

Research Brief, 2011



Agriculture Value Chain for California

Centers of Excellence
Economic and Workforce Development
California Community Colleges

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Research Objectives

A great deal of research, from leading agriculture authorities such as the U.S. Department of Agriculture and the University of California at Davis, yields information on the value and economic impact of the agriculture industry throughout the state. This existing research confirms how vital California's agriculture sector is for the state, nation, and global economies.

However, research examining the value chain of agriculture in California is more difficult to find. This report provides one perspective on the agriculture value chain to help understand several aspects of this important sector, such as:

- Economic impact of the agriculture value chain
- The total number of jobs within agriculture and related industries
- Projections of the identified jobs
- Employer challenges and needs for trained workers
- The role of community colleges in the agriculture value chain

Understanding Agriculture in California

- **Agriculture is an essential part of California's economy.** California continues to set the pace for the rest of the nation as the country's largest agricultural producer and exporter. Each year, billions of dollars in products are created in California. In 2009, California's farmers and ranchers exported more than 22 percent of the state's agricultural production.
- **Many agricultural products are involved in international trade.** The top three export destinations for California's agricultural bounty are Canada, the European Union and Japan. Significantly, California is the only state to export almonds, artichokes, dates, dried plums, figs, garlic, kiwifruit, olives, pistachios, raisins and walnuts.
- **The economic impact exceeds \$300 billion annually.** As shown in this research study, and confirmed in similar reports, the agriculture value chain has a significant impact on California's economy.
- **Agriculture employs close to 2.5 million individuals.** Employed across more than 800 job titles within the agriculture value chain, the average annual salary of an agriculture employee is \$50,000.

Defining the Agriculture Value Chain

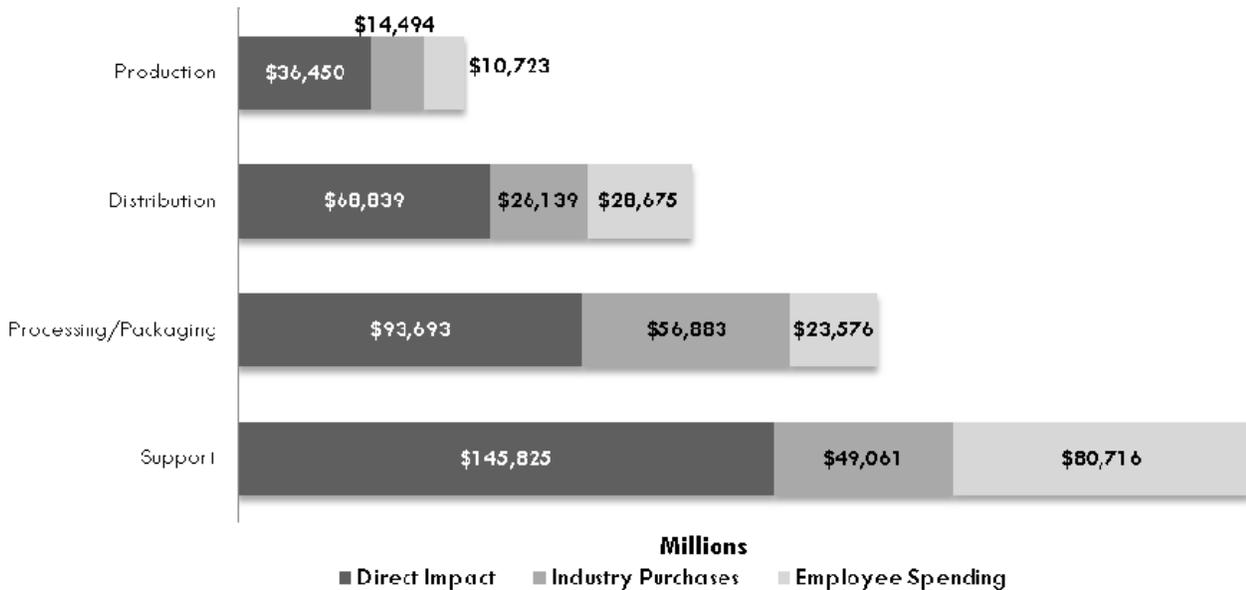
The agriculture value chain is comprised of multiple industry clusters. Industry clusters were defined using a synthesis of existing research. Industries were identified within each cluster using the North American Industry Classification System (NAICS). Using these classifications, the agriculture value chain is defined using four clusters: 1) Support; 2) Production; 3) Processing and Packaging; 4) Distribution.

Agriculture Value Chain Sectors

Support	Production	Processing/Packaging	Distribution
Activities related to agriculture including farming, veterinary services, implement manufacturing, irrigation, and technical consulting	Production process are specific to the commodity raised, but includes crop, vegetable and animal farming, poultry & egg production, and aquaculture	Includes packaging fresh produce for transportation, canning, manufacturing, and viticulture	Includes process that get products to store shelves. Includes logistics and warehousing, sales, and import/export.

Economic Impact of Agriculture on California's Economy

In 2008, the total direct impact of the agriculture value chain in California exceeded \$340 billion. As shown below, within the four sectors, agriculture support has the largest impact on the state's economy, while production yields the smallest direct impact.

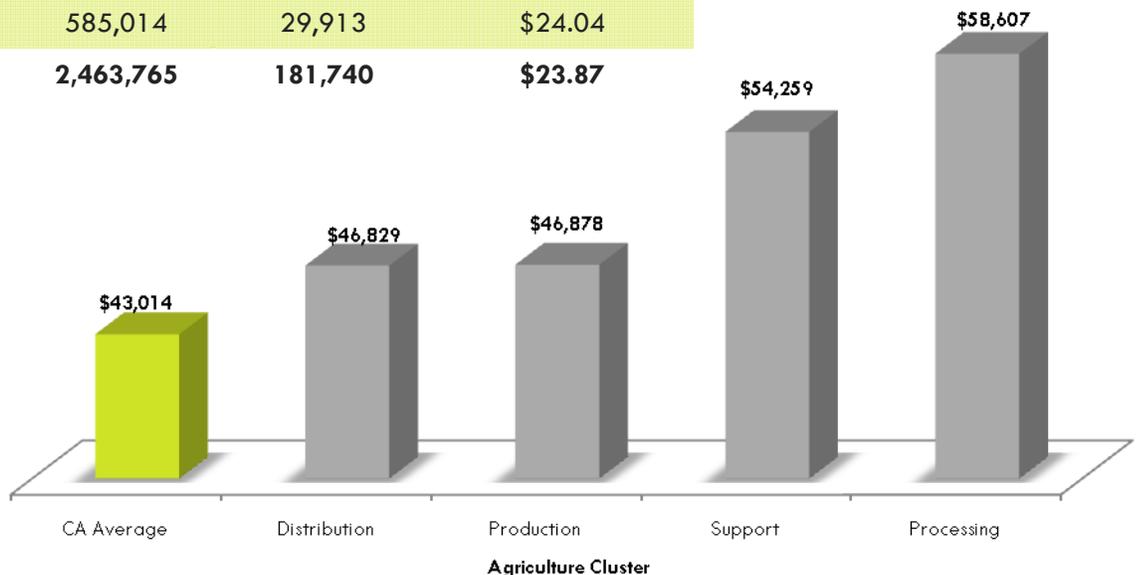


Agriculture Value Chain Employment and Wages

Statewide, there are currently nearly 2.5 million jobs within the agriculture value chain. With the exception of the production sector, the employment outlook is positive for the next five years. Based on labor market projections across all four sectors of the agriculture value chain, there could be as many as 181,000 new jobs created over the next five years.

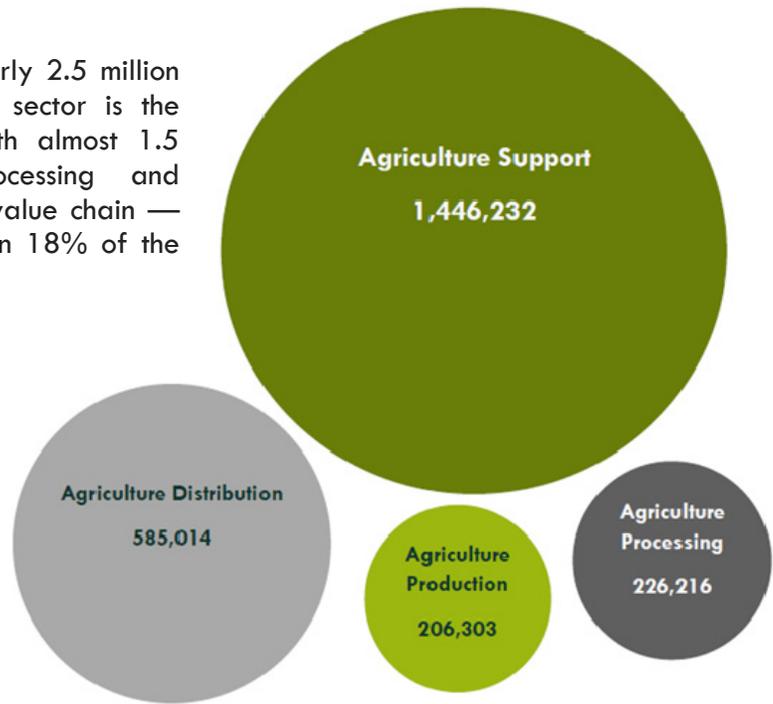
Agriculture Value Chain Occupation Projections by Sector, California

Sector	2011 Jobs	5-Year Growth	Avg. Hourly Wage
Support	1,446,232	183,018	\$24.59
Production	206,303	-36,364	\$23.34
Processing/Packaging	226,216	5,173	\$23.49
Distribution	585,014	29,913	\$24.04
TOTALS	2,463,765	181,740	\$23.87



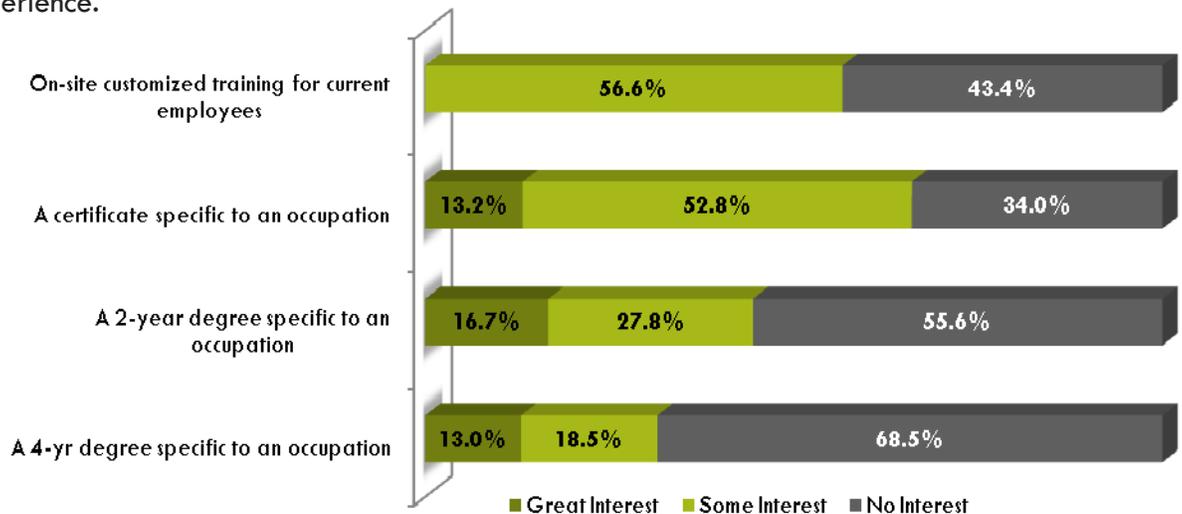
Agriculture Employment by Sector

The agriculture value chain accounts for nearly 2.5 million jobs in California. The agriculture support sector is the largest component of the value chain, with almost 1.5 million jobs statewide. Agriculture processing and production are much smaller clusters in the value chain — combined these clusters account for less than 18% of the agriculture jobs statewide.



Employer Education and Experience Preferences

In a recent survey, agriculture employers were asked to describe their organizations level of interest regarding educational and training programs that could be developed by community colleges for the agriculture value chain workforce. The majority of responses indicated interest in on-site customized training for current employees and a certificate specific to an occupations. The majority of respondents do not indicate a strong desire for a 2-year or 4-year degree. Employers did express the need for the potential employee to have on-the-job experience.



For More Information

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