

Washington State
Agricultural Industry & Occupational Outlook
2010-2015



Produced by the Agriculture Center of Excellence

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Generated utilizing Economic Modeling Specialists, Inc.
www.economicmodeling.com

Introduction

The Agricultural Industry and Occupational Outlook was generated for all of the counties in Washington State for the time period of 2010 to 2015. The data used to compile the outlook was obtained from Economic Modeling Specialists, Inc., using Complete Employment (2011.3 data).

Selected agriculture and natural resource industries were identified by the North American Industry Classification System (NAICS) Code. The industries are listed in Table 1. The industry occupations were identified within the agriculture, food, and natural resource career cluster and appear in Table 2.

Table 1. Selected agriculture and natural resource industries in Washington State.

Agriculture and Natural Resource Industries
Crop and Animal Production
Crop Harvesting (Primarily by Machine)
Farm Labor Contractors and Crew Leaders
Farm Management Services
Finfish Fishing
Forest Nursery and Gathering Forest Products
Logging
Postharvest Crop Activities
Shellfish Fishing
Soil Preparation, Planting, and Cultivating
Support Activities for Animal Production
Support Activities for Forestry

Table 2. Occupations identified within the agriculture, food, and natural resource career cluster.

Occupations in the Agriculture, Food, and Natural Resource Career Cluster
Agricultural Inspectors
Biological Technicians
Computer Support Specialists
Environmental Science and Protection Technicians
First-line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
Forest and Conservation Technicians
Hazardous Materials Removal Workers
Miscellaneous Agriculture Workers
Mobile Heavy Equipment Mechanics
Nonfarm Animal Caretakers
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
Supervisors: Farming, Fishing, and Forestry Workers
Veterinary Assistants
Veterinary Technicians
Water and Liquid Waste Treatment Plant and System Operators

Summary of Agriculture and Natural Resource Industry Employment Projections

The agriculture and natural resource industry in Washington State is projected to grow by 0.50% between 2010 and 2015, increasing the number of industry specific jobs by 598 (Table 3). This information contrasts the national trend of a decrease in agriculture-related jobs.

Table 3. Projected agriculture and natural resource industry job change between 2010 and 2015 in Washington State (Source: EMSI Complete Employment – 2011.3).

2010 Industry Jobs	119,763
2015 Projected Industry Jobs	120,361
Anticipated Total Change	598
Anticipated Total % Change	0.50%
Current Average Earnings per Worker	\$33,503

The national trend is estimating a loss of jobs in the agriculture and natural resource industry close to 149,000 (Table 4). Job loss nationally is contrasted to Washington’s slight increase in resource based occupations.

Table 4. The job growth projects for Washington contrast with the national projections for the agriculture and natural resource industry (Source: EMSI Complete Employment – 2011.3).

Description	2010 Jobs	2015 Jobs	Change	% Change	Current Earnings per Worker
Washington State	119,763	120,361	598	0.50%	\$33,503
United States	3,424,508	3,275,743	-148,765	-4%	\$29,227

Projected Agriculture and Natural Resource Industry Change

The overall agriculture and natural resource industry has been distributed into different industries relative to employment projections for Washington State. The projected change in jobs within the specific industries between 2010 and 2015 are listed in order of greatest job growth to greatest job loss (Table 5). The largest area of job growth is in Postharvest Crop Activities and the largest job loss occurring in Finfish Fishing.

Table 5. Projected change in selected agriculture and natural resource industries between 2010 and 2015, listed from largest job growth to greatest job loss (Source: EMSI Complete Employment – 2011.3).

Description	2010 Jobs	2015 Jobs	Change	Current Earnings per Worker
Postharvest Crop Activities	12,715	14,490	1,775	\$31,589
Crop and Animal Production	84,133	85,474	1,341	\$27,003
Soil Preparation, Planting, and Cultivating	1,189	1,237	48	\$41,632
Forest Nursery and Gathering Forest Products	226	215	-11	\$30,122
Crop Harvesting (Primarily by Machine)	189	175	-14	\$36,430
Support Activities for Animal Production	2,296	2,278	-18	\$33,784
Shellfish Fishing	2,681	2,527	-154	\$108,750
Support Activities for Forestry	1,877	1,665	-212	\$40,908
Farm Management Services	534	303	-231	\$26,545
Farm Labor Contractors and Crew Leaders	3,985	3,522	-463	\$23,459
Logging	5,941	5,356	-585	\$59,918
Finfish Fishing	3,999	3,119	-880	\$98,653
Total	119,765	120,361	596	\$46,566

The average earnings per worker within the agriculture and natural resource industries, excluding Finfish Fishing, Logging, and Shellfish Fishing is \$32,386.

Distribution of the Agriculture and Natural Resource Industry in Washington

Jobs within the agriculture and natural resource industry may be found throughout Washington State; however, the concentrations of jobs are located within Central Washington (Figure 1). The projected job change illustrates an increase in Postharvest Crop and Animal Production activities which may be related to production crops grown in Chelan, Grant, Okanogan, and Yakima counties.



Figure 1. Distribution of agriculture and natural resources industry jobs across Washington State (Source: EMSI Complete Employment – 2011.3).

Many of the agriculture and natural resource industry jobs relate to the shift of agricultural products and services. The industries are represented in the occupational trends within the statewide industry.

Occupational Growth in the Agriculture and Natural Resource Industry

The largest occupational growth in the agriculture and natural resource industry is related to services and service providers. The fifteen occupations listed in Table 6, relate to agriculture service and sales, animal production and care, and natural resource or environmental technicians.

Table 6. The projected occupational changes from 2010 -2015 in the agriculture and natural resource industry are ranked in descending order (Source: EMSI Complete Employment – 2011.3).

Description	2010 - 2015 Change	Openings	Annual Openings	Current Hourly Earnings	Education Required
Computer Support Specialists	1,222	3,074	615	\$22.14	Associate's Degree
Miscellaneous Agriculture Workers	1,186	6,366	1,273	\$11.17	Short-term on the Job Training
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	1,001	2,244	449	\$33.81	Moderate-term on the Job Training
Veterinary Technicians	465	695	139	\$13.89	Associate's Degree
Nonfarm Animal Caretakers	448	1,357	271	\$14.50	Short-term on the Job Training
First-line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	444	625	125	\$15.50	Work Experience in a Related Field
Veterinary Assistants	420	534	107	\$11.65	Short-term on the Job Training
Biological Technicians	359	1,047	209	\$18.37	Associate's Degree
Hazardous Materials Removal Workers	290	708	142	\$25.50	Moderate-term on the Job Training
Water and Liquid Waste Treatment Plant and System Operators	198	370	74	\$23.65	Long-term on the Job Training
Mobile Heavy Equipment Mechanics	129	456	91	\$25.96	Postsecondary Vocational Award
Environmental Science and Protection Technicians	92	271	54	\$19.60	Associate's Degree
Supervisors: Farming, Fishing, and Forestry Workers	43	523	105	\$20.38	Work Experience in a Related Field
Agricultural Inspectors	33	105	21	\$19.64	Work Experience in a Related Field
Forest and Conservation Technicians	5	356	71	\$14.76	Associate's Degree

Data Sources and Calculations

Industry Data

In order to capture a complete picture of industry employment, Economic Modeling Specialists, Inc. (EMSI) combines employment data from Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with total employment data in Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA), augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data, 15-year past local trends in each industry, growth rates in statewide and (where available) sub-state area industry projections published by individual state agencies, and (in part) growth rates in national projections from the Bureau of Labor Statistics.

Occupation Data

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

State Data Sources

This report uses state data from the following agencies: Washington State Employment Security Department, Labor Market and Economic Analysis Branch.