Region 1: The Olympic Consortium - Clallam, Jefferson, and Kitsap Counties

In this region, the largest cluster is related to the Navy bases located in Kitsap and Jefferson County. Kitsap is home to Navy Region Northwest, which includes the Navy installations at Bremerton and Bangor, the Puget Sound Naval Shipyard, and the research facility at Poulsbo, as well as a munitions depot on Indian Island in Clallam County. Together these installations employed nearly 28,000 in 2007, a level of employment that is 14 times the national average. The cluster with the highest LQ, on the other hand, is fishing, a cluster that includes local seafood processing plants and marine-related construction (dock installation and repair). This is a small cluster with employment estimated at just 843, but this employment level is nearly 20 times the national average for this set of industries. A number of other clusters are shown on the charts beginning on the next page, including forest products, construction, architectural and engineering services, and nursing/residential care services. All of these clusters provide employment in this region equal to 90% of the employment in the Navy-related cluster, demonstrating the dominant influence of the Navy installations on the economy of this region.

No employment projection is available for the large Navy cluster. Declines in employment were experienced in the Fishing/Seafood and Forest Products clusters, and additional declines are expected from now out to 2018. Many of the clusters with lower levels of comparative advantage, however, were growing in recent years and are expected to continue to expand at a moderate pace.

The top 5 clusters in the region, measured by location quotient or degree of comparative advantage, all have high percentages of exports (sales to customers outside Washington State). However, these 3 of these 5 clusters are projected to experience employment declines in the years ahead, and the 5th, sporting goods manufacturing, is quite small and is expected to experience only a modest employment gain consistent with its recent historical growth. The last of the 5 is the Navy focused cluster for which we have no growth projection. Six of the 8 clusters for which we are able to display wage distribution data have a middle wage percentage higher than the regional average, and 4 of the 8 have a high wage percentage higher than the regional average. The strategic value index for these clusters places Architectural and Engineering Services at the top of the list, followed by the Navy focused cluster, Business Support Services, Wood Products, and Ship and Boat Building.

The map showing establishment in key clusters for Region 1 shows a largely dispersed pattern of establishments across the clusters, with establishments centered along Highway 101 throughout the region. However, there are large concentrations of firms in the Wood Products cluster centered near Forks and Port Angeles. Sporting Goods manufacturing clusters are evident along Highway 101 between Port Angeles and Sequim, with another concentration in the Port Townsend and Quilcene areas. Not surprisingly, Ship and Boat Building activities are wholly centered in Port Angeles, Port Townsend, and near the Navy base in the Bremerton area. Fishing establishment locations are especially pronounced in the Hood Canal area.

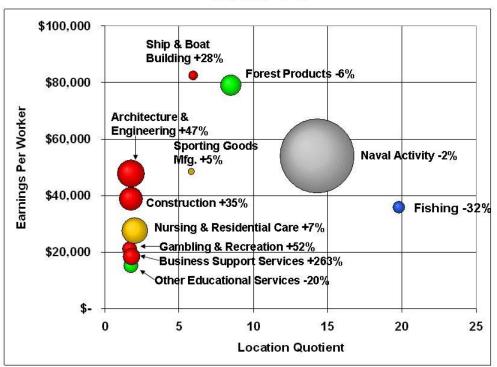Figure 3: WDA1 Cluster Characteristics

WDA 1

Figure 4: WDA1 Cluster Linkages

Region 1 backward linkages>.05; LQ >2.5; forward links in red   Red text LQ>10

Table 1: Distribution of Occupational Median Wages in WDA 1

Wage Type	Annual Wages
Mean Wages	$41,714
Pct25 Wages	$24,043
Median Wages	$35,184
Pct75 Wages	$52,954

Table 2: Middle and High Wage Jobs by Cluster in WDA 1

Cluster	All Employment	Middle Wage Jobs	Percent Middle Wage Jobs	High Wage Jobs	Percent High Wage Jobs
Fishing	79	-	0%	0	0%
Wood Products	1,048	833	79%	172	16%
Ship and Boat Building	899	461	51%	388	43%
Sporting Goods Mfg.	306	214	70%	37	12%
Nursing and Residential Care Facilities	3,691	2,252	61%	349	9%
Architectural and Engineering Services	1,679	674	40%	847	50%
Other Amusement, Gambling, & Recreation	1,433	806	56%	39	3%
Construction	672	482	72%	183	27%
State & Local Non-Education	8,375	4,990	60%	1962	23%
Cluster Total	18,182	10,712	59%	3977	22%
All Industries	119,515	58,716	49%	27995	23%
Clusters as % of All Industries	15%	18%			

Table 3: Strategic Evaluation of Clusters in WDA 1

Cluster	LQ	Output ($ millions)	Employment	Earnings/ Worker	Percent of Jobs in Middle Wage Range	Percent of Jobs in High Wage Range	Chg Est 01-07	Chg Empl 01-07	Chg Wage 01-07	Projected Emp Ch 2006-16	R&D Occ's. as % Empl.	Exports as % Output
Fishing	19.79	42	843	35,888	0%	0%	-52.2%	-31.9%	-25.7%	-30.1%	0.0%	58.4%
Navy Focused Cluster	14.28	1,686	27,964	54,088	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0%
Wood Products Focused Cluster	8.46	823	2,294	78,991	79%	16%	-17.2%	-5.8%	17.8%	-7.2%	2.7%	76.9%
Ship and Boat Building	5.95	114	460	82,528	51%	43%	25.4%	27.8%	62.9%	-29.0%	9.9%	99.5%
Sporting Goods Mfg.	5.83	48	239	48,565	70%	12%	25.9%	5.4%	46.8%	5.6%	1.6%	95.3%
Nursing and Residential Care Facilities	2.02	180	3,775	27,490	61%	9%	-11.0%	7.2%	34.8%	23.7%	0.5%	19.7%
Business Support Services	1.79	77	1,516	18,472	n/a	n/a	42.1%	262.7%	211.8%	18.1%	1.4%	65.4%
Architectural and Engineering Services	1.74	295	2,799	38,815	40%	50%	13.3%	46.5%	123.8%	16.6%	43.5%	54.0%
Other Educational Services	1.73	53	1,184	15,248	n/a	n/a	-25.4%	-20.3%	-7.1%	11.3%	4.1%	21.8%
Other Amusement, Gambling, & Recreation	1.65	79	1,159	21,255	56%	3%	7.9%	51.6%	91.1%	20.0%	0.0%	9.4%
Construction	1.76	1,345	10,929	36,874	72%	27%	-9.2%	35.0%	72.2%	6.1%	0.6%	7.9%
Other State & Local Gov't. Enterprises	1.71	253	1,166	48,067	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25.0%
State & Local Non-Education	0.41	585	9,696	55,311	60%	23%	n/a	n/a	n/a	n/a	n/a	0.0%

Notes:
Employment projection for all fishing and hunting used for fishing industry.
Employment projection for all nursing services used for nursing and residential care facilities.
Statewide employment projection for business support services used for this region.
Statewide occupation data used to estimate R&D occupation percentages for fishing, nursing
  and residential care facilities, business support services, and other educational services.

Rankings

Cluster	LQ	Output	Employment	Earnings	Percent of Jobs in Middle Wage Range	Percent of Jobs in High Wage Range	Chg Est 01-07	Chg Emp	Chg Wage	Projected Emp Ch 2006-16	R&D Occ's. as % Empl.	Exports as % Output	Sum of Ranks	(120-Summed Scores)
Fishing	1	13	11	9	9	13	10	10	10	10	9	5	110	10
Navy Focused Cluster	2	1	1	4	5	1	5.5	5.5	5.5	5.5	5.5	12	54	67
Wood Products Focused Cluster	3	3	6	2	1	8	8	8	8	8	4	3	62	58
Ship and Boat Building	4	8	12	1	7	6	3	5	5	9	2	1	63	57
Sporting Goods Mfg.	5	12	13	5	3	9	2	7	6	7	5	2	76	44
Nursing and Residential Care Facilities	6	7	4	10	4	12	7	6	7	1	8	9	81	39
Business Support Services	7	10	7	12	5	2	1	1	1	3	6	4	59	61
Architectural and Engineering Services	8	5	5	7	2	5	4	3	2	4	1	6	52	68
Other Educational Services	9	11	8	13	8	3	9	9	9	5	3	8	95	25
Other Amusement, Gambling, & Recreation	10	9	10	11	5	10	5	2	3	2	10	10	87	33
Construction	11	2	2	8	5	7	6	4	4	6	7	11	73	47
Other State & Local Gov't. Enterprises	12	6	9	6	6	4	5.5	5.5	5.5	5.5	5.5	7	78	43
State & Local Non-Education	13	4	3	3	5	11	5.5	5.5	5.5	5.5	5.5	13	80	41

Note:
Missing values are assigned the median rank.

Figure 5: WDA1 Cluster Map

Washington State WDA Region 1 Cluster Firms

◇ 1 Sporting Goods Manufacturing
◇ 1 Ship/Boat Building and Repair
◆ 1 Fishing
◆ 1 Wood Products
◇ 1 Navy Related (indirect)