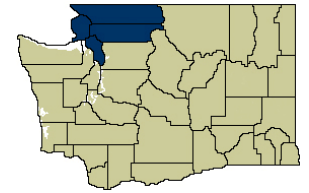




# Key Industries in Northwest Washington (Whatcom, Skagit, Island and San Juan counties)



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There are several ways to determine key industries within a region. These include overall employment in the industry, industry growth rate, and location quotients. The location quotient is a relative measure of a local area's employment share within a particular industry. The location quotient is a very powerful tool in that it helps identify export and import industries within a region. Export industries are very important to a region in that they bring in money to a region, rather than circulate money that is already in that region (like retailers and restaurants). This paper will look at all of these measures in order to determine key industries in Northwest Washington (Workforce Development Area 3). Workforce Development Area 3 includes the following counties: 1) Whatcom, 2) Skagit, 3) Island and 4) San Juan.

## Key Industries in Northwest Washington

### Total Employment

The two main employment industries in Northwest Washington are educational services and food services and drinking places (Table 1). Since Bellingham is a university town, this is not surprising. These industries, along with food and beverage stores (also in the top 10), tend to be related. Two sectors from the construction grouping are also in the top 10, specialty trade contractors and construction of buildings.

Table 1: NW Washington Key Employment Industries - 2006

NAICS	Industry	2006 Total Employment	2006 Share of Employment	2001 - 2006 Percent Growth	2006 Average Annual Wage
611	Educational services	14,531	9.7%	10.8%	\$31,937
722	Food services and drinking places	12,485	8.4%	19.6%	\$11,983
238	Specialty trade contractors	6,725	4.5%	32.2%	\$36,909
621	Ambulatory health care services	6,169	4.1%	23.3%	\$36,774
921	Executive, legislative and general government	5,992	4.0%	NA	\$41,633
541	Professional and technical services	4,756	3.2%	23.4%	\$43,370
236	Construction of buildings	4,612	3.1%	44.6%	\$41,807
445	Food and beverage stores	4,398	2.9%	13.3%	\$23,436
561	Administrative and support services	4,234	2.8%	8.3%	\$22,998
622	Hospitals	*	*	*	*

NAICS: North American Industry Classification System

NA: Not Available – Portion of employment re-codified in 2003 due to change in NAICS code definitions

\*Numbers not shown to avoid disclosure of data for individual employer

## Employment Growth Rate

Those industries in Northwest Washington that have experienced the highest employment growth rates between 2001 and 2006 are listed in Table 2. The industry that has shown the most growth is the waste management and remediation service industry. Employment in this industry increased by almost 60.0 percent in Northwest Washington between 2001 and 2006. Other industries which have experienced large growth rates in employment include construction of buildings (44.6 percent) and specialty trade contractors (32.2 percent). This is not surprising when one considers all of the new construction that has occurred in the region over the past decade. These industries are notable because they both have relatively high growth rates as well as a large employment base (as mentioned above). It is also important to note that of the top ten employment growth industries, four are sub-sectors of the manufacturing industry.

Table 2: NW Washington Key Employment Growth Industries (2001 - 2006) (minimum employment: 500)

NAICS	Industry	2001 - 2006 Percent Growth	2006 Total Employment	2006 Share of Employment	2006 Average Annual Wage
562	Waste management and remediation service	57.4%	561	0.4%	\$37,496
236	Construction of buildings	44.6%	4,612	3.1%	\$41,807
339	Miscellaneous manufacturing	40.2%	817	0.5%	\$34,345
332	Fabricated metal product manufacturing	37.2%	724	0.5%	\$39,842
524	Insurance carriers and related activities	35.3%	1,311	0.9%	\$39,787
488	Support activities for transportation	33.1%	1,006	0.7%	\$35,234
327	Nonmetallic mineral product manufacturing	32.6%	535	0.4%	\$40,895
446	Health and personal care stores	32.3%	969	0.6%	\$29,294
238	Specialty trade contractors	32.2%	6,725	4.5%	\$36,909
336	Transportation equipment manufacturing	32.1%	2,264	1.5%	\$40,581

NAICS: North American Industry Classification System

## Location Quotient

The location quotient (LQ) is an index that measures the concentration of an industry in a given region relative to its concentration in the state (or nation) as a whole. If the location quotient is greater than 1, then the particular industry's share of the total employment in the region is greater than its share of employment in the state. This would be an indication that the region is producing more than the average share of output in that particular industry and some of that output is likely being exported. Table 3 lists those Northwest Washington industries that have the highest state location quotients as of 2006. At the top of the list is petroleum and coal products manufacturing with a location quotient of 12.69. The main drivers of this result are the BP Cherry Point Refinery in Ferndale and two refineries in Anacortes – Shell Puget Sound and Tesoro Refinery. Given that a large percentage of output from oil refineries would be exported outside of a region, regions that have multiple refineries would tend to have a much higher than average level of employment in this industry. This is evident in the situation here. Other notable industries with large location quotients are construction of buildings and amusement, gambling and recreation, the latter showing that the casino industry drives another export – tourism. Another important finding is that of the ten industries with highest location quotients, six are manufacturing industries. This is an indication of the strength of the manufacturing industry in Northwest Washington.

Table 3: NW Washington Key Employment Industries - 2006 (minimum employment: 100)

NAICS	Industry	2001 State LQ	2006 State LQ	Percent Change (2001 - 2006)	2006 Average Annual Wage
324	Petroleum and coal products manufacturing	14.86	12.69	-14.6%	\$102,848
112	Animal production	4.45	3.78	-15.1%	\$23,914
314	Textile product mills	3.21	3.50	8.9%	\$31,687
236	Construction of buildings	1.71	1.86	9.1%	\$41,807
447	Gasoline stations	1.80	1.66	-7.7%	\$14,646
713	Amusements, gambling, and recreation	1.86	1.65	-11.1%	\$20,789
321	Wood product manufacturing	1.76	1.63	-7.6%	\$37,504
311	Food manufacturing	1.52	1.58	3.5%	\$31,917
333	Machinery manufacturing	1.27	1.55	22.0%	\$43,693
331	Primary metal manufacturing	*	*	*	*

NAICS: North American Industry Classification System

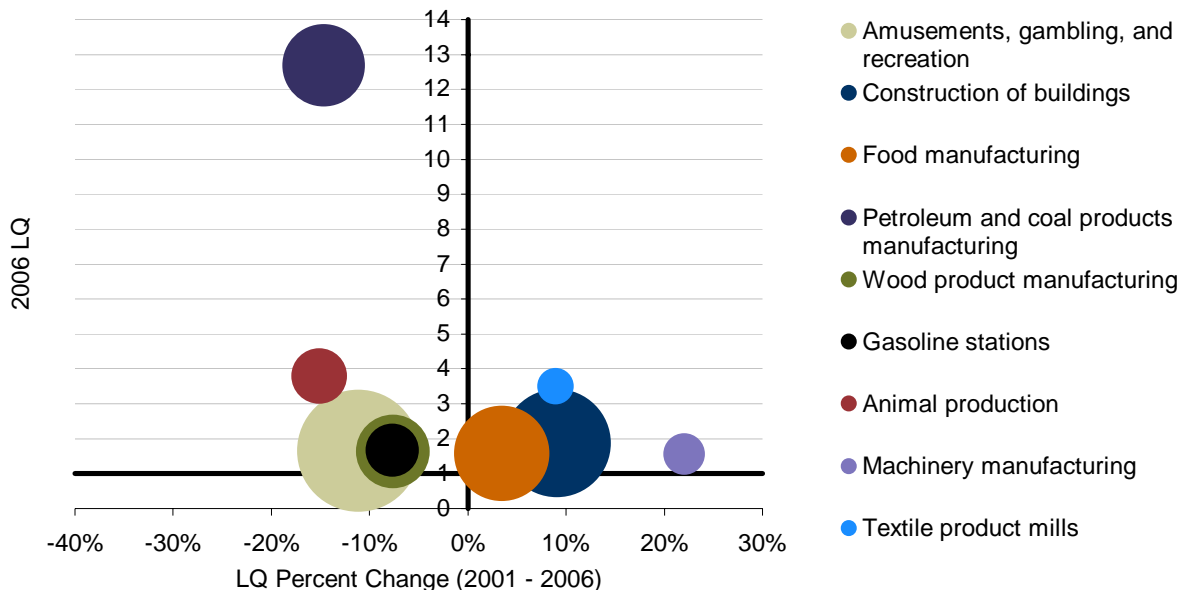
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### Location Quotients, Emerging and Endangered Export Industries

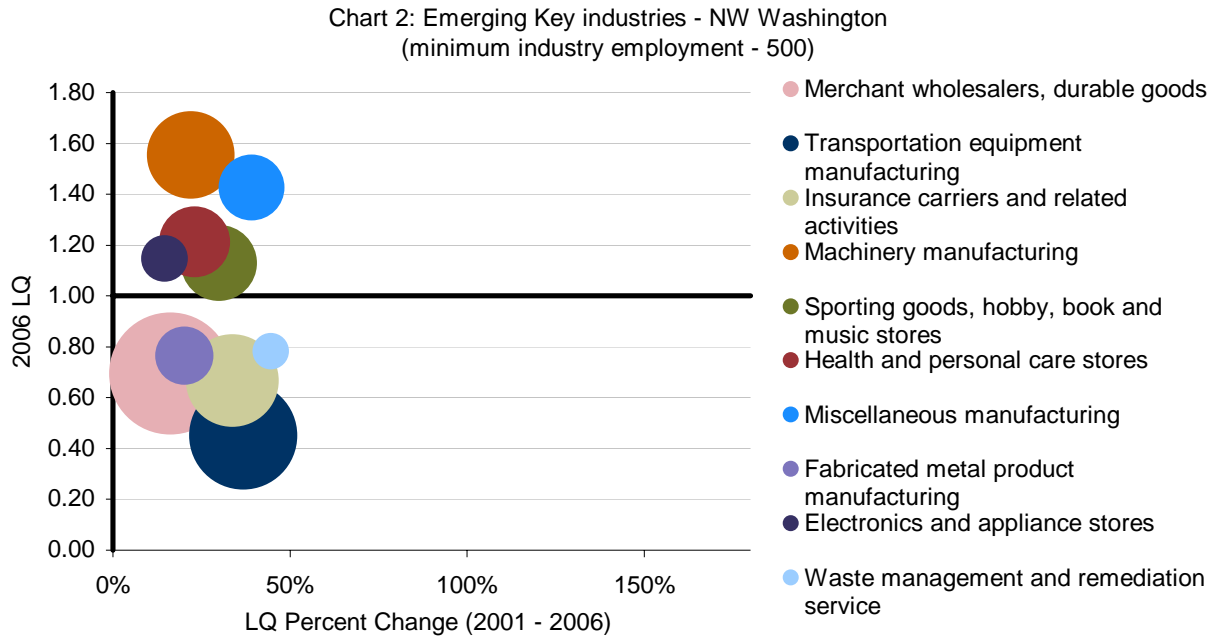
With the help of the graphs below, one can determine key industries that are emerging and key industries that are endangered in Northwest Washington. The vertical axis has the basic LQ measurement, while the horizontal axis shows the percent change in LQ between 2001 and 2006. Industries are plotted as circles (or “bubbles”), with the circle size corresponding to their relative size (in jobs).

The share of employment in Northwest Washington in an industry in the upper right quadrant is larger than the corresponding state share, and the region’s relative share is growing over time. The industries that fit this category include construction of buildings and food manufacturing (see Chart 1). These industries distinguish the regional economy and are doing so more every year – and they are especially important if they are also large in terms of jobs (as is the case with construction). Large industries in this quadrant are both important and high performing, which means they will have increasing workforce demand.

Chart 1: Key Employment Industries - NW Washington

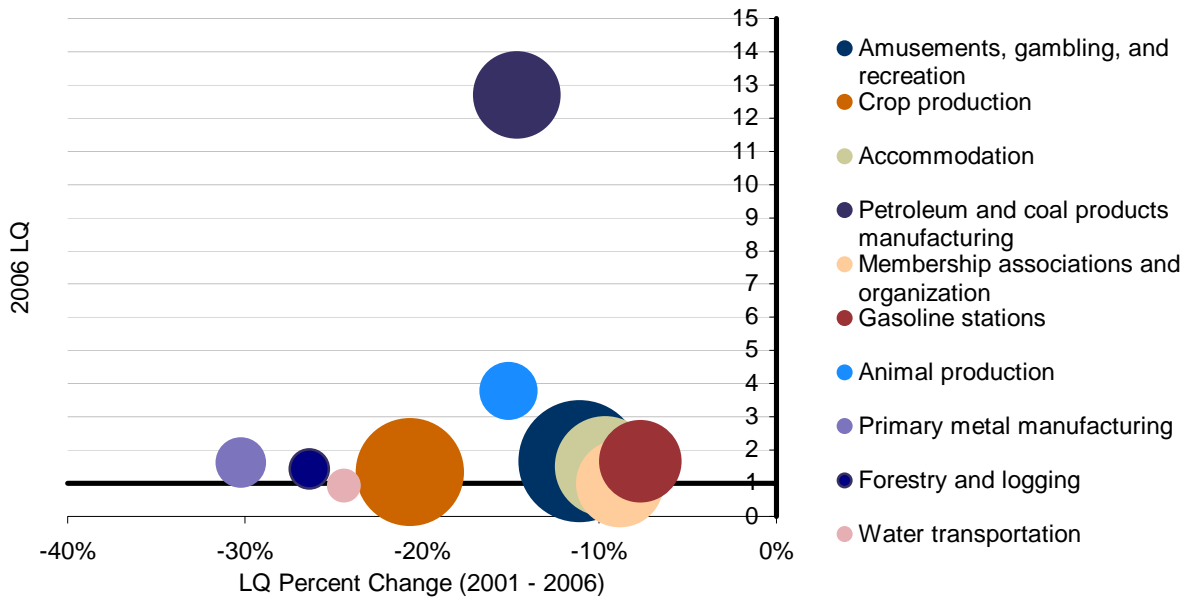


The lower right quadrant contains industries whose regional share of employment is less than the corresponding state share but is currently growing at a faster pace in the region. If they continue this trend, they will eventually move across the horizontal axis into the upper right-hand quadrant. These industries have the potential to become key industries within the region and should be the focus of long-term economic development planning. Industries in this category include transportation equipment manufacturing and merchant wholesalers, durable goods (see Chart 2). These industries could be especially beneficial to workers in Northwest Washington since jobs in these industries tend to be high paying.



The upper left quadrant contains industries that are more concentrated in Northwest Washington than average, but whose concentration is declining (i.e., regional employment growth in these industries is slower than the corresponding state growth). Examples of industries that fit this category are amusements, gambling and recreation and crop production (see Chart 3). That employment in the amusements industry has grown faster at the state level only shows how important this industry is becoming to the entire state.

Chart 3: Endangered Key Industries - NW Washington



**Conclusion**

From the analysis above, education and construction are the key employment industries in Northwest Washington. However, it is important to keep in mind that manufacturing tends to be the driving force behind a healthy economy. In total, the manufacturing industry was responsible for 9.9 percent of total employment in Northwest Washington in 2006. On the surface, this appears to be low as 12.0 percent of state employment is in the manufacturing industry. However, upon closer inspection, the story changes. As mentioned above, six of the ten industries with the highest location quotients and four of the ten industries with the highest employment growth are sub-sectors of the manufacturing industry. The excess output from these industries is being exported and these industries are bringing wealth into the local economy. With this wealth, people are buying houses and starting families. When this occurs, employment in industries such as construction and education increases. Since the health of the manufacturing industry is vital to an economy, those involved with economic development should keep a close eye on two emerging industries identified in Chart 2 – machinery and transportation equipment manufacturing.