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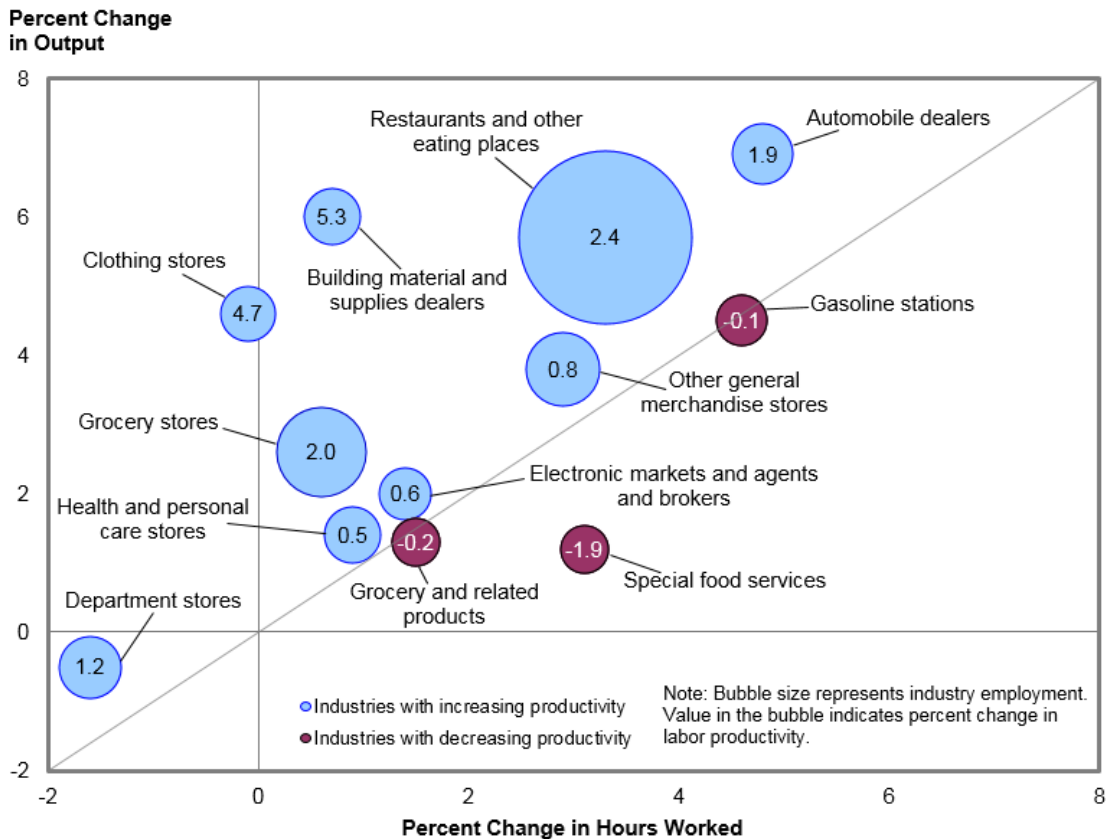
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**PRODUCTIVITY AND COSTS BY INDUSTRY: WHOLESALE TRADE,
 RETAIL TRADE, AND FOOD SERVICES AND DRINKING PLACES INDUSTRIES – 2015**

Labor productivity rose 1.6 percent in wholesale trade, 3.0 percent in retail trade, and 1.8 percent in food services and drinking places in 2015, the U.S. Bureau of Labor Statistics reported today. **Unit labor costs**, which reflect the total labor costs required to produce a unit of output, also rose in all three industry groups.

For wholesale trade in 2015 — productivity, output, and hours worked all increased at a slower rate than in 2014. In retail trade, the growth in output was more than double the growth in hours worked leading to a bigger productivity increase in 2015 than in 2014. Productivity growth in food services and drinking places in 2015 surpassed that of 2014 as increased output exceeded an increase in hours worked.

Chart 1. Productivity growth in the largest (by employment) 4-digit wholesale trade, retail trade, and food services and drinking places industries, 2015



As illustrated in chart 1, 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 more than output. Among the largest industries, productivity growth was greatest in building material and supplies dealers where output outpaced a slight increase in hours worked. Productivity fell the most in special food services where growth in hours worked outpaced an increase in output.

Trends in Labor Productivity in 2015

Productivity increased in 14 of the 16 **3-digit NAICS** industries studied in 2015. (See chart 2.) Four industries had productivity gains of at least 4.0 percent. Nonstore retailers, which includes electronic shopping and mail-order houses, had the largest increase in output (10.0 percent).

Productivity increased in 33 of the 49 **4-digit NAICS** industries studied in 2015. Output grew in 42 industries while hours worked grew in 31 industries.

In **wholesale trade**, productivity rose 1.6 percent as output grew 2.5 percent and hours worked increased 0.9 percent.

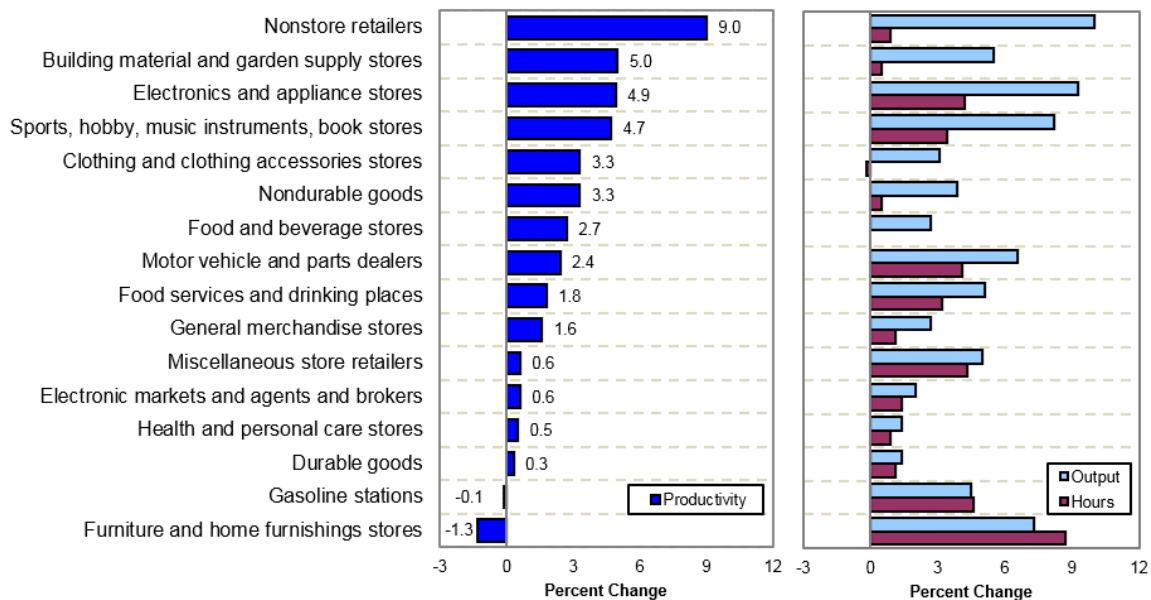
- Productivity grew 0.3 percent in durable goods wholesalers and 3.3 percent in nondurable goods wholesalers.
- Productivity increased in 13 of the 19 4-digit wholesale trade industries while output rose in 16 industries and hours worked grew in 13.
- Productivity increased most rapidly in miscellaneous nondurable goods and in paper and paper products as output increased and hours worked fell in both industries.

In **retail trade**, productivity grew 3.0 percent as output rose 5.0 percent and hours worked rose 2.0 percent.

- Productivity increased in 19 of the 27 4-digit retail trade industries while output grew in 23 industries and hours worked rose in 15.
- The largest productivity increases were in florists and in book stores and news dealers as output rose and hours worked declined in both industries.
- The electronic shopping and mail-order houses industry experienced the largest growth in output (13.3 percent) and recorded a 6.0 percent increase in productivity.

In **food services and drinking places**, productivity rose 1.8 percent as output grew 5.1 percent and hours worked rose 3.2 percent. Output and hours worked rose in all three of the 4-digit industries in this industry group while productivity only increased in restaurants and other eating places.

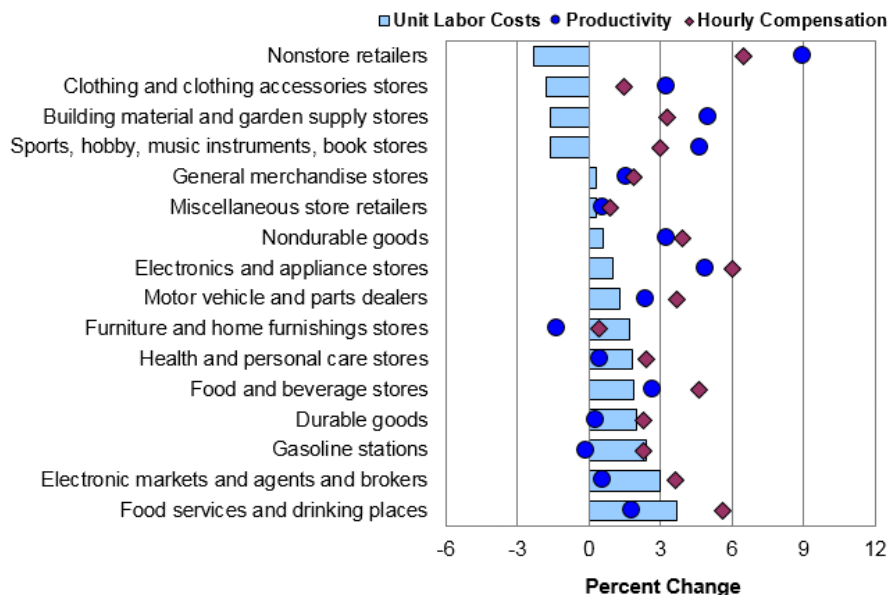
Chart 2. Productivity growth in 3-digit wholesale trade, retail trade, and food services and drinking places industries, 2015



Trends in Unit Labor Costs in 2015

- When productivity gains outpace hourly compensation, unit labor costs facing employers decline. Unit labor costs fell in 4 out of 16 3-digit industries in 2015. All unit labor cost declines occurred in industries where productivity rose. (See chart 3.)
- Unit labor costs declined in 6 of 19 wholesale trade and 13 of 27 retail trade 4-digit industries. All three industries in food services and drinking places saw an increase in unit labor costs.
- Hourly compensation, defined as labor compensation per hour worked, rose in 40 of the 49 4-digit industries.

Chart 3. Unit labor costs, productivity, and hourly compensation in 3-digit wholesale trade, retail trade, and food services and drinking places industries, 2015



Long-Term Trends in Labor Productivity and Unit Labor Costs

From 1987 to 2015, **labor productivity** increased at an average annual rate of 2.9 percent in wholesale trade, 2.8 percent in retail trade, and 0.4 percent in food services and drinking places.

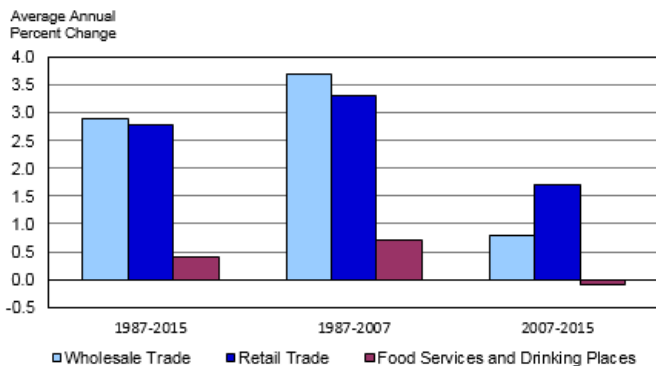
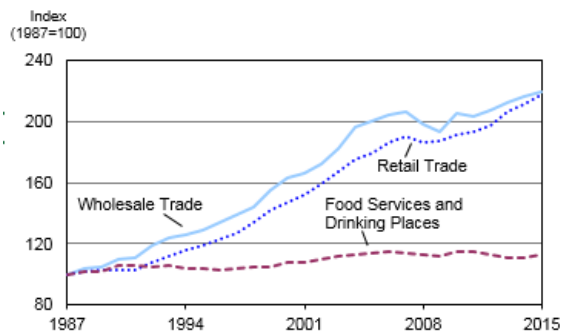
- Among the 4-digit industries, productivity rose in all but three industries from 1987 to 2015. Median productivity growth among these industries was 2.1 percent per year.
- Over the long term, productivity growth was associated with rising output in 42 out of 49 4-digit industries while hours worked increased in 26 industries.
- The growth in productivity from 1987 to 2007 far exceeded the growth in productivity from 2007 to 2015 in all three industry groups. Productivity increased in 45 out of 49 4-digit industries from 1987 to 2007 compared to 28 industries from 2007 to 2015.

From 1987 to 2015, **unit labor costs** increased at an average annual rate of 3.1 percent in food services and drinking places, the greatest change within the three industry groups. Unit labor costs increased by 1.0 percent in wholesale trade and were unchanged in retail trade.

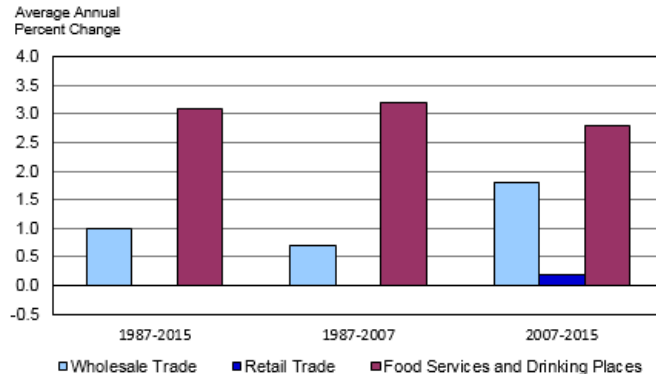
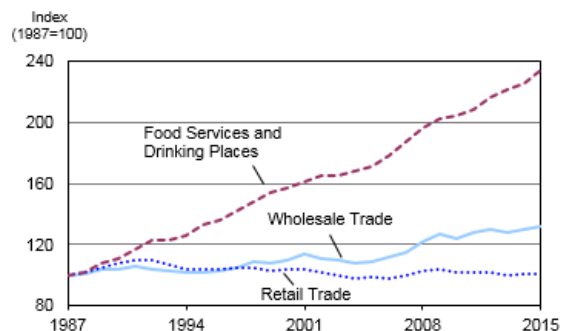
- Among the 4-digit industries, unit labor costs fell in 14 out of 49 industries from 1987 to 2015. Unit labor costs declined in 2 out of 19 wholesale trade and 12 out of 27 retail trade industries while increasing in all food services and drinking places industries.
- From 2007 to 2015, unit labor costs declined in 13 out of 49 industries. All industries with declines in unit labor costs experienced increases in productivity.
- Among the 3-digit industries, electronics and appliance stores had the largest unit labor cost declines and the largest productivity gains during the 1987 to 2007 and 2007 to 2015 periods.

Chart 4. Long-term changes in productivity and unit labor costs for wholesale trade, retail trade, and food services and drinking places industry groups

Productivity



Unit Labor Costs



Additional Information

The trade and food services and drinking places measures in this release incorporate benchmark data from the Census Bureau's Annual Wholesale Trade Report (February 2016), Monthly Wholesale Trade Survey (May 2016), Annual Retail Trade Survey (March 2016), Annual Revision of the Monthly Retail and Food Services: Sales and Inventories (May 2016), and Nonemployer Statistics (May 2016). Data have been benchmarked to the final results of the 2012 Economic Census. Accordingly, the labor productivity and output series for all industries have been revised for 2014 and earlier years. This news release also incorporates the annual benchmark revision of the BLS Current Employment Statistics (CES) survey published in February 2016. Additionally, the unit labor cost measures incorporate preliminary data from the BLS Quarterly Census of Employment and Wages (June 2016).

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?

Additional information can be obtained by calling the BLS productivity program at (202) 691-5618 or by sending an email to productivity@bls.gov. Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

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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 worked (hourly compensation) and real output per hour worked (labor productivity). When hourly compensation growth outpaces productivity, unit labor costs increase. Alternatively, when productivity growth exceeds hourly compensation, unit labor costs decrease.

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 for data in this release is derived by deflating nominal sales or values of production using price indexes. 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.

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 data on self-employed and unpaid family workers 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. 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 BLS QCEW and the economic censuses of the Census Bureau, U.S. Department of Commerce.

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
Wholesale Trade							
Wholesale trade.....	42	6,015.1	1.6	1.5	2.5	0.9	4.0
Durable goods.....	423	3,001.6	0.3	2.0	1.4	1.1	3.4
Motor vehicles and parts.....	4231	336.3	0.8	0.3	3.8	3.0	4.1
Furniture and furnishings.....	4232	108.7	0.9	3.8	6.3	5.4	10.3
Lumber and construction supplies.....	4233	213.6	-3.5	2.5	4.9	8.7	7.5
Commercial equipment.....	4234	626.6	2.2	1.9	1.3	-0.9	3.2
Metals and minerals.....	4235	129.6	-4.9	3.5	-3.6	1.3	-0.3
Appliances and electric goods.....	4236	327.4	4.8	-0.8	4.3	-0.5	3.5
Hardware and plumbing.....	4237	243.6	3.3	1.7	4.2	0.8	5.9
Machinery and supplies.....	4238	700.8	-5.2	5.5	-2.9	2.5	2.5
Miscellaneous durable goods.....	4239	315.0	-0.1	5.5	-4.7	-4.6	0.5
Nondurable goods.....	424	2,104.7	3.3	0.6	3.9	0.5	4.5
Paper and paper products.....	4241	123.5	7.1	-1.5	3.7	-3.2	2.1
Druggists' goods.....	4242	199.3	6.9	-1.8	7.7	0.7	5.7
Apparel and piece goods.....	4243	157.0	-1.4	0.5	2.2	3.7	2.7
Grocery and related products.....	4244	776.9	-0.2	4.7	1.3	1.5	6.1
Farm product raw materials.....	4245	77.6	0.7	-0.9	0.9	0.2	0.0
Chemicals.....	4246	134.0	0.9	-0.9	3.3	2.4	2.3
Petroleum.....	4247	101.9	1.2	4.9	5.3	4.1	10.5
Alcoholic beverages.....	4248	189.6	6.1	0.6	3.7	-2.3	4.3
Miscellaneous nondurable goods.....	4249	344.9	7.4	-4.2	5.3	-2.0	0.9
Electronic markets and agents and brokers.....	425	908.8	0.6	3.0	2.0	1.4	5.1
Electronic markets and agents and brokers.....	4251	908.8	0.6	3.0	2.0	1.4	5.1
Retail Trade							
Retail trade.....	44-45	16,507.6	3.0	0.4	5.0	2.0	5.4
Motor vehicle and parts dealers.....	441	1,999.3	2.4	1.3	6.6	4.1	7.9
Automobile dealers.....	4411	1,277.8	1.9	1.1	6.9	4.8	8.1
Other motor vehicle dealers.....	4412	159.7	-3.8	6.2	11.1	15.4	18.0
Auto parts, accessories, and tire stores.....	4413	561.8	0.7	3.6	0.6	-0.1	4.1
Furniture and home furnishings stores.....	442	516.7	-1.3	1.7	7.3	8.7	9.1
Furniture stores.....	4421	238.1	-0.2	0.8	7.8	8.0	8.7
Home furnishings stores.....	4422	278.6	-2.5	2.7	6.7	9.4	9.6
Electronics and appliance stores.....	443	544.2	4.9	1.0	9.3	4.2	10.4
Electronics and appliance stores.....	4431	544.2	4.9	1.0	9.3	4.2	10.4
Building material and garden supply stores.....	444	1,274.3	5.0	-1.6	5.5	0.5	3.8
Building material and supplies dealers.....	4441	1,108.5	5.3	-1.8	6.0	0.7	4.1
Lawn and garden equipment and supplies stores.....	4442	165.8	3.1	-0.9	2.4	-0.7	1.5
Food and beverage stores.....	445	3,163.2	2.7	1.9	2.7	0.0	4.6
Grocery stores.....	4451	2,742.3	2.0	2.5	2.6	0.6	5.1
Specialty food stores.....	4452	254.1	6.5	-0.9	2.6	-3.6	1.7
Beer, wine and liquor stores.....	4453	166.8	8.5	-3.3	4.2	-3.9	0.8
Health and personal care stores.....	446	1,076.7	0.5	1.8	1.4	0.9	3.2
Health and personal care stores.....	4461	1,076.7	0.5	1.8	1.4	0.9	3.2
Gasoline stations.....	447	920.2	-0.1	2.4	4.5	4.6	7.0
Gasoline stations.....	4471	920.2	-0.1	2.4	4.5	4.6	7.0
Clothing and clothing accessories stores.....	448	1,451.4	3.3	-1.8	3.1	-0.2	1.2
Clothing stores.....	4481	1,063.5	4.7	-1.5	4.6	-0.1	3.1
Shoe stores.....	4482	215.8	-6.1	3.6	0.1	6.6	3.7
Jewelry, luggage, and leather goods stores.....	4483	172.1	5.6	-4.1	-2.1	-7.3	-6.1
Sports, hobby, music instruments, book stores.....	451	698.6	4.7	-1.6	8.2	3.4	6.5
Sporting goods and musical instrument stores.....	4511	605.6	4.1	-1.3	8.9	4.6	7.4
Book stores and news dealers.....	4512	93.0	9.1	-3.2	4.6	-4.1	1.3

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

Industry	2012 NAICS code	2015 Employment (thousands)	Percent change, 2014-2015				
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compensation
General merchandise stores.....	452	3,153.4	1.6	0.3	2.7	1.1	3.1
Department stores.....	4521	1,329.7	1.2	3.0	-0.5	-1.6	2.5
Other general merchandise stores.....	4529	1,823.7	0.8	-0.3	3.8	2.9	3.4
Miscellaneous store retailers.....	453	995.2	0.6	0.3	5.0	4.3	5.3
Florists.....	4531	84.5	10.0	-10.5	4.4	-5.1	-6.5
Office supplies, stationery and gift stores.....	4532	302.3	6.4	-2.7	5.6	-0.7	2.8
Used merchandise stores.....	4533	225.4	-1.8	-3.8	6.4	8.3	2.3
Other miscellaneous store retailers.....	4539	383.0	-4.0	5.9	4.3	8.6	10.4
Nonstore retailers.....	454	714.4	9.0	-2.3	10.0	0.9	7.5
Electronic shopping and mail-order houses.....	4541	424.9	6.0	-1.1	13.3	6.9	12.1
Vending machine operators.....	4542	45.5	-6.1	23.7	-18.0	-12.6	1.5
Direct selling establishments.....	4543	244.0	1.9	3.7	-5.2	-6.9	-1.6
Food Services and Drinking Places							
Food services and drinking places.....	722	11,298.4	1.8	3.7	5.1	3.2	9.0
Special food services.....	7223	799.4	-1.9	12.7	1.2	3.1	14.0
Drinking places, alcoholic beverages.....	7224	381.7	-1.5	7.6	1.4	3.0	9.2
Restaurants and other eating places.....	7225	10,117.3	2.4	2.6	5.7	3.3	8.4

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

Industry	2012 NAICS code	2015 Employment (thousands)	Average annual percent change, 1987-2015				
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compensation
Wholesale Trade							
Wholesale trade.....	42	6,015.1	2.9	1.0	3.2	0.3	4.2
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Shoe stores.....	4482	215.8	2.6	-0.5	2.5	-0.2	1.9
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Sports, hobby, music instruments, book stores.....	451	698.6	3.6	-0.7	4.2	0.5	3.4
Sporting goods and musical instrument stores.....	4511	605.6	4.2	-1.2	5.0	0.9	3.8
Book stores and news dealers.....	4512	93.0	2.0	0.8	1.0	-1.0	1.7

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Florists.....	4531	84.5	2.5	0.0	0.0	-2.4	0.0
Office supplies, stationery and gift stores.....	4532	302.3	5.4	-2.6	4.3	-1.0	1.6
Used merchandise stores.....	4533	225.4	4.5	-2.3	6.2	1.6	3.8
Other miscellaneous store retailers.....	4539	383.0	0.9	0.4	2.3	1.3	2.7
Nonstore retailers.....	454	714.4	8.1	-4.1	8.7	0.6	4.3
Electronic shopping and mail-order houses.....	4541	424.9	9.9	-5.3	14.3	4.0	8.2
Vending machine operators.....	4542	45.5	-0.1	3.8	-3.1	-3.0	0.6
Direct selling establishments.....	4543	244.0	2.3	0.5	0.7	-1.6	1.2
Food Services and Drinking Places							
Food services and drinking places.....	722	11,298.4	0.4	3.1	2.1	1.7	5.3
Special food services.....	7223	799.4	0.9	1.7	2.3	1.3	4.0
Drinking places, alcoholic beverages.....	7224	381.7	-0.5	3.5	-0.7	-0.2	2.8
Restaurants and other eating places.....	7225	10,117.3	0.5	3.3	2.3	1.8	5.6