



Every Day. Everywhere.
Powered by CPG.

The Economic Contributions of the
U.S. Consumer Packaged Goods Industry

Powering every day.






Introduction

The consumer packaged goods (CPG) industry is the largest manufacturing employer in the U.S. The food, beverage, household and personal care products the industry makes positively impact the lives of every American, every day.

While most Americans may not think about the jobs and industries they are supporting when they toss toothpaste and cereal into their grocery cart or order window cleaner or laundry detergent from Amazon, the products they rely on to power their day have a massive impact on the economy. Whether it's the lab technician ensuring product safety, the farmer growing wheat for bread, or the trucker bringing it to the retailer, there are millions of jobs and opportunities created by the CPG industry.

On behalf of the Consumer Brands Association, we are pleased to share this report, with findings from PwC, that shows the massive impact the CPG industry has on the U.S. economy.

Powering every day.

A photograph of a man with dark curly hair, wearing a striped t-shirt, sitting at a table and kissing a baby on the forehead. The baby is wearing a white t-shirt and blue jeans, and is drinking from a clear baby bottle. The background shows a kitchen setting with a white chair and a wooden table. A yellow rectangular overlay is positioned over the top right portion of the image, containing the text "It is our privilege to positively impact the lives of every American, every day." in white.

**It is our
privilege to
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About this Report

The Consumer Brands Association engaged PwC to provide a report that estimates the contribution of the CPG industry on the US economy at the national, state, and Congressional District levels for 2017, the latest year for which historical data are currently available.

The report relies on a well-established methodology based on government data. Specifically, the economic contribution is measured in terms of employment, value added (i.e., contribution to GDP), and labor income. For each measure, the direct, indirect, induced, and downstream contributions of the industry are calculated using the IMPLAN model, an input-output model based on government data.

DIRECT CONTRIBUTION

includes activities directly attributable to CPG, such as the employees and output of grocery manufacturers.

INDIRECT CONTRIBUTION

includes activities of the upstream supply chain to grocery manufacturers related to their operating and capital expenditures, including contractors and other companies providing intermediate inputs to CPG companies and their immediate suppliers.

INDUCED CONTRIBUTION

reflects consumption spending by employees of grocery manufacturers and their suppliers. Employees throughout the CPG' supply chain receive incomes associated with the direct and indirect activities, a portion of which will be consumed. This consumption causes additional economic activity attributable to US CPG.

DOWNSTREAM CONTRIBUTION

reflects activities of the downstream distribution channel involved in transporting, warehousing, and retailing grocery products to final consumers.





CPG Industry Definition

The CPG industry, as defined in detail below, consists of food, beverage, household and personal care product manufacturing.

	NAICS CODE	IMPLAN CODE
Beverage manufacturing	3121	106-110
Tobacco product manufacturing	3122	111
Flour milling	311211	67
Rice milling	311212	68
Malt manufacturing	311213	69
Wet corn milling	311221	70
Soybean and other oilseed processing	311224	71
Fats and oils refining and blending	311225	72
Breakfast cereal manufacturing	311230	73
Beet sugar manufacturing	311313	74
Sugar cane mills and refining	311314	75
Non-chocolate confectionery manufacturing	311340	76
Chocolate and confectionery manufacturing from cacao beans	311351	77
Confectionery manufacturing from purchased chocolate	311352	78
Frozen fruits, juices and vegetables manufacturing	311411	79
Frozen specialties manufacturing	311412	80

	NAICS CODE	IMPLAN CODE
Canned fruits and vegetables manufacturing	311421	81
Canned specialties	311422	82
Dehydrated food products manufacturing	311423	83
Fluid milk manufacturing	311511	84
Creamery butter manufacturing	311512	85
Cheese manufacturing	311513	86
Dry, condensed, and evaporated dairy product manufacturing	311514	87
Ice cream and frozen dessert manufacturing	311520	88
Animal, except poultry, slaughtering	311611	89
Meat processed from carcasses	311612	90
Rendering and meat byproduct processing	311613	91
Poultry processing	311615	92
Seafood product preparation and packaging	3117	93
Bread and bakery product manufacturing	311811-2	94
Frozen cakes and other pastries manufacturing	311813	95
Cookie, cracker, and pasta manufacturing	311821	96
Dry pasta, mixes, and dough manufacturing	311824	97

* Operating expenditures are the costs on non-capital inputs (such as materials, rent, and utilities) for a company to run its business operations on a daily basis. Capital expenditures are the amounts that companies use to purchase major physical goods or services that will be used for more than one year.



The CPG Industry At-A-Glance.

Making a Difference for the American Economy.

The CPG industry is a major employer with a major footprint on the United States economy. It is the largest job provider in U.S. manufacturing, producing food, beverage, household and personal care products.

The CPG industry directly provided 2.3 million jobs, \$151.0 billion in labor income and generated \$361.3 billion contribution to gross domestic product in the United States.

Including indirect and induced effects from both operational and capital spending and the industry's downstream effect, the CPG industry supported 20.4 million jobs, \$1.1 trillion of labor income and \$2.0 trillion of value added.

Overall employment directly and indirectly attributable to the grocery manufacturing industry represented 10.4 percent of total US employment in 2017. The industry's direct and indirect labor income represented 9.3 percent of the U.S. economy, and the industry's total GDP contribution as a share of national GDP was 10.0 percent.

UNDERSTANDING THE TOTAL EFFECT

The indirect and induced effects of CPG industry economic activity are seen in several ways.

For example:



Purchasing raw materials like grain for cereal or recycled cardboard for packaging from other industries



Spending by employees of the industry and its supply chain



Funding capital investments like new equipment or facilities



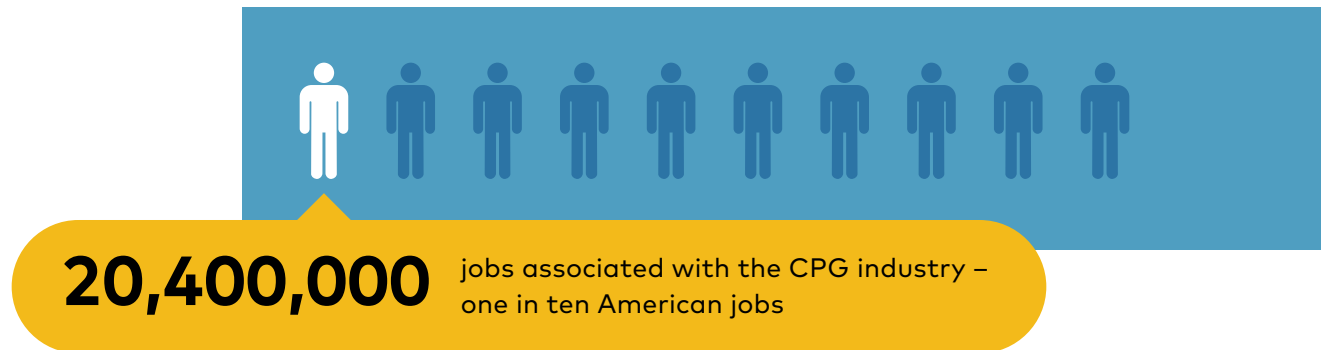
Transporting, warehousing and retailing of products.

CPG Responsible for 1 in 10 American Jobs

The 20.4 million jobs associated with the CPG industry make up 10.4% of total U.S. employment — one in every ten American jobs. Every job in the CPG industry supports an average of 7.7 additional jobs across the rest of the U.S. economy.

The CPG industry directly generated approximately \$154,700 in value added per job in 2017. By comparison, across the entire US economy the average value added per job was approximately \$99,300 in the same year. The average labor income directly earned per job in the CPG industry was approximately \$64,700 in 2017, compared to \$60,700 across the entire US economy.

ITEM	DIRECT NATIONAL IMPACT	PERCENT OF US ECONOMY	TOTAL NATIONAL IMPACT	PERCENT OF US ECONOMY
Employment <i>(thousands of jobs)¹</i>	2,336	1.2%	20,424	10.4%
Labor Income <i>(\$billions)²</i>	\$151.0	1.3%	\$1,107.9	9.3%
Contribution to GDP <i>(\$billions)</i>	\$361.3	1.9%	\$1,957.4	10.0%



Source: PwC calculations using the IMPLAN modeling system (2017 database).

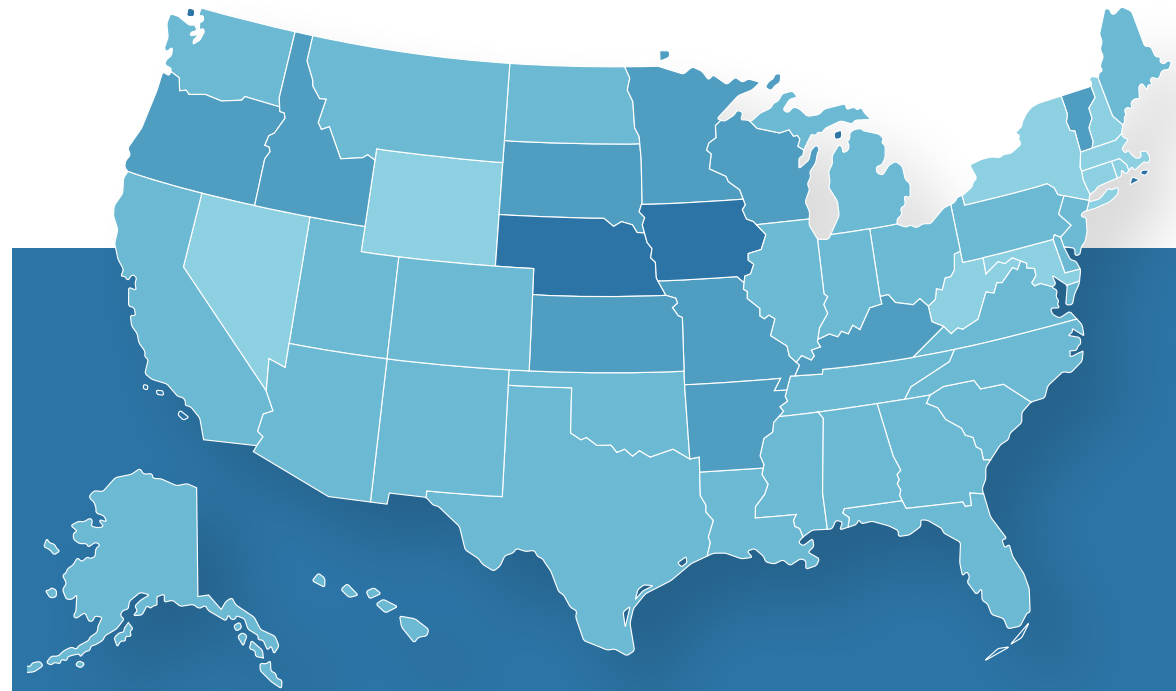
¹ Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

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

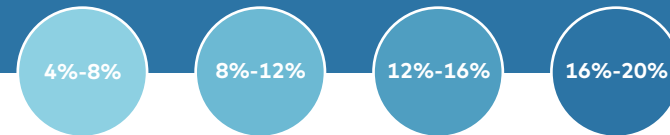
Meaningful Impact from Coast to Coast

The economic contribution of the CPG industry can be seen across the United States. In 37 states the industry directly and indirectly supported at least 100,000 jobs in 2017. California alone had 2.6 million jobs supported by the CPG industry, and Texas and Florida each had over 1 million jobs. The share of employment supported by the CPG industry (including direct, indirect, induced, and downstream impacts) in each state ranges from 3.6 percent in the District of Columbia to 19.6 percent in Nebraska.

At the congressional district level, the number of jobs directly attributable to the CPG industry was no less than 500 in any district and exceeded 5,000 in 174 congressional districts in 2017. Including direct, indirect, induced, and downstream effects, the industry supported more than 25,000 jobs in 412 congressional districts in 2017.



SHARE OF STATE EMPLOYMENT:



On average, over 45,000 jobs per congressional district are directly and indirectly attributable to the CPG industry.



Understanding CPG's Direct Effect

The CPG industry directly generated 2.3 million jobs in 2017, paying labor income of \$151.0 billion or \$64,700 per job, and adding \$361.3 billion to the nation's GDP. The industry also had \$1.3 trillion in output (or sales) in 2017.

Relative to the U.S. manufacturing sector, the CPG industry was directly responsible for 17.8 percent of US manufacturing employment, 13.8 percent of US manufacturing labor income, and 16.9 percent of US manufacturing GDP.

SECTOR	EMPLOYMENT	LABOR INCOME (\$Billions)	GDP (\$Billions)
Bottled and canned soft drinks & water	98,000	\$7.5	\$15.2
Manufactured ice	8,000	\$0.4	\$0.2
Breweries	76,000	\$5.4	\$16.5
Wineries	72,000	\$5.0	\$8.1
Distilleries	15,000	\$1.5	\$11.5
Tobacco product manufacturing	13,000	\$1.5	\$33.1
Flour milling	15,000	\$1.3	\$2.5
Rice milling	5,000	\$0.3	\$0.5
Malt manufacturing	1,000	\$0.1	\$0.3
Wet corn milling	13,000	\$1.6	\$4.3
Soybean and other oilseed processing	9,000	\$0.7	\$2.0
Fats and oils refining and blending	7,000	\$0.6	\$0.9
Breakfast cereal manufacturing	13,000	\$1.2	\$4.4
Beet sugar manufacturing	7,000	\$0.5	\$1.1
Sugar cane mills and refining	6,000	\$0.5	\$1.5
Nonchocolate confectionery manufacturing	23,000	\$1.5	\$2.5
Chocolate and confectionery manufacturing from cacao beans	10,000	\$0.7	\$1.7
Confectionery manufacturing from purchased chocolate	35,000	\$1.9	\$3.3
Frozen fruits, juices and vegetables manufacturing	32,000	\$1.9	\$2.7
Frozen specialties manufacturing	61,000	\$3.6	\$4.6
Canned fruits and vegetables manufacturing	64,000	\$4.2	\$5.7
Canned specialties	12,000	\$0.9	\$1.8
Dehydrated food products manufacturing	13,000	\$0.7	\$1.0
Fluid milk manufacturing	55,000	\$4.3	\$6.8
Creamery butter manufacturing	3,000	\$0.2	\$0.7
Cheese manufacturing	50,000	\$3.5	\$5.1
Dry, condensed, and evaporated dairy product manufacturing	18,000	\$1.6	\$3.3
Ice cream and frozen dessert manufacturing	22,000	\$1.3	\$2.6
Animal, except poultry, slaughtering	143,000	\$8.0	\$14.7
Meat processed from carcasses	131,000	\$7.7	\$10.9
Rendering and meat byproduct processing	9,000	\$0.7	\$0.7
Poultry processing	240,000	\$10.4	\$12.6



The CPG industry had \$1.3 trillion in output in 2017, adding \$361.3 billion to the nation's GDP.

SECTOR	EMPLOYMENT	LABOR INCOME (\$Billions)	GDP (\$Billions)
Seafood product preparation and packaging	39,000	\$2.3	\$3.5
Bread and bakery product, except frozen, manufacturing	430,000	\$17.7	\$24.5
Frozen cakes and other pastries manufacturing	25,000	\$1.1	\$1.8
Cookie and cracker manufacturing	36,000	\$2.3	\$3.8
Dry pasta, mixes, and dough manufacturing	23,000	\$1.5	\$4.0
Tortilla manufacturing	20,000	\$1.0	\$1.4
Roasted nuts and peanut butter manufacturing	16,000	\$1.0	\$3.8
Other snack food manufacturing	42,000	\$2.7	\$8.5
Coffee and tea manufacturing	26,000	\$1.7	\$3.4
Flavoring syrup and concentrate manufacturing	13,000	\$2.3	\$19.5
Mayonnaise, dressing, and sauce manufacturing	18,000	\$1.2	\$2.3
Spice and extract manufacturing	26,000	\$2.2	\$3.5
All other food manufacturing	95,000	\$5.2	\$6.6
Dog and cat food manufacturing	27,000	\$2.3	\$10.1
Other animal food manufacturing	37,000	\$2.7	\$5.5
Sanitary paper product manufacturing	28,000	\$2.6	\$7.8
All other converted paper product manufacturing	17,000	\$1.4	\$1.8
Medicinal and botanical manufacturing (OTC only)	2,000	\$0.4	\$0.7
Pharmaceutical preparation manufacturing (OTC only)	16,000	\$2.6	\$12.5
In-vitro diagnostic substance manufacturing (OTC only)	2,000	\$0.2	\$0.4
Biological product (except diagnostic) manufacturing (OTC only)	3,000	\$0.4	\$1.2
Soap and other detergent manufacturing	28,000	\$4.0	\$15.5
Polish and other sanitation good manufacturing	25,000	\$3.5	\$8.3
Surface active agent manufacturing	5,000	\$0.7	\$2.6
Toilet preparation manufacturing	58,000	\$6.6	\$25.0
Total U.S. CPG Industry	2,336,000	\$151.0	\$361.3

Source: PwC calculations using the IMPLAN modeling system (2017 database). Detail 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.



The Ripple Effects of CPG

The total economic contribution of the CPG industry includes the industry's own employment and output (direct contribution) and its impact on other parts of the economy through its indirect, induced, and downstream contributions. For example, production in the CPG industry creates demand for supplies from industries as varied as farmers growing agricultural inputs and paper manufacturers supplying cardboard boxes.

INDIRECT EFFECTS

These indirect effects go beyond the immediate suppliers to the CPG industry. For example, the farmer who produces more grain increases his purchases of fertilizer and other farm supplies. Similarly, the box manufacturer increases purchases of intermediate inputs and capital goods from its suppliers. Although the CPG industry does not directly purchase fertilizer or wood pulp, its suppliers do — as a result, the economic contribution of the CPG industry encompasses purchases through its entire supply chain.

INDUCED CONTRIBUTION

In addition to the supply chain impacts described above, there are consumption impacts on other sectors of the economy. The CPG industry also creates demand for labor, both directly within the industry and throughout

its supply chain. Employees receive incomes, leading to consumption by households (induced contribution). All the industries that sell goods to households and the supply chains of those industries are affected.

DOWNSTREAM CONTRIBUTIONS

When CPG products are sold to final consumers, this generates margins for businesses involved in transporting, warehousing, and retailing these products, referred to as downstream contributions. The margins generated at the distribution channel represent the output of the distribution channel that is attributable to the distribution of CPG products. In distributing products to final consumers, downstream retailers incur additional non-merchandise supplier expenditure, such as payments for utilities and rent. This spending, therefore, generates an additional economic contribution beyond the distribution channel.

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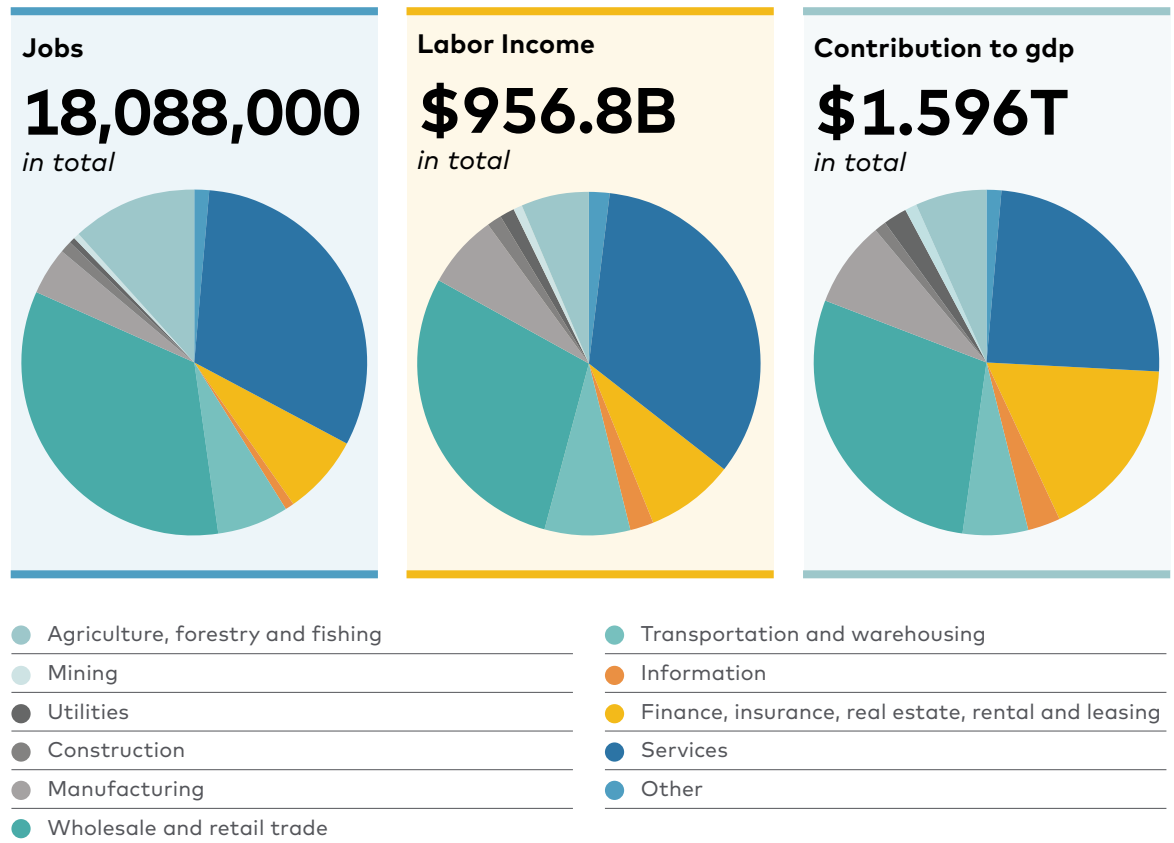


How CPG Activity Benefits the Broader Economy

The CPG industry supports related industries. CPG activity indirectly contributes \$1.6 trillion to the GDP of outside industries that are integral to the creation and delivery of the industry's products.

This indirect activity is responsible for more than 18 million jobs, yielding \$957 billion in labor income. The jobs created by CPG activity are diverse and wide-ranging. It takes more than 2 million agricultural jobs to produce everything from tomatoes for ketchup to aloe for skincare. Another 1.2 million Americans help move raw materials and finished products in transportation and warehousing jobs. Getting CPG products into the hands of consumers supports the work of more than 6 million Americans that work in wholesale and retail trade.

The Indirect Economic Impact of the CPG Industry

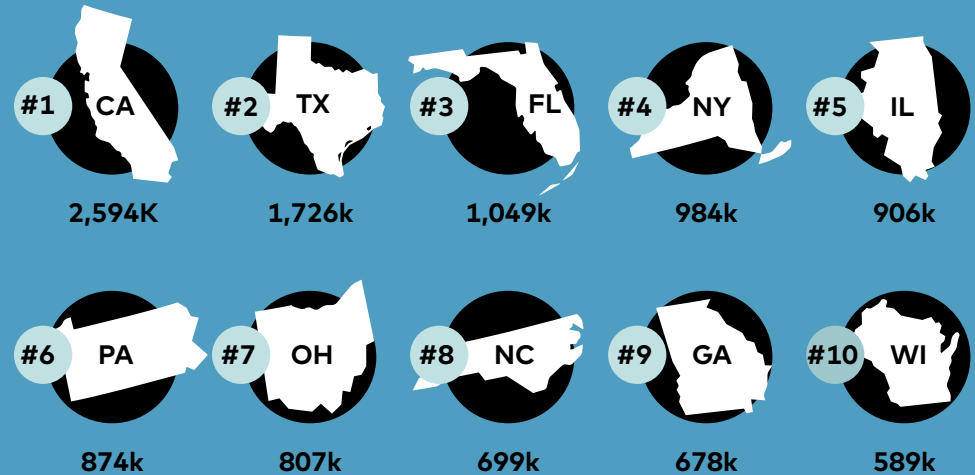


Source: PwC calculations using the IMPLAN modeling system (2017 database) and data from US Census Bureau. Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

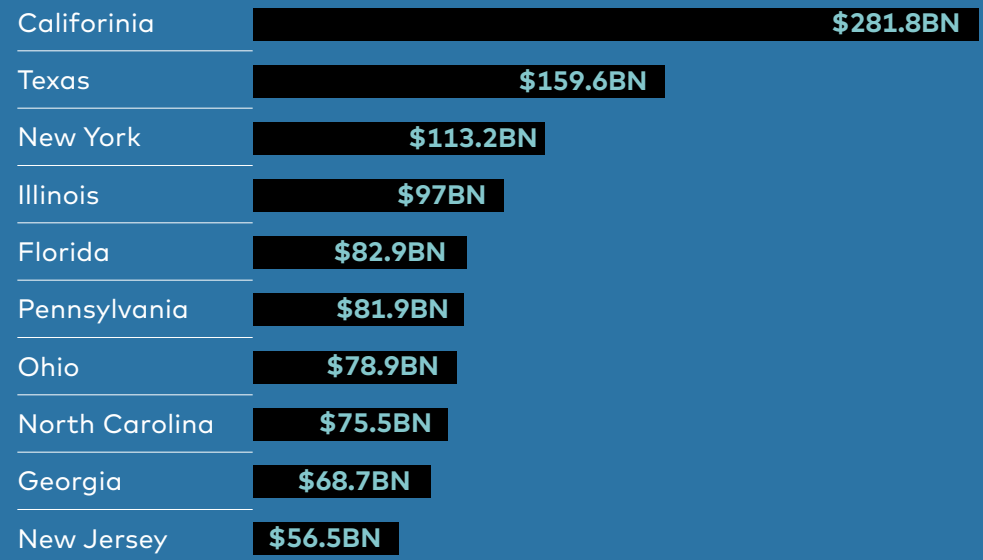
The United States of CPG

All 50 states benefit from the CPG industry's economic activity. The contribution varies from state to state, depending on factors such as each state's population, land area and growing conditions, industry mix, wage structure, spending and saving patterns, and connections to other economies. In terms of direct contributions of the CPG industry.

Top 10 States for Total CPG Jobs



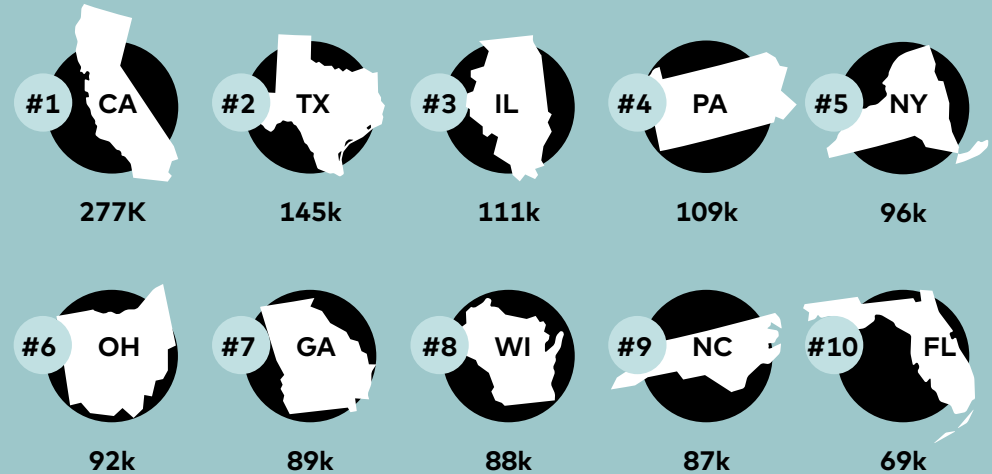
Top 10 States for Total Contribution (GDP)



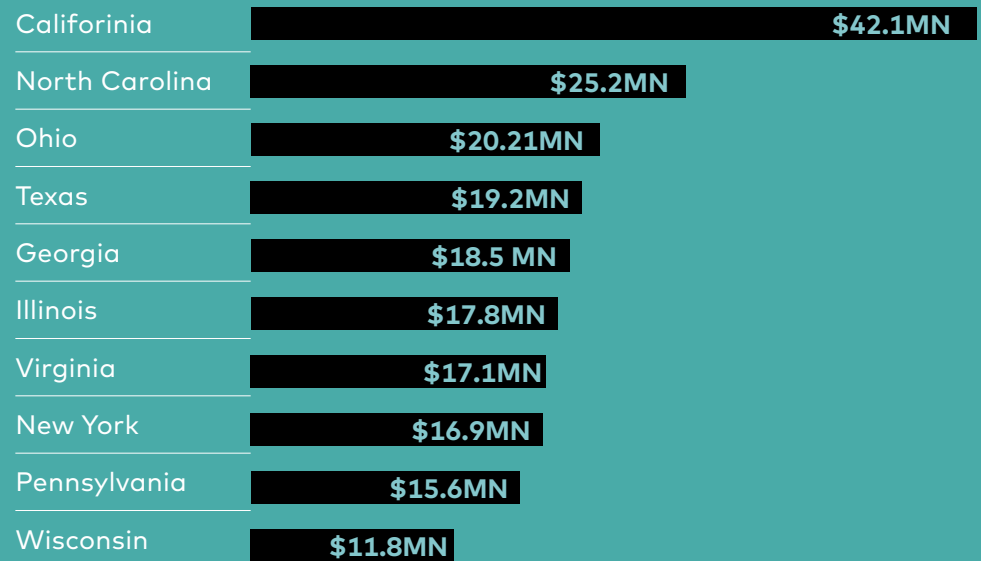
The United States of CPG

The figures indicate that California ranks substantially above all other states in terms of direct contributions of the CPG industry, with about 277,000 jobs, \$19 billion of labor income, and \$42 billion in value added or GDP in 2017. Other states with exceptionally large direct contributions include Texas, Illinois, and Pennsylvania, each with more than 100,000 jobs directly attributable to the CPG industry. These states combine vast areas of productive farm land with packing and processing centers, e.g., Chicago, capable of turning raw agricultural goods into retail products.

Top 10 States for Direct CPG Jobs



Top 10 States for Direct Contribution (GDP)





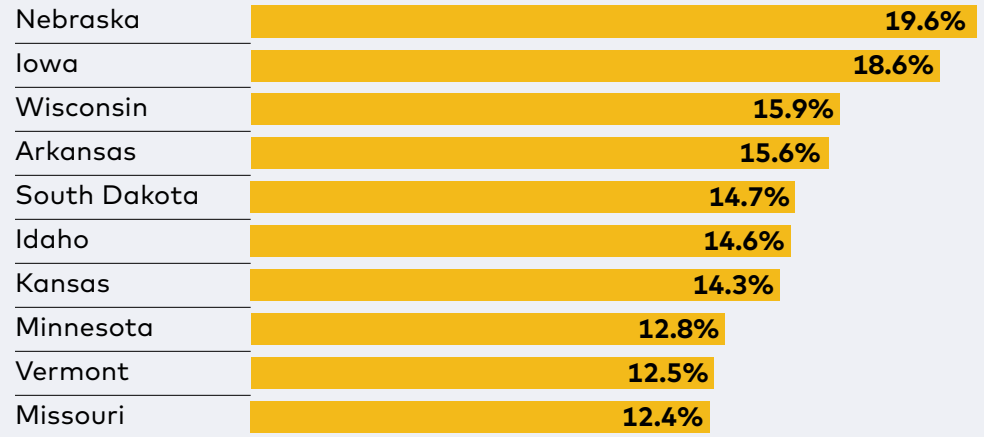
Another Look at CPG's Impact by State

The top ten states CPG economic activity overlap in large part with states that have the largest economies. However, when looking at states in terms of the share of employment attributable to the CPG industry and its overall contribution to the state economy, a different picture emerges.

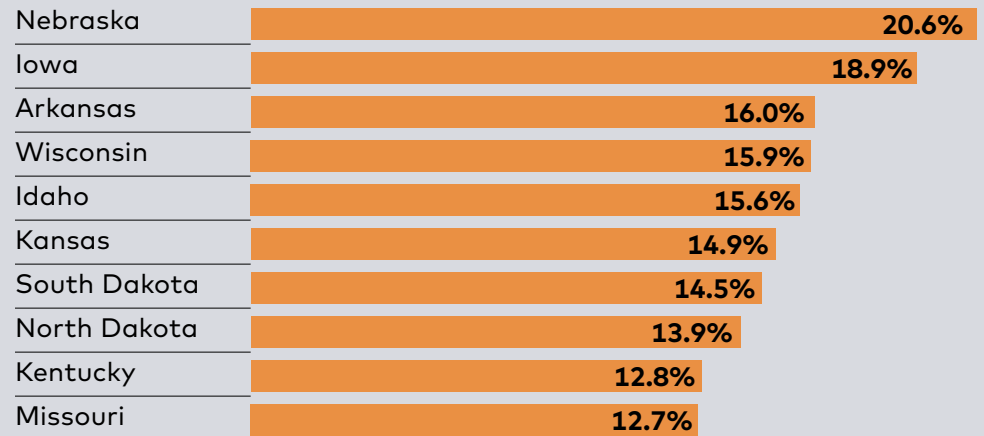
When it comes to jobs, Nebraska ranks highest, followed by Iowa, Wisconsin, Arkansas, and South Dakota. In each of these states, the CPG industry directly and indirectly contributed more than 10 percent of state employment in 2017.

These states also rank high in terms of value added directly and indirectly attributable to the CPG industry. These states, characterized by large amounts of rural farmland, produce much of the country's major food sources, including wheat, corn, oats, soybeans, dairy, hogs, cattle, and poultry.

Top 10 Share of State Employment Supported by CPG Industry Jobs



Top 10: Share of State GDP Supported by CPG Industry Jobs



Congressional District Results

CPG activity varies considerably across congressional districts. **The number of jobs directly attributable to the CPG industry was no less than 500 in any district and exceeded 5,000 in 174 congressional districts in 2017.** Direct employment is especially pronounced in a few rural areas where farming and other CPG is highly productive.

Western Arkansas and Northeast Georgia are major centers of poultry production. The rural districts of Kansas, Iowa, Nebraska, and Minnesota are where much of the country's wheat, corn, and soybeans are produced.

California's fifth district is home to Napa Valley and other major wine producing areas, while California's 21st district and other rural areas are highly productive farming areas. Direct employment in the top 15 congressional districts for CPG was more than 264,000 in 2017, or about 11 percent of direct employment nationwide in the CPG industry.

In terms of total contributions of the CPG industry, including indirect, induced, and downstream contributions, the industry supported more than 25,000 jobs in 412 congressional districts in 2017.

On average, over 45,000 jobs per congressional district are directly and indirectly attributable to the CPG industry.



For more information on congressional district results, including sortable rankings, please visit: consumerbrandsassociation.org/CPGimpact.

Detailed Methodology

PwC relied on the IMPLAN model to calculate the economic contributions of the US CPG industry. IMPLAN is a modeling system developed for estimating economic impacts and is similar to the Regional Input-Output Modeling System developed by the US Department of Commerce. The model is primarily based on government data sources.

IMPLAN is 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, further increasing demand that ripples 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 SAM (Social Accounting Matrix) multiplier captures the direct and indirect effects. 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).

Economic multipliers are often used to measure the overall change in production that would result from a marginal increase in a particular industry. For example, a value added multiplier converts a \$1 million increase in output of the CPG industry into the total change in value added throughout the supply chain. Because some suppliers of US grocery manufacturers might rely on grocery manufacturers for inputs, a marginal change in the CPG industry could lead to an additional change in CPG activity attributable to the goods it provides its suppliers throughout the economy. For example, a supplier to the CPG industry may purchase food and beverages for use in its break room.

While this impact is appropriate to include when modeling a marginal change, when evaluating the overall contribution of the industry these indirect, own-industry impacts should be excluded to prevent double-counting. Therefore, we have adjusted the IMPLAN model results to exclude any indirect or induced effects taking place within the CPG industry.

Because IMPLAN regional models capture only the indirect and induced effects within a region, the indirect and induced effects crossing state borders (“cross-state spillover effects”) are not captured by the IMPLAN state models. PwC quantified the cross-state “spillover effects” and allocated



them proportionally to each state. The state indirect and induced effects reported throughout this study include such allocation of the cross-state spillover effects. Similar modeling was performed at the congressional district level to capture spillover effects.

Economic contributions are reported at 2017 levels based on three primary segments of the industry: beverage and tobacco product manufacturing, food manufacturing, and household goods (including OTC drugs) manufacturing.



The Consumer Brands Association represents the world's leading consumer packaged goods companies. The CPG industry plays a unique role as the single largest U.S. manufacturing employment sector, delivering products vital to the wellbeing of people's lives every day. CBA's mission is to empower the industry to grow and thrive.

For more information, visit consumerbrandsassociation.org/industry-impact/