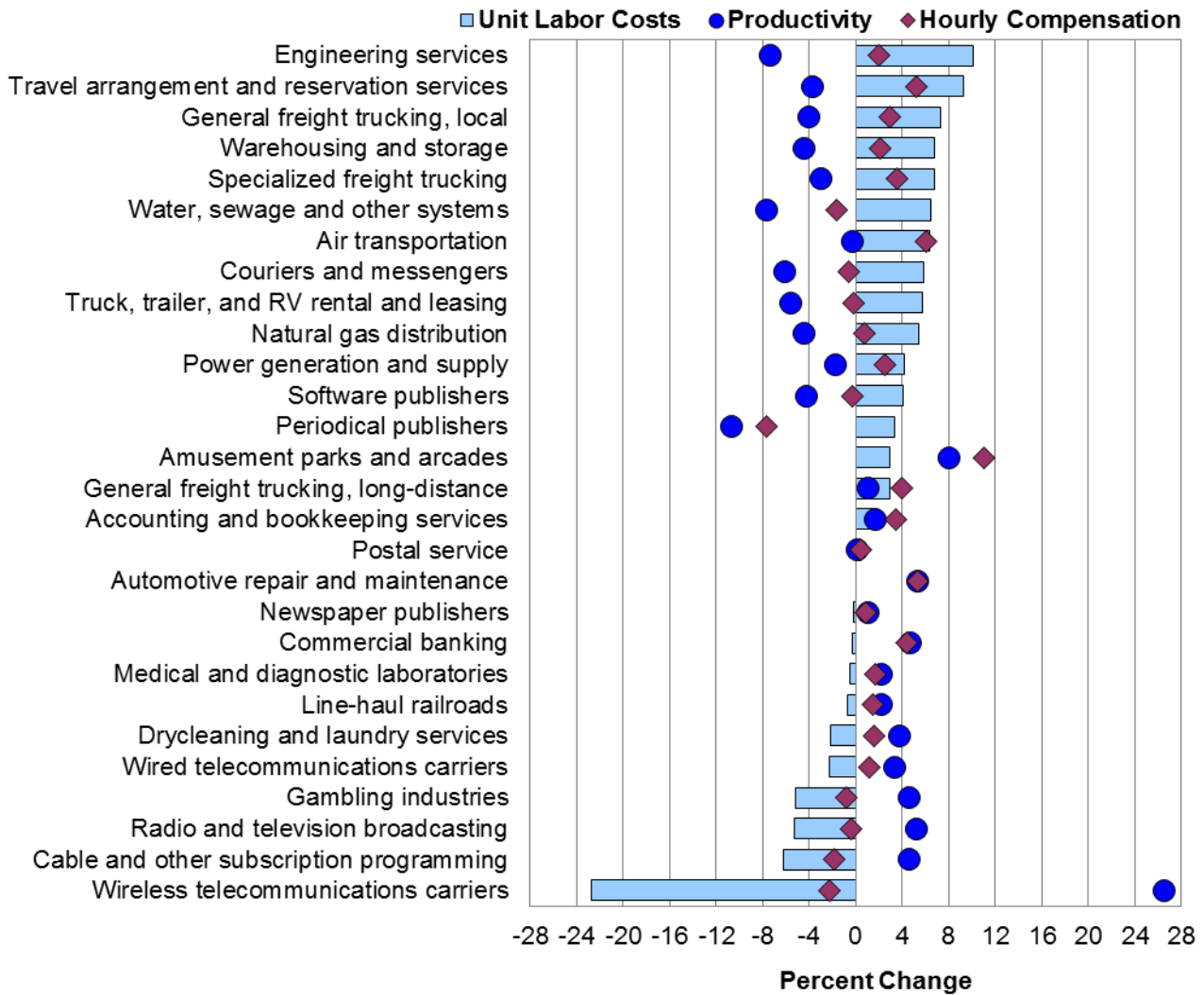
Chart 2. Labor productivity growth in selected service-providing industries, 2015



Trends in Unit Labor Costs in 2015

- Unit labor costs fell in 10 industries in 2015. (See chart 3.)
- All unit labor cost declines occurred in industries where productivity rose.
- Conversely, each of the industries where productivity fell also recorded an increase in unit labor costs.
- Hourly labor compensation rose in 19 of the 28 industries measured.

Chart 3. Hourly compensation, productivity, and unit labor costs in selected service-providing industries, 2015

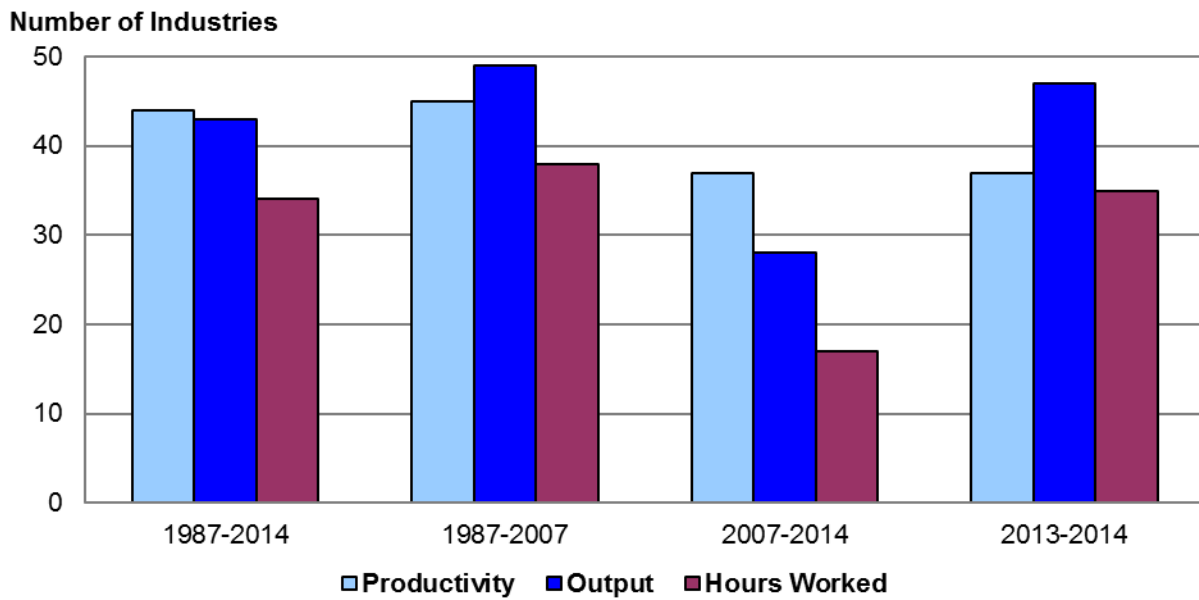


Long Term Productivity Trends

Chart 4 displays the number of industries with increases in productivity, output, and hours worked for selected time periods through 2014, the latest year for which data are available for all 57 selected service-providing industries published on the BLS website.

- Productivity rose in 44 service-providing industries for the period 1987 to 2014. Median productivity growth for all 57 industries was approximately 1.7 percent per year.
- Output increased during this period in 43 industries, while hours worked increased in 34 industries.
- Productivity also increased in 37 of the 57 industries measured between 2007 and 2014, even though the period saw a severe recession. However, only 28 industries had increases in output and 17 experienced growth in hours worked.
- Other specialized trucking, long-distance, and other specialized trucking, local, are published for the first time in this release for 2002-2014. The first industry reported an increase in productivity in 2014, while the latter had a productivity decline.

Chart 4. Number of selected service-providing industries with increases in labor productivity, output, and hours worked



Want to know more?

Find data at www.bls.gov/lpc for:

- Additional industries and sectors
- Detailed data series: indexes of productivity and related measures; rates of change; and levels of industry employment, hours worked, nominal value of production, and labor compensation
- Additional years and long-term data

Questions?

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Technical Note

Labor Productivity: Labor productivity describes the relationship between real output and the labor hours involved in its production. These measures show the changes from period to period in the amount of goods and services produced per hour worked. Although the labor productivity measures relate output in an industry to hours worked of all persons in that industry, they do not measure the specific contribution of labor to growth in output. Rather, they reflect the joint effects of many influences, including: changes in technology; capital investment; utilization of capacity, energy, and materials; the use of purchased services inputs, including contract employment services; the organization of production; the characteristics and effort of the workforce; and managerial skill.

Unit Labor Costs: Unit labor costs represent the cost of labor required to produce one unit of output. The unit labor cost indexes are computed by dividing an index of nominal industry labor compensation by an index of real industry output. Unit labor costs also describe the relationship between compensation per hour and real output per hour (labor productivity). Increases in hourly compensation increase unit labor costs; increases in labor productivity offset compensation increases and reduce unit labor costs.

Output: Industry output is measured as an annual-weighted index of the changes in the various products (in real terms) provided for sale outside the industry. Real industry output is usually derived by deflating nominal sales or values of production using BLS price indexes, but for some industries it is measured by physical quantities of output.

Industry output measures are constructed primarily using data from the economic censuses and annual surveys of the U.S. Census Bureau, U.S. Department of Commerce, together with information on price changes from BLS. Other data sources include: the Energy Information Administration, U.S. Department of Energy; the Bureau of Transportation Statistics, U.S. Department of Transportation; the U.S. Geological Survey, U.S. Department of the Interior; the U.S. Postal Service; the Postal Rate Commission; and the Federal Deposit Insurance Corporation. Industrial production data from the Quarterly Service Survey from the Census Bureau are used to construct preliminary output measures for 2015 for some industries.

Labor Hours: Labor hours are measured as annual hours worked by all employed persons in an industry. Data on industry employment and hours come primarily from the BLS Current Employment Statistics (CES) survey and Current Population Survey (CPS). CES data on the number of total and production worker jobs held by wage and salary workers in nonfarm establishments are supplemented with CPS self-employed and unpaid family worker data to estimate industry employment. Hours worked estimates are derived using CES and CPS employment, CES data on the average weekly hours paid of production workers, CPS data on hours of nonproduction, self-employed, and unpaid family workers, and ratios of hours worked to hours paid based on data from the National Compensation Survey (NCS). For some industries, employment and hours data are supplemented or further disaggregated using data from the BLS Quarterly Census of Employment and Wages (QCEW), the Census Bureau, or other sources. Additional sources of employment and hours data for certain service industries include the Association of American Railroads, the U.S. Department of Transportation, and the U.S. Postal Service. Hours worked are estimated separately for different types of workers and then are directly aggregated; no adjustments for labor composition are made.

Labor Compensation: Labor compensation, defined as payroll plus supplemental payments, is a measure of the cost to the employer of securing the services of labor. Payroll includes salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind. Supplemental payments include both legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation, such as the employer portion of private health insurance and pension plans. Industry compensation measures are constructed primarily using data from the economic censuses and annual surveys of the Census Bureau, U.S. Department of Commerce. The estimates for 2015 are constructed using data from the BLS Quarterly Census of Employment and Wages (QCEW).

Table 1. Recent labor productivity, unit labor costs, and related data

Industry	2012 NAICS code	2015 Employment (thousands)	Percent change, 2014-2015				
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compensation
Utilities							
Utilities	22	558.7	-2.5	4.5	-0.8	1.8	3.6
Utilities	221	558.7	-2.5	4.5	-0.8	1.8	3.6
Power generation and supply	2211	394.6	-1.7	4.2	-0.7	1.0	3.4
Natural gas distribution	2212	114.1	-4.4	5.4	-0.9	3.6	4.4
Water, sewage and other systems	2213	50.0	-7.6	6.5	-3.7	4.2	2.5
Transportation and Warehousing							
Air transportation	481	434.6	-0.3	6.4	4.5	4.8	11.2
Line-haul railroads	482111	189.8	2.2	-0.7	0.0	-2.1	-0.7
Truck transportation	484	1672.0	-1.0	4.7	0.7	1.7	5.5
General freight trucking	4841	1194.2	0.2	3.6	2.4	2.2	6.1
General freight trucking, local	48411	313.1	-4.0	7.3	-1.4	2.7	5.8
General freight trucking, long-distance	48412	881.1	1.1	2.9	3.2	2.0	6.2
Specialized freight trucking	4842	477.8	-3.0	6.8	-2.5	0.5	4.1
Postal service	491	596.8	0.1	0.4	1.3	1.2	1.7
Postal service	4911	596.8	0.1	0.4	1.3	1.2	1.7
Couriers and messengers	492	636.9	-6.1	5.9	-1.0	5.5	4.8
Warehousing and storage	493	821.2	-4.4	6.8	3.0	7.8	10.0
Warehousing and storage	4931	821.2	-4.4	6.8	3.0	7.8	10.0
Information							
Publishing	511	769.8	-3.5	3.5	0.2	3.9	3.7
Newspaper publishers	51111	201.9	1.1	-0.2	-4.6	-5.6	-4.8
Periodical publishers	51112	114.1	-10.7	3.4	-5.2	6.1	-2.0
Software publishers	5112	334.3	-4.2	4.1	3.3	7.8	7.5
Broadcasting, except Internet	515	292.2	3.9	-4.5	3.7	-0.3	-1.0
Radio and television broadcasting	5151	227.5	5.2	-5.3	5.0	-0.2	-0.6
Cable and other subscription programming	5152	64.7	4.6	-6.2	4.3	-0.3	-2.2
Wired telecommunications carriers	5171	595.7	3.4	-2.2	0.4	-2.9	-1.8
Wireless telecommunications carriers	5172	131.5	26.5	-22.7	11.3	-12.0	-13.9
Finance and Insurance							
Commercial banking	52211	1272.3	4.7	-0.3	2.2	-2.4	1.9
Real Estate and Rental and Leasing							
Truck, trailer, and RV rental and leasing	53212	72.1	-5.6	5.8	6.1	12.5	12.3
Professional and Technical Services							
Accounting and bookkeeping services	5412	1140.0	1.7	1.8	5.2	3.5	7.2
Accounting and bookkeeping services	54121	1140.0	1.7	1.8	5.2	3.5	7.2
Engineering services	54133	969.9	-7.3	10.1	-5.9	1.5	3.6
Administrative and Waste Services							
Travel arrangement and reservation services	5615	222.1	-3.7	9.3	0.3	4.2	9.6
Health Care and Social Assistance							
Medical and diagnostic laboratories	6215	268.4	2.2	-0.5	6.8	4.5	6.2
Arts, Entertainment, and Recreation							
Amusement parks and arcades	7131	203.0	8.0	3.0	3.9	-3.8	6.9
Gambling industries	7132	137.6	4.6	-5.2	7.4	2.7	1.9
Other Services							
Automotive repair and maintenance	8111	1130.5	5.3	0.0	6.2	0.8	6.2
Drycleaning and laundry services	8123	310.3	3.8	-2.1	3.3	-0.4	1.2

Table 2. Long run labor productivity, unit labor costs, and related data

Industry	2012 NAICS code	2014 Employment (thousands)	Average annual percent change, 1987-2014				
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compensation
Utilities							
Utilities	22	551.5	2.4	1.4	1.5	-0.8	2.9
Utilities	221	551.5	2.4	1.4	1.5	-0.8	2.9
Power generation and supply	2211	391.4	3.3	0.5	2.2	-1.0	2.7
Natural gas distribution	2212	111.9	0.8	3.7	-0.3	-1.1	3.4
Water, sewage and other systems	2213	48.2	-1.7	4.8	0.8	2.6	5.7
Transportation and Warehousing							
Air transportation	481	422.8	3.2	0.4	2.6	-0.6	3.0
Line-haul railroads	482111	187.4	3.7	-0.4	2.1	-1.5	1.7
Truck transportation(1)	484	1632.3	0.6	0.8	2.0	1.5	2.9
General freight trucking(1)	4841	1163.2	1.1	0.9	2.4	1.2	3.3
General freight trucking, local(1)	48411	303.2	2.6	0.1	3.7	1.1	3.8
General freight trucking, long-distance	48412	860	1.2	0.3	2.3	1.0	2.6
Specialized freight trucking(2)	4842	469.1	0.7	1.8	2.2	1.5	4.1
Used household and office goods moving	48421	97	-1.0	2.6	-0.3	0.6	2.2
Other specialized trucking, local(2)	48422	236.8	-0.1	2.6	2.1	2.2	4.7
Other specialized trucking, long-distance(2)	48423	135	1.8	0.8	4.0	2.1	4.9
Postal service	491	593	0.6	3.2	-0.6	-1.3	2.5
Postal service	4911	593	0.6	3.2	-0.6	-1.3	2.5
Couriers and messengers	492	606.3	-1.9	3.5	0.3	2.2	3.8
Warehousing and storage(1)	493	752.7	2.6	-0.5	5.9	3.2	5.4
Warehousing and storage(1)	4931	752.7	2.6	-0.5	5.9	3.2	5.4
General warehousing and storage(1)	49311	646.8	3.9	-1.4	7.4	3.3	5.9
Refrigerated warehousing and storage(1)	49312	52	0.0	1.4	2.8	2.8	4.3
Information							
Publishing	511	753.5	4.0	1.3	3.5	-0.5	4.8
Newspaper, book, and directory publishers	5111	438	-0.2	4.3	-2.5	-2.3	1.7
Newspaper publishers	51111	211.3	-1.2	4.4	-4.2	-3.0	0.0
Periodical publishers	51112	111.3	-0.4	4.9	-1.5	-1.1	3.4
Book publishers	51113	69.1	0.0	4.8	-0.8	-0.8	3.9
Software publishers	5112	315.5	12.3	-6.4	18.8	5.8	11.1
Motion picture and video exhibition	51213	132	1.7	1.9	1.6	-0.2	3.5
Broadcasting, except Internet	515	287.8	2.8	1.8	2.9	0.1	4.7
Radio and television broadcasting	5151	224	1.8	2.1	1.5	-0.3	3.7
Radio broadcasting	51511	92.1	3.4	1.8	2.4	-0.9	4.2
Cable and other subscription programming	5152	63.8	4.9	2.6	7.0	2.0	9.7
Wired telecommunications carriers	5171	608	3.6	-1.1	2.8	-0.8	1.6
Wireless telecommunications carriers	5172	149.6	11.2	-6.3	19.4	7.4	11.9
Finance and Insurance							
Commercial banking	52211	1292.8	3.3	2.0	3.2	-0.1	5.2
Real Estate and Rental and Leasing							
Passenger car rental	532111	114.7	1.7	2.3	2.4	0.7	4.8
Truck, trailer, and RV rental and leasing	53212	65.6	2.5	0.9	2.4	-0.1	3.3
Video tape and disc rental	53223	17.5	6.4	-2.0	-0.8	-6.7	-2.8
Professional and Technical Services							
Accounting and bookkeeping services(3)	5412	1098.9	2.6	1.0	3.2	0.6	4.2
Accounting and bookkeeping services(3)	54121	1098.9	2.6	1.0	3.2	0.6	4.2
Offices of certified public accountants(3)	541211	449.5	1.8	2.4	2.8	0.9	5.2
Tax preparation services	541213	131.4	0.8	1.7	2.4	1.6	4.1
Other accounting services(3)	541219	338.7	4.7	-2.3	4.8	0.1	2.4
Architectural services	54131	182.6	1.5	1.9	2.3	0.8	4.2
Engineering services	54133	947.6	1.1	3.0	2.8	1.7	5.9
Advertising agencies	54181	206.7	1.7	2.5	2.1	0.5	4.6
Photography studios, portrait	541921	60	0.6	2.1	1.0	0.4	3.1

Table 2. Long run labor productivity, unit labor costs, and related data - Continued

Industry	2012 NAICS code	2014 Employment (thousands)	Average annual percent change, 1987-2014				
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compensation
Administrative and Waste Services							
Employment placement and executive search(4)	56131	303	3.9	0.3	5.1	1.2	5.5
Travel arrangement and reservation services(3)	5615	214.8	6.7	-1.6	3.6	-2.9	1.9
Travel agencies	56151	97.4	5.7	-1.0	4.2	-1.4	3.2
Janitorial services	56172	1323.3	2.0	1.4	3.6	1.6	5.0
Health Care and Social Assistance							
Medical and diagnostic laboratories(4)	6215	261.8	2.2	0.3	5.3	3.0	5.6
Medical laboratories(4)	621511	185.2	2.1	0.2	5.3	3.1	5.5
Diagnostic imaging centers(4)	621512	76.6	2.4	0.7	5.4	2.9	6.1
Hospitals, except psychiatric and substance abuse hospitals(5)	6221,3	4670.9	0.5	3.5	2.1	1.6	5.6
Arts, Entertainment, and Recreation							
Amusement parks and arcades(6)	7131	189.7	-4.3	6.7	-1.7	2.7	4.9
Amusement and theme parks	71311	169.1	-1.2	4.3	1.8	3.0	6.2
Gambling industries(3)	7132	138.6	1.9	2.7	1.9	0.0	4.6
Golf courses and country clubs(2)	71391	381.3	-1.2	4.1	0.0	1.3	4.1
Fitness and recreational sports centers(2)	71394	580.9	3.9	-0.8	3.9	0.0	3.1
Bowling centers	71395	69.4	0.1	2.8	-1.4	-1.5	1.4
Accommodation and Food Services							
Accommodation and food services	72	12851.4	0.7	2.7	2.2	1.5	5.0
Accommodation	721	1937.2	2.1	1.7	2.7	0.7	4.5
Traveler accommodation	7211	1853.9	2.1	1.7	2.8	0.7	4.5
Hotels and motels, except casino hotels	72111	1540.1	1.5	2.5	2.1	0.6	4.6
Food services and drinking places	722	10914.2	0.4	3.1	2.0	1.6	5.1
Special food services	7223	766.4	1.0	1.3	2.3	1.3	3.6
Drinking places, alcoholic beverages	7224	376	-0.5	3.3	-0.8	-0.3	2.6
Restaurants and other eating places	72251	9771.8	0.4	3.3	2.2	1.8	5.5
Full-service restaurants	722511	5083.7	0.5	3.7	2.2	1.7	5.9
Limited-service eating places	722513,4,5	4688.1	0.3	2.8	2.1	1.8	5.0
Other Services							
Automotive repair and maintenance	8111	1113.1	0.9	2.3	1.3	0.4	3.7
Reupholstery and furniture repair	81142	21.1	-0.5	3.6	-2.7	-2.2	0.7
Personal care services	8121	1189.1	2.4	1.6	3.5	1.1	5.1
Hair, nail, and skin care services	81211	963	2.4	1.6	3.1	0.7	4.8
Funeral homes and funeral services	81221	113.7	-0.9	4.6	-0.4	0.5	4.1
Drycleaning and laundry services	8123	317.5	1.9	1.7	0.9	-1.0	2.6
Coin-operated laundries and drycleaners	81231	42.8	2.9	1.8	0.6	-2.3	2.4
Drycleaning and laundry services	81232	149.2	0.9	2.1	-1.0	-1.9	1.0
Linen and uniform supply	81233	125.5	1.8	1.4	2.7	0.8	4.1
Photofinishing	81292	11.8	2.5	1.8	-4.4	-6.7	-2.7

Footnotes:

- (1) For NAICS industries 484, 4841, 48411, 493, 4931, 49311, 49312, average annual percent changes are for 1992-2014.
- (2) For NAICS industries 4842, 48422, 48423, 71391 and 71394, average annual percent changes are for 2002-2014.
- (3) For NAICS industries 5412, 54121, 541211, 541219, 5615, and 7132, average annual percent changes are for 1997-2014.
- (4) For NAICS industries 56131, 6215, 621511, and 621512, average annual percent changes are for 1994-2014.
- (5) For NAICS industry 6221,3, average annual percent changes are for 1993-2012. Employment is for 2012.
- (6) For NAICS industry 7131, average annual percent changes are for 2007-2014.