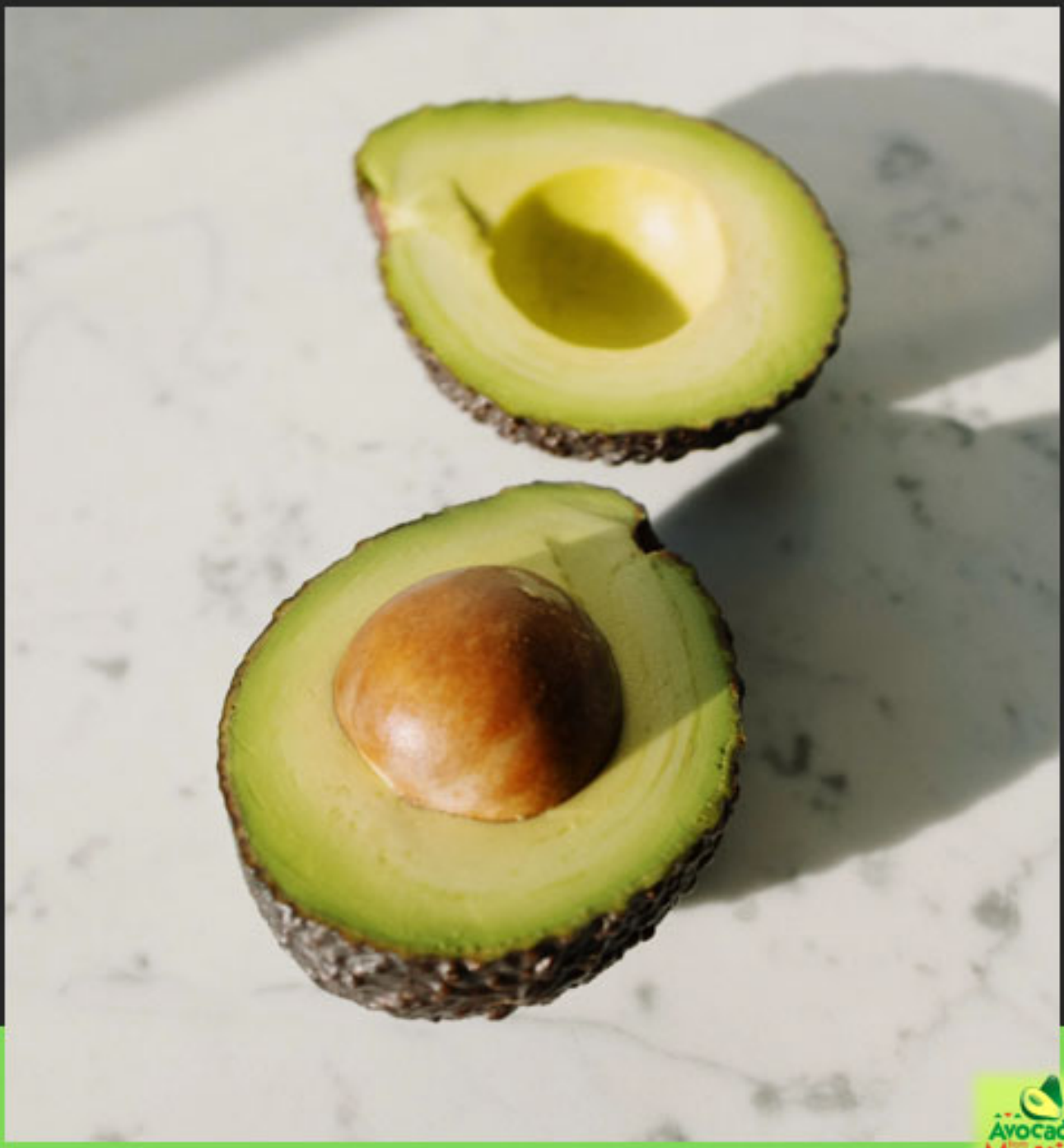

2020 UPDATE

THE ECONOMIC BENEFITS OF U.S. AVOCADO IMPORTS FROM MEXICO

DR. GARY W. WILLIAMS AND DANIEL HANSELKA
TEXAS A&M UNIVERISTY

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Report to the Asociación de Productores y Empacadores Exportadores de Aguacate de México (APEAM, A.C.) and the Mexican Hass Avocado Import Association (MHAIA)

September 2020

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Abstract:

This report updates previous analyses of the benefits to U.S. and state-level economies flowing from the growing U.S. imports of Hass avocados from Mexico. This updated analysis seeks to answer two questions: (1) What contributions have U.S. imports of Mexican avocados during Fiscal Year (FY) 2019/20 made to the U.S. national economy and the distribution of those contributions by industry sector? (2) What have been the distribution of those contributions by U.S. state and by industry sectors within those states? The national impacts for FY 2019/20 found in this report are compared to those reported previously for 2012, 2015, and 2018 to provide an historical perspective on the growing contribution that avocado imports have made to the U.S. economy.

Acknowledgements:

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The Agribusiness, Food, and Consumer Economics Research Center (AFCERC) provides analyses, strategic planning, and forecasts of the market conditions impacting domestic and global agricultural, agribusiness, and food industries. Our high-quality, objective, and timely research supports strategic decision-making at all levels of the supply chain from producers to processors, wholesalers, retailers, and consumers. An enhanced emphasis on consumer economics adds depth to our research on the behavioral and social aspects of health, nutrition, and food safety. Through research efforts, outreach programs, and industry collaboration, AFCERC has become a leading source of knowledge on how food reaches consumers efficiently and contributes to safe and healthy lives. AFCERC is a research and outreach service of Texas A&M AgriLife Research and Texas A&M AgriLife Extension and resides within the Department of Agricultural Economics at Texas A&M University.

Executive Summary

This report updates previous analyses of the economic benefits of U.S. imports of avocados from Mexico. The analysis in this report seeks to answer two questions: (1) What contributions have U.S. imports of Mexican avocados during Fiscal Year (FY) 2019/20 made to the U.S. national economy and the distribution of those contributions by industry sector? (2) What have been the distribution of those contributions by U.S. state and by industry sectors within those states?

Avocados have clearly tapped into U.S. culinary trends and the gastronomic cravings of U.S. consumers. U.S. avocado consumption skyrocketed by over 600% between 1989/90 2019/20, an impressive 10% average annual growth rate over that period. The result has been a rapid increase in U.S. per capita consumption of avocados from 1.07 lb in 1989/90 to an estimated 9.03 lb in 2019/20. Many factors have contributed to that growth including the growth of the U.S. Hispanic and Caribbean population over the years, consumer trends towards ethnic as well as health-promoting foods, the designation of avocados as a super food, the highly effective avocado promotion efforts by the Hass Avocado Board and Avocados from Mexico, a cooperative venture between the Mexican Hass Avocado Import Association (MHAIA) in the United States and the Association of Avocado Producer and Packer Exporters of Mexico (APEAM).

Underpinning the phenomenal growth of U.S. avocado consumption has been the equally phenomenal growth of Hass avocados imports from Mexico which now provide a year-round supply of avocados to the U.S. market, filling the gap between avocado production capacity in California and the burgeoning U.S. demand for avocados. When a long-time U.S. ban on imports of Mexican avocados was finally removed in the mid-1990s, pent up demand for healthy foods rich in nutrients like avocados spurred total import growth from 41.0 million pounds in 1995 to 2.4 billion pounds in 2019. Over that period, Mexico's share of U.S. avocado imports increased from 4% to 88%. Although other Mexican states such as Jalisco are working towards meeting the certification requirements to be able to export to the U.S. market, Michoacán is currently the only Mexican state with authorization to export avocados to the United States.

Imported avocados are packed in the country of origin and shipped to U.S. markets to various buyers. Avocados from Michoacán are trucked to the United States primarily through Texas border crossings. The imported avocados may be transported to wholesalers (shippers) who distribute them to processors, supermarkets, restaurants, and various other retail establishments. Some imports may be shipped directly to end users. As avocados move from U.S. ports of entry

to wholesalers, distributors, processors, and final retail end points along the supply chain, they generate economic growth by stimulating economic activity within the avocado supply chain itself and, as a result, economic activity along associated supply chains with which the avocado import supply chain intersects.

To analyze the extent of the economic stimulus created in the U.S. economy by the import of avocados from Mexico, this study employs a methodology referred to as "economic contribution analysis." The analysis is based on the idea that a dollar spent in one sector of an economy stimulates additional economic activity as it circulates through the economy. The well-known, widely used, and heavily documented IMPLAN (IMpact analysis for PLANning) input-output system is used to estimate the national and state-level economic contribution of the sale of imported avocados from Mexico through the avocado import supply chain. IMPLAN captures the relationships between industries in the U.S. and state economies and estimates the change in each sector's sales due to an initial change in final demand for a given industry's output. The sum of these changes is the industry's multiplier.

The input-output analysis using IMPLAN in this study measures the direct, indirect, and induced effects of avocado imports on the U.S. economy. The *direct effects* on the economy are the initial economic activities measured that are impacted by imports. The direct effects result in two types of secondary effects: (1) *indirect effects* resulting from the purchase of inputs among local industries as a result of the imports and (2) *induced effects* resulting from expenditures by households and governments benefitting from increased activity among local businesses. The same measurements are done for each state. The principal output from the analysis are aggregate measures of the contribution of avocado imports from Mexico in FY2019/20 to the value of output, value-added (GDP), employment, labor income, and taxes paid (federal, local, and state-level) at both the national and state-level in that year.

The analysis concludes that U.S. imports of Mexican Hass avocados contributed the following to the U.S. economy in FY 2019/20:

- $6.5 billion in output or spending;
- $4.0 billion to the U.S. GDP (value-added);
- 33,051 jobs;
- $2.2 billion in labor income; and
- $1.1 billion in taxes.

Thus, every dollar of Mexican avocado imports in FY 2019/20 generated $2.30 dollars in output, $1.41 in U.S. GDP, and $0.78 in labor income. Every million dollars of imports generated 11.7

U.S. jobs. California and Texas were the largest state beneficiaries from the economic activity generated by the imports. Much of the economic benefits accrued to the wholesale/retail and service industries at both the state and national levels.

Comparing the economic contribution of Mexican avocado imports in this report for FY 2019/20 to those in previous reports reveals the growing importance of Mexican avocado imports to the U.S. economy. The contribution of U.S. avocado imports to total U.S. output increased 273% from $1.7 billion in 2012 to $6.5 billion in FY 2019/20. At the same time, the contribution of those imports to U.S. GDP (value added) has increased by nearly 230% from $1.2 billion to $3.99 billion. The contributions to U.S. labor income, U.S. tax revenues, and employment have also registered dramatic increases (219%, 558%, and 194%, respectively). When aggregated over time, the contributions of Mexican avocado imports to the U.S. economy are not only impressive but economically important.

The primary implication of this study is straight forward. Imports of Mexican avocados continue to be pro-growth for the U.S. economy. Given the steep predicted growth path of imports of Mexican avocados, their current positive contribution to the U.S. economy will only intensify over the years. The lifting of phytosanitary restrictions on avocado imports from Mexico not only has supported the growth of the Mexican avocado industry over the years but also has boosted the U.S. economy as a whole and those of individual U.S. states as well. Any trade policy or other actions to reduce the level of U.S. avocado imports would have a substantial and lasting negative impact on the health of the U.S. economy.

Concerns that the rapidly growing imports of avocados may be negatively impacting U.S. avocado prices and the California Hass avocado industry are likely unwarranted given that the large and expanding demand push for avocados is driving both the domestic and Mexican production of avocados. Given the specific growing season for avocados in California and the weather, water, land, climate, and other resource limitations that challenge California avocado producers, imports are primarily filling the gap in the rapidly growing demand for avocados that California has been unable to meet.

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This report updates previous analyses of the economic benefits of U.S. imports of avocados from Mexico (Williams, Capps, and Hanselka, 2014 and 2016 and Williams and Hanselka, 2018). Those previous reports demonstrated that Hass avocado imports from Mexico have had a positive and economically important effect on the U.S. and state economies for the years analyzed. They have also demonstrated that the imports primarily expand the availability of avocados in U.S. markets rather than displace domestically produced supplies of avocados.

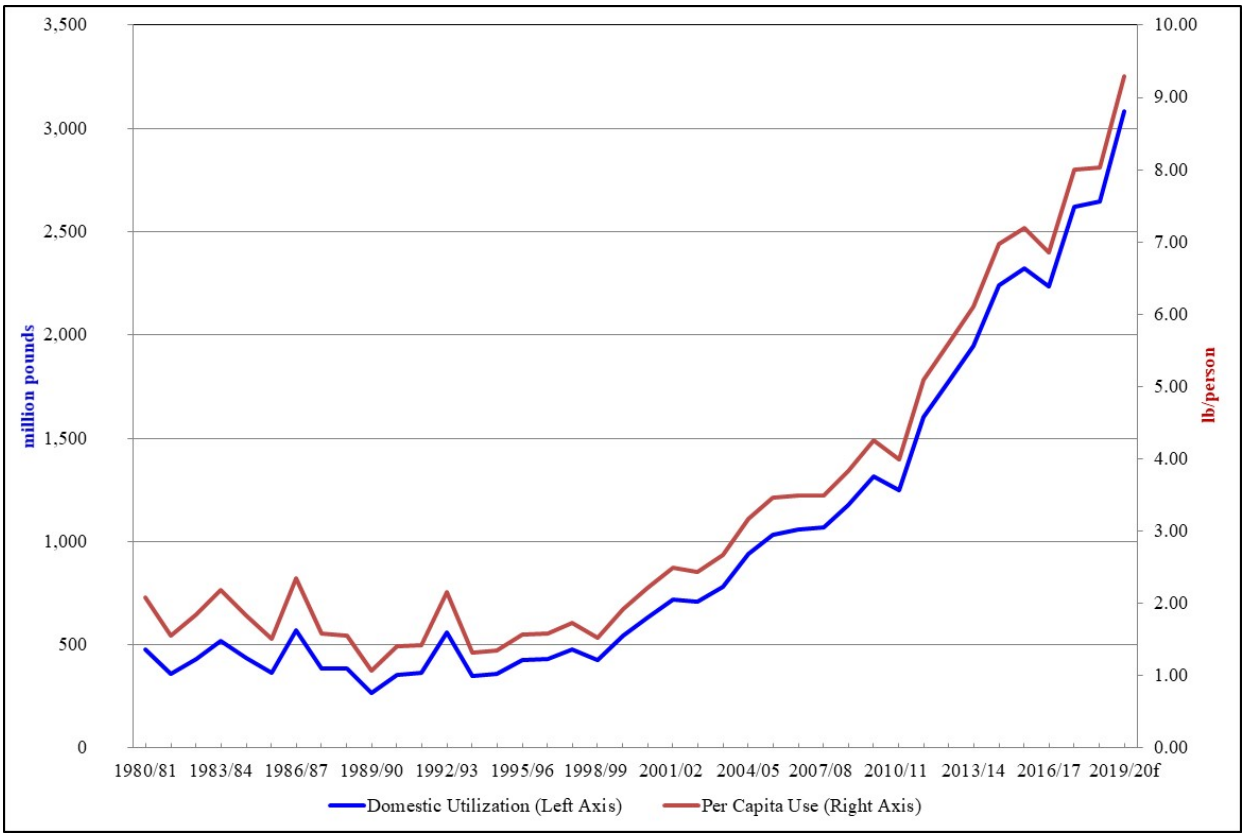
The analysis in this report seeks to answer two questions: (1) What contributions have U.S. imports of Mexican avocados during Fiscal Year (FY) 2019/20 made to the U.S. national economy and the distribution of those contributions by industry sector? (2) What have been the distribution of those contributions by U.S. state and by industry sectors within those states? The report begins with an updated overview of the economic dimensions of U.S. avocado imports. The methodology used in the analysis is summarized and any changes in the methodology from previous reports are highlighted. The analytical results are then discussed with a focus on the aggregate, economy-wide impacts on the U.S. economy along with the industry breakdown of those impacts. Then, the state-level impacts are discussed. Finally, salient conclusions and implications of the analysis are highlighted, including an assessment of the implications for California. The national impacts for FY 2019/20 found in this report are compared with the results reported previously for 2012, 2015, and 2018 to provide an historical perspective on the growing contribution that avocado imports have made to the U.S. economy.

ECONOMIC DIMENSIONS OF U.S. AVOCADO IMPORTS

Avocados have clearly tapped into U.S. culinary trends and the gastronomic cravings of U.S. consumers. U.S. avocado consumption did not take off until about 1989/90 but then skyrocketed by a whopping 626% through 2019/20, an impressive 10% average annual growth rate over that period (Figure 1). The result was an increase of per capita consumption from 1.07 lb in 1989/90 to an estimated 9.03 lb in 2019/20 (Kramer, Calvin, and Simnitt 2020).

Various forces account for the rather sudden and rapid growth rate of avocado consumption in the United States. For one, the growth of the U.S. Hispanic and Caribbean population over the years has spurred the demand for avocados as ingredients in their own traditional dishes.

Figure 1: U.S. Domestic Utilization of Avocados, Total and Per Capita, 1980/81-2019/20



Traditionally in the United States, avocados have been consumed fresh in salads, as a side dish, or as guacamole. An explosion of fusion foods featuring Hispanic and Caribbean cuisine in recent years, however, has integrated avocados solidly into domestic diets in a growing range of dishes. The fast food industry has increasingly added avocados to their food offerings as the growth in avocado imports now allows these food chains to keep avocados on the menus year-round. Avocados consumed in the western region of the United States, and particularly California where over a third of the U.S. Hispanic population lives, are primarily of the Hass variety (Pollack and Perez, 2006). Although more than two dozen varieties of avocados are grown commercially in the United States, Hass avocados comprise 96% of U.S. avocado consumption and are the most widely available. Hass avocados have a thick, leathery skin that turns dark green-to-black as the fruit matures. With the second largest U.S. Hispanic population, Texas is also a large market for Hass avocados. Mexico produces Hass avocados almost exclusively so most U.S. avocado imports are of the Hass variety.

Another key factor in the growing U.S. demand for avocados has been the rapidly spreading consumer trend towards ethnic as well as health-promoting foods along with the designation of

avocados as a super food and a consequent reported growing "obsession" of millennials with avocados (Khazan, 2015 and Wolf, 2017). Besides their more traditional uses, avocados have been increasingly used in a wide range of new and trendy foods from avocado toast to deep-fried avocado, avocado ice cream, avocado fries, avocado salad dressing, avocado drinks and smoothies, avocado pesto, avocado baby food, avocado pancakes, and much more ("50 Ways to Use Avocados", 2020).

Retail and food service markets reportedly prefer Hass avocados for consistency (Pollack and Perez, 2006). Green-skinned avocados are common in the eastern half of the United States where the larger populations of Caribbean immigrants are found. The Florida avocado industry is the primary supplier of green-skinned avocados to these markets. Green-skinned avocados are generally larger in size than Hass avocados and have less fat and more moisture (Pollack and Perez, 2006). Green-skinned varieties are also thinner skinned than the Hass variety and tend to bruise more easily during shipment which tends to limit the range of their market.

In addition, the U.S. demand for Hass avocados has been pushed by the highly effective avocado promotion efforts under the Hass Avocado Promotion, Research and Information Order established in 2002. The latest report on the effectiveness of Hass avocado promotion in the U.S. concluded that the return to those who pay for the promotion ranges between $1.64 and $3.62 per dollar spent on promotion, "strong evidence" of the effectiveness of avocado promotion programs (Ambrozek, Saitone, and Sexton, 2018). Avocados from Mexico (AFM), a cooperative venture between the Mexican Hass Avocado Import Association (MHAIA) in the United States and the Association of Avocado Producer and Packer Exporters of Mexico (APEAM), conducts the largest share of avocado promotion in U.S. markets. Among many other means of promotion, AFM utilizes national media and focuses on major national events such as the Super Bowl, Cinco de Mayo, and the Oscars, emphasizing the taste, healthfulness, and versatility of avocados as well as the year-round availability of avocados from Mexico ("fresh 365 days a year").

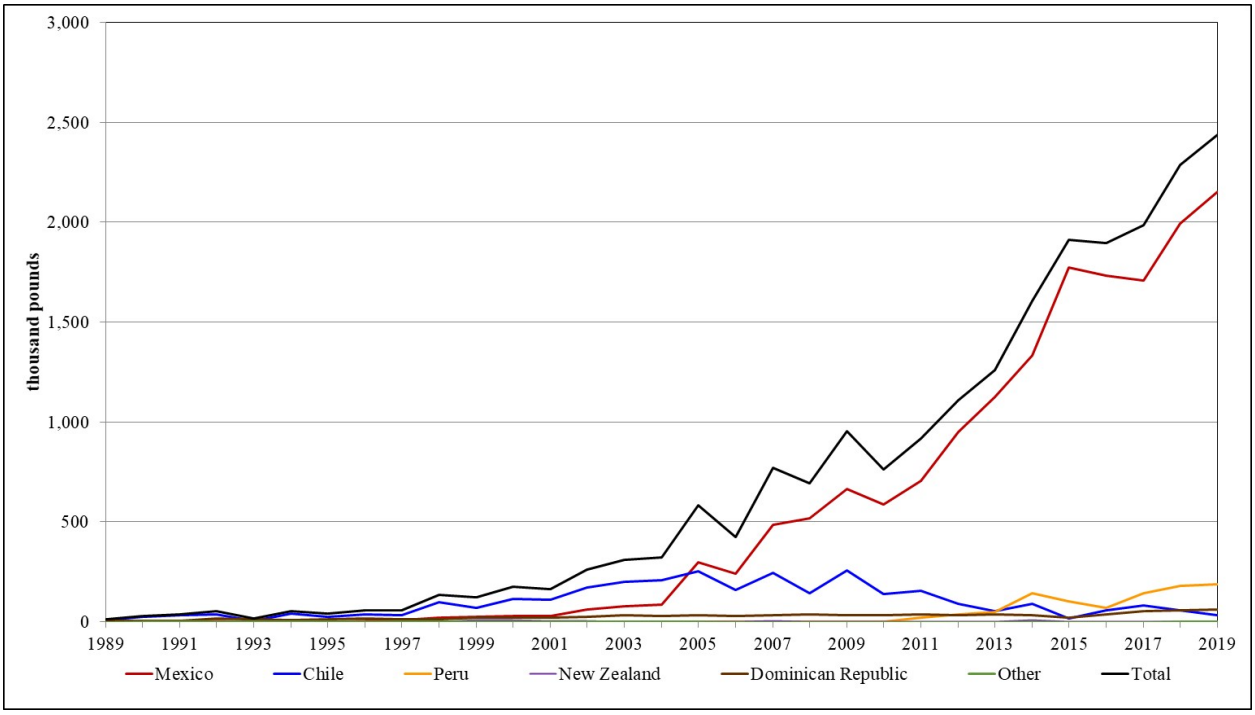
These favorable demand conditions joined forces at about the same time that the U.S. Department of Agriculture (USDA) issued rules in 1997 and 2001 to lift a long-standing phytosanitary ban on avocado imports from Mexico which facilitated the sharp influx of imports to meet the growing U.S. demand that could not be supplied by California's limited capacity to produce avocados (Roberts and Perez, 2006; Carman and Sexton, 2011; Carman, Saitone, and Sexton, 2013; Huang, 2013). The ban was implemented in 1914 to prevent entry of avocado seed weevils into the United States. After a series of appeals, the state of Michoacán was allowed to

begin exporting Hass avocados to the United States in 1997. Michoacán produces about 76% of Mexican avocados (Elms, 2019). No other Mexican state has yet been allowed access of their avocados to the United States. Effective June 27, 2016, however, Hass avocados from any Mexican state are now allowed into the continental United States, Hawaii, and Puerto Rico provided those states meet certain requirements. The state of Jalisco, the second largest Mexican avocado producing state accounting for about 9% of Mexican avocado production, is working towards meeting the certification requirements to be able to export to the U.S. market (McLeod and Flores, 2017). For the time being, however, Michoacán is the only Mexican state with authorization to export avocados to the United States.

U.S. imports of avocados from all destinations experienced little growth until the late 1990s when the ban on Mexican exports of avocados to the U.S. was eliminated (Figure 2). When U.S. markets opened to Mexican avocado imports, pent up demand for healthy foods rich in nutrients like avocados spurred total import growth from 41.0 million pounds in 1995 to 2.4 billion pounds in 2019 (Figure 2). Over that period, Mexico's share of U.S. avocado imports increased from 4% to 88%. Chile dominated the U.S. avocado market in the 1990s with more than 80% of the relatively low volume of U.S. imports. The dramatic growth of imports from Mexico, however, quashed both the volume and the share of imports from Chile to 32.9 million pounds and 1.4%, respectively, by 2019. Peru has mounted a small surge in avocado exports to the U.S. from virtually nothing in 2010 to 187.8 million pounds in 2019, nearly 8% of total U.S. imports of avocados.

In 2016 and 2017, U.S. avocado imports from Mexico declined due to a confluence of events including two strikes by Mexican avocado producers in July and October of 2016 and a drought that reduced production. U.S. avocado consumption and per capita consumption took a dip as well during those years. Dissatisfied with the prices they were receiving, Mexican avocado producers delayed their harvest twice in 2016 (July and October) to boost market prices. The consequence was lower exports of Mexican avocados to the U.S. market from 1.77 billion lb in 2015 to 1.71 billion lb in 2017. Total U.S. imports of avocados continued to increase to 1.98 billion lb between 2015 and 2017, however, as avocados from Peru, Chile, and the Dominican Republic filled the gap. The import disruption boosted avocado prices substantially so that, despite the volume decline, the U.S. import value of Mexican avocados jumped by 53.1% between from $1.52 billion to $2.33 billion between 2015 and 2017 (Figure 3). In 2018, imports from Mexico rebounded to 1.99 billion pounds despite another Mexican producer strike in

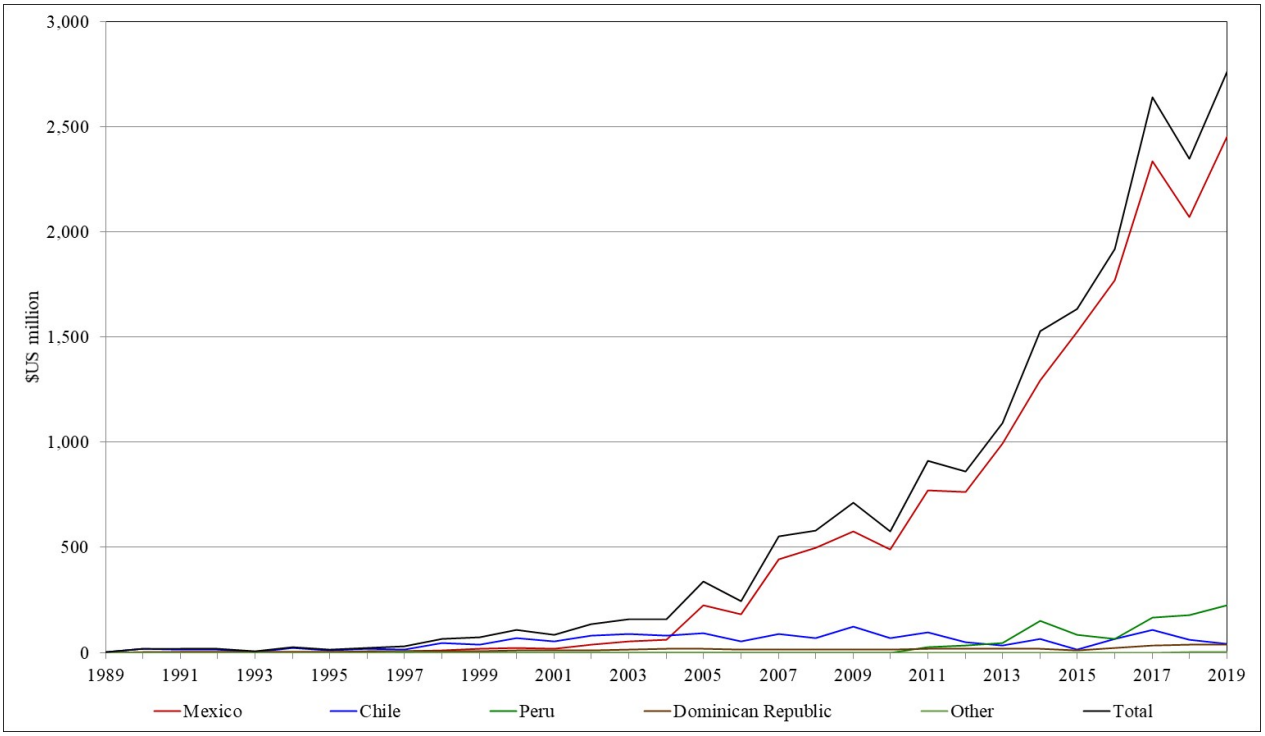
Figure 2: Volume of U.S. Imports of Avocados by Country of Origin, 1989-2019



November of that year to protest the substantial drop in avocado prices from the highs of 2017. The lower prices reduced the value of U.S. imports by 11% from $2.33 billion in 2017 to $2.07 billion in 2018. By calendar year 2019, prices had recovered somewhat along with both the volume and value of Mexico avocado imports to 2.15 billion pounds and $2.45 billion, respectively.

Like nearly all sectors of the U.S. food industry, avocado imports so far in 2020 have been feeling the effects of the COVID-19 pandemic. The most important factor has been the decline in demand by the food service sector as state and federal regulations mandated closures and changes in the way restaurants and the fast food industry deliver their food products to consumers. Shipments declined from an average of 55.8 million pounds in the first 11 weeks of 2019 to 48.4 million pounds over the same period in 2020. However, over the following 25 weeks through the week of August 23, 2020, average weekly shipments recovered, increasing to 54.3 million pounds compared to 48.4 million pounds over the same period in 2019. According to Rabobank (Magaña, 2020), consumers will continue to make healthy choices during the pandemic crisis which should be positive for avocados. A counterweight will be the increased unemployment and reduced consumer incomes in U.S. economy. Avocado consumption and prices remained firm during the 2009 economic crisis and the H1N1 issue. Magaña (2020) expects that “continued

Figure 3: Value of U.S. Imports of Avocados by Country of Origin, 1989-2019



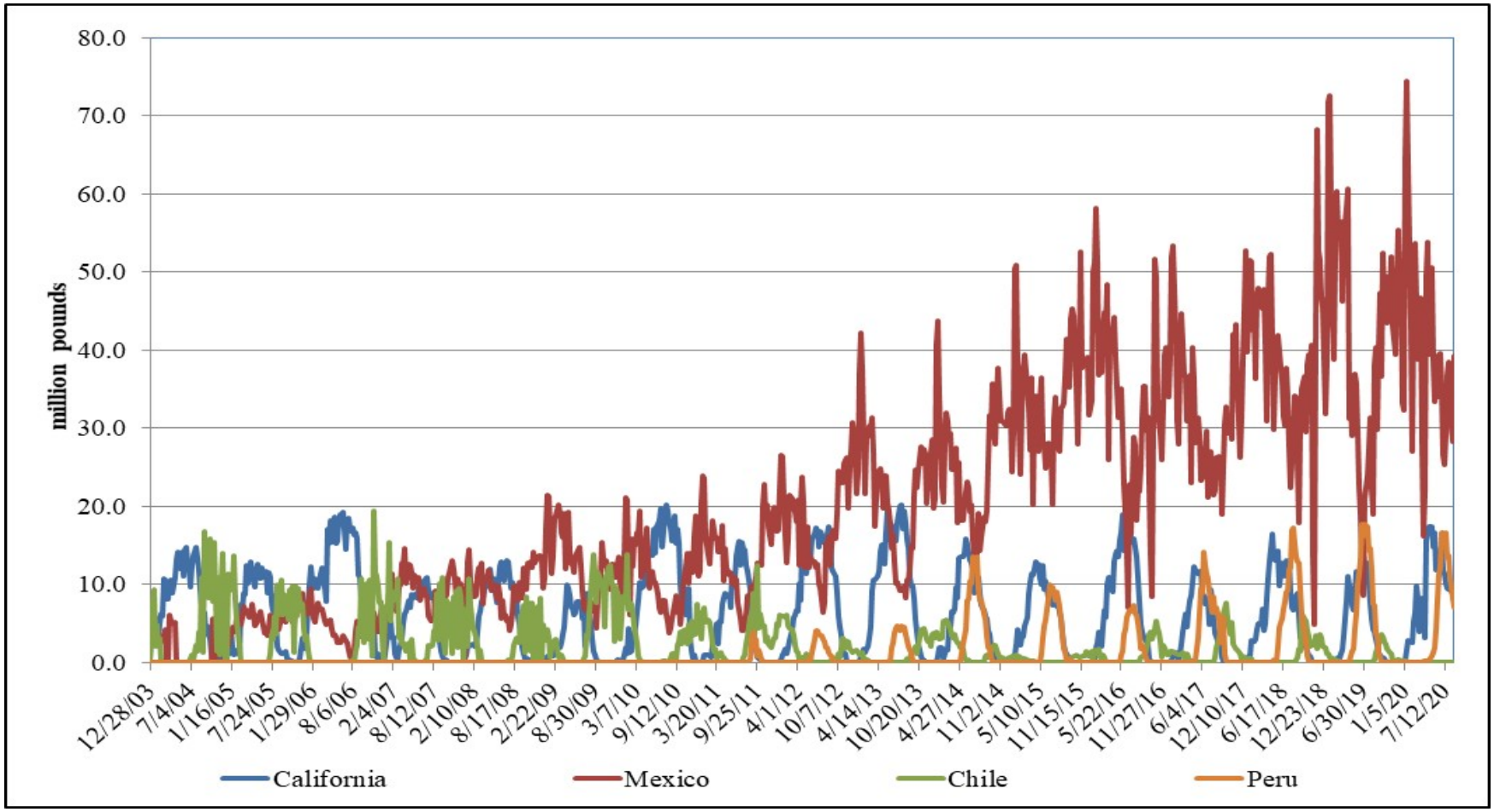
Source: Graphics by authors using data from USDA (2020).

promotion of fresh avocados as a great tasting, healthful, and extremely flexible food item will continue to be the cornerstone of demand expansion, especially in newer, global markets".

The growth in Mexican import volume has been accompanied by a broadening of the seasonal pattern of Mexican imports to almost consistent year-round availability (Carman, Li, and Sexton, 2009; Magaña, 2020). Weekly volumes of Hass avocados arriving into U.S. markets from all country suppliers are exhibited in Figure 4. An obvious seasonal pattern exists in shipment volumes throughout each year. Avocado imports, particularly from Mexico, have tended to peak in the winter and spring months over the years when California avocados are out of season. Shipments always peak during the period around the Super Bowl. Over the years, the weekly and seasonal variability of shipments has increased substantially.

The increasing imports of avocados from Peru generally are providing a boost to summer supplies while imports from Chile provide a winter enhancement of domestic supplies. Occasional inflows from the Dominican Republic and New Zealand are common. California, the only domestic supplier of Hass avocados, has seen its share of U.S. avocado consumption drop from about 80% in the mid-1990s before the ban on Mexican avocado imports was lifted to about 11.6% in 2019/20 (HAB, 2020b).

Figure 4: Weekly Avocado Shipment Volume into U.S. Market from All Suppliers, 2004 through August 2020



Weekly Descriptive Statistics (pounds)				
	Mexico	California	Chile	Peru
mean	20,315,125	6,347,748	2,233,107	1,250,476
std dev	14,882,823	5,771,348	3,242,525	3,261,846
min	0	0	0	0
max	74,498,167	20,183,825	19,503,350	17,764,854

Source: Graphic and table by authors using data from HAB (2020b).

State-Level Avocado Consumption

Avocados are consumed in every state of the union. The largest share is consumed in western states and the least in southern and plains states. Based on the most recently available avocado sales data from Information Resources, Inc. (IRI) on the retail volume of avocados sold across the eight IRI regions in 2019 (HAB, 2020a), the South Central region (Arkansas, Louisiana, Oklahoma, and Texas) now accounts for the largest share of regional avocado consumption (16.9%), followed closely by the West region (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming) which slipped to second place among U.S. regions (16.8%), and then California (15.3%), the Southeast region (Alabama, Florida, Georgia, Mississippi, South Carolina) (13.5%), the Northeast region (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island) (13.0%), the Great Lakes region (Illinois, Indiana, Michigan, Ohio, and Wisconsin) (10.0%), the Mid-South region (Delaware, District of Colombia, Kentucky, Maryland, North Carolina, Tennessee, and West Virginia) (9.3%), and the Plains region (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota) (5.1%) (Figure 5).

Avocado Import Supply Chain

Imported avocados are packed in the country of origin and shipped to U.S. markets to various buyers. Avocados from Michoacán are trucked to the United States primarily through Texas border crossings (Figure 6). The imported avocados may be transported to wholesalers (shippers) and then to distributors, processors, supermarkets, restaurants, fast-food establishments, and elsewhere along the supply chain. As the imports move through the supply chain, they generate economic growth by stimulating economic activity within the avocado supply chain itself and, as a result, economic activity along associated supply chains with which the avocado import supply chain intersects (Figure 6).

For example, shipments of avocados passing through U.S. land or water ports require services from port officials such as the U.S. Customs and Border Protection and other Federal Inspection Agencies responsible for the enforcement of federal laws pertaining to such activities. Avocados passing through maritime ports require a large range of services related to the transfer of goods from water to land transportation. As the avocados move inland from the ports, the shipments of imported avocados stimulate a large number of other economic activities related to transportation, wholesale and retail trade, advertising, construction, finance, manufacturing/processing,

Figure 5: Estimated Shares of U.S. Avocado Consumption Volume by Region (%), 2019

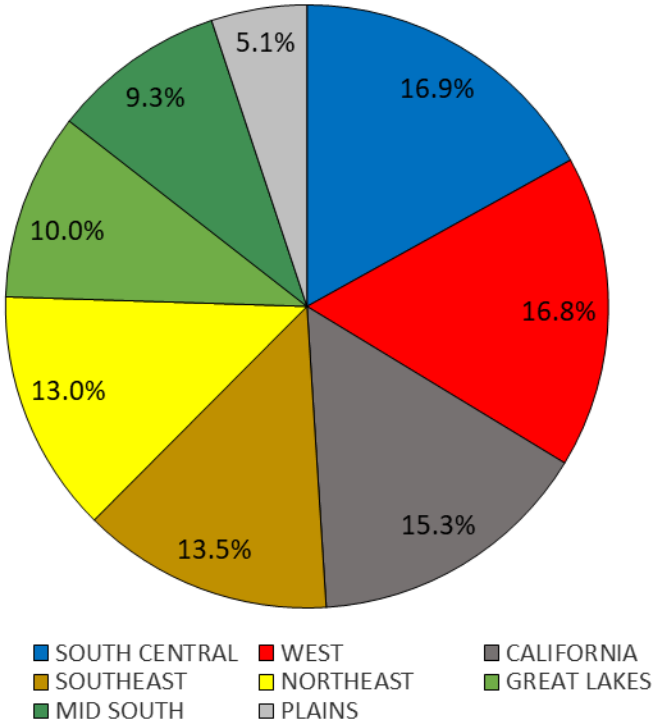
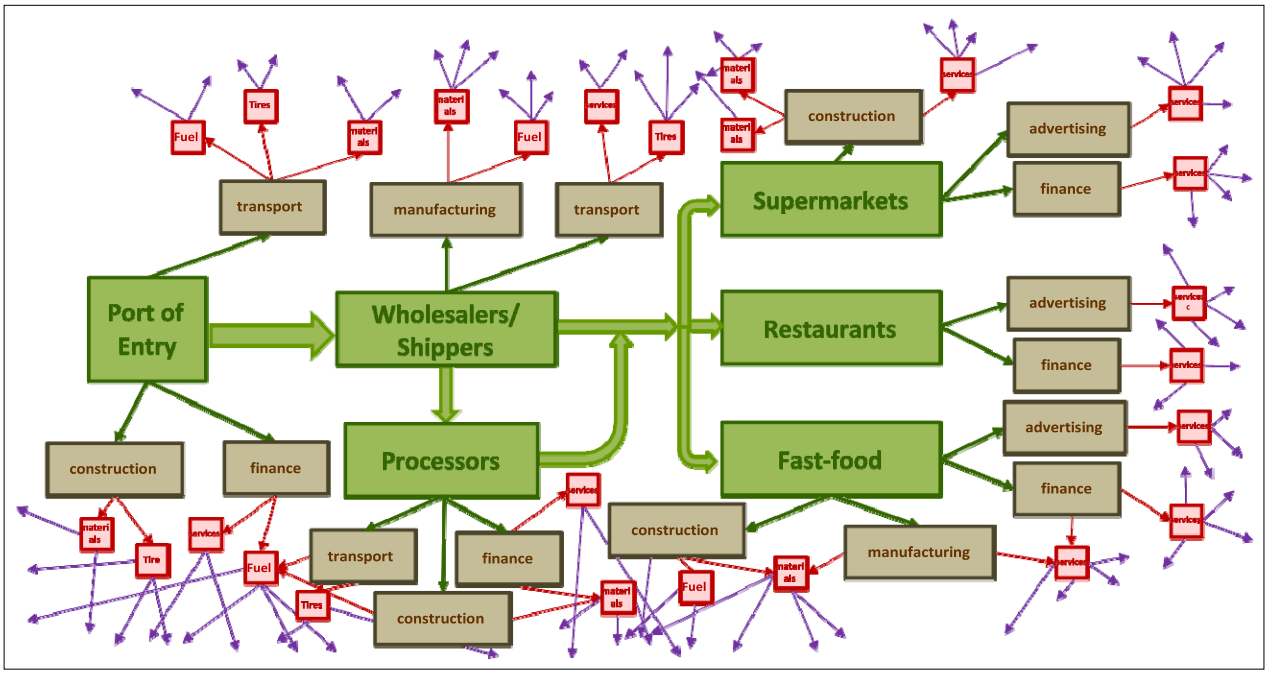


Figure 6: Economic Multiplier Effects of U.S. Avocado Imports through the Supply Chain



infrastructure, and numerous after-market services. The economic activities stimulated at each point in the supply chain not only generate services and jobs at those points but also services and jobs along the supply chains that intersect at those points (Figure 6). For example, the transport of avocados requires fuel. That demand for fuel generates a demand by fuel retailers for fuel from their suppliers who then must demand more fuel from refiners who demand more oil from oil suppliers and so on. At each point on the fuel supply chain, the additional demand for fuel initiated by the shipments of imported avocados contributes to profits and employment. In addition, the suppliers of fuel equipment, transportation services, repair services, and other fuel support services are also all benefited by the additional demand for fuel generated by avocado imports. The same process holds true at each point in the avocado import supply chain resulting in additional economic activity along transportation, wholesaling, retailing, and other supply chains that intersect with the avocado import supply chain.

METHODOLOGY

In this study, we conduct an economic contribution analysis and focus particularly on the contribution of avocado imports from Mexico in Fiscal Year (FY) 2019/20 (July/June) to the value of U.S. output, U.S. value-added, employment, labor income, and taxes paid (federal, local, and state-level) in that same year. This study first measures the direct, indirect, and induced effects of avocado imports on the U.S. economy. The *direct effects* on the economy are the initial economic activities that are impacted by imports. The direct effects result in two types of secondary effects. The *indirect effects* result from the purchase of inputs among local industries as a result of the imports. The *induced effects* result from the expenditure of institutions such as households and governments benefitting from increased activity among local businesses (French, 2018).

The general methodology employed is referred to as "economic contribution analysis" and is based on the idea that a dollar spent in a region or country stimulates additional economic activity or multiplies as it circulates through the economy. To estimate the national and state-level economic contribution of the sale of imported avocados from Mexico through the import supply chain, we use the IMPLAN (IMpact analysis for PLANning) input-output system (IMPLAN Group, 2020a). Input-output analysis is based on the idea that a change in one sector of the economy has effects on other sectors. Input-output analysis captures the relationships between industries and estimates the change in each sector's sales due to an initial change in final demand for a given industry's output. The sum of these changes is the industry's multiplier.

To measure impacts, the IMPLAN system produces multipliers which estimate the total economic contribution of expenditures within an economy. Multipliers are calculated based on the purchasing patterns of industries and institutions in the regional economy. Each industry and region combination has a unique spending pattern and a unique multiplier relating to the direct, indirect, and induced effects of the spending.

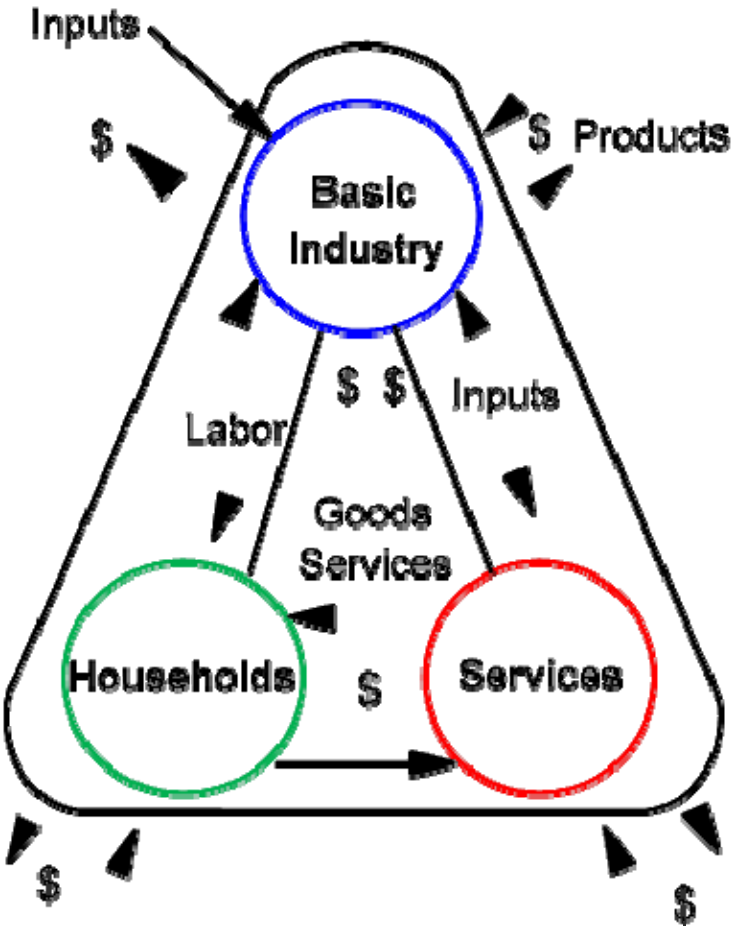
Four types of economic effects are reported from IMPLAN analyses. The ***employment*** contribution measures the number of jobs (both full-time and part-time) attributable to the direct economic activity stimulated. The contribution to ***labor income*** measures the effect of spending by businesses on the incomes of households and indicates a benefit to local residents. The ***value-added*** measures the impact on gross domestic product and indicates the return to resources used by businesses. The ***output*** contribution measures economic activity (total spending) generated. Labor income is a subset of value-added which is part of output. These four effects provide a better perspective of the contribution of an economic activity like avocado imports but represent separate measures of economic contribution and are not meant to be summed.

The foundation of a community's economy is those businesses which sell some or all of their goods and services to buyers outside of the community (Woods et al., 2007). Such a business is considered to be a "basic industry" (Figure 7). The flows of products out of, and dollars into, a community are represented by the two arrows in the upper right portion of Figure 7. To produce these goods and services for "export" outside the community, the basic industry purchases inputs from outside of the community, labor from the residents or "households" of the community, and inputs from service industries located within the community. The flow of labor, goods, and services in the community is completed by households using their earnings to purchase goods and services from the community's service industries. As depicted in Figure 7, a change in any one segment of a community's economy will have reverberations throughout the entire economic system of the community (Woods, McCorkle, and Niemeyer, 2007).

Procedures Followed in the National Aggregate Analysis

The national economic contribution analysis of avocado imports from Mexico to the United States was conducted using an IMPLAN input-output model of the U.S. economy. Using 2016 data for the United States, the IMPLAN software was used to write component information, add structural matrices, create regional absorption tables, commodity balances, market shares, and international transfers, and compute and create multipliers for the U.S. model. By constructing social accounts that describe the structure and function of a specific economy, IMPLAN creates

Figure 7: Overview of Community Economic System



Source: Woods, McCorkle, and Niemeyer (2007).

a localized model to investigate the consequences of projected economic transactions in a geographic region (French, 2018).

With the U.S. model constructed, the next step was to determine the IMPLAN sector to use for the analysis of the economic contribution of avocado imports. IMPLAN consists of 536 different sectors from production to transportation, wholesale, manufacturing, retail, services and others. For this particular analysis, industry sector 395 – wholesale trade was used because this industry sector best reflects the direct impact that avocado imports from Mexico would have on the U.S economy.

The production function for the wholesale trade industry sector in the U.S. model was edited to reflect sales of avocados by adjusting the calculated IMPLAN coefficients for the various commodities associated with the 536 sectors that contribute to the production function of sector 395. The coefficients calculated by IMPLAN for those associated commodities not directly needed for the operations of the wholesale trade sector, specifically things that are cost of goods

sold, were summed up and added to the current IMPLAN coefficient for "commodity 3530 – Non-comparable imports". After modifying the coefficient for "Non-comparable imports," the above-mentioned selected commodity coefficients were set to zero, and the model's coefficients were re-balanced and saved. With the adjustments made to these coefficients, the model's multipliers were then re-constructed to reflect these changes in coefficients. The reason for modifying these coefficients (production function) in the wholesale trade industry (sector 395) was to enable the results of the model to best reflect the impact of importing rather than domestically producing avocados. Further, these adjustments allow the backward leakages associated with U.S. avocado farming/production to be stopped and not included in the contribution analysis, while still allowing for the impacts of the other backward leakages to be reflected for the other associated industry sectors (transportation, warehousing, storage, etc.).

The next step was to select an "industry change" activity with an event for the wholesale trade industry. An activity is a grouping of one or more events that represents a related change within the study area (IMPLAN Group, 2020b). The value of avocado imports from Mexico to the United States for FY 2019/20 was entered as the industry sales for the wholesale trade sector event within the U.S. model. At this point in the analysis, IMPLAN requests whether gross retail sales or gross retail margin should be selected. For this analysis, gross retail margin was selected in order to best reflect the producer price and not the purchase price. Producer prices are the prices received by the producer for the goods and services that are sold or the prices paid by the store to its suppliers (IMPLAN Group, 2020b). With the avocado import value entered in the model, the analysis of this industry change to the U.S. economy was conducted which entailed selecting and naming a scenario for the given "industry change" activity, analyzing a single region, whereby IMPLAN calculated direct, indirect, and induced impacts.

Finally, summary and industry sector results for the direct, indirect, induced, and total effects for output (total spending), employment (full and part-time jobs), value added (contribution to GDP), labor income (employee compensation), and taxes (local, state, and federal) were reported within the IMPLAN model for this particular industry change activity.

Procedures Followed in the State-Level Analysis

The same general methodology and procedures used in the aggregate U.S. economic contribution analysis of Mexican avocado imports is used in the analysis of the state-level contributions of those imports. For each state, the FY 2019/20 (July/June) value of the respective state's imports of Mexican avocado imports was entered into the respective state model as the industry sales for

the wholesale trade sector event. However, the value of avocado imports for each state in FY 2019/20 had to be estimated because state-level import data are not available. The problem is that shipments of any imported commodity like avocados into some states may simply be transported through the state to other destinations (transshipments).

Then the U.S. *regional* values of avocado consumption were estimated by multiplying the estimated national value of avocado consumption by the U.S. regional avocado shares of the value (dollar sales) of avocado consumption in 2019 from the Regional Composite Data reports published by Symphony Information Resources Inc. Group/FreshLook Marketing (IRI/FreshLook) and made available by the Hass Avocado Board (2020a). IRI/FreshLook gathers chain-wide fresh avocado sales data across all major U.S. retail markets. Although the data do not capture 100% of all U.S. avocado sales, the data provide a useful representation of the avocado category by region at the retail level of the marketing channel. The data are used by retailers, shippers, handlers, and others involved in the avocado business to identify opportunities for planning purposes.

The IRI/FreshLook avocado sales data include an aggregation of sales in the grocery, mass, club, drug, dollar and military channels. IRI/FreshLook gathers and reports chain-wide fresh avocado sales data across all major U.S. retail markets on a calendar quarter basis. The data are organized into and reported for eight U.S. regions, including: (1) California, (2) Great Lakes, (3) Mid-South, (4) Northeast, (5) Plains, (6) South Central, (7) Southeast, and (8) West. These regions include avocado sales data for the major metropolitan markets in those regions plus some additional cities in each region. The major metropolitan markets captured in each of the eight regions include: (1) **California:** Los Angeles; Sacramento; San Diego; and San Francisco; (2) **Great Lakes:** Chicago, IL; Cincinnati, OH; Cleveland, OH; Columbus, OH; and Detroit, MI; (3) **Mid-South:** Baltimore, MD; Louisville, KY; Memphis, TN; Raleigh, NC; Richmond, VA; and Roanoke, VA; (4) **Northeast:** Albany, NY; Boston, MA; Buffalo, NY; New England; New York; Philadelphia, PA; and Pittsburgh, PA**;** (5) **Plains:** St. Louis, MO; Omaha, NE; Des Moines, IA; Minneapolis/St. Paul, MN; Kansas City, KS/MO; and Wichita, KS; (6) **South Central:** Dallas, TX; Houston, TX; and Little Rock, AR; (7) **Southeast:** Atlanta, GA; Charlotte, SC; Columbia, SC; Jacksonville, FL; Miami, FL; Orlando, FL; and Tampa/St. Petersburg, FL; and (8) **West:** Boise, ID; Denver, CO; Las Vegas, NV; Phoenix, AZ; Portland, OR; Seattle, WA; and Spokane, WA. According to these data, the regional avocado shares of the value (dollar sales) of avocado consumption in 2019 were: (1) California (16.7%), (2) West (16.6%), (3) Northeast (15.2%), (4) South Central (13.3%), (5) Southeast (13.1%), (6) Great Lakes (10.2%),

(7) Mid-South (9.7%), and (8) Plains (5.1%). While not identical, these estimated shares of the regional value of avocado consumption are similar to the shares by volume as shown in Figure 5.

For each of the eight regions, the state values of avocado consumption in 2019 were then calculated as a product of the respective estimated regional values of avocado consumption and the shares of each state of the aggregate GDP for the corresponding region. To account for the fact that California produces and sells avocados across the U.S., the estimated values of state avocado consumption in 2019 were reduced by the value of California avocados consumed in the corresponding state in 2019 to generate the state values of avocado consumption net of the value California avocados consumed (net state value of avocado consumption). The state values of California avocado consumption were estimated by multiplying the value of California avocado production in 2019 as published by the California Avocado Commission (2020) by the share of each state of national aggregate GDP.

Finally, the state values of Mexican avocado imports were estimated by multiplying the value of imports of Mexican avocados in FY 2019/20 ($2.818 billion) by the share of each state of the aggregate net state value of avocado consumption. The resulting estimates of the value of avocado imports by state for calendar year 2019 are exhibited in Table 1. Not surprisingly, the two top states were California at $476.6 million and Texas at $287.5 million. These state figures then formed the inputs into the IMPLAN model as described above.

ANALYSIS OF THE U.S. ECONOMIC BENEFITS FROM IMPORTS OF AVOCADOS FROM MEXICO

Following a summary of the aggregate economic contributions of avocado imports from Mexico to the U.S. economy, this section discusses the economic contributions of Mexican avocado imports to the economy of individual states. In both cases, the emphasis is on the contribution of avocado imports to the value of U.S. output, U.S. value-added, U.S. employment, U.S. labor income, and U.S. taxes paid (federal, state, and local). Avocado import contribution multipliers are also presented. The multipliers demonstrate the dollar value of the contribution of imports of Mexican avocados to U.S. output, U.S. value added, and U.S. labor income per dollar of avocado imports. An employment multiplier is also presented which reflects the number of U.S. jobs generated per million dollars of avocado imports from Mexico. Finally, a tax multiplier is presented which shows the value of all taxes generated at the federal, state, and local levels as a result of all activities stimulated by avocado imports from Mexico as a share of the value of imports. The aggregate economy-wide contributions are also broken down by industry to provide some indication

Table 1: Estimates of State Values of Avocado Imports from Mexico, FY 2019/20

State	Import Value	State	Import Value
Alabama	$37,961,914	Montana	$10,597,122
Alaska	$11,254,655	Nebraska	$13,519,560
Arizona	$74,384,247	Nevada	$36,078,898
Arkansas	$20,292,855	New Hampshire	$8,412,014
California	$476,570,714	New Jersey	$61,227,098
Colorado	$79,278,467	New Mexico	$21,125,851
Connecticut	$27,121,293	New York	$164,443,299
Delaware	$8,191,679	North Carolina	$63,837,539
District of Columbia	$15,879,717	North Dakota	$6,070,007
Florida	$179,703,030	Ohio	$67,527,238
Georgia	$101,300,490	Oklahoma	$31,397,198
Hawaii	$19,760,856	Oregon	$51,108,486
Idaho	$16,435,472	Pennsylvania	$77,242,368
Illinois	$86,734,284	Rhode Island	$6,033,169
Indiana	$36,458,605	South Carolina	$40,483,310
Iowa	$20,729,928	South Dakota	$5,672,934
Kansas	$18,426,283	Tennessee	$41,290,818
Kentucky	$23,317,721	Texas	$287,516,650
Louisiana	$40,204,021	Utah	$38,290,337
Maine	$6,410,829	Vermont	$3,302,813
Maryland	$46,526,409	Virginia	$60,198,748
Massachusetts	$56,547,751	Washington	$121,798,463
Michigan	$52,357,344	West Virginia	$8,492,993
Minnesota	$40,531,585	Wisconsin	$33,577,702
Mississippi	$19,522,655	Wyoming	$8,053,343
Missouri	$35,341,055	**Total**	**$2,818,541,818**

of the industry distribution of the contribution of avocado imports from Mexico to the United States and state-level economies.

National Aggregate Analysis Results

The analysis demonstrates that avocado imports from Mexico have made a substantial contribution to the U.S. economy as they have moved along the avocado import supply chain generating multiplier effects along intersecting supply chains and adding to U.S. output, value-added, income, jobs and taxes as a result. The total of all the direct, indirect, and induced effects of the $2.82 billion of U.S. imports of Mexican avocados in FY 2019/20 on U.S. output or total

spending amounted to $6.48 billion (Table 2). That is, the $2.82 billion of imported Mexican avocados in FY2019/20 stimulated U.S. economic activity that generated a total of $6.48 billion in output or total spending. At the same time, the total economic activity stimulated by those imports added nearly $4.00 billion in 2019 to the U.S. GDP (about 0.0187% of the U.S. GDP), created $2.20 billion in U.S. labor income, $1.09 billion in taxes (federal, state, and local), and added 33,051 jobs (0.018% of U.S. employment).

Implied National Contribution Multipliers

Every dollar of Mexican avocados imported in FY 2019/20 generated $2.30 in gross output, $1.41 in GDP (value-added), and $0.78 in labor income (Table 3). Every million dollars of Mexican avocado imports generated 11.7 jobs in the U.S. economy. Taxes generated by the imports amounted to 38.6% of the value of the imported avocados (Table 3). Stated in this way, these contributions measure the multiplier effect of the imports. That is, they indicate how much additional output, GDP, etc. is generated by each dollar of imports. For example, for every $100 million increase in imports of Mexican avocados, U.S. output or spending increases by $230 million while GDP increases by $141 million, labor income by $78 million, and employment by 1,170 jobs.

Industry by Industry Breakdown of the National Results

An industry breakdown of the economic contributions reveals that the wholesale/retail and service industries account for most of the contribution of imports of Mexican imports to U.S. economic activity as might be expected (Table 4). Together those two industries account for 85% of the contribution of imports of Mexican avocados to U.S. gross output, approximately 88% of the contribution to the U.S. GDP (value-added), U.S. employment, and U.S. labor income, and 96% of the contribution to U.S. taxes. The manufacturing industry is also a major beneficiary of U.S. imports of Mexican avocados, accounting for nearly 8% of their contribution to gross output and 1% to 7% of the contribution made to GDP, labor income, employment, and taxes. Transportation and warehousing and a large number of miscellaneous services (such as advertising, insurance, accounting and legal service, repair services and more) account for much of the remaining contribution of U.S. imports of avocados to the U.S. economy.

Table 2: National Economic Contribution of FY2019/20 Avocado Imports from Mexico

Output ($ million)	Value-added ($ million)	Employment (no. of jobs)	Labor Income ($ million)	Taxes* ($ million)
$6,477.4	$3,985.3 (0.0187% of U.S. GDP)	33,050.8 (0.018% of U.S. employment)	$2,203.7	$1,087.5

* federal, state, local.

Table 3: Implied National Contribution Multipliers of FY 2019/20 Avocado Imports from Mexico

Output Multiplier ($output/$imports)	Value-added Multiplier ($VA/$imports)	Employment Multiplier (jobs added/ $million imports)	Labor Income Multiplier ($income/ $imports)	Tax Multiplier (% of import value)
2.30	1.41	11.7	0.78	38.6%

Table 4: National Economic Impact of FY 2019/20 Avocado Imports from Mexico by Industry

Industry	Output ($ million)	Value-added ($ million)	Employment (no. of jobs)	Labor Income ($ million)	Taxes* ($ million)
Wholesale/Retail	**$3,160.9**	**$2,124.8**	**14,054.0**	**$1,107.2**	**$402.1**
Manufacturing	$471.1	$146.9	963.2	$71.1	$6.8
Transportation & Warehousing	$223.7	$118.1	1,567.5	$86.5	$4.9
Services	**$2,312.7**	**$1,436.0**	**14,817.9**	**$832.4**	**$87.0**
- Food & accommodation	$131.4	$75.8	1,896.5	$49.0	$9.4
- Other	$2,181.3	$1,360.2	12,921.4	$783.4	$77.7
Agriculture	$32.2	$12.1	276.9	$9.4	$0.2
Other	$276.8	$147.3	1,371.2	$97.0	$9.7
Total**	$6,477.4	$3,985.3	33,050.8	$2,203.7	$510.8

* Indirect business taxes. ** Totals may not add due to rounding.

State-Level Analysis Results

The estimated state contributions of Mexican avocado imports are summarized alphabetically in Table 5. Details of the contributions by industry within each state are provided in the appendix. For this analysis, states were divided into three categories according to the impact of Mexican avocado imports on the respective states' economies: (1) high impact, (2) medium impact, and (3) low impact. Similar criteria for the three categories from previous reports were used in this report. High impact states include those for which imports of Mexican avocados in FY 2019/20 generated more than 2,000 jobs and contributed more than $300 million to the respective state GDP.

Low impact states include those for which Mexican avocados generated less than 100 jobs and contributed less than $10 million to the state GDP. Medium impact states are those for which the impacts are between the high- and low-level impacts. Figure 8 illustrates the state-level impacts of Mexican avocado imports by level of absolute impact on jobs and value added.

The highest impact states, not surprisingly, are California and Texas (green on Figure 8 map). These two states have relatively high GDPs and large populations of Hispanic consumers where Hispanic cuisine is highly popular. In California, Mexican avocado imports in FY 2019/20 generated 4,213 jobs and contributed $569.8 million to the California state GDP. In Texas, Mexican avocado imports created 2,487 jobs and contributed $334.3 million to the state GDP. The medium impact category included 37 states (blue on Figure 8 map).

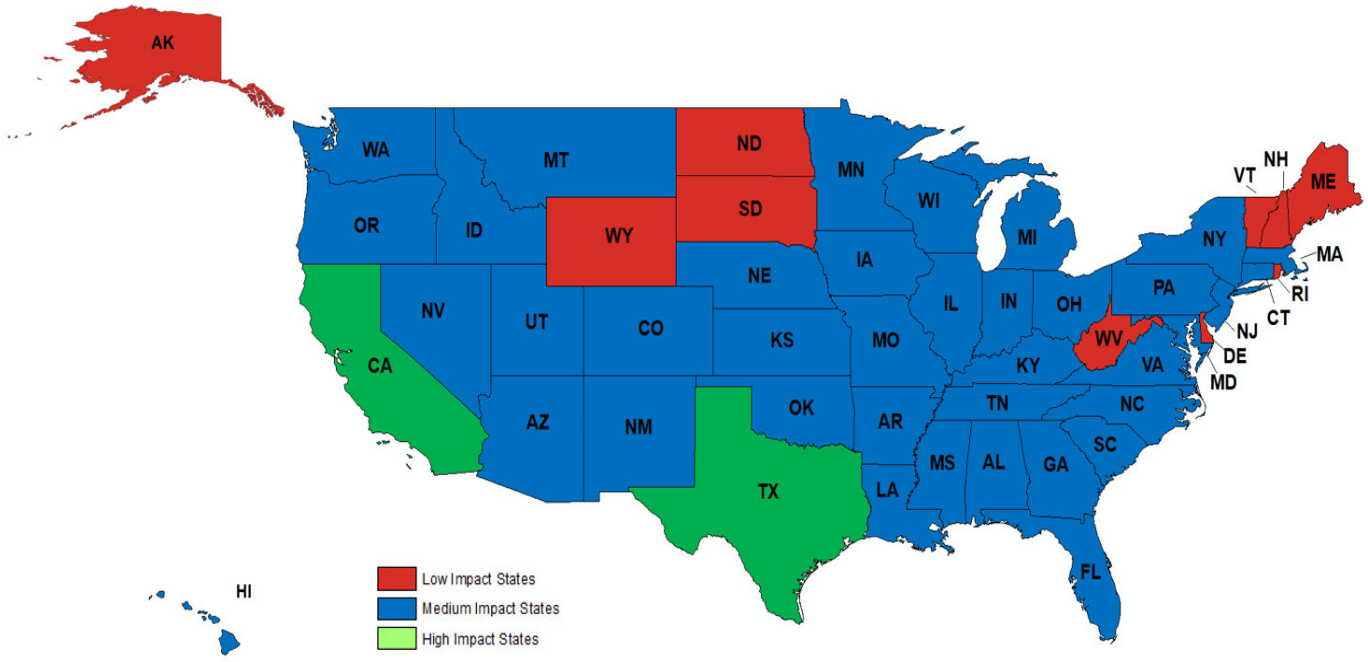
Most of the medium impact states are located primarily in the West and Great Lakes regions with some states from the Northeast and some from southern regions. Florida registered the largest impact of Mexican avocado imports on its economy among the medium impact states with 1,908 jobs created and $214.4 million contributed to its state GDP. Florida, the state with the third largest impact of Mexican avocado imports in FY 2019/20, also has a high state GDP and where Hispanic culture heavily influences food consumption choices and cooking styles. New York and Washington were not far behind Florida with 1,299 and 993 jobs created and $189.3 million and $135.4 million, respectively, in GDP created. Rounding out the top ten were Georgia (987 jobs created and $118.0 million in value added), Colorado (829 jobs created and $94.3 million in value added), Illinois (775 jobs created and $104.5 million in value added), Arizona (766 jobs created and $85.9 million in value added), and Pennsylvania (710 jobs created and $90.3 million in value added).

Table 5: State-Level Economic Contribution of FY 2019/20 Mexican Avocado Imports

State	Total Output	Total Value Added	Total Employment	Total Labor Income	Total Taxes*
	$ million	$ million	No. of jobs	$ million	$ million
Alabama	$62.48	$37.28	362.1	$20.29	$10.89
Alaska	$17.13	$10.98	82.9	$4.84	$4.38
Arizona	$139.36	$85.94	766.2	$47.66	$23.59
Arkansas	$31.95	$20.27	168.5	$9.76	$6.06
California	$872.52	$569.82	4,212.8	$305.65	$188.56
Colorado	$153.03	$94.25	829.3	$55.53	$23.68
Connecticut	$44.11	$30.93	189.0	$16.07	$8.11
Delaware	$13.66	$9.01	68.8	$4.91	$2.51
Dis of Columbia	$22.02	$15.34	91.4	$10.36	$3.47
Florida	$345.95	$214.35	1,908.3	$114.51	$60.99
Georgia	$185.61	$118.03	986.8	$63.61	$30.89
Hawaii	$34.47	$20.08	197.0	$11.00	$6.26
Idaho	$26.98	$15.66	162.2	$8.35	$4.59
Illinois	$158.31	$104.47	775.4	$56.95	$26.85
Indiana	$60.93	$37.68	338.2	$20.77	$9.73
Iowa	$33.90	$20.63	190.4	$11.34	$5.64
Kansas	$30.94	$19.25	165.5	$10.18	$4.85
Kentucky	$37.34	$23.32	201.5	$11.73	$7.22
Louisiana	$66.37	$40.97	369.0	$21.53	$11.87
Maine	$11.00	$6.67	62.5	$3.41	$2.15
Maryland	$80.05	$51.90	405.3	$28.65	$16.48
Massachusetts	$100.69	$67.21	475.4	$40.09	$18.20
Michigan	$92.10	$58.29	491.8	$32.23	$15.18
Minnesota	$76.16	$47.23	408.9	$28.72	$13.10
Mississippi	$30.22	$17.91	175.5	$8.74	$5.98
Missouri	$63.97	$39.58	350.8	$22.40	$9.66
Montana	$17.37	$10.08	104.0	$5.38	$3.13
Nebraska	$22.93	$14.50	121.4	$7.99	$3.59
Nevada	$62.35	$38.89	337.0	$20.56	$12.46
New Hampshire	$14.99	$9.62	79.5	$5.92	$2.42
New Jersey	$108.73	$72.98	516.1	$42.18	$22.33
New Mexico	$33.74	$18.96	204.0	$9.51	$6.64
New York	$280.82	$189.31	1,299.1	$107.41	$58.42
North Carolina	$113.82	$70.08	633.4	$38.71	$19.45
North Dakota	$9.46	$5.96	47.9	$3.11	$1.84
Ohio	$124.16	$76.92	685.6	$42.49	$20.06
Oklahoma	$52.23	$32.07	282.3	$16.23	$8.86
Oregon	$90.41	$55.53	510.3	$32.04	$15.39
Pennsylvania	$139.32	$90.27	709.8	$50.74	$25.74
Rhode Island	$10.22	$6.68	52.3	$3.59	$2.06
South Carolina	$66.97	$40.99	378.4	$21.42	$13.26
South Dakota	$9.13	$5.66	48.6	$2.97	$1.57
Tennessee	$71.30	$45.33	374.1	$24.42	$12.44
Texas	$510.42	$334.29	2,487.4	$173.51	$81.95
Utah	$72.34	$42.72	419.6	$24.17	$11.60
Vermont	$5.30	$3.27	29.2	$1.67	$1.09
Virginia	$104.49	$67.30	531.7	$36.93	$18.79
Washington	$208.45	$135.40	993.3	$70.88	$42.98
West Virginia	$12.80	$7.85	71.5	$3.91	$2.68
Wisconsin	$58.95	$35.73	332.9	$20.22	$10.05
Wyoming	$11.95	$7.46	62.2	$4.17	$2.48

* Federal, state, and local

Figure 8: State-Level Absolute Economic Contributions of 2019/20 Mexican Avocado Imports



High Impact States
(> 2,000 jobs and >$300 million)

	Jobs	VA*
California	4,212.8	$569.8
Texas	2,487.4	$334.3

Medium Impact States
(100 - 2,000 jobs and $10 - $300 million)

	Jobs	VA*
Florida	1,908.3	$214.4
New York	1,299.1	$189.3
Washington	993.3	$135.4
Georgia	986.8	$118.0
Colorado	829.3	$94.3
Illinois	775.4	$104.5
Arizona	766.2	$85.9
Pennsylvania	709.8	$90.3
Ohio	685.6	$76.9
North Carolina	633.4	$70.1
Virginia	531.7	$67.3
New Jersey	516.1	$73.0
Oregon	510.3	$55.5
Michigan	491.8	$58.3
Massachusetts	475.4	$67.2
Utah	419.6	$42.7
Minnesota	408.9	$47.2
Maryland	405.3	$51.9
South Carolina	378.4	$41.0
Tennessee	374.1	$45.3
Louisiana	369.0	$41.0
Alabama	362.1	$37.3
Missouri	350.8	$39.6
Indiana	338.2	$37.7
Nevada	337.0	$38.9
Wisconsin	332.9	$35.7
Oklahoma	282.3	$32.1
New Mexico	204.0	$19.0
Kentucky	201.5	$23.3
Hawaii	197.0	$20.1
Iowa	190.4	$20.6
Connecticut	189.0	$30.9
Mississippi	175.5	$17.9
Arkansas	168.5	$20.3
Kansas	165.5	$19.2
Idaho	162.2	$15.7
Nebraska	121.4	$14.5
Montana	104.0	$10.1

Low Impact States
(< 100 jobs and < $10 million)

	Jobs	VA*
District of Columbia	91.4	$15.3
Alaska	82.9	$11.0
New Hampshire	79.5	$9.6
West Virginia	71.5	$7.8
Delaware	68.8	$9.0
Maine	62.5	$6.7
Wyoming	62.2	$7.5
Rhode Island	52.3	$6.7
South Dakota	48.6	$5.7
North Dakota	47.9	$6.0
Vermont	29.2	$3.3

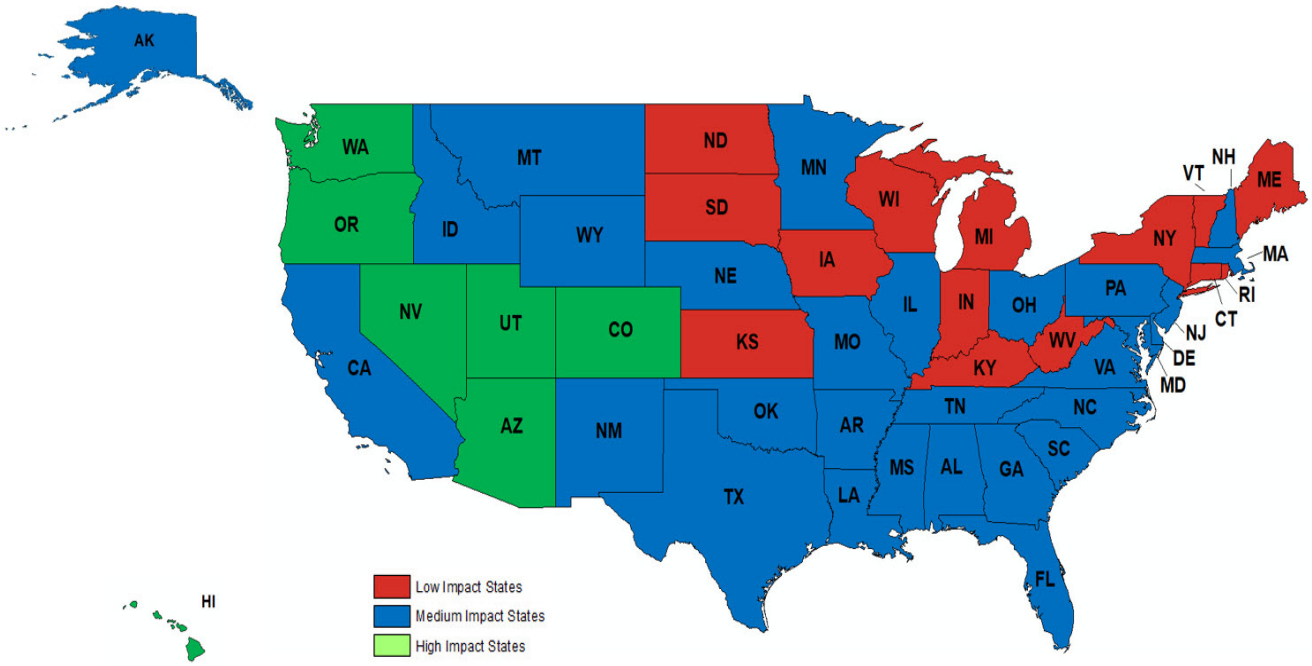
* Value-added in $ million

The low impact category included 10 states and the District of Colombia (in red on the map in Figure 8) located primarily in the Plains and Northeast regions (along with Alaska). District of Columbia experienced the largest economic impact from FY 2019/20 Mexican avocado imports among the low impact category states (91 jobs created and $15.3 million in value added).

The state-level contributions to federal, state, and local taxes by Mexican avocado imports followed generally the same pattern as jobs created and value added generated by state. In California and Texas, the imports generated $188.6 and $81.9 million in federal, state and local taxes (Table 5). In contrast, in the low impact states, the additional federal, state, and local taxes generated ranged from a high of $4.4 million in Alaska to a low of $1.1 million in Vermont. Just one caution about comparing these state-level numbers to the aggregate national numbers generated earlier in this report. The total impacts of all of the individual states summed up do not equal the aggregate of the United States for any of the categories in Table 5 (output, employment, labor income, value added, and taxes). The reason is that state-level estimates only capture economic activity that occurs within state boundaries whereas the national-level estimates captures both the impact within states as well as economic activity that crosses state borders, and, thus, will be larger.

The state-by-state categorization of the level of impacts as shown in Figure 8 applies a standard of impact based on the *absolute* size of the value-added and jobs created. The fact that California and Texas are thus categorized as the highest impact states is not surprising given that those two states are also the two largest states in the levels of GDP and employment. Alternatively, the states can be categorized based on the *relative* contribution of avocado imports to each state's GDP and employment levels (change in state GDP from avocado imports divided by the state's GDP expressed as a percentage). When categorized in this way, the clustering of states within each category is more distinct (Figure 9). Those states for which the relative contribution of avocado imports to their GDP and employment levels are the highest include states in the western part of the country including Washington, Oregon, Nevada, Utah, Arizona, and Colorado. Alaska is the highest "Medium Impact" state. The lowest impact states are primarily those along the Appalachian and Alleghany Mountain ranges northward to the Canadian border and northeast through New England. Medium impact states include states in the south and southeast. The implication of this method of categorizing the state-level impacts is that avocado imports make a relatively higher contribution to the economies of the western states and a relatively lower contribution to the central and northeast quadrant of the country.

Figure 9: State-Level Relative Economic Contributions of FY 2018/19 Mexican Avocado



*High Impact States**	Sum of GDP & Employ Shares
Colorado	0.0470%
Washington	0.0458%
Arizona	0.0448%
Utah	0.0446%
Oregon	0.0430%
Hawaii	0.0422%
Nevada	0.0420%

*Medium Impact States***	Sum of GDP & Employ Shares
Alaska	0.0379%
New Mexico	0.0367%
California	0.0364%
Florida	0.0361%
Idaho	0.0360%
Georgia	0.0358%
Montana	0.0349%
Wyoming	0.0346%
Texas	0.0327%
South Carolina	0.0307%
Alabama	0.0300%
Louisiana	0.0293%
Oklahoma	0.0279%
Mississippi	0.0262%
Arkansas	0.0256%
Delaware	0.0239%
Minnesota	0.0234%
Maryland	0.0232%
North Carolina	0.0228%
Virginia	0.0225%
Illinois	0.0216%
Massachusetts	0.0216%
Tennessee	0.0214%
Missouri	0.0213%
New Jersey	0.0209%
Ohio	0.0208%
District of Columbia	0.0207%
Nebraska	0.0206%
Pennsylvania	0.0204%
New Hampshire	0.0200%

*Low Impact States****	Sum of GDP & Employ Shares
Iowa	0.0197%
Kansas	0.0197%
Wisconsin	0.0193%
Connecticut	0.0190%
Kentucky	0.0189%
Rhode Island	0.0188%
South Dakota	0.0187%
Indiana	0.0187%
North Dakota	0.0187%
West Virginia	0.0180%
Maine	0.0174%
Vermont	0.0161%
New York	0.0120%
Michigan	0.0116%

* >= 0.04% sum of the corresponding state's GDP + Employment Shares
** 0.02% - 0.039% sum of the corresponding state's GDP + Employment Shares
*** < 0.02% sum of the corresponding state's GDP + Employment Shares

Implied State-Level Impact Multipliers

When the state-by-state benefits of the Mexican avocado imports are expressed on a per-dollar-of-imports basis, the impacts are more uniform across the states (Table 6). Thus, a high dollar value of impact divided by a high level of import value is not much different in many cases from a low dollar impact value divided by a low dollar value of imports. The ratio of the value of impact to the value of imports for each state provides a measure of the multiplier effect of the imports. For example, the ratio of value added to import value for a given state indicates the value-added generated for every dollar of Mexican avocados imported into the state. The value-added multipliers range from highs of 1.20 in California and Illinois to lows of 0.90 in New Mexico. The jobs multiplier (jobs generated per $million in imports) ranged from highs of 11.0 in Utah, 10.6 in Florida, and 10.5 in Colorado to lows of 5.8 in the District of Colombia, 7.0 in Connecticut, and 7.4 in Alaska.

Industry by Industry Breakdown of the State-level Impacts

As with the aggregate U.S. analysis, the industry breakdown of the state-level economic impacts of Mexican avocado imports indicates that the wholesale/retail and service industries account for much of the contribution of imports of Mexican imports to state-level economic activity as might be expected. (See the appendix for the tables showing the industry breakdown of the impacts for all 50 states and the District of Colombia.) The manufacturing industry in most states is also a major beneficiary of state imports of Mexican avocados. Transportation, warehousing, and a large number of miscellaneous services account for much of the remaining contribution of imports of Mexican avocados to state economies.

CONCLUSIONS AND IMPLICATIONS

The primary conclusion from this study is that the contribution of U.S. imports of Mexican Hass avocados to the U.S. economy has continued to increase. In FY 2019/20, Mexican Hass avocados contributed the following to the U.S. economy:

- $6.5 billion in output or spending;
- $4.0 billion to the U.S. GDP (value-added);
- 33,051 jobs;
- $2.2 billion in labor income; and
- $1.1 billion in taxes.

Table 6: Implied State-Level Economic Multipliers of FY 2019/20 Avocado Imports from Mexico

State	Total Output	Total Value Added	Total Employment	Total Labor Income	Total Taxes*
	$output/$import	$VA/$import	jobs added/$million imports	$Labor income/$import	% of import value
Alabama	1.65	0.98	9.5	0.53	28.69%
Alaska	1.52	0.98	7.4	0.43	38.96%
Arizona	1.87	1.16	10.3	0.64	31.72%
Arkansas	1.57	1.00	8.3	0.48	29.88%
California	1.83	1.20	8.8	0.64	39.57%
Colorado	1.93	1.19	10.5	0.70	29.86%
Connecticut	1.63	1.14	7.0	0.59	29.92%
Delaware	1.67	1.10	8.4	0.60	30.67%
Dist. of Columbia	1.39	0.97	5.8	0.65	21.87%
Florida	1.93	1.19	10.6	0.64	33.94%
Georgia	1.83	1.17	9.7	0.63	30.49%
Hawaii	1.74	1.02	10.0	0.56	31.67%
Idaho	1.64	0.95	9.9	0.51	27.92%
Illinois	1.83	1.20	8.9	0.66	30.96%
Indiana	1.67	1.03	9.3	0.57	26.68%
Iowa	1.64	0.99	9.2	0.55	27.21%
Kansas	1.68	1.04	9.0	0.55	26.32%
Kentucky	1.60	1.00	8.6	0.50	30.94%
Louisiana	1.65	1.02	9.2	0.54	29.54%
Maine	1.72	1.04	9.7	0.53	33.51%
Maryland	1.72	1.12	8.7	0.62	35.42%
Massachusetts	1.78	1.19	8.4	0.71	32.19%
Michigan	1.76	1.11	9.4	0.62	28.99%
Minnesota	1.88	1.17	10.1	0.71	32.31%
Mississippi	1.55	0.92	9.0	0.45	30.63%
Missouri	1.81	1.12	9.9	0.63	27.34%
Montana	1.64	0.95	9.8	0.51	29.49%
Nebraska	1.70	1.07	9.0	0.59	26.55%
Nevada	1.73	1.08	9.3	0.57	34.53%
New Hampshire	1.78	1.14	9.4	0.70	28.72%
New Jersey	1.78	1.19	8.4	0.69	36.47%
New Mexico	1.60	0.90	9.7	0.45	31.43%
New York	1.71	1.15	7.9	0.65	35.53%
North Carolina	1.78	1.10	9.9	0.61	30.46%
North Dakota	1.56	0.98	7.9	0.51	30.33%
Ohio	1.84	1.14	10.2	0.63	29.70%
Oklahoma	1.66	1.02	9.0	0.52	28.22%
Oregon	1.77	1.09	10.0	0.63	30.10%
Pennsylvania	1.80	1.17	9.2	0.66	33.33%
Rhode Island	1.69	1.11	8.7	0.59	34.07%
South Carolina	1.65	1.01	9.3	0.53	32.76%
South Dakota	1.61	1.00	8.6	0.52	27.65%
Tennessee	1.73	1.10	9.1	0.59	30.13%
Texas	1.78	1.16	8.7	0.60	28.50%
Utah	1.89	1.12	11.0	0.63	30.29%
Vermont	1.60	0.99	8.8	0.50	33.14%
Virginia	1.74	1.12	8.8	0.61	31.22%
Washington	1.71	1.11	8.2	0.58	35.29%
West Virginia	1.51	0.92	8.4	0.46	31.55%
Wisconsin	1.76	1.06	9.9	0.60	29.94%
Wyoming	1.48	0.93	7.7	0.52	30.83%

* Federal, state, and local.

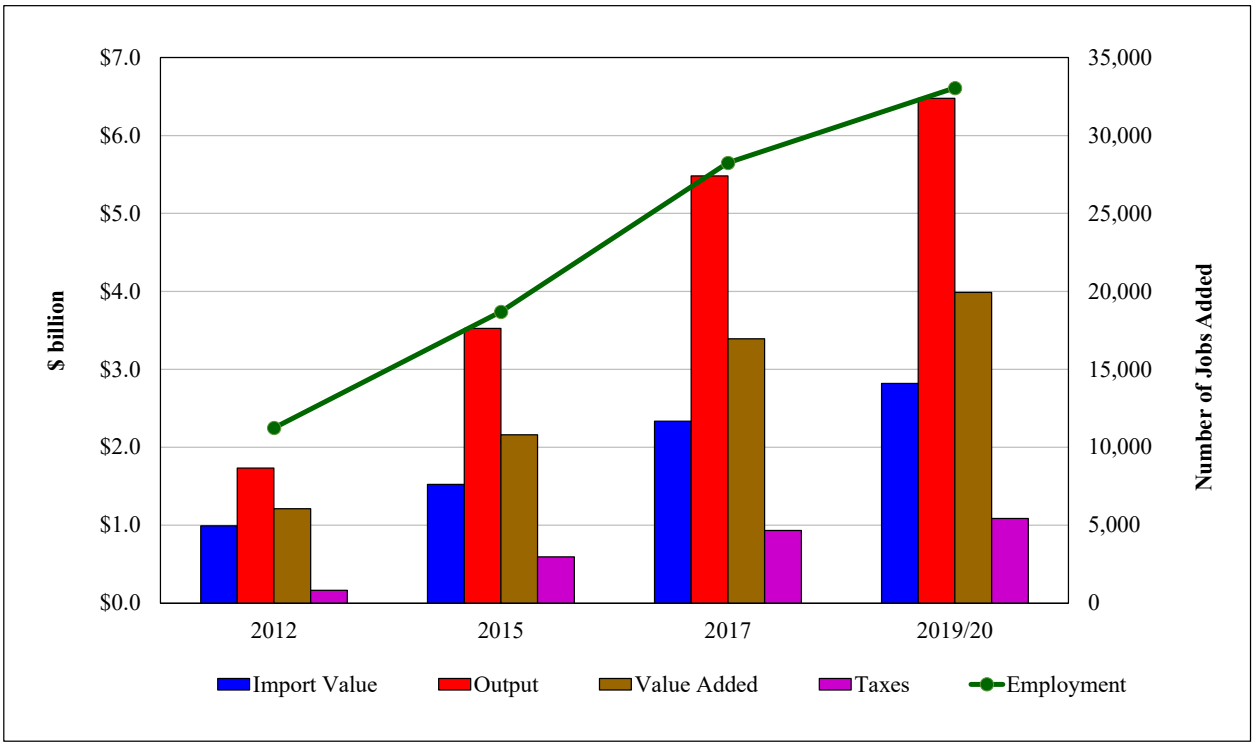
Looked at another way, every dollar of avocado imports from Mexico in FY2019/20 generated $2.30 dollars in output, $1.41 in U.S. GDP, and $0.78 in labor income. Every million dollars of those imports generated 11.7 U.S. jobs.

Comparing the economic contribution of Mexican avocado imports in this report for FY 2019/20 to the contribution of those imports in 2012, 2015, and 2017 as reported in the three previous reports (Williams, Capps, and Hanselka, 2014 and 2016 and Williams and Hanselka, 2018) reveals the growing importance of Mexican avocado imports to the U.S. economy (Figure 10). While the value of U.S. imports of Mexican avocados increased by 184% from $991.9 million in 2012 to $2.82 billion in 2019/20, the contribution of those imports to U.S. output has increased by 273% from $1.7 billion to $6.5 billion. At the same time, the contribution of those imports to U.S. GDP (value added) has increased by nearly 230% from $1.2 billion to $3.99 billion. The contributions to U.S. labor income, U.S. tax revenues, and employment have also registered dramatic increases (219%, 558%, and 194%, respectively). Given their continuing rate of growth, imports of Mexican avocados will continue to make substantial and increasing contributions to the U.S. economy for the foreseeable future. When aggregated over time, the contributions of those imports to the U.S. economy are not only impressive but economically important for the U.S. economy. Note, however, that the rate of increase in the impact of Mexican Hass avocado imports on the U.S. economy slowed from 2017 to 2019/20. The primary causes included the effects of the Mexican producer strikes, weather problems, and COVID-19 on U.S. imports of Mexican tomatoes. U.S. avocado consumption is forecast to rebound in coming months so that over the next two years, the rate of increase in U.S. imports of avocados and, therefore, their impact on the U.S. economy will likely also rebound.

The primary conclusion from the state-level analysis is that imports of avocados from Mexico have had a positive and significant effect on the economies of many U.S. states. Specifically, with respect to state-level impacts, this study finds the following:

- California and Texas are the largest *absolute* beneficiaries from the economic activity generated by imports of Mexican avocados in FY 2019/20, including 4,213 and 2,487 jobs created and $569.8 million and $334.3 million in value added generated in the respective states. In terms of absolute contributions to value added and jobs, the other top ten beneficiary states include (in order): Florida, New York, Washington, Georgia, Colorado, Illinois, Arizona and Pennsylvania.

Figure 10: Growth of the Economic Contribution of Mexican Avocado Imports, 2012 - 2019/20



- In terms of the *relative* contribution of imports to each state's GDP and employment, however, the top beneficiary states are all in the West, including Colorado, Washington, Arizona, Utah, Oregon, Hawaii, and Nevada. The least benefits on a relative basis accrued primarily to states in the Appalachian and Alleghany mountain areas up through the northeast into New England.

- On a per-dollar-of-imports basis, however, the contributions among states were more uniform. The value added generated for each dollar of imports of Mexican avocados ranged from highs of $1.20 in California and Illinois to a low of 0.90 in New Mexico. The jobs generated per million dollars of Mexican avocado imports ranged from highs of 11.0 in Utah, 10.6 in Florida, and 10.5 in Colorado to lows of 5.8 in the District of Colombia, 7.0 in Connecticut, and 7.4 in Alaska.

The primary implication of this update study continues to be straight forward. Imports of Mexican avocados continue to be pro-growth for the U.S. economy. Given the predicted growth path of imports of Mexican avocados, their current positive contribution to the U.S. economy will only intensify over the years. The sequential easing of phytosanitary restrictions on avocado

imports from Mexico in place since 1914 not only has supported the growth of the Mexican avocado industry over the years but also has boosted the U.S. economy as a whole. Thus, any trade policy or other actions to reduce the level of U.S. avocado imports would have a substantial and growing negative impact on the U.S. economy.

Just as is the case at the national level, imports of Mexican avocados are pro-growth for state economies. Some states benefit much more given their larger GDPs and populations and their tendencies towards cuisines that utilize avocados more intensively. As Mexican avocado imports follow an expected steep growth path over the next several years, the measured benefits to individual state economies will likely grow as well. The consequence of restrictions on those imports would be lost jobs and slower economic growth across individual states.

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APPENDIX

State-by-State Industry Breakdown of the Economic Benefits of Mexican Avocado Imports

Alabama

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$40,602,111	$25,420,026	199.0	$13,395,135	$5,411,246
Manufacturing	$760,475	$212,146	1.9	$106,149	$4,927
Transportation & Warehousing	$1,780,942	$875,775	14.8	$691,280	$13,516
Services**	$16,991,752	$9,678,938	133.3	$5,336,730	$631,047
-Food & accommodation	$968,185	$479,361	16.7	$326,324	$67,055
-Other	$16,023,566	$9,199,577	116.6	$5,010,406	$563,992
Agriculture	$38,662	$16,992	0.4	$14,064	-$290
Other	$2,306,740	$1,074,486	12.8	$742,119	$60,190
Total**	$62,480,681	$37,278,363	362.1	$20,285,478	$6,120,636

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Alaska

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$11,780,784	$7,835,837	51.2	$3,074,545	$3,041,210
Manufacturing	$120,338	$30,213	0.3	$12,081	$1,607
Transportation & Warehousing	$523,669	$306,293	3.0	$212,739	$9,070
Services**	$4,104,678	$2,488,229	25.7	$1,320,037	$134,315
-Food & accommodation	$209,084	$126,664	3.0	$88,144	$3,044
-Other	$3,895,594	$2,361,566	22.8	$1,231,893	$131,272
Agriculture	$4,504	$1,997	0.1	$1,916	$291
Other	$599,145	$320,729	2.6	$219,881	$32,204
Total**	$17,133,118	$10,983,298	82.9	$4,841,200	$3,218,697

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Arizona

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$81,599,437	$53,710,380	371.7	$28,763,902	$10,282,664
Manufacturing	$1,341,435	$378,849	4.3	$241,673	$15,325
Transportation & Warehousing	$4,465,503	$2,265,413	33.4	$1,573,006	$132,318
Services**	$46,953,606	$27,084,336	331.3	$15,452,023	$1,559,025
-Food & accommodation	$2,435,950	$1,354,007	38.3	$895,557	$169,957
-Other	$44,517,656	$25,730,329	293.1	$14,556,467	$1,389,068
Agriculture	$125,659	$49,783	1.1	$42,511	$406
Other	$4,870,590	$2,452,318	24.3	$1,590,086	$149,318
Total**	$139,356,229	$85,941,079	766.2	$47,663,201	$12,139,056

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Arkansas

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$21,605,736	$14,545,247	92.9	$6,529,493	$3,127,040
Manufacturing	$335,154	$91,523	1.0	$49,365	$4,132
Transportation & Warehousing	$851,002	$428,596	6.8	$309,953	$13,254
Services**	$8,145,246	$4,720,702	62.0	$2,547,829	$318,351
-Food & accommodation	$449,092	$225,097	7.7	$148,483	$29,732
-Other	$7,696,154	$4,495,605	54.3	$2,399,346	$288,620
Agriculture	$22,805	$7,978	0.2	$6,525	$334
Other	$986,097	$475,650	5.7	$316,308	$36,254
Total**	$31,946,040	$20,269,696	168.5	$9,759,473	$3,499,365

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

California

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$518,010,975	$352,518,642	2,177.1	$174,347,714	$92,839,143
Manufacturing	$26,016,422	$9,072,052	53.4	$4,109,216	$479,909
Transportation & Warehousing	$29,676,079	$16,366,971	209.4	$11,708,073	$649,606
Services**	$276,964,700	$179,101,910	1,634.2	$105,215,899	$8,701,587
-Food & accommodation	$13,951,738	$8,487,767	194.4	$5,806,545	$799,123
-Other	$263,012,962	$170,614,143	1,439.7	$99,409,355	$7,902,464
Agriculture	$1,309,402	$582,292	8.4	$477,806	-$29,421
Other	$20,538,077	$12,176,097	130.3	$9,790,203	$211,688
Total**	$872,515,655	$569,817,964	4,212.8	$305,648,912	$102,852,512

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Colorado

Wholesale/Retail	$86,895,386	$56,515,208	403.8	$32,939,549	$7,165,240
Manufacturing	$2,468,934	$740,444	6.4	$389,167	$29,826
Transportation & Warehousing	$4,352,141	$2,266,479	31.2	$1,699,929	$101,933
Services**	$53,974,785	$31,803,203	357.0	$18,350,082	$1,662,971
-Food & accommodation	$2,745,528	$1,548,179	42.7	$1,013,183	$194,583
-Other	$51,229,257	$30,255,025	314.3	$17,336,899	$1,468,388
Agriculture	$173,675	$65,281	1.5	$55,872	$2,097
Other	$5,168,078	$2,860,828	29.3	$2,092,921	$99,013
Total**	$153,032,999	$94,251,443	829.3	$55,527,520	$9,061,080

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Connecticut

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$29,044,965	$21,428,440	101.3	$10,161,865	$2,753,011
Manufacturing	$268,772	$99,422	0.8	$70,627	$6,304
Transportation & Warehousing	$1,008,168	$577,297	7.6	$462,534	$16,078
Services**	$12,549,098	$8,156,108	72.4	$4,822,166	$554,882
-Food & accommodation	$551,602	$329,003	8.3	$224,250	$40,226
-Other	$11,997,496	$7,827,105	64.0	$4,597,916	$514,656
Agriculture	$9,719	$3,933	0.2	$3,575	$417
Other	$1,232,632	$663,586	6.7	$548,826	$46,685
Total**	$44,113,353	$30,928,785	189.0	$16,069,592	$3,377,378

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Delaware

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$8,756,554	$5,891,220	38.1	$3,260,315	$1,097,356
Manufacturing	$95,623	$22,262	0.1	$9,374	$1,893
Transportation & Warehousing	$398,723	$213,978	3.2	$167,428	$2,580
Services**	$4,035,922	$2,675,321	25.3	$1,333,823	$205,300
-Food & accommodation	$213,694	$122,209	3.3	$81,644	$15,142
-Other	$3,822,228	$2,553,111	22.0	$1,252,179	$190,157
Agriculture	$5,467	$2,636	0.0	$2,146	-$22
Other	$367,305	$201,436	2.0	$138,021	$10,185
Total**	$13,659,595	$9,006,852	68.8	$4,911,108	$1,317,291

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

District of Columbia

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$16,200,958	$11,364,383	61.2	$7,623,827	$1,337,832
Manufacturing	$9,048	$3,426	0.0	$3,101	$222
Transportation & Warehousing	$218,996	$112,008	1.7	$100,335	$750
Services**	$5,146,513	$3,600,317	25.9	$2,355,328	$161,556
-Food & accommodation	$224,810	$152,190	2.6	$94,923	$14,241
-Other	$4,921,702	$3,448,127	23.4	$2,260,405	$147,315
Agriculture	$18	$10	0.0	$10	$0
Other	$443,814	$260,836	2.5	$273,376	$15,172
Total**	$22,019,347	$15,340,980	91.4	$10,355,977	$1,515,532

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Florida

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$197,120,332	$129,846,489	897.9	$65,646,399	$25,864,958
Manufacturing	$4,545,603	$1,419,397	13.8	$753,139	$67,013
Transportation & Warehousing	$11,452,356	$5,708,059	85.6	$4,061,229	$240,320
Services**	$121,052,853	$70,893,259	846.5	$40,010,367	$4,753,043
-Food & accommodation	$6,097,301	$3,519,846	91.4	$2,259,761	$395,601
-Other	$114,955,552	$67,373,413	755.1	$37,750,606	$4,357,442
Agriculture	$326,782	$176,675	3.8	$136,543	$1,330
Other	$11,456,822	$6,310,639	60.6	$3,903,408	$550,600
Total**	$345,954,748	$214,354,518	1,908.3	$114,511,085	$31,477,264

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Georgia

Wholesale/Retail	$110,527,601	$74,268,217	485.4	$38,663,207	$12,600,971
Manufacturing	$2,792,670	$894,934	7.9	$475,325	$36,750
Transportation & Warehousing	$6,206,811	$3,253,522	45.9	$2,347,939	$107,032
Services**	$60,908,507	$37,021,327	418.0	$20,365,237	$1,944,971
-Food & accommodation	$3,139,367	$1,649,966	52.5	$1,118,434	$183,081
-Other	$57,769,140	$35,371,361	365.5	$19,246,803	$1,761,891
Agriculture	$177,242	$70,269	1.2	$57,210	$114
Other	$4,999,487	$2,524,867	28.4	$1,705,207	$193,542
Total**	$185,612,318	$118,033,136	986.8	$63,614,125	$14,883,380

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Hawaii

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$21,201,233	$12,368,417	113.8	$6,653,577	$3,014,980
Manufacturing	$439,849	$101,597	1.0	$47,758	$3,339
Transportation & Warehousing	$959,511	$498,042	6.4	$337,133	$31,335
Services**	$10,732,793	$6,527,293	69.8	$3,509,636	$513,994
-Food & accommodation	$596,749	$382,446	7.3	$231,006	$39,937
-Other	$10,136,044	$6,144,847	62.4	$3,278,631	$474,057
Agriculture	$21,977	$11,858	0.5	$9,643	-$23
Other	$1,117,372	$576,267	5.6	$445,049	$19,550
Total**	$34,472,734	$20,083,474	197.0	$11,002,796	$3,583,174

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Idaho

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$17,597,478	$10,706,013	89.7	$5,549,782	$2,132,456
Manufacturing	$239,198	$71,317	0.8	$39,510	$3,223
Transportation & Warehousing	$697,206	$332,553	5.6	$234,966	$9,135
Services**	$7,632,899	$4,168,431	61.1	$2,249,183	$245,340
-Food & accommodation	$409,999	$206,459	7.2	$137,937	$21,259
-Other	$7,222,901	$3,961,972	53.9	$2,111,246	$224,082
Agriculture	$28,431	$12,807	0.2	$10,739	-$86
Other	$785,561	$364,516	4.8	$270,773	$16,820
Total**	$26,980,774	$15,655,637	162.2	$8,354,953	$2,406,890

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Illinois

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$94,223,430	$65,536,241	384.0	$33,946,611	$9,116,044
Manufacturing	$3,094,810	$1,085,026	6.6	$532,564	$40,147
Transportation & Warehousing	$5,010,981	$2,704,685	35.3	$2,011,671	$103,689
Services**	$51,544,209	$32,690,270	322.2	$18,647,683	$2,088,349
-Food & accommodation	$2,695,306	$1,573,910	40.1	$1,041,134	$181,605
-Other	$48,848,903	$31,116,360	282.1	$17,606,549	$1,906,744
Agriculture	$57,062	$23,999	0.5	$7,497	$2,102
Other	$4,378,655	$2,426,678	26.7	$1,802,924	$147,533
Total**	$158,309,146	$104,466,899	775.4	$56,948,949	$11,497,863

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Indiana

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$39,113,751	$25,272,725	183.3	$13,267,247	$3,896,432
Manufacturing	$1,157,339	$425,272	2.8	$176,852	$8,784
Transportation & Warehousing	$1,884,659	$960,485	15.2	$705,865	$17,574
Services**	$16,922,319	$10,098,572	125.8	$5,959,955	$654,156
-Food & accommodation	$1,008,910	$508,590	17.6	$344,918	$60,433
-Other	$15,913,409	$9,589,983	108.2	$5,615,037	$593,723
Agriculture	$35,812	$12,185	0.3	$8,329	$1,069
Other	$1,819,731	$913,744	10.8	$655,365	$25,251
Total**	$60,933,610	$37,682,984	338.2	$20,773,613	$4,603,267

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Iowa

Wholesale/Retail	$22,155,295	$14,005,512	107.5	$7,611,188	$2,437,835
Manufacturing	$351,034	$111,170	1.1	$73,670	$3,756
Transportation & Warehousing	$900,403	$462,690	7.7	$355,092	$10,836
Services**	$9,393,037	$5,520,783	67.7	$2,929,699	$390,280
-Food & accommodation	$472,520	$238,043	8.3	$158,686	$29,273
-Other	$8,920,517	$5,282,739	59.4	$2,771,013	$361,007
Agriculture	$28,239	$8,448	0.1	$6,919	$305
Other	$1,073,700	$517,443	6.2	$363,591	$18,254
Total**	$33,901,708	$20,626,045	190.4	$11,340,158	$2,861,266

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Kansas

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$19,779,914	$12,973,575	89.9	$6,554,785	$1,923,105
Manufacturing	$452,634	$144,311	1.1	$73,624	$4,989
Transportation & Warehousing	$940,143	$516,793	7.2	$377,203	$13,525
Services**	$8,746,650	$5,141,121	61.5	$2,830,849	$329,855
-Food & accommodation	$466,750	$248,577	7.7	$166,042	$31,054
-Other	$8,279,900	$4,892,544	53.8	$2,664,806	$298,801
Agriculture	$19,293	$4,509	0.1	$4,225	$418
Other	$1,005,635	$468,667	5.7	$337,676	$13,070
Total**	$30,944,270	$19,248,977	165.5	$10,178,362	$2,284,962

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Kentucky

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$24,806,638	$16,389,297	110.9	$7,546,677	$3,932,444
Manufacturing	$450,931	$142,300	1.3	$77,500	$7,849
Transportation & Warehousing	$1,188,744	$655,561	8.9	$506,049	$10,676
Services**	$9,694,382	$5,555,944	73.7	$3,196,692	$350,003
-Food & accommodation	$568,227	$299,554	9.3	$211,510	$31,016
-Other	$9,126,155	$5,256,390	64.4	$2,985,181	$318,987
Agriculture	$16,367	$6,344	0.3	$4,050	$347
Other	$1,186,152	$571,875	6.4	$394,367	$20,158
Total**	$37,343,214	$23,321,321	201.5	$11,725,334	$4,321,477

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Louisiana

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$43,055,975	$27,946,177	198.8	$13,990,238	$6,256,355
Manufacturing	$858,834	$268,817	1.7	$94,464	$7,738
Transportation & Warehousing	$2,054,159	$1,161,931	13.3	$749,756	$31,450
Services**	$18,205,160	$10,490,741	143.1	$5,968,649	$714,333
-Food & accommodation	$1,113,525	$594,771	18.4	$395,476	$68,791
-Other	$17,091,635	$9,895,971	124.8	$5,573,173	$645,542
Agriculture	$28,982	$13,055	0.5	$9,432	$623
Other	$2,168,980	$1,092,040	11.7	$720,979	$36,318
Total**	$66,372,090	$40,972,762	369.0	$21,533,518	$7,046,818

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Maine

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$6,901,069	$4,380,395	33.3	$2,112,916	$1,128,451
Manufacturing	$106,958	$23,482	0.3	$14,711	$1,665
Transportation & Warehousing	$317,415	$159,231	2.7	$117,020	$6,727
Services**	$3,306,577	$1,917,945	23.9	$1,040,559	$149,129
-Food & accommodation	$170,711	$98,382	2.7	$62,571	$13,503
-Other	$3,135,866	$1,819,563	21.2	$977,989	$135,627
Agriculture	$7,586	$3,421	0.2	$3,042	$204
Other	$363,319	$190,200	2.2	$125,997	$9,893
Total**	$11,002,923	$6,674,675	62.5	$3,414,246	$1,296,068

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Maryland

Wholesale/Retail	$49,946,887	$33,457,827	217.0	$17,786,206	$7,708,963
Manufacturing	$542,488	$189,082	1.6	$95,747	$8,696
Transportation & Warehousing	$2,416,430	$1,286,478	18.8	$943,915	$44,123
Services**	$25,004,932	$15,765,203	155.5	$8,940,193	$961,427
-Food & accommodation	$1,217,315	$712,072	18.0	$462,571	$103,744
-Other	$23,787,617	$15,053,130	137.5	$8,477,622	$857,683
Agriculture	$18,832	$7,090	0.2	$4,549	$419
Other	$2,118,986	$1,199,184	12.1	$877,820	$64,656
Total**	$80,048,557	$51,904,863	405.3	$28,648,430	$8,788,284

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Massachusetts

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$61,111,485	$42,477,046	247.7	$24,879,884	$6,097,176
Manufacturing	$1,279,863	$476,932	3.3	$281,166	$18,285
Transportation & Warehousing	$2,472,306	$1,301,284	18.9	$969,274	$48,478
Services**	$33,402,180	$21,588,593	190.0	$12,879,946	$1,113,074
-Food & accommodation	$1,577,626	$973,291	22.3	$643,893	$104,058
-Other	$31,824,554	$20,615,303	167.6	$12,236,053	$1,009,017
Agriculture	$24,833	$14,681	0.5	$13,955	$1,314
Other	$2,403,864	$1,351,406	15.0	$1,070,282	-$25,881
Total**	$100,694,532	$67,209,942	475.4	$40,094,508	$7,252,447

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Michigan

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$56,675,228	$37,928,640	249.4	$20,078,838	$5,762,102
Manufacturing	$1,498,695	$467,664	3.9	$264,538	$15,423
Transportation & Warehousing	$2,483,701	$1,272,910	17.8	$930,163	$47,454
Services**	$28,515,384	$17,156,429	203.0	$9,895,570	$1,139,915
-Food & accommodation	$1,429,769	$745,694	24.5	$503,464	$91,580
-Other	$27,085,615	$16,410,734	178.5	$9,392,106	$1,048,335
Agriculture	$82,936	$37,266	1.0	$25,723	$1,886
Other	$2,846,989	$1,422,470	16.5	$1,038,674	$101,821
Total**	$92,102,933	$58,285,378	491.8	$32,233,505	$7,068,602

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Minnesota

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$44,489,005	$29,199,617	204.4	$17,247,404	$4,444,169
Manufacturing	$1,882,234	$626,636	5.0	$364,020	$16,594
Transportation & Warehousing	$2,106,958	$1,064,066	15.6	$788,401	$44,486
Services**	$24,779,708	$14,979,503	167.4	$9,329,369	$974,355
-Food & accommodation	$1,196,001	$659,415	19.3	$431,571	$105,450
-Other	$23,583,707	$14,320,088	148.0	$8,897,798	$868,905
Agriculture	$97,068	$31,492	0.6	$24,170	$700
Other	$2,804,496	$1,328,551	15.9	$962,880	$33,508
Total**	$76,159,470	$47,229,865	408.9	$28,716,245	$5,513,811

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Mississippi

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$20,655,001	$12,919,901	100.6	$5,960,819	$3,476,156
Manufacturing	$315,067	$81,477	0.7	$34,674	$3,021
Transportation & Warehousing	$912,268	$440,362	7.9	$322,488	$13,611
Services**	$7,302,735	$3,993,213	60.5	$2,108,627	$353,687
-Food & accommodation	$440,349	$216,942	7.6	$140,001	$31,336
-Other	$6,862,386	$3,776,271	52.9	$1,968,625	$322,350
Agriculture	$25,779	$10,756	0.3	$7,247	$343
Other	$1,007,164	$463,187	5.4	$301,449	$24,735
Total**	$30,218,013	$17,908,896	175.5	$8,735,303	$3,871,552

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Missouri

Wholesale/Retail	$38,431,629	$24,997,472	179.1	$13,904,090	$3,507,780
Manufacturing	$802,263	$275,308	2.2	$137,094	$11,044
Transportation & Warehousing	$1,952,364	$1,026,305	14.5	$701,635	$36,820
Services**	$20,533,863	$12,126,674	142.1	$6,900,175	$659,665
-Food & accommodation	$1,082,608	$560,937	18.5	$382,221	$58,535
-Other	$19,451,254	$11,565,736	123.6	$6,517,955	$601,129
Agriculture	$33,376	$11,441	0.5	$5,385	$844
Other	$2,217,354	$1,139,819	12.4	$753,731	$44,084
Total**	$63,970,850	$39,577,019	350.8	$22,402,110	$4,260,237

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Montana

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$11,353,245	$6,926,012	57.9	$3,531,045	$1,522,941
Manufacturing	$184,023	$47,338	0.4	$18,300	$1,878
Transportation & Warehousing	$493,984	$234,501	3.8	$168,928	$9,487
Services**	$4,705,843	$2,596,839	38.1	$1,450,864	$155,314
-Food & accommodation	$274,917	$140,412	4.9	$101,449	$4,733
-Other	$4,430,926	$2,456,426	33.1	$1,349,415	$150,581
Agriculture	$10,539	$6,573	0.1	$4,175	$610
Other	$625,776	$271,421	3.7	$208,813	$9,966
Total**	$17,373,411	$10,082,684	104.0	$5,382,125	$1,700,196

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Nebraska

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$14,586,875	$9,792,551	64.0	$5,294,377	$1,417,528
Manufacturing	$201,103	$61,798	0.6	$44,970	$2,005
Transportation & Warehousing	$576,807	$297,617	4.5	$211,977	$8,622
Services**	$6,846,745	$3,959,536	48.1	$2,186,910	$239,651
-Food & accommodation	$349,908	$182,053	6.0	$122,303	$21,221
-Other	$6,496,837	$3,777,483	42.1	$2,064,608	$218,431
Agriculture	$23,422	$8,216	0.1	$6,921	$363
Other	$693,655	$380,482	4.0	$240,521	-$10,145
Total**	$22,928,608	$14,500,200	121.4	$7,985,676	$1,658,026

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Nevada

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$38,944,881	$25,108,595	181.8	$13,137,543	$6,516,275
Manufacturing	$264,081	$87,895	1.2	$63,094	$3,906
Transportation & Warehousing	$2,097,082	$1,134,689	15.8	$791,009	$59,503
Services**	$19,027,630	$11,502,028	128.9	$5,877,296	$921,861
-Food & accommodation	$1,288,199	$834,218	15.0	$420,704	$173,384
-Other	$17,739,431	$10,667,810	113.9	$5,456,592	$748,477
Agriculture	$7,258	$3,080	0.1	$2,120	$71
Other	$2,007,595	$1,051,717	9.2	$688,311	$51,539
Total**	$62,348,526	$38,888,004	337.0	$20,559,373	$7,553,154

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

New Hampshire

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$9,219,808	$6,104,332	42.0	$3,900,589	$735,239
Manufacturing	$99,198	$33,947	0.4	$18,565	$2,131
Transportation & Warehousing	$347,580	$178,745	2.9	$121,090	$7,834
Services**	$4,903,821	$3,086,984	31.4	$1,710,978	$213,608
-Food & accommodation	$260,711	$148,458	4.1	$105,359	$10,416
-Other	$4,643,110	$2,938,526	27.4	$1,605,619	$203,192
Agriculture	$5,120	$2,431	0.1	$1,823	$372
Other	$419,402	$213,440	2.6	$163,282	$17,290
Total**	$14,994,928	$9,619,879	79.5	$5,916,328	$976,474

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

New Jersey

Wholesale/Retail	$66,485,776	$46,657,806	264.1	$26,017,255	$8,923,746
Manufacturing	$1,418,149	$482,913	3.0	$259,305	$30,302
Transportation & Warehousing	$3,595,079	$2,037,223	24.3	$1,455,139	$82,753
Services**	$34,334,187	$22,012,309	207.3	$13,204,223	$1,652,745
-Food & accommodation	$1,398,518	$804,450	22.2	$577,670	$47,393
-Other	$32,935,669	$21,207,859	185.2	$12,626,553	$1,605,352
Agriculture	$23,495	$13,031	0.4	$8,844	$1,063
Other	$2,872,912	$1,779,353	17.0	$1,233,600	$106,385
Total**	$108,729,598	$72,982,636	516.1	$42,178,366	$10,796,994

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

New Mexico

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$22,419,744	$12,848,089	123.5	$6,256,117	$3,960,576
Manufacturing	$261,180	$51,003	0.6	$19,302	$2,138
Transportation & Warehousing	$920,262	$470,057	7.0	$337,067	$16,882
Services**	$8,791,052	$4,937,418	65.7	$2,463,095	$372,371
-Food & accommodation	$527,952	$282,122	8.6	$198,649	$25,608
-Other	$8,263,099	$4,655,296	57.0	$2,264,446	$346,763
Agriculture	$13,703	$6,480	0.2	$5,584	$19
Other	$1,333,764	$644,967	7.0	$429,899	$44,989
Total**	$33,739,704	$18,958,015	204.0	$9,511,064	$4,396,975

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

New York

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$176,464,526	$121,249,119	723.0	$66,870,581	$23,601,133
Manufacturing	$2,668,176	$941,254	6.9	$489,841	$131,070
Transportation & Warehousing	$7,031,487	$3,736,669	50.9	$2,655,985	$147,692
Services**	$86,626,000	$59,049,803	474.1	$33,981,257	$3,639,104
-Food & accommodation	$4,030,281	$2,592,139	52.4	$1,611,286	$406,379
-Other	$82,595,719	$56,457,664	421.7	$32,369,971	$3,232,725
Agriculture	$105,877	$45,376	1.5	$33,823	$2,991
Other	$7,928,191	$4,289,601	42.7	$3,380,398	$32,438
Total**	$280,824,256	$189,311,823	1,299.1	$107,411,886	$27,554,429

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

North Carolina

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$69,269,381	$44,588,089	327.9	$24,171,361	$8,113,872
Manufacturing	$2,085,078	$781,078	5.2	$298,961	$54,558
Transportation & Warehousing	$3,460,122	$1,717,218	27.3	$1,261,677	$71,599
Services**	$35,564,314	$21,159,975	251.6	$11,752,542	$1,327,203
-Food & accommodation	$1,939,503	$1,024,827	32.2	$740,162	$70,445
-Other	$33,624,811	$20,135,148	219.4	$11,012,380	$1,256,758
Agriculture	$120,822	$46,150	0.9	$41,915	$185
Other	$3,316,126	$1,783,025	20.3	$1,181,369	$110,280
Total**	$113,815,842	$70,075,536	633.4	$38,707,825	$9,677,696

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

North Dakota

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$6,510,351	$4,352,774	28.2	$2,148,622	$1,006,477
Manufacturing	$71,714	$17,576	0.2	$9,700	$238
Transportation & Warehousing	$227,143	$122,551	1.6	$92,208	$1,790
Services**	$2,284,873	$1,318,551	16.2	$751,687	$80,238
-Food & accommodation	$121,999	$65,262	2.1	$44,467	$7,746
-Other	$2,162,874	$1,253,289	14.1	$707,220	$72,492
Agriculture	$5,745	$2,308	0.0	$708	$314
Other	$357,767	$145,256	1.8	$110,216	-$13,470
Total**	$9,457,592	$5,959,016	47.9	$3,113,143	$1,075,587

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Ohio

Wholesale/Retail	$73,618,458	$47,428,523	348.0	$25,798,678	$8,027,490
Manufacturing	$2,583,265	$885,508	6.1	$397,258	$44,659
Transportation & Warehousing	$4,183,952	$2,196,661	32.0	$1,698,000	$66,201
Services**	$39,789,377	$24,220,000	275.7	$13,172,783	$1,547,448
-Food & accommodation	$2,082,088	$1,072,976	35.5	$745,777	$104,299
-Other	$37,707,288	$23,147,025	240.2	$12,427,007	$1,443,150
Agriculture	$77,890	$30,402	1.1	$20,861	$1,640
Other	$3,910,862	$2,158,414	22.8	$1,401,612	$104,003
Total**	$124,163,803	$76,919,508	685.6	$42,489,194	$9,791,441

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Oklahoma

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$33,573,864	$21,941,219	152.6	$10,215,170	$4,349,183
Manufacturing	$584,558	$163,654	1.3	$69,982	$4,333
Transportation & Warehousing	$1,517,107	$769,122	12.1	$626,307	$12,828
Services**	$14,202,914	$8,064,662	105.0	$4,618,215	$506,579
-Food & accommodation	$770,164	$406,582	12.7	$293,475	$36,668
-Other	$13,432,751	$7,658,079	92.3	$4,324,739	$469,912
Agriculture	$20,945	$9,246	0.2	$7,838	$78
Other	$2,326,894	$1,120,842	11.0	$694,770	$36,373
Total**	$52,226,282	$32,068,744	282.3	$16,232,282	$4,909,374

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Oregon

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$55,247,754	$34,868,000	269.9	$19,895,408	$5,590,568
Manufacturing	$1,151,796	$366,345	3.9	$208,484	$16,410
Transportation & Warehousing	$2,919,752	$1,553,404	21.0	$1,089,896	$83,258
Services**	$28,028,960	$17,129,229	195.8	$9,706,167	$827,065
-Food & accommodation	$1,558,825	$864,864	25.1	$621,700	$31,683
-Other	$26,470,135	$16,264,365	170.7	$9,084,467	$795,382
Agriculture	$102,487	$54,306	1.1	$45,182	$2,555
Other	$2,955,814	$1,563,439	18.6	$1,091,100	$38,654
Total**	$90,406,564	$55,534,724	510.3	$32,036,237	$6,558,509

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Pennsylvania

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$83,783,528	$56,423,084	366.0	$30,315,276	$10,666,419
Manufacturing	$2,428,056	$779,626	5.4	$372,855	$21,295
Transportation & Warehousing	$4,224,223	$2,230,889	33.1	$1,718,501	$60,753
Services**	$44,231,946	$28,364,346	278.6	$16,607,700	$1,783,705
-Food & accommodation	$2,042,909	$1,120,100	33.9	$784,021	$113,512
-Other	$42,189,036	$27,244,245	244.7	$15,823,678	$1,670,193
Agriculture	$90,134	$38,553	1.1	$28,643	$2,376
Other	$4,566,740	$2,437,128	25.5	$1,698,996	$138,294
Total**	$139,324,627	$90,273,625	709.8	$50,741,970	$12,672,842

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Rhodel Island

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$6,490,474	$4,423,004	27.3	$2,297,154	$955,327
Manufacturing	$54,029	$17,280	0.2	$11,556	$900
Transportation & Warehousing	$241,216	$124,879	1.9	$91,440	$5,146
Services**	$3,176,686	$1,972,629	21.3	$1,085,444	$143,583
-Food & accommodation	$165,408	$98,098	2.5	$61,046	$13,258
-Other	$3,011,278	$1,874,531	18.8	$1,024,398	$130,324
Agriculture	$1,223	$732	0.0	$507	$90
Other	$253,332	$142,957	1.5	$100,075	$8,572
Total**	$10,216,961	$6,681,481	52.3	$3,586,177	$1,113,618

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

South Carolina

Wholesale/Retail	$43,398,334	$27,980,980	203.4	$13,815,665	$7,243,098
Manufacturing	$663,479	$214,295	2.0	$116,732	$10,297
Transportation & Warehousing	$2,074,226	$1,029,320	17.7	$776,773	$25,475
Services**	$18,756,216	$10,692,768	142.5	$5,988,370	$722,571
-Food & accommodation	$1,149,935	$618,122	18.8	$409,633	$69,921
-Other	$17,606,282	$10,074,646	123.7	$5,578,737	$652,650
Agriculture	$32,415	$11,576	0.4	$5,708	$560
Other	$2,050,302	$1,064,788	12.2	$716,301	$52,458
Total**	$66,974,973	$40,993,727	378.4	$21,419,548	$8,054,459

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

South Dakota

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$6,098,995	$3,991,556	27.7	$1,985,344	$787,838
Manufacturing	$73,567	$23,934	0.3	$20,089	$1,101
Transportation & Warehousing	$196,144	$93,882	1.6	$71,734	$2,496
Services**	$2,443,482	$1,417,661	17.2	$789,264	$100,870
-Food & accommodation	$132,613	$68,136	2.3	$43,989	$7,829
-Other	$2,310,869	$1,349,526	14.9	$745,275	$93,041
Agriculture	$6,580	$2,393	0.0	$1,677	$177
Other	$315,080	$127,941	1.8	$99,316	-$13,612
Total**	$9,133,847	$5,657,367	48.6	$2,967,424	$878,870

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Tennessee

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$44,655,604	$30,125,823	193.4	$14,856,115	$5,796,836
Manufacturing	$967,197	$329,597	2.4	$147,872	$11,416
Transportation & Warehousing	$2,209,480	$1,219,520	16.2	$922,691	$41,662
Services**	$21,234,018	$12,621,573	148.1	$7,678,444	$930,326
-Food & accommodation	$1,211,072	$655,803	19.4	$451,083	$83,607
-Other	$20,022,946	$11,965,770	128.7	$7,227,362	$846,719
Agriculture	$28,107	$11,634	0.7	$5,184	$1,229
Other	$2,205,620	$1,026,696	13.2	$807,781	$17,553
Total**	$71,300,026	$45,334,843	374.1	$24,418,088	$6,799,023

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Texas

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$311,727,156	$220,908,190	1,214.1	$105,208,328	$32,676,457
Manufacturing	$12,589,970	$4,218,212	25.7	$1,879,694	$124,829
Transportation & Warehousing	$15,990,748	$8,056,301	117.8	$5,855,910	$272,604
Services**	$152,123,058	$90,873,994	1,035.4	$54,568,878	$7,117,452
-Food & accommodation	$8,384,835	$4,761,882	129.1	$3,245,717	$689,254
-Other	$143,738,223	$86,112,112	906.3	$51,323,161	$6,428,198
Agriculture	$556,152	$227,303	6.8	$174,368	$8,671
Other	$17,432,567	$10,007,718	87.5	$5,827,586	$592,828
Total**	$510,419,651	$334,291,719	2,487.4	$173,514,762	$40,792,841

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Utah

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$41,770,677	$25,962,030	209.6	$14,849,469	$4,667,694
Manufacturing	$1,668,032	$437,852	3.9	$222,907	$15,823
Transportation & Warehousing	$2,486,989	$1,350,977	17.5	$1,002,034	$65,370
Services**	$24,065,661	$13,701,567	176.1	$7,317,893	$740,898
-Food & accommodation	$1,106,021	$556,477	18.9	$376,452	$60,007
-Other	$22,959,639	$13,145,090	157.2	$6,941,441	$680,890
Agriculture	$47,876	$19,785	0.6	$14,924	$345
Other	$2,296,107	$1,246,122	12.0	$759,309	$58,744
Total**	$72,335,341	$42,718,334	419.6	$24,166,536	$5,548,873

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Vermont

Wholesale/Retail	$3,514,417	$2,255,605	16.5	$1,092,040	$591,155
Manufacturing	$34,579	$8,536	0.1	$6,429	$477
Transportation & Warehousing	$127,201	$63,500	1.1	$47,467	$1,841
Services**	$1,463,114	$865,942	10.5	$459,325	$70,989
-Food & accommodation	$76,035	$43,713	1.2	$27,972	$5,872
-Other	$1,387,079	$822,229	9.3	$431,353	$65,118
Agriculture	$3,329	$1,235	0.1	$821	$96
Other	$155,883	$75,025	1.0	$61,732	$4,466
Total**	$5,298,524	$3,269,843	29.2	$1,667,814	$669,023

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Virginia

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$64,612,990	$43,167,151	283.8	$23,093,837	$7,965,687
Manufacturing	$973,801	$351,315	2.8	$164,927	$38,351
Transportation & Warehousing	$3,143,313	$1,642,891	24.2	$1,209,580	$60,923
Services**	$32,199,367	$20,201,495	199.4	$11,099,834	$1,163,207
-Food & accommodation	$1,568,502	$858,812	24.9	$571,737	$89,956
-Other	$30,630,865	$19,342,683	174.5	$10,528,097	$1,073,252
Agriculture	$48,484	$19,528	0.7	$11,214	$2,020
Other	$3,508,939	$1,919,489	20.8	$1,351,852	$97,713
Total**	$104,486,894	$67,301,870	531.7	$36,931,243	$9,327,901

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Washington

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$131,357,528	$89,814,598	545.3	$44,720,174	$21,472,228
Manufacturing	$3,700,583	$971,380	8.0	$503,234	$44,333
Transportation & Warehousing	$5,878,268	$3,257,230	38.7	$2,304,088	$152,542
Services**	$60,619,172	$37,629,858	361.9	$20,744,195	$2,945,870
-Food & accommodation	$3,183,597	$1,957,815	44.5	$1,214,752	$304,924
-Other	$57,435,575	$35,672,043	317.4	$19,529,443	$2,640,947
Agriculture	$248,873	$121,965	2.0	$113,078	-$2,323
Other	$6,644,268	$3,604,108	37.4	$2,499,030	$185,164
Total**	$208,448,692	$135,399,138	993.3	$70,883,798	$24,797,815

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

West Virginia

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$8,980,539	$5,700,177	42.7	$2,652,274	$1,604,826
Manufacturing	$68,373	$19,228	0.2	$9,064	$407
Transportation & Warehousing	$338,888	$165,034	2.9	$126,664	$3,688
Services**	$3,001,209	$1,751,768	23.2	$983,189	$125,215
-Food & accommodation	$181,531	$93,756	3.0	$62,278	$12,470
-Other	$2,819,678	$1,658,012	20.1	$920,911	$112,745
Agriculture	$3,455	$890	0.1	$238	$120
Other	$409,944	$209,596	2.4	$140,684	$9,299
Total**	$12,802,407	$7,846,693	71.5	$3,912,113	$1,743,554

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Wisconsin

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$36,314,686	$22,764,345	179.2	$12,812,801	$4,066,780
Manufacturing	$1,181,745	$413,350	4.1	$258,093	$11,025
Transportation & Warehousing	$1,596,334	$832,038	13.1	$619,194	$39,476
Services**	$17,919,241	$10,746,184	124.8	$5,837,006	$783,090
-Food & accommodation	$892,680	$453,794	16.1	$305,426	$49,670
-Other	$17,026,561	$10,292,390	108.7	$5,531,580	$733,420
Agriculture	$61,914	$27,252	0.7	$20,876	$901
Other	$1,875,703	$941,997	11.0	$676,923	$39,295
Total**	$58,949,624	$35,725,166	332.9	$20,224,892	$4,940,567

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding

Wyoming

Industry	Output	Value-added	Employment (no. of jobs)	Labor Income	Taxes*
Wholesale/Retail	$8,502,256	$5,609,915	37.6	$3,196,268	$1,383,986
Manufacturing	$76,675	$13,443	0.1	$6,491	$582
Transportation & Warehousing	$338,068	$167,541	2.6	$127,339	$4,381
Services**	$2,631,626	$1,478,083	19.9	$712,913	$98,344
-Food & accommodation	$163,794	$87,535	2.7	$56,419	$8,377
-Other	$2,467,832	$1,390,548	17.2	$656,493	$89,968
Agriculture	$1,487	$816	0.0	$770	$54
Other	$404,106	$193,795	2.0	$125,917	$13,299
Total**	$11,954,218	$7,463,594	62.2	$4,169,698	$1,500,647

*Indirect Business Taxes **Services (Total) and Total may not add due to rounding