

CHAPTER 8 ECONOMICS

Economics is the study of the supply and demand for housing, employment, schools, public facilities, and all components of the community which affect the quality of life. Economics helps to explain why an area has the population and employment it does today. Employment characteristics are a vital part of economics. Types of employment can be divided into basic and non-basic sectors.

The basic employment sector can be described as those types of employment which produce goods and services for customers outside the area. For example, Martin-Marietta Aluminum, Inc. has basic employment because it produces aluminum for markets outside the area. Demand for this basic sector production is determined by influences outside the community. Basic production is important because it brings money into the economy.

Non-basic employment is those types of employment which produce goods and services for the local market. Demand for non-basic employment is generated by basic production. A good example is the mining ghost town. When the mines were producing gold ore (basic production), activities such as saloons, hotels, stables, and black-smiths flourished (non-basic). When the mine went dry (no basic production), the money provided by exports stopped, and the non-basic businesses lost the source of their purchasing power. Due to loss of income sources for basic production (gold ore), and the resulting loss of non-basic production (supporting services), all economic activity ceased and the communities became ghost towns.

The base multiplier is a number which describes the relationship between basic and non-basic activity. It can be stated in terms of jobs or dollars of income. Basic production generates demand for non-basic production, and the base multiplier describes this demand. The Dalles Urban Area has an employment multiplier of 2.56 and an income multiplier of 2.13. This means that each basic job induces 1.56 non-basic jobs, or each dollar of basic income produces 1.13 non-basic dollars. Rural Wasco County would be expected to have a smaller multiplier than The Dalles. The county's economic activity is primarily basic production; the economy is too small to have a developed non-basic sector. To satisfy local demands, purchases are made outside of the area in The Dalles or Portland. Income from basic production leaks out of rural Wasco County faster than it does The Dalles. In other words, the people from the rural farming areas (basic income) spend their money for goods and services (non-basic) in The Dalles. This situation would occur more frequently than people from The Dalles purchasing in Portland. Therefore, the rural Wasco County base multiplier is smaller than The Dalles base multiplier.

Basic Sector

The basic sector of the Wasco County economy is composed primarily of agriculture, forestry, the processing of agricultural and forestry products, and other manufacturing industries. Employment and payrolls for Wasco County are shown in Table 1.

Table 1 – Covered Employment and Covered Payrolls

Covered Employment (in %)							
State Industrial Code Class.	1970	1971	1972	1973	1974	1975	1976
Ag., Forestry & Fisheries*	1	1	1	1	1	1	1
Mining	-	-	-	-	-	-	-
Contract Const.	5	6	5	5	4	4	3
Manufacturing							
-Food & Kindred Products	6	7	6	5	4	3	3
-Lumber & Wood Products	7	8	7	7	7	7	6
-All Other	14	12	12	11	9	9	9
Transportation, Communication & Utilities	5	5	4	4	3	3	3
Wholesale & Retail Trade	29	28	26	27	23	26	25
Finance, Insurance & Real Estate	3	3	3	3	3	3	3
Services	14	14	21	21	18	19	21
Government	17	16	15	16	27	27	25
Total	100%	100%	100%	100%	100%	100%	100%
Total (Persons Employed)	4,435	4,709	5,151	5,275	6,192	6,282	6,278
Covered Payrolls (in %)							
State Industrial Code Class.	1970	1971	1972	1973	1974	1975	1976
Ag., Forestry & Fisheries*	-	-	-	-	-	-	-
Mining	-	-	-	-	-	-	-
Contract Const.	8	9	7	8	5	6	5
Manufacturing							
-Food & Kindred Products	5	5	5	4	3	3	3
-Lumber & Wood Products	9	10	10	9	10	8	8
-All Other	18	17	16	15	13	13	14
Transportation, Communication & Utilities	6	5	5	5	4	4	4
Wholesale & Retail Trade	21	20	20	20	18	19	19
Finance, Insurance & Real Estate	3	3	3	3	2	2	2
Services	8	8	14	13	12	13	15
Government	23	23	22	22	32	30	30
Total	100%	100%	100%	100%	100%	100%	100%
Totals (In Thousands)	\$30,406	\$33,608	\$37,089	\$40,439	\$51,075	\$56,152	\$61,464

1*This does not include all agricultural or forestry payrolls.

Source: Wasco County Economic Information, Oregon Dept. of Economic Development(1979)

A. Agriculture

Agriculture is a very important part of the economy of the County. It is primarily composed of three sub-sectors: tree fruits, small grains, and livestock. Table 2 shows the estimates of total agricultural employment.

Table 2 – Wasco County –Full Time Agricultural Employment Estimates

Year	Employment	% of Wasco Covered Employment
1994	977	11.0%
1993	999	11.5%
1992	899	10.5%
1991	814	10.0%
1990	772	9.5%
1989	757	9.77%
1988	791	10.4%
1987	727	10.0%
1986	734	10.9%
1985	552	8.0%
1984	741	10.0%
1983	645	8.8%
1982	601	8.0%
1981	595	7.6%
1980	626	8.0%
1979	592	7.5%
1978	538	7.0%
1976	670	10.7%
1975	670	10.6%
1974	690	11.1%
1973	1,140	21.6%
1972	900	17.4%
1971	720	15.3%
1970	940	21.2%

All of the commercial fruit crops within the county are grown in the area near The Dalles and Mosier. Cherries are the most important crop, followed by apples, apricots, peaches, prunes, plums, and pears.

Soft winter wheat is the most important agriculture field crop grown in the county. Barley is a secondary crop which is typically grown in areas where the average rainfall is insufficient, or the soil depth is not adequate for wheat production.

Most of the agricultural land within the county is utilized for livestock range. Hay, cropland pasture, rangeland, and grass-shrub areas are utilized for livestock forage. Cattle and calves are the most important product. Hogs and sheep rank a distant second and third, respectively.

Tables 3-5 give a general overview of the farm sector in Wasco County. They are taken from the Census of Agriculture.

Table 3 – Agricultural Statistics

Subject	1992	1987	1982	1978	1974	1969	1964	1959
Total number of Farms	456	487	502	462	498	542	599	669
Acres in Farms	1,152,965	1,172,745	993,972	1,046,221	1,139,927	1,168,970	1,369,707	1,307,488
Average size of Farm	2,525	2,408	1,980	2,265	2,289	2,151	2,287	2,049
Value of Land & Bldgs. (in thousands)	\$442,891	\$342,360	\$350,207	\$199,121	\$138,725	\$ 76,166	\$59,021	\$ 51,502
Average Value per Farm	\$971,253	\$702,998	\$697,624	\$430,998	\$278,569	\$140,528	\$ 96,638	\$ 61,799
Average Value per Acre	\$355	\$297	\$346	\$196	\$122	\$65	\$43	\$39

Table 3 shows that even though the number of farms is decreasing, average farm size is growing, increasing 24% from 1959 to 1992. Agricultural land values per acre have increased almost 1000% since 1959.

Farm sizes within the county vary considerably. There are both large livestock ranches and smaller fruit orchards. This fact contributes to the variability of farm sizes within the county.

Table 4 – Farms by Size

Size	1992	1987	1982	1978	1974	1969	1964	1959
Less than 10 acres	46	48	36	32	37	23	23	17
10-49 acres	102	109	143	88	107	96	89	113
50-100 acres	43	52	39	45	42	57	68	65
100-499 acres	106	96	124	99	106	134	173	204
500-2,000 acres	75	87	72	100	103	127	146	164
2,000 or more acres	84	95	88	98	103	105	100	106
TOTAL	456	487	502	462	498	542	599	669

During the past thirty years, the number of farms within Wasco County has declined by 32%. The number of full-time owners, part-time owners and tenants has also declined as shown below.

Table 5 – Operator Characteristics

Tenure of Operator	1992	1987	1982	1978	1974	1969	1964	1959
Full Owner	281	312	329	303	324	345	388	429
Part Owner	123	123	124	101	110	133	138	156
Tenant	52	52	49	58	64	64	65	73
Managers							8	5
Average Age of Operator	52.6	52.1	50.2	50.8	53.5	52.2	51.6	50.4

A general overview shows that the number of farms is decreasing and they are becoming somewhat larger and much more valuable. This is probably due to consolidation of several smaller farms into larger ones.

1. Tree Fruits

The first commercial shipment of cherries from Wasco County occurred in the 1890's. Tree fruits have been increasing in importance, and cherries are now the most important tree fruit in the county. In 1970, Wasco County contributed 1.3 percent of the total production of sweet cherries within the nation, and 40 percent of the total production in the state. Wasco County supplies more sweet cherries to the market than any other single county in the nation.

The amount of land utilized in the production of tree fruits has increased almost 20% in the last 33 years, as shown in the following tables. In 1965, the Bureau of Reclamation designed and constructed an irrigation system, which provided irrigation water for over 5,600 acres in Wasco County. Due to this project, 800 to 1,000 additional acres were planted in tree fruits.

The total value of tree fruits in Wasco County has steadily increased since 1954, while the average harvested acreage has increased slightly. The increase in total value is primarily due to inflation, increased yield per acre, and the Bureau of Reclamation irrigation project.

Tables 6 and 7 also indicate that cherries were 93 percent of the total revenue and 92 percent of the tree fruit acreage in 1976; and 94 percent of the total revenue and 89 percent of the tree fruit acreage in 1992. Apples, apricots, peaches, prunes, plums and pears make up the rest of the revenue and acreage for the tree fruits.

Table 6 – Tree Fruit Acreage and Value Wasco County

Year	Harvested Acres	Number of Orchards	Average Size (acres)	Total Value	Average Value/Acre	Average Value/Orch
1992	7,166	125	57.3	\$25,175,000	\$3,513	\$201,400
1987	7,368	139	53.0	\$20,475,000	\$2,779	\$147,302
1982	6,490	140	46.4	\$14,006,000	\$2,158	\$100,043
1978	6,325	150	42.2	\$ 7,198,000	\$1,138	\$ 47,987
1974	6,325	149	42.4	\$ 6,240,000	\$ 987	\$ 41,879
1969	6,525	176	37.1	\$ 5,604,000	\$ 859	\$ 31,841
1964	5,910	186	31.8	\$ 2,347,000	\$ 397	\$ 12,618
1959	6,001	155	38.7	\$ 2,397,875	\$ 400	\$ 15,470

Table 7A– Tree Fruit Values

Year	Cherries	Apples	Apricots	Peaches	Prunes/ Plums	Pears	Total
1992	29,727,000	1,219,000	110,000	78,000	-	377,000	\$31,511,000
1987	21,046,000	1,186,000	128,000	-	-	85,000	\$22,445,000
1982	13,103,000	612,000	175,000	72,000	6,000	38,000	\$14,006,000
1976	6,701,000	300,000	100,000	72,000	14,000	11,000	\$ 7,198,000
1974	5,625,000	473,000	65,000	57,000	11,000	9,000	\$ 6,240,000
1969	5,440,000	77,000	26,000	55,000	4,000	2,000	\$ 5,604,000
1964	2,212,000	33,000	24,000	68,000	8,000	2,000	\$ 2,347,000
1959	2,246,215	25,000	17,550	99,600	7,450	2,070	\$ 2,397,885

Table 7B – Harvested Acreage

Year	Cherries	Apples	Apricots	Peaches	Prunes/ Plums	Pears	Total
1992	5,600	500	28	35	-	70	6,233
1987	5,400	440	30	-	-	40	5,910
1982	6,000	350	50	50	10	30	6,490
1976	5,800	130	100	250	35	10	6,325
1974	5,800	130	100	250	35	10	6,325
1969	6,000	90	100	280	35	20	6,525
1964	5,125	60	130	540	35	20	5,910
1959	5,270	100	150	415	55	11	6,001

Figures on return to capital investment and profit may be used to determine the health and stability of an industry. A study of American business found that the average rate of return on investment over the past 40 years was seven to nine percent. During the post-war period, the average rate of return to United States agriculture was two to four percent. Long term stability in terms of return to capital investment is important, not short term fluctuations.

In other words, an industry may have a net loss in one particular year and still be healthy. However, profit and return to capital investment must be positive in the long run. This is illustrated by the fact that the cherry industry is healthy, yet showed a negative return to capital investment in 1976.

Table 8 – Cost and Revenues for Tree Fruits

Year	Total Capital Investment/ Acre	Cost of Production/ Acre	Revenue/Acre	Return Rate on Capital Investment	Profit Acre
CHERRIES					
1976	\$ 2,387.00	\$ 1,331.40	\$ 1,155.00	Negative	Negative
1972	2,133.00	849.95	969.00	5.58%	119.05
1969	2,125.00	819.25	906.00	4.08%	86.75

APPLES					
1976	\$ 2,600.00	\$ 1,711.00	\$ 2,308.00	22.96%	597
1974	2,500.00	1,659.00	3,638.00	79.16%	1,979
1969	2,100.00	1,185.00	855.00	Negative	Negative
1964	2,000.00	878.00	550.00	Negative	Negative
APRICOTS					
1976	\$ 2,387.00	\$ 1,299.40	\$ 1,000.00	Negative	Negative
1972	2,133.00	817.95	650.00	Negative	Negative
1969	2,125.00	787.25	260.00	Negative	Negative
PEACHES					
1976	\$ 2,387.00	\$ 1,299.40	\$ 288.00	Negative	Negative
1974	2,133.00	817.95	230.00	Negative	Negative
1969	2,125.00	787.25	194.00	Negative	Negative
PRUNES & PLUMS					
1976	\$ 2,387.00	\$ 1,252.40	\$ 400.00	Negative	Negative
1972	2,133.00	770.95	314.00	Negative	Negative
1969	2,125.00	740.25	114.00	Negative	Negative
1964			228.00		
PEARS (WINTER)					
1976	\$ 2,600.00	\$ 1,432.38	\$ 1,000.00	Negative	Negative
1974	2,500.00	1,460.17	900.00	Negative	Negative
1969	2,100.00	1,074.10	100.00	Negative	Negative
1964	2,000.00	785.63	100.00	Negative	Negative

Seasonal agriculture workers are a significant portion of the required labor for orchard production. The labor hired to harvest fruit crops is primarily migrant and works four to five weeks. Table 9 provides an indication of the time and magnitude of the seasonal agricultural employment.

Table 9 – Total Agricultural Employment by Calendar Year, 1987-1995, 1995 Data Preliminary, Based on '95 Benchmark - Wasco County

Month	1987	1988	1989	1990	1991	1992	1993	1994	1995
January	350	340	340	580	420	580	360	530	510
February	370	380	370	580	640	510	650	700	590
March	420	390	400	560	610	620	650	730	510
April	450	420	570	480	540	480	570	580	590
May	450	450	410	490	560	540	500	620	600
June	980	470	2,750	6,020	4,300	6,300	4,280	5,210	4,560
July	2,550	1,980	6,960	5,650	4,990	2,370	6,330	760	550
August	480	470	590	550	2,550	1,510	1,170	550	650
September	400	400	540	570	570	620	590	570	590

October	400	390	540	500	510	1,550	760	480	510
November	370	360	450	440	510	1,140	540	530	480
December	350	340	420	430	460	710	410	420	510
AA	630	530	1,190	1,400	1,390	1,410	1,400	970	890

All data reflect workers aged 16 years and over. For further information on the agricultural employment series, contact the Employment Department's Agricultural Employment Analyst at (503) 378-4854.

It is estimated that 1½ full time laborers are required for each 100 acres of orchard land. In Wasco County in 1976, approximately 95 workers were employed on a full-time basis, excluding owners themselves. Table 5 shows there are 6,325 acres of harvested orchard land in Wasco County as of 1976. This means that at least 42 full-time workers are necessary, based on the estimation stated above.

Royal Anne (Napoleon) and Bing cultivars will continue to dominate the sweet cherry production in the Mid-Columbia area. Following the loss of 1,500 trees in the winters of 1972-74, the majority were replaced with Bings. Bings are suitable for long distance shipment, canning, or brining. Because of these qualities, growers may sell their produce to either the fresh market or to a processing plant.

At present, 35% of the cherries are sold as fresh, 50% are brined, and 15% are frozen. The primary markets for fresh cherries are the U.S. east coast, Midwest, California, and Florida. A foreign fresh cherry market has been opened in Hong Kong and Taipei in the last four years. This market now represents a small percentage of sales, but has doubled every year since trade began. Japan remains a potential market.

2. Small Grains

Small grain production is one of the most important agricultural activities in the county. Table 10 lists the value of sales for wheat, barley, and oats.

Table 10 – Total Value of Small Grains

Year	Wheat	Barley	Oats	Total
1994				
1992	\$12,339,000	\$ 449,000	\$ 22,000	\$12,810,000
1987	8,252,000	990,000	30,000	9,272,000
1982	17,807,000	850,000	70,000	18,727,000
1976	10,689,000	730,000	13,000	11,432,000
1974	16,822,000	849,000	14,000	17,685,000
1969	2,762,000	545,000	7,000	3,314,000
1964	2,346,000	497,000	6,000	2,849,000
1959	3,777,830	495,840	19,255	4,292,925

Source: OSU Extension Service Wasco County Estimates

Fewer small grain farms exist within the county than ever before. At the same time, acres in production is at an all-time high, resulting in larger farms (see Table 11). This trend will probably continue until increasing farm size is no longer profitable.

The trend, nationally, is also towards larger consolidated farm units. It is estimated that the percentage of farms with annual sales of \$100,000 or more will double from just four percent now, to eight percent by 1980-85. At the same time, the percent of cash receipts received by these farms will increase from 47 percent at present, to possibly 60 percent. However, this does not indicate a shift towards a larger percentage of corporation farms. In fact, the family farm will continue to account for about 90 percent of all farms. The family farm will be similar in nature to the corporate farm, in that it will be a modern, sophisticated and commercially oriented operation.

Table 11 - SMALL GRAIN FARMS

Year	No. of Farms	Acreage	Avg. Acres per Farm
1992	109	79,172	726
1987	137	70,327	513
1982	184	99,900	543
1976	190	89,100	469
1974	209	86,858	416
1969	245	79,574	325
1959	277	85,756	310

Source: Census of Agriculture, Oregon, State, and County Data

The profitability of a farming operation will be determined by several factors: management effectiveness, machinery age, availability of labor, soil

characteristics; just to mention a few. Each owner and operator should evaluate these factors to determine the optimum or efficient farm size.

In the past, fewer than one out of six farmers were engaged in farming on a part-time basis. Today, two out of three farm families derive more than half of their income from non-farm sources. Therefore, it appears that part-time farmers will gain in importance in the future. A significant number of seasonal employees are also hired each year for the small grain harvest.

Farm output will increase assuming public research continues to increase. The same types of technology that boosted yields in the last 25 years will continue to account for increases in the future.

The cost side of production forces the picture to be less bright. In 1950, U.S. farms had a gross income of about 32.3 billion, expenses of about 19.4 billion, and a net income of 12.9 billion or 40 percent of the gross. By 1970, gross income had increased 79 percent to 57.9 billion, but expenses had risen faster--112 percent to 41.1 billion, leaving a net income of 16.8 billion, or only 29 percent of the gross.

For farmers within Wasco County, the future looks somewhat similar to that of the preceding five years. However, the trends of recent years have left U.S. agriculture in a vulnerable position. The capital intensive agricultural production process requires a stable and fluid money market. If the prices of farm commodities, especially grains in this region, should continue at their low rates, farmers will be hard pressed to meet the elevated prices of fuel, fertilizers, and other agricultural chemicals.

The following are agricultural projections made by the U.S. Department of Agriculture Farm Index.

- a. Demand for farm products for domestic use as well as export is expected to grow by $1\frac{1}{2}$ to $1\frac{3}{4}$ percent annually over the next five to ten years.
- b. Farm output will mount one to three percent a year (depending on price and weather conditions), thanks to steady advances in technology and the substitution of capital for land and labor.
- c. Chronic surplus or shortages of farm products are not in the picture, although farm income and prices will fluctuate.

3. Livestock

Livestock has been an important agricultural activity within the county. Table 12 shows the value of livestock, poultry, and poultry products sold in Wasco County.

Table 12 – Total Estimated Income

Year	Value of All Livestock (Poultry & Products)	Value of Cattle (only)
1992	\$ 6,885,000	\$ 5,953,000
1987	5,819,000	4,748,000
1982	6,903,000	5,691,000
1976	4,818,000	3,725,000
1974	4,620,000	3,864,000
1969	4,091,000	3,385,000
1964	2,473,000	1,574,000
1959	3,430,000	2,151,000

Source: OSU Extension Service Wasco County Estimates

A large percentage of the beef operations in Wasco County are supplemental to grain operations. In fact, only 5% of the farming operations raise cattle exclusively. In most cases, grain farms have a significant percentage of non-cropland or rangeland. In an effort to utilize an operator's time more efficiently and fully, most farmers run beef cattle on the submarginal lands not suitable for dry-land farming. Because this type of operation is supplemental in nature, the production of beef cattle is limited by the least abundant resource; be it labor, or winter or summer range. When that resource becomes limiting, the additional cash cost required to make it available may not be justified.

The statistics relating to profit and return to capital investment are not available. Table 13 below lists the rate of return on capital investment for different sizes of herds in 1965. More recent statistics are not available.

Table 13 – Return on Capital Investment From Beef Cow Herd on Wheat Livestock Farms – Size Classification for Cropland

	Herd Size		
	Small	Medium	Large
(Up to 900 Acres)			
Profit:	\$ 740.00	\$ 2,297.00	
Rate of Return on Investment:	2.7	2.6	
(901-1550 Acres)			
Profit:	\$ 632.00	\$ 2,047.00	\$6,534.00
Rate of Return on Investment:	2.6	2.6	2.8
(1551 Acres & Over)			

Profit:	\$ 1,093.00	\$ 1,308.00	\$ 4,944.00
Rate of Return on Investment:	5.3	2.2	2.5

If the costs of land associated with wheat farming also carry the cost of the non-cropland, then a considerably different set of statistics emerge. That is, if an individual buys wheat ground there will be some rangeland purchased which cannot be separated from the costs of purchase of such land. Table 14 illustrates the changes in return on capital investment and profit when this assumption is made.

Table 14 – Size Classification for Cropland - Herd Size

	Herd Size		
	Small	Medium	Large
(Up to 900 Acres)			
Profit:	\$ 750.00	\$ 2,307.00	
Rate of Return on Investment:	6.8	7.4	
(901-1550 Acres)			
Profit:	\$ 632.00	\$ 2,047.00	
Rate of Return on Investment:	5.0	7.0	
(1551 Acres & Over)			
Profit:	\$21,539.00	\$ 1,272.00	
Rate of Return on Investment:	7.9	4.3	

The estimated acreage of private rangeland in Wasco County is currently 772,829 acres. The U.S. Forest Service and Bureau of Land Management administer a majority of the public rangeland. The Mt. Hood National Forest includes 150,506 acres of usable range within the commercial forest area. Most of these rangelands are east of the Cascade Mountains, with a majority of them in Wasco County. In 1974, fourteen permittees grazed 1,186 cattle on these lands in the summer. The Bureau of Land Management administers approximately 36,978 acres within the county. Most of these lands are adjacent to the Deschutes River.

High feed prices and/or shortage of feed in the future may change the beef situation considerably. Due to increased grain demand for human consumption, the beef producer may be forced to find alternative feed. The producer may also become more dependent upon range and pasture forage for production in the future.

B. Forestry

Forestry in Wasco County has continued to grow since the beginning of sawmills in 1861. The estimated value of the harvested timber in 1975 was \$6,006,245. The forest lands of Wasco County may be economically broken into three types: grass-shrub, principle forest, and upper-slope forest zones.

The grass-shrub forest is used primarily for grazing and is privately owned. This forest type is discussed in the agriculture-livestock section of this report.

The lower elevations of the principle forest zone are also used for range land. But, the value of this forest type is mainly for timber production of Ponderosa pine.

The upper slope forest zone is the primary source of true fir, mountain hemlock, lodge pole pine and western larch. Almost all of these forest lands in Wasco County are administered by the United States Forest Service.

The U.S. Forest Service and other public agencies administer about 95 percent of the commercial timber volume. These public lands are characterized by large inventories of old growth timber. On the other hand, private lands contain a considerable amount of timber in the younger classes (less than 40 years old). These stocking characteristics indicate that the public lands must absorb future timber supply demands. Intensified management of all timber lands may increase the yields in eastern Oregon in the long run.

According to the U.S. Forest Service, there is currently a permitted cut of 40-45 million board feet per year in the Mt. Hood National Forest. About 80% of this cut is purchased by Mt. Fir Lumber Company according to Jim C. Davidson, District Ranger, Barlow District of Mt. Hood National Forest, U.S. Forest Service (November 7, 1980)

Subdivision and partitioning of private commercial forest lands may potentially impact the forest base of the county. These recreational parcels remove the timber resource from commercial use. They cannot be economically logged and sometimes become precluded from harvesting for aesthetic reasons.

Forestry employment (currently 30% of manufacturing employment) may represent an increasingly important portion of the economy. Efficient use of forest residues, intensified management of public forest lands, and the retention of commercial forest land in production are all important in order to sustain the forest industry.

C. Manufacturing

There are thirty-two (32) manufacturing firms located in the county. Twenty-three (23) of the firms are located in The Dalles and Maupin urban growth boundaries. The nine located outside these two areas are: Cody Logging and Construction Co., Mountain Fir Lumber, Tygh Valley Sand and Gravel, Kent Johnson Logging, Muirhead Canning Company, The Dalles Concrete Products, Detwiler Logging Company, Richard Dodge Logging, Inc., and Windsor Meat Company.

Figures for the total payroll and employment for these county based manufacturing firms are listed in Table 15 for the 1975 calendar year. Totals for The Dalles and Maupin Mountain Fir Mills are included.

Table 15 – Manufacturing – Employment by Quarter, 1975

Quarter	Jan. - March	April - June	June-Aug.	Sept. – Dec.
Number Employed	811	1078	1061	924
Monthly Average	270.3	359.3	353.7	308
Total Quarterly Payroll	\$692,686.88	\$1,068,472.50	\$1,074,673.40	\$912,956.13
% of Total Annual Payroll	18.5	28.5	28.6	24.4

D. Tourism and Education

The major tourist attraction in the County is the Columbia River Gorge. Old Columbia River Road, Interstate 84, port dock facilities, parks and view points provide scenic and recreational facilities along the south side of the, Columbia River. The Deschutes River provides a variety of water related recreational activities such as fishing, boating, camping and sight seeing. These major tourist attractions contribute to the local economy of Wasco County.

E. Non-Basic

The major portion of rural Wasco County's economic activity is oriented towards basic production. Rural economies, such as rural Wasco County, typically have not achieved a size and diversification needed to support a large non-basic sector. Local non-basic demands are satisfied in available markets such as The Dalles and Portland.

Non-basic employment in the rural county primarily consists of farm services, grocery stores, gas stations, restaurants, and other personal services. This is a small part of the total non-basic sector, since services are concentrated in population centers such as The Dalles.

A small non-basic sector is not unusual for a rural area and does not indicate a weakness in the economy. As long as residents are willing to travel to larger markets there will not be a demand for a great variety of the non-basic sector in the rural

areas. As population grows in this part of the county, goods and service establishments will become more attractive for investment and the non-basic sector will grow.

F. Labor Force Characteristics

Unemployment in Wasco County has been a problem in the past. The unemployment rate has been consistently higher than the state average. This has been the case since completion of the government dam projects in the 1960's.

Table 16 illustrates changes in labor force, employment, and unemployment for Wasco and Sherman counties.

Table 16 - Changes in Labor Force, Employment and Unemployment - Wasco & Sherman Counties

	1976	1974	1970	1960
Labor Force	9,930	9,670	9,440	8,440
Employment	8,930	8,910	8,670	7,790
Unemployment	1,000	760	770	630
Unemployment Rate:				
Wasco/Sherman	10.1	7.9	8.2	7.4
Oregon	9.5	7.5	7.6	4.9

Another factor creating a higher than statewide unemployment rate is the seasonal employment in agriculture, food processing, construction, forestry, and lumber processing. These industries have their highest employment in summer, fall and early winter, as Table 17 (showing seasonal employment rates) indicates.

Table 17 – Seasonal Fluctuations in Unemployment as a Percentage of Civilian Labor Force for Wasco/Sherman Counties - 1975

Month	Percentage
January	11.9%
February	13.4%
March	11.5%
April	11.2%
May	10.2%
June	9.8%
July	7.3%
August	8.2%
September	7.3%
October	7.5%
November	9.7%
December	9.9%

Average	9.9%
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Occupations of employed persons and the occupations of job applicants gives the best information in existing skill levels. Wasco County figures for 1970 indicate approximately 75% of employment was skilled or semi-skilled. In 1976, just over 50% of the applicants at The Dalles local employment office identified their occupation as skilled. Of these job applicants, 35% identified their skills as clerical, sales, or service, while only 16% were professional, technical, machine trades or structural work oriented.

Table 18 illustrates occupational characteristics.

Table 18 - Occupations of Employed Persons, by Sex and Minority Status, 1970 & 1976

Occupation	Both Sexes						Female					
	Total (1)	White (2)	Black (3)	Other Races (4)	Spanish American	Minority Group* (6)	Total (7)	White (8)	Black (9)	Other Races (10)	Spanish American (11)	Minority Group (12)
All Occupations												
-#1976	7,816	7,690	44	82	49	175	2,784	2,755	17	12	10	39
-#1970	7,297	7,178	41	78	47	166	2,448	2,423	15	20	8	34
-%1970	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Prof., Technical & Related	12.9	13.0	9.8	0	0	NA	15.7	15.7	26.7	0	0	NA
-Engineers	1.2	1.2	0	0	0	NA	NA	NA	NA	0	0	NA
-Medical & Health Workers	1.5	1.6	0	0	0	NA	2.4	2.4	0	0	0	NA
-Teachers, Elementary & Sec. Schools	4.4	4.5	0	0	0	NA	6.7	6.7	0	0	0	NA
-Other Professional	5.7	5.8	9.8	0	0	NA	6.7	6.7	26.7	0	0	NA
Managers & Administrators, nonfarm	10.2	10.2	0	14.1	0	NA	5.9	6.0	0	0	0	NA
Sales	6.0	6.1	0	0	0	NA	8.1	8.2	0	0	0	NA
-Retail Stores	4.1	4.2	0	0	0	NA	6.7	6.8	0	0	0	NA
-Other Sales Workers	1.9	1.9	0	0	0	NA	1.4	1.4	0	0	0	NA
Clerical	11.7	11.9	0	0	19.1	NA	26.4	26.7	0	0	0	NA
-Secretaries, Stenographers, & Typists	2.3	2.3	0	0	0	NA	6.8	6.0	0	0	0	NA
-Other Clerical Workers	9.5	9.6	0	0	19.1	NA	19.6	19.8	0	0	0	NA
Craftsmen, Foremen & Related	17.1	17.3	7.3	6.4	19.1	NA	1.6	1.6	0	0	0	NA
-Construction Craftsman	5.4	5.5	0	0	0	NA	NA	NA	0	0	0	NA
-Mechanics & Repairmen	3.2	3.2	0	0	0	NA	NA	NA	0	0	0	NA
-Machinists & Other Metal Craftsmen	0.9	0.9	0	0	0	NA	NA	NA	0	0	0	NA
-Other Craftsman	7.8	7.8	7.3	6.4	19.1	NA	NA	NA	0	0	0	NA
Operatives Except Transport	9.6	9.6	19.5	7.7	0	NA	9.9	10.0	0	0	0	NA
-Durable Goods Manufacturing	3.5	3.4	19.5	7.7	0	NA	1.0	1.0	0	0	0	NA
-Nondurable Goods Manufacturing	1.2	1.2	0	0	0	NA	2.4	2.4	0	0	0	NA
-Nonmanufacturing	4.9	5.0	0	0	0	NA	6.5	6.6	0	0	0	NA
Transportation Equipment Operatives	4.6	4.6	0	7.7	12.8	NA	0.9	0.9	0	0	0	NA
Laborers, Nonfarm	5.5	5.2	26.8	20.5	19.1	NA	0.9	0.9	0	0	0	NA
Service, Exc., Private, Household	13.6	13.4	26.8	24.4	29.8	NA	25.4	25.1	46.7	50.0	0	NA
-Cleaning & Food Service	7.7	7.6	9.8	17.9	29.8	NA	13.3	13.5	0	0	0	NA
-Protective Service	0.0	0.8	0	0	0	NA	0.2	0.2	0	0	0	NA

-Personal Health & Other Services	5.2	5.1	17.1	6.4	0	NA	11.8	11.5	46.7	50.0	0	NA
Private Household Workers	1.0	0.9	0	6.4	0	NA	2.9	2.7	0	50.0	0	NA
Farm Workers	7.7	7.7	9.8	12.8	0	NA	2.2	2.1	26.7	0	0	NA

Source: Census Population, 1970 and Oregon Employment Division

Notes: NA = Not Available

*Sum of Spanish American and all races except white. Some duplication possible since Spanish American may include nonwhite races in addition to white.

Sum of individual items may not equal totals because of rounding.

G. Future Economic Outlook

The Overall Economic Development Programs for both the Confederated Tribes of the Warm Springs Reservation of Oregon (1976), and the Mid-Columbia Economic Development District (1980-81), give some indication of the current status of Wasco County's economy and what the future needs may be. However, they are quite general and do not give specific employment projections characteristics. The Bonneville Power Administration has made computations of these and other statistics in their publication, Population, Employment & Households Projected to 2000, (Sept. 1979). These statistics are given in Table 19 and will give some indication of the County's future economic status.

Table 19 shows that total employment will increase by 24.3% between 1980 and 2000. Agricultural employment will decrease by 16.1% during this time period, but non-agricultural employment will increase by almost 30%. Under the non-agricultural employment category, both the construction and lumber and wood products industries will experience employment reductions of 10 and 25 percent respectively. Both of these industries are dependent upon one another and this reduction reflects the current trend of ever-increasing housing prices and decreasing timber supplies.

All other forms of non-agricultural employment are expected to increase, especially the food and kindred products industry, which includes cherry processing. Wholesale and retail trade, as well as finance, insurance, and real estate are both projected to increase by 40 percent, and services by 55 percent; indicating that this area is becoming a regional service and trade center.

The following development projections are made based on the information previously presented:

1. Agricultural employment will decrease as a percentage of total employment due to the consolidation of farming units.
2. Seasonal and full-time employment in the lumber and wood processing will decline.
3. The lumber and wood products industry currently represents about 6 percent of the County's employment and 8 percent of the payrolls. (See Table 1). These percentages have been, and will continue, to slowly decrease to the year 2000, reflecting the State's trend. These decreases should not have too great an impact on Wasco County as a whole, although specific areas, such as Tygh Valley and Maupin could be seriously affected.

Table 19 – Oregon Employment Projections, 1975-2000 (Wasco)

	1975	1980	1985	1990	1995	2000
Total Employment (Household)	8,300	9,175	9,950	10,475	10,950	11,400
Total Employment (Establishment)	8,300	9,175	9,950	10,475	10,950	11,400
-Agriculture	825	775	725	700	675	650
-Non-Agricultural Self Employment	800	800	825	850	875	900
Total Non-Agricultural Employment	6,675	7,600	8,400	8,925	9,400	9,850
-Mining	--	--	--	--	--	--
-Construction	225	250	250	250	225	225
-Manufacturing	1,175	1,275	1,375	1,350	1,350	1,325
-Food & Kindred Products	(200)	(225)	(250)	(275)	(300)	(300)
-Lumber & Wood Products	(425)	(400)	(400)	(350)	(325)	(300)
-Paper & Allied Products	--	--	--	--	--	--
-Primary Metals	(500)	(575)	(600)	(600)	(600)	(600)
-Transportation Equipment	--	--	--	--	--	--
-Other Manufacturing	(50)	(75)	(125)	(125)	(125)	(125)
-Transportation & Public Utilities	375	400	425	425	450	450
-Wholesale & Retail Trade	1,600	1,875	2,100	2,275	2,450	2,625
-Finance, Insurance, and Real Estate	200	250	275	300	325	350
-Services	1,300	1,725	2,050	2,300	2,500	2,675
-Government	1,800	1,825	1,925	2,025	2,100	2,200

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4. The Dalles area will continue to grow in its status as a regional shopping center. These normally non-basic jobs are becoming forms of basic employment in this area.
5. The development of energy from wind and agricultural and timber wastes may foster development of new, smaller-scale industries, or supplement energy supplies on industries which are currently producing.
6. Tourism will continue to be an important part of the County's economy. There may be some fluctuation in tourist activity with variations in oil prices.

(Source: Wasco County Planning Office)