

# Agriculture Sector Profile

## SUMMARY

It may be important to note that employment and earnings data from the primary data collection agencies (including state and federal agencies)

Whatcom County has roughly 88,000 acres of land zoned for agriculture. US Department of Agriculture survey data shows that more than 7,000 people actively participate in agriculture in Whatcom County, generating more than \$240 million in sales. At the same time, Washington State data show that fewer than 3,000 people are employed in agriculture and articles are written regularly about threats to agriculture in Whatcom County—including the possibility that all available agriculture lands could be consumed by development in the near future.

are divided into traditional industrial sectors based on Standard Industrial Classification (SIC) codes. The agricultural sector in the SIC system includes agriculture, forestry, and fishing.

To avoid confusion about the meaning of agriculture in this report, the entire agriculture sector is referred to as the Natural Resources Sector, and the word agriculture is used exclusively to refer to agricultural activities (not including forestry or fishing).

Getting beyond the apparent contradictions in the data—and sorting through what is fact and what is fiction—requires an understanding of how agriculture data are collected.

This profile is one of a series—with one profile for each major sector. Copies of the profiles can be found at: <http://www.cbe.wvu.edu/>. Follow the links to the Center of Economic and Business Research (CEBR).

## EARNINGS

The table shows average annual earnings for workers in agriculture only and the broad natural resources sector (ag, forestry, and fishing).

### Earnings in the Agriculture/Forestry/Fishing Sector: Whatcom County

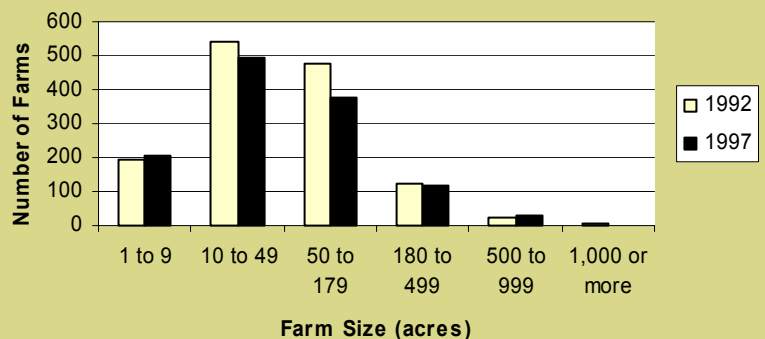
Year	Average Earnings: Dollars Per Person Per Year	
	Agriculture	Natural Resource Sector
1990	10,152	12,355
1991	11,862	13,165
1992	12,003	13,611
1993	11,856	13,187
1994	13,345	14,797
1995	13,398	15,572
1996	14,319	15,888
1997	13,944	15,297
1998	14,185	14,781
1999	16,349	17,221
2000	15,867	16,574
2001		

Source: Washington State Employment Security Department

## FARM SIZE

From 1992 to 1997 the number of very small farms (1-9 acres) increased slightly, while the number of moderate size farms (in the 10 to 179 acre range) declined noticeably. In addition, there were 139 fewer farms in 1997 compared to 1992.

Number of Farms, By Size—Whatcom County



Source: U.S. Department of Agriculture

## EMPLOYMENT

US Department of Agriculture (USDA) data show that more than 7,000 people participated in agricultural activities in Whatcom County in 1997. In comparison, Washington State Employment Security (ES) Department data show that roughly 2,700 people were employed in agriculture in Whatcom County at that time. The USDA figure is much higher because it includes seasonal and part-time workers.

A comparison of USDA and ES data shows that one-half to two-

thirds of the people who participate in agriculture in Whatcom County do so on a part-time basis or have other jobs such that they are not counted in the ES data. For example, the most recent USDA survey revealed that 45 percent of farm operators in Whatcom County have a primary occupation other than farming. These individuals would not be included in the ES employment figure for agriculture.

**Sources of Data for Employment in Agriculture (Whatcom County)**

Agency	Source of Information	Comments
U.S. Department of Labor, Bureau of Labor Statistics (BLS)	Administrative data on the number of workers who file claims for unemployment insurance	Covers effective full-time equivalent employees, net of some sole proprietors
Washington State Employment Security Department (ES)	Same as above (BLS is the primary source of info for ES data) <sup>a</sup>	Same as above
U.S. Department of Commerce, Bureau of Economic Analysis (BEA)	Statistical estimates based on multiple sources, including ES data	Same as above
U.S. Department of Agriculture (USDA)	Periodic survey (every 5 years) <sup>b</sup>	Covers full and part-time workers, as well as seasonal employees

<sup>a</sup>Washington State is one of nine states where unemployment insurance laws require coverage of farm workers. This requirement makes ES data particularly accurate or reliable in these states.

<sup>b</sup>The USDA also conducts a quarterly farm survey, but data collected with that survey are not available at the county level. (Data are generated at the regional level only. The Pacific region includes Oregon and Washington.)

**Employment in Agriculture in Whatcom County**

Year	Employment in Agriculture and Related Manufacturing Industries— Number of Workers		
	Agriculture <sup>a</sup>	Dairy, Meat, and Grain Mill Products <sup>b</sup>	Preserved Fruits and Berries <sup>b</sup>
1990	2,252	188	215
1991	1,958	151	195
1992	2,127	152	200
1993	2,298	142	225
1994	2,300	151	200
1995	2,378	199	176
1996	2,523	212	149
1997	2,669	216	40
1998	2,716	272	2
1999	2,598	358	37
2000	2,919	323	16
2001	3,490		

Source: Washington State Employment Security Department and U.S. Department of Agriculture

<sup>a</sup>Statistics from ES—figures include full-time or full-time equivalent workers only.

<sup>b</sup>May not include all part-time and seasonal workers who participate in these industries.

berries in 1997 is matched by an increase of equal magnitude in employment in agriculture in the same year. According to the Whatcom County Agriculture Preservation Committee, processing of berries is now handled more by farmers. In the past, it was handled by independent processors.

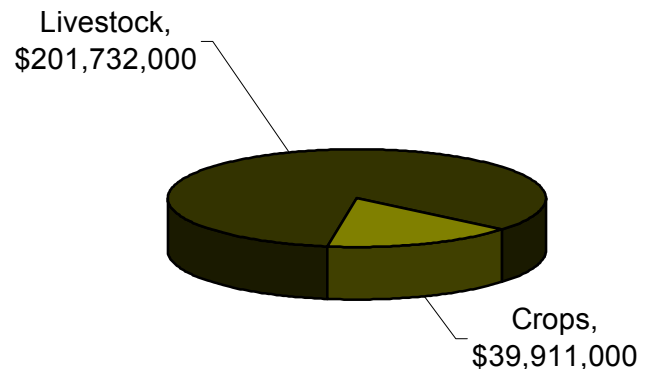
In addition to part-time and seasonal workers not counted in ES data, there are other workers in the county who have manufacturing jobs very closely related to or dependent upon agriculture. The table to the left shows employment in agriculture and related manufacturing industries in Whatcom County. The decline in manufacturing jobs from 1997 to the present in the subsector “Preserved Fruits and Berries” may be due to a shift in job type rather than a decline in production or employment. The decline in employment in manufacturing of processed

## PRODUCTION

Despite the fact that sales fell slightly from 1992 to 1997, after adjusting for inflation, agriculture continues to be a significant industry. The figure shows that in 1997, agriculture in Whatcom County accounted for \$241.6 million in sales. Approximately 83 percent of that total was from livestock and 17 percent was from crops. Important crops include raspberries, blueberries, strawberries, and seed potatoes. Dairy cows are the most visible and significant livestock in Whatcom County.

To put the economic value of agriculture into perspective, taxable retail sales in Whatcom County in 1997 were approximately \$1 billion. That is, agriculture in Whatcom County has sales that are roughly one-quarter as large as all retail sectors combined. Moreover, no major categories for which data on retail activity is maintained had more dollar sales than agriculture.

According to the Washington Red Raspberry Commission, Whatcom County produces close to 58 million pounds (or 29,000 tons) of red raspberries annually and has approximately 7,000 acres devoted to the production of red raspberries. Production of red raspberries in Whatcom County was the most of any county in the U.S. last year, with a value of \$26,100,000.



The Washington Blueberry Commission shows that Whatcom County harvested 4.26 million pounds of blueberries in 2001, from roughly 620 acres of crops. The Commission notes that more acres have been planted and the additional acres will be harvestable in the near future. According to the Commission, most growers received close to 45 cents per pound for their product in 2001. If processed berries are considered, the average price per pound is higher. (The state average for processed berries was 75.5 cents per pound.) The Whatcom County Agriculture Preservation Committee estimates that up to 1,200 acres are now planted in blueberries in Whatcom County. (The Blueberry Commission says that Skagit County has now planted more acres than Whatcom County.)

The Whatcom County Agriculture Preservation Committee estimates that Whatcom County has the following:

- 250 acres of strawberries. The state average in 2001 was 8,600 pounds per acre, with an average price of 52.5 cents per pound.
- 65 acres of cranberries. The state average in 2001 was 120 barrels per acre, with an average price of \$25.20 per barrel.
- 100 acres in black currants.

Many of the berry prices have fluctuated a great deal in recent years, which can make planning very difficult and have a variety of effects on local growers.. Cranberries, for example, sold for \$25.20 per barrel in 2001, down considerably from \$60 per barrel in 1996, but up from 2000 prices.

The table provides a summary of agriculture activity in Whatcom County. The table includes information on the market value of crops and livestock, the number of and size of farms, acreage in production, and other items.

**Agriculture Activity in Whatcom County—A Summary**

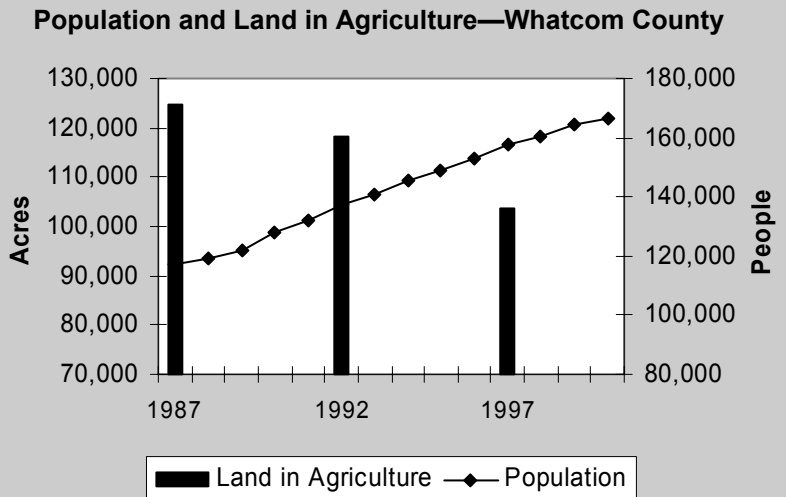
Item	1987	1992	1997
<b>Economic Value</b>			
Market Value of Agriculture (nominal \$)	179,921,000	211,730,000	241,643,000
Crops	28,173,000	43,246,000	39,911,000
Livestock, poultry, and their products	151,748,000	168,484,000	201,732,000
<b>Physical Description</b>			
Number of Farms	1,463	1,367	1,228
Average Size (acres)	85	86	84
Operators by Principal Operation:			
Farming	802	751	667
Other	661	616	561
Total Cropland (acres)	93,646	90,719	80,854
Harvested Cropland (acres)	64,984	65,643	60,715
Milk Cows (head)	52,400	60,000	67,700

Source: U.S. Department of Agriculture

The number of farm operators with a principal operation other than farming goes a long way to explaining why there is such a significant difference in employment figures in agriculture from the Employment Security Department (as well as the U.S. Bureau of Labor Statistics) and the U.S. Department of Agriculture.

## LAND USE/CONVERSION

The figure shows changes in population, along with land devoted to agriculture uses in Whatcom County. The figure shows a potentially important correlation with agricultural lands declining as population increases. Acres of agriculture lands in Whatcom County have fallen steadily in recent years while population has increased.



## NON-MARKET VALUES

An important set of values related to agriculture are the non-market values associated with agriculture and agriculture lands. Non-market values are the costs and benefits that do not have a price or dollar value assigned to them. For example, USDA figures show that agriculture in Whatcom County had a market value of \$241.6 million in 1997. That figure did not include the many non-market values associated with agriculture—such as the character farms give to the county, the views, and other benefits. It also did not include non-market costs due to things like nutrient loading in rivers (due to run off of chemicals and animal wastes) or stream bank mismanagement.

People appreciate and have a “willingness to pay” for non-market benefits. Such willingness is demonstrated through donations, increased land values for property with views of farmland, and other actions. However, such willingness to pay is hard to see—or even to impute—from observable data.

The table shows a few examples of non-market costs and benefits. Many of the non-market costs associated with agriculture might best be described as unintended consequences. For example, farmers might use pesticides to improve the quality of their products without fully understanding the long-term impacts on the environment.

**Examples of Non-Market Costs and Benefits**

Non-market Benefits	Non-Market Costs
Character	Pollution run-off in area waterways
Views and Open Space	Non-native vegetation along stream banks
Heritage	Stream bank erosion from livestock
Diversity	Adverse health effects from pesticide sprays
Locally produced agriculture products	

Agencies are dealing with many of the unwanted side effects of certain farming practices and are working with farmers to improve waste management, to improve how farmers use pesticides and herbicides, and to minimize stream bank erosion or modifications. New biomass management strategies (including possible waste lagoons that capture methane gases for the production of electricity) and efforts to plant native species along stream banks all help control unwanted side effects of farming. These efforts can improve survival rates for salmon in streams that cut through farms and reduce the impacts of farming on other activities, such as shell fish farming in local estuaries.