

Rural Migration News

Blog 248

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Washington: \$10 Billion Farm Sales in 2017

Washington's 36,000 farms reported sales of \$9.6 billion in the 2017 Census of Agriculture. Most farms are small; 30,000 had sales of less than \$100,000 in 2020, while 1,450 farms each had sales of \$1 million or more.

US agriculture is a 50-50 sector; about half of US farm sales are from crops and half are from animal products. Washington is a crop state: the \$7 billion worth of crops were 73 percent of farm sales in 2017. Apples worth \$2.4 billion in

2017 were the most valuable crop, followed by cherries, \$465 million, grapes, \$308 million, and pears, \$250 million. Blueberries were worth \$115 million, red raspberries \$57 million, and strawberries \$12 million. Milk sales were \$1.2 billion in 2017 and cattle cash receipts were \$765 million.

Many of the largest acreage crops generate relatively low revenues per acre, such as the 2.4 million acres of wheat that generate gross revenues of less than \$500 an

acre, the 700,000 acres of hay that generate less than \$750 an acre, or the 195,000 acres of corn that generate less than \$1,000 an acre. The 155,000 acres of potatoes generate almost \$5,000 an acre, the 42,000 acres of hops \$10,500 an acre in 2020, and the 20,000 acres of onions \$6,800 an acre.

Tree Fruit

Washington's three major tree fruits are apples, cherries, and pears. The acreage of apples and cherries is increasing, while the acreage of pears is shrinking. The production of apples rose by 30 percent to 3.5 million tons in 2020, the production of cherries fluctuated between 200,000 and 260,000 tons a year, and the production of pears fell 35 percent to 347,000 tons over the decade.

Each of the major tree fruits generates gross revenues of \$10,000 to \$15,000 an acre, but there is significant variation from year to year in yields and grower prices. In recent years, apples have generated the most stable revenues of about \$12,000 an acre, cherries fluctuate between \$10,000 and \$14,000 an acre, and pear revenue has fallen to less than \$10,000 an acre.

Washington had 175,000 bearing acres of apples in 2020 that yielded an average 20 tons an acre or a total 3.5 million tons. Most apples are picked in 925 pound bins that measure 47x47x24.5 except Honeycrisp, which are picked into smaller 690 pound bins to reduce bruising. NASS estimates average yields of 20 tons or 40,000 pounds an acre, which means 43-925 pound bins an acre, while WSU costs and returns studies assume higher yields, from 60-690 pound bins an acre for Honeycrisp to 70-925 pound bins an acre for Gala.

With an average price of \$638 a

Yakima County has Almost 10 Percent of Washington's Farms



Apples Account for a Quarter of Washington's Farm Sales

Top 10 Commodities in Washington*

(2020)



1 APPLES
\$2.095 billion



2 MILK
\$1.193 billion



3 WHEAT
\$948.6 million



4 POTATOES
\$753.4 million



5 CATTLE
\$692.9 million



6 CHERRIES
\$561.7 million



7 HAY
\$500.7 million



8 HOPS
\$444.9 million



9 GRAPES
\$302.2 million



10 EGGS
\$220.2 million

ton for apples or \$0.32 a pound, gross revenues from apple production were \$12,000 an acre in 2020, down from the peak of almost \$17,000 an acre in 2012 when there were less than 150,000 bearing acres of apples.

Sweet cherry acreage is rising amidst fluctuating yields and prices, making the gross revenue per acre variable. Washington had 40,000 bearing acres of cherries in 2020 that yielded an average five tons an acre worth \$2,810 a ton, generating gross revenues of \$14,000 per acre.

NASS-reported yields vary from year to year, and ranged from five to eight tons an acre over the past decade, while WSU cost studies assume higher yields, an average 20,000 pounds or 10 tons an acre.

Prices in recent years were \$1,700 to \$2,800 a ton, and variable yields and prices explain why gross revenue per acre ranged from less than \$10,000 to over \$15,000.

Pear acreage shrank to less than 20,000 bearing acres in 2020. Yields averaged 17.6 tons an acre and grower prices \$509 a ton, for gross revenues of \$9,000 an acre. Pear yields and grower prices have been falling, explaining why gross revenues have dropped from over \$11,000 an acre to less than \$9,000 an acre.

Washington also has important berry and grape sectors. The acreage of blueberries more than doubled over the past decade to 18,200 in 2020, while raspberries shrank to 9,000 acres. Blueberry yields

and prices fluctuate, but yields in 2020 averaged 9,200 pounds per acre and growers received \$1.30 a pound for gross revenue of \$12,000 an acre. Raspberry yields of 9,200 pounds per acre in 2020 and grower prices of \$0.91 a pound generated gross revenue of \$7,000 an acre.

Some 57,000 of the 76,000 acres of grapes are wine grapes, where yields averaged 3.1 tons an acre in 2020 and grower prices averaged \$1,500 a ton, generating gross revenues of \$4,700 an acre. Wine grape acreage increased almost 50 percent over the past decade, yields fluctuated, and grower prices rose.

Employment

Washington requires almost all farm employers to register with unemployment insurance authorities and report employment for the payroll period that includes the 12th of the month and wages paid to all hired workers who were employed during the month. Since 2001, average employment in WA agriculture (NAICS 11) rose by a quarter, from 75,000 to 100,000. The peak month of employment was July 2020, when the 126,000 employees were 1.6 times the 78,000 in January 2020.

Washington's Bearing Apple Acreage has Been Increasing and Gross Revenue per Acre Falling

Commercial Apple Bearing Acreage, Yield, Production, Price, and Value — Washington: 2011-2020

Year	Bearing acreage	Yield per acre	Production		Marketing year average price	Value of utilized production	Value per bearing acre
			Total	Utilized			
	(acres)	(tons)	(1,000 tons)	(1,000 tons)	(dollars per ton)	(1,000 dollars)	(dollars)
2011.....	148,000	18.30	2,710	2,710	714.00	1,932,260	13,056
2012.....	148,000	21.80	3,225	3,225	770.00	2,482,350	16,773
2013.....	153,000	19.30	2,950	2,950	724.00	2,133,995	13,948
2014.....	158,000	24.20	3,825	3,550	534.00	1,896,218	12,001
2015.....	161,000	18.40	2,965	2,945	788.00	2,319,210	14,405
2016.....	165,000	22.20	3,660	3,450	682.00	2,350,703	14,247
2017.....	165,000	22.75	3,750	3,600	676.00	2,430,353	14,729
2018.....	170,000	19.70	3,350	3,183	672.00	2,140,650	12,592
2019.....	172,000	22.10	3,800	3,610	542.00	1,958,900	11,389
2020.....	175,000	19.75	3,458	3,285	638.00	2,095,265	11,973

Washington Cherry Acreage is Increasing Amidst Variable Yields and Grower Prices

Sweet Cherry Bearing Acreage, Yield, Production, Price, and Value — Washington: 2011-2020

Year	Bearing acreage	Yield per acre	Production		Marketing year average price	Value of utilized production	Value per bearing acre
			Total	Utilized			
	(acres)	(tons)	(tons)	(tons)	(dollars per ton)	(1,000 dollars)	(dollars)
2011.....	34,000	5.76	196,000	196,000	2,690.00	526,986	15,500
2012.....	34,000	7.76	264,000	264,000	1,860.00	491,148	14,446
2013.....	35,000	4.83	169,000	144,000	2,630.00	379,034	10,830
2014.....	35,000	6.77	237,000	237,000	2,120.00	502,370	14,353
2015.....	37,000	6.02	222,650	221,900	1,970.00	436,918	11,809
2016.....	39,000	5.40	210,550	209,000	2,350.00	491,111	12,593
2017.....	40,000	6.56	262,550	261,600	1,810.00	474,579	11,864
2018.....	40,000	6.12	245,000	243,800	1,750.00	426,470	10,662
2019.....	40,000	5.97	239,000	237,810	1,660.00	393,577	9,839
2020.....	40,000	5.05	202,000	199,960	2,810.00	561,696	14,042

Washington Pear Acreage is Shrinking with Lower Yields and Grower Prices

All Pear Bearing Acreage, Yield, Production, Price, and Value — Washington: 2011-2020

Year	Bearing acreage	Yield per acre	Production		Marketing year average price	Value of utilized production	Value per bearing acre
			Total	Utilized			
	(acres)	(tons)	(tons)	(tons)	(dollars per ton)	(1,000 dollars)	(dollars)
2011.....	21,500	21.80	468,000	468,000	387.00	181,076	8,422
2012.....	21,500	18.20	391,000	391,000	526.00	205,734	9,569
2013.....	20,900	20.80	434,000	434,000	519.00	225,392	10,784
2014.....	21,300	19.50	416,000	416,000	586.00	243,872	11,449
2015.....	20,800	18.30	380,000	376,000	638.00	239,750	11,526
2016.....	20,800	16.80	348,860	346,860	680.00	235,828	11,338
2017.....	20,800	15.20	316,400	314,400	784.00	246,462	11,849
2018.....	20,600	19.30	398,000	394,000	535.00	210,630	10,225
2019.....	20,100	16.20	326,000	325,330	440.00	143,287	7,129
2020.....	19,700	17.60	347,000	345,940	509.00	175,965	8,932

Over 80 percent of the employment in WA agriculture is in crop and crop support. Two decades ago, there were five workers hired directly by crop farms for each worker brought to farms by a nonfarm crop support employer; by 2020, there were 2.5 directly hired crop workers for each worker who was brought to farms by a crop support employer, that is, average crop support employment is increasing while average direct-hire employment in the three fruits that account for over half of crop employment is shrinking.

Within direct-hire crop employment, apples, other berries (non strawberries), and other tree fruits (cherries, pears) account for a declining share of average employment; these three sectors fell from two-thirds of crop employment in 2010 to just over half in 2020.

One reason may be that more workers are being brought to farms by FLCs. Average FLC employment rose from less than 1,000 in the early 2000s to over 5,000 in recent years, mirroring declining direct-hire crop employment. Some of the increase in FLC employment may reflect large tree fruit growers establishing FLCs to pick their own fruit and the fruit of other growers.

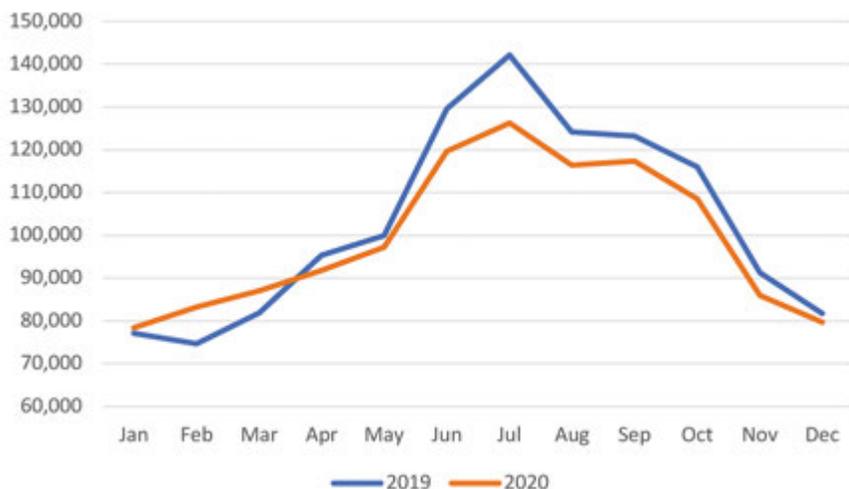
The number of employers or establishments reporting directly hired workers fell in each of the tree fruits, and fell fastest for apples. There were over 3,100 apple, other berry, and other tree fruit establishments in the early 2000s, and less than 1,800 in 2020. The number of FLC establishments, by contrast, quadrupled from 25 in the early 2000s to over 100 in 2020.

Wages

Employers report their wages paid and employment, which allows calculation of average weekly earnings. Average weekly earnings in apples, other berries, and other tree fruits were lower than in crop agriculture generally, and lowest in other tree fruit. Average FLC weekly wages of \$530 slightly higher than the \$517 in other tree fruit.

Annual changes in average weekly wages varied from year-to-year, with the largest variance in activities with the lowest employment. For all crop workers, annual changes in weekly wages ranged from -0.5 percent from 2008 to 2009 to 8.5 percent between 2019 and 2020. Apples had more variation in weekly wages, from -1.2 percent

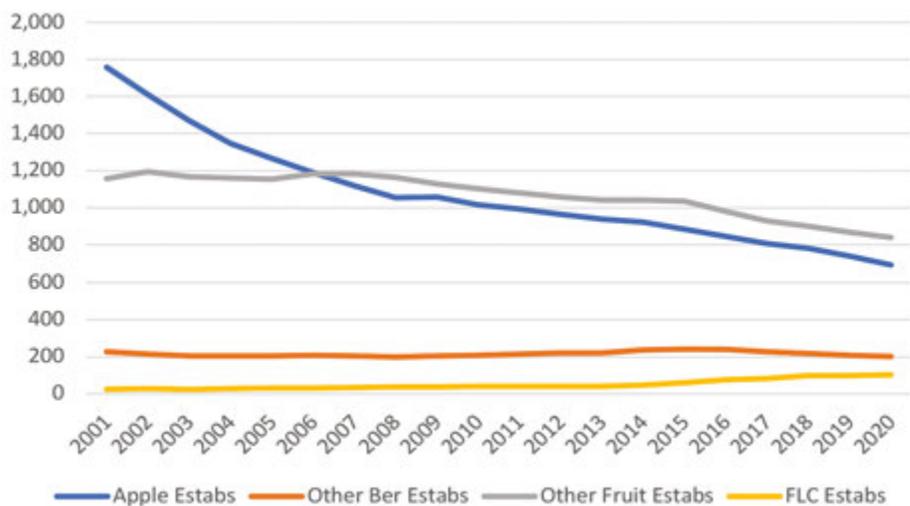
Employment in Washington Agriculture in July is 1.6x Employment in January and December



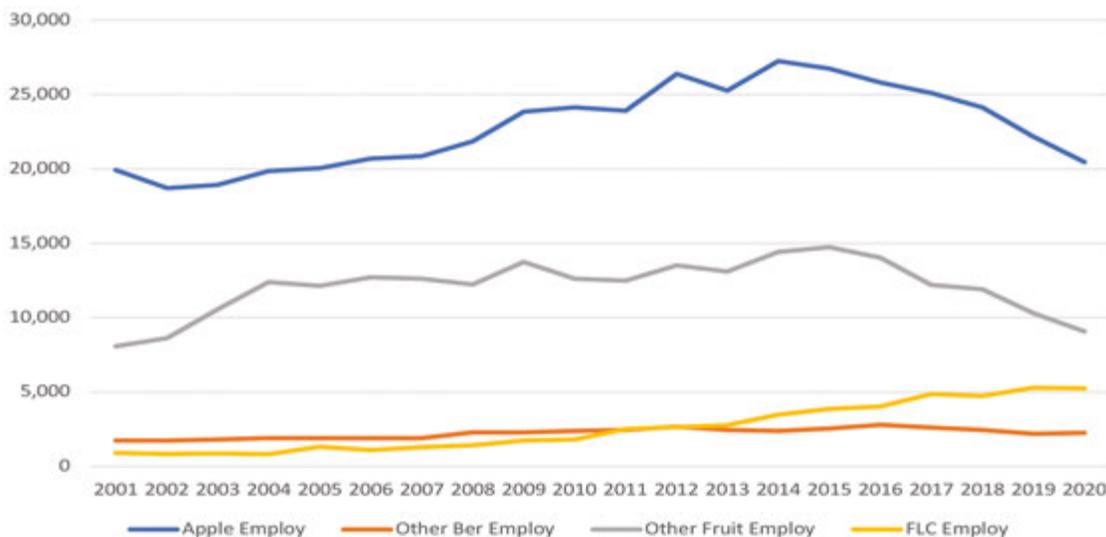
between 2009 and 2010 to plus 10.7 percent between 2003 and 2004. FLCs had the most variation, from -15.8 percent between 2008 and 2009 to 26.7 percent between 2005 and 2006.

The 2019 to 2020 weekly wage changes ranged from seven to 17 percent, rising fastest where average weekly wages were lowest.

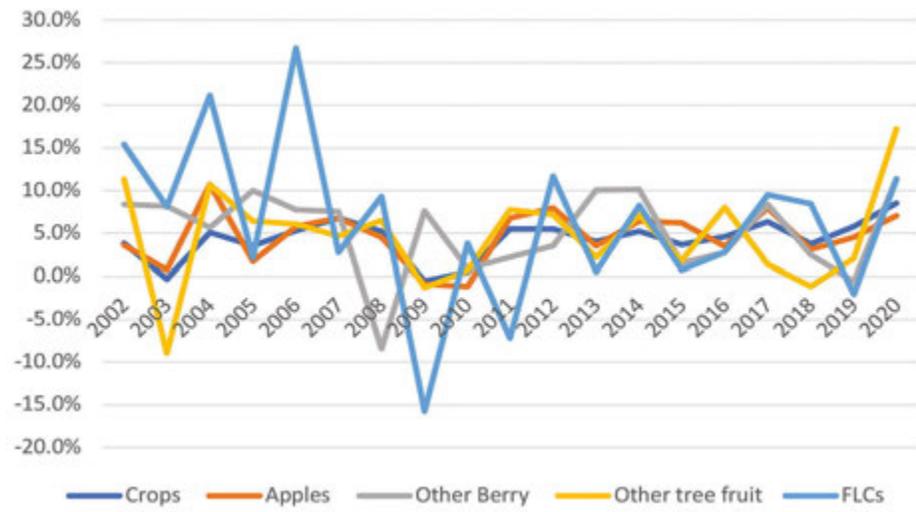
The Number of Apple Employers Fell by Two Thirds Since 2000, While the Number of FLCs Quadrupled



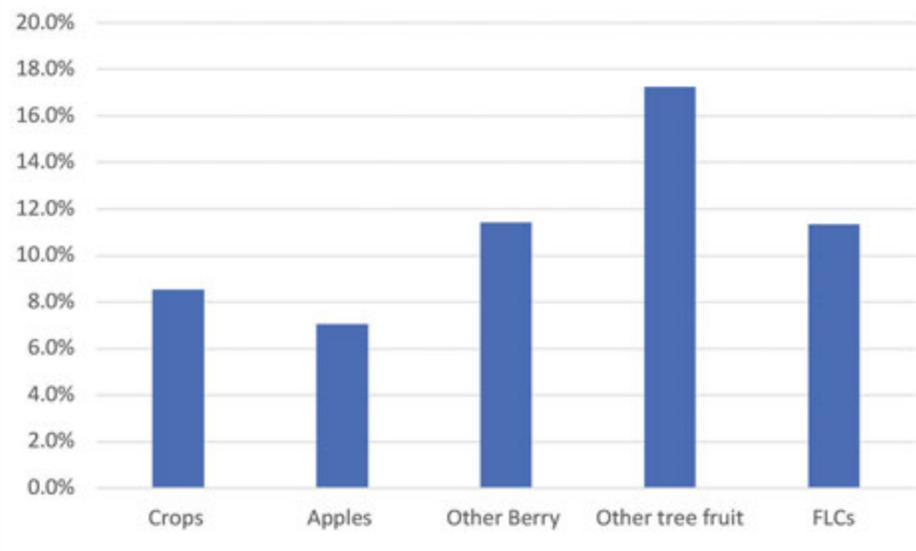
Average Direct-Hire Employment in Apples and Other tree Fruit Fell by 7,000 Over the Past Decade, While FLC Employment Rose by 3,000



Average FLC Weekly Wage Changes were Most Variable, and All Crop and Apple Wages Least Variable (Annual Change in Average Weekly Wages)



Other Berry and FLC Weekly Wages are Lowest, and Rose Fastest Between 2019 and 2020 (Change in Weekly Wages Between 2019 and 2020)



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