Feeding the Economy

The Food Industry's Impact on California's Central Coast

A Study Created by SBCFAN & CAFPC
on behalf of the Central Coast Food Commons

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Executive Summary

The food industry is a vital component of the regional economy, encompassing various occupations from agriculture and processing to distribution and food service. Many jobs in this sector offer low wages, while specific roles provide competitive salaries, benefits, and opportunities for advancement. Among low-wage workers, the conditions faced by fast food workers in California spark an essential policy debate. California's minimum wage standard increases stability for service workers, but this protection only extends so far to part-time schedules. 35% of fast-food workers in California report working less than 35 hours per week.

This research analyzes the economic impact of the food industry from several perspectives. It begins by highlighting food as an essential part of our lives and the prevailing constraints and difficulties we face in our economy. These lead to several adverse developments, including the inability to afford nutritious food, food insecurity, and geographic and infrastructural constraints that create food deserts. One of the primary concerns in our regional economy and throughout the state is the lack of well-paying jobs, particularly in the food industry, which is one of many sectors associated with low pay. These challenges call for greater emphasis on workforce development, which can enhance skills and increase productivity. This, in turn, should lead to positive developments, including improvements in productivity and, consequently, wages.

Changes in the prevailing culture of buying, preparing, and consuming food have their own significance. Before supermarkets, it was common to have a personal connection with the grocer at a local market, which was a significant element of shopping with care and connection. The supermarket introduces another model that allows customers to select food based on personal choice. Recently, individual choice has been heavily influenced by advertising, which may or may not prioritize customers' health as an essential criterion. We live in an era where people can select their own items, placing a premium on branding as manufacturers strive to make their products stand out.

If we look more deeply, we realize that focusing on locally and regionally producing healthy food has become more vital than ever to the well-being of our communities and their common good. The question is how to create a regional food production and distribution system that is affordable to people at all income levels. Can this be achieved, or is it a mere fantasy?

Food insecurity is a problem that, unfortunately, has been on the rise. According to the USDA, 86.5% (114.6 million) of U.S. households were food secure throughout 2023. That leaves the proportion of food-insecure households, to varying degrees, at 13.5% of all households or 18.0 million in the country. California and the Central Coast have their share of this misery.

In 2022, some agricultural products in California accounted for more than 80% of the nation's agricultural output and formed 45% of the farm sector's value in California. These include Almonds, which account for 6.1% of the total value of California's agricultural products and 100% of total production nationwide. Grapes form 9.6% of total agriculture receipts in California

and account for 93% of production nationwide. Lettuce accounts for 7.9% of California's agricultural receipts and 83% of total nationwide output.

One conclusion from the ongoing discussion is that the role of agriculture and the pattern of crops produced have changed significantly over the last few decades in California. What California produces has a distinct place within the pattern of agricultural products nationwide.

The economy of the United States and California has changed enormously over the last century. Agriculture's role as an employer has shifted from being the dominant sector to accounting for only a small share of total employment. Any change in the employment pattern is a derivative of a more significant change in resource allocation. In a nutshell, the US economy and California's economy changed through deindustrialization and the relocation of production to other countries, which offered a lower-cost labor force. Indeed, in the last fifty years, the production sector has been reduced in favor of the expansion of the finance sector, a process known as the financialization of the economy.

Some 150 years ago, more than half of the labor force was involved in Agriculture in the United States, and this ratio for California was around 30%. By 1950, the ratio declined to 12.3% in the US; the latest proportion reached 1.2%, a reduction of more than 43 times over this period. These changes occurred across most economies as they transitioned from an agricultural to an industrial, and then to a service-based economy.

California agriculture has changed remarkably since the last decades of the 19th century. The change manifested in the shift from extensive farming to intensive crop production, which has created an acute labor shortage. One phase of the situation called for an abundant supply of cheap labor; another required distributing this supply to the right place at the right time.

The cropland acreage for wheat production had been reduced substantially by the turn of the century. Between 1890 and 1914, the California farm economy shifted from large-scale ranching and grain-growing operations to smaller-scale, intensive fruit cultivation. By 1910, the value of intensive crops equaled that of extensive crops, as California emerged as one of the world’s principal producers of grapes, citrus, and various fruits. Tied to this dramatic transformation was the growth of allied industries, including canning, packing, food machinery, and transportation services.

Undocumented immigrants make up a significant share of California's farmworkers. However, this accounts for only 15.5% of all undocumented immigrants working across industries. They contribute 42% of agricultural value added, 18% of construction value added, 8% of manufacturing value added, 5% of other services value added, and 16% of retail value added.

One of the less discussed issues about improving US growth and prosperity is reducing wage gaps between US-born immigrants and most undocumented immigrants. In 2021, while the median wage for a US-born worker was $31 per hour, undocumented immigrants received $14 per hour. Looking into the economic profile of undocumented immigrants reveals a greater understanding of the hardship they are subject to, despite their critical economic impacts on the economy of the state of California in general and its agriculture in particular.

The USDA's Food Access Research Atlas measures food access at the census tract level. The Atlas measures food access based on two indicators: Income and distance to food stores. The USDA categorizes low-income tracts as units having at least a 20% poverty rate or where the median family income is at or below 80% of the metropolitan area or the State. In California, 80% of the statewide median family income used for the 2019 Atlas threshold was $65,133. The USDA measures low food access as the physical distance to food stores. Five hundred individuals, or 33% of a census tract's population, must have no food stores within a 1-mile radius in urban areas and 10 miles in rural areas, to be considered low-access.

Food insecurity is one of the most debilitating problems in California and on the Central Coast, which has become much graver in recent years. According to a recent estimation (Damooei, 2025), from 2014 to 2024, the percentage of total households participating in the program in the Central Coast of California increased by 51%, going up from 97,958 to 147,584. An even more significant finding is that by 2019, the total number of participants had fallen from 97,958 to 90,902. Since 2019, the total number of participants has increased to 147,584, marking a 62% rise. The picture is apparent: food insecurity is rising at an unprecedented level, which calls for urgent attention.

It is a tragedy that in the Central Coast, despite the rising level of food insecurity, we are unable to give those in need their entitlement. This report provides a detailed estimate of the proportion of food stamps that are left undelivered and the amount that is left unclaimed as a consequence. In the Central Coast, which is not that different from other parts of California, despite mounting food insecurity, 71,528 households are not receiving their entitlements, resulting in a total cost of more than $271,000,000.

This study measures the economic impact of the food industry in the Central Coast of California. We utilized the latest information available and carefully selected every economic activity and industry that together form the food industry. These industries are similar to the reported sectors by "Feeding the Economy." A detailed list of all the selected industries can be found in Appendix A of the report.

We created the region by combining all six counties and designated it as the place for measuring the economic impact. All estimations are for the entire area as one geographic location. Adding indirect and induced effects is crucial because every industry in the process boosts GDP through interactions among industries or the supply chain, as well as increased expenditures by those who earn their income.

In dollar value, the contribution to GDP is directly around $16.5 billion or over 10% of the total GDP of the region. By adding the indirect and induced impact, the total value added will reach more than $24.1 billion annually or 14.9% of the regional GDP.

The food industry creates some 206,465 jobs in the region directly. This accounts for about 75% of all the jobs created. There are, however, some 67,452 additional jobs created through indirect and induced impacts. This accounts for some 25% additional employment. Altogether, the food industry creates some 273,917 jobs in the region.

The food industry generates more than $9.8 billion in labor income in the region. Adding the indirect and induced impacts, the total reaches $14.5 billion. Labor income includes all forms of earned income, including employee compensation (wages, salaries, and benefits) and Proprietor Income.

Total output has an important significance. It is the value of an industry's output in a calendar year. It can also be described as annual sales plus net change in inventories. The output for wholesale and retail trade represents only the profit margin, not the revenue (sales).

Our calculation shows that some $30.9 billion of output is created by the food industry within the Central Coast. If we add the indirect and induced output, the total reaches more than $43.7 billion within the region. Some 70% of the output, approximately $30.9 billion, is created directly, while the remaining 30%, or $12.9 billion, results from induced and indirect impacts.

In total, more than $3.6 billion in tax revenue was collected through personal income and social security taxes of food industry workers in the Central Coast region. The largest share of the tax is paid to the federal government, as is the case in the State of California. Looking at the segments of the shares for different governments, we observe that 54% of taxes paid end up going to the federal government. 28% to the state government and some 18% to the county, subcounty, and special districts. Taking the complete account of the taxes generated by the food industry brings about a total of more than $5.7 billion to all levels of government.

The food industry as a group interacts extensively with several other industries that are not considered part of it. However, these sectors have backward and forward linkages with the food industry, which is an essential consequence with a significant positive economic impact.

Looking into the pattern of such interaction, the real estate has the most significant dollar value impact on the food industry. Let us not forget that the food industry is a collection of interconnected sectors. These are other industries that are impacted by the food industry as a whole. The real estate industry generates some $1.7 billion in its interaction with the Food industry. A detailed list can be found in the report. The report calculates the interdependency of other sectors by measuring their impact on the food industry relative to their total production. With such an indicator, commercial and industrial machinery and equipment are at the top of the list. Some 22% of this industry's production is related to the food industry. The list includes several industries with strong ties to the food industry as a whole.

1) Introduction

The Central Coast of California encompasses six counties: Monterey, San Benito, Santa Cruz, San Luis Obispo, Santa Barbara, and Ventura Counties. These economies have a robust food industry rooted in agriculture, viticulture, food processing, and culinary tourism. While many roles in this sector are traditionally low-wage, a spectrum of occupations offers competitive salaries and growth opportunities. This research aims to delineate these roles and provide insights for workforce development and economic planning.

The food industry is a vital component of the regional economy, encompassing various occupations from agriculture and processing to distribution and food service. As eluded earlier, while many jobs in this sector are perceived as low-wage, specific roles offer competitive wages, benefits, and opportunities for advancement. Among low-wage workers, the conditions faced by fast food workers in California spark an essential policy debate. California's minimum wage standard increases stability for service workers, but this protection only extends so far to part-time schedules. 35% of fast-food workers in California report working less than 35 hours per week. Although some workers may prefer a part-time work schedule, many workers are not satisfied with the number of hours they receive. According to a recent study conducted at the Harvard Kennedy School Malcolm Wiener Center for Social Policy, 51% of fast-food workers report that they would like to work more. Among workers who work fewer than 35 hours per week, almost two-thirds would like to work more hours at their job (not shown). Consequently, one quarter of California fast-food workers can be characterized as "involuntary part-time" workers, meaning they work fewer than 35 hours per week at their primary job and would like to work more.[1]

This research would go further and analyze the economic impact of the food industry from several perspectives. It begins by highlighting food as an essential part of our lives and the prevailing constraints and difficulties we face in our economy. These lead to several adverse developments, including the inability to afford nutritious food, food insecurity, and geographic and infrastructural constraints that create food deserts.

One of the primary concerns in our regional economy and throughout the state is the lack of well-paying jobs, particularly in the food industry, which is one of many sectors associated with low pay. These challenges call for greater emphasis on workforce development, which can enhance skills and increase productivity. This, in turn, should lead to positive developments, including improvements in productivity and, consequently, wages.

However, the primary objective of this study is to develop a regional input-output model to measure the economic impact of the food industry within the region. This will show the enormous positive impact of the food industry on regional GDP, job creation, labor income, and tax revenue generation for all levels of government within the region. We used the most advanced economic impact assessment model, IMPLAN, to determine various segments of the financial impact of the food industry on the Central Coast Region. IMPLAN is an economic impact analysis software and data service used by analysts to measure the effects of a policy, project, or event on a local, regional, or national economy. It calculates economic impacts, such

as jobs, income, and taxes, through direct, indirect, and induced effects, using a comprehensive database and customizable modeling system.[2]

2) Importance of Food in Our Economy

According to the latest Feeding the Economy report, the U.S. food and agriculture sector is a foundational pillar of American culture and commerce. These industries directly support over 24 million jobs (15% of U.S. employment) and are responsible for more than $9.5 trillion of the country's economic activity, about one-fifth of total U.S. output.[3]

The importance of food goes much further and way deeper. Within the nation, millions of food scientists, production workers, logistics experts, truck drivers, and engineers work in almost 200,000 food manufacturing, processing, and storage facilities to keep the food supply chains strong. This industry plays an essential role in shaping US exports. According to the latest 2025 report, the total food exports from the United States amounted to $182.8 billion. It generated more than 47 million jobs, $2.8 trillion in wages, and $1.3 trillion in tax revenue.[4]

The impact in California is equally vital. In California, the food industry created some 5,559,583 jobs, $371.8 billion in wages and salaries, $190.0 billion in tax revenue, and $27.7 billion in exports.[5]

However, the importance of food is not limited to purely economic terms. The food industry plays a vital role in the nation's health and in the lives of Californians. The impact of the food industry on health has two distinct sides. It contributes to chronic diseases like obesity, type 2 diabetes, and heart disease through the production and marketing of high-fat, high-sugar, and ultra-processed foods. On the other hand, the industry has a positive impact when the negative consequences are controlled and eradicated. The prevalence of these unhealthy foods is driven by marketing, lobbying, and a food environment that makes nutritious options less accessible for many. On the other hand, the cost of food and access to healthy food bring essential questions with far-reaching consequences.

According to the American Heart Association, over the past 100 years, the way Americans buy, cook, and think of food has changed dramatically, driven by developments in how it is manufactured, marketed, purchased, and eaten. According to Professor Marion Nestle of New York University, the excessive industrialization of the food supply, pursued for other objectives, has not been good for health. Nestlé's simplified definition of ultra-processed food is "food that cannot be made at home" because of the processes and additives involved.[6]

The way of life and the inability of many families to prepare their food, relying instead on supermarkets and preserving food for long-term consumption, have led to a different lifestyle that, to some extent, has been unavoidable. However, the lack of necessary oversight and regulations to prevent the over-industrialization of the food industry, along with the excessive use of additives and other unhealthy components, which may increase profitability but undermine consumer health, represents another aspect of the politics of food in our economy.

Change in the prevailing culture of buying, preparing, and consuming food has its own significance. Before supermarkets, it was common to have a personal connection with the grocer at a local market, which was a significant element of shopping with care and connection. The supermarket introduces another model: allowing customers to select food based on personal choice. Recently, individual choice has been heavily influenced by advertising, which may or may not prioritize customers' health as an essential criterion. We live in an era where people can select their own items, placing a premium on branding as manufacturers strive to make their products stand out.

Eating out is another significant development during the last century. This created another critical segment of the industry: the rise of dining out places and restaurant chains, the development of fast food, and a fundamental change in our culture of eating and incorporating food into our lives.

These changes over time created an enormous chain of industries with forward and backward linkages. Enhancement of international trade made foods of various kinds available almost year-round, leading to the expansion of trade, shipping, transportation, and other components of the food industry. Like everything else in life, we pay for every decision that we make, and our life conditions change accordingly.

The giant emerging industry, along with its population growth, has negatively impacted the environment and our lives, clearly distinguishing healthy food from junk. The critical issue that should not be forgotten is the ability to afford nutritious food. At a time of rising prices and depressed income, addressing this policy issue is essential. It warrants a more comprehensive economic and social assessment to bring positive change to our lives.

If we look more deeply, we realize that focusing on creating healthy food production locally and regionally has become more vital than ever to the well-being of our communities and their common good. The question is how we can create a regional food production and distribution system that is affordable to all levels of income. Can this be achieved, or is it a mere fantasy?

Focusing on creating opportunities to discuss the importance of healthy food and the development of relevant and effective public policies is a significant investment in protecting our lives. According to a 2023 report by Harvard Public Health, about 678,000 Americans die each year from chronic foodborne illness. That toll is higher than all our combat deaths in every war in American history.[7]

In addition to deaths, a poor diet causes tremendous suffering. For instance, two-thirds of severe COVID cases resulting in hospitalization have been attributed to four diet-caused diseases: obesity, diabetes, hypertension, and heart failure. In other words, these hospitalizations could have been prevented if the patient had not had these diseases. All told, the economic cost of nutrition-related chronic diseases has been estimated at $16 trillion over the period from 2011 to 2020.[8] This is a tremendous burden on our economy, yet it provides significant support for initiatives aimed at creating local and regional opportunities for the production and distribution of healthy food.

3) Food Insecurity in The Richest Country on Earth

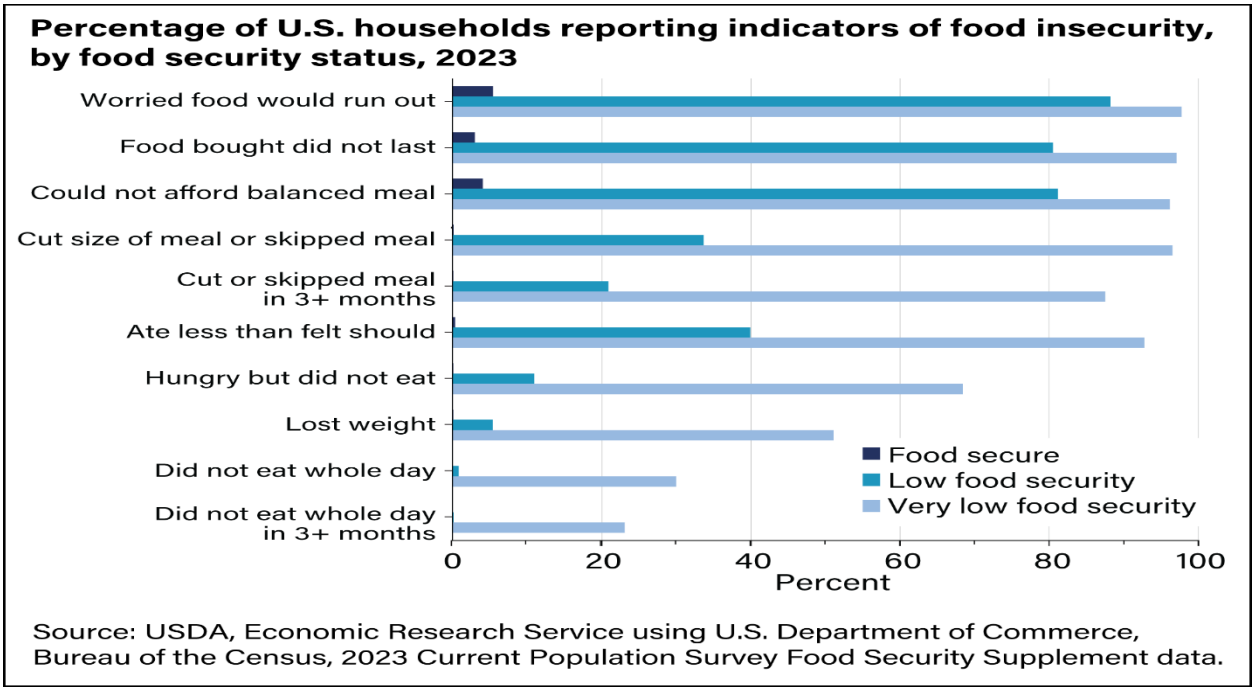
The United States Department of Agriculture (USDA) defines food insecurity as a household's limited or uncertain ability to acquire adequate food for all members due to insufficient money and other resources. It is measured at the household level through surveys and is often categorized into two levels:[9]

- Low food security: Households experience a decrease in the quality, variety, or desirability of their diet, but generally do not reduce their food intake.
- Very low food security: Households have multiple indications of disrupted eating patterns and reduced food intake.

Food insecurity can bring with it hunger. Hunger is an individual-level physiological condition that may result from food insecurity. It refers to a potential consequence of food insecurity that, because of prolonged, involuntary lack of food, results in discomfort, illness, weakness, or pain that goes beyond the usual uneasy sensation." According to the USDA, measuring hunger requires collecting more detailed and extensive information on the physiological experiences of individual household members than can be effectively accomplished in the Current Population Survey (CPS). [10]

The following chart provides the prevailing conditions in 2023.

Figure 1: Percentage of U.S. Households Reporting Indicators of Food Insecurity by Food Security Status, 2023



The above chart provides a desperate situation in the United States among food-insecure households, which is hard to believe in a country that is the wealthiest in the world.

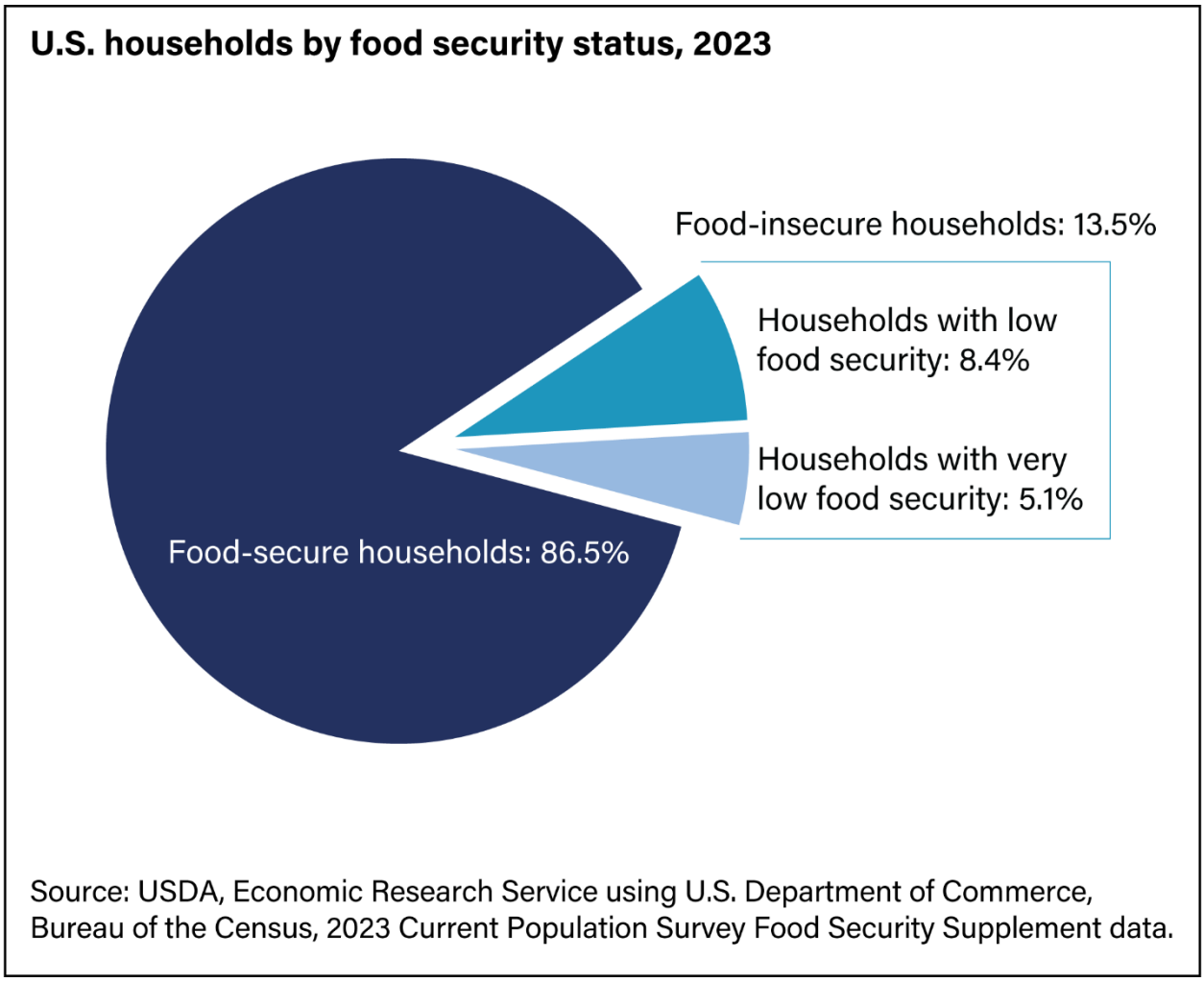
A defining characteristic of very low food security is that, at times during the year, household members' food intake is reduced, and their standard eating patterns are disrupted due to a lack of money and other resources for food. Very low food security is characterized in terms of the conditions that households in this category typically reported in the annual survey. In 2023:[11]

- 98 percent reported having worried their food would run out before they had money to buy more.
- 97 percent reported that the food they bought did not last, and they did not have money to get more.
- 96 percent reported they could not afford to eat balanced meals.
- 97 percent reported an adult had cut the size of meals or skipped meals because there was not enough money for food; 88 percent reported this had occurred in 3 or more months.
- 93 percent reported they had eaten less than they felt they should because there was not enough money for food.
- 68 percent reported they had been hungry but did not eat because they could not afford enough food.
- 51 percent reported having lost weight because they did not have enough money for food.
- 30 percent reported an adult did not eat for a whole day because there was not enough money for food; 23 percent reported this had occurred in 3 or more months.

All households without children that were classified as having very low food security reported at least 6 of these conditions, and most households with very low food security (69 percent) reported seven or more food-insecure conditions. Food-insecure conditions in families with children followed a similar pattern. Focusing on food security among children brings several other issues that highlight the severity of food insecurity and its impact on our children. Converging research shows that household food insecurity impedes children from reaching their full physical, cognitive, and psychosocial potential. Transitioning between food security and food insecurity had a significant and lasting effect on academic/cognitive function and behavior (i.e., externalizing); however, fewer clear relationships were seen for psychosocial outcomes and other behaviors examined. Let us not forget that food and nutrition security is a fundamental human right, and exists “when all people at all times have physical, social, and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences for a healthy and active life. [12]

We should also add another important piece of information to the above analysis: according to the USDA, 86.5% (114.6 million) of U.S. households were food secure throughout 2023. That leaves the proportion of food-insecure households, to varying degrees, at 13.5% of all households or 18.0 million in the country.[13] The following chart provides detailed information on households and their food security.

Figure 2: U.S. Households by Food Security Status, 2023



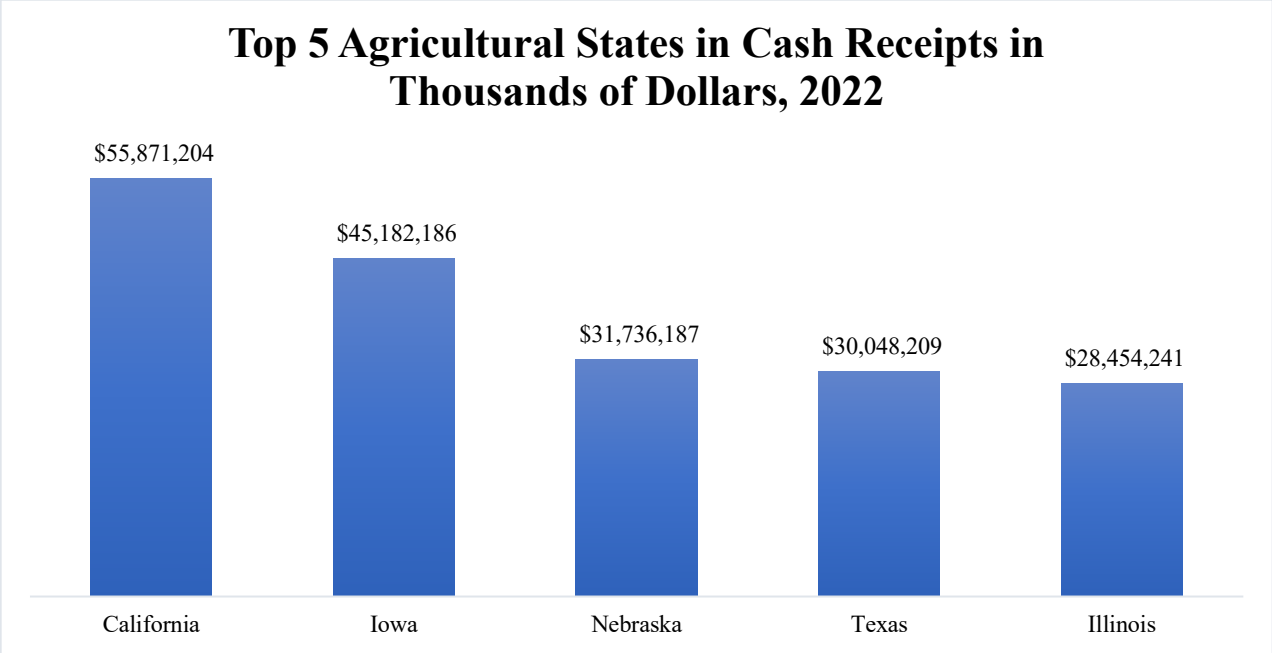
4) California's Agriculture, Food Industry, and Food Security in the Central Coast of California

In this segment of the study, we take several issues and provide information related to California and the Central Coast. According to the USDA, the U.S. agriculture sector extends beyond the farm business to include a range of farm-related industries. Agriculture, food, and related industries contributed 5.5 percent to the U.S. gross domestic product and provided 10.4 percent of U.S. employment. On average, U.S. consumers' expenditures on food amount to 12.9 percent of household budgets. Among Federal Government outlays on farm and food programs, nutrition assistance far outpaces other programs. These numbers are somewhat less than the estimates made by "Feeding the Economy." The reason is how the USDA presents the food industry and its integration into a regional economic impact model. A regional impact model provides deeper insight into the industry, with a more elaborate and extended connection through the supply chain.

4.1) Agriculture

The following chart shows the top five states for agriculture within the United States.

Figure 3: Top 5 Agricultural States in Cash Receipts in Thousands of Dollars, 2022



Source: California Department of Food and Agriculture

By a significant margin, California is at the top of the list. The following chart further provides a much clearer picture of how Agricultural products in California contribute to the United States.

We used the latest data available in 2022 and present information on products that account for 80 percent or more of those products within the nation.

Table 1: Commodities with More Than 80% Share of U.S. Receipts by Commodity

		State receipts	Share of State receipts	U.S. receipts	Share of U.S. receipts by commodity
2022 Rank Within California	Commodity	in $1,000	Percent of Total Within California	$1,000	Percent within the U.S.
6	Almonds	3,536,400	6.1	3,536,400	100.0
8	Pistachios	1,861,020	3.2	1,861,020	100.0
24	Walnuts	453,600	0.8	453,600	100.0
25	Celery	450,057	0.8	450,057	100.0
29	Garlic	314,288	0.5	314,288	100.0
34	Plums and prunes	254,496	0.4	254,496	100.0
42	Nectarines	169,366	0.3	169,366	100.0
46	Kiwifruit	85,418	0.1	85,418	100.0
47	Olives	76,297	0.1	76,297	100.0
48	Honeydews	72,706	0.1	72,706	100.0
55	Artichokes	45,570	0.1	45,570	100.0
22	Avocados	487,734	0.8	502,673	97.0
18	Tangerines	681,500	1.2	705,134	96.6
11	Carrots	1,234,202	2.1	1,294,955	95.3
21	Lemons	554,787	0.9	586,304	94.6
2	Grapes	5,601,237	9.6	5,996,102	93.4
14	Broccoli	1,011,317	1.7	1,132,775	89.3
7	Strawberries	2,781,768	4.8	3,259,100	85.4
64	Apricots	23,907	0.0	28,311	84.4
20	Cauliflower	555,329	1.0	665,642	83.4
4	Lettuce	4,599,454	7.9	5,564,622	82.7
10	Tomatoes	1,458,408	2.5	1,813,433	80.4
Total (Commodities with More Than 80% Share of U.S. Receipts)		26,308,861	45.0	28,868,269	
Total (All Commodities)		58,410,387	100.0	536,645,076	

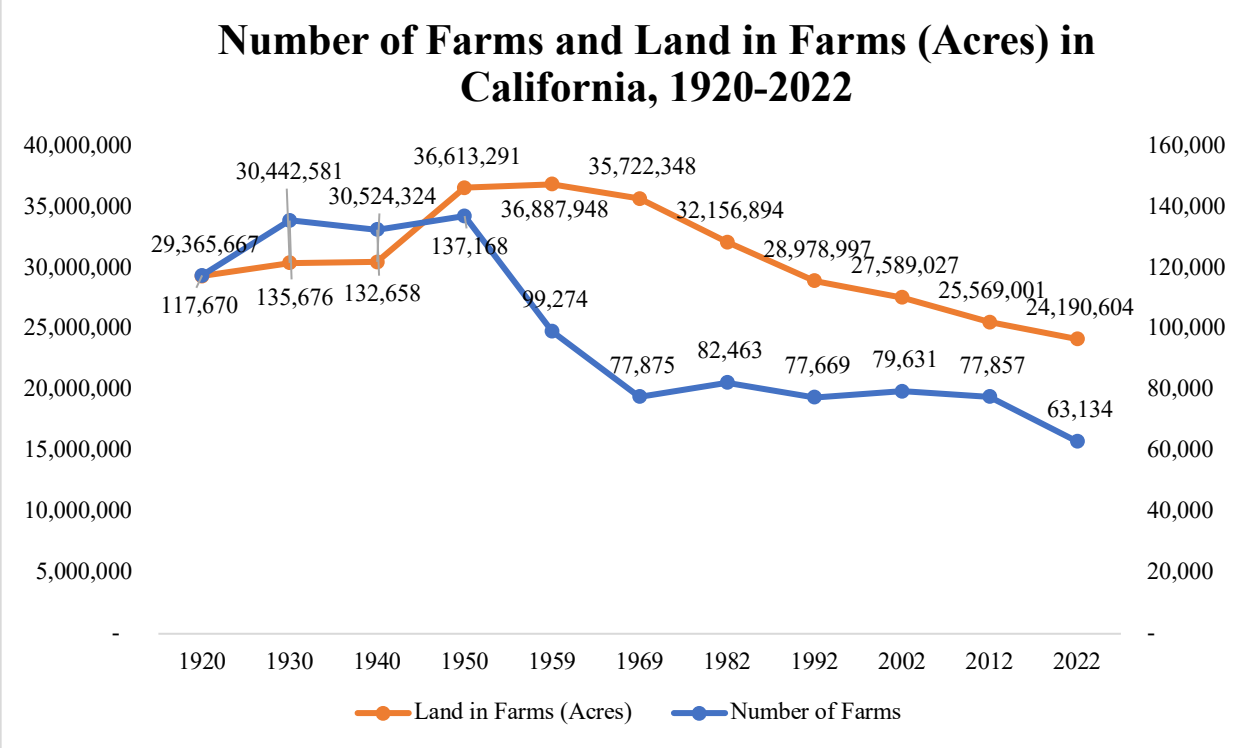
Sources: Data for 1950 to 2000 from USDA, Census of Agriculture Historical Archive, Johnston, W., McCalla, F. (2004). Whither California Agriculture: Up, Down, or Out? Some Thoughts about the Future. https://www.researchgate.net/publication/23508639_Whither_California_Agriculture_Up_Down_or_Out_Some_Thoughts_about_the_Future. For data on 2022, the source is the California Department of Food and Agriculture, California Agricultural Production Statistics.

The above table indicates that in 2022, agricultural products in California for a number of products accounted for more than 80% of the nation's agricultural output and formed 45% of the farm sector's value in California. These include Almonds, which account for 6.1% of the total value of California's agricultural products and 100% of total production nationwide. Grapes form 9.6% of total agriculture receipts in California and account for 93% of production nationwide. Lettuce forms 7.9% of the share of receipts from agriculture in California and accounts for 83% of the total output nationwide.

One easy conclusion from the ongoing discussion is that the place of agriculture and the pattern of crops produced have changed significantly over the last few decades in California. What California produces has a distinct place within the pattern of agricultural products nationwide.

The following chart illustrates the essential changes in the number of farms in California and the allocation of land to agriculture over the past century.

Figure 4: Number of Farms and Land in Farms (Acres) in California, 1920-2021



Source: USDA Census of Agriculture Historical Archive

The number of farms can be reduced for various reasons, such as reducing the share of agriculture, crop selection, the structure of the industry, and changes in concentration rates (i.e., the rise of larger farms and concentration). By looking closely, we do not see a drastic change in the area of farming land, but a drastic reduction in the number of farms. This trend increases rapidly from 1950 to 1970 (two decades), after which land acreage decreases continuously to the present time, while the reduction in the number of farms follows a different trend. We should add

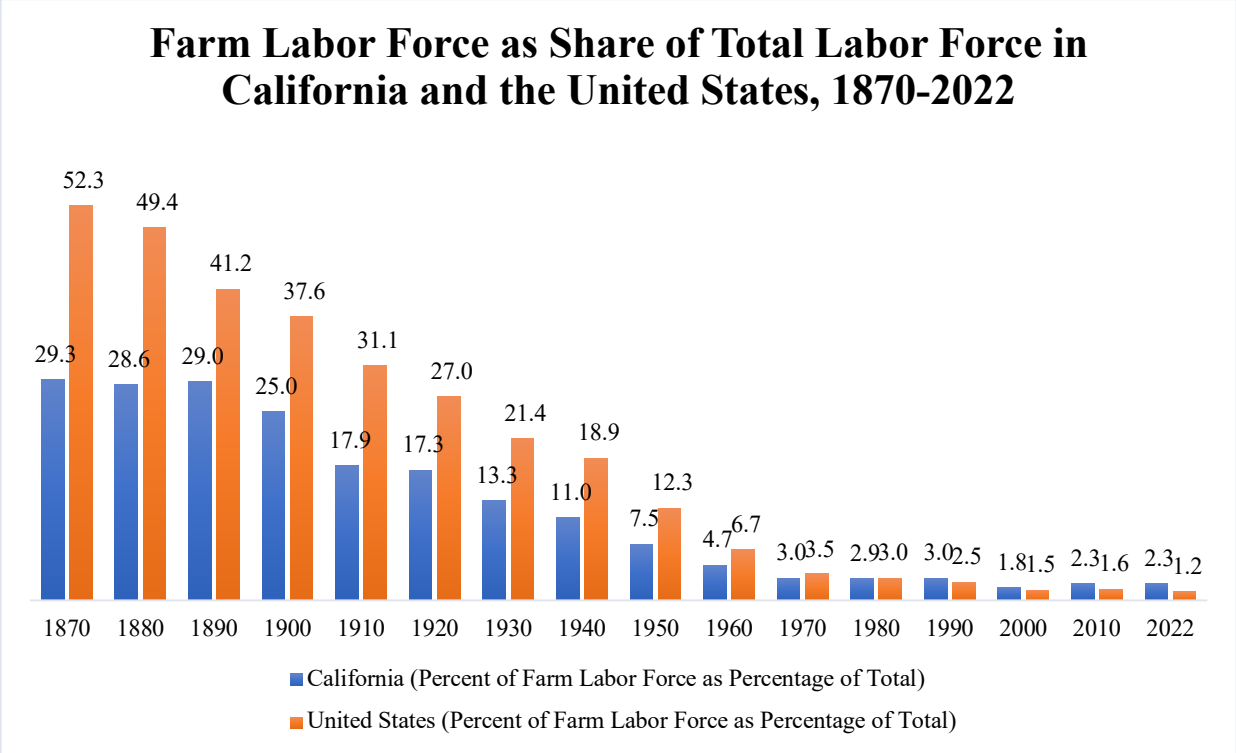
to this observation the financial problems in maintaining farming on a small scale in California and many other states. [14]

4.1.1) Labor Force and Its Impact on Agriculture

The economy of the United States and California has changed enormously over the last century. Agriculture's role as a provider of employment has shifted from being the dominant sector to accounting for only a small proportion of total employment. Any change in the employment pattern is a derivative of a more significant change in the allocation of resources. In a nutshell, the US economy and the economy of California changed through deindustrialization and the sending of production to other countries, which can provide a less expensive labor force. Indeed, in the last fifty years, the production sector has been reduced in favor of the expansion of the finance sector, a process known as the financialization of the economy.

However, this change has other aspects, such as providing food for a highly unpredictable global condition in the years and decades ahead. The following chart presents the proportion of employment within the overall economies of the United States and California over the past one and a half centuries.

Figure 5: Farm Labor Force as Share of Total Labor Force in California and the United States, 1870-2010



Source: Olmstead, A., Rhode, W. (2017). A History of California Agriculture, USDA, Economic Research Service

Some 150 years ago, more than half of the labor force was involved in Agriculture in the United States, and this ratio for California was around 30%. By 1950, the ratio declined to 12.3% in the US; the latest proportion reached 1.2%, a reduction of more than 43 times over this period.

A similar pattern, although at a lesser intensity, occurred in California. In 1950, California's share of agricultural employment was 7.5% of its total employment. By 2022, the share stayed at around 2.3% of total employment. A comparison between the share of labor and the share of production of agriculture, which was around 1% in 2022, shows that agriculture and its continuation still heavily depend on the work of agricultural workers.

4.1.2) Contribution of Undocumented Immigrants as an Essential Resource in Agriculture and the Food Industry

California agriculture has changed remarkably since the last decades of the 19th century. The change showed itself in the shift from extensive farming to intensive crop production, which has caused an acute labor supply problem. One phase of the situation called for an abundant supply of cheap labor; another required distributing this supply to the right place at the right time.[15]

According to the order of appearance of their nationals in California, China, Japan, India, Mexico, the Philippines, and most recently, the drought and "dust bowl" regions of the southwestern United States were the sources of the most influential groups to fill agricultural labor needs.[16]

To a large extent, agricultural labor came from countries with lower living standards than those prevailing in the United States. This situation has intensified since the prevalence of NAFTA, from bad to worse. Through NAFTA, Mexico lost nearly 1.3 million farm jobs. The 2002 Farm Bill subsidized U.S. agribusiness by 40 percent of net farm income (Kimberly Amadeo, 2019). When NAFTA removed trade tariffs, companies exported corn and other grains to Mexico at a lower cost, making rural Mexican farmers uncompetitive. At the same time, Mexico reduced its subsidies to farmers from 33.2 percent of total farm income in 1990 to 13.2 percent in 2001. Most of those subsidies went to Mexico's large farms. These changes meant many small Mexican farmers were put out of business by highly subsidized American farmers.[17]

From the outset, the labor contractor is seen as a contemporary figure, with each significant race that entered the California agricultural scene playing their role and fading away as a new labor supply replaced them. For almost 70 years, the task of distributing laborers to meet the seasonal demands of rapidly expanding fruit and vegetable crops has been a factor in labor relations in the agricultural industry. From extensive farming to intensive crop production, the labor supply problem was acute. One phase of the situation called for an abundant supply of cheap labor. Another requirement was distributing this labor supply to the right place at the right time.

The cropland acreage for wheat production had been reduced substantially by the turn of the century. Between 1890 and 1914, the California farm economy shifted from large-scale ranching and grain-growing operations to smaller-scale, intensive fruit cultivation. By 1910, the value of intensive crops equaled that of extensive crops, as California emerged as one of the world’s principal producers of grapes, citrus, and various fruits. Tied to this dramatic transformation was

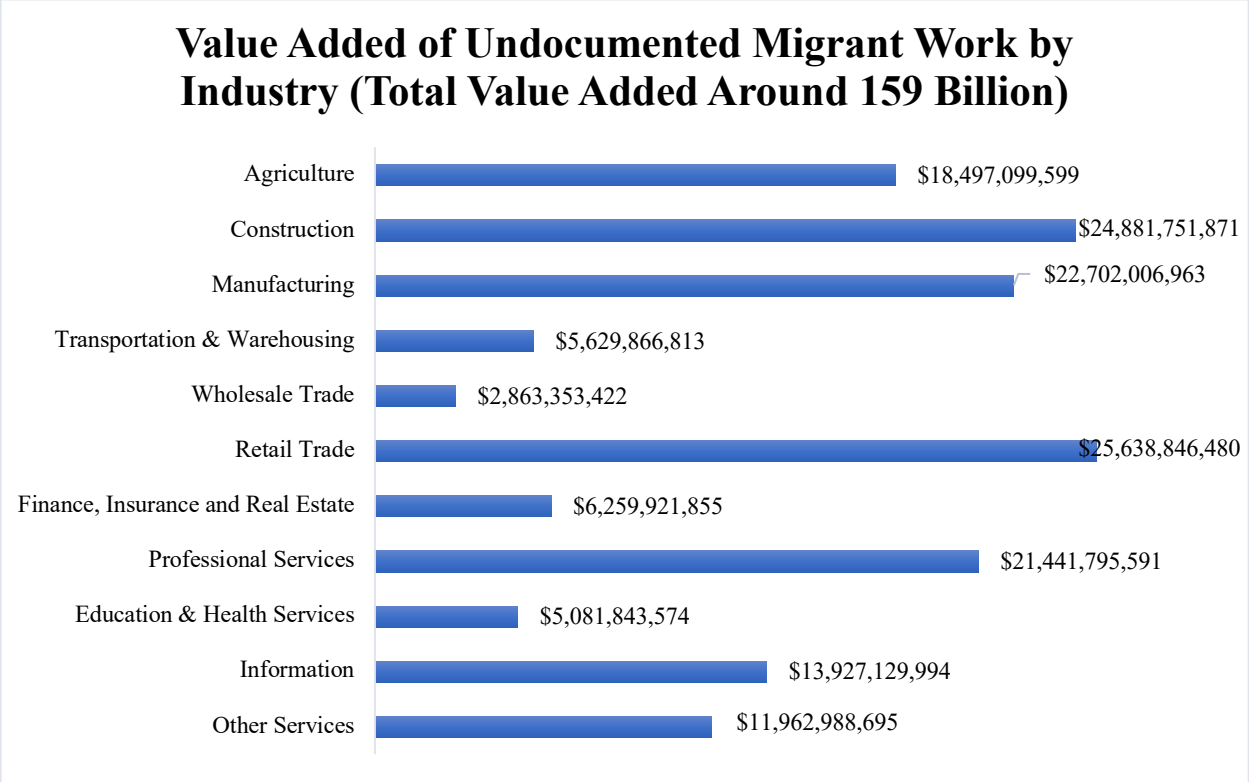
the growth of allied industries, including canning, packing, food machinery, and transportation services (Alan et al., 2017). [18]

In exploring the prevailing and emerging labor market conditions in California, we need to bring much-focused attention to the place and impact of undocumented immigrants in California.

According to the latest data from USC Equity Research Institute, the number of undocumented immigrants in California is significant. More than 2.44 million undocumented immigrants live and work in California (2021).[19] They present an essential labor force in California.[20]

Undocumented immigrants make up a significant proportion of farmworkers in California. However, this only accounts for 15.5% of all undocumented immigrants working in various industries. They contribute to 42% of agricultural, 18% of construction, 8% of manufacturing, 5% of other services, and 16% of retail production. The latest estimation of their contribution to California's economy, which has a clear and undeniable impact on the food industry, is shown in the following chart (recently updated based on the latest available information). [21]

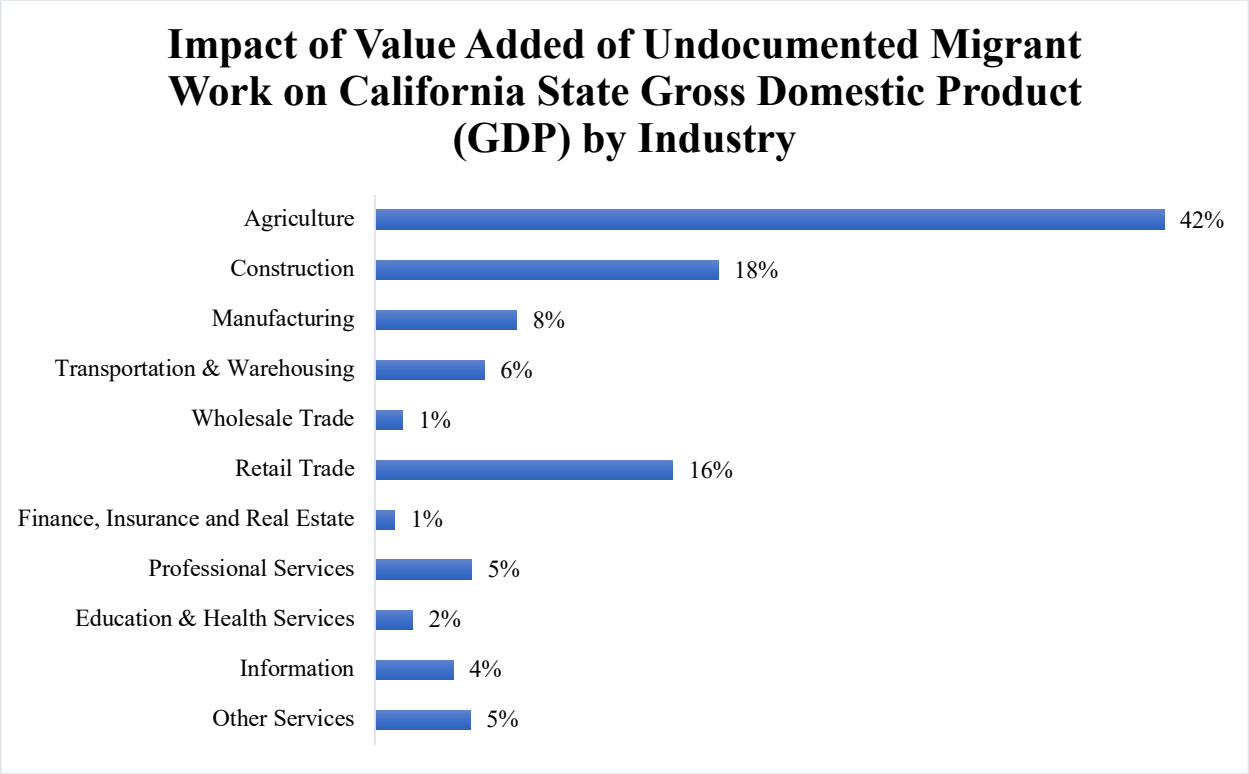
Figure 6: Value Added of Undocumented Migrant Work by Industry (Total Value Added Around 159 Billion)



Source: Migration Policy Institute and Jamshid Damooei (2024). Demographic Profile and Economic Impact of Undocumented Immigrants in California; https://drive.google.com/file/d/1PtTCXSdAF6k01LjTFbzwM5sS-8fHhvrX/view

Note: Some of the estimations have been recently updated.

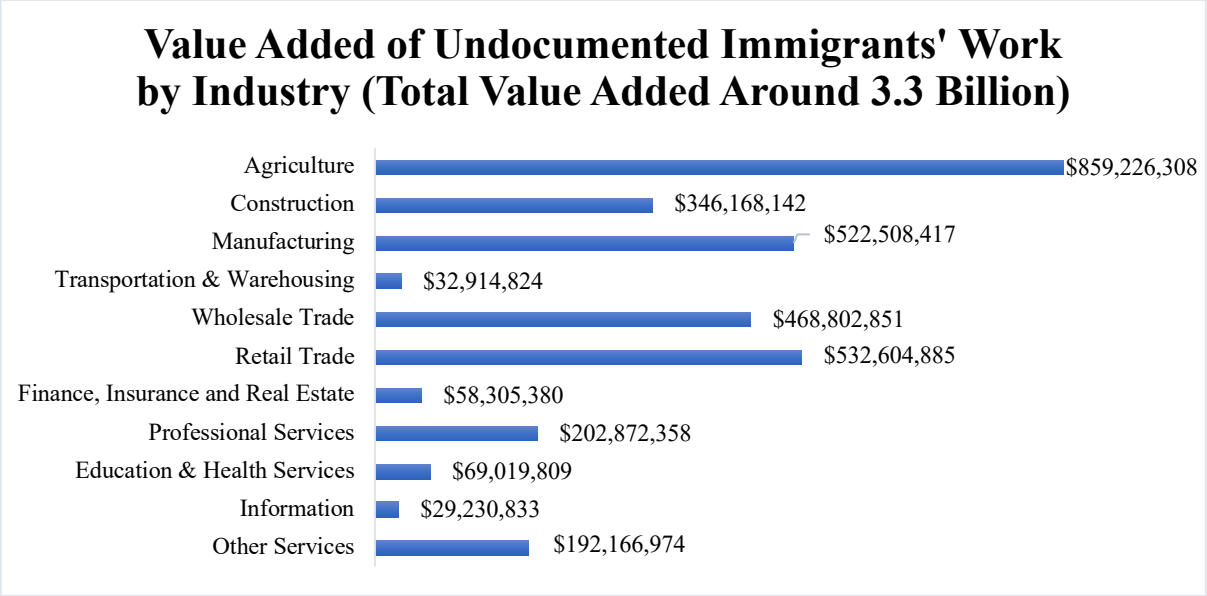
Figure 7: Impact of Value Added of Undocumented Migrant Work on California State Gross Domestic Product (GDP) by Industry



Source: California Immigrant Data Portal; https://dornsife.usc.edu/eri/research/california-immigrant-data-portal/ and Jamshid Damooei (2024) Demographic Profile and Economic Impact of Undocumented Immigrants in California; https://drive.google.com/file/d/1PtTCXSdAF6k01LjTFbzwM5sS-8fHhvrX/view

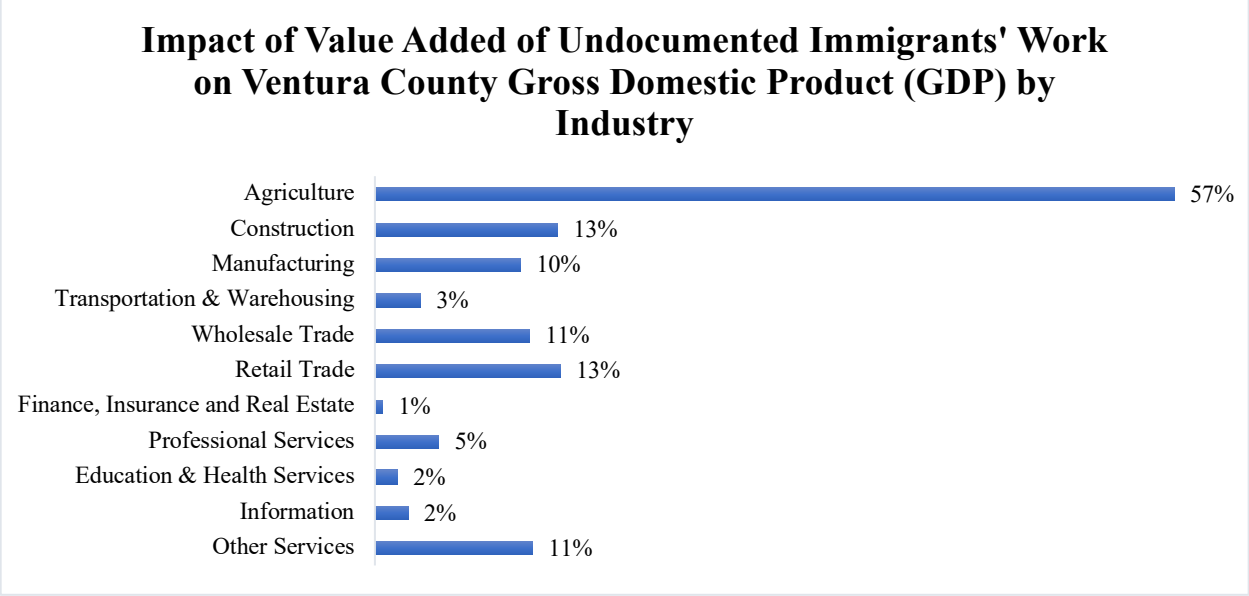
We also produced the same impacts for Ventura and Santa Barbara Counties using the latest information. These findings highlight the vital importance of undocumented immigrants in various industries within these two counties, which form significant segments of the food industry in the Central Coast. [22]

Figure 8: Value Added of Undocumented Immigrants' Work by Industry (Total Value Added Around 3.3 Billion)



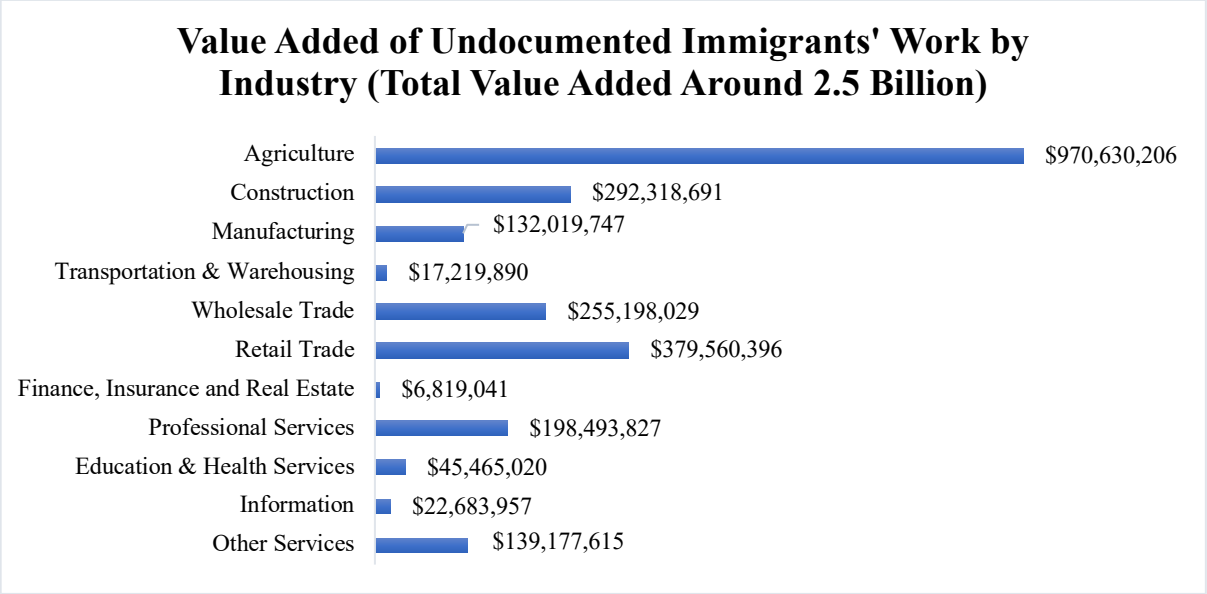
Source: Jamshid Damooei (2025), Undocumented but Indispensable, Center for Economics of Social Issues at California Lutheran University, https://drive.google.com/file/d/182tCtSCCiSYWTa1A6HBg8VFhsPer86Fr/view

Figure 9: Impact of Value Added of Undocumented Immigrants' Work on Ventura County Gross Domestic Product (GDP) by Industry



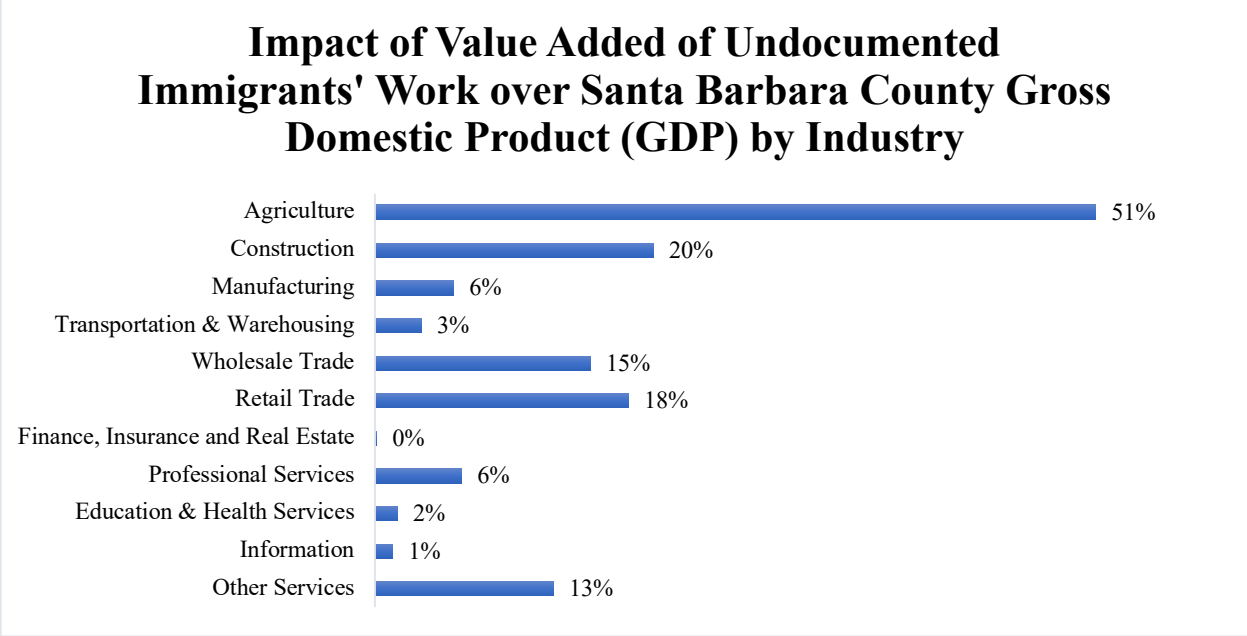
Source: Jamshid Damooei (2025), Undocumented but Indispensable, Center for Economics of Social Issues at California Lutheran University, https://drive.google.com/file/d/182tCtSCCiSYWTa1A6HBg8VFhsPer86Fr/view

Figure 10: Value Added of Undocumented Immigrants' Work by Industry (Total Value Added Around 2.5 Billion)



Source: Jamshid Damooei (2025), Undocumented but Indispensable, Center for Economics of Social Issues at California Lutheran University, https://drive.google.com/file/d/182tCtSCCiSYWTa1A6HBg8VFhsPer86Fr/view

Figure 11: Impact of Value Added of Undocumented Immigrants' Work over Santa Barbara County Gross Domestic Product (GDP) by Industry



Source: Jamshid Damooei (2025), Undocumented but Indispensable, Center for Economics of Social Issues at California Lutheran University, https://drive.google.com/file/d/182tCtSCCiSYWTa1A6HBg8VFhsPer86Fr/view

It is abundantly clear that the future of agriculture is directly related to the prevailing and emerging conditions of undocumented immigrants in California. This is vital when considering the production of labor-intensive crops, many of which are produced in California. Having brought this issue up, it becomes necessary to take a closer look at the socioeconomic condition of undocumented immigrants in California.

4.1.3) Treatment of Undocumented Immigrants in California

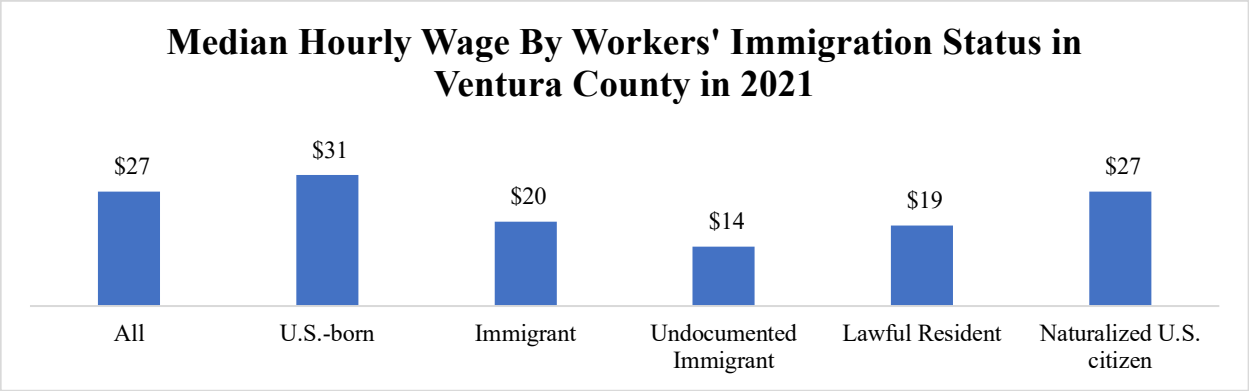
Unfortunately, many Americans view immigration as a recent crisis that needs to be confronted. This strategy allows politicians to take advantage of their political gains.

According to the US Census, between 2014 and 2060, the U.S. population is projected to increase from 319 million to 417 million, with projections reaching 400 million by 2051. The U.S. population is projected to grow more slowly in future decades than in the recent past. These projections are based on low fertility rates and their continued decline. There will also be a modest decline in the overall rate of net international immigration. By 2030, one in five Americans is projected to be 65 and over; by 2044, more than half of all Americans are projected to belong to a minority group (any group other than non-Hispanic White alone); and by 2060, nearly one in five of the nation's total population is projected to be foreign-born.[23]

Reduction in population and increase in old age groups bring significant economic consequences, such as a decline in the labor force, reduction in savings, and thereby reduction in the availability of funds for capital investment, and reduction in economic growth, and a change in the dependency ratio for economic activity, and also for providing long-term care. These are drastic changes, and any measures to mitigate the severity or speed of their escalation can significantly benefit the US economy and its people. Immigration is one of the most effective ways to reduce the declining rate of population growth in many parts of the country.

One of the less discussed issues about improving US growth and prosperity is reducing wage gaps between US-born immigrants and most undocumented immigrants. The following chart presents an essential set of facts to explore further for a constructive argument. This may help in understanding the importance of a new policy to naturalize undocumented immigrants who have lived in the US for a considerable period. This policy was followed in 1986 by President Reagan's Immigration Reform and Control Act (IRCA).

Figure 12: Median Hourly Wage By Workers' Immigration Status in



Source: California Immigrant Data Portal

The above chart shows a remarkable gap between the median wage levels of U.S.-born and undocumented workers. Some may justify the gap based on educational attainments or other differences. Undocumented immigrants are likely to have lower educational attainment compared with the entire population in the state. However, this may not justify a 100% difference in the median of the two groups.[24]

Looking into the economic profile of undocumented immigrants reveals a greater understanding of the hardship they are subject to, despite their critical economic impacts on the economy of the state of California in general and its agriculture in particular.

A recent study by the Center for American Progress, the University of California, and Davis's Global Migration Center modeled the economic impacts of several proposals before Congress. Using an aggregate macro-growth simulation, the model illustrates the benefits to the whole nation from putting undocumented immigrants on a pathway to citizenship. Such legislation would increase productivity and wages, not just for those eligible for legalization, but for all American workers. It would also create hundreds of thousands of jobs and increase tax revenue.[25]

There is no doubt that any reasonable argument will lead the discussion that creating a pathway to citizenship for undocumented immigrants is not only the right thing to do but also would be a substantial stimulus to the U.S. economy.

Undocumented immigrants are critical to the nation's social infrastructure. This fact has become even more widely understood amid the coronavirus pandemic. According to the Center for American Progress and authors of their study across the country, undocumented immigrants are building families and starting businesses, keeping hospitals open and functioning, and caring for Americans' loved ones. To that extent, legalization and a pathway to citizenship, which would raise wages for all workers, create hundreds of thousands of new jobs, and boost the GDP, is an investment in the country's infrastructure in and of itself. Congress must consider these proposals as the United States continues to address the coronavirus pandemic and works toward a just and equitable recovery.[26]

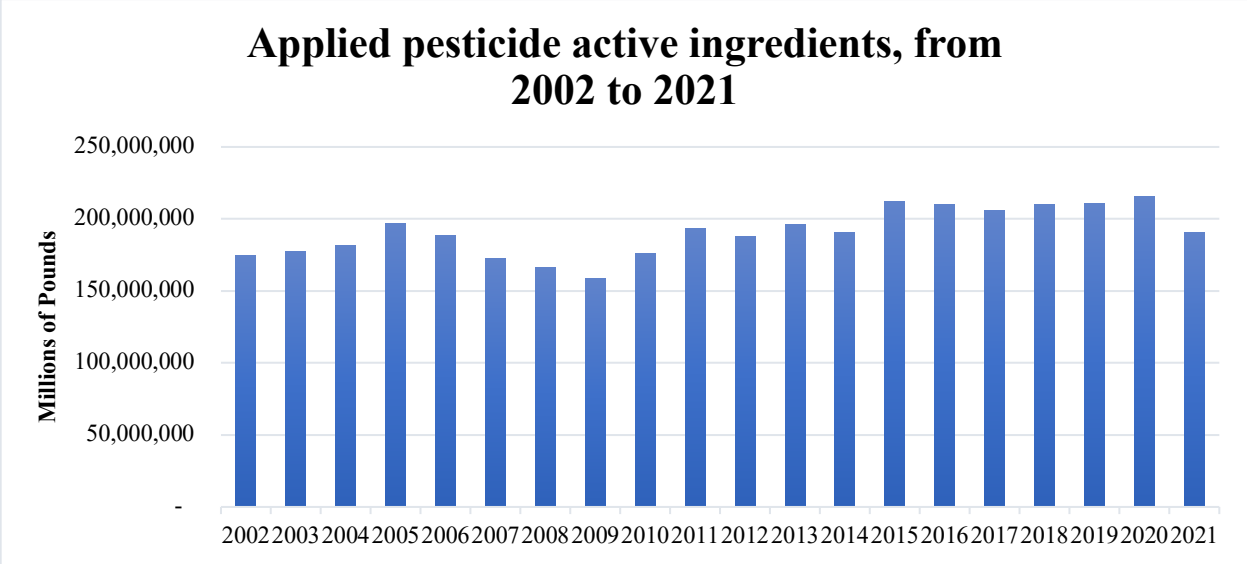
4.1.4) Pesticide and Environmental Impact on Agriculture in California

Since the 1940s, state and county regulators have shared the responsibility for managing California farmers' use of agricultural pesticides and the substantial health risks they pose. The state's Department of Pesticide Regulation registers pesticide products; the county-level Agricultural Commissioners issue permits for "restricted" pesticides that present significant human health or environmental concerns.

State law requires that when farmers apply for pesticide use permits, County Agricultural Commissioners (CAC) deny the use of a restricted pesticide if safer alternatives—and measures like using tarps or creating pesticide "buffer zones" to mitigate the chemicals' impact—are available.[27]

Highly volatile and toxic pesticides are widely used in California agriculture to control soil pests for numerous high-value crops such as strawberries, almonds, and citrus. (Timothy Malloy et al., 2019). This report concludes that the County Agricultural Commissionaires' permitting processes do not include meaningful evaluation of safer alternatives nor consideration of cumulative exposures. In this report, "cumulative exposure" refers to exposures associated with the simultaneous or sequential application of two or more materials in the same field or adjacent fields. The report offers proposals for change at the county and state levels. It presents a bleak picture of the current state of regulating and mitigating the harmful effects of agricultural toxicity in many areas of the state.[28]

Figure 13: Applied pesticide active ingredients, from 2002 to 2021



Source: California Department of Pesticide Regulation, Pesticide Use Annual Report 2021 Data Summary; https://www.cdpr.ca.gov/docs/pur/pur21rep/pur_2021_data_summary.pdf

The information presented in the above chart shows that Applied Pesticide Active Ingredients (AI) fluctuated between 150,000,000 and 200,000,000. Since 2010, the level has stayed between 176,000,000 and over 215,000,000, which shows a significant increase in the range compared to the previous decade.

4.1.5) Organic Farming

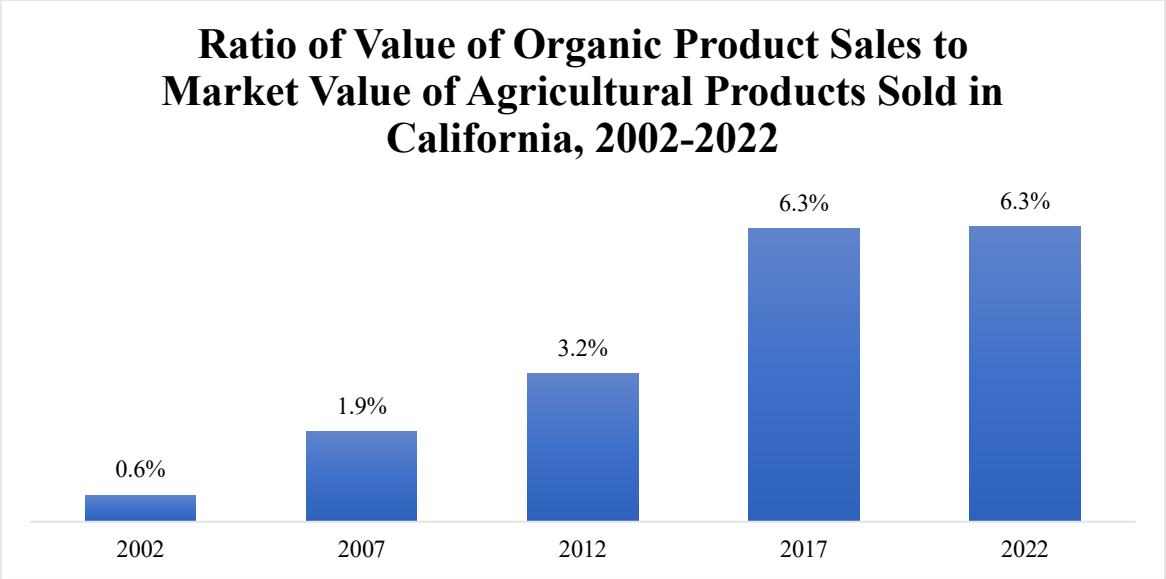
Organic agriculture involves growing, raising, or processing goods using methods that avoid most synthetic pesticides and fertilizers, bioengineering, ionizing radiation, and sewage sludge. California leads the nation in the number of organic farms, land in organic production, and organic sales.

Although some of the materials and mechanisms for chemically intensive farming were developed earlier, the global boom in fertilizer and pesticide use coincided with the end of World War II and the increased urgency surrounding the need to feed a rapidly expanding global population. The first Green Revolution emerged in response to increasing underfed and malnourished populations. It spread agricultural technologies, such as pesticides and fertilizers, to developing countries. These chemical inputs contributed to yield increases around the world. Modern organic farming grew in response to concerns about the impact of chemically intensive agriculture on the ecosystem and human health. Although a "chemical-free" farming movement began earlier, organic agriculture gained significant traction in the 1970s due to an increasing awareness of the adverse environmental effects of some synthetic pesticides and fertilizers.[29]

In the beginning of organic agriculture, there were few ways for consumers to determine whether a product was organically grown or raised. Initially, organic certification programs were decentralized and either nonexistent or unregulated in many states. In response to a growing demand for consumer knowledge and producer responsibility, Congress passed the Organic Foods Production Act in 1990. This national standard established a common understanding of the definition and requirements for the production of organic produce. The establishment of the National Organic Standards Board in 2002 led to the implementation of final rules and regulations, defining the governing body responsible for enforcing them.[30]

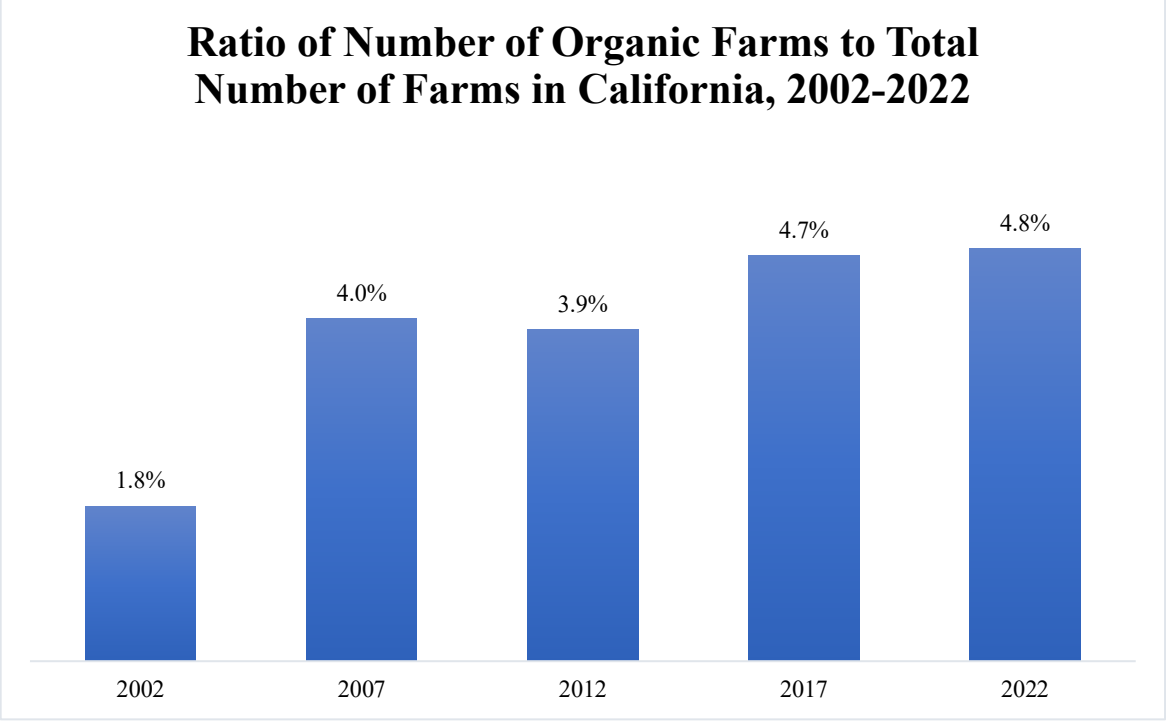
All farms or producers selling over $5,000 annually in agricultural products that wish to use the organic label must undergo certification and abide by the organic production standards. The benefits of becoming certified include price premiums, access to new markets, and access to additional funding and technical assistance programs. Producers with revenues from organic products of less than this amount are exempt from certification.

Figure 14: Ratio of Value of Organic Product Sales to Market Value of Agricultural Products Sold in California, 2002-2022



Source: USDA, Agricultural Census

Figure 15: Ratio of Number of Organic Farms to Total Number of Farms in California, 2002-2022



Source: USDA, Agricultural Census

The above two charts provide more information about the number of farms adopting organic farming and their relative size compared to the total value of farm products and the number of farms operating within the state. They clearly show that the proportion of organic farming and its expansion have significantly increased. Still, the adoption of organic practices by farms remained low, and their share of the value of organic products stayed unchanged since 2017.

Finally, the following table shows the proportional weight of organic farming across different crops in California.

Table 2: Commodities with a Relatively Higher Share of Organic Farming

Commodities with a Relatively Higher Share of Organic Farming			
Commodity	**Organic Harvested Acres**	**Total Harvested Acres**	**Proportion of Organic to Total Harvested Acres**
Lettuce (Head, Leaf, Spring/Salad Mixes)	42,954	195,500	22%
Almonds	29,861	1,320,000	2%
Grapes, Wine	29,152	575,000	5%
Spinach (Fresh and Processed)	25,339	39,800	64%
Carrots	21,251	61,400	35%
Citrus	21,115	280,700	8%
Broccoli	16,656	94,500	18%
Tomatoes	16,340	248,900	7%
Grapes, Table	11,150	118,000	9%
Grapes Dried, Raisins	8,462	136,000	6%
Celery/Celeriac	7,251	27,800	26%
Strawberries (Fresh Market)	5,871	39,000	15%

Source: California Agriculture Organic Report, 2021-2022;
https://www.cdfa.ca.gov/Statistics/PDFs/2022_Ag_Stats_Review.pdf

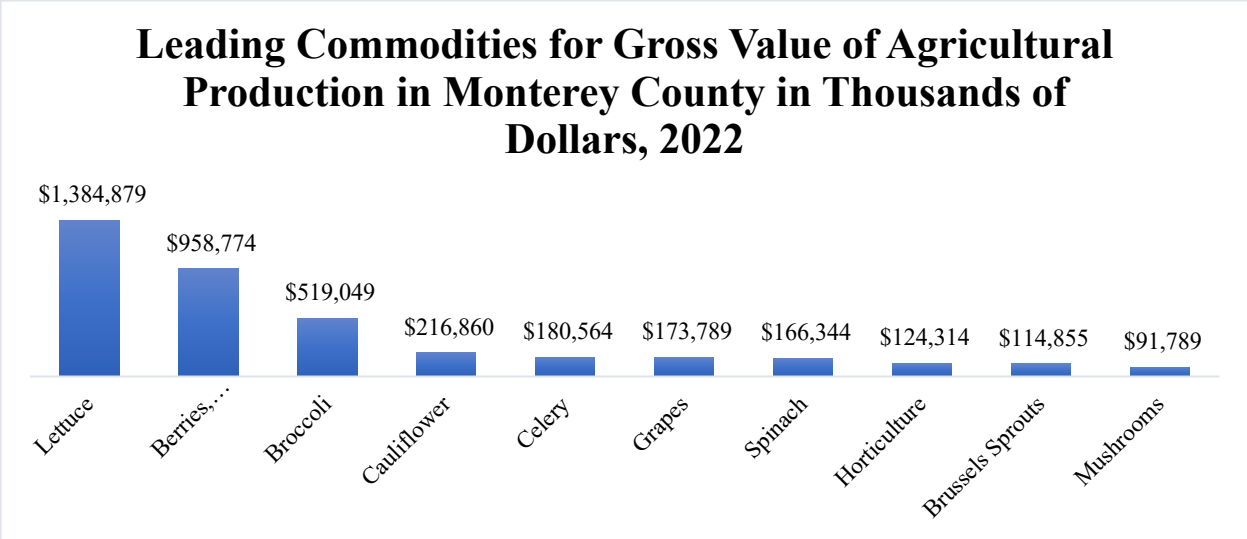
Note:
All other field crops include pasture and rangeland.
"Harvested acreage" for livestock and dairy products refers to the area utilized to produce these commodities.
All other vegetables include all other vegetables except broccoli, carrots, celery/celeriac, lettuce (head, leaf, spring/salad mixes, spinach (fresh and processed), and tomatoes.
All others not previously reported or listed include any crop that falls outside the other categories.
All other fruit crops include all other fruit crops except for citrus, grapes (table), grapes (wine), grapes dried (raisins),
pome fruit, stone fruit, strawberries (fresh market), and all other berries.
All other nut crops include all other nut crops except for almonds.
All other poultry/livestock and products include all other poultry/livestock and products except for cattle (beef), chicken (broilers), and chicken (layers).
All other berries include all other berries except for strawberries.
All other dairy and dairy products include all other dairy products except for fluid milk (cow).

The above chart shows that vegetables, by comparison, form a larger share of organic products.

4.1.6) Leading Commodities for Gross Value of Agricultural Production by County in Thousand Dollars, 2022 Across the Central Coast

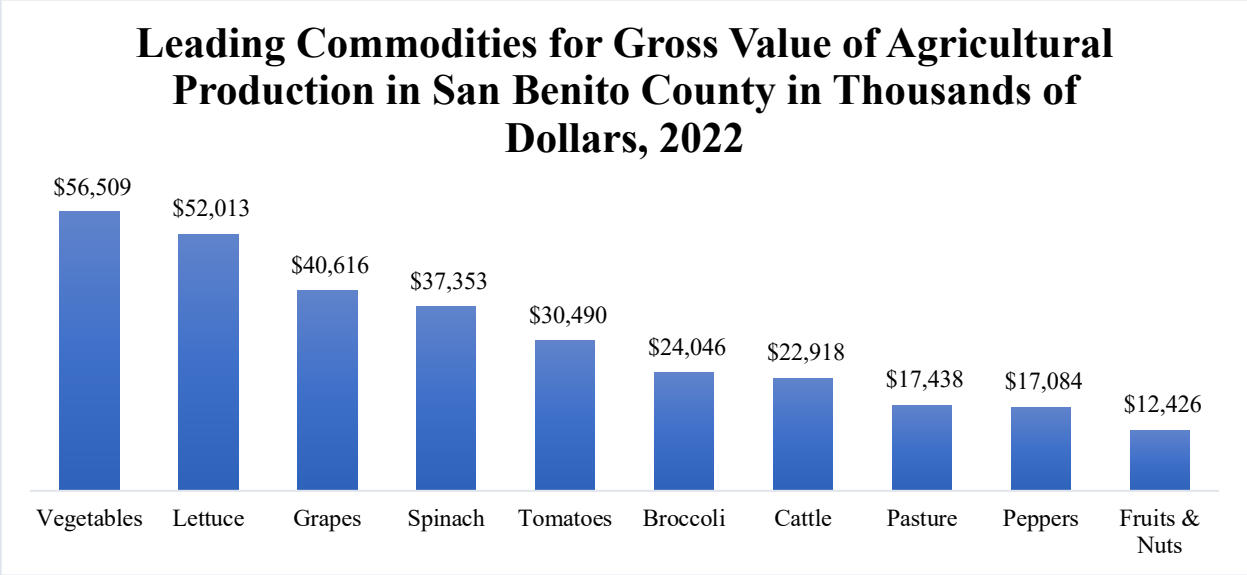
The following charts present the gross of leading agricultural production in each of the six counties across the Central Coast.

Figure 16: Leading Commodities for Gross Value of Agricultural Production in Monterey County in Thousands of Dollars, 2022



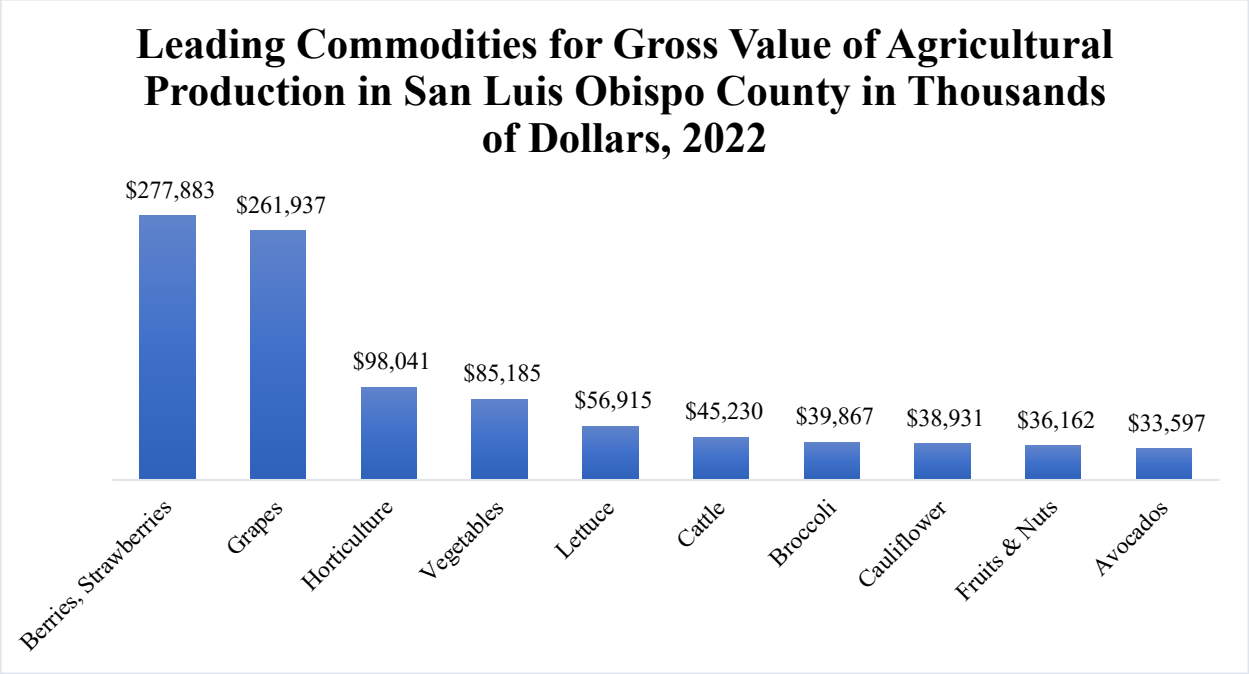
Source: California Department of Food and Agriculture

Figure 17: Leading Commodities for Gross Value of Agricultural Production in San Benito County in Thousands of Dollars, 2022



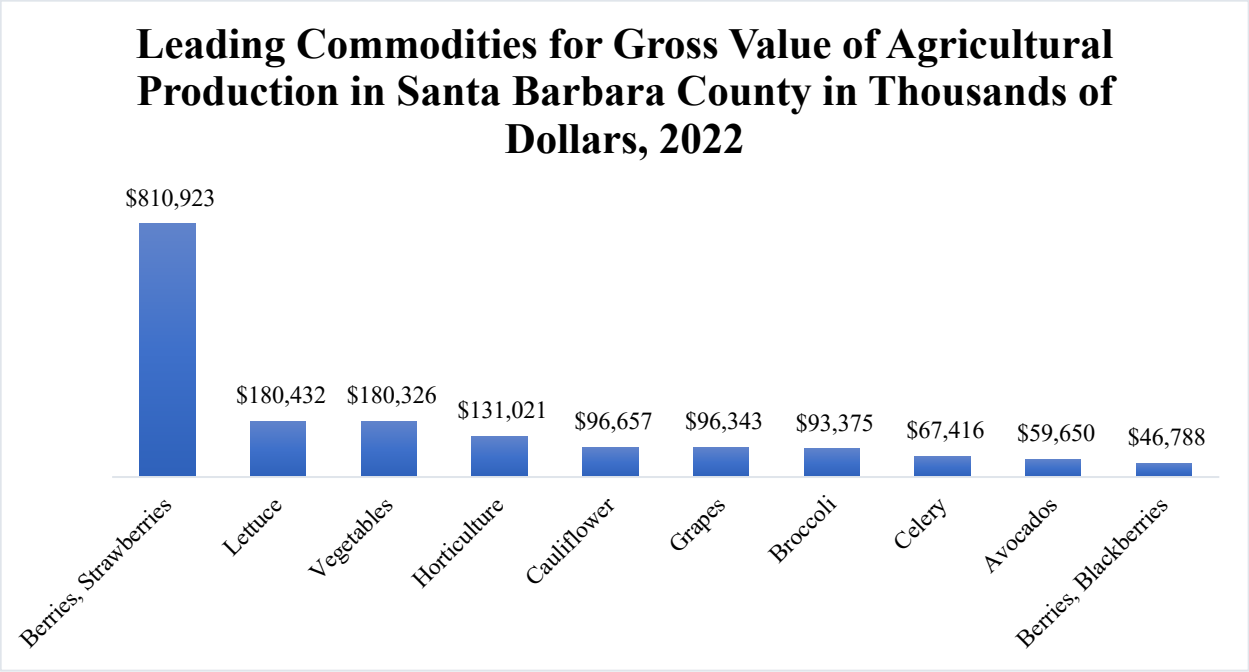
Source: California Department of Food and Agriculture

Figure 18: Leading Commodities for Gross Value of Agricultural Production in San Luis Obispo County in Thousands of Dollars, 2022



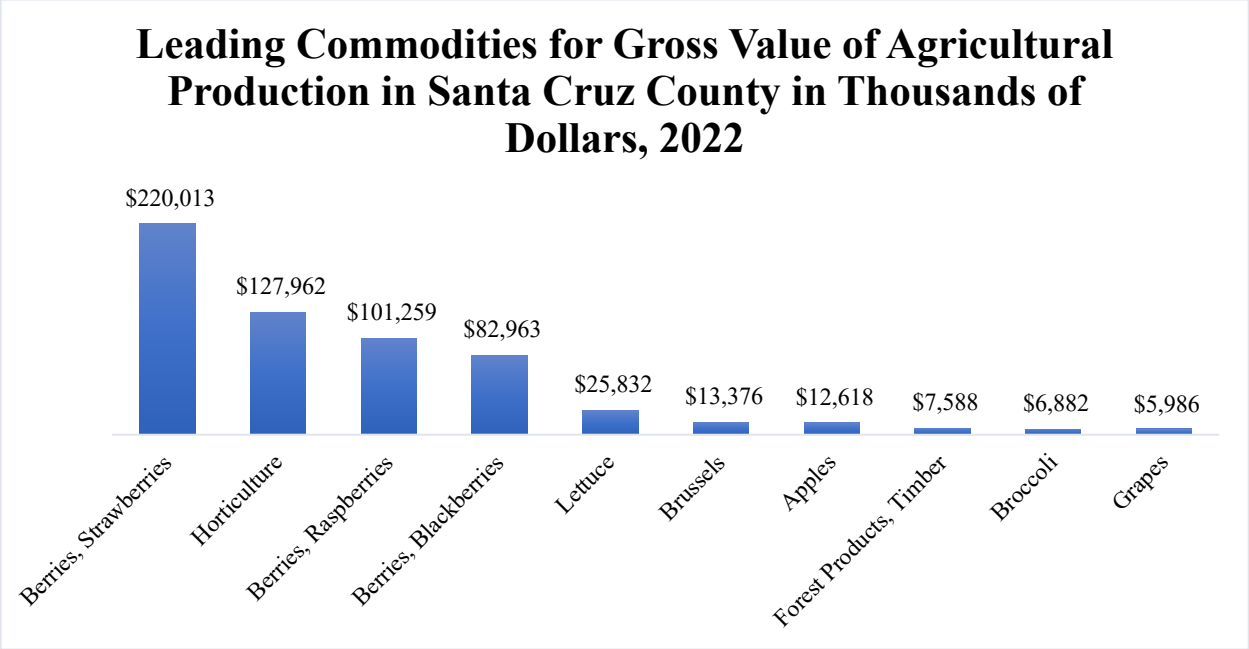
Source: California Department of Food and Agriculture

Figure 19: Leading Commodities for Gross Value of Agricultural Production in Santa Barbara County in Thousands of Dollars, 2022



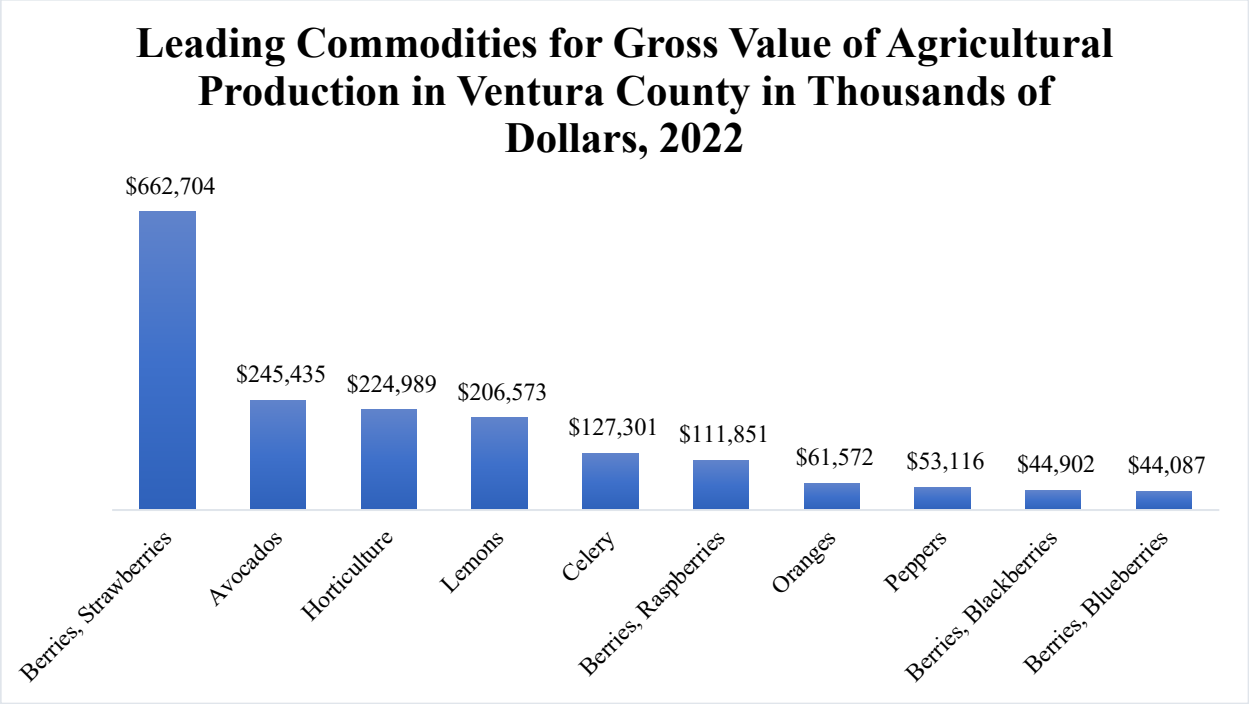
Source: California Department of Food and Agriculture

Figure 20: Leading Commodities for Gross Value of Agricultural Production in Santa Cruz County in Thousands of Dollars, 2022



Source: California Department of Food and Agriculture

Figure 21: Leading Commodities for Gross Value of Agricultural Production in Ventura County in Thousands of Dollars, 2022



Source: California Department of Food and Agriculture

The above charts show that the total gross value of the ten leading agricultural products in the Central Coast amounts to more than $9.3 billion, with strawberries and other berries contributing over $3.3 billion. A good proportion of these products is exported to different states and other countries.

The gross value of agricultural products, also known as farmgate value, represents the total revenue generated before subtracting any costs. This figure does not account for production expenses. For example, a crop's gross value might rise, but farmers may still struggle due to rising costs for water and labor. Gross value is a broad metric. For California, this figure includes the value of crops, livestock, and other agricultural products. There is a substantial difference between gross value and value added. Gross value is the total revenue generated from the sale of all agricultural goods, including crops and livestock.

Value added is deducted from Gross Value - Intermediate Inputs (e.g., purchased goods and services). Intermediate Inputs are the costs of items purchased from other businesses and used up during the production process, such as seeds, fertilizers, pesticides, and electricity. Value added is the contribution of the agricultural sector to the overall economy and reflects the actual value created by the farm's labor and capital. It is a more accurate measure of the sector's net economic output compared to gross value.

4.2) Food Insecurity in California Central Coast Counties

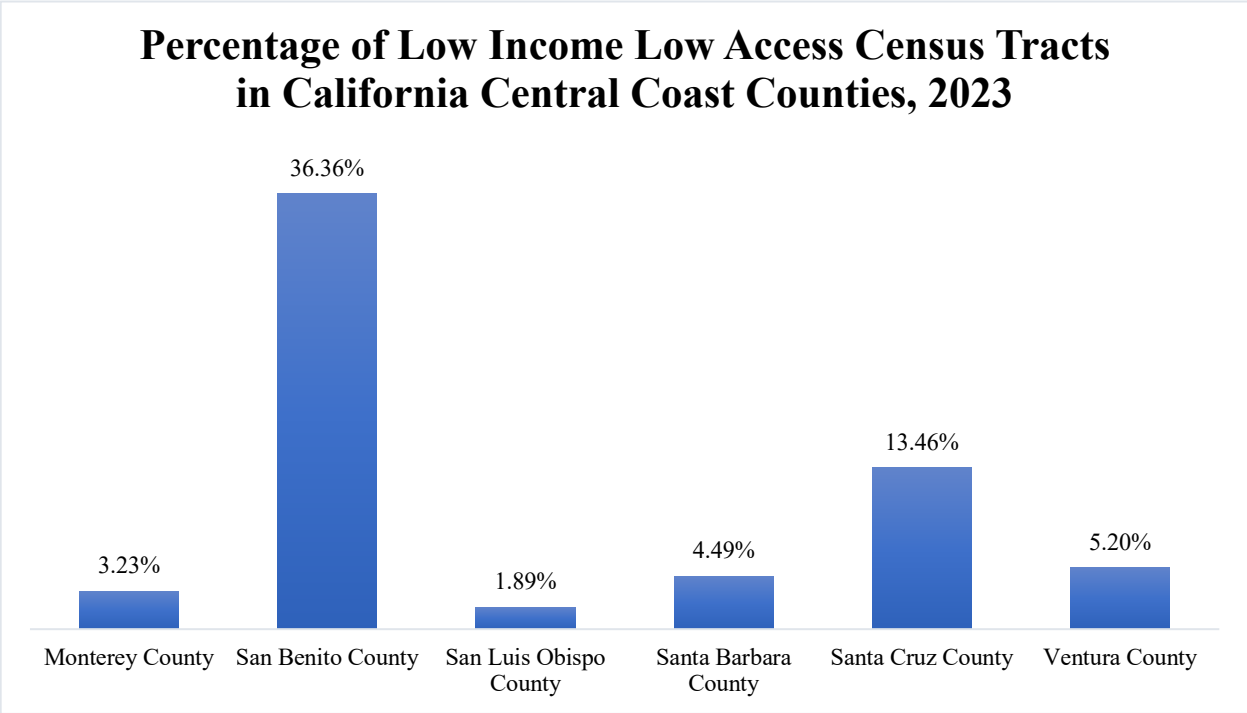
The USDA's Food Access Research Atlas measures food access at the census tract level. The Atlas measures food access based on two indicators: Income and distance to food stores. The USDA categorizes low-income tracts as units having at least a 20% poverty rate or where the median family income is at or below 80% of the metropolitan area or the State. In California, 80% of the statewide median family income used for the 2019 Atlas threshold was $65,133. The USDA measures low food access as the physical distance to food stores. Five hundred individuals, or 33% of a census tract's population, must have no food stores within a 1-mile radius in urban areas and 10 miles in rural areas, to be considered low-access.[31]

The latter method of measuring food access is known as a food desert. Compared to all other census tracts, food desert tracts tend to have smaller populations, higher rates of abandoned or vacant homes, and residents with lower levels of education, lower incomes, and higher unemployment. Census tracts with higher poverty rates are more likely to be food deserts than otherwise similar low-income census tracts in rural and in very dense (highly populated) urban areas. For less dense urban areas, census tracts with higher concentrations of minority populations are more likely to be food deserts. In contrast, tracts with substantial decreases in minority populations between 1990 and 2000 were less likely to be identified as food deserts.

The USDA identified around 6,500 food deserts between 2000 and 2006. Experts estimate that around 23.5 million people in the U.S. live in low-income areas that are farther than 1 mile from the nearest large grocery store. Of these people, 11.5 million have low incomes. A more recent study Trusted Source shows mixed results. On the one hand, while the overall share of Americans living in areas with limited access to a supermarket declined from 6.8% to 5.6% from

2010 to 2016, the percentage of low-income communities increased by 5%. As a result, the combined number of low-income and low-access communities increased slightly 000. [32] [33]

Figure 22: Percentage of Low Income Low Access Census Tracts in California Central Coast Counties, 2023



Source: UC Davis

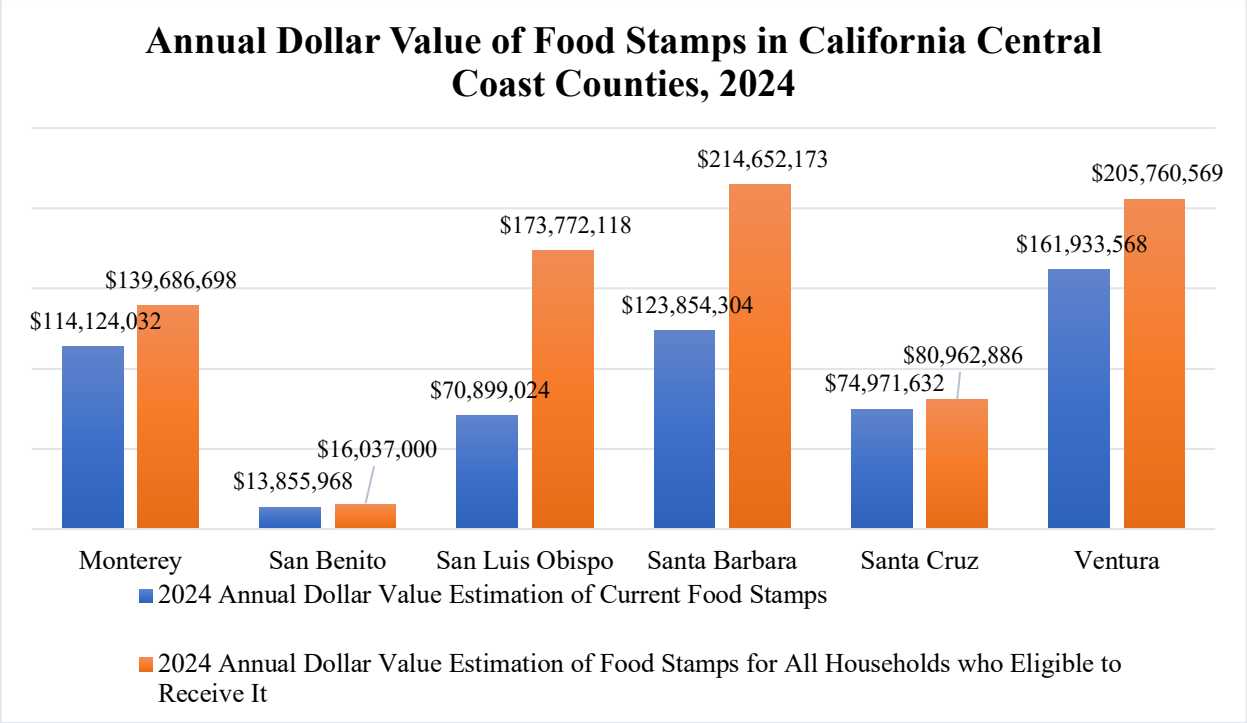
The above chart shows much higher ratios in counties with a greater share of rural tracts. There is, however, the issue of a higher proportion of low-income individuals.

4.2.1) Food Stamps and Its Inefficient System

Food insecurity is one of the most debilitating problems in California and on the Central Coast, which has become much graver in recent years. According to a recent estimation (Damooei, 2025), from 2014 to 2024, the percentage of total households participating in the program in the Central Coast of California increased by 51%, going up from 97,958 to 147,584. An even more significant finding is that by 2019, the total number of participants had fallen from 97,958 to 90,902. Since 2019, the total number of participants has increased to 147,584, marking a 62% rise. The picture is apparent: food insecurity is rising at an unprecedented level, which calls for urgent attention.[34]

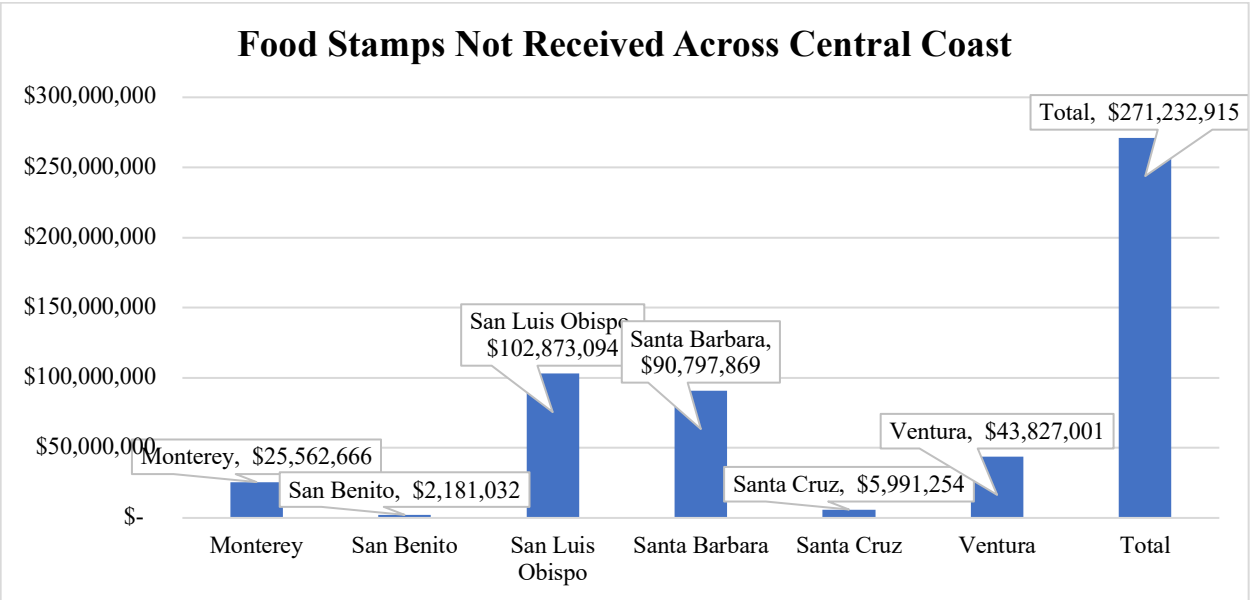
The following exhibits and maps clearly present this problem. A significant amount of funds allocated based on income eligibility never got absorbed.

Figure 23: Annual Dollar Value of Food Stamps in California Central Coast Counties, 2024



Source: California Legislative Analyst's Office
Source: California Department of Social Services

Figure 24: Food Stamps Not Received Across Central Coast



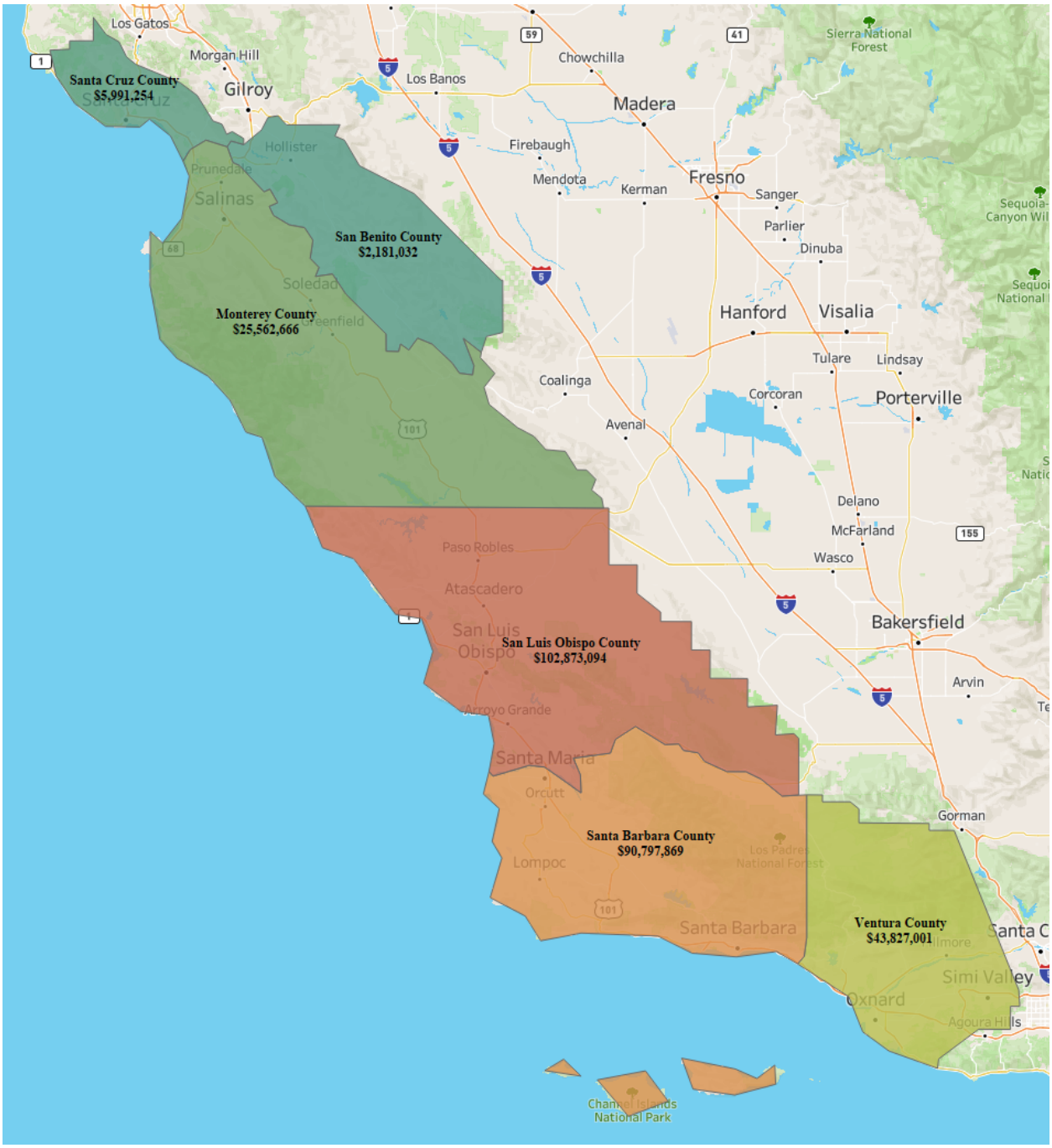
Damooei (2025). Affording a Dignified Life on The Central Coast of California: Challenges & Opportunities, Center for Economics of Social Issues, California Lutheran University; https://drive.google.com/file/d/1IoXXvBs-LYbRbpHvhim6kR92ZLZuAutR/view

Our estimation shows that despite a dire need for food security in the region, we have a total of $217,000,000 that has not been used. Why they are not utilized certainly does not justify the ineffectiveness of the system we have.

Figure 25: The Map of the Number of Food Stamps Not Received in 2024

Damooei (2025). Affording a Dignified Life on The Central Coast of California: Challenges & Opportunities, Center for Economics of Social Issues, California Lutheran University; https://drive.google.com/file/d/1IoXXvBs-LYbRbpHvhim6kR92ZLZuAutR/view

Figure 26: Map of Value of Food Stamps Not Received in 2024



Damooei (2025). Affording a Dignified Life on The Central Coast of California: Challenges & Opportunities, Center for Economics of Social Issues, California Lutheran University; https://drive.google.com/file/d/1IoXXvBs-LYbRbpHvhim6kR92ZLZuAutR/view

These two exhibits reveal a sad story on the Central Coast, which is not that different from other parts of California. Despite mounting food insecurity, we have a total of 71,528 households not receiving their entitlements, with a total cost of more than $271,000,000

5) Economic Impact of the Food Industry on the Central Coast of California

In this section of the study, we measure the economic impact of the food industry in the Central Coast of California. We utilized the latest information available and carefully selected every economic activity and industry that together form the food industry. These industries are similar to the reported sectors by "Feeding the Economy."[35] A detailed list of all the selected industries can be found in Appendix A of the report.

We employed the latest IMPLAN available modeling. IMPLAN is a regional economic analysis software and data application that can be used to estimate the impact of a particular economic activity or the contribution of an existing activity in a specific geographic area. IMPLAN Cloud is a sophisticated tool for examining and evaluating economic development in any geographic location within the nation, from individual zip codes to the national level. The Cloud platform builds on over 45 years of experience in economic modeling and analysis software.

In this study, we refer to various effects as direct, indirect, and induced. Let us first explain what each term means.

- **Direct effects** are the expenditures applied to the input-output multipliers for impact analysis. They are one or more output changes or payments made by producers/consumers as a result of an activity or policy. Direct effects can be positive or negative.[36]

- **Indirect effects** are the purchases between firms in the supply chain that occur in the region and result from the industry's initial purchases. Since the specified industry spends its money in the area with its suppliers, this spending is represented by the indirect effect.

- **Induced effects** are the values that result from household spending on labor income after deducting taxes, savings, and commuting income. Induced effects are generated by workers' spending within the firm's supply chain.

Each time an input-output model is built and run, a vast amount of information becomes available, providing essential insights into various economic impacts. We will therefore focus on the following effects in each section of our impact assessment:

- **Output:** In IMPLAN, output is the value of an industry's output in a calendar year. It can also be described as annual sales plus net change in inventories. The output for wholesale and retail trade represents only the profit margin, not the revenue (sales).

- **Labor Income**: Labor income includes all forms of earned income, including employee compensation (wages, salaries, and benefits) and Proprietor Income.

- Compensation of employees is the total amount of employee wages and salary costs to the employer. It includes wages and salaries, all benefits (e.g., health and pension insurance), and payroll taxes (both sides of Social Security, unemployment insurance, etc.). They are also referred to as "fully-loaded payroll".
- The owner's income consists of payments from self-employed persons and unincorporated entrepreneurs. More specifically, it is the current production income of sole proprietorships, partnerships, and tax-exempt cooperatives. It does not include dividends, interest income from nonfinancial corporations, and rental income from persons not principally engaged in the real estate business.
- Labor income events are appropriate for modeling a change in labor compensation that is isolated from industrial production. An example would be a wage increase for current employees. There will be no new production, but workers will receive higher wages.[37]

- **Employment:** Employment in IMPLAN is an industry-specific mix of full-time, part-time, and seasonal. It is an annual average that accounts for seasonality and follows the precise definition provided by the BLS and BEA. IMPLAN employment is not equivalent to full-time employment. It also includes wage and salary workers and proprietors.[38]

- **Value Added:** Value Added represents an industry's contribution to the overall Gross Domestic Product (GDP) by measuring the difference between its total output and the cost of intermediate inputs (goods and services purchased from other industries). It is a crucial metric for economic impact analysis, as it avoids the problem of double-counting that occurs when considering total output. Value Added is calculated by summing its four components: Employee Compensation (EC), Proprietor Income (PI), Other Property Income (OPI), and Taxes on Production and Imports (TOPI).

- **Tax Revenue:** In the IMPLAN calculation, tax revenue is based on a rather elaborate calculation method. The Fiscal Impact Report (TOPI) categorizes the fiscal impact (taxes on production and imports, excluding subsidies) based on the economic conditions of each region. Since taxes paid are industry-specific (except for the total TOPI, which is industry-specific), the breakdown is a cross-industry average. In the following breakdown, the detailed information is presented clearly and concisely:

    - OPI includes all payments to the state except payroll taxes and year-end income/profits taxes. TOPI includes excise taxes, sales taxes, property taxes, fees, fines, licenses, and permits. The sector that collects sales taxes (retail, lodging, restaurants, etc.) turns over the money collected to the government through its TOPI.
    - Payroll taxes include Social Security, Medicare, unemployment insurance, etc. They include both the portion paid by the employer and the portion paid by the employee and are reported as payments in the Compensation of Employees column in SAM.

- The year-end tax on corporate income is paid through the Corporations column. The year-end tax is like the corporate income tax and is paid from retained corporate profits.
- Property tax is paid through sector 441 (HHs pay through their PCEs to sector 441 - owner-occupied homes). Therefore, an increase in income going through the HH facility would result in an increase in property taxes paid.
- Furthermore, IMPLAN captures Mortgage Recording Taxes. They are reported as Taxes on Production & Imports (TOPI) - Other Taxes.
- o Payments by households to personal taxes in direct effect are treated as payments representing personal taxes paid by households that received household income from the direct effect industry. Workers' compensation and the owner's income from the industry are included in household income.

5.1) Economic Impacts Across the Entire Region

We created the region by combining all six counties and designated it as the place for measuring the economic impact. All estimations are for the entire region as one geographic location.

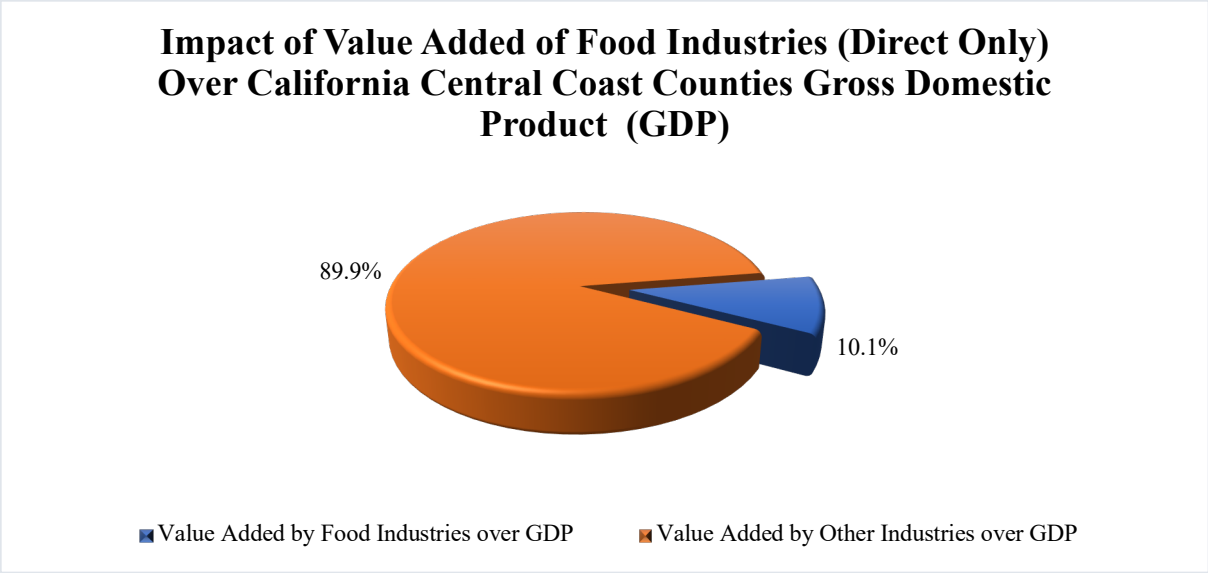
5.1.1) Impact on the Region's GDP

GDP is measured by the value added generated, as explained earlier. The following table and exhibits show the extent of it in dollar values and as a percentage of the entire GDP of the region in the specified (the latest available) year.

Value Added from IMPLAN Model, Data Year 2022, Dollar Year 2022

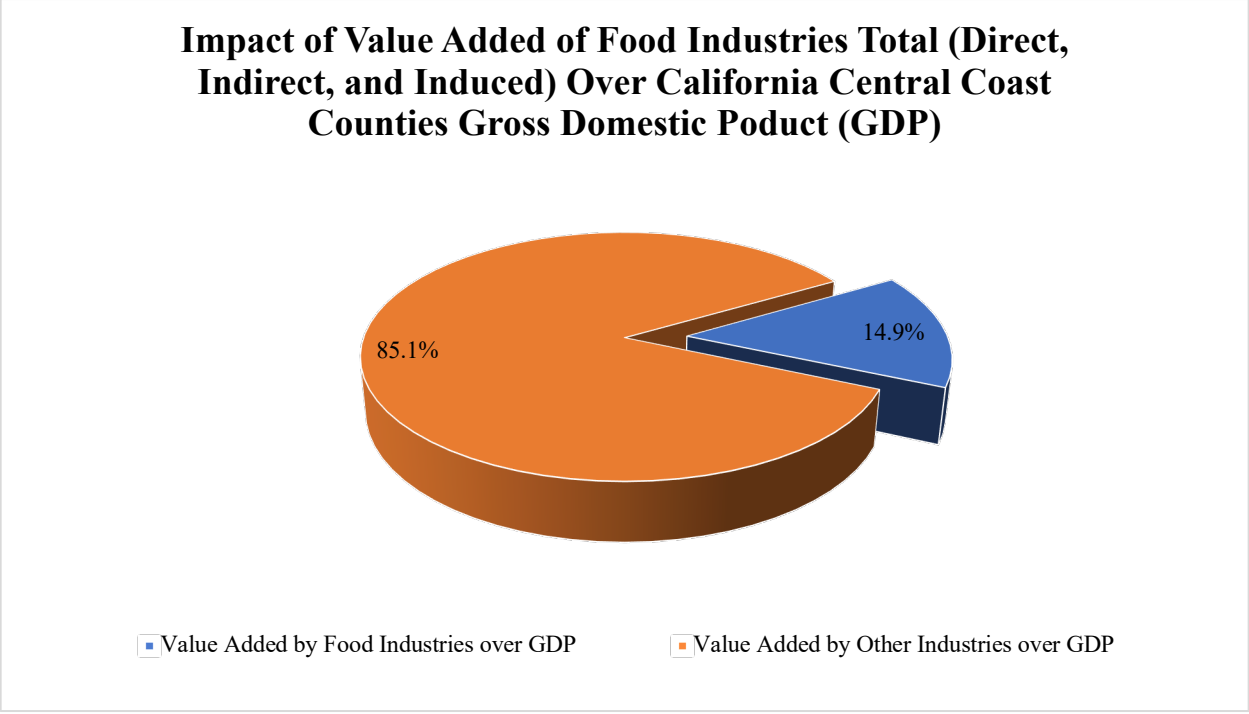
	Direct	Indirect	Induced	Total
Value Added	$ 16,452,312,699	$ 4,144,779,072	$ 3,543,915,128	$ 24,141,006,900

Figure 27: Impact of Value Added of Food Industries (Direct Only) Over California Central Coast Counties Gross Domestic Product (GDP)



The chart shows that the food industry contributes over 10% of the total GDP of the region.

Figure 28: Impact of Value Added of Food Industries Total (Direct, Indirect, and Induced) Over California Central Coast Counties Gross Domestic Product (GDP)



Adding indirect and induced impacts is crucial because every industry in the process boosts GDP through interactions among industries or the supply chain, as well as increased expenditures by those who earn their income.

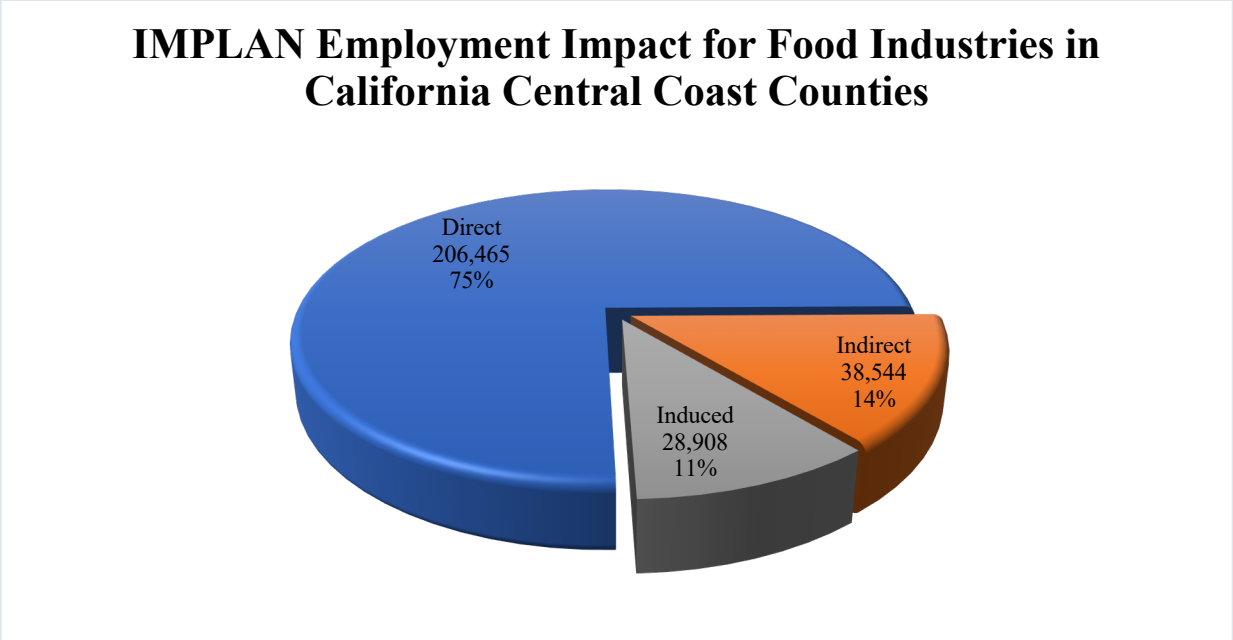
In dollar value, the contribution to GDP is around $16.5 billion directly. By adding the indirect and induced impact, the total value added will reach more than $24.1 billion annually or 14.9% of the regional GDP.

5.1.2) Employment Impact

The impact on the creation of employment can be seen in the following table and exhibit.

	Direct	Indirect	Induced	TOTAL
Employment Impact	206,465	38,544	28,908	273,917

Figure 29: IMPLAN Employment Impact for Food Industries in California Central Coast Counties



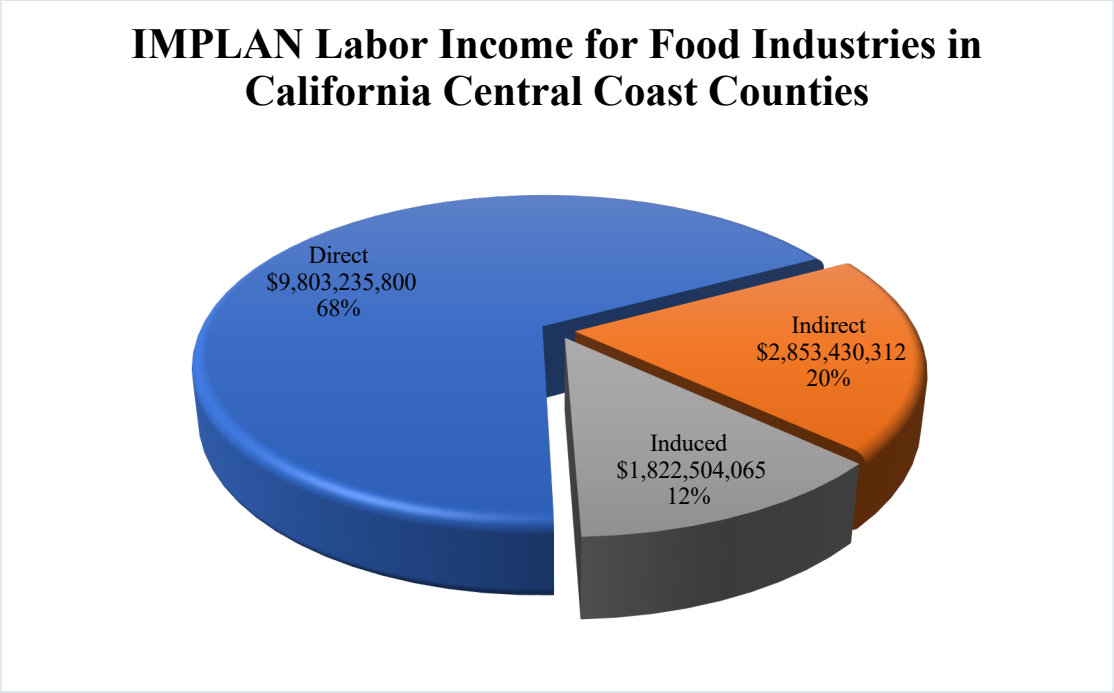
The food industry creates some 206,465 jobs in the region directly. This accounts for about 75% of all the jobs created, as shown in the exhibit. There are, however, some 67,452 additional jobs created through indirect and induced impacts. This accounts for some 25% additional employment. Altogether, the food industry creates some 273,917 jobs in the region.

5.1.3 Labor Income Impact

	Direct	Indirect	Induced	TOTAL
Employment Impact	206,465	38,544	28,908	273,917
Labor Income	$ 9,803,235,800	$ 2,853,430,312	$ 1,822,504,065	$ 14,479,170,177

The above table shows that the food industry generates more than $9.8 billion in the region. Adding the indirect and induced impacts, the total reaches $14.5 billion. Labor income includes all forms of earned income, including employee compensation (wages, salaries, and benefits) and Proprietor Income.

Figure 30: IMPLAN Labor Income for Food Industries in California Central Coast Counties



Once again, it is essential to realize that an additional 32% of labor income is generated through indirect and induced means.

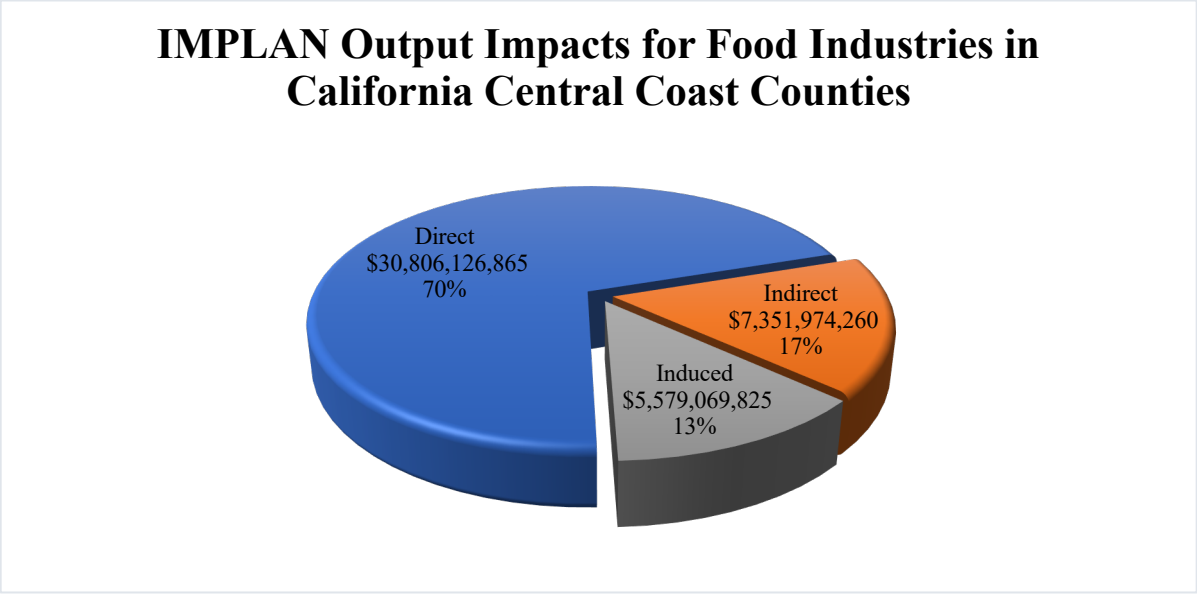
5.1.4) Total Output Impact

	Direct	Indirect	Induced	TOTAL
Output Impacts	$ 30,806,126,865	$ 7,351,974,260	$ 5,579,069,825	$ 43,737,170,950

Total output has an important significance. It is the value of an industry's output in a calendar year. It can also be described as annual sales plus net change in inventories. The output for wholesale and retail trade represents only the profit margin, not the revenue (sales).

Our calculation shows that some $30.9 billion of output is created by the food industry within the Central Coast. If we add the indirect and induced output, the total reaches more than $43.7 billion within the region.

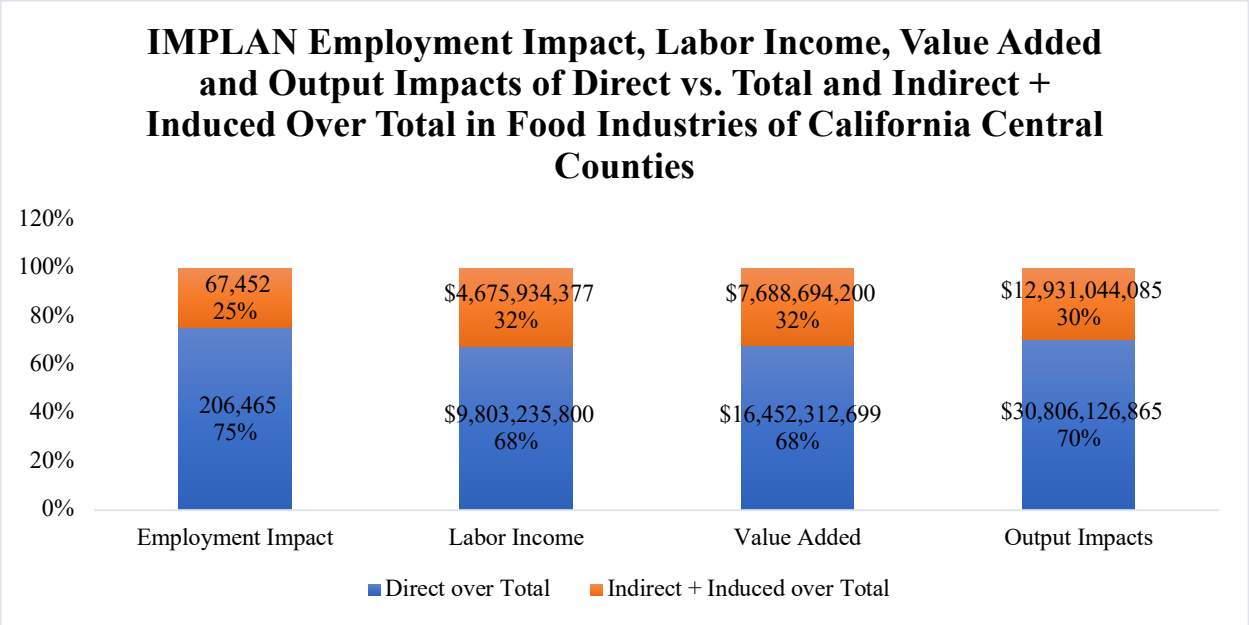
Figure 31: IMPLAN Output Impacts for Food Industries in California Central Coast Counties



Some 70% of the output, some $30.9 billion, is created directly, and the remaining 30% or $12.9 billion is the result of induced and indirect impacts.

A summary of all impacts can be seen in the following chart.

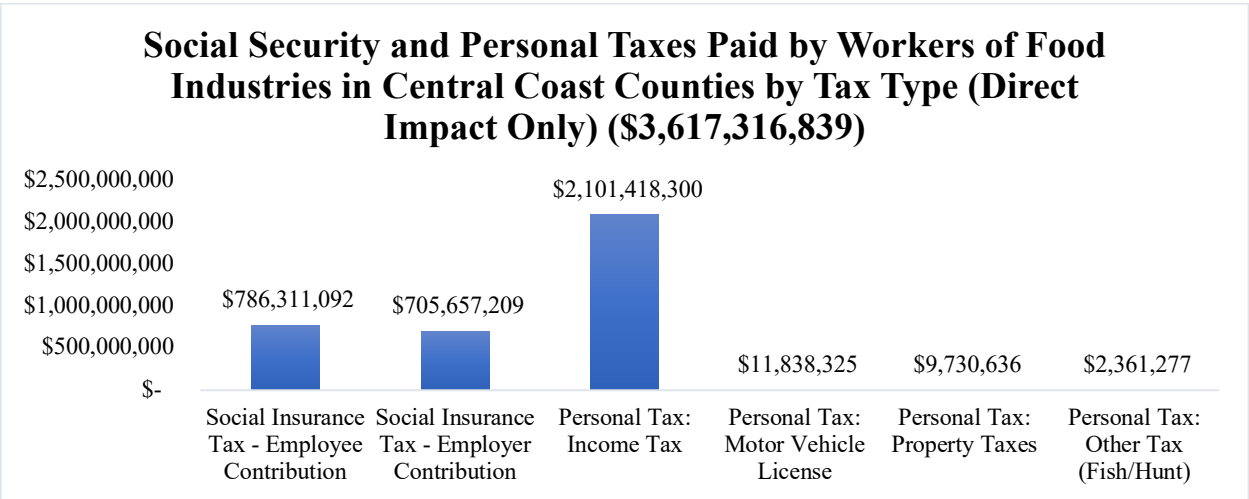
Figure 32: IMPLAN Employment Impact, Labor Income, Value Added and Output Impacts of Direct vs. Total and Indirect + Induced Over Total in Food Industries of California Central Counties



5.1.5) Tax Impacts at Every Level of Government

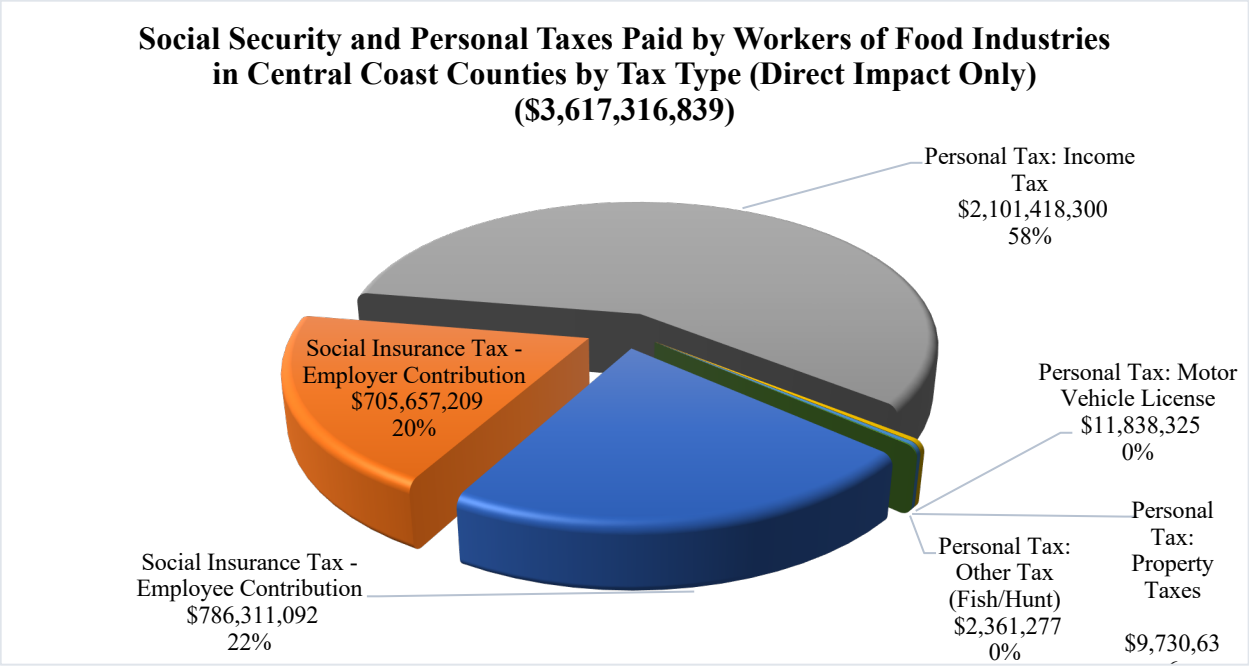
Tax impacts occur at all levels of local, state, and federal governments. We present all such taxes through several charts and exhibits.

Figure 33: Social Security and Personal Taxes Paid by Workers of Food Industries in Central Coast Counties by Tax Type (Direct Impact Only) ($3,617,316,839)



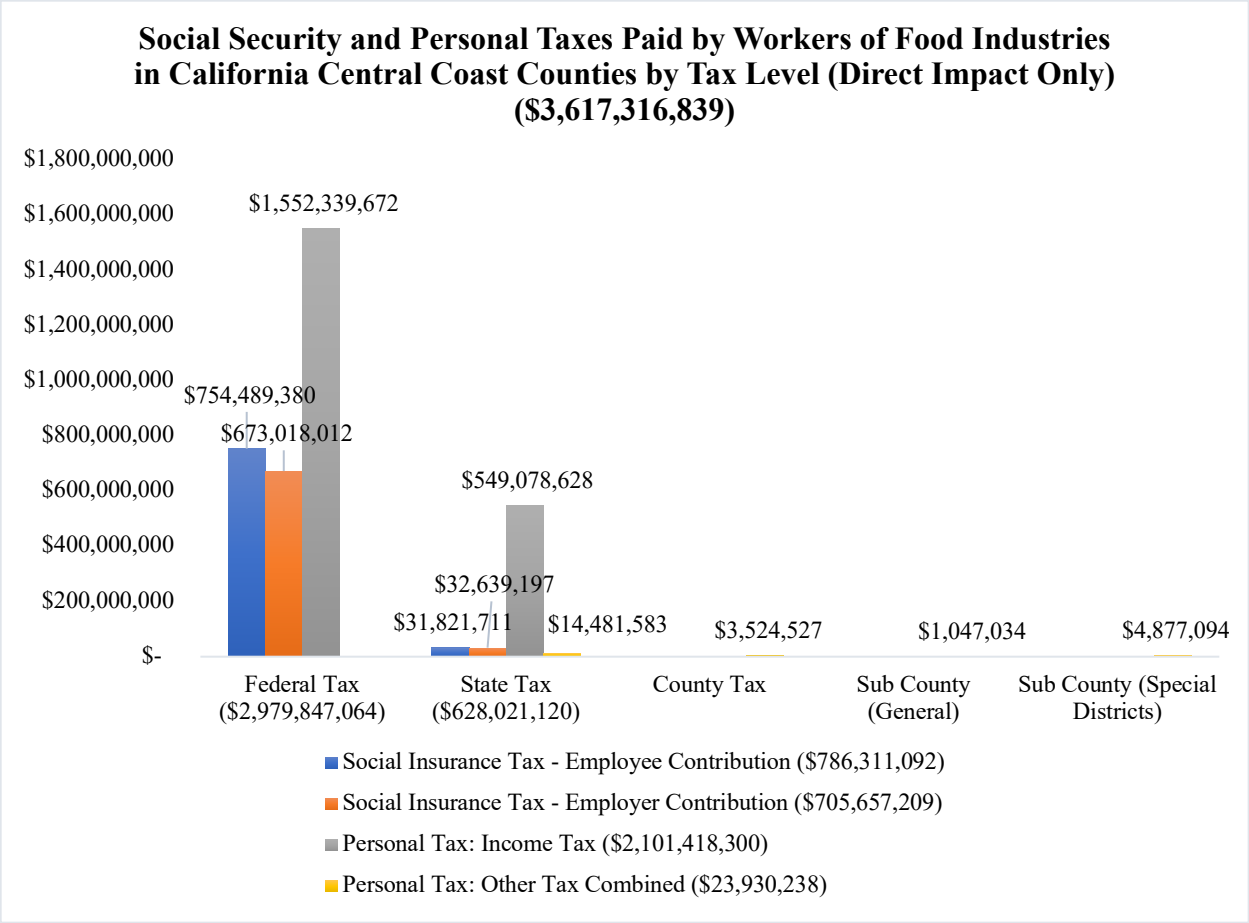
The above chart shows that, in total, more than $3.6 billion in tax revenue is generated through personal income and social security taxes of food industry workers in the Central Coast region.

Figure 34: Social Security and Personal Taxes Paid by Workers of Food Industries in Central Coast Counties by Tax Type (Direct Impact Only) ($3,617,316,839)



The above two charts and graphs provide detailed information on their dollar values and proportions. The following chart provides detailed information on the makeup of taxes paid by federal, state, and local governments.

Figure 35: Social Security and Personal Taxes Paid by Workers of Food Industries in California Central Coast Counties by Tax Level (Direct Impact Only) ($3,617,316,839)v



The largest share of the tax is paid to the federal government, as is the case in the State of California. The following exhibit provides a different breakup of the taxes paid. In brief, 54% of taxes paid end up going to the federal government. 28% to the state government and some 18% to the county, subcounty, and special districts.

Figure 36: Social Security and Personal Taxes Paid by Workers of Food Industries in California Central Coast Counties by Tax Level (Direct Impact Only) ($3,617,316,839)

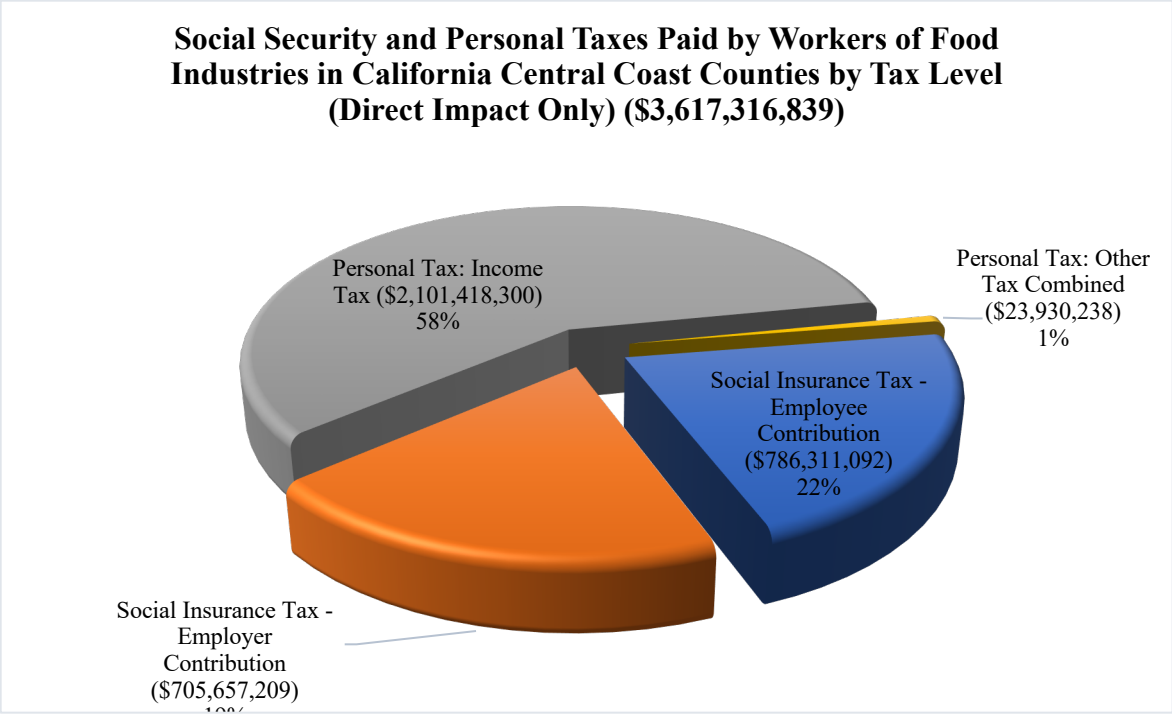
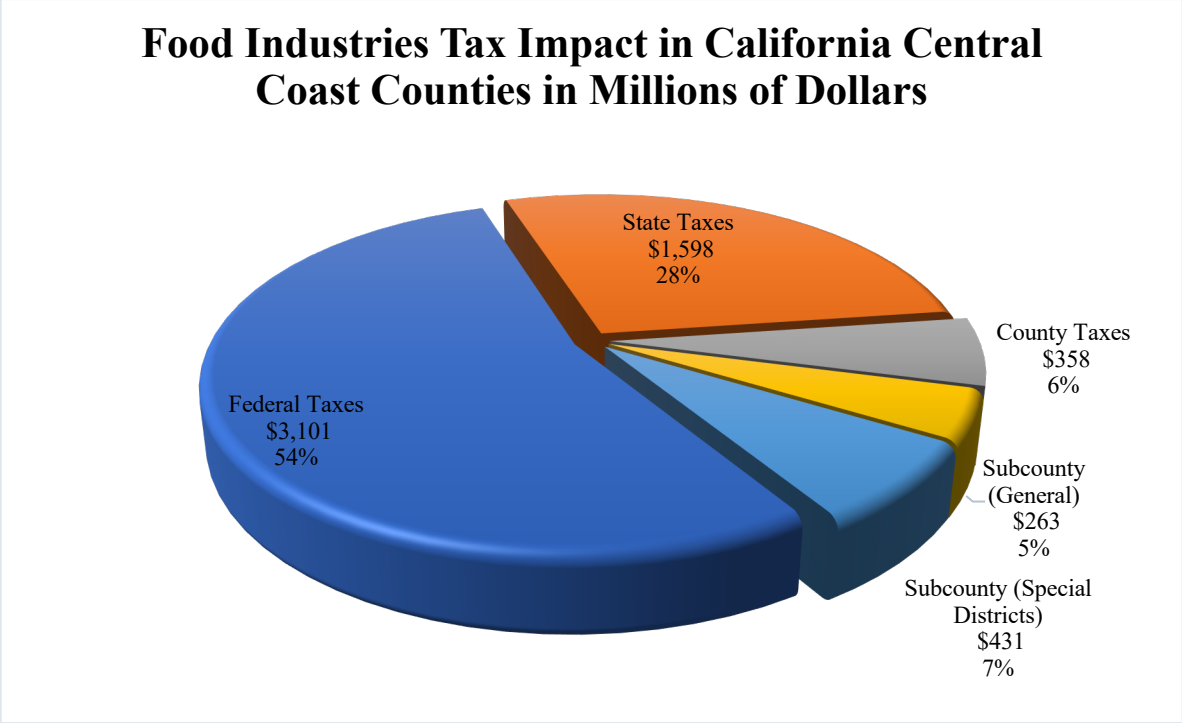


Figure 37: Food Industries Tax Impact in California Central Coast Counties in Millions of Dollars



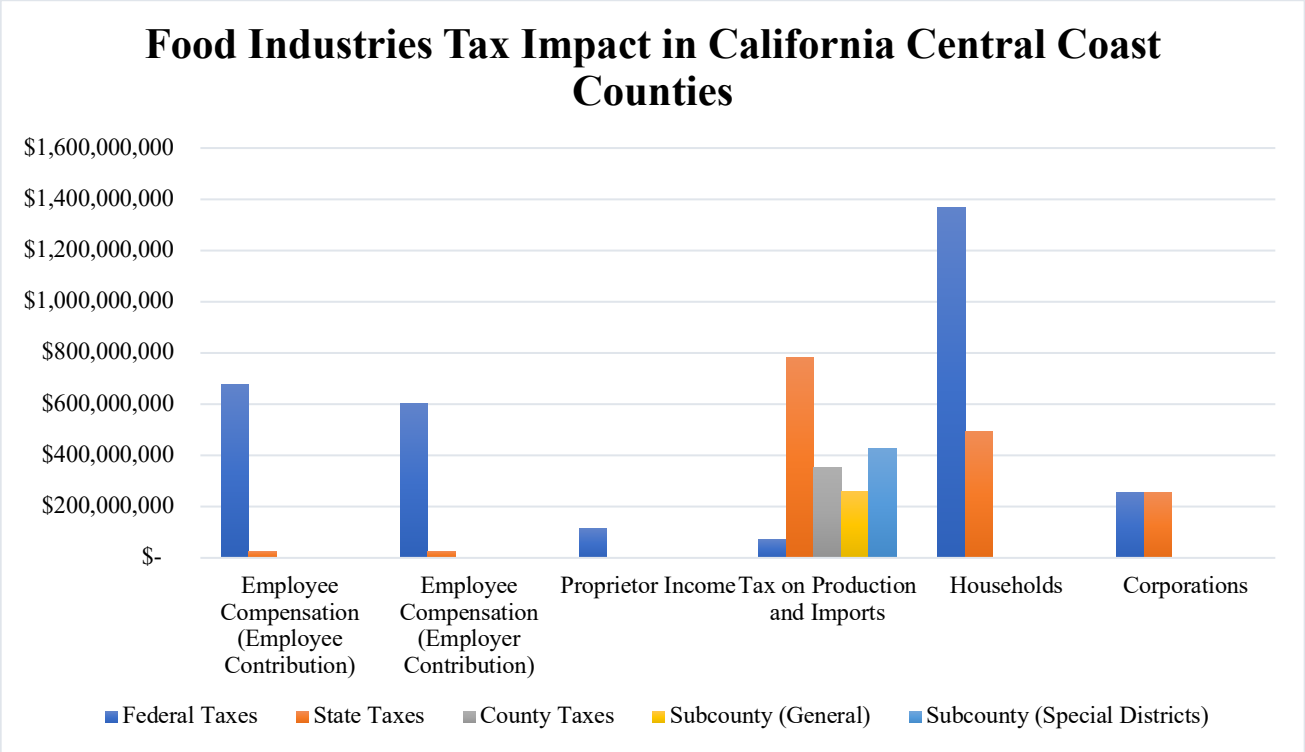
Tax is also paid based on what the food industry creates and brings about, and they can be better viewed in the following table and exhibit.

Table 3: Food Industries Tax Impact in California Central Coast Counties in Millions Dollars

	Employee Compensation (Employee Contribution)	Employee Compensation (Employer Contribution)	Proprietor Income	Tax on Production and Imports	Households	Corporations	TOTAL
Federal Taxes	$ 677,733,156	$ 604,550,088	$ 117,618,678	$ 74,709,594	$ 1,367,886,773	$ 258,892,378	$ 3,101,390,667
State Taxes	$ 28,538,025	$ 29,271,154	$ -	$ 784,601,275	$ 497,030,732	$ 258,850,836	$ 1,598,292,023
County Taxes	$ -	$ -	$ -	$ 355,317,354	$ 3,081,069	$ -	$ 358,398,423
Subcounty (General)	$ -	$ -	$ -	$ 262,461,775	$ 919,432	$ -	$ 263,381,206
Subcounty (Special Districts)	$ -	$ -	$ -	$ 426,738,696	$ 4,348,684	$ -	$ 431,087,380
Total	$ 706,271,181	$ 633,821,242	$ 117,618,678	$ 1,903,828,694	$ 1,873,266,691	$ 517,743,214	$ 5,752,549,700

Taking the complete account of the taxes generated by the food industry brings about a total of more than $5.7 billion to all levels of government. The following exhibit presents it more explicitly.

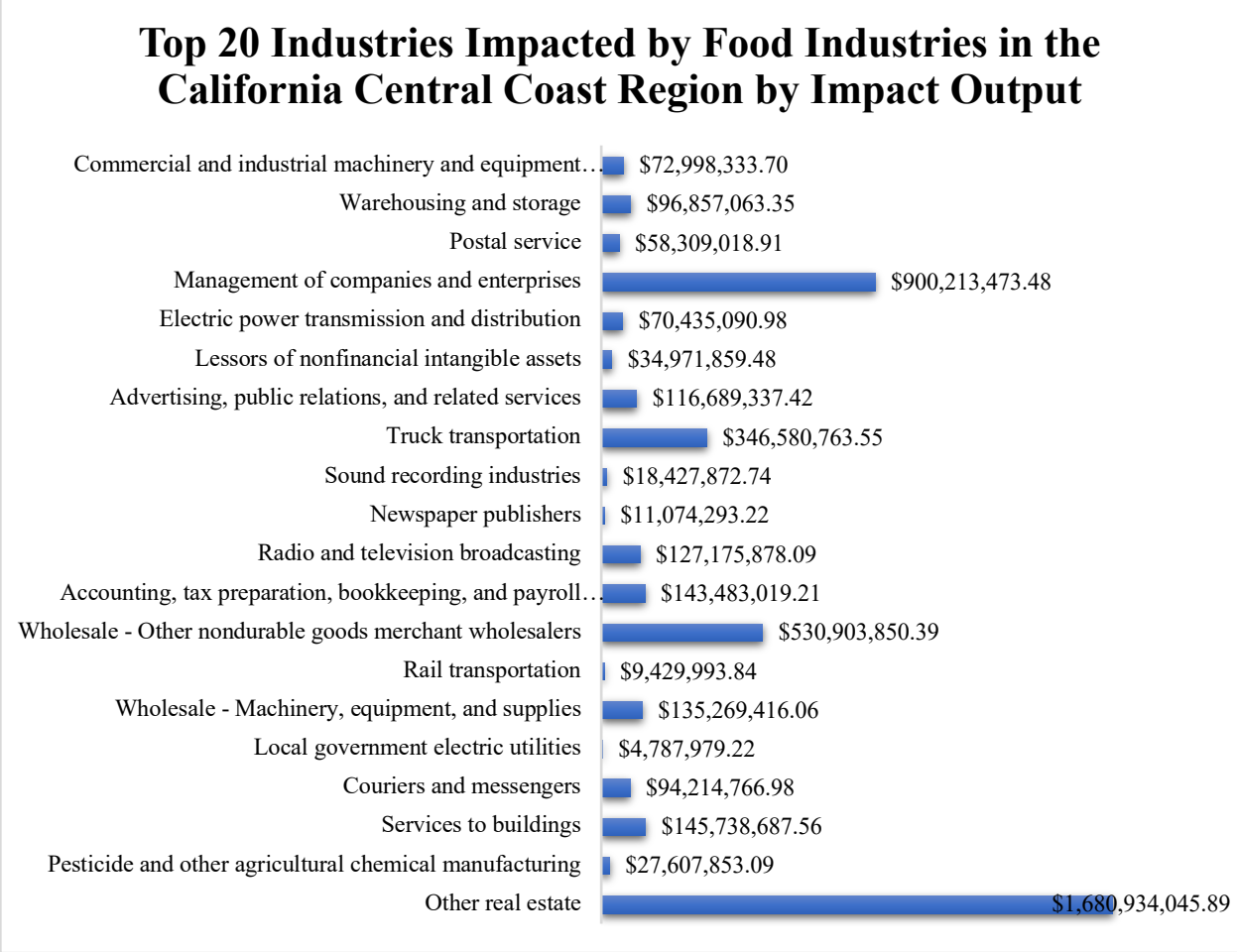
Figure 38: Food Industries Tax Impact in California Central Coast Counties



5.2) Top 20 Industries Impacted by the Food Industry in the California Central Coast Region

One of the more critical elements of a regional input-output analysis is the impact of industries in the region. These are presented in the following chart.

Figure 39: Top 20 Industries Impacted by Food Industries in the California Central Coast Region by Impact Output

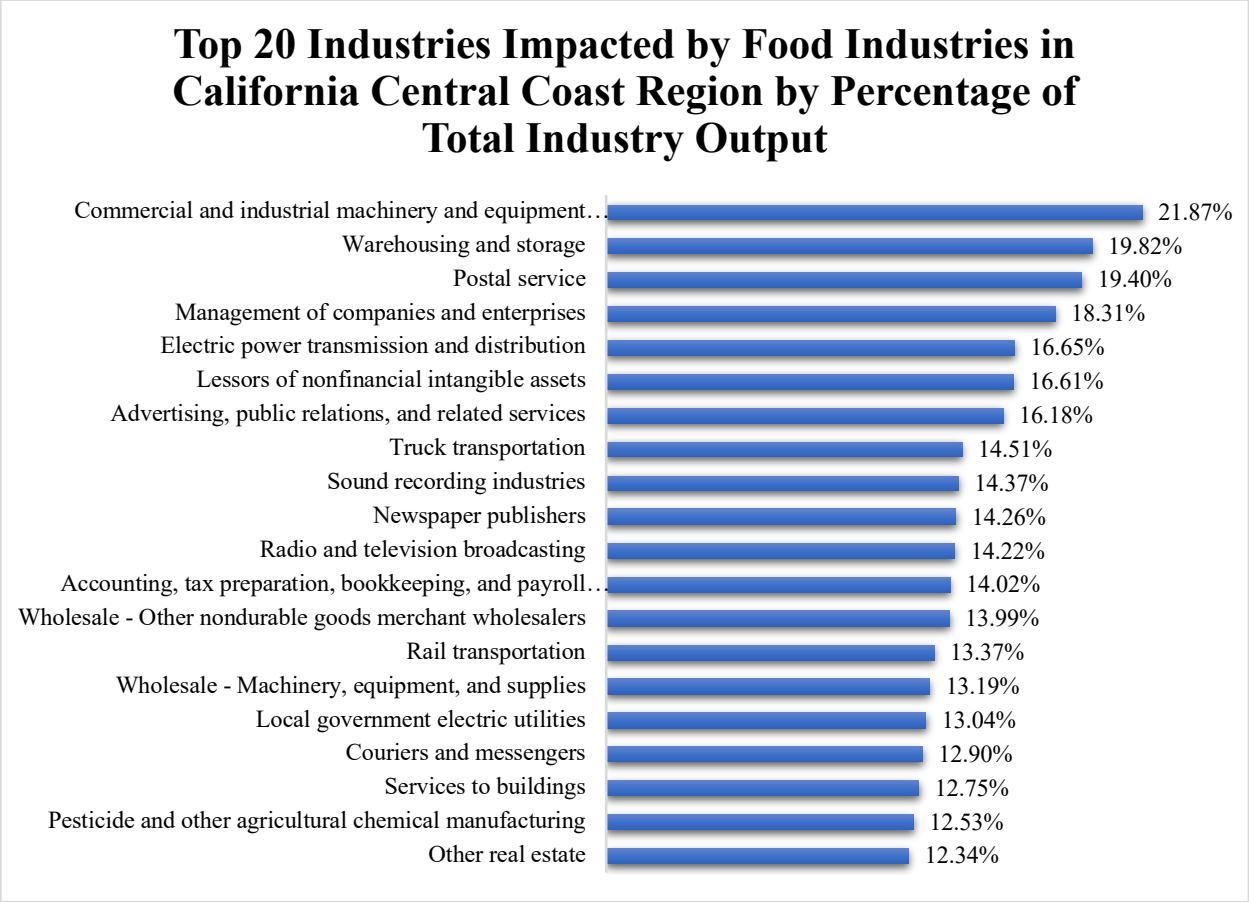


Source: Author's Calculation based on IMPLAN data

This chart shows that real estate has the most significant dollar value impact on the food industry. Let us not forget that the food industry is a collection of interconnected sectors. These are other industries that are impacted by the food industry as a whole.

Taking this analysis further, we calculated the share of the impact within each impacted industry. This can be seen in the following chart.

Figure 40: Top 20 Industries Impacted by Food Industries in California Central Coast Region by Percentage of Total Industry Output



The above chart presents a high level of interdependency between food and a number of other industries within the region.

6) Takeaways for Relevant Policy Action and Advocacy

This study highlights an essential perspective in examining a key sector of our regional economy, focusing on what is vital for supporting a good life for people and their families. Good business is only good when it clearly focuses on the well-being of people. In other words, a good business needs to have a human face in what it does and how it impacts those around it.

Here is what we learned through the conduct of this study and what it brought up, argued, and provided information and evidence for:

- According to the American Heart Association, over the past 100 years, the way Americans buy, cook, and think of food has changed dramatically, driven by developments in how it is manufactured, marketed, purchased, and eaten. The excessive industrialization of the food supply, aimed at other objectives, has not been good for our health. Our food is often not made at home and is processed industrially with additives and chemicals that harm our health and contribute to an unhealthy lifestyle.

- Eating out is another significant development during the last century. This created another critical segment of the industry: the rise of dining out places and restaurant chains, the development of fast food, and a fundamental change in our culture of eating and incorporating food into our lives.

- The giant emerging industry, along with its population growth, has negatively impacted the environment and our lives, clearly distinguishing healthy food from junk. The critical issue that should not be forgotten is the ability to afford nutritious food. At a time of rising prices and depressed income, addressing this policy issue is essential. It warrants a more comprehensive economic and social assessment to bring positive change to our lives.

- The United States Department of Agriculture (USDA) defines food insecurity as a household's limited or uncertain ability to acquire adequate food for all members due to insufficient money and other resources.

- According to the USDA, 86.5% (114.6 million) of U.S. households were food secure throughout 2023. That leaves the proportion of food-insecure households, to varying degrees, at 13.5% of all households or 18.0 million in the country.

- California agriculture has changed remarkably since the last decades of the 19th century. The change showed itself in the shift from extensive farming to intensive crop production, which has caused an acute labor supply problem. One phase of the situation called for an abundant supply of cheap labor; another required distributing this supply to the right place at the right time.

- In exploring the prevailing and emerging labor market conditions in California, we need to bring much-focused attention to the place and impact of undocumented immigrants in California.

- According to the latest data from USC Equity Research Institute, the number of undocumented immigrants in California is significant. More than 2.44 million undocumented immigrants live and work in California (2021). They present an essential labor force in California.

- Undocumented immigrants make up a significant proportion of farmworkers in California. However, this only accounts for 15.5% of all undocumented immigrants working in various industries. They contribute to 42% of agricultural, 18% of construction, 8% of manufacturing, 5% of other services, and 16% of retail production. The latest estimation of their contribution to California's economy clearly and undeniably impacts the food industry.

- Food insecurity is one of the most debilitating problems in California and on the Central Coast, which has become much graver in recent years. According to a recent estimation (Damooei, 2025), from 2014 to 2024, the percentage of total households participating in the program in the Central Coast of California increased by 51%, going up from 97,958 to 147,584. An even more significant finding is that by 2019, the total number of participants had fallen from 97,958 to 90,902. Since 2019, the total number of participants has increased to 147,584, marking a 62% rise. The picture is apparent: food insecurity is rising at an unprecedented level, which calls for urgent attention.

- We need to create a system that is capable of taking advantage of food subsidies available in our counties across the Central Coast. Recent studies at the Center for Economics of Social Issues of California Lutheran University indicate that the situation on the Central Coast is not that different from other parts of California. Despite mounting food insecurity, 71,528 households are not receiving their entitlements, resulting in a total cost of more than $271,000,000.

- The study used IMPLAN (IMPLAN is a regional economic analysis software and data application that can be used to estimate the impact of a particular economic activity or the contribution of an existing activity in a specific geographic area) to create a model for assessing the economic impact of the food industry on the Central Coast of California.

- In dollar value, the contribution of the food industry to the GDP of the Central Coast is around $16.5 billion directly. By adding the indirect and induced impact, the total value added will reach more than $24.1 billion annually or 14.9% of the regional GDP.

- The food industry creates some 206,465 jobs in the region directly. This accounts for about 75% of all the jobs created, as shown in the exhibit. There are, however, some 67,452 additional jobs created through indirect and induced impacts. This accounts for some 25% additional employment. Altogether, the food industry creates some 273,917 jobs in the region.

- Total output has an important significance. It is the value of an industry's output in a calendar year. It can also be described as annual sales plus net change in inventories. The output for wholesale and retail trade represents only the profit margin, not the revenue (sales). Our calculation shows that some $30.9 billion of output is created by the food industry within the Central Coast. If we add the indirect and induced output, the total reaches more than $43.7 billion within the region.

- Some 70% of the output, some $30.9 billion, is created directly, and the remaining 30% or $12.9 billion is the result of induced and indirect impacts.

- More than $3.6 billion in tax revenue is generated through personal income and social security taxes of food industry workers in the Central Coast region.

- The largest share of the tax is paid to the federal government, as is the case in the State of California. The following exhibit provides a different breakup of the taxes paid. In brief, 54% of taxes paid end up going to the federal government. 28% to the state government and some 18% to the county, subcounty, and special districts.

Appendix A: Industries Grouped for the Food Industry in IMPLAN Analysis

1	Oilseed farming
2	Grain farming
3	Vegetable and melon farming
4	Fruit farming
5	Tree nut farming
9	Sugarcane and sugar beet farming
10	All other crop farming
11	Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming
12	Dairy cattle and milk production
13	Poultry and egg production
14	Animal production, except cattle and poultry and eggs
17	Commercial fishing
18	Commercial hunting and trapping
65	Flour milling
66	Rice milling
67	Malt manufacturing
68	Wet corn milling
69	Soybean and other oilseed processing
70	Fats and oils refining and blending
71	Breakfast cereal manufacturing
72	Beet sugar manufacturing
73	Sugar cane mills and refining
74	Nonchocolate confectionery manufacturing
75	Chocolate and confectionery manufacturing from cacao beans
76	Confectionery manufacturing from purchased chocolate
77	Frozen fruits, juices and vegetables manufacturing
78	Frozen specialties manufacturing
79	Canned fruits and vegetables manufacturing
80	Canned specialties
81	Dehydrated food products manufacturing
82	Cheese manufacturing
83	Dry, condensed, and evaporated dairy product manufacturing
84	Fluid milk manufacturing
85	Creamery butter manufacturing
86	Ice cream and frozen dessert manufacturing
87	Frozen cakes and other pastries manufacturing
88	Poultry processing
89	Animal, except poultry, slaughtering

90 Meat processed from carcasses
91 Rendering and meat byproduct processing
92 Seafood product preparation and packaging
93 Bread and bakery product, except frozen, manufacturing
94 Cookie and cracker manufacturing
95 Dry pasta, mixes, and dough manufacturing
96 Tortilla manufacturing
97 Roasted nuts and peanut butter manufacturing
98 Other snack food manufacturing
99 Coffee and tea manufacturing
100 Flavoring syrup and concentrate manufacturing
101 Mayonnaise, dressing, and sauce manufacturing
102 Spice and extract manufacturing
103 All other food manufacturing
104 Bottled and canned soft drinks & water
105 Manufactured ice
106 Breweries
107 Wineries
108 Distilleries
398 Wholesale - Grocery and related product wholesalers
406 Retail - Food and beverage stores
509 Full-service restaurants
510 Limited-service restaurants
511 All other food and drinking places

Appendix B: Employment and Wages in California Central Coast Counties and State of California, 2023

California

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**1,600,160**	**$17.30**	**$19.37**	**$40,300**
35-1011	Chefs and Head Cooks	27,460	$29.29	$32.28	$67,150
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	123,170	$21.03	$22.96	$47,760
35-2011	Cooks, Fast Food	164,680	$16.77	$17.21	$35,790
35-2012	Cooks, Institution and Cafeteria	24,260	$21.60	$22.24	$46,250
35-2013	Cooks, Private Household	70	$37.48	$31.52	$65,570
35-2014	Cooks, Restaurant	145,810	$19.90	$20.50	$42,650
35-2015	Cooks, Short Order	25,320	$18.07	$19.00	$39,520
35-2019	Cooks, All Other	3,310	$17.66	$18.96	$39,450
35-2021	Food Preparation Workers	107,870	$17.85	$18.83	$39,170
35-3011	Bartenders	77,230	$16.69	$19.78	$41,150
35-3023	Fast Food and Counter Workers	427,270	$16.91	$17.63	$36,670
35-3031	Waiters and Waitresses	225,040	$16.72	$20.77	$43,200
35-3041	Food Servers, Non-restaurant	30,520	$17.69	$19.79	$41,170
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	72,850	$16.29	$17.98	$37,400
35-9021	Dishwashers	69,130	$17.28	$18.17	$37,800
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	45,930	$16.68	$18.61	$38,700
35-9099	Food Preparation and Serving Related Workers, All Other	30,240	$17.00	$19.36	$40,280
45-0000	**Farming, Fishing, and Forestry Occupations**	**204,930**	**$16.84**	**$18.55**	**$38,590**

45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	9,400	$27.43	$28.89	$60,090
45-2011	Agricultural Inspectors	2,220	$22.73	$27.47	$57,150
45-2021	Animal Breeders	90	$23.30	$24.34	$50,630
45-2041	Graders and Sorters, Agricultural Products	5,260	$16.62	$17.28	$35,950
45-2091	Agricultural Equipment Operators	7,700	$17.90	$19.24	$40,020
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	171,620	$16.67	$17.63	$36,670
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	2,280	$19.00	$21.36	$44,420
45-2099	Agricultural Workers, All Other	2,030	$23.97	$26.95	$56,050
51-3011	Bakers	22,490	$18.13	$19.56	$40,680
51-3021	Butchers and Meat Cutters	19,990	$19.17	$20.65	$42,940
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	6,750	$17.31	$18.07	$37,590
51-3023	Slaughterers and Meat Packers	8,040	$17.70	$19.04	$39,600
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	1,220	$19.51	$21.56	$44,850
51-3092	Food Batch makers	12,600	$18.45	$19.85	$41,280
51-3093	Food Cooking Machine Operators and Tenders	3,100	$18.74	$20.07	$41,750
51-3099	Food Processing Workers, All Other	7,940	$17.97	$19.66	$40,900

Source: U.S. Bureau of Labor Statistics

Monterey County (Salinas Metropolitan Area)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**18,820**	**$17.22**	**$20.24**	**$42,100**
35-1011	Chefs and Head Cooks	380	$29.45	$34.46	$71,680
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,430	$21.50	$24.23	$50,400
35-2011	Cooks, Fast Food	1,510	$16.66	$17.15	$35,680
35-2012	Cooks, Institution, and Cafeteria	260	$21.63	$22.21	$46,200
35-2014	Cooks, Restaurant	1,820	$21.27	$21.03	$43,740
35-2015	Cooks, Short Order	270	$18.01	$18.57	$38,630
35-2019	Cooks, All Other	60	$16.50	$17.88	$37,190
35-2021	Food Preparation Workers	1,200	$17.89	$18.93	$39,370
35-3011	Bartenders	930	$16.60	$21.37	$44,440
35-3023	Fast Food and Counter Workers	4,630	$16.88	$17.48	$36,360
35-3031	Waiters and Waitresses	3,140	$16.87	$23.23	$48,310
35-3041	Food Servers, Non-restaurant	290	$17.49	$19.33	$40,210
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,010	$16.57	$19.06	$39,640
35-9021	Dishwashers	900	$17.39	$18.47	$38,420
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	640	$16.86	$19.05	$39,620
35-9099	Food Preparation and Serving Related Workers, All Other	330	$17.26	$19.88	$41,350
45-0000	**Farming, Fishing, and Forestry Occupations**	**27,600**	**$17.78**	**$18.85**	**$39,210**

45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	1,050	$28.90	$29.67	$61,710
45-2041	Graders and Sorters, Agricultural Products	460	$17.15	$17.30	$35,980
45-2091	Agricultural Equipment Operators	900	$17.90	$18.69	$38,870
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	25,020	$17.75	$18.41	$38,300
45-2093	Farmworkers, Farm, Ranch, and Aquaculturally Animals	40	$18.09	$20.02	$41,640
45-2099	Agricultural Workers, All Other	70	$18.30	$22.25	$46,280
51-3011	Bakers	330	$18.10	$19.45	$40,460
51-3021	Butchers and Meat Cutters	230	$18.78	$20.66	$42,970
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	40	$16.92	$17.96	$37,360
51-3092	Food Batch makers	150	$17.51	$18.29	$38,030

Source: U.S. Bureau of Labor Statistics

San Benito County (part of San Jose-Sunnyvale, Santa Clara Metropolitan Area)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**79,060**	**$19.25**	**$21.82**	**$45,390**
35-1011	Chefs and Head Cooks	1,490	$29.73	$34.08	$70,890
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	5,770	$21.50	$25.05	$52,090

35-2011	Cooks, Fast Food	5,350	$19.02	$19.56	$40,690
35-2012	Cooks, Institution and Cafeteria	1,710	$23.00	$24.82	$51,630
35-2014	Cooks, Restaurant	6,890	$22.13	$22.97	$47,780
35-2015	Cooks, Short Order	2,200	$19.53	$20.24	$42,090
35-2019	Cooks, All Other	130	$19.14	$21.37	$44,450
35-2021	Food Preparation Workers	6,620	$20.38	$20.60	$42,860
35-3011	Bartenders	3,460	$18.55	$22.33	$46,450
35-3023	Fast Food and Counter Workers	20,290	$18.70	$19.68	$40,930
35-3031	Waiters and Waitresses	11,680	$18.46	$24.40	$50,740
35-3041	Food Servers, Non-restaurant	1,940	$21.23	$22.48	$46,750
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	4,290	$18.41	$20.11	$41,820
35-9021	Dishwashers	3,330	$19.36	$20.33	$42,290
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,040	$18.78	$20.45	$42,530
35-9099	Food Preparation and Serving Related Workers, All Other	1,880	$20.00	$21.45	$44,610
45-0000	**Farming, Fishing, and Forestry Occupations**	**1,610**	**$20.19**	**$21.57**	**$44,870**
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	120	$28.48	$32.54	$67,670
45-2011	Agricultural Inspectors	30	$21.59	$25.85	$53,780
45-2041	Graders and Sorters, Agricultural Products	150	$16.11	$17.46	$36,330
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	1,090	$19.66	$20.19	$41,990
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	80	$21.36	$22.66	$47,120
51-3011	Bakers	1,250	$20.30	$20.95	$43,580
51-3021	Butchers and Meat Cutters	810	$22.10	$23.76	$49,410

51-3022	Meat, Poultry, and Fish Cutters and Trimmers	210	$19.83	$20.82	$43,310
51-3092	Food Batch makers	360	$21.41	$21.82	$45,380

Source: U.S. Bureau of Labor Statistics

San Luis Obispo County (San Luis Obispo-Paso Robles-Arroyo Grande Metropolitan Area)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**15,380**	**$16.81**	**$19.08**	**$39,680**
35-1011	Chefs and Head Cooks	310	$28.27	$30.05	$62,500
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,130	$20.62	$22.56	$46,920
35-2011	Cooks, Fast Food	1,120	$16.42	$16.86	$35,060
35-2012	Cooks, Institution and Cafeteria	150	$20.58	$21.14	$43,960
35-2014	Cooks, Restaurant	1,670	$18.86	$19.77	$41,130
35-2015	Cooks, Short Order	210	$17.47	$18.16	$37,770
35-2019	Cooks, All Other	70	$17.66	$18.19	$37,840
35-2021	Food Preparation Workers	1,000	$17.47	$18.40	$38,280
35-3011	Bartenders	790	$16.32	$20.06	$41,730
35-3023	Fast Food and Counter Workers	3,490	$16.50	$17.08	$35,520
35-3031	Waiters and Waitresses	2,640	$16.37	$20.84	$43,350
35-3041	Food Servers, Non-restaurant	180	$17.06	$20.02	$41,640
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,020	$16.06	$17.36	$36,110
35-9021	Dishwashers	730	$16.82	$17.47	$36,350
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	590	$16.27	$17.22	$35,820
35-9099	Food Preparation and Serving Related Workers, All Other	260	$17.14	$18.86	$39,220
45-0000	**Farming, Fishing, and Forestry Occupations**	**3,650**	**$18.10**	**$19.34**	**$40,240**

45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	220	$24.31	$27.72	$57,660
45-2091	Agricultural Equipment Operators	200	$20.37	$20.35	$42,320
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	3,040	$17.38	$18.61	$38,710
51-3011	Bakers	240	$17.91	$19.33	$40,210
51-3021	Butchers and Meat Cutters	140	$17.87	$20.07	$41,740
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	40	$17.48	$18.54	$38,560
51-3092	Food Batch makers	80	$17.89	$18.86	$39,220

Source: U.S. Bureau of Labor Statistics

Santa Barbara County (Santa Maria - Santa Barbara Metropolitan Area)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**23,340**	**$17.01**	**$19.33**	**$40,210**
35-1011	Chefs and Head Cooks	530	$29.19	$32.50	$67,590
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,550	$20.42	$23.17	$48,190
35-2011	Cooks, Fast Food	2,080	$16.45	$16.80	$34,950
35-2012	Cooks, Institution and Cafeteria	370	$22.51	$22.58	$46,960
35-2014	Cooks, Restaurant	2,430	$20.36	$20.71	$43,070
35-2015	Cooks, Short Order	260	$16.95	$17.99	$37,420
35-2021	Food Preparation Workers	1,720	$17.52	$18.55	$38,590
35-3011	Bartenders	1,380	$16.59	$19.64	$40,840
35-3023	Fast Food and Counter Workers	5,300	$16.70	$17.35	$36,080
35-3031	Waiters and Waitresses	3,590	$16.49	$21.12	$43,930
35-3041	Food Servers, Non-restaurant	420	$17.25	$18.53	$38,540

35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,390	$16.10	$17.24	$35,860
35-9021	Dishwashers	1,110	$16.74	$17.59	$36,590
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	810	$16.42	$17.74	$36,890
35-9099	Food Preparation and Serving Related Workers, All Other	340	$17.16	$18.45	$38,380
45-0000	**Farming, Fishing, and Forestry Occupations**	**13,560**	**$17.45**	**$18.55**	**$38,590**
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	590	$22.94	$26.70	$55,530
45-2041	Graders and Sorters, Agricultural Products	130	$16.42	$16.78	$34,910
45-2091	Agricultural Equipment Operators	480	$19.57	$20.23	$42,080
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	12,200	$17.45	$18.05	$37,530
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	70	$18.21	$20.20	$42,020
45-2099	Agricultural Workers, All Other	60	$19.23	$21.70	$45,140
51-3011	Bakers	290	$17.73	$19.36	$40,270
51-3021	Butchers and Meat Cutters	260	$18.76	$20.43	$42,490
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	60	$17.39	$17.60	$36,610
51-3092	Food Batch makers	150	$17.38	$19.49	$40,540

Source: U.S. Bureau of Labor Statistics

Santa Cruz County (Santa Cruz-Watsonville Metropolitan Area)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**11,460**	**$17.17**	**$19.35**	**$40,240**
35-1011	Chefs and Head Cooks	180	$27.20	$29.96	$62,320
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	750	$21.20	$23.29	$48,440
35-2011	Cooks, Fast Food	1,040	$16.78	$17.36	$36,100
35-2012	Cooks, Institution and Cafeteria	-8	$20.43	$20.99	$43,660
35-2014	Cooks, Restaurant	1,070	$20.36	$20.55	$42,740
35-2015	Cooks, Short Order	180	$17.94	$18.53	$38,540
35-2019	Cooks, All Other	60	$18.88	$20.15	$41,920
35-2021	Food Preparation Workers	780	$17.57	$18.41	$38,300
35-3011	Bartenders	620	$16.55	$19.49	$40,540
35-3023	Fast Food and Counter Workers	3,220	$17.05	$17.69	$36,790
35-3031	Waiters and Waitresses	1,690	$16.59	$21.81	$45,360
35-3041	Food Servers, Non-restaurant	190	$17.60	$19.24	$40,010
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	560	$16.24	$17.33	$36,050
35-9021	Dishwashers	460	$17.07	$17.87	$37,160
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	340	$16.59	$17.70	$36,820

35-9099	Food Preparation and Serving Related Workers, All Other	190	$17.18	$19.24	$40,030
45-0000	**Farming, Fishing, and Forestry Occupations**	**660**	**$17.19**	**$19.62**	**$40,800**
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	50	$26.78	$27.83	$57,890
45-2091	Agricultural Equipment Operators	30	$21.93	$22.29	$46,370
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	510	$17.15	$17.88	$37,190
51-3011	Bakers	260	$18.06	$19.65	$40,870
51-3021	Butchers and Meat Cutters	140	$19.57	$20.97	$43,620
51-3092	Food Batch makers	70	$17.69	$18.79	$39,080

Source: U.S. Bureau of Labor Statistics

Ventura County (Oxnard-Thousand Oaks-Ventura County)

Occupation code	Occupation title (click on the occupation title to view its profile)	Employment	Median hourly wage	Mean hourly wage	Annual mean wage
35-0000	**Food Preparation and Serving Related Occupations**	**33,940**	**$16.74**	**$18.75**	**$39,000**
35-1011	Chefs and Head Cooks	490	$27.41	$30.80	$64,070
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	2,670	$18.47	$21.75	$45,240
35-2011	Cooks, Fast Food	3,550	$16.36	$16.72	$34,780
35-2012	Cooks, Institution and Cafeteria	460	$19.92	$21.16	$44,000
35-2014	Cooks, Restaurant	3,180	$18.22	$19.36	$40,260
35-2015	Cooks, Short Order	480	$17.36	$18.27	$38,010
35-2019	Cooks, All Other	80	$15.98	$16.73	$34,790

35-2021	Food Preparation Workers	2,110	$17.28	$18.30	$38,070
35-3011	Bartenders	1,590	$16.41	$19.51	$40,580
35-3023	Fast Food and Counter Workers	9,170	$16.45	$17.15	$35,670
35-3031	Waiters and Waitresses	4,990	$16.22	$20.87	$43,400
35-3041	Food Servers, Non-restaurant	610	$17.08	$18.88	$39,270
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,520	$16.03	$17.42	$36,240
35-9021	Dishwashers	1,370	$16.65	$17.29	$35,960
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1,020	$16.26	$17.34	$36,060
35-9099	Food Preparation and Serving Related Workers, All Other	640	$16.88	$18.44	$38,360
45-0000	**Farming, Fishing, and Forestry Occupations**	**5,370**	**$16.79**	**$18.16**	**$37,770**
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	220	$24.16	$27.10	$56,360
45-2011	Agricultural Inspectors	40	$20.62	$25.24	$52,490
45-2041	Graders and Sorters, Agricultural Products	110	$16.53	$16.92	$35,190
45-2091	Agricultural Equipment Operators	240	$17.59	$19.31	$40,160
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	4,470	$16.75	$17.59	$36,580
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	90	$17.87	$19.49	$40,540
51-3011	Bakers	380	$17.76	$19.10	$39,730
51-3021	Butchers and Meat Cutters	360	$19.80	$20.89	$43,440
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	100	$17.27	$17.69	$36,800
51-3092	Food Batchmakers	130	$17.12	$18.60	$38,680

51-3093	Food Cooking Machine Operators and Tenders	100	$17.14	$18.39	$38,250
51-3099	Food Processing Workers, All Other	110	$16.42	$18.07	$37,590

Source: U.S. Bureau of Labor Statistics

Endnotes

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[21] We need to understand that direct value added is an important proportion of value added created by works who work in the industry. However, in every activity we also have what is called indirect value added, which is the additional value added created in industries which either create inputs for the particular activity or industries which use the products as inputs in their own production. For example, energy sector provided important inputs for agriculture and agricultural products are important inputs for food industry. In addition to indirect impacts, we also observe another impact in production of goods and services which have their demand to increase because of the wages and salaries distributed as an outcome of production of agriculture goods.
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