

## CHAPTER 7 SERVICE SECTORS



The following provides an overview of the contribution of the service sectors to the economy and the use of transportation by the sectors.

There are six service sectors: (1) information; (2) financial services; (3) professional and business services; (4) education and health services; (5) leisure and hospitality; and (6) other services.

The information sector consists of establishments engaging in the production and distribution of

information and cultural products and the processing of data.

The financial services sector consists of services related to finance and insurance activities as well as real estate, rental, and leasing. With regards to finance and insurance, the sector includes establishments engaging in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or facilitating financial transactions. With regards to real estate, rental, and leasing, the sector includes establishments engaging in the rental or leasing of tangible (e.g., real estate, equipment, etc.) or intangible (e.g., patents) assets and establishments providing related services.

The professional and business services sector consists of professional, scientific, and technical services; management of companies and enterprises; and administrative and support and waste management and remediation services. It includes logistics consulting services used in moving goods from point of origin to point of consumption.

The education and health services sector consists of establishments that provide instruction and training (e.g., schools, universities, training centers, etc.) and establishments that provide health care and social assistance for individuals.

The leisure and hospitality sector consists of establishments providing art, entertainment, and recreation services as well as establishments providing accommodation and food services.

Other services consists of establishments providing services not captured elsewhere, such as equipment and machinery repair, religious activities, grant making, advocacy, personal care services, etc. <sup>1</sup>

The service sectors collectively use the second largest dollar amount of transportation services. However, per dollar of output, each service sector requires less transportation than most other sectors. The service sectors collectively rely heavily on truck transportation, primarily in-house truck transportation, and employ a large number in a variety of transportation occupations such as bus drivers, light truck/delivery services drivers, commercial pilots, parking lot attendants, etc.

<sup>1</sup> U.S. Department of Labor, Bureau of Labor Statistics, Industries at a Glance, [www.bls.gov/iag/tgs/iag\\_index\\_naics.htm](http://www.bls.gov/iag/tgs/iag_index_naics.htm), as of Sept. 1, 2015

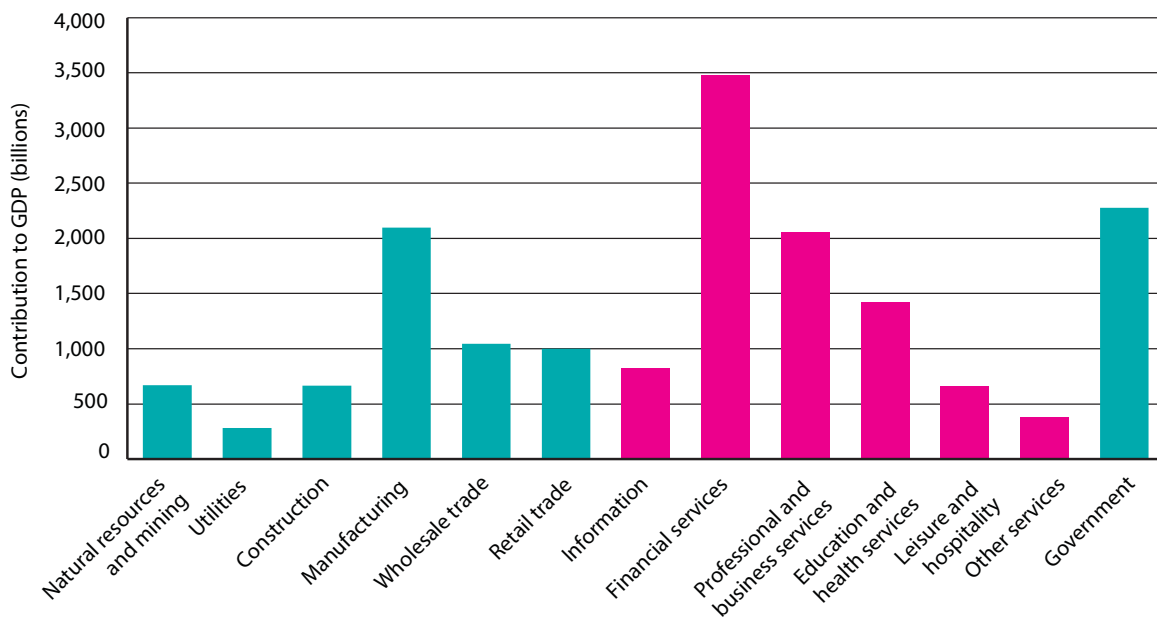
**Table 7-1 Overview of the Service Sectors' Contribution to Gross Domestic Product (GDP) and Use of Transportation**

Service Sectors	Value	Year (latest year data is available)
Contribution to GDP	\$8,813.8 billion	2014
Use of transportation	\$237.9 billion	2012
Amount of transportation required to produce a dollar of output		2012
Information	1.7¢	2012
Financial services	0.8¢	2012
Professional/ business services	2.8¢	2012
Education and health services	1.5¢	2012
Leisure and hospitality	2.8¢	2012
Other services	2.7¢	2012
Number of transportation and material moving workers		2014
Information	44,970	2014
Financial services	131,400	2014
Professional/ business services	1,158,100	2014
Education and health services	389,990	2014
Leisure and hospitality	277,310	2014
Other services	370,270	2014
Median annual wage of transportation and material moving workers		2014
Information	\$26,890	2014
Financial services		
Finance and insurance	\$33,340	2014
Real estate and rental and leasing	\$25,960	2014
Professional/business services		
Professional, scientific, and technical services	\$28,570	2014
Management of companies and enterprises	\$32,250	2014
Administrative and support and waste management and remediation services	\$22,770	2014
Education/health services		
Educational services	\$27,850	2014
Health care and social assistance	\$24,010	2014
Leisure/hospitality		
Arts, entertainment, and recreation	\$24,960	2014
Accommodation and food services	\$18,940	2014
Other services (except public administration)	\$20,830	2014
Number of trucks used	3,719 thousand	2002*
Truck miles accumulated	59,708 million	2002*

**NOTE:** Table presents latest data available, as of Feb. 1, 2016.

\*Data on number of trucks and truck miles accumulated was last collected in the Vehicle Inventory and Use Survey for 2002.

**SOURCE:** Data for this table is drawn from figures and tables presented throughout this chapter.

**Figure 7-1 Service Sectors' Contribution to Gross Domestic Product, 2014**

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by State, available at <http://bea.gov> as of November 2015.

The contribution of the service sectors to the national economy has grown. In 1997 the service sector contributed 46.3 percent, 49.8 percent in 2007, and 50.8 percent in 2014. In 2014 the service sectors collectively contributed \$8,813.8 billion (50.8 percent) to the national economy, as measured by Gross Domestic Product (GDP). The financial services sector contributed more than all other service sectors.

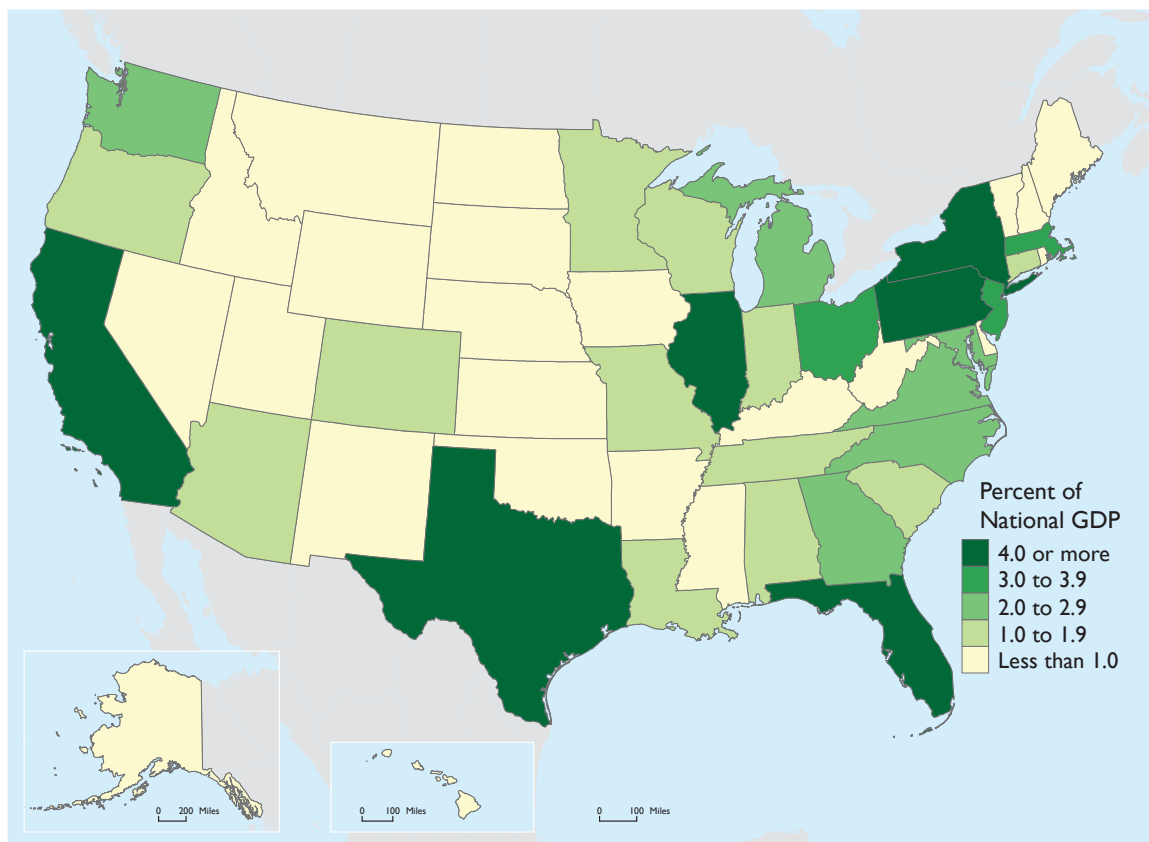
The largest amount of service sector activity occurred in California (\$1,278.1 billion), followed by New York (\$935.7 billion), Texas (\$626.6 billion), Florida (\$482.6 billion), Illinois (\$394.7 billion), and Pennsylvania (\$360.2 billion)— each of which accounted for 4 percent or more of national activity in the services sectors (figure 7-2, table 7-2).

California, New York, Texas, Florida, Illinois, and Pennsylvania contributed the most to national economy related to services and the most to

national activity overall (they also have the largest gross state product (GSP)). Texas contributed more to the national economy than New York in 2014, but New York contributed more in terms of service sector activity to the national economy due to significantly higher activity in information, financial services, and education and health services (Appendix A).

Computing the percent of service sector activity as a percent of GSP, rather than as a share of GDP, also provides useful insights to U.S. production. Nationally, California lead in service sector activity in 2014. However, service sector activity accounted for a smaller share of GSP in California (55.4 percent) than in Delaware (68.1 percent, or \$43.2 billion) and New York (67.1 percent, or \$935.7 billion)— the two States where service sector activity accounted for more than two-thirds of GSP in 2014 (see Appendix A).

**Figure 7-2 State Contributions to Service Related GDP (percent of national GDP related to service sector activity), 2014**



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by State, available at <http://bea.gov> as of November 2015.

**Table 7-2 States Contributing 4.0 Percent or More to National GDP Related to Services in 2014**

State	All service sectors (Service related GDP = \$8,813.8 billion)			All products and services (Total national GDP = \$17.2 trillion)	
	Service related GDP (billions)	Percent of national GDP related to services	Rank (1=contributes most to national GDP related to services, 51=least)	Dollar contribution to national GDP (billions)	Rank (1=contributes most to national GDP, 51=least)
California	1,278.1	14.5	1	2,305.9	1
New York	935.7	10.6	2	1,395.5	3
Texas	626.6	7.1	3	1,641.0	2
Florida	482.6	5.5	4	838.9	4
Illinois	394.7	4.5	5	736.3	5
Pennsylvania	360.2	4.1	6	658.3	6

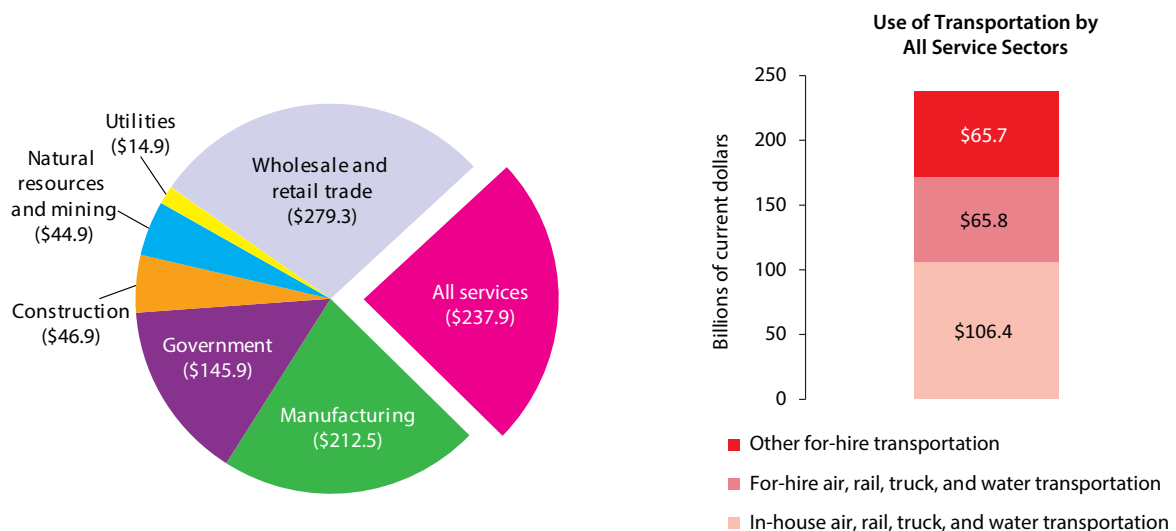
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by State, available at <http://bea.gov> as of November 2015.

The service sectors combined were the second largest user of transportation services in 2012 (\$237.9 billion). Looking at the use of air, rail, truck, and water transportation services, the combined service sectors used more in-house operations (\$106.4 billion) than for-hire air, rail, truck, and water services (\$65.8 billion) (figure 7-3).

The service sectors collectively used \$237.9 billion of transportation services in 2012 (figure 7-3). In 2012 the service sectors collectively used:

- Primarily truck transportation services (e.g., for transporting linens and other products to hotels), which accounted for 51.7 percent of all transportation services used by the sector.
- Roughly four times more in-house truck operations (\$99,844 million) than for-hire truck transportation services (\$23,093 million). In-house truck transportation operations accounted for nearly half (42.0 percent) of all transportation services used by the service sectors.
- A relatively large amount of other transportation and support activities (sightseeing, parcel delivery, courier, and messenger services excluding U.S. Postal Service, transportation support activities such as freight loading, etc.). Other transportation and support services (e.g., sightseeing by bus or boat and vehicle cleaning services) accounted for 16.3 percent (\$38,885 million) of the transportation services used by the service sectors.

**Figure 7-3 Use of Transportation by the Service Sectors, 2012 (current dollars, billions)**



**NOTE:** In-house transportation consists of transportation services (air, rail, truck, and water) provided by nontransportation industries for their own use. For-hire transportation consists of the services provided by transportation firms to industries and the public on a fee-basis. Airlines, railroads, transit agencies, common carrier trucking companies, and pipelines are examples of for-hire transportation industries. "Other" for-hire transportation includes: transit and passenger ground transportation (excluding State and local government passenger transit); pipeline; sightseeing transportation and transportation support; parcel delivery, courier, and messenger services (excluding U.S. Postal Service); warehousing and storage; and other transportation and support activities.

**SOURCE:** U.S. Department of Transportation, Bureau of Transportation Statistics, Transportation Satellite Accounts, available at <http://www.bts.gov> as of March 2016.

- A modest amount of for-hire transit and ground passenger transportation (e.g., bus transportation purchased for workers) totaling 7.0 percent (\$16,696 million) of the transportation services used by the service sectors.
- Warehousing (e.g., storage for medical records, etc.) summing to 4.1 percent (\$9,851) of all transportation services used by the service sectors (figure 7-4).

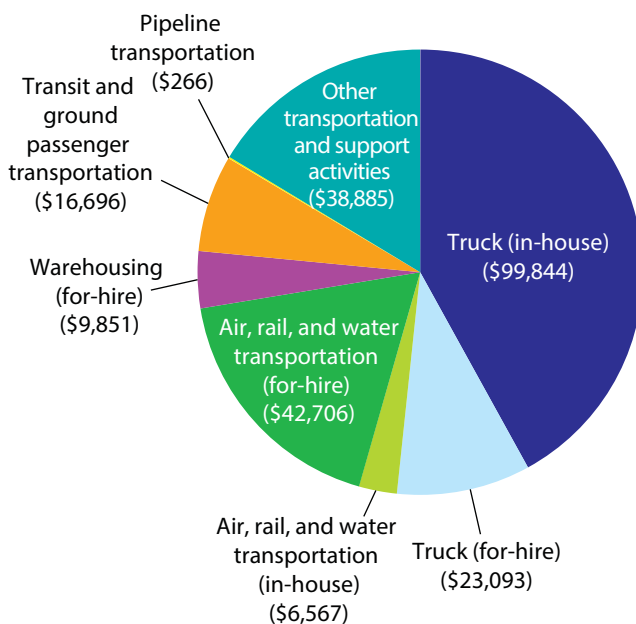
While the service sectors collectively were the second largest user of transportation services,

they individually did not depend as heavily on transportation as other sectors in 2014. The professional and business service sector and the leisure and hospitality sector required the most transportation services to produce one dollar of output (each requiring 2.8¢) among services sectors but much less than the wholesale and retail trade, which required the most transportation services (10.2¢) to produce one dollar of output.

Among service sectors, the other services sector (e.g., grant-making, dry cleaning, machinery repair, etc.) required the second largest amount of transportation services to produce one dollar of output (2.7¢) in 2012 followed by information (1.7¢), education and health services (1.5¢), and the financial services sector (0.8¢) (figure 7-5).

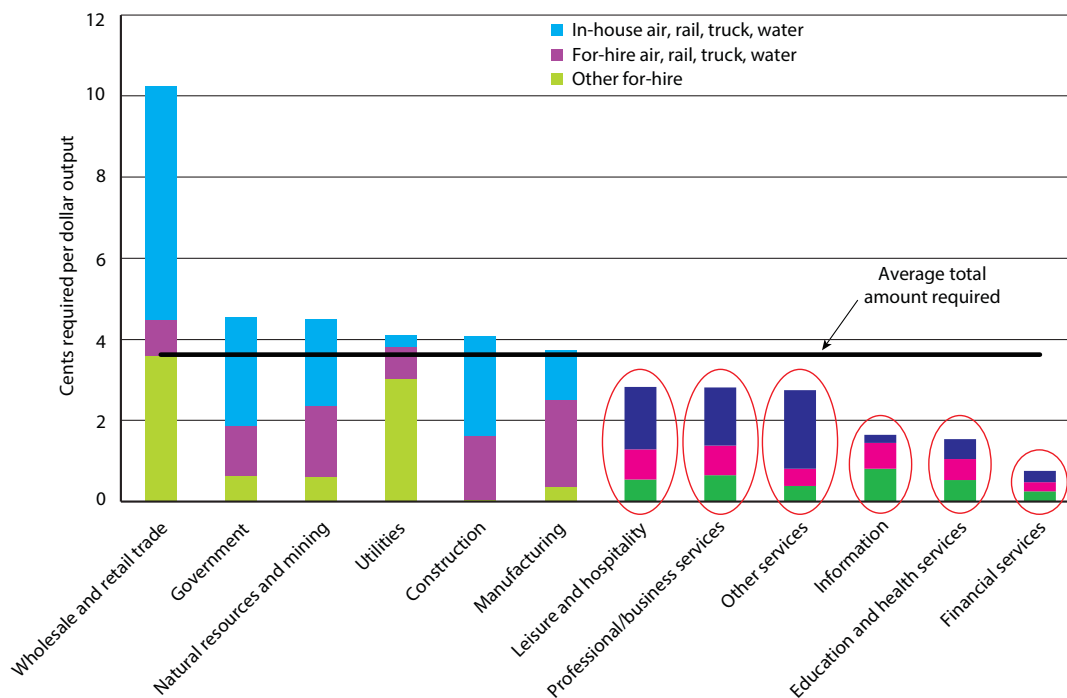
All of the service sectors relied less on transportation services than other commodities in producing output in 2014. Each service sector required 2.8¢ worth of transportation services or less to produce one dollar of output (figure 7-5). The professional and business service sector and the leisure and hospitality service sector required the most transportation services (2.8¢) to produce one dollar of output among the service sectors but required substantially more of other commodities. For example, professional and business services (e.g., payroll services for those working in the sector) were the most important input to the professional and business services

**Figure 7-4 Service Sectors' Use of Transportation by Mode, 2012 (current dollars, millions)**



**NOTE:** In-house transportation consists of transportation services (air, rail, truck, and water) provided by nontransportation industries for their own use. For-hire transportation consists of the services provided by transportation firms to industries and the public on a fee-basis. Airlines, railroads, transit agencies, common carrier trucking companies, and pipelines are examples of for-hire transportation industries. Transit and passenger ground transportation excludes State and local government passenger transit. Other transportation includes sightseeing transportation.

**SOURCE:** U.S. Department of Transportation, Bureau of Transportation Statistics, Transportation Satellite Accounts, available at <http://www.bts.gov> as of March 2016.

**Figure 7-5 Transportation Required Per Dollar of Output by the Service Sectors, 2012**

**NOTE:** In-house transportation consists of transportation services (air, rail, truck, and water) provided by nontransportation industries for their own use. For-hire transportation consists of the services provided by transportation firms to industries and the public on a fee-basis. Airlines, railroads, transit agencies, common carrier trucking companies, and pipelines are examples of for-hire transportation industries. "Other" for-hire transportation includes: transit and passenger ground transportation (excluding State and local government passenger transit); pipeline; sightseeing transportation and transportation support; parcel delivery, courier, and messenger services (excluding U.S. Postal Service); warehousing and storage; and other transportation and support activities.

**SOURCE:** U.S. Department of Transportation, Bureau of Transportation Statistics, Transportation Satellite Accounts, available at <http://www.bts.gov> as of March 2016.

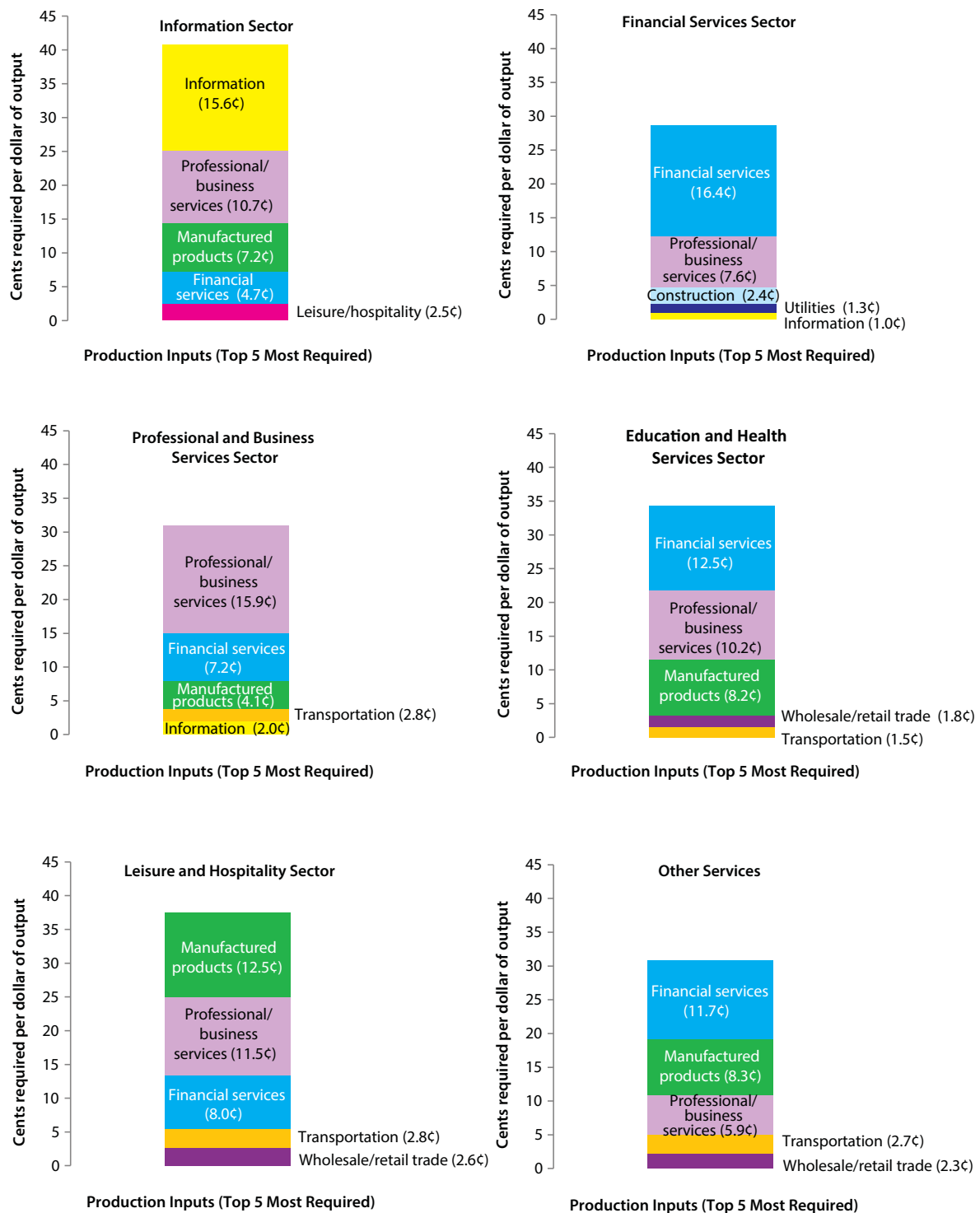
sector, with the sector requiring 15.9¢ worth to produce one dollar of output (figure 7-6).

Among the service sectors, the professional and business services sector employed the largest number in transportation and material moving occupations (nearly 1.2 million), accounting for 6.1 percent of its work force in 2014. The education and health services sector employed the second largest in transportation and material moving occupations (389,990) in 2014, followed by the other services sector (370,270), the leisure and hospitality sector (277,310), the financial services sector (131,400), and the information sector

(44,970) (figure 7-7). Transportation workers include motor vehicle operators, ship engineers, aircraft pilots and flight engineers, etc. Material moving workers support transportation activities and include occupations such as cleaners of vehicles and ship loaders.

Transportation and material moving workers in the all service sectors earned a lower median than workers of all occupations in the same service sector except in the arts, entertainment, and recreation sector in 2014. In the arts, entertainment, and recreation sector, transportation and material moving workers

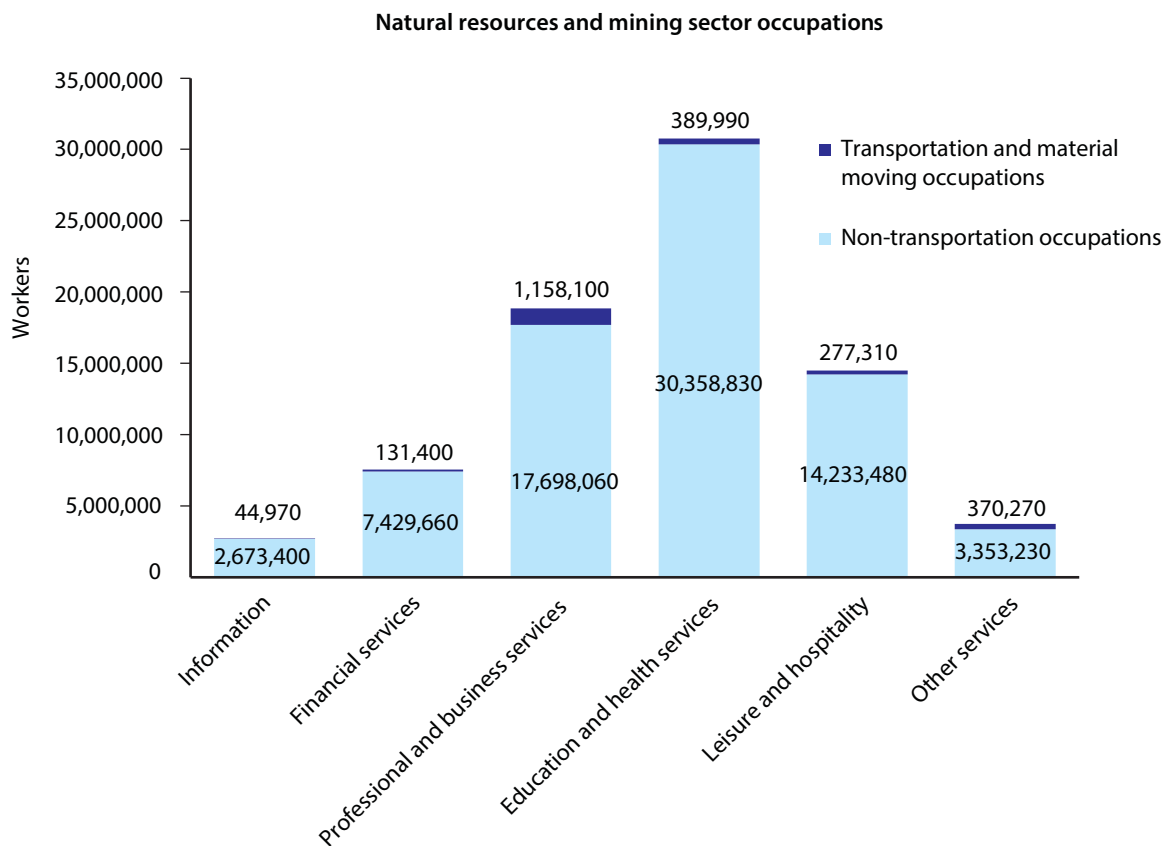
**Figure 7-6 Top 5 Most Required Inputs by Service Sectors, 2012**



NOTE: Transportation includes in-house and for-hire.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Transportation Satellite Accounts, available at <http://www.bts.gov> as of March 2016.



**Figure 7-7 Number of Workers Employed in the Service Sectors by Occupation, 2014**

**SOURCE:** U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment and Wages, available at <http://www.bls.gov/oes> as of Nov. 23, 2015.

earned a median wage of \$24,960, while workers of all occupations in the arts, entertainment, and recreation industry earned a lower median wage (\$24,300) (figure 7-8).

Each service sector contains several industries. Each industry employed different types of transportation workers. Most industries employed the largest number of transportation workers as motor vehicle operators, ranging from heavy and tractor-trailer truck drivers to taxi drivers and chauffeurs. In contrast, the finance and insurance industry employed the

largest number of transportation workers as commercial pilots, who earned a significantly higher median wage (\$91,140) than motor vehicle operators. Of the motor vehicle workers, driver/sales workers earned the lowest median wage. Across industries, driver/sales workers earned the lowest median wage in the accommodation and food services industry (\$18,610). The arts, entertainment, and recreation industry as well as the other services industry employed the largest number of transportation workers as parking lot attendants, who earned a relatively low median wage (roughly \$19,000) (figure 7-8).

**Figure 7-8 Median Annual Wage and Employment for Most Common Transportation Occupations (top 3) in Services Sectors, 2014**



Figure 7-8 continued



Figure 7-8 continued

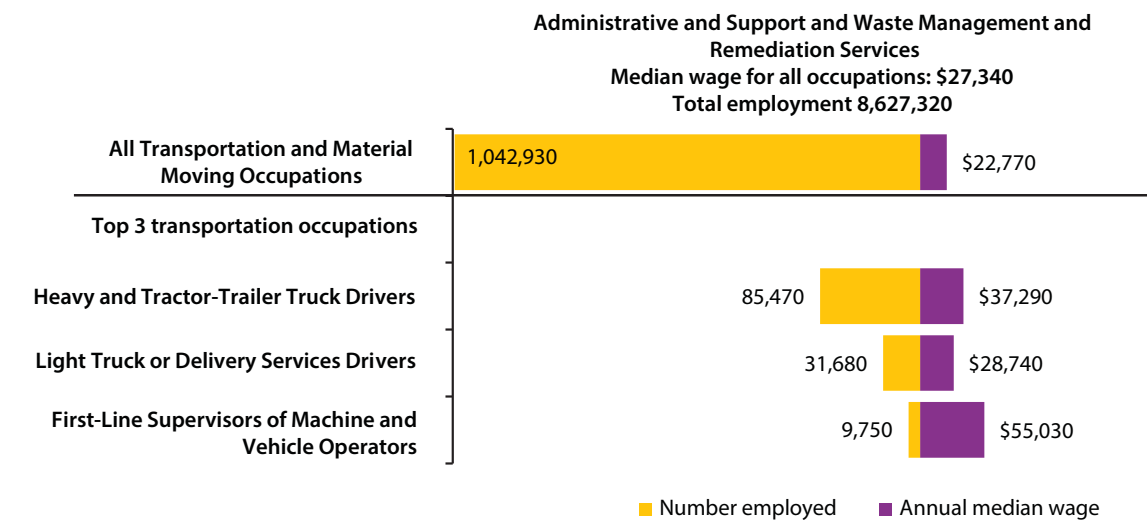
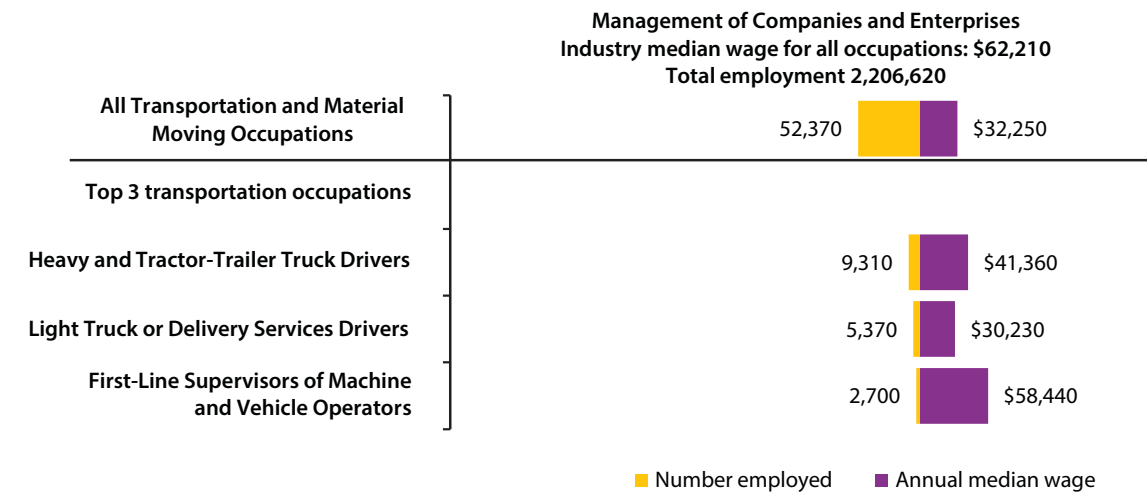


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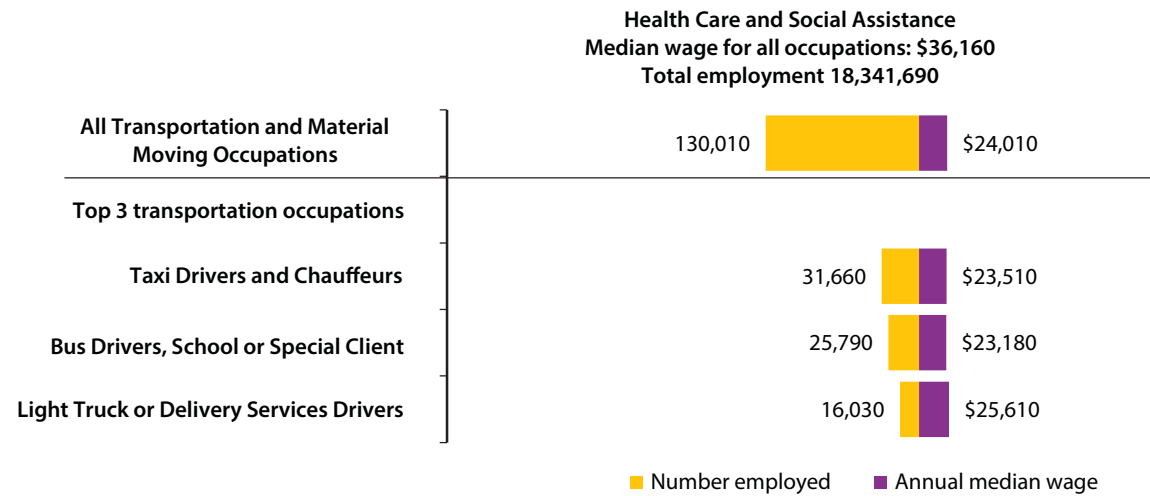
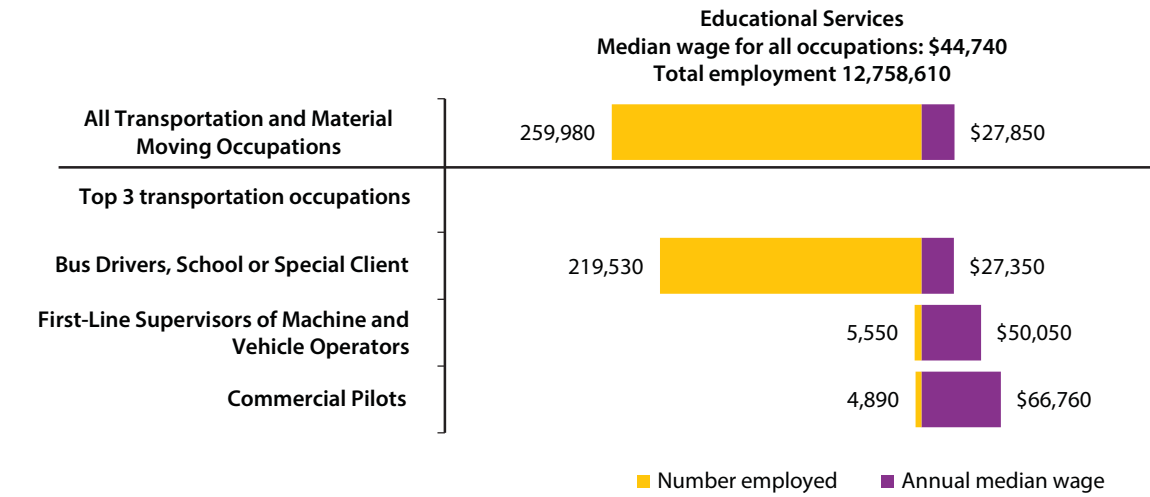
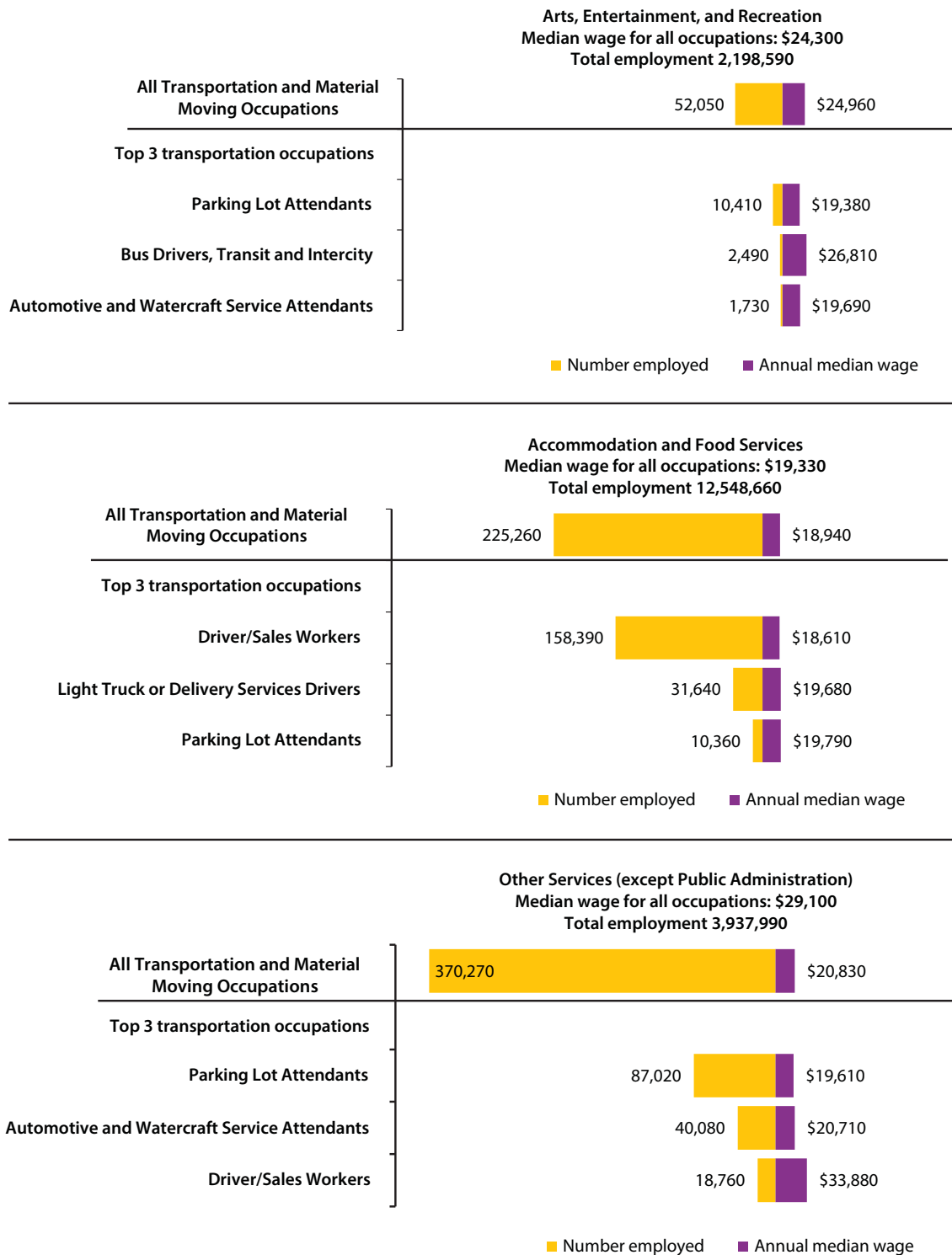


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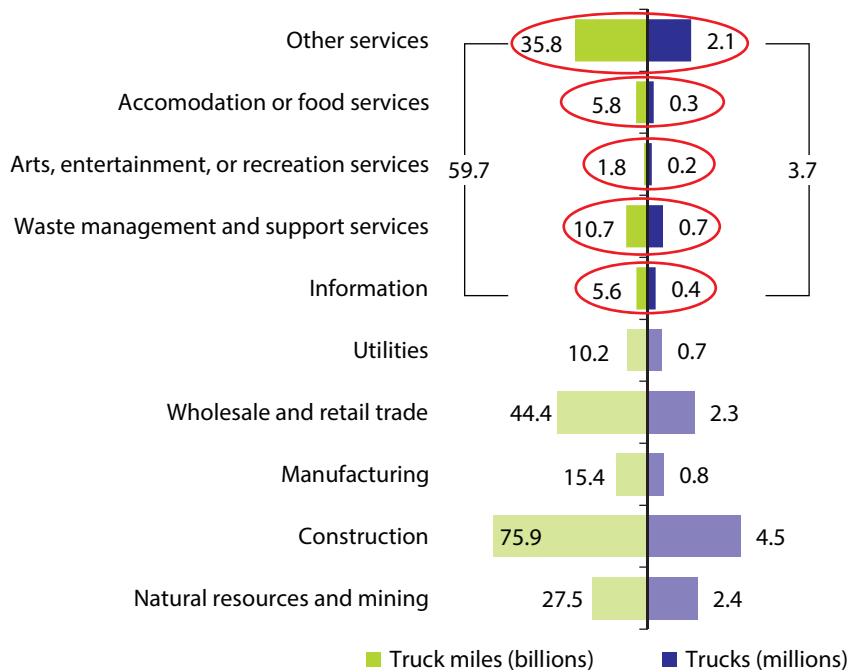
NOTE: Median wage is for all occupations within each industry (transportation and non-transportation occupations). Top three transportation occupations are the transportation occupations employing the largest number of workers and are selected from detailed occupation group in Bureau of Labor Statistics Occupational Employment and Wages table.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment and Wages, available at <http://www.bls.gov/oes> as of Nov. 23, 2015.

The 2002 Vehicle Inventory and Use Survey (VIUS) is the most recent survey of vehicle ownership and use by industry. According to the 2002 VIUS, the service industries collectively operated, at

3.7 million, the second largest number of trucks next to the construction industry. The service industries also collectively accumulated the second largest number of truck miles (59.7 billion).

**Figure 7-9 Trucks Used and Truck Miles Accumulated for Business by the Service Industries, 2002**



NOTE: Totals for trucks in use only.

SOURCE: U.S. Census Bureau, 2002 Economic Census Vehicle Inventory and Use Survey, Table 2a, available at <https://www.census.gov/prod/ec02/ec02tv-us.pdf> as of August 2012

