THE ECONOMIC IMPACT OF THE US RETAIL INDUSTRY

May 2020





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Executive Summary

The National Retail Federation engaged PwC to quantify the impact of the retail industry on the US economy. In evaluating the economic impact of the retail industry, defined in this study to include retail trade and food services and drinking places, this report considers three separate channels—the direct, indirect, and induced impacts—that in aggregate provide a measure of the total economic impact of the US retail industry:

- **Direct impact** is measured as the jobs, labor income, and gross domestic product ("GDP") *within* the US retail industry.
- **Indirect impact** is measured as the jobs, labor income, and GDP occurring in other industries due to the US retail industry's purchases of intermediate inputs (other than merchandise intended for resale) and capital goods.
- **Induced impact** is measured as the jobs, labor income, and GDP resulting from *household spending* of income earned either directly or indirectly from the US retail industry's economic activities.

In terms of the industry's direct economic impact, this report finds that in 2018, there were nearly 4.2 million retail establishments (including food services and drinking places) across the country, counting both those with paid employees and nonemployers (which primarily consist of self-employed individuals operating small unincorporated businesses) (see **Table E-1**). These businesses accounted for 11.6 percent of all business establishments in the country in 2018. The retail industry directly provided 32 million jobs for American workers (accounting for 16.0 percent of the national total), making it the largest private-sector employer in the country, surpassing all other industries at the 2-digit *North America Industry Classification System* (NAICS) code level (see **Table E-2**). The industry also directly paid out \$1.0 trillion in wages and salaries and fringe benefits and proprietors' income (8.3 percent of the national total) and generated \$1.6 trillion in GDP (7.7 percent of the national total), making it the third largest GDP contributor among all 2-digit NAICS private industries.¹

Item	Direct National Impact	Percent of US Economy
Establishments ⁽¹⁾	4,185,135	11.6%
Employment (Jobs) ⁽²⁾	32 million	16.0%
Labor Income ⁽³⁾	\$1.0 trillion	8.3%
GDP	\$1.6 trillion	7.7%

Table E-1. The US Retail Industry's Direct National Impact, 2018

Source: PwC calculations using data from the US Bureau of Economic Analysis, the Census Bureau, and the Bureau of Labor Statistics for the retail industry, including food services and drinking places.

(1) An establishment is a single physical location at which business is conducted. A business may consist of more than one establishment.

(2) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

(3) Labor income is defined as annual wages and salaries and benefits as well as proprietors' income.

¹ All impacts are reported in gross terms, which means that they do not take into account what would have occurred in the absence of the retail industry.

Table E-2. Direct Employment by 2-Digit NAICS Industry, 2018			
Industry Description	Employment (Jobs)		
Retail trade (including food services and drinking places)	32,089,000		
Health care and social assistance	22,619,800		
Professional, scientific, and technical services	14,203,900		
Manufacturing	13,501,300		
Administrative and support and waste management and remediation services	12,472,900		
Other services (except government and government enterprises)	11,257,900		
Construction	10,973,300		
Finance and insurance	10,394,600		
Real estate and rental and leasing	9,504,800		
Transportation and warehousing	9,364,300		
Wholesale trade	6,422,200		
Educational services	4,771,700		
Arts, entertainment, and recreation	4,684,900		
Agriculture, forestry, fishing, and related activities	3,573,400		
Information	3,460,100		
Management of companies and enterprises	2,669,500		
Mining, quarrying, and oil and gas extraction	1,353,700		
Utilities	589,700		

Source: US Bureau of Economic Analysis.

Total National Impact

The US retail industry's total employment impact, including its direct, indirect, and induced impacts, supported 52 million full-time and part-time jobs in 2018, accounting for 25.8 percent of total US employment (see **Table E-3**). The industry's total labor income impact was estimated to be \$2.3 trillion or 18.7 percent of national labor income in 2018. The industry's total GDP impact was \$3.9 trillion, accounting for 18.7 percent of US GDP in 2018.

Item	Total National Impact	Percent of US Economy
Employment (Jobs) ⁽¹⁾	52 million	25.8%
Labor Income ⁽²⁾	\$2.3 trillion	18.7%
GDP	\$3.9 trillion	18.7%

Table E-3. Total Impact of the Retail Industry on the US Economy, 2018

Source: PwC calculations using the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places.

(1) Employment is defined as the number of direct, indirect, and induced payroll and self-employed jobs, including part-time jobs.

(2) Labor income is defined as annual wages and salaries and benefits as well as proprietors' income.

US Retail Industry by Firm Size

While businesses in the US retail industry range from small family-run businesses to large global retailers with thousands of employees, available data indicate that the majority of retail businesses are relatively small. In fact, as shown in **Table E-4**, 98.5 percent of all US retail firms had fewer than 50 employees in 2018.² These firms accounted for 34.2 percent of all retail industry jobs and 34.6 percent of total labor income in the retail industry in 2018.

Table E-4. Percent of US Retail Firms, Employment, and Labor Income	by
Firm Size, 2018	-

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	Retail Firms Retail Employment		Retail Labor Income			
Firm Size	Count	Percent of Total	Jobs	Percent of Total	Amount (\$ billion)	Percent of Total
Retail firms with fewer than 50 employees*	3,557,920	98.5%	10,966,906	34.2%	\$360.1	34.6%
Retail firm with fewer than 10 employees*	3,279,058	90.8%	5,133,564	16.0%	\$190.6	18.3%
Retail firms with 50 or more employees	53,784	1.5%	21,122,094	65.8%	\$680.6	65.4%
Total	3,611,704	100.0%	32,089,000	100.0%	\$1,040.7	100.0%

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places.

Details may not sum to totals due to rounding.

* Includes businesses with and without paid employees.

Recent Growth Trends

The US retail industry has undergone a number of changes in recent years, including the retirement of the baby boomer generation, the rise of the millennial generation, and the continued expansion of online sales. The growing retirement population has contributed to "Recreational Vehicle Dealers" being the fastest growing retail subsector by payroll employment between 2010 and 2018, with average annual growth of 7.2 percent. "Cosmetics, Beauty Supplies, and Perfume Stores" and "Snack and Nonalcoholic Beverage Bars," e.g., coffee shops, were the second and third fastest growing retail subsectors by payroll employment over this period, with average annual growth of 6.1 percent and 5.8 percent, respectively, which is partly explained by increased interest in these products among millennials. Continued growth in online sales over this period resulted in "Electronic Shopping" being the fourth fastest growing retail subsector by payroll employment, with average annual growth of 5.7 percent. Rounding out the top five is "General Merchandise Stores," e.g., general stores, dollar stores, and home and auto supply stores, other than warehouse clubs and supercenters, with average annual growth of 5.1 percent in payroll employment (see Table E-5). Overall payroll and selfemployed jobs in the retail industry grew at an average annual rate of 1.9 percent between 2010 and 2018.

² A firm is a business organization consisting of one or more domestic establishments that were specified under common ownership or control.

NAICS	Description	Average Annual Job Growth
441210	Recreational Vehicle Dealers	7.2%
446120	Cosmetics, Beauty Supplies, and Perfume Stores	6.1%
722515	Snack and Nonalcoholic Beverage Bars	5.8%
454110	Electronic Shopping	5.7%
452319	General Merchandise Stores (other than warehouse clubs and supercenters)	5.1%

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Source: PwC calculations based on data from the US Bureau of Labor Statistics.

US Retail Industry by Occupation Type

While most of the jobs directly supported by the US retail industry are in sales, food preparation, and related occupations, the industry also directly employs workers in a number of other occupations, such as logistics and freight transportation; finance, insurance, and real estate; and technology and IT related occupations. These and other occupations are further supported by the US retail industry's indirect and induced impacts on other industries. Table E-6 summarizes the direct, indirect and induced, and total jobs supported by the US retail industry by type of occupation.

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Occupation Type	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share	
Sales and related occupations	11,123,900	1,189,200	12,313,100	23.7%	
Food preparation and serving related occupations	11,196,600	567,900	11,764,500	22.7%	
Management, business operations, office and administrative occupations	2,382,300	3,889,200	6,271,400	12.1%	
Logistics and freight transportation occupations	3,426,600	2,517,000	5,943,600	11.5%	
Building, cleaning, maintenance, installation, and repair occupations	1,772,200	2,494,000	4,266,200	8.2%	
Health care, personal care and service occupations	983,200	2,585,300	3,568,500	6.9%	
Finance, insurance, and real estate occupations	448,300	1,714,500	2,162,700	4.2%	
Technology and IT related occupations	117,200	999,000	1,116,200	2.2%	
All other occupations	638,700	3,834,100	4,472,800	8.6%	
Total Job Impact - All Occupations	32,089,000	19,790,200	51,879,000	100.0%	

Table E-6. Direct, Indirect and Induced, and Total Jobs Supported by the US **Retail Industry by Occupation Type, 2018**

Source: PwC estimates based on data from the Bureau of Labor Statistics and the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding.

Retail Establishments by State

The economic impact of the retail industry reaches all 50 states and the District of Columbia. The total number of retail establishments ranged from 9,557 (Wyoming) to 504,674 (California) in 2018. The top 15 states in terms of the total number of retail establishments in 2018 were California, Texas, Florida, New York, Pennsylvania, Illinois, Ohio, Georgia, North Carolina, Michigan, New Jersey, Virginia, Tennessee, Massachusetts, and Washington. Combined these states accounted for 66 percent of the total retail establishments in the country in 2018.

Retail Employment by State

The number of jobs directly attributable to the retail industry ranged from a low of 61,370 (Wyoming) to over 3.6 million (California) in 2018. The top 15 states in terms of the number of retail jobs in 2018 were California, Texas, Florida, New York, Illinois, Pennsylvania, Ohio, Georgia, North Carolina, Michigan, New Jersey, Virginia, Washington, Massachusetts, and Tennessee. Combined these states accounted for 65 percent of the total national retail employment in 2018.

Per Capita Retail GDP by State

Across all 50 states and the District of Columbia, the per capita GDP directly attributable to the retail industry was \$4,853 in 2018. The top 15 states by per capita retail GDP in 2018 were Washington (\$7,879), Hawaii (\$6,579), District of Columbia (\$6,367), Nevada (\$5,766), California (\$5,624), New Hampshire (\$5,565), Connecticut (\$5,393), New York (\$5,353), Maine (\$5,264), Vermont (\$5,262), New Jersey (\$5,124), North Dakota (\$5,072), Tennessee (\$5,057), and Massachusetts (\$5,051).

Per Capita Retail Labor Income by State

Across all 50 states and the District of Columbia, the per capita labor income directly attributable to the retail industry was \$3,186 in 2018. The top 15 states by per capita retail labor income in 2018 were Washington (\$4,893), District of Columbia (\$4,494), New Hampshire (\$4,353), Hawaii (\$4,138), Connecticut (\$3,726), Massachusetts (\$3,719), California (\$3,598), New York (\$3,555), Vermont (\$3,541), New Jersey (\$3,526), Oregon (\$3,477), Nevada (\$3,464), Maine (\$3,447), North Dakota (\$3,407), and Montana (\$3,365).

Total Employment Impact by State

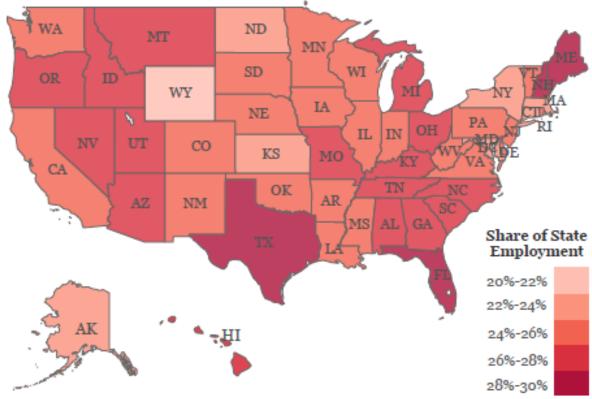
Counting the direct, indirect and induced impacts, the total number of full-time and part-time jobs attributable to the retail industry ranged from 88,550 (Wyoming) to 6.0 million (California) in 2018. The top 15 states by the total employment impact attributable to the retail industry in 2018 were California, Texas, Florida, New York, Illinois, Pennsylvania, Ohio, Georgia, North Carolina, Michigan, New Jersey, Virginia, Washington, Massachusetts, and Tennessee.

Total Employment Share by State

The share of employment attributable to the retail industry in each state in 2018 ranged from 13.7 percent in the District of Columbia to 29.9 percent in Texas (see **Figure E-1**,

below). By this measure, the top 15 states in 2018 were Texas (29.9 percent), Florida (28.7 percent), New Hampshire (28.5 percent), Maine (28.3 percent), South Carolina (27.9 percent), Arizona (27.5 percent), Nevada (27.4 percent), Tennessee (27.2 percent), Georgia (26.7 percent), Montana (26.6 percent), Oregon (26.6 percent), North Carolina (26.6 percent), Hawaii (26.5 percent), Missouri (26.5 percent), and Ohio (26.4 percent).

Figure E-1. Share of Employment Directly and Indirectly Supported by the Retail Industry, 2018



Source: PwC calculations.

Introduction

Introduction

The National Retail Federation engaged PwC to quantify the impact of the retail industry on the US economy. For the study, the US retail industry is defined to include retail trade and food services and drinking places.

The retail trade subsector comprises establishments engaged in retailing merchandise and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise. The retail trade subsector comprises two main types of retailers: store and nonstore retailers.

- 1. **Store retailers**, as defined by the North American Industry Classification System (NAICS), operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation.
- 2. *Nonstore retailers*, like store retailers, are organized to serve the general public, but their retailing methods differ. They consist of electronic shopping and mail-order houses; vending machine operators; and direct selling establishments. As defined by NAICS, the establishments of this subsector retail all types of merchandise using the internet as well as methods such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, inhome demonstration, selling from portable stalls (street vendors, except food), and distribution through vending machines.

The food services and drinking places subsector prepares meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. It includes full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places.

In evaluating the US retail industry's economic impacts, this report considers all three impacts—direct, indirect, and induced—that in aggregate provide a measure of the total economic impact of the US retail industry.

Four main metrics are used to quantify the *direct* economic impact of the US retail industry:

- 1. <u>Number of establishments</u>: An establishment is a single physical location at which business is conducted. A business may consist of more than one establishment.
- 2. *Employment*: Jobs are positions filled by part-time and full-time employees or by self-employed individuals.
- 3. <u>*Labor income*</u>: This includes wages and salaries, commissions, vacation and sick-leave pay, fringe benefits, and all other forms of compensation, including

employer contributions for employee pension and insurance funds and government social insurance. It also includes proprietor's income for selfemployed individuals and partnerships.

4. <u>Gross Domestic Product ("GDP"</u>): Also known as margin or value added, the retail industry's GDP refers to the difference between receipts or revenues and the cost of goods sold.

The economic impact of the US retail industry extends beyond the industry itself. In its role as the distributor of merchandise to the final consumer, the retail industry requires other intermediate inputs from various industries (such as real estate, business services, finance, accommodation, communication services, transportation, and wholesale trade) for its operations. Similarly, the industry's capital investment creates demand for its capital-goods suppliers. These industries, in turn, purchase goods and services from their supply chain, spurring further economic activities. These supply chain effects represent the retail industry's *indirect* economic impact.

Additionally, the employees and business owners in the retail industry and its supply chain, in their role as consumers, purchase an array of goods and services, generating further demands that ripple through the economy. These represent the retail industry's *induced* economic impact.

The industry's total economic impact is the sum of its direct, indirect, and induced impacts, including its **operational impact** (due to its direct economic impact and purchases of intermediate inputs other than merchandise intended for resale and payments of labor compensation and dividends) and **capital investment impact** (due to its investment in new structures and equipment).³

All impacts are reported in gross terms, which means that they do not take into account what would have occurred in the absence of the retail industry.

The rest of this report is organized as follows. **Section II** defines the US retail industry for this study. **Section III** presents the US retail industry's national economic impact. **Section IV** presents the industry's economic impact at the state level. **Appendix A** provides additional detail on the distribution of US retail establishments and jobs by firm size. Detailed occupation data for the US retail industry in 2018 are presented in **Appendix B**. The data sources and methodology used in the impact analysis are discussed in **Appendix C**.

³ Leased structures and equipment are not included in the capital investment impact measure in this report. The services of leasing companies are included in the industry's operational impact.

Industry Definition

Industry Definition

In the *North American Industry Classification System* (NAICS), the US retail industry is defined by two 2-digit NAICS codes: 44 and 45. In the Standard Industry Classification (SIC) system, the predecessor to the current NAICS system, the retail industry also included food services and drinking places, now classified as a service sector under NAICS 722.

For this study, the US retail industry is defined to include NAICS codes 44, 45 and 722, as shown in **Table 1**, below. Detailed NAICS descriptions follow the table.

IMPLAN Sector	NAICS	Description
402	441	Motor vehicle and parts dealers
403	442	Furniture and home furnishings stores
404	443	Electronics and appliances stores
405	444	Building material and garden equipment and suppliers dealers
406	445	Food and beverage stores
407	446	Health and personal care stores
408	447	Gasoline stations
409	448	Clothing and clothing accessories stores
410	451	Sporting goods, hobby, book and music stores
411	452	General merchandise stores
412	453	Miscellaneous store retailers
413	454	Nonstore retailers
509	722	Food services and drinking places*

Table 1. Composition of the US Retail Industry in the Study

* Service sector formerly classified as retail trade under the SIC definition.

NAICS 441. Motor Vehicle and Parts Dealers. Industries in the motor vehicle and parts dealers subsector retail motor vehicles and parts from fixed point-of-sale locations. Establishments in this subsector typically operate from a showroom and/or an open lot where the vehicles are on display. The display of vehicles and the related parts require little by way of display equipment. The personnel generally include both the sales and sales support staff familiar with the requirements for registering and financing a vehicle as well as a staff of parts experts and mechanics trained to provide repair and maintenance services for the vehicles.

NAICS 442. Furniture and Home Furnishings Stores. Industries in the furniture and home furnishings stores subsector retail new furniture and home furnishings from fixed point-of-sale locations. Establishments in this subsector usually operate from showrooms and have substantial areas for the presentation of their products. Many offer interior decorating services in addition to the sale of products.

NAICS 443. Electronics and Appliance Stores. Industries in the electronics and appliance stores subsector retail new electronics and appliances from point-of-sale locations. Establishments in this subsector often operate from locations that have special

provisions for floor displays requiring special electrical capacity to accommodate the proper demonstration of the products. The staff includes sales personnel knowledgeable in the characteristics and warranties of the line of goods retailed and may also include trained repair persons to handle the maintenance and repair of the electronic equipment and appliances. The classifications within this subsector are made principally on the type of product and knowledge required to operate each type of store.

NAICS 444. Building Material and Garden Equipment and Supplies Dealers.

Industries in the building material and garden equipment and supplies dealers subsector retail new building material and garden equipment and supplies from fixed point-of-sale locations. Establishments in this subsector have display equipment designed to handle lumber and related products and garden equipment and supplies that may be kept either indoors or outdoors under covered areas. The staff is usually knowledgeable in the use of the specific products being retailed in the construction, repair, and maintenance of the home and associated grounds.

NAICS 445. Food and Beverage Stores. Industries in the food and beverage stores subsector usually retail food and beverages merchandise from fixed point-of-sale locations. Establishments in this subsector have special equipment (e.g., freezers, refrigerated display cases, refrigerators) for displaying food and beverage goods. They have staff trained in the processing of food products to guarantee the proper storage and sanitary conditions required by regulatory authority.

NAICS 446. Health and Personal Care Stores. Industries in the health and personal care stores subsector retail health and personal care merchandise from fixed point-of-sale locations. Establishments in this subsector are characterized principally by the products they retail, and some health and personal care stores may have specialized staff trained in dealing with the products. Staff may include pharmacists, opticians, and other professionals engaged in retailing, advising customers, and/or fitting the product sold to the customer's needs.

NAICS 447. Gasoline Stations. Industries in the gasoline stations subsector retail automotive fuels (e.g., gasoline, diesel fuel, gasohol) and automotive oils or retail these products in combination with convenience store items. These establishments have specialized equipment for the storage and dispensing of automotive fuels.

NAICS 448. Clothing and Clothing Accessories Stores. Industries in the clothing and clothing accessories subsector retail new clothing and clothing accessories merchandise from fixed point-of-sale locations. Establishments in this subsector have similar display equipment and staff that is knowledgeable regarding fashion trends and the proper match of styles, colors, and combinations of clothing and accessories to the characteristics and tastes of the customer.

NAICS 451. Sporting Goods, Hobby, Book, and Music Stores. Industries in the sporting goods, hobby, book, and music stores subsector are engaged in retailing and providing expertise on use of sporting equipment or other specific leisure activities, such as needlework and musical instruments. Book stores are also included in this subsector.

NAICS 452. General Merchandise Stores. Industries in the general merchandise stores subsector retail new general merchandise from fixed point-of-sale locations. Establishments in this subsector are unique in that they have the equipment and staff

capable of retailing a large variety of goods from a single location. This includes a variety of display equipment and staff trained to provide information on many lines of products.

NAICS 453. Miscellaneous Store Retailers. Industries in the miscellaneous store retailers subsector retail merchandise from fixed point-of-sale locations not included in the above subsectors. Establishments in this subsector include stores with unique characteristics like florists, used merchandise stores, and pet and pet supply stores as well as other store retailers.

NAICS 454. Nonstore Retailers. Industries in the nonstore retailers subsector retail merchandise using the internet and other methods such as the broadcasting of infomercials, the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls, and distribution through vending machines. Establishments in this subsector include electronic shopping and mail-order houses, vending machine operators, home delivery sales, door-to-door sales, party plan sales, and sales through portable stalls (e.g., street vendors, except food). Establishments engaged in the direct sale (i.e., nonstore) of products, such as home heating oil dealers and newspaper delivery service providers are included in this subsector.

NAICS 722. Food Services and Drinking Places. Industries in the food services and drinking places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. There is a wide range of establishments in these industries. Some provide food and drink only, while others provide various combinations of seating space, waiter/waitress services and incidental amenities, such as limited entertainment. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places. Food and beverage services at hotels and motels; amusement parks, theaters, casinos, country clubs, and similar recreational facilities; and civic and social organizations are included in this subsector only if these services are provided by a separate establishment primarily engaged in providing food and beverage services.

National Results

National Results

Direct Economic Impact

The direct economic impact is measured as the jobs, labor income, GDP, and number of establishments *within* the US retail industry. **Table 2** shows the direct economic impact of the retail industry relative to the national economy in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), GDP, and the number of establishments.

In 2018, there were nearly 4.2 million retail establishments (including food services and drinking places) across the country, counting both those with paid employees and nonemployers (which primarily consist of self-employed individuals operating small unincorporated businesses). These businesses accounted for 11.6 percent of all business establishments in the country in 2018. The retail industry directly provided 32 million jobs for American workers (accounting for 16.0 percent of the national total). The industry also directly paid out \$1.0 trillion in wages and salaries and fringe benefits and proprietors' income (8.3 percent of the national total) and generated \$1.6 trillion in GDP (7.7 percent of the national total).

Item	Direct National Impact	Percent of US Economy
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GDP	\$1.6 trillion	7.7%

Table 2. The US Retail Industry's Direct National Impact, 2018

Source: PwC calculations using data from the US Bureau of Economic Analysis, the Census Bureau, and the Bureau of Labor Statistics for the retail industry, including food services and drinking places.

(1) An establishment is a single physical location at which business is conducted. A business may consist of more than one establishment.

(2) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

(3) Labor income is defined as annual wages and salaries and benefits as well as proprietors' income.

As a point of reference, the US retail industry (including food services and drinking places) was the largest private-sector employer in the country in 2018, providing more direct jobs than any other industry at the 2-digit NAICS code level (see **Table 3a**). In terms of the direct GDP impact, the US retail industry is ranked as the third largest contributor among all 2-digit NAICS industries (see **Table 3b**).

Industry Description	Employment (Jobs)
Retail trade (including food services and drinking places)	32,089,000
Health care and social assistance	22,619,800
Professional, scientific, and technical services	14,203,900
Manufacturing	13,501,300
Administrative and support and waste management and remediation services	12,472,900
Other services (except government and government enterprises)	11,257,900
Construction	10,973,300
Finance and insurance	10,394,600
Real estate and rental and leasing	9,504,800
Transportation and warehousing	9,364,300
Wholesale trade	6,422,200
Educational services	4,771,700
Arts, entertainment, and recreation	4,684,900
Agriculture, forestry, fishing, and related activities	3,573,400
Information	3,460,100
Management of companies and enterprises	2,669,500
Mining, quarrying, and oil and gas extraction	1,353,700
Utilities	589,700

Table 3a. Direct Employment by 2-Digit NAICS Industry, 2018

Source: US Bureau of Economic Analysis.

Industry Description	GDP (\$ Billion)
Real estate and rental and leasing	\$2,734.3
Manufacturing	\$2,321.2
Retail trade (including food services and drinking places)	\$1,585.6
Finance and insurance	\$1,567.3
Professional, scientific, and technical services	\$1,546.4
Health care and social assistance	\$1,536.9
Wholesale trade	\$1,212.2
Information	\$1,067.7
Construction	\$839.1
Transportation and warehousing	\$658.1
Administrative and waste management services	\$638.1
Other services, except government	\$437.2
Management of companies and enterprises	\$394.9
Mining	\$346.6
Utilities	\$325.9
Educational services	\$255.5
Arts, entertainment, and recreation	\$227.4
Agriculture, forestry, fishing, and hunting	\$166.5

Table 3b. Direct GDP by 2-Digit NAICS Industry, 2018

Source: US Bureau of Economic Analysis.

Table 4, below, shows the direct impact of the US retail industry by NAICS subsectors for the country as a whole in terms of employment, labor income, GDP and the number of establishments.

NAICS	Subsector Description	Employment ⁽¹⁾ (Jobs)	Labor Income ⁽²⁾ (\$ Million)	GDP (\$ Million)	Number of Retail Establishments ⁽³⁾
441	Motor vehicle and parts dealers	2,252,900	134,292	\$212,196	284,873
442	Furniture and home furnishings stores	545,400	24,456	\$38,947	86,995
443	Electronics and appliances stores	513,700	29,716	\$36,796	67,576
444	Building material and garden equipment and suppliers dealers	1,374,300	58,208	\$99,872	105,249
445	Food and beverage stores	3,265,600	110,740	\$156,397	244,020
446	Health and personal care stores	1,245,900	54,865	\$73,244	285,808
447	Gasoline stations	973,500	38,592	\$49,757	114,138
448	Clothing and clothing accessories stores	1,600,700	43,391	\$65,975	314,312
451	Sporting goods, hobby, book and music stores	751,000	18,612	\$31,697	125,993
452	General merchandise stores	3,152,100	96,456	\$150,997	97,473
453	Miscellaneous store retailers	1,619,200	39,302	\$52,363	381,395
454	Nonstore retailers	2,013,200	57,166	\$158,637	1,102,798
722	Food services and drinking places	12,781,500	334,887	\$458,690	974,504
	Total Retail Industry	32,089,000	\$1,040,683	\$1,585,569	4,185,135

Table 4. Direct Impact of the Retail Industry on the US Economy by Subsector, 2018

Source: US Census Bureau, US Bureau of Labor Statistics, US Bureau of Economic Analysis, and IMPLAN 2018 database. Details may not add to totals due to rounding.

(1) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

(2) Labor income is defined as annual wages and salaries and benefits as well as proprietors' income.

(3) An establishment is a single physical location at which business is conducted. A business may consist of more than one establishment.

<u>Total Economic Impact</u>

The total economic impact includes the *direct impact* (the jobs, labor income, and GDP within the US retail industry), the *indirect impact* (the jobs, labor income, and GDP occurring in other industries due to the US retail industry's purchases of intermediate inputs other than merchandise intended for resale and capital goods), and the *induced impact* (the jobs, labor income, and GDP resulting from household spending of income earned either directly or indirectly from the US retail industry's economic activities).

At the national level. PwC estimates that in addition to the 32 million direct jobs in the US retail industry, the industry's operations and capital investment supported 19.8 million indirect and induced jobs across many sectors of the US economy in 2018.

Combining the direct, indirect, and induced impacts, the US retail industry's total employment impact to the national economy amounted to 52 million full-time and parttime jobs in 2018, accounting for 25.8 percent of the total employment in the country. The industry's total impact on labor income through its operational spending and capital investment was estimated to be \$2.3 trillion, or 18.7 percent of national labor income. The industry's total GDP impact was \$3.9 trillion, accounting for 18.7 percent of US GDP in 2018 (see **Table 5**).

Item	Total National Impact	Percent of US Economy	
Employment (Jobs) ⁽¹⁾	52 million	25.8%	
Labor Income ⁽²⁾	\$2.3 trillion	18.7%	
GDP	\$3.9 trillion	18.7%	

Table 5. Total Impact of the Retail Industry on the US Economy, 2018

Source: PwC calculations using the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places.

Details may not add to totals due to rounding.

(1) Employment is defined as the number of direct, indirect, and induced payroll and self-employed jobs, including part-time jobs.

(2) Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 6 shows the US retail industry's indirect and induced impacts by sector. The service sector accounts for the largest number of indirect and induced jobs attributable to the US retail industry's operations and capital spending (10.6 million) in 2018, followed by finance, insurance, real estate, rental and leasing (3.0 million), and transportation and warehousing (1.8 million).

The industry's estimated national indirect and induced labor income (including wages and salaries and benefits as well as proprietors' income) was \$1.3 trillion and the indirect and induced GDP was \$2.3 trillion in 2018.

by Industry, 2018									
Industry		Employment (Jobs) ⁽¹⁾		Income lion) ⁽²⁾	GDP (\$ Million)				
Impacted	Indirect	Induced	Indirect	Induced	Indirect	Induced			
Agriculture, forestry and fishing	199,910	267,860	\$6,131	\$8,185	\$9,436	\$12,425			
Mining	31,090	36,900	\$2,251	\$2,668	\$6,966	\$8,567			
Utilities	91,990	63,620	\$12,784	\$8,869	\$42,380	\$28,898			
Construction	515,020	120,780	\$32,486	\$7,775	\$39,347	\$10,557			
Manufacturing	715,170	616,500	\$50,320	\$45,901	\$92,385	\$97,801			
Wholesale trade	389,890	381,530	\$36,400	\$35,353	\$60,442	\$73,986			
Transportation and warehousing	1,228,150	581,770	\$67,777	\$34,862	\$80,708	\$43,904			
Information	292,950	251,880	\$49,609	\$34,278	\$106,555	\$80,735			
Finance, insurance, real estate, rental and leasing	1,069,720	1,897,780	\$60,338	\$114,271	\$252,624	\$393,252			
Services	3,647,740	6,975,170	\$260,960	\$399,760	\$314,604	\$471,942			
Other	172,840	241,860	\$13,961	\$19,554	\$18,094	\$25,404			
Total	8,354,470	11,435,650	\$593,019	\$711,476	\$1,023,541	\$1,247,472			

Table 6. The US Retail Industry's Indirect and Induced Impactby Industry, 2018

Source: PwC calculations using the IMPLAN modeling system (2018 database). The retail industry's indirect and induced impact reflects the industry's operational and capital investment impacts. Details may not add to totals due to rounding.

(1) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.(2) Labor income is defined as wages and salaries and benefits as well as proprietors' income.

US Retail Industry by Firm Size

While businesses in the US retail industry range from small family-run nonemployers to large global retailers with thousands of employees, available data indicate that the majority of retail businesses are relatively small. As shown in **Table 7**, based on government data, PwC estimates that 98.5 percent of all retail firms had fewer than 50 employees in 2018.⁴ These firms accounted for 34.2 percent of all retail industry jobs and 34.6 percent of total labor income in the retail industry in 2018. In contrast, just 1.5 percent of retail firms had 50 or more employees, and these firms accounted for 65.8 percent of total retail industry jobs and 65.4 percent of labor income in the retail industry in 2018.

⁴ A firm is a business organization consisting of one or more domestic establishments that were specified under common ownership or control.

Firm Size, 2018								
Firm Size	Retail	Firms	Retail Em	ployment	Retail Labor Income			
	Count	Percent of Total	Jobs	Percent of Total	Amount (\$ billion)	Percent of Total		
Retail firms with fewer than 50 employees*	3,557,920	98.5%	10,966,906	34.2%	\$360.1	34.6%		
Retail firm with fewer than 10 employees*	3,279,058	90.8%	5,133,564	16.0%	\$190.6	18.3%		
Retail firms with 50 or more employees	53,784	1.5%	21,122,094	65.8%	\$680.6	65.4%		
Total	3,611,704	100.0%	32,089,000	100.0%	\$1,040.7	100.0%		

Table 7. Percent of US Retail Firms, Employment, and Labor Income by

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places.

Details may not sum to totals due to rounding.

* Includes businesses with and without paid employees.

Appendix A provides detailed data on the number of firms, jobs, and labor income by retail subsector and firm size in the United States in 2018.

Recent Growth Trends in the US Retail Industry

The retail industry is composed of establishments that are primarily engaged in the sale of merchandise and providing incidental services. The US retail industry, as defined in this report, is composed of various subsectors ranging from standard retail stores and restaurants to nonstore retailers, such as home delivery and online sales. In recent years, the US retail industry has undergone a number of changes; one of which is the continued expansion of online sales.

Overall, employment in the US retail industry grew at an average annual rate of 1.9 percent between 2010 and 2018, with the food services and drinking places segment outpacing the retail trade segment (3.0 percent vs. 1.2 percent average annual growth rate). As shown in **Table 8**, the retail industry was the top contributor to the job gains in the US economy in this period, accounting for 15.9 percent of the 28 million increase in private-sector jobs.

	Table 8. Employment Growth by Industry,	2010-2018 ⁽¹⁾	
NAICS	Description	Job Gains between 2010 and 2018	Percent of Total
10	All Industries	27,973,300	100.00%
44-45, 722	Retail trade (including food services and drinking places)	4,450,800	15.9%
48-49	Transportation and warehousing	3,898,100	13.9%
62	Health care and social assistance	3,537,900	12.6%
54	Professional, scientific, and technical services	2,450,100	8.8%
23	Construction	2,202,600	7.9%
56	Administrative and waste management services	2,075,700	7.4%
53	Real estate and rental and leasing	1,813,800	6.5%
81	Other services, except public administration	1,512,100	5.4%
31-33	Manufacturing	1,408,400	5.0%
52	Finance and insurance	1,194,200	4.3%
71	Arts, entertainment, and recreation	898,500	3.2%
61	Educational services	675,800	2.4%
55	Management of companies and enterprises	651,100	2.3%
42	Wholesale trade	402,200	1.4%
721	Accommodation	387,300	1.4%
51	Information	237,500	0.8%
11	Agriculture, forestry, fishing, and related activities	85,000	0.3%
21	Mining	84,700	0.3%
22	Utilities	7,500	0.0%

Source: PwC calculations based on data from the US Bureau of Economic Analysis.

(1) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

Within the retail industry, the five fastest growing retail subsectors measured by payroll employment growth between 2010 and 2018 are shown in **Table 9**.⁵

NAICS	Description	Average Annual Job Growth
441210	Recreational Vehicle Dealers	7.2%
446120	Cosmetics, Beauty Supplies, and Perfume Stores	6.1%
722515	Snack and Nonalcoholic Beverage Bars	5.8%
454110	Electronic Shopping	5.7%
452319	General Merchandise Stores (other than warehouse clubs and supercenters)	5.1%

Table 9. Top Growing Retail Subsectors by Payroll Employment, 2010-2018

Source: PwC calculations based on data from the US Bureau of Labor Statistics.

⁵ The BEA data covering both payroll and self-employed jobs are not available at the 6-digit NAICS level.

"Recreational Vehicle Dealers" was the fastest growing retail subsector by payroll employment growth rate in the country between 2010 and 2018. The recreational vehicle dealers subsector is comprised of establishments engaged in retailing new and/or used recreational vehicles commonly referred to as RVs or retailing these new vehicles in combination with activities, such as repair services and selling replacement parts and accessories. Payroll employment in this industry grew at an average annual rate of 7.2 percent between 2010 and 2018. RV sales have been boosted by the increasing share of the population in retirement.

"Cosmetics, Beauty Supplies, and Perfume Stores" was the second fastest growing retail subsector by payroll employment growth rate in the country between 2010 and 2018. It is comprised of establishments engaged in retailing cosmetics, perfumes, toiletries, and personal grooming products. Payroll employment in this industry grew at an average annual rate of 6.1 percent between 2010 and 2018. Part of this growth is attributable to increasing sales to millennials, many of whose purchases are influenced by social media.⁶

"Snack and Nonalcoholic Beverage Bars" was the third fastest growing retail subsector over this period, with payroll employment growing at an average annual rate of 5.8 percent between 2010 and 2018. It is comprised of establishments engaged in some combination of preparing and/or serving a specialty snack, such as ice cream, frozen yogurt, cookies, or popcorn, or nonalcoholic beverages, such as coffee, juices, or sodas for consumption on or near the premises. One factor behind employment growth in this subsector is increased coffee shop sales to millennials.⁷

The "Electronic Shopping" subsector was the fourth fastest growing retail subsector by payroll employment growth rate in the country between 2010 and 2018. This subsector is comprised of establishments engaged in retailing all types of merchandise over the internet. Most large brick-and-mortar retailers also have online sales branches. In addition, there are a number of retailers that sell exclusively over the internet. Payroll employment in the electronic shopping subsector grew at an average annual rate of 5.7 percent between 2010 and 2018.

Rounding out the top five is "General Merchandise Stores," e.g., general stores, dollar stores, and home and auto supply stores, other than warehouse clubs and supercenters. General merchandise store payroll employment grew at an average annual rate of 5.1 percent between 2010 and 2018.

US Retail Industry by Occupation Type

While most of the jobs directly supported by the US retail industry are in sales, food preparation, and related occupations, the industry also directly supports jobs in a number of other occupations, such as logistics and freight transportation; finance, insurance, and real estate; and technology and IT related occupations. These and other occupations are further supported by the US retail industry's indirect and induced impacts on other industries. **Table 10** summarizes the direct, indirect and induced, and total jobs supported by the US retail industry by type of occupation.

⁶ Business Insider, "Beauty has blown up to be a \$532 billion industry," July 9, 2019, available at <u>https://www.businessinsider.com/beauty-multibillion-industry-trends-future-2019-7</u>. ⁷ National Coffee Association, "Infographic: The Millennial Coffee Market is Lit," May 16, 2017, available at <u>https://nationalcoffee.blog/2017/05/16/infographic-the-millennial-coffee-market-is-totes-lit-tbh/</u>.

Sales and related occupations represent the largest share of the total job impact supported by the US retail industry in 2018 (23.7 percent of the total job impact), followed by food preparation and serving related occupations (22.7 percent of the total job impact).

In addition to these occupations, the retail industry provides jobs in a number of other occupations. For example, logistics and freight transportation (which includes buying and purchasing agents, stock clerks, truck drivers, and material moving workers) accounted for 3.4 million direct jobs and an additional 2.5 million indirect and induced jobs. Overall, logistics and freight transportation occupations accounted for 11.5 percent of the total job impact supported by the US retail industry in 2018.

Management, business operations, office and administrative occupations accounted for 6.3 million (or 12.1 percent) of the total job impact supported by the US retail industry in 2018.

The US retail industry directly employed 448,300 workers in finance, insurance, and real estate occupations, primarily in bookkeeping, accounting, and auditing, order clerks, billing and posting clerks, and billing and account collectors. Through its indirect and induced impacts, the industry supported an additional 1.7 million workers in finance, insurance, and real estate occupations in 2018.

The US retail industry also supported a total of 1.1 million jobs in technology and information technology (IT) related occupations, such as software developers and programmers, database and systems administrators and network architects, and computer support specialists. Technology and IT related occupations accounted for 2.2 percent of the total job impact supported by the US retail industry in 2018.

Appendix B provides greater detail on the types of occupations supported by the US retail industry through its direct, indirect, and induced impacts.

by Occupation Type, 2018							
Occupation Type	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share			
Sales and related occupations	11,123,900	1,189,200	12,313,100	23.7%			
Food preparation and serving related occupations	11,196,600	567,900	11,764,500	22.7%			
Management, business operations, office and administrative occupations	2,382,300	3,889,200	6,271,400	12.1%			
Logistics and freight transportation occupations	3,426,600	2,517,000	5,943,600	11.5%			
Building, cleaning, maintenance, installation, and repair occupations	1,772,200	2,494,000	4,266,200	8.2%			
Health care, personal care and service occupations	983,200	2,585,300	3,568,500	6.9%			
Finance, insurance, and real estate occupations	448,300	1,714,500	2,162,700	4.2%			
Technology and IT related occupations	117,200	999,000	1,116,200	2.2%			
All other occupations	638,700	3,834,100	4,472,800	8.6%			
Total Job Impact - All Occupations	32,089,000	19,790,200	51,879,000	100.0%			

Table 10. Direct, Indirect and Induced, and Total Jobs Supported by the US Retail Industry by Occupation Type, 2018

Source: PwC estimates based on data from the Bureau of Labor Statistics and the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding.

State Results

State Results

The retail industry's economic impact reaches all 50 states and the District of Columbia. The impact varies from state to state, depending on factors such as each state's industry mix, wage structure, spending and saving patterns, and connections to other economies.

Direct Economic Impact

Table 11a shows the direct employment, labor income (including wages and salaries and benefits as well as proprietors' income) and GDP impacts of the retail industry, as well as the number of retail establishments by state, with the states listed alphabetically. **Table 11b** is the same as **Table 11a**, except that the states are ranked by the retail industry's direct employment.

The number of jobs directly attributable to the retail industry ranged from a low of 61,370 (Wyoming) to over 3.6 million (California) in 2018. The top 15 states in terms of the number of retail jobs in 2018 were California, Texas, Florida, New York, Illinois, Pennsylvania, Ohio, Georgia, North Carolina, Michigan, New Jersey, Virginia, Washington, Massachusetts, and Tennessee. Combined these states account for 65 percent of the total national retail employment in 2018.

The total number of retail establishments ranged from 9,557 (Wyoming) to 504,674 (California) in 2018. The top 15 states in terms of the total number of retail establishments in 2018 were California, Texas, Florida, New York, Pennsylvania, Illinois, Ohio, Georgia, North Carolina, Michigan, New Jersey, Virginia, Tennessee, Massachusetts, and Washington. Combined these states accounted for 66 percent of the total retail establishments in the country in 2018.

Table 11c shows per capita GDP directly attributable to the retail industry in 2018 by state, ranked by per capita retail GDP. Across all 50 states and the District of Columbia, the per capita GDP directly attributable to the retail industry was \$4,853 in 2018. The top 15 states by per capita retail GDP in 2018 were Washington (\$7,879), Hawaii (\$6,579), District of Columbia (\$6,367), Nevada (\$5,766), California (\$5,624), New Hampshire (\$5,565), Connecticut (\$5,393), New York (\$5,353), Maine (\$5,264), Vermont (\$5,262), New Jersey (\$5,124), North Dakota (\$5,114), South Dakota (\$5,072), Tennessee (\$5,057), and Massachusetts (\$5,051).

Table 11d shows per capita labor income directly attributable to the retail industry in 2018 by state, ranked by per capita retail labor income. Across all 50 states and the District of Columbia, the per capita labor income directly attributable to the retail industry was \$3,186 in 2018. The top 15 states by per capita retail labor income in 2018 were Washington (\$4,893), District of Columbia (\$4,494), New Hampshire (\$4,353), Hawaii (\$4,138), Connecticut (\$3,726), Massachusetts (\$3,719), California (\$3,598), New York (\$3,555), Vermont (\$3,541), New Jersey (\$3,526), Oregon (\$3,477), Nevada (\$3,464), Maine (\$3,447), North Dakota (\$3,407), and Montana (\$3,365).

(Sorted Alphabetically)									
	Direct Emp	loyment	Direct Labo	Direct Labor Income		Direct GDP		Retail Establishments	
Ctata		Percent		Percent		Percent	Establis	Percent	
State	Jobs	of US	(\$ Mil)	of US	(\$ Mil)	of US	Units	of US	
	3005	Retail	(\$ 1111)	Retail	(\$ 1111)	Retail	Units	Retail	
Alabama	464,490	1.4%	\$12,167	1.2%	\$20,595	1.3%	62,112	1.5%	
Alaska	69,340	0.2%	\$2,452	0.2%	\$3,246	0.2%	9,589	0.2%	
Arizona	650,080	2.0%	\$21,567	2.1%	\$33,589	2.1%	81,184	1.9%	
Arkansas	274,350	0.9%	\$7,265	0.7%	\$11,970	0.8%	39,271	0.9%	
California	3,661,850	11.4%	\$141,974	13.6%	\$221,935	14.0%	504,674	12.1%	
Colorado	593,720	1.9%	\$18,953	1.8%	\$28,387	1.8%	74,900	1.8%	
Connecticut	349,470	1.1%	\$13,309	1.3%	\$19,260	1.2%	43,854	1.0%	
Delaware	102,410	0.3%	\$3,115	0.3%	\$4,138	0.3%	12,422	0.3%	
District of Columbia	84,530	0.3%	\$3,153	0.3%	\$4,467	0.3%	7,261	0.2%	
Florida	2,201,150	6.9%	\$69,681	6.7%	\$104,206	6.6%	306,125	7.3%	
Georgia	1,032,030	3.2%	\$30,144	2.9%	\$45,020	2.8%	134,504	3.2%	
Hawaii	165,100	0.5%	\$5,879	0.6%	\$9,346	0.6%	21,577	0.5%	
Idaho	174,140	0.5%	\$5,341	0.5%	\$7,749	0.5%	25,212	0.5%	
Illinois	1,210,940	3.8%	\$38,797	3.7%	\$60,666	3.8%	144,197	3.4%	
Indiana	650,700	2.0%	\$18,278	1.8%	\$27,748	1.8%	79,948	1.9%	
lowa	331,710	1.0%	\$8,546	0.8%	\$12,917	0.8%	44,464	1.9%	
Kansas	294,030	0.9%	\$8,078	0.8%	\$12,917	0.8%	37,735	0.9%	
Kentucky	429,250	1.3%	\$11,706	1.1%	\$13,663	1.1%	56,126	1.3%	
,			\$13,367						
Louisiana	467,540	1.5%		1.3%	\$22,108	1.4%	62,402	1.5%	
Maine	150,640	0.5%	\$4,616	0.4%	\$7,049	0.4%	19,723	0.5%	
Maryland	567,910	1.8%	\$18,700	1.8%	\$28,868	1.8%	71,134	1.7%	
Massachusetts	721,300	2.2%	\$25,594	2.5%	\$34,767	2.2%	83,969	2.0%	
Michigan	929,780	2.9%	\$27,056	2.6%	\$42,903	2.7%	120,353	2.9%	
Minnesota	574,200	1.8%	\$17,318	1.7%	\$26,851	1.7%	74,257	1.8%	
Mississippi	277,750	0.9%	\$7,227	0.7%	\$11,916	0.8%	38,705	0.9%	
Missouri	626,960	2.0%	\$17,426	1.7%	\$25,860	1.6%	76,135	1.8%	
Montana	120,160	0.4%	\$3,569	0.3%	\$4,461	0.3%	17,770	0.4%	
Nebraska	209,150	0.7%	\$5,787	0.6%	\$8,935	0.6%	27,987	0.7%	
Nevada	318,500	1.0%	\$10,487	1.0%	\$17,457	1.1%	38,141	0.9%	
New Hampshire	166,740	0.5%	\$5,891	0.6%	\$7,532	0.5%	19,123	0.5%	
New Jersey	841,490	2.6%	\$31,328	3.0%	\$45,533	2.9%	110,667	2.6%	
New Mexico	189,550	0.6%	\$5,544	0.5%	\$8,235	0.5%	22,514	0.5%	
New York	1,834,900	5.7%	\$69,431	6.7%	\$104,552	6.6%	269,378	6.4%	
North Carolina	1,019,860	3.2%	\$29,492	2.8%	\$41,837	2.6%	128,589	3.1%	
North Dakota	88,950	0.3%	\$2,583	0.2%	\$3,877	0.2%	11,761	0.3%	
Ohio	1,159,740	3.6%	\$33,618	3.2%	\$53,541	3.4%	139,658	3.3%	
Oklahoma	379,850	1.2%	\$10,663	1.0%	\$15,755	1.0%	52,564	1.3%	
Oregon	431,550	1.3%	\$14,542	1.4%	\$18,272	1.2%	55,614	1.3%	
Pennsylvania	1,209,240	3.8%	\$35,799	3.4%	\$51,339	3.2%	162,767	3.9%	
Rhode Island	105,010	0.3%	\$3,551	0.3%	\$5,059	0.3%	13,057	0.3%	
South Carolina	519,010	1.6%	\$14,445	1.4%	\$21,875	1.4%	64,371	1.5%	
South Dakota	101,420	0.3%	\$2,846	0.3%	\$4,456	0.3%	14,793	0.4%	
Tennessee	705,070	2.2%	\$22,663	2.2%	\$34,243	2.2%	89,621	2.1%	
Texas	2,849,830	8.9%	\$90,018	8.6%	\$141,672	8.9%	371,047	8.9%	
Utah	325,540	1.0%	\$10,554	1.0%	\$15,277	1.0%	46,665	1.1%	
Vermont	69,500	0.2%	\$2,211	0.2%	\$3,286	0.2%	10,097	0.2%	
Virginia	826,870	2.6%	\$24,435	2.3%	\$37,562	2.4%	97,455	2.3%	
Washington	737,140	2.3%	\$36,811	3.5%	\$59,279	3.7%	82,494	2.0%	
West Virginia	159,650	0.5%	\$4,193	0.4%	\$6,825	0.4%	21,748	0.5%	
Wisconsin	603,530	1.9%	\$16,843	1.6%	\$25,063	1.6%	75,869	1.8%	
Wyoming	61,370	0.2%	\$1,671	0.2%	\$2,776	0.2%	9,557	0.2%	

Table 11a. Direct Impact of the Retail Industry by State, 2018(Sorted Alphabetically)

Source: PwC calculations using data from the US Bureau of Economic Analysis, the Census Bureau, and the Bureau of Labor Statistics for the retail industry, including food services and drinking places. Details may not add to totals due to rounding.

(Sorted by Direct Employment)								
	Direct Employment		Direct Labor		Direct	GDP	Retail	
			Income				Establishments	
State		Percent		Percent		Percent		Percent
	Jobs	of US	(\$ Mil)	of US	(\$ Mil)	of US	Units	of US
		Retail		Retail		Retail		Retail
California	3,661,850	11.4%	\$141,974	13.6%	\$221,935	14.0%	504,674	12.1%
Texas	2,849,830	8.9%	\$90,018	8.6%	\$141,672	8.9%	371,047	8.9%
Florida	2,201,150	6.9%	\$69,681	6.7%	\$104,206	6.6%	306,125	7.3%
New York	1,834,900	5.7%	\$69,431	6.7%	\$104,552	6.6%	269,378	6.4%
Illinois	1,210,940	3.8%	\$38,797	3.7%	\$60,666	3.8%	144,197	3.4%
Pennsylvania	1,209,240	3.8%	\$35,799	3.4%	\$51,339	3.2%	162,767	3.9%
Ohio	1,159,740	3.6%	\$33,618	3.2%	\$53,541	3.4%	139,658	3.3%
Georgia	1,032,030	3.2%	\$30,144	2.9%	\$45,020	2.8%	134,504	3.2%
North Carolina	1,019,860	3.2%	\$29,492	2.8%	\$41,837	2.6%	128,589	3.1%
Michigan	929,780	2.9%	\$27,056	2.6%	\$42,903	2.7%	120,353	2.9%
New Jersey	841,490	2.6%	\$31,328	3.0%	\$45,533	2.9%	110,667	2.6%
Virginia	826,870	2.6%	\$24,435	2.3%	\$37,562	2.4%	97,455	2.3%
Washington	737,140	2.3%	\$36,811	3.5%	\$59,279	3.7%	82,494	2.0%
Massachusetts	721,300	2.2%	\$25,594	2.5%	\$34,767	2.2%	83,969	2.0%
Tennessee	705,070	2.2%	\$22,663	2.2%	\$34,243	2.2%	89,621	2.1%
Indiana	650,700	2.0%	\$18,278	1.8%	\$27,748	1.8%	79,948	1.9%
Arizona	650,080	2.0%	\$21,567	2.1%	\$33,589	2.1%	81,184	1.9%
Missouri	626,960	2.0%	\$17,426	1.7%	\$25,860	1.6%	76,135	1.8%
Wisconsin	603,530	1.9%	\$16,843	1.6%	\$25,063	1.6%	75,869	1.8%
Colorado	593,720	1.9%	\$18,953	1.8%	\$28,387	1.8%	74,900	1.8%
Minnesota	574,200	1.8%	\$17,318	1.7%	\$26,851	1.7%	74,257	1.8%
Maryland	567,910	1.8%	\$18,700	1.8%	\$28,868	1.8%	71,134	1.7%
South Carolina	519,010	1.6%	\$14,445	1.4%	\$21,875	1.4%	64,371	1.5%
Louisiana	467,540	1.5%	\$13,367	1.3%	\$22,108	1.4%	62,402	1.5%
Alabama	464,490	1.4%	\$12,167	1.2%	\$20,595	1.3%	62,112	1.5%
Oregon	431,550	1.3%	\$14,542	1.4%	\$18,272	1.2%	55,614	1.3%
Kentucky	429,250	1.3%	\$11,706	1.1%	\$17,650	1.1%	56,126	1.3%
Oklahoma	379,850	1.2%	\$10,663	1.0%	\$15,755	1.0%	52,564	1.3%
Connecticut	349,470	1.1%	\$13,309	1.3%	\$19,260	1.2%	43,854	1.0%
lowa	331,710	1.0%	\$8,546	0.8%	\$12,917	0.8%	44,464	1.1%
Utah	325,540	1.0%	\$10,554	1.0%	\$15,277	1.0%	46,665	1.1%
Nevada	318,500	1.0%	\$10,487	1.0%	\$17,457	1.1%	38,141	0.9%
Kansas	294,030	0.9%	\$8,078	0.8%	\$13,663	0.9%	37,735	0.9%
Mississippi	277,750	0.9%	\$7,227	0.7%	\$11,916	0.8%	38,705	0.9%
Arkansas	274,350	0.9%	\$7,265	0.7%	\$11,970	0.8%	39,271	0.9%
Nebraska	209,150	0.7%	\$5,787	0.6%	\$8,935	0.6%	27,987	0.7%
New Mexico	189,550	0.6%	\$5,544	0.5%	\$8,235	0.5%	22,514	0.5%
Idaho	174,140	0.5%	\$5,341	0.5%	\$7,749	0.5%	25,212	0.6%
New Hampshire	166,740	0.5%	\$5,891	0.6%	\$7,532	0.5%	19,123	0.5%
Hawaii	165,100	0.5%	\$5,879	0.6%	\$9,346	0.6%	21,577	0.5%
West Virginia	159,650	0.5%	\$4,193	0.4%	\$6,825	0.4%	21,748	0.5%
Maine	150,640	0.5%	\$4,616	0.4%	\$7,049	0.4%	19,723	0.5%
Montana	120,160	0.4%	\$3,569	0.3%	\$4,461	0.3%	17,770	0.4%
Rhode Island	105,010	0.3%	\$3,551	0.3%	\$5,059	0.3%	13,057	0.3%
Delaware	102,410	0.3%	\$3,115	0.3%	\$4,138	0.3%	12,422	0.3%
South Dakota	101,420	0.3%	\$2,846	0.3%	\$4,456	0.3%	14,793	0.4%
North Dakota	88,950	0.3%	\$2,583	0.2%	\$3,877	0.2%	11,761	0.3%
District of Columbia	84,530	0.3%	\$3,153	0.2%	\$4,467	0.2%	7,261	0.2%
Vermont	69,500	0.2%	\$2,211	0.3%	\$3,286	0.2%	10,097	0.2%
Alaska	69,340	0.2%	\$2,452	0.2%	\$3,246	0.2%	9,589	0.2%
Wyoming	61,370	0.2%	\$1,671	0.2%	\$2,776	0.2%	9,557	0.2%
US Total	32,089,000	100%	1,040,683	100%	\$1,585,569	100%	4,185,135	100%
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Table 11b. Direct Impact of the Retail Industry by State, 2018 (Sorted by Direct Employment)

Source: PwC calculations using data from the US Bureau of Economic Analysis, the Census Bureau, and the Bureau of Labor Statistics for the retail industry, including food services and drinking places. Details may not add to totals due to rounding.

(Sortea by Per	Direct GDP
State	Per Capita (\$)
Washington	\$7,879
Hawaii	\$6,579
District of Columbia	\$6,367
Nevada	\$5,766
California	\$5,624
New Hampshire	\$5,565
Connecticut	\$5,393
New York	\$5,353
Maine	\$5,264
Vermont	\$5,262
New Jersey	\$5,124
North Dakota	\$5,114
South Dakota	\$5,072
Tennessee	\$5,057
Massachusetts	\$5,051
Colorado	\$4,988
Texas	\$4,949
Florida	\$4,905
Utah	\$4,845
Wyoming	\$4,805
Minnesota	\$4,789
Maryland	\$4,783
Rhode Island	\$4,780
Illinois	\$4,768
Louisiana	\$4,745
Arizona	\$4,693
Kansas	\$4,693
Nebraska	\$4,640
Ohio	\$4,585
Idaho	\$4,426
Virginia	\$4,418
Alaska	\$4,416
Oregon	\$4,369
Wisconsin	\$4,316
South Carolina	\$4,303
Michigan	\$4,297
Delaware	\$4,286
Georgia	\$4,283
Missouri	\$4,224
Alabama	\$4,214
Montana	\$4,205
Indiana	\$4,205
lowa	\$4,144
North Carolina	\$4,02
Pennsylvania	\$4,030
Oklahoma	\$3,999
Mississippi	\$3,997
Arkansas	\$3,997
Kentucky	\$3,956
New Mexico	\$3,935
West Virginia	\$3,783
US Average	\$4,853

Table 11c. Per Capita GDP Directly Attributable to the Retail Industry
by State, 2018
(Sorted by Per Capita GDP)

Source: PwC calculations using data from the US Bureau of Economic Analysis and the Census Bureau for the retail industry, including food services and drinking places.

(Soried by Per Capita	
State	Direct Labor Income
	Per Capita (\$)
Washington	\$4,893
District of Columbia	\$4,494
New Hampshire	\$4,353
Hawaii	\$4,138
Connecticut	\$3,726
Massachusetts	\$3,719
California	\$3,598
New York	\$3,555
Vermont	\$3,541
New Jersey	\$3,526
Oregon	\$3,477
Nevada	\$3,464
Maine	\$3,447
North Dakota	\$3,407
Montana	\$3,365
Rhode Island	\$3,356
Tennessee	\$3,347
Utah	\$3,347
Alaska	\$3,336
Colorado	\$3,330
Florida	\$3,280
South Dakota	\$3,239
Delaware	\$3,226
Texas	\$3,144
Maryland	\$3,098
Minnesota	\$3,089
Idaho	\$3,051
Illinois	\$3,049
Arizona	\$3,013
Nebraska	\$3,005
Wisconsin	\$2,900
Wyoming	\$2,893
Ohio	\$2,879
Virginia	\$2,874
Louisiana	\$2,869
Georgia	\$2,868
Missouri	\$2,847
South Carolina	\$2,841
North Carolina	\$2,841
Pennsylvania	\$2,797
Kansas	\$2,775
Indiana	\$2,730
lowa	\$2,714
Michigan	\$2,710
Oklahoma	\$2,706
New Mexico	\$2,649
Kentucky	\$2,624
Alabama	\$2,489
Mississippi	\$2,424
Arkansas	\$2,414
West Virginia	\$2,324
US Average	\$3,186

Table 11d. Per Capita Labor Income Directly Attributable to the RetailIndustry by State, 2018(Sorted by Per Capita Labor Income)

Source: PwC calculations using data from the US Bureau of Economic Analysis and the Census Bureau for the retail industry, including food services and drinking places.

Total Economic Impact

Table 12a shows the retail industry's state-by-state total impact (direct, indirect, and induced) in terms of jobs, labor income (including wages and salaries and benefits as well as proprietors' income), and GDP, with the states listed alphabetically. **Table 12b** is the same as **Table 12a**, except that the states are ranked in order of the industry's total employment impact as a percent of each state's total employment.

As a percent of each state's total employment, the retail industry's total employment impact ranged from 13.7 percent (the District of Columbia) to 29.9 percent (Texas) in 2018. Counting the direct, indirect, and induced impacts, the retail industry supported more than 20 percent of the total employment in all 50 states in 2018, with only the District of Columbia accounting for less than 20 percent.

As a percent of each state's total labor income (including wages and salaries and benefits as well as proprietors' income), the total labor income impact attributable to the retail industry ranged from 7.9 percent (the District of Columbia) to 23.0 percent (Florida) in 2018. The retail industry's total labor income impact exceeded 13.0 percent of the state total in all 50 states.

As a percent of each state's economy, the retail industry's total GDP impact ranged from 8.4 percent (the District of Columbia) to 23.2 percent (Maine) in 2018. The retail industry's total GDP impact accounted for at least 13.0 percent of the state total in all 50 states.

(Sorted Alphabetically)								
	Emplo	yment	GI	GDP				
State	Jobs	Percent of State Retail	(\$ Mil)	Percent of State Retail	(\$ Mil)	Percent of State Retail		
Alabama	702,580	26.1%	\$24,724	18.3%	\$42,880	19.3%		
Alaska	101,680	22.1%	\$4,544	14.4%	\$7,490	13.7%		
Arizona	1,059,650	27.5%	\$45,262	21.2%	\$74,824	21.5%		
Arkansas	425,080	25.6%	\$15,061	19.2%	\$25,703	20.0%		
California	5,995,290	24.8%	\$324,923	18.2%	\$542,050	18.1%		
Colorado	963,370	24.9%	\$42,496	17.8%	\$68,597	18.5%		
Connecticut	554,670	23.8%	\$29,500	16.8%	\$47,196	17.1%		
Delaware	154,360	25.9%	\$6,606	17.9%	\$11,189	15.2%		
District of Columbia	125,900	13.7%	\$8,250	7.9%	\$11,748	8.4%		
Florida	3,573,440	28.7%	\$145,667	23.0%	\$238,971	23.0%		
Georgia	1,675,940	26.7%	\$69,312	19.4%	\$115,686	19.5%		
Hawaii	247,000	26.5%	\$10,693	19.3%	\$18,242	19.4%		
Idaho	270,870	26.1%	\$10,170	20.5%	\$16,042	20.8%		
Illinois	1,984,550	25.0%	\$94,239	17.9%	\$157,047	18.1%		
Indiana	1,023,180	25.8%	\$40,944	18.6%	\$66,467	18.1%		
lowa	516,320	24.7%	\$18,786	17.1%	\$31,644	16.7%		
Kansas	461,930	23.8%	\$17,682	16.6%	\$30,261	18.0%		
Kentucky	663,750	26.0%	\$24,428	18.9%	\$39,749	19.1%		
Louisiana	705,900	25.8%	\$26,265	18.0%	\$47,484	18.5%		
Maine	240,330	28.3%	\$9,282	21.8%	\$15,021	23.2%		
Maryland	883,080	23.5%	\$41,411	16.1%	\$67,771	16.4%		
Massachusetts	1,152,510	23.7%	\$60,645	16.5%	\$92,181	16.2%		
Michigan	1,493,610	26.1%	\$62,022	18.7%	\$101,477	19.3%		
Minnesota	941,260	24.8%	\$42,308	18.1%	\$67,702	18.4%		
Mississippi	417,180	24.0%	\$13,441	19.1%	\$23,645	20.6%		
Missouri	999,840	26.5%	\$39,449	19.1%	\$63,329	19.9%		
Montana	182,470	26.6%	\$6,448	20.3%	\$9,648	19.2%		
Nebraska	330,240	24.7%	\$13,099	17.4%	\$21,870	17.6%		
Nevada	504,870	27.4%	\$20,937	21.2%	\$36,840	21.8%		
			. ,					
New Hampshire New Jersey	255,370	28.5%	\$11,773	21.3%	\$17,624	20.9%		
	1,363,420	24.5% 24.4%	\$71,351	18.0%	\$112,176	18.0% 16.2%		
New Mexico	272,710		\$9,476	17.1%	\$16,220			
New York	2,875,540	22.7%	\$162,571	16.2%	\$267,393	16.0%		
North Carolina	1,607,680	26.6%	\$64,400	19.3%	\$105,673	18.7%		
North Dakota	132,250	22.7%	\$5,058	15.3%	\$8,349	14.9%		
Ohio	1,875,270	26.4%	\$76,982	18.9%	\$130,671	19.3%		
Oklahoma	582,340	25.0%	\$21,650	17.1%	\$34,844	17.2%		
Oregon	687,240	26.6%	\$30,523	20.3%	\$45,689	19.1%		
Pennsylvania	1,967,950	25.2%	\$91,701	18.5%	\$141,650	18.1%		
Rhode Island	163,930	25.3%	\$7,164	18.8%	\$11,418	18.8%		
South Carolina	794,250	27.9%	\$28,920	20.0%	\$47,173	20.2%		
South Dakota	153,540	25.1%	\$5,658	18.1%	\$9,617	18.5%		
Tennessee	1,122,550	27.2%	\$49,557	21.2%	\$78,498	21.6%		
Texas	5,265,160	29.9%	\$239,050	22.0%	\$400,037	22.2%		
Utah	544,210	26.4%	\$22,279	20.6%	\$36,428	20.4%		
Vermont	110,280	25.0%	\$4,333	19.6%	\$6,970	21.0%		
Virginia	1,281,570	24.1%	\$54,590	16.2%	\$91,244	17.1%		
Washington	1,184,770	26.0%	\$69,781	21.4%	\$120,183	21.2%		
West Virginia	232,350	25.7%	\$8,085	17.5%	\$13,809	17.8%		
Wisconsin	967,340	25.9%	\$38,637	18.5%	\$62,563	18.6%		
Wyoming	88,550	21.9%	\$3,045	13.6%	\$5,601	14.3%		
US Total	51,879,000	25.8%	\$2,345,177	18.7%	\$3,856,583	18.7%		

Table 12a. Total Impact of the Retail Industry by State in 2018 (Sorted Alphabetically)

Source: PwC calculations using data from the US Bureau of Economic Analysis and the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places. Details may not add to totals due to rounding.

(Sorted by Job Share of State Total)						
State	Employment		Labor Income		GDP	
	Jobs	Percent of State Retail	(\$ Mil)	Percent of State Retail	(\$ Mil)	Percent of State Retail
Texas	5,265,160	29.9%	\$239,050	22.0%	\$400,037	22.2%
Florida	3,573,440	28.7%	\$145,667	23.0%	\$238,971	23.0%
New Hampshire	255,370	28.5%	\$11,773	21.3%	\$17,624	20.9%
Maine	240,330	28.3%	\$9,282	21.8%	\$15,021	23.2%
South Carolina	794,250	27.9%	\$28,920	20.0%	\$47,173	20.2%
Arizona	1,059,650	27.5%	\$45,262	21.2%	\$74,824	21.5%
Nevada	504,870	27.4%	\$20,937	21.2%	\$36,840	21.8%
Tennessee	1,122,550	27.2%	\$49,557	21.2%	\$78,498	21.6%
Georgia	1,675,940	26.7%	\$69,312	19.4%	\$115,686	19.5%
Montana	182,470	26.6%	\$6,448	20.3%	\$9,648	19.2%
Oregon	687,240	26.6%	\$30,523	20.3%	\$45,689	19.1%
North Carolina	1,607,680	26.6%	\$64,400	19.3%	\$105,673	18.7%
Hawaii	247,000	26.5%	\$10,693	19.3%	\$18,242	19.4%
Missouri	999,840	26.5%	\$39,449	19.2%	\$63,329	19.9%
Ohio	1,875,270	26.4%	\$76,982	18.9%	\$130,671	19.3%
Utah	544,210	26.4%	\$22,279	20.6%	\$36,428	20.4%
Alabama	702,580	26.1%	\$24,724	18.3%	\$42,880	19.3%
Idaho	270,870	26.1%	\$10,170	20.5%	\$16,042	20.8%
Michigan	1,493,610	26.1%	\$62,022	18.7%	\$101,477	19.3%
Kentucky	663,750	26.0%	\$24,428	18.9%	\$39,749	19.1%
Washington	1,184,770	26.0%	\$69,781	21.4%	\$120,183	21.2%
Mississippi	417,180	26.0%	\$13,441	19.1%	\$23,645	20.6%
Delaware	154,360	25.9%	\$6,606	17.9%	\$11,189	15.2%
Wisconsin	967,340	25.9%	\$38,637	18.5%	\$62,563	18.6%
Louisiana	705,900	25.8%	\$26,265	18.0%	\$47,484	18.5%
Indiana	1,023,180	25.8%	\$40,944	18.6%	\$66,467	18.1%
West Virginia	232,350	25.7%	\$8,085	17.5%	\$13,809	17.8%
Arkansas	425,080	25.6%	\$15,061	19.2%	\$25,703	20.0%
Rhode Island	163,930	25.3%	\$7,164	18.8%	\$11,418	18.8%
Pennsylvania	1,967,950	25.2%	\$91,701	18.5%	\$141,650	18.1%
South Dakota	153,540	25.1%	\$5,658	18.1%	\$9,617	18.5%
Vermont	110,280	25.0%	\$4,333	19.6%	\$6,970	21.0%
Oklahoma	582,340	25.0%	\$21,650	17.1%	\$34,844	17.2%
Illinois	1,984,550	25.0%	\$94,239	17.9%	\$157,047	18.1%
Colorado	963,370	24.9%	\$42,496	17.8%	\$68,597	18.5%
Minnesota	941,260	24.8%	\$42,308	18.1%	\$67,702	18.4%
California	5,995,290	24.8%	\$324,923	18.2%	\$542,050	18.1%
Nebraska	330,240	24.7%	\$13,099	17.4%	\$21,870	17.6%
lowa	516,320	24.7%	\$18,786	17.1%	\$31,644	16.7%
New Jersey	1,363,420	24.5%	\$71,351	18.0%	\$112,176	18.0%
New Mexico	272,710	24.4%	\$9,476	17.1%	\$16,220	16.2%
Virginia	1,281,570	24.1%	\$54,590	16.2%	\$91,244	17.1%
Connecticut	554,670	23.8%	\$29,500	16.8%	\$47,196	17.1%
Kansas	461,930	23.8%	\$17,682	16.6%	\$30,261	18.0%
Massachusetts	1,152,510	23.7%	\$60,645	16.5%	\$92,181	16.2%
Maryland	883,080	23.5%	\$41,411	16.1%	\$67,771	16.4%
North Dakota	132,250	22.7%	\$5,058	15.3%	\$8,349	14.9%
New York	2,875,540	22.7%	\$162,571	16.2%	\$267,393	16.0%
Alaska	101,680	22.1%	\$4,544	14.4%	\$7,490	13.7%
Wyoming	88,550	21.9%	\$3,045	13.6%	\$7,490	14.3%
District of Columbia	125,900	13.7%	\$3,045	7.9%	\$11,748	8.4%
US Total	51,879,000	25.8%	\$2,345,177	18.7%	\$3,856,583	18.7%
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Table 12b. Total Impact of the Retail Industry by State in 2018(Sorted by Job Share of State Total)

Source: PwC calculations using data from the US Bureau of Economic Analysis and the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places. Details may not add to totals due to rounding.

The remainder of this section provides more details on the economic impacts of the retail industry at the state level.

Table 13a shows the *direct, indirect, induced*, and *total* employment impact of the retail industry in the 50 states and the District of Columbia, with the states listed alphabetically. **Table 13b** is the same as **Table 13a** except that the states are ranked in order of the industry's total employment impact as a percent of each state's total number of full-time and part-time jobs. Using this metric, the top 15 states in 2018 were Texas (29.9 percent), Florida (28.7 percent), New Hampshire (28.5 percent), Maine (28.3 percent), South Carolina (27.9 percent), Arizona (27.5 percent), Nevada (27.4 percent), Tennessee (27.2 percent), Georgia (26.7 percent), Montana (26.6 percent), Oregon (26.6 percent), North Carolina (26.6 percent), Hawaii (26.5 percent), Missouri (26.5 percent), and Ohio (26.4 percent).

Table 14a shows the *direct, indirect, induced*, and *total* labor income impact of the retail industry in the 50 states and the District of Columbia, with the states listed alphabetically. **Table 14b** is the same as **Table 14a** except the states are ranked in order of the industry's total impact as a percent of each state's total labor income. Using this metric, the top 15 states in 2018 were Florida (23.0 percent), Texas (22.0 percent), Maine (21.8 percent), Washington (21.4 percent), New Hampshire (21.3 percent), Tennessee (21.2 percent), Arizona (21.2 percent), Nevada (21.2 percent), Utah (20.6 percent), Idaho (20.5 percent), Montana (20.3 percent), Oregon (20.3 percent), South Carolina (20.0 percent), Vermont (19.6 percent), and Georgia (19.4 percent).

Table 15a shows the *direct, indirect, induced*, and *total* GDP impact of the retail industry in the 50 states and the District of Columbia, with the states listed alphabetically. **Table 15b** is the same as **Table 15a** except that the states are ranked in order of the industry's total impact as a percent of each state's GDP. The top 15 states in 2018 were Maine (23.2 percent), Florida (23.0 percent), Texas (22.2 percent), Nevada (21.8 percent), Tennessee (21.6 percent), Arizona (21.5 percent), Washington (21.3 percent), Vermont (21.0 percent), New Hampshire (20.9 percent), Idaho (20.8 percent), Mississippi (20.6 percent), Utah (20.5 percent), South Carolina (20.2 percent), Arkansas (20.0 percent), and Missouri (19.9 percent).

Table 13a. Employment Impact of the Retail Industry by State in 2018(Sorted Alphabetically)

(Sorted Alphabetically)								
State	Direct	Indirect Induced	Induced	Total	Total Impact as a % of State			
State	Direct	muntet	muuccu	Iotai	Total Jobs			
Alabama	464,490	115,240	122,860	702,580	26.1%			
Alaska	69.340	12,700	19,640	101,680	22.1%			
Arizona	650,080	174,540	235,030	1,059,650	27.5%			
Arkansas	274,350	71,220	79,510	425,080	25.6%			
California	3,661,850	948,440	1,385,000	5,995,290	24.8%			
Colorado	593,720	157,510	212,140	963,370	24.9%			
Connecticut	349,470	79,820	125,380	554,670	23.8%			
Delaware	102,410	22,380	29,570	154,360	25.9%			
District of Columbia	84,530	14,990	26,380	125,900	13.7%			
Florida	2,201,150	583,700	788,600	3,573,440	28.7%			
Georgia	1,032,030	294,120	349,780	1,675,940	26.7%			
Hawaii	165,100	31,790	50,100	247,000	26.5%			
Idaho	174,140	43,750	52,980	270,870	26.1%			
Illinois	1,210,940	319,970	453,640	· · · · ·	25.0%			
				1,984,550				
Indiana	650,700	167,890	204,590	1,023,180	25.8%			
lowa	331,710	85,620	98,980	516,320	24.7%			
Kansas	294,030	78,200	89,700	461,930	23.8%			
Kentucky	429,250	110,280	124,210	663,750	26.0%			
Louisiana	467,540	105,710	132,650	705,900	25.8%			
Maine	150,640	39,180	50,510	240,330	28.3%			
Maryland	567,910	130,740	184,430	883,080	23.5%			
Massachusetts	721,300	161,040	270,170	1,152,510	23.7%			
Michigan	929,780	241,450	322,370	1,493,610	26.1%			
Minnesota	574,200	150,340	216,720	941,260	24.8%			
Mississippi	277,750	68,320	71,110	417,180	26.0%			
Missouri	626,960	163,250	209,630	999,840	26.5%			
Montana	120,160	26,490	35,810	182,470	26.6%			
Nebraska	209,150	55,830	65,270	330,240	24.7%			
Nevada	318,500	82,010	104,360	504,870	27.4%			
New Hampshire	166,740	36,090	52,530	255,370	28.5%			
New Jersey	841,490	209,020	312,900	1,363,420	24.5%			
New Mexico	189,550	34,180	48,980	272,710	24.4%			
New York	1,834,900	384,890	655,750	2,875,540	22.7%			
North Carolina	1,019,860	273,790	314,020	1,607,680	26.6%			
North Dakota	88,950	19,070	24,240	132,250	22.7%			
Ohio	1,159,740	312,160	403,370	1,875,270	26.4%			
Oklahoma	379,850	97,740	104,740	582,340	25.0%			
Oregon	431,550	108,530	147,160	687,240	26.6%			
Pennsylvania	1,209,240	309,060	449,650	1,967,950	25.2%			
Rhode Island	105.010	22,760	36,160	163,930	25.3%			
South Carolina	519,010	133,980	141,260	794,250	27.9%			
South Dakota	101,420	22,500	29,610	153,540	25.1%			
Tennessee	705,070	188,980	228,510	1,122,550	27.2%			
Texas	2,849,830	960,540	1,454,780	5,265,160	29.9%			
Utah	325,540	98,850	119,820	544,210	26.4%			
Vermont	69,500	16,300	24,490	110,280	25.0%			
Virginia	826,870	204,180	250,520	1,281,570	24.1%			
Washington	737,140	176,840	270,790	1,184,770	24.1%			
West Virginia	159,650	32,490	40,220	232,350	25.7%			
Wisconsin			200,940	967,340	25.7%			
	603,530	162,880	14,090	88,550				
Wyoming	61,370	13,090			21.9%			
US Total	32,089,000	8,354,470	11,435,650	51,879,000	25.8%			

Table 13b. Employment Impact of the Retail Industry by State in 2018(Sorted by Job Share)

(Sorted by Job Share)								
State	Direct	Indirect	Induced	Total	Total Impact as a % of State			
State	Direct	mairect	maucea	TOTAL	Total Jobs			
Texas	2,849,830	960,540	1,454,780	5,265,160	29.9%			
Florida	2,201,150	583,700	788,600	3,573,440	28.7%			
New Hampshire	166,740	36,090	52,530	255,370	28.5%			
Maine	150,640	39,180	50,510	240,330	28.3%			
South Carolina	519,010	133,980	141,260	794,250	27.9%			
Arizona	650,080	174,540	235,030	1,059,650	27.5%			
Nevada	318,500	82,010	104,360	504,870	27.4%			
Tennessee	705,070	188,980	228,510	1,122,550	27.2%			
Georgia	1,032,030	294,120	349,780	1,675,940	26.7%			
Montana	120,160	26,490	35,810	182,470	26.6%			
Oregon	431,550	108,530	147,160	687,240	26.6%			
North Carolina	1,019,860	273,790	314,020	1,607,680	26.6%			
Hawaii	165,100	31,790	50,100	247,000	26.5%			
Missouri	626,960	163,250	209,630	999,840	26.5%			
Ohio	1,159,740	312,160	403,370	1,875,270	26.4%			
Utah	325,540	98,850	119,820	544,210	26.4%			
Alabama	464,490	115,240	122,860	702,580	26.1%			
Idaho	174,140	43,750	52,980	270,870	26.1%			
Michigan	929,780	241,450	322,370	1,493,610	26.1%			
Kentucky	429,250	110,280	124,210	663,750	26.0%			
Washington	737,140	176,840	270,790	1,184,770	26.0%			
Mississippi	277,750	68,320	71,110	417,180	26.0%			
Delaware	102,410	22,380	29,570	154,360	25.9%			
Wisconsin	603,530	162,880	200,940	967,340	25.9%			
Louisiana	467,540	105,710	132,650	705,900	25.8%			
Indiana	650,700	167,890	204,590	1,023,180	25.8%			
West Virginia	159,650	32,490	40,220	232,350	25.7%			
Arkansas	274,350	71,220	79,510	425,080	25.6%			
Rhode Island	105,010	22,760	36,160	163,930	25.3%			
Pennsylvania	1,209,240	309,060	449,650	1,967,950	25.2%			
South Dakota	101,420	22,500	29,610	153,540	25.1%			
Vermont	69,500	16,300	24,490	110,280	25.0%			
Oklahoma	379,850	97,740	104,740	582,340	25.0%			
Illinois	1,210,940	319,970	453,640	1,984,550	25.0%			
Colorado	593,720	157,510	212,140	963,370	24.9%			
Minnesota	574,200	150,340	216,720	941,260	24.8%			
California	3,661,850	948,440	1,385,000	5,995,290	24.8%			
Nebraska	209,150	55,830	65,270	330,240	24.7%			
lowa	331,710	85,620	98,980	516,320	24.7%			
New Jersey	841,490	209,020	312,900	1,363,420	24.5%			
New Mexico	189,550	34,180	48,980	272,710	24.4%			
Virginia	826,870	204,180	250,520	1,281,570	24.4%			
Connecticut	349,470	79,820	125,380	554,670	23.8%			
Kansas	294,030	78,200	89,700	461,930	23.8%			
Massachusetts	721,300	161,040	270,170	1,152,510	23.7%			
Maryland	567,910	130,740	184,430	883,080	23.5%			
North Dakota	88,950	19.070	24,240	132,250	22.7%			
New York	1,834,900	384,890	655,750	2,875,540	22.7%			
Alaska	69,340	12,700	19,640	101,680	22.1%			
Wyoming	61,370	13,090	14,090	88,550	22.1%			
District of Columbia	84,530	14,990	26,380	125,900	13.7%			
US Total	32,089,000	8,354,470	11,435,650	51,879,000	25.8%			

Table 14a. Impact of the Retail Industry on Labor Income by State in 2018(\$ Million; Sorted Alphabetically)

	(φ 1/1α		Alphabelical	(y)	Total Impact
State	Direct	Indirect	Induced	Total	as a % of State Total Labor Income
Alabama	\$12,167	\$6,280	\$6,277	\$24,724	18.3%
Alaska	\$2,452	\$857	\$1,234	\$4,544	14.4%
Arizona	\$21,567	\$10,530	\$13,165	\$45,262	21.2%
Arkansas	\$7,265	\$3,912	\$3,884	\$15,061	19.2%
California	\$141,974	\$83,192	\$99,757	\$324,923	18.2%
Colorado	\$18,953	\$10,924	\$12,619	\$42,496	17.8%
Connecticut	\$13,309	\$6,804	\$9,387	\$29,500	16.8%
Delaware	\$3,115	\$1,574	\$1,918	\$6,606	17.9%
District of Columbia	\$3,153	\$2,149	\$2,949	\$8,250	7.9%
Florida	\$69,681	\$34,408	\$41,577	\$145,667	23.0%
Georgia	\$30,144	\$19,161	\$20,007	\$69,312	19.4%
Hawaii	\$5,879	\$1,987	\$2,827	\$10,693	19.3%
Idaho	\$5,341	\$2,249	\$2,579	\$10,170	20.5%
Illinois	\$38,797	\$25,015	\$30,427	\$94,239	17.9%
Indiana	\$18,278	\$10,531	\$12,136	\$40,944	18.6%
lowa	\$8,546	\$5,004	\$5,236	\$18,786	17.1%
Kansas	\$8,078	\$4,667	\$4,937	\$17,682	16.6%
Kentucky	\$11,706	\$6,156	\$6,565	\$24,428	18.9%
Louisiana	\$13,367	\$6,063	\$6,834	\$26,265	18.0%
Maine	\$4,616	\$2,115	\$2,551	\$9,282	21.8%
Maryland	\$18,700	\$10,367	\$12,344	\$41,411	16.1%
Massachusetts	\$25,594	\$14,511	\$20,540	\$60,645	16.5%
Michigan	\$27,056	\$16,450	\$18,516	\$62,022	18.7%
Minnesota	\$17,318	\$11,233	\$13,757	\$42,308	18.1%
Mississippi	\$7,227	\$3,122	\$3,092	\$13,441	19.1%
Missouri	\$17,426	\$10,386	\$11,637	\$39,449	19.2%
Montana	\$3,569	\$1,241	\$1,638	\$6,448	20.3%
Nebraska	\$5,787	\$3,491	\$3,822	\$13,099	17.4%
Nevada	\$10,487	\$5,012	\$5,439	\$20,937	21.2%
New Hampshire	\$5,891	\$2,533	\$3,348	\$11,773	21.3%
New Jersey	\$31,328	\$17,412	\$22,611	\$71,351	18.0%
New Mexico	\$5,544	\$1,655	\$2,277	\$9,476	17.1%
New York	\$69,431	\$39,020	\$54,120	\$162,571	16.2%
North Carolina	\$29,492	\$17,038	\$17,870	\$64,400	19.3%
North Dakota	\$2,583	\$1,155	\$1,320	\$5,058	15.3%
Ohio	\$33,618	\$20,392	\$22,972	\$76,982	18.9%
Oklahoma	\$10,663	\$5,465	\$5,522	\$21,650	17.1%
Oregon	\$14,542	\$7,382	\$8,599	\$30,523	20.3%
Pennsylvania	\$35,799	\$26,268	\$29,634	\$91,701	18.5%
Rhode Island	\$3,551	\$1,532	\$2,081	\$7,164	18.8%
South Carolina	\$14,445	\$7,420	\$7,056	\$28,920	20.0%
South Dakota	\$2,846	\$1,232	\$1,581	\$5,658	18.1%
Tennessee	\$22,663	\$12,266	\$14,627	\$49,557	21.2%
Texas	\$90,018	\$63,999	\$85,033	\$239,050	22.0%
Utah	\$10,554	\$5,622	\$6,104	\$22,279	20.6%
Vermont	\$2,211	\$879	\$1,243	\$4,333	19.6%
Virginia	\$24,435	\$14,915	\$15,239	\$54,590	16.2%
Washington	\$36,811	\$14,584	\$18,385	\$69,781	21.4%
West Virginia	\$4,193	\$1,826	\$2,067	\$8,085	17.5%
Wisconsin	\$16,843	\$10,344	\$11,450	\$38,637	18.5%
Wyoming	\$1,671	\$690	\$684	\$3,045	13.6%
US Total	\$1,040,683	\$593,019	\$711,475	\$2,345,177	18.7%
Source: PwC calculat	.,,,	· · ·	· · ·		

Table 14b. Impact of the Retail Industry on Labor Income by State in 2018(\$ Million; Sorted by Labor Income Share)

	(\$ Multion; Sortea by Labor Income Share)								
State	Direct	Indirect	Induced	Total	Total Impact as a % of State Total Labor Income				
Florida	\$69,681	\$34,408	\$41,577	\$145,667	23.0%				
Texas	\$90,018	\$63,999	\$85,033	\$239,050	22.0%				
Maine	\$4,616	\$2,115	\$2,551	\$9,282	21.8%				
Washington	\$36,811	\$14,584	\$18,385	\$69,781	21.4%				
New Hampshire	\$5,891	\$2,533	\$3,348	\$11,773	21.3%				
Tennessee	\$22,663	\$12,266	\$14,627	\$49,557	21.2%				
Arizona	\$21,567	\$10,530	\$13,165	\$45,262	21.2%				
Nevada	\$10,487	\$5,012	\$5,439	\$20,937	21.2%				
Utah	\$10,554	\$5,622	\$6,104	\$20,937	20.6%				
Idaho	\$5,341	\$2,249	\$2,579	\$10,170	20.5%				
Montana	\$3,569	\$1,241	\$1,638	\$6,448	20.3%				
Oregon	\$14,542	\$7,382	\$8,599	\$30,523	20.3%				
South Carolina	\$14,445	\$7,420	\$7,056	\$28,920	20.0%				
Vermont	\$2,211	\$879	\$1,243	\$4,333	19.6%				
Georgia	\$30,144	\$19,161	\$20,007	\$69,312	19.4%				
North Carolina	\$29,492	\$17,038	\$17,870	\$64,400	19.3%				
Hawaii	\$5,879	\$1,987	\$2,827	\$10,693	19.3%				
Missouri	\$17,426	\$10,386	\$11,637	\$39,449	19.2%				
Arkansas	\$7,265	\$3,912	\$3,884	\$15,061	19.2%				
Mississippi	\$7,227	\$3,122	\$3,092	\$13,441	19.1%				
Ohio	\$33,618	\$20,392	\$22,972	\$76,982	18.9%				
Kentucky	\$11,706	\$6,156	\$6,565	\$24,428	18.9%				
Rhode Island	\$3,551	\$1,532	\$2,081	\$7,164	18.8%				
Michigan	\$27,056	\$16,450	\$18,516	\$62,022	18.7%				
Indiana	\$18,278	\$10,531	\$12,136	\$40,944	18.6%				
Wisconsin	\$16,843	\$10,344	\$11,450	\$38,637	18.5%				
Pennsylvania	\$35,799	\$26,268	\$29,634	\$91,701	18.5%				
Alabama	\$12,167	\$6,280	\$6,277	\$24,724	18.3%				
California	\$141,974	\$83,192	\$99,757	\$324,923	18.2%				
Minnesota	\$17,318	\$11,233	\$13,757	\$42,308	18.1%				
South Dakota	\$2,846	\$1,232	\$1,581	\$5,658	18.1%				
Louisiana	\$13,367	\$6,063	\$6,834	\$26,265	18.0%				
New Jersey	\$31,328	\$17,412	\$22,611	\$71,351	18.0%				
Delaware	\$3,115	\$1,574	\$1,918	\$6,606	17.9%				
Illinois	\$38,797	\$25,015	\$30,427	\$94,239	17.9%				
Colorado	\$18,953	\$10,924	\$12,619	\$42,496	17.8%				
West Virginia	\$4,193	\$1,826	\$2,067	\$8,085	17.5%				
Nebraska	\$5,787	\$3,491	\$3,822	\$13,099	17.3%				
New Mexico	\$5,544	\$1,655	\$2,277	\$9,476	17.4%				
	\$8,546	\$5,004	\$5,236	\$18,786	17.1%				
lowa									
Oklahoma	\$10,663	\$5,465	\$5,522	\$21,650	17.1%				
Connecticut	\$13,309	\$6,804	\$9,387	\$29,500	16.8%				
Kansas	\$8,078	\$4,667	\$4,937	\$17,682	16.6%				
Massachusetts	\$25,594	\$14,511	\$20,540	\$60,645	16.5%				
Virginia	\$24,435	\$14,915	\$15,239	\$54,590	16.2%				
New York	\$69,431	\$39,020	\$54,120	\$162,571	16.2%				
Maryland	\$18,700	\$10,367	\$12,344	\$41,411	16.1%				
North Dakota	\$2,583	\$1,155	\$1,320	\$5,058	15.3%				
Alaska	\$2,452	\$857	\$1,234	\$4,544	14.4%				
Wyoming	\$1,671	\$690	\$684	\$3,045	13.6%				
District of Columbia	\$3,153	\$2,149	\$2,949	\$8,250	7.9%				
US Total	\$1,040,683	\$593,019	\$711,475	\$2,345,177	18.7%				

Table 15a. Impact of the Retail Industry on GDP by State in 2018(\$ Million; Sorted Alphabetically)

	(φ Μα		<u>Iphabeticall</u>	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Total Impact
State	Direct	Indirect	Induced	Total	as a % of State
					Total GDP
Alabama	\$20,595	\$11,127	\$11,159	\$42,880	19.3%
Alaska	\$3,246	\$1,767	\$2,477	\$7,490	13.7%
Arizona	\$33,589	\$18,282	\$22,952	\$74,824	21.5%
Arkansas	\$11,970	\$6,901	\$6,832	\$25,703	20.0%
California	\$221,935	\$142,735	\$177,380	\$542,050	18.1%
Colorado	\$28,387	\$18,464	\$21,746	\$68,597	18.5%
Connecticut	\$19,260	\$11,996	\$15,940	\$47,196	17.1%
Delaware	\$4,138	\$3,055	\$3,995	\$11,189	15.2%
District of Columbia	\$4,467	\$3,132	\$4,149	\$11,748	8.4%
Florida	\$104,206	\$60,881	\$73,884	\$238,971	23.0%
Georgia	\$45,020	\$34,107	\$36,558	\$115,686	19.5%
Hawaii	\$9,346	\$3,600	\$5,296	\$18,242	19.4%
Idaho	\$7,749	\$3,915	\$4,379	\$16,042	20.8%
Illinois	\$60,666	\$42,668	\$53,713	\$157,047	18.1%
Indiana	\$27,748	\$17,577	\$21,142	\$66,467	18.1%
lowa	\$12,917	\$8,983	\$9,744	\$31,644	16.7%
Kansas	\$13,663	\$8,110	\$8,488	\$30,261	18.0%
Kentucky	\$17,650	\$10,768	\$11,330	\$39,749 \$47,484	19.1% 18.5%
Louisiana	\$22,108	\$11,875	\$13,502	. ,	
Maine	\$7,049	\$3,582	\$4,389	\$15,021	23.2%
Maryland	\$28,868	\$17,235	\$21,668	\$67,771	16.4%
Massachusetts	\$34,767	\$23,815	\$33,599	\$92,181	16.2%
Michigan	\$42,903	\$27,291	\$31,282	\$101,477	19.3%
Minnesota	\$26,851	\$18,335	\$22,515	\$67,702	18.4%
Mississippi	\$11,916	\$5,893	\$5,837	\$23,645	20.6%
Missouri	\$25,860	\$17,691	\$19,777	\$63,329	19.9%
Montana	\$4,461	\$2,313	\$2,875	\$9,648	19.2%
Nebraska	\$8,935	\$6,119	\$6,816	\$21,870	17.6%
Nevada	\$17,457	\$9,066	\$10,317	\$36,840	21.8%
New Hampshire	\$7,532	\$4,291	\$5,801	\$17,624	20.9%
New Jersey	\$45,533	\$28,476	\$38,168	\$112,176	18.0%
New Mexico	\$8,235	\$3,507	\$4,478	\$16,220	16.2%
New York	\$104,552	\$69,706	\$93,135	\$267,393	16.0%
North Carolina	\$41,837	\$30,508	\$33,328	\$105,673	18.7%
North Dakota	\$3,877	\$2,104	\$2,368	\$8,349	14.9%
Ohio	\$53,541	\$35,627	\$41,504	\$130,671	19.3%
Oklahoma	\$15,755	\$9,416	\$9,673	\$34,844	17.2%
Oregon	\$18,272	\$12,440	\$14,977	\$45,689	19.1%
Pennsylvania	\$51,339	\$41,334	\$48,978	\$141,650	18.1%
Rhode Island	\$5,059	\$2,646	\$3,713	\$11,418	18.8%
South Carolina	\$21,875	\$12,756	\$12,541	\$47,173	20.2%
South Dakota	\$4,456	\$2,306	\$2,855	\$9,617	18.5%
Tennessee	\$34,243	\$20,601	\$23,654	\$78,498	21.6%
Texas	\$141,672	\$110,484	\$147,880	\$400,037	22.2%
Utah	\$15,277	\$9,903	\$11,247	\$36,428	20.4%
Vermont	\$3,286	\$1,552	\$2,132	\$6,970	21.0%
Virginia	\$37,562	\$25,906	\$27,776	\$91,244	17.1%
Washington	\$59,279	\$26,356	\$34,548	\$120,183	21.2%
West Virginia	\$6,825	\$3,306	\$3,679	\$13,809	17.8%
Wisconsin	\$25,063	\$17,607	\$19,893	\$62,563	18.6%
Wyoming	\$2,776	\$1,422	\$1,403	\$5,601	14.3%
US Total	\$1,585,569	\$1,023,541	\$1,247,471	\$3,856,583	18.7%

Table 15b. Impact of the Retail Industry on GDP by State in 2018(\$ Million; Sorted by GDP Share)

	(\$ Million; Sorted by GDP Share) Total Impact								
State	Direct	Indirect	Induced	Total	as a % of State				
State	Direct	manoot	maacoa	Total	Total GDP				
Maine	\$7,049	\$3,582	\$4,389	\$15,021	23.2%				
Florida	\$104,206	\$60,881	\$73,884	\$238,971	23.0%				
Texas	\$141,672	\$110,484	\$147,880	\$400,037	22.2%				
Nevada	\$17,457	\$9,066	\$10,317	\$36,840	21.8%				
Tennessee	\$34,243	\$20,601	\$23,654	\$78,498	21.6%				
Arizona	\$33,589	\$18,282	\$22,952	\$74,824	21.5%				
Washington	\$59,279	\$26,356	\$34,548	\$120,183	21.2%				
Vermont	\$3,286	\$1,552	\$2,132	\$6,970	21.0%				
New Hampshire	\$7,532	\$4,291	\$5,801	\$17,624	20.9%				
Idaho	\$7,749	\$3,915	\$4,379	\$16,042	20.8%				
Mississippi	\$11,916	\$5,893	\$5,837	\$23,645	20.6%				
Utah	\$15,277	\$9,903	\$11,247	\$36,428	20.4%				
South Carolina	\$21,875	\$12,756	\$12,541	\$47,173	20.2%				
Arkansas	\$11,970	\$6,901	\$6,832	\$25,703	20.0%				
Missouri	\$25,860	\$17,691	\$19,777	\$63,329	19.9%				
Georgia	\$45,020	\$34,107	\$36,558	\$115,686	19.5%				
Hawaii	\$9,346	\$3,600	\$5,296	\$18,242	19.4%				
Alabama	\$20,595	\$11,127	\$11,159	\$42,880	19.3%				
Ohio	\$53,541	\$35,627	\$41,504	\$130,671	19.3%				
Michigan	\$42,903	\$27,291	\$31,282	\$101,477	19.3%				
Montana	\$4,461	\$2,313	\$2,875	\$9,648	19.2%				
Kentucky	\$17,650	\$10,768	\$11,330	\$39,749	19.1%				
Oregon	\$18,272	\$12,440	\$14,977	\$45,689	19.1%				
Rhode Island	\$5,059	\$2,646	\$3,713	\$11,418	18.8%				
North Carolina	\$41,837	\$30,508	\$33,328	\$105,673	18.7%				
Wisconsin	\$25,063	\$17,607	\$19,893	\$62,563	18.6%				
South Dakota	\$4,456	\$2,306	\$2,855	\$9,617	18.5%				
Louisiana	\$22,108	\$11,875	\$13,502	\$47,484	18.5%				
Colorado	\$28,387	\$18,464	\$21,746	\$68,597	18.5%				
Minnesota	\$26,851	\$18,335	\$22,515	\$67,702	18.4%				
Illinois	\$60,666	\$42,668	\$53,713	\$157,047	18.1%				
Indiana	\$27,748	\$17,577	\$21,142	\$66,467	18.1%				
Pennsylvania	\$51,339	\$41,334	\$48,978	\$141,650	18.1%				
California	\$221,935	\$142,735	\$177,380	\$542,050	18.1%				
New Jersey	\$45,533	\$28,476	\$38,168	\$112,176	18.0%				
Kansas	\$13,663	\$8,110	\$8,488	\$30,261	18.0%				
West Virginia	\$6,825	\$3,306	\$3,679	\$13,809	17.8%				
Nebraska	\$8,935	\$6,119	\$6,816	\$21,870	17.6%				
Oklahoma	\$15,755	\$9,416	\$9,673	\$34,844	17.2%				
Virginia	\$37,562	\$25,906	\$27,776	\$91,244	17.1%				
Connecticut	\$19,260	\$11,996	\$15,940	\$47,196	17.1%				
lowa	\$12,917	\$8,983	\$9,744	\$31,644	16.7%				
Maryland	\$28,868	\$17,235	\$21,668	\$67,771	16.4%				
Massachusetts	\$34,767	\$23,815	\$33,599	\$92,181	16.2%				
New Mexico	\$8,235	\$3,507	\$4,478	\$16,220	16.2%				
New York	\$104,552	\$69,706	\$93,135	\$267,393	16.0%				
Delaware	\$4,138	\$3,055	\$3,995	\$11,189	15.2%				
North Dakota	\$3,877	\$2,104	\$2,368	\$8,349	14.9%				
Wyoming	\$2,776	\$1,422	\$1,403	\$5,601	14.3%				
Alaska	\$3,246	\$1,767	\$2,477	\$7,490	13.7%				
District of Columbia	\$4,467	\$3,132	\$4,149	\$11,748	8.4%				
US Total					18.7%				
	\$1,585,569	\$1,023,541	\$1,247,471	\$3,856,582					



Appendix A: Detail on Retail Firms, Employment, and Labor Income by Firm Size

This appendix provides additional detail on the distribution of US retail firms, jobs and labor income by firm size based on data from the US Census Bureau and PwC's estimates of the count of retail establishments and direct employment in 2018. The US Census Bureau's *Statistics of US Business* provides detailed estimates of employment, payroll, and establishments by firm size for businesses with payroll employment.

PwC obtained data from the 2017 edition of *Statistics of US Business*, the most recent year available, by detailed industry to determine the percentage of firms, jobs, and payroll by detailed firm employment size class. These percentages were then applied to PwC's estimates of retail firms, direct jobs, and direct labor income in businesses with payroll employment in 2018. PwC's estimate of nonemployer firms, self-employed individuals, and proprietors' income in 2018 were included in businesses with less than 10 employees. Finally, PwC combined the detailed employment size classes into three employment size groups: (1) retail firms with less than 10 employees, (2) retail firms with less than 50 employees, and (3) retail firms with 50 or more employees.

Table A-1a provides detailed counts of US retail firms by employment size by subsector in 2018. **Table A-1b** provides the percent of US retail firms by employment size by retail subsector in 2018.

Table A-2aprovides detailed counts of jobs by firm size by retail subsector in 2018.Table A-2bprovides the percent of retail jobs by firm size by retail subsector in 2018.

Table A-3a provides detailed data on labor income by firm size by retail subsector in 2018. **Table A-3b** provides the percent of labor income by firm size by retail subsector in 2018.

		Number of	Firm Size by Employment			
NAICS	Subsector Description	Firms	Less Than 10 [*]	Less Than 50*	50 or More	
441	Motor vehicle and parts dealers	238,811	224,554	236,333	2,478	
442	Furniture and home furnishings stores	68,446	62,705	67,448	998	
443	Electronics and appliance stores	49,877	44,398	48,924	952	
444	Building material and garden equipment and supplies dealers	78,185	69,808	76,729	1,456	
445	Food and beverage stores	186,809	169,101	183,732	3,078	
446	Health and personal care stores	242,573	229,191	240,247	2,326	
447	Gasoline stations	72,478	59,583	70,237	2,241	
448	Clothing and clothing accessories stores	266,130	251,217	263,538	2,592	
451	Sporting goods, hobby, book, and music stores	106,466	100,422	105,416	1,050	
452	General merchandise stores	72,578	64,872	71,238	1,339	
453	Miscellaneous store retailers	337,412	323,798	335,046	2,366	
454	Nonstore retailers	1,082,146	1,075,753	1,081,035	1,111	
722	Food services and drinking places	809,793	603,656	777,996	31,797	
	Total Retail Industry	3,611,704	3,279,058	3,557,920	53,784	

Table A-1a. Count of US Retail Firms by Subsector and Firm Size, 2018

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding.

*Includes nonemployer firms.

		Firm Size by Employment			
NAICS	Subsector Description	Less Than 10*	Less Than 50*	50 or More	
441	Motor vehicle and parts dealers	94.0%	99.0%	1.0%	
442	Furniture and home furnishings stores	91.6%	98.5%	1.5%	
443	Electronics and appliance stores	89.0%	98.1%	1.9%	
444	Building material and garden equipment and supplies dealers	89.3%	98.1%	1.9%	
445	Food and beverage stores	90.5%	98.4%	1.6%	
446	Health and personal care stores	94.5%	99.0%	1.0%	
447	Gasoline stations	82.2%	96.9%	3.1%	
448	Clothing and clothing accessories stores	94.4%	99.0%	1.0%	
451	Sporting goods, hobby, book, and music stores	94.3%	99.0%	1.0%	
452	General merchandise stores	89.4%	98.2%	1.8%	
453	Miscellaneous store retailers	96.0%	99.3%	0.7%	
454	Nonstore retailers	99.4%	99.9%	0.1%	
722	Food services and drinking places	74.5%	96.1%	3.9%	
	Total Retail Industry	90.8%	98.5%	1.5%	

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding. *Includes nonemployer firms.

NAICS	Calconter Description	Number of	Firm Size by Employment			
NAICS	Subsector Description	Jobs	Less Than 10*	Less Than 50*	50 or More	
441	Motor vehicle and parts dealers	2,252,900	376,933	640,158	1,612,742	
442	Furniture and home furnishings stores	545,400	90,464	154,298	391,102	
443	Electronics and appliance stores	513,700	71,762	133,772	379,928	
444	Building material and garden equipment and supplies dealers	1,374,300	170,677	339,562	1,034,738	
445	Food and beverage stores	3,265,600	416,416	816,197	2,449,403	
446	Health and personal care stores	1,245,900	282,993	418,102	827,798	
447	Gasoline stations	973,500	104,811	226,700	746,800	
448	Clothing and clothing accessories stores	1,600,700	332,943	510,827	1,089,873	
451	Sporting goods, hobby, book, and music stores	751,000	143,969	229,144	521,856	
452	General merchandise stores	3,152,100	347,471	741,000	2,411,100	
453	Miscellaneous store retailers	1,619,200	404,790	575,189	1,044,011	
454	Nonstore retailers	2,013,200	1,146,892	1,268,447	744,753	
722	Food services and drinking places	12,781,500	1,243,441	4,913,509	7,867,991	
	Total Retail Industry	32,089,000	5,133,564	10,966,906	21,122,094	

Table A-2a. Count of US Retail Jobs by Subsector and Firm Size, 2018

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding.

*Includes self-employed individuals.

		Firm	Size by Employ	ment
NAICS	Subsector Description	Less Than 10*	Less Than 50*	50 or More
441	Motor vehicle and parts dealers	16.7%	28.4%	71.6%
442	Furniture and home furnishings stores	16.6%	28.3%	71.7%
443	Electronics and appliance stores	14.0%	26.0%	74.0%
444	Building material and garden equipment and supplies dealers	12.4%	24.7%	75.3%
445	Food and beverage stores	12.8%	25.0%	75.0%
446	Health and personal care stores	22.7%	33.6%	66.4%
447	Gasoline stations	10.8%	23.3%	76.7%
448	Clothing and clothing accessories stores	20.8%	31.9%	68.1%
451	Sporting goods, hobby, book, and music stores	19.2%	30.5%	69.5%
452	General merchandise stores	11.0%	23.5%	76.5%
453	Miscellaneous store retailers	25.0%	35.5%	64.5%
454	Nonstore retailers	57.0%	63.0%	37.0%
722	Food services and drinking places	9.7%	38.4%	61.6%
	Total Retail Industry	16.0%	34.2%	65.8%

Table A-2b. Percent of US Retail Jobs by Subsector and Firm Size, 2018

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places.

Details may not sum to totals due to rounding. *Includes self-employed individuals.

		Labor	Firm Size by Employment			
NAICS	Subsector Description	Income (\$ Billion)	Less Than 10*	Less Than 50*	50 or More	
441	Motor vehicle and parts dealers	\$134.3	\$24.4	\$41.5	\$92.8	
442	Furniture and home furnishings stores	\$24.5	\$4.5	\$7.6	\$16.8	
443	Electronics and appliance stores	\$29.7	\$4.3	\$8.3	\$21.4	
444	Building material and garden equipment and supplies dealers	\$58.2	\$8.7	\$16.4	\$41.8	
445	Food and beverage stores	\$110.7	\$21.8	\$35.7	\$75.1	
446	Health and personal care stores	\$54.9	\$8.7	\$15.8	\$39.0	
447	Gasoline stations	\$38.6	\$15.0	\$18.7	\$19.9	
448	Clothing and clothing accessories stores	\$43.4	\$8.5	\$13.9	\$29.5	
451	Sporting goods, hobby, book, and music stores	\$18.6	\$4.7	\$6.9	\$11.8	
452	General merchandise stores	\$96.5	\$10.2	\$23.6	\$72.9	
453	Miscellaneous store retailers	\$39.3	\$14.2	\$18.1	\$21.2	
454	Nonstore retailers	\$57.2	\$15.0	\$21.5	\$35.6	
722	Food services and drinking places	\$334.9	\$50.6	\$132.0	\$202.9	
	Total Retail Industry	\$1,040.7	\$190.6	\$360.1	\$680.6	

Table A-3a. US Retail Labor Income by Subsector and Firm Size, 2018

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places.

Details may not sum to totals due to rounding.

*Includes proprietors' income of self-employed individuals.

		Firm	Size by Employ	ment
NAICS	Subsector Description	Less Than 10*	Less Than 50*	50 or More
441	Motor vehicle and parts dealers	18.1%	30.9%	69.1%
442	Furniture and home furnishings stores	18.4%	31.1%	68.9%
443	Electronics and appliance stores	14.6%	27.9%	72.1%
444	Building material and garden equipment and supplies dealers	15.0%	28.2%	71.8%
445	Food and beverage stores	19.7%	32.2%	67.8%
446	Health and personal care stores	15.8%	28.9%	71.1%
447	Gasoline stations	39.0%	48.5%	51.5%
448	Clothing and clothing accessories stores	19.5%	32.1%	67.9%
451	Sporting goods, hobby, book, and music stores	25.2%	36.8%	63.2%
452	General merchandise stores	10.5%	24.5%	75.5%
453	Miscellaneous store retailers	36.2%	46.1%	53.9%
454	Nonstore retailers	26.2%	37.7%	62.3%
722	Food services and drinking places	15.1%	39.4%	60.6%
	Total Retail Industry	18.3%	34.6%	65.4%

Table A-3b. Percent of Labor Income by Subsector and Firm Size, 2018

Source: PwC calculations based on data from the US Bureau of Economic Analysis and the US Census Bureau for the retail industry, including food services and drinking places.

Details may not sum to totals due to rounding. *Includes proprietors' income of self-employed individuals.



Appendix B: Detailed Occupation Data for the US Retail Industry

This appendix provides additional detail for the occupation data for the US retail industry in 2018, presented in **Table 10**. Occupation estimates are based on data from the May 2018 edition of the *Occupational Employment Statistics* (OES) database and PwC's estimates of the US retail industry's direct, indirect, and induced employment impact by sector. The data are arranged into broad occupation groupings as defined for this study and are listed by occupation code provided in the original OES database.

For more information on the *Occupational Employment Statistics* database, please see <u>http://www.bls.gov/oes/</u>.

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share			
	Food preparation and serving related occupations							
35-1000	Supervisors of Food Preparation and Serving Workers	882,700	41,040	923,740	1.78%			
35-2000	Cooks and Food Preparation Workers	2,529,560	122,370	2,651,930	5.11%			
35-3000	Food and Beverage Serving Workers	6,272,460	288,130	6,560,600	12.65%			
35-9000	Other Food Preparation and Serving Related Workers	1,190,600	54,910	1,245,510	2.40%			
35-xxxx	Unallocable Food Preparation and Serving Related Occupations	-	50	50	0.00%			
51-3000	Food Processing Workers	321,280	61,370	382,650	0.74%			
	Total food preparation and serving related occupations	11,196,600	567,880	11,764,480	22.7%			
	Sales and related	occupations						
11-2000	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	102,090	131,620	233,710	0.45%			
41-1000	Supervisors of Sales Workers	1,340,930	77,870	1,418,800	2.73%			
41-2000	Retail Sales Workers	9,308,340	339,690	9,648,030	18.60%			
41-3010	Advertising Sales Agents	1,060	26,440	27,490	0.05%			
41-3030	Securities, Commodities, and Financial Services Sales Agents	4,090	99,440	103,530	0.20%			
41-3040	Travel Agents	-	16,150	16,150	0.03%			
41-3090	Miscellaneous Sales Representatives, Services	191,380	193,880	385,260	0.74%			
41-3xxx	Unallocable Sales Representatives, Services	240	1,380	1,620	0.00%			
41-4000	Sales Representatives, Wholesale and Manufacturing	90,030	231,640	321,670	0.62%			
41-9010	Models, Demonstrators, and Product Promoters	15,040	12,620	27,660	0.05%			
41-9030	Sales Engineers	740	10,720	11,460	0.02%			
41-9040	Telemarketers	9,630	35,770	45,400	0.09%			
41-9090	Miscellaneous Sales and Related Workers	60,110	10,790	70,900	0.14%			
41-9xxx	Unallocable Other Sales and Related Workers	220	1,180	1,390	0.00%			
	Total sales and related occupations	11,123,890	1,189,180	12,313,070	23.7%			

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share			
	Logistics and freight transportation occupations							
11-3060	Purchasing Managers	3,880	11,040	14,920	0.03%			
11-3070	Transportation, Storage, and Distribution Managers	5,030	26,210	31,240	0.06%			
13-1020	Buyers and Purchasing Agents	49,520	56,200	105,720	0.20%			
13-1080	Logisticians	4,450	27,790	32,240	0.06%			
15-2030	Operations Research Analysts	-	20,930	20,930	0.04%			
33-9032	Security Guards	110,230	227,760	337,980	0.65%			
43-5010	Cargo and Freight Agents	220	26,540	26,750	0.05%			
43-5052	Postal Service Mail Carriers	-	102,740	102,740	0.20%			
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	-	31,150	31,150	0.06%			
43-5060	Production, Planning, and Expediting Clerks	18,100	56,980	75,080	0.14%			
43-5070	Shipping, Receiving, and Traffic Clerks	150,550	90,000	240,550	0.46%			
43-5080	Stock Clerks and Order Fillers	1,696,370	119,410	1,815,770	3.50%			
43-5110	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	8,150	12,110	20,260	0.04%			
43-5xxx	Unallocable Material Recording, Scheduling, Dispatching, and Distribution	-	2,190	2,190	0.00%			
53-1010	Aircraft Cargo Handling Supervisors	160	2,430	2,590	0.00%			
53-1020	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	-	-	-	0.00%			
53-1030	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	-	-	-	0.00%			
53-1xxx	Unallocable Supervisors of Transportation and Material Moving Workers	34,660	91,800	126,460	0.24%			
53-3030	Driver/Sales Workers and Truck Drivers	604,460	633,590	1,238,050	2.39%			
53-7000	Material Moving Workers	740,830	978,160	1,719,000	3.31%			
	Total logistics and freight transportation occupations	3,426,620	2,517,010	5,943,630	11.5%			

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share			
	Management, business operations, office and administrative occupations							
11-3010	Administrative Services Managers	12,050	46,780	58,830	0.11%			
11-3050	Industrial Production Managers	1,200	23,500	24,700	0.05%			
11-3120	Human Resources Managers	5,270	26,240	31,510	0.06%			
11-3130	Training and Development Managers	730	7,210	7,940	0.02%			
11-9000	Other Management Occupations	229,020	385,650	614,670	1.18%			
11-1000	Top Executives	448,570	426,580	875,150	1.69%			
11-3xxx	Unallocable Operations Specialties Managers	-	20	20	0.00%			
13-1010	Agents and Business Managers of Artists, Performers, and Athletes	-	3,630	3,630	0.01%			
13-1040	Compliance Officers	2,570	42,810	45,380	0.09%			
13-1070	Human Resources Workers	27,860	136,670	164,530	0.32%			
13-1110	Management Analysts	3,440	122,570	126,000	0.24%			
13-1120	Meeting, Convention, and Event Planners	15,670	24,370	40,030	0.08%			
13-1130	Fundraisers	820	18,840	19,670	0.04%			
13-1140	Compensation, Benefits, and Job Analysis Specialists	1,230	15,260	16,490	0.03%			
13-1150	Training and Development Specialists	17,730	50,940	68,670	0.13%			
13-1160	Market Research Analysts and Marketing Specialists	33,630	132,050	165,680	0.32%			
13-1190	Miscellaneous Business Operations Specialists	21,260	172,180	193,440	0.37%			
43-1000	Supervisors of Office and Administrative Support Workers	272,820	238,450	511,270	0.99%			
43-2000	Communications Equipment Operators	12,310	11,900	24,200	0.05%			
43-4020	Correspondence Clerks	350	1,060	1,410	0.00%			
43-4030	Court, Municipal, and License Clerks	160	6,680	6,840	0.01%			
43-4050	Customer Service Representatives	526,450	532,350	1,058,800	2.04%			
43-4060	Eligibility Interviewers, Government Programs	-	6,720	6,720	0.01%			
43-4070	File Clerks	7,340	16,790	24,120	0.05%			

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
43-4080	Hotel, Motel, and Resort Desk Clerks	228,280	9,400	237,680	0.46%
43-4110	Interviewers, Except Eligibility and Loan	830	28,380	29,210	0.06%
43-4120	Library Assistants, Clerical	-	5,100	5,100	0.01%
43-4160	Human Resources Assistants, Except Payroll and Timekeeping	19,980	17,490	37,470	0.07%
43-4170	Receptionists and Information Clerks	55,070	196,850	251,930	0.49%
43-4180	Reservation and Transportation Ticket Agents and Travel Clerks	6,970	35,570	42,530	0.08%
43-4190	Miscellaneous Information and Record Clerks	4,350	17,390	21,740	0.04%
43-6000	Secretaries and Administrative Assistants	135,100	576,370	711,470	1.37%
43-9050	Mail Clerks and Mail Machine Operators, Except Postal Service	1,130	16,390	17,520	0.03%
43-9060	Office Clerks, General	277,290	501,650	778,940	1.50%
43-9070	Office Machine Operators, Except Computer	3,510	8,690	12,190	0.02%
43-9080	Proofreaders and Copy Markers	180	1,970	2,150	0.00%
43-9190	Miscellaneous Office and Administrative Support Workers	9,120	24,720	33,840	0.07%
	Total management, business operations, office and administrative occupations	2,382,270	3,889,180	6,271,450	12.1%
	Building, cleaning, maintenance, insta	allation, and re	pair occupatio	ns	
37-1000	Supervisors of Building and Grounds Cleaning and Maintenance Workers	36,540	44,110	80,650	0.16%
37-2000	Building Cleaning and Pest Control Workers	634,150	506,390	1,140,530	2.20%
37-3000	Grounds Maintenance Workers	29,740	220,380	250,120	0.48%
47-1000	Supervisors of Construction and Extraction Workers	2,920	60,270	63,190	0.12%
47-2000	Construction Trades Workers	44,020	447,420	491,440	0.95%
47-3000	Helpers, Construction Trades	1,420	20,560	21,980	0.04%
47-4000	Other Construction and Related Workers	2,500	45,860	48,360	0.09%
47-5000	Extraction Workers	-	24,030	24,030	0.05%
47-xxxx	Unallocable Construction and Extraction Occupations	220	1,820	2,040	0.00%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	81,560	95,790	177,340	0.34%
49-2020	Radio and Telecommunications Equipment Installers and Repairers	1,750	44,590	46,340	0.09%
49-2090	Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers	21,220	41,930	63,150	0.12%
49-2xxx	Unallocable Electrical and Electronic Equipment Mechanics, Installers, and Repairers	20	70	90	0.00%
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	642,900	333,100	976,000	1.88%
49-9000	Other Installation, Maintenance, and Repair Occupations	273,260	607,710	880,960	1.70%
	Total building, cleaning, maintenance, installation, and repair occupations	1,772,210	2,494,010	4,266,210	8.2%
	Health care, personal care an	d service occu	pations		
29-1000	Health Diagnosing and Treating Practitioners	242,010	634,200	876,210	1.69%
29-2000	Health Technologists and Technicians	409,430	350,920	760,350	1.47%
29-9000	Other Healthcare Practitioners and Technical Occupations	890	20,310	21,200	0.04%
29-xxxx	Unallocable Healthcare Practitioners and Technical Occupations	-	2,380	2,380	0.00%
31-1000	Nursing, Psychiatric, and Home Health Aides	350	293,270	293,620	0.57%
31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	-	23,880	23,880	0.05%
31-9000	Other Healthcare Support Occupations	50,290	218,650	268,940	0.52%
31-xxxx	Unallocable Healthcare Support Occupations	30	110	140	0.00%
39-1000	Supervisors of Personal Care and Service Workers	28,410	48,740	77,150	0.15%
39-2000	Animal Care and Service Workers	42,790	67,380	110,170	0.21%
39-3000	Entertainment Attendants and Related Workers	75,320	117,160	192,480	0.37%
39-4000	Funeral Service Workers	-	29,700	29,700	0.06%
39-5000	Personal Appearance Workers	73,000	230,210	303,220	0.58%
39-6000	Baggage Porters, Bellhops, and Concierges	34,780	16,020	50,800	0.10%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
39-7000	Tour and Travel Guides	2,460	11,280	13,740	0.03%
39-9000	Other Personal Care and Service Workers	23,370	511,870	535,240	1.03%
39-xxxx	Unallocable Personal Care and Service Occupations	50	7,020	7,070	0.01%
53-3010	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	-	2,220	2,220	0.00%
	Total health care, personal care and service occupations	983,210	2,585,310	3,568,520	6.9%
	Finance, insurance, and real estate	occupations			
11-3030	Financial Managers	19,710	125,090	144,800	0.28%
11-3110	Compensation and Benefits Managers	180	3,190	3,370	0.01%
13-1030	Claims Adjusters, Appraisers, Examiners, and Investigators	770	61,870	62,640	0.12%
13-1050	Cost Estimators	11,440	28,440	39,880	0.08%
13-2010	Accountants and Auditors	40,610	246,770	287,380	0.55%
13-2020	Appraisers and Assessors of Real Estate	-	18,750	18,750	0.04%
13-2030	Budget Analysts	240	6,210	6,450	0.01%
13-2040	Credit Analysts	1,790	17,680	19,470	0.04%
13-2050	Financial Analysts and Advisors	1,880	141,470	143,360	0.28%
13-2060	Financial Examiners	-	12,070	12,070	0.02%
13-2070	Credit Counselors and Loan Officers	16,060	74,570	90,630	0.17%
13-2080	Tax Examiners, Collectors and Preparers, and Revenue Agents	-	15,990	15,990	0.03%
13-2090	Miscellaneous Financial Specialists	1,600	22,330	23,930	0.05%
15-2010	Actuaries	-	4,660	4,660	0.01%
41-3020	Insurance Sales Agents	1,240	92,850	94,090	0.18%
41-9020	Real Estate Brokers and Sales Agents	210	118,820	119,030	0.23%
43-3010	Bill and Account Collectors	7,960	55,200	63,160	0.12%
43-3020	Billing and Posting Clerks	28,010	77,290	105,300	0.20%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
43-3030	Bookkeeping, Accounting, and Auditing Clerks	226,210	274,390	500,600	0.96%
43-3050	Payroll and Timekeeping Clerks	10,590	24,240	34,830	0.07%
43-3060	Procurement Clerks	7,720	9,090	16,810	0.03%
43-3070	Tellers	110	112,350	112,460	0.22%
43-3090	Miscellaneous Financial Clerks	2,010	5,950	7,970	0.02%
43-4010	Brokerage Clerks	-	13,200	13,200	0.03%
43-4040	Credit Authorizers, Checkers, and Clerks	4,840	6,040	10,880	0.02%
43-4130	Loan Interviewers and Clerks	2,490	55,390	57,880	0.11%
43-4140	New Accounts Clerks	-	10,070	10,070	0.02%
43-4150	Order Clerks	61,600	18,770	80,370	0.15%
43-9040	Insurance Claims and Policy Processing Clerks	1,030	61,710	62,740	0.12%
	Total finance, insurance, and real estate occupations	448,280	1,714,460	2,162,740	4.2%
	Technology and IT rela	nted occupation	ıs		
11-3020	Computer and Information Systems Managers	5,960	74,280	80,240	0.15%
15-1110	Computer and Information Research Scientists	70	4,170	4,250	0.01%
15-1120	Computer and Information Analysts	3,940	135,250	139,190	0.27%
15-1130	Software Developers and Programmers	25,900	316,960	342,860	0.66%
15-1140	Database and Systems Administrators and Network Architects	10,680	117,440	128,120	0.25%
15-1150	Computer Support Specialists	18,890	143,130	162,020	0.31%
15-1190	Miscellaneous Computer Occupations	4,860	63,550	68,410	0.13%
17-2060	Computer Hardware Engineers	80	9,870	9,950	0.02%
17-2070	Electrical and Electronics Engineers	580	49,840	50,420	0.10%
43-9010	Computer Operators	1,800	6,400	8,200	0.02%
43-9020	Data Entry and Information Processing Workers	10,290	37,020	47,310	0.09%
43-9030	Desktop Publishers	180	1,760	1,940	0.00%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
49-2010	Computer, Automated Teller, and Office Machine Repairers	33,970	17,760	51,730	0.10%
51-4010	Computer Control Programmers and Operators	-	18,990	18,990	0.04%
51-9140	Semiconductor Processors	-	2,580	2,580	0.00%
	Total technology and IT related occupations	117,200	998,990	1,116,190	2.2%
	All other occupations				
15-2020	Mathematicians	-	240	240	0.00%
15-2040	Statisticians	-	6,330	6,330	0.01%
15-2090	Miscellaneous Mathematical Science Occupations	-	230	230	0.00%
17-1000	Architects, Surveyors, and Cartographers	590	33,240	33,830	0.07%
17-2010	Aerospace Engineers	-	8,430	8,430	0.02%
17-2020	Agricultural Engineers	-	200	200	0.00%
17-2030	Biomedical Engineers	-	2,550	2,550	0.00%
17-2040	Chemical Engineers	-	4,500	4,500	0.01%
17-2050	Civil Engineers	170	46,940	47,100	0.09%
17-2080	Environmental Engineers	-	8,240	8,240	0.02%
17-2110	Industrial Engineers, Including Health and Safety	500	42,810	43,310	0.08%
17-2120	Marine Engineers and Naval Architects	-	1,130	1,130	0.00%
17-2130	Materials Engineers	-	3,690	3,690	0.01%
17-2140	Mechanical Engineers	640	45,060	45,700	0.09%
17-2150	Mining and Geological Engineers, Including Mining Safety Engineers	-	840	840	0.00%
17-2160	Nuclear Engineers	-	3,070	3,070	0.01%
17-2170	Petroleum Engineers	-	5,470	5,470	0.01%
17-2190	Miscellaneous Engineers	300	19,220	19,520	0.04%
17-2xxx	Unallocable Engineers	140	2,710	2,850	0.01%
17-3000	Drafters, Engineering Technicians, and Mapping Technicians	1,560	102,570	104,130	0.20%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
17-xxxx	Unallocable Architecture and Engineering Occupations	10	70	80	0.00%
19-1000	Life Scientists	170	40,570	40,740	0.08%
19-2000	Physical Scientists	220	34,080	34,300	0.07%
19-3000	Social Scientists and Related Workers	-	23,140	23,140	0.04%
19-4000	Life, Physical, and Social Science Technicians	390	47,700	48,090	0.09%
19-xxxx	Unallocable Life, Physical, and Social Science Occupations	110	90	200	0.00%
21-1000	Counselors, Social Workers, and Other Community and Social Service Specialists	2,070	221,870	223,940	0.43%
21-2000	Religious Workers	70	25,640	25,710	0.05%
23-1000	Lawyers, Judges, and Related Workers	900	115,920	116,810	0.23%
23-2000	Legal Support Workers	2,460	76,310	78,770	0.15%
23-xxxx	Unallocable Legal Occupations	-	-	-	0.00%
25-1000	Postsecondary Teachers	-	59,240	59,240	0.11%
25-2000	Preschool, Primary, Secondary, and Special Education School Teachers	30	198,010	198,040	0.38%
25-3000	Other Teachers and Instructors	14,630	76,760	91,390	0.18%
25-4000	Librarians, Curators, and Archivists	220	17,790	18,010	0.03%
25-9000	Other Education, Training, and Library Occupations	450	87,390	87,840	0.17%
25-xxxx	Unallocable Education, Training, and Library Occupations	30	490	520	0.00%
27-1000	Art and Design Workers	135,670	91,870	227,540	0.44%
27-2000	Entertainers and Performers, Sports and Related Workers	8,310	83,470	91,790	0.18%
27-3000	Media and Communication Workers	13,920	114,810	128,730	0.25%
27-4000	Media and Communication Equipment Workers	8,760	52,250	61,020	0.12%
27-xxxx	Unallocable Arts, Design, Entertainment, Sports, and Media Occupations	-	1,570	1,570	0.00%
33-1000	Supervisors of Protective Service Workers	8,670	23,940	32,610	0.06%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
33-2000	Fire Fighting and Prevention Workers	-	17,360	17,360	0.03%
33-3000	Law Enforcement Workers	-	57,510	57,510	0.11%
33-9010	Animal Control Workers	-	930	930	0.00%
33-9020	Private Detectives and Investigators	60	5,840	5,890	0.01%
33-9031	Gaming Surveillance Officers and Gaming Investigators	2,950	1,440	4,380	0.01%
33-9090	Miscellaneous Protective Service Workers	8,200	53,770	61,970	0.12%
43-3040	Gaming Cage Workers	5,490	2,370	7,860	0.02%
43-5020	Couriers and Messengers	4,510	15,470	19,980	0.04%
43-5030	Dispatchers	9,570	50,150	59,720	0.12%
43-5040	Meter Readers, Utilities	-	4,010	4,010	0.01%
43-5051	Postal Service Clerks	-	23,650	23,650	0.05%
43-9110	Statistical Assistants	-	1,580	1,580	0.00%
45-0000	Farming, Fishing, and Forestry Occupations	28,530	361,030	389,560	0.75%
51-1000	Supervisors of Production Workers	31,310	77,160	108,470	0.21%
51-2000	Assemblers and Fabricators	29,780	233,000	262,770	0.51%
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	-	12,480	12,480	0.02%
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	390	36,580	36,960	0.07%
51-4040	Machinists	850	48,610	49,450	0.10%
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	-	2,710	2,710	0.01%
51-4060	Model Makers and Patternmakers, Metal and Plastic	-	950	950	0.00%
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	-	20,430	20,430	0.04%
51-4080	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	150	16,220	16,360	0.03%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
51-4110	Tool and Die Makers	-	8,050	8,050	0.02%
51-4120	Welding, Soldering, and Brazing Workers	1,760	55,360	57,120	0.11%
51-4190	Miscellaneous Metal Workers and Plastic Workers	150	12,330	12,480	0.02%
51-4xxx	Unallocable Metal Workers and Plastic Workers	330	1,390	1,720	0.00%
51-5100	Printing Workers	3,450	30,200	33,650	0.06%
51-6000	Textile, Apparel, and Furnishings Workers	62,160	122,990	185,150	0.36%
51-7000	Woodworkers	6,150	29,620	35,770	0.07%
51-8000	Plant and System Operators	970	40,710	41,680	0.08%
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	1,820	15,220	17,040	0.03%
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	2,230	19,020	21,250	0.04%
51-9030	Cutting Workers	1,760	7,900	9,670	0.02%
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	-	8,030	8,030	0.02%
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	-	1,920	1,920	0.00%
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	11,300	80,120	91,430	0.18%
51-9070	Jewelers and Precious Stone and Metal Workers	15,060	1,980	17,040	0.03%
51-9080	Medical, Dental, and Ophthalmic Laboratory Technicians	11,870	7,610	19,480	0.04%
51-9110	Packaging and Filling Machine Operators and Tenders	4,020	57,970	61,990	0.12%
51-9120	Painting Workers	5,680	27,650	33,330	0.06%
51-9150	Photographic Process Workers and Processing Machine Operators	5,760	3,130	8,890	0.02%
51-9190	Miscellaneous Production Workers	13,910	118,720	132,630	0.26%
51-9xxx	Unallocable Other Production Occupations	320	5,620	5,940	0.01%
51-xxxx	Unallocable Production Occupations	10	710	710	0.00%
53-2000	Air Transportation Workers	70	72,070	72,140	0.14%
53-3020	Bus Drivers	160	104,990	105,150	0.20%

Occupation Code	Occupation	Direct Jobs	Indirect/ Induced Jobs	Total Jobs	Total Job Impact Share
53-3040	Taxi Drivers and Chauffeurs	27,740	53,440	81,180	0.16%
53-3090	Miscellaneous Motor Vehicle Operators	13,970	8,860	22,820	0.04%
53-3xxx	Unallocable Motor Vehicle Operators	480	2,450	2,930	0.01%
53-4000	Rail Transportation Workers	60	29,270	29,330	0.06%
53-5000	Water Transportation Workers	470	21,300	21,770	0.04%
53-6000	Other Transportation Workers	101,830	95,430	197,260	0.38%
53-xxxx	Unallocable Transportation and Material Moving Occupations	150	530	680	0.00%
xx-xxxx	Not allocable	22,350	15,890	38,240	0.07%
	Total all other occupations	638,740	3,834,110	4,472,840	8.6%

Source: PwC estimates based on data from the Bureau of Labor Statistics and the IMPLAN modeling system (2018 database) for the retail industry, including food services and drinking places. Details may not sum to totals due to rounding.



Appendix C: Data Sources and Methodology

This appendix describes the data sources and methodology used to derive the results for the study. It first discusses the data sources PwC utilized to develop estimates of the US retail industry's direct economic impacts. It then describes the development of the indirect and induced economic impact estimates.

I. Data Sources

PwC developed its estimates of the US retail industry's economic impacts using data from a number of government and private sources:

- *Regional Economic Accounts* This data source, produced by the US Bureau of Economic Analysis ("BEA"), provides information on employment and compensation by industry at the state and local levels, as well as state-level GDP by industry. This BEA data source for employment data is also referred to as the SAEMP25 series. BEA produces this information by compiling information collected by other organizations, both governmental and private. Industry classifications are based on 2017 NAICS codes. Employment in the *Regional Economic Accounts* includes both full-time and part-time employment. Unlike QCEW (discussed below), employment figures in the *Regional Economic Accounts* include self-employed individuals. Data from this source pertain to employment, labor income, and GDP for 2018.
- *Quarterly Census of Employment and Wages ("QCEW")* This data source, produced by the US Bureau of Labor Statistics ("BLS"), provides comprehensive information on employment and wages at the national, state, and local levels for workers covered by state unemployment insurance programs. In addition to data on employment and wages, QCEW also reports counts of establishments with paid employees by detailed industry sector. Industry classifications are based on the 2017 NAICS codes. Data from this source pertain to 2018 employment and wages.
- *Nonemployer Statistics* ("*NES*") Released annually by the US Census Bureau, NES contains data on the number of establishments that (1) have no paid employees and (2) have annual business receipts of \$1,000 or more. Nonemployers are typically self-employed individuals or partnerships operating unincorporated businesses. Data are reported at the national, state, and county levels and by detailed industry, based on 2017 NAICS codes. Data from this source pertain to nonemployer operations in 2018.
- Annual Capital Expenditure Survey ("ACES") Released annually by the US Census Bureau, ACES provides data on capital spending for new and used structures and equipment by US nonfarm businesses with and without employees. Data have been collected annually beginning with data for 1994. Data from this source pertain to capital spending in 2018.

II. Estimates of Direct Economic Impacts

PwC has estimated the US retail industry's direct economic impacts in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), GDP, and the number of retail establishments (including food services and drinking places).

Retail Employment, Labor Income and GDP

This study uses data on employment, employee compensation, proprietors' income, and GDP by industry from the BEA's *Regional Economic Accounts* and data on employment and wages and salaries from the BLS to develop our estimates of the direct economic impact of the US retail industry.

Retail employment, labor income (including wages and salaries and benefits as well as proprietors' income), and GDP at the national and state levels were obtained from the BEA's *Regional Economic Accounts* database.

<u>Retail Establishments</u>

Retail businesses with payroll employment – For retail businesses with payroll employment, PwC obtained national and state-level establishment counts from QCEW by detailed (3-digit) NAICS code for 2018.⁸

Retail businesses without payroll employment – These establishments, often referred to as nonemployers, are typically small sole proprietorships or partnerships operating unincorporated businesses. According to the Census Bureau, there were nearly 2.5 million nonemployers in the retail industry (including food services and drinking places) in 2017, the most recent year for which data were available.

PwC obtained counts of establishments by 3-digit NAICS industry at the national and state levels from the 2017 edition of *Nonemployer Statistics* and adjusted the data to 2018.

III. Estimates of Indirect and Induced Economic Impacts

The initial round of output, income, and employment generated by retail operations leads to successive rounds of re-spending in the chain of production. Such indirect and induced economic impacts by the retail industry can be measured using various approaches. The most common is multiplier analysis. In broad terms, a multiplier is an index that indicates the overall change in the level of economic activity that results from a given initial change. It effectively adds up all the successive rounds of re-spending, based on a number of assumptions that are embedded in the method of estimation.

There are different methods available for calculating multipliers. The method used in this report is *input-output* analysis. It is the most commonly used approach in regional economic impact studies. The input-output model developed by the IMPLAN Group, LLC is one of the best-known input-output models for regional economic studies in the

⁸ Due to minor differences between the sum of the state-level data and the national establishment counts for certain industries, the state data were summed to derive the national level estimates.

United States and is widely used by government, academics and private-sector researchers.

The IMPLAN models are built around an "input-output" table that relates the purchases that each industry has made from other industries to the value of the output of each industry. To meet the demand for goods and services from an industry, purchases are made in other industries according to the patterns recorded in the input-output table. These purchases in turn spark still more purchases by the industry's suppliers, and so on. Additionally, employees and business owners make personal purchases out of the additional income that is generated by this process, sending more new demands rippling through the economy. Multipliers describe these iterations. The Type I multiplier measures the direct and indirect effects of a change in economic activity. It captures the inter-industry effects only, i.e., industries buying from local industries. The Type II (Social Accounting Matrix or SAM) multiplier captures the direct and indirect effects and, in addition, it also reflects induced effects (i.e., changes in spending from households as income increases or decreases due to the changes in production). The indirect and induced impacts by the retail industry on other sectors of the economy in terms of employment, labor income (including wages and salaries and benefits as well as proprietors' income), and contribution to GDP were calculated through the multiplier process built in each model.9

For this study, PwC built a customized IMPLAN input-output model for the national economy to calculate the industry's *indirect* and *induced* economic impact in terms of employment, labor income, and GDP.

Estimating the Dividend Impact

PwC obtained data on common stock dividend payments by companies in the US retail industry.¹⁰ Dividend payments were allocated between households, foreign shareholders, retirement plans, governments, and other businesses using data from the Federal Reserve Board's *Financial Accounts of the United States*. Dividends paid to households by the retail industry were allocated by income group and across the 50 states and the District of Columbia using tax return data published by the IRS's Statistics of Income Division.

Dividends paid to pension plans and other retirement accounts were allocated across income groups based on data on retirement assets by income quintile obtained from the 2016 *Survey of Consumer Finances*, conducted by the Federal Reserve. The data were then allocated across the 50 states and the District of Columbia using data on the distribution of assets in 401(k) and thrift savings accounts from the *Survey of Income and Program Participation* conducted by the US Census Bureau. These data were combined with the data on dividends paid directly to households by the retail industry to derive our estimates of total dividends paid by the industry to residents in each state.

⁹ Because the IMPLAN models are used for total impact analysis (as opposed to marginal impact analysis) in this study, necessary adjustments are made to the initial indirect and induced impact estimates to prevent double-counting. For instance, any indirect or induced effects from the initial estimates for IMPLAN sectors that are fully mapped to the retail industry are removed. ¹⁰ The measure of dividends used includes cash dividends from all classes of common stock. It also includes dividends paid to US shareholders out of income from US operations by foreign corporations. It does not include the dollar value of stock dividends or dividends paid or accrued on preferred stock.

To quantify the economic impact resulting from the dividend payments of the US retail industry, PwC first converted dividend payments into additional household consumption expenditures. For dividends paid directly to households, after-tax dividend income was estimated by income class based on average tax rates on dividend income. The additional consumption from dividends paid directly to households was estimated using published estimates of the marginal propensity to consume out of dividend income.¹¹ Similarly, the additional consumption resulting from dividends paid to retirement accounts was estimated based on published estimates of the marginal propensity to consume out of wealth.¹²

Estimating the Capital Investment Impact

PwC quantified the industry's capital investment impact based on its capital expenditure data reported in the ACES from the US Census Bureau. For the impact analysis, the industry's capital expenditures were translated into purchases of capital assets by type through the use of the so-called "capital flow matrix" from the BEA.

¹¹ The marginal propensity to consume out of dividend income is a measure of the additional consumption resulting from the last dollar of dividend income earned. The MPCs used for this study were based on Malcolm Baker, Stefan Nagel, and Jeffrey Wurgler, "The Effects of Dividends on Consumption" *Brookings Papers on Economic Activity*, 2007, pgs. 213-291. Using two micro data sets the authors estimated pre-tax MPCs ranging from 0.25 to 0.77. Using the authors' midpoint estimate of 0.4, PwC estimated the after-tax MPC for each income group as the pre-tax MPC divided by one minus the marginal effective tax rate on dividend income. ¹² A review of the literature suggests that each additional dollar of financial wealth increases consumption between two and six cents. To be conservative we have assumed an MPC out of wealth of 0.028 for all income groups (based on Gabriel Chodorow-Reich, Plamen T. Nenov, and Alp Simsek, "Stock Market Wealth and the Real Economy: A Local Labor Market Approach," working paper, June 7, 2019).

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