

Grays Harbor 2020

Environmental Scan



Barney & Worth, Inc.

Grays Harbor 2020

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Introduction:

In early 2007, a small group of Grays Harbor business leaders, elected officials and interested citizens began meeting around the topic of sustainability. Initially, these meetings centered around ways Grays Harbor communities might introduce or facilitate the way for additional enterprise development in the area of bio fuels, alternative energy and other “clean” technologies. Soon, however, the conversation turned to how Grays Harbor County, and its many towns, cities and other sub-jurisdictions, could become more sustainable overall.

Following several community forums, it became clear that the greater community not only thought such a concept made sense, but insisted it be done. Thus, a process was outlined for developing Grays Harbor 2020, a long-term vision and action plan for strengthening and integrating our community’s physical, social, environmental and economic networks. As one planning participant phrased it, “Grays Harbor 2020 is an investment in our own future.”

As an early step in the Grays Harbor 2020 planning effort, the project team compiled the attached “Environmental Scan” document. The Scan has three primary purposes:

1. To house key trends and forecasts in “one place” for convenient access.
2. To provide a “resource guide” for planning participants, so each is familiar with key socio-economic and other key indicators of community conditions.
3. To provide a baseline by which future changes can be measured.

The following overview provides a broad overview of key quality of life indicators in Grays Harbor County, using administrative data gathered from a wide variety of sources. It helps to highlight selected trends (things that can be and are measured consistently), and discusses what they might mean for the community. This review of available data is not intended to capture every “fact and figure” under the sun, but rather to serve as a starting point for conversations in the community about what a sustainable Grays Harbor would be like.

Attitudes in the community such as optimism and cooperation and shared vision are not reflected here. Recent events and successes such as the opening of the Imperium Grays Harbor biodiesel facility and the adaptive reuse of the mothballed Satsop site are not to be found in the measures presented. Qualities vital to moving toward sustainability such as leadership in sustainable business practices and governance cannot be ascertained from a body of cold statistics.

Understanding and appreciating the depth, nuance and character of a community requires looking beyond the numbers and discovering the qualities that make a place what it is. Toward that end, this overview is only one piece of a larger process. This secondary data will be combined with information, thoughts and opinions gathered from people within the community to more fully understand Grays Harbor. Once the information is gathered, compiled and analyzed, the community will have a solid foundation for charting its course into the future, celebrating its significant progress and success, finding opportunities in its blemishes, and creating a sustainable community to hand down through the generations.

Geography:

Grays Harbor County is situated midway along Washington's Pacific coastline. It is bounded by Jefferson County to the North, Mason and Thurston Counties to the east, and Lewis and Pacific Counties to the south. The County includes the incorporated cities and towns of Aberdeen, Cosmopolis, Elma, Hoquiam, McCleary, Montesano, Oakville, Ocean Shores, and Westport, along with many unincorporated communities. In addition, it is host to most of the Quinault Indian Reservation, portions of the Olympic National Forest and Olympic National Park, and seven Washington State Park facilities.

Grays Harbor County ranks 15th in land mass in Washington State, occupying 1,917 square miles. The major geographic feature is the County's namesake, Grays Harbor, a shallow port maintained by dredging, protected from the Pacific Ocean, making it suitable for a wide range of maritime uses. Other major features include the Chehalis, Humptulips and Hoquiam Rivers, with 48 percent of the Chehalis River drainage within the county. Lake Quinault, the Wynoochee Lake Dam and the Colonel Bob Wilderness area are also significant features. The county is bisected by U.S. Highway 12 which is the main east-west transportation route, and U.S. Highway 101, running north and south. State Routes 105 and 109 are the main routes carrying traffic out to the coast from the population center in Aberdeen.

The topography of the county ranges from sandy beaches on the Pacific coast to rolling hills and river valleys in the southern interior and rugged Olympic Mountain forests in the north. Nearly 90 percent of the county is forested, about 3.5 percent is in agricultural uses, and about 3 percent is within one of the nine incorporated cities and towns.

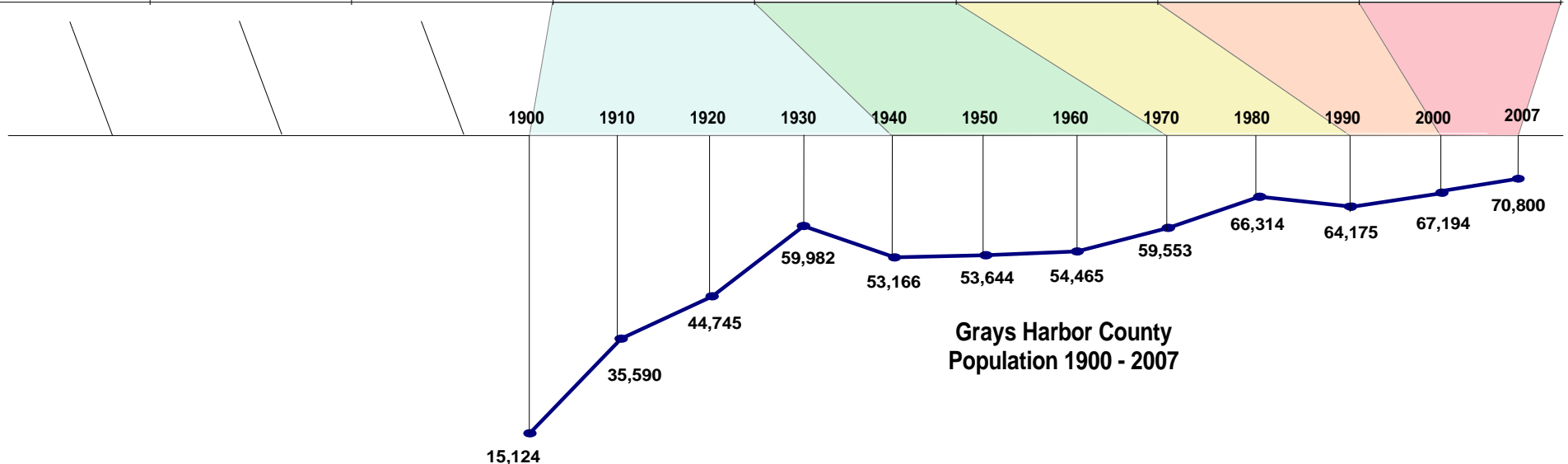
Growth and development within Grays Harbor County has fluctuated with the economic events that have driven settlement patterns. Prior to 1800, the area was populated by indigenous people living in family groups and forming into tribes, including the Chehalis, Chinook, Cowlitz, Hoh, Hoquiam, Humptulips, Satsop, Queets, Quinault, and Wynoochee. Food and natural resources were abundant and trade between tribes was common. By the end of the 18th century Europeans had found the Pacific Northwest and trade with local tribes was established. Fur trading was the main commerce between local people and Europeans through 1850, and some European settlement was occurring.

During the last half of the century, settlement from America's westward expansion took hold. Actions taken by the United States government, such as the Donation Land Act and granting of large tracts to railroad interests, encouraged settlers to establish homesteads, farms and commercial ventures. As the fur trade declined toward the end of the 1800's, fish and shellfish harvesting, farming, and logging and lumber production each in turn became the area's dominant industries and would drive settlement patterns for the next 100 years.

During the latter part of the 20th century, energy shortages, national economic recessions, environmental regulation and global competition all put tremendous pressure on the area to adapt to changing markets and technologies. As shown in the economic timeline on the following page, population has varied in concert with local, regional, national and global events. This linkage is due, in part, to the area's historic reliance on natural-resource industries, and demonstrates the connection between people, profits and the planet.

Economic Timeline

Pre-1800	1800 -1849	1850-1900	1900 - 1939	1940 - 1969	1970 - 1989	1990 - 1999	2000 - Today
<p>Area is populated by Native people living in family groups and joining together to form tribes, including the Chehalis, Chinook, Cowlitz, Hoh, Hoquiam, Humptulips, Satsop, Queets, Quinalt, and Wynoochee. Trade between tribes is main commerce, and later fur trade with Europeans.</p> <p>1775 - Explorers Haceta and de Bodega y Quandra land near Pt. Grenville and skirmish with natives.</p> <p>1792 - Explorer Gray finds Bullfinch Harbor, later renamed Grays Harbor.</p>	<p>Fur trade is still dominant reason for European activities in the region; small parties cross the area to reach Puget Sound and to conduct land surveys.</p> <p>1811 - Pacific Fur Company founds Astoria, OR.</p> <p>1848 - Oregon Territory, including all of Washington, is created.</p>	<p>Logging, farming, fishing and related industries are developed. Population of Washington region explodes from about 4,000 to 518,000.</p> <p>1850 - Donation Land Act granted land for settlement and development.</p> <p>1853 - First sawmill established at Cederville.</p> <p>1854 - Chehalis County established in Oregon Territory.</p> <p>1855 - Treaty of Olympia signed with Quinalt Indian Nation, a confederation of local tribes.</p> <p>1864 - First seafood cannery established.</p> <p>1870's - Gold prospecting in Canada drives demand for region's dairy products.</p> <p>1880's - Logging and lumber overtake fishing as primary industry.</p> <p>1889 - Grays Harbor Lighthouse commissioned</p> <p>1890 - Grays Harbor's population hits 9,249.</p>	<p>Logging and lumber production surge to provide wood for a growing west-coast population, rebuilding San Francisco after the Great Fire and for production of ships during World War I. Onset of the Great Depression brings economic expansion to a standstill.</p> <p>1905 - Dredging of Grays Harbor begins</p> <p>1915 - Name changed to Grays Harbor County.</p> <p>1935 - South Jetty project started</p>	<p>World War II helps lift nation and region out of doldrums of Depression. National post-war housing boom creates modest surge in demand for lumber and forest products.</p>	<p>National recessions and high interest rates lead to high unemployment in resource based economies. Energy shortages lead to investment in nuclear power plants at Satsop, beginning in 1977.</p> <p>Grays Harbor Estuary Management Plan is developed</p> <p>1981-1983 - Satsop project mothballed; 5,000 workers lost their jobs.</p>	<p>Lumber industry modernization, necessary for survival of the industry, combined with tighter environmental regulations, lead to sharp declines in employment. Combined with a string of economic recessions during the 70's and 80's, coastal economies are severely impacted.</p> <p>1992 - unemployment hits 15.2%, twice the state-wide rate.</p> <p>1996 - Local development authority is granted for the redevelopment of Satsop site.</p> <p>1998 - Construction begins on Stafford Creek Corrections Center</p>	<p>Diversification of the local economy leads to employment increase of 4.8%, with strong growth in manufacturing and wholesale trade. Unemployment now sits just 2 to 3 percentage points above the State rate.</p> <p>2000 - Stafford Creek facility opens;</p> <p>2006 - Over 30 companies are located at Satsop Development Park, many new to Grays Harbor;</p> <p>2007 - Imperium opens biodeisel facility.</p>



People:

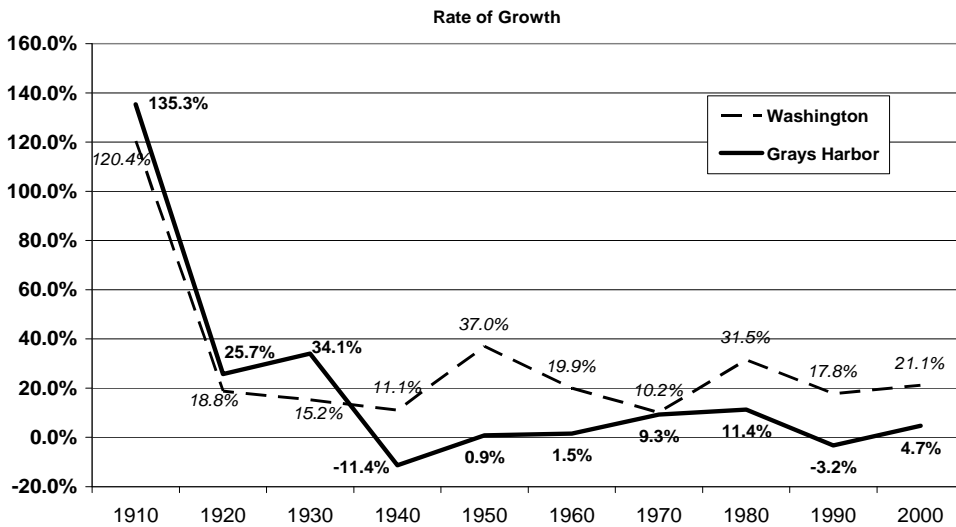
Communities are ever-changing. Studying the reasons why a population grows or shrinks and understanding the socio-demographic attributes of the people represented in that change, can help local municipalities plan and prepare for future shifts. Services and infrastructure that might serve one mix of people well might not serve the needs and demands of another. Investments of time and money, whether public, private or non-profit, will have a better chance of attaining the desired effect if they are based on a solid understanding of the population they are intended to serve.

Grays Harbor County had a population of approximately 70,800 in 2006, 17th largest out of Washington's 39 counties. This represents an increase of 4,486 people from 1980, or a total increase of 6.76% over the 27-year period. That equates to a compound annual increase of .24% , giving the county a rank of 27th in terms of total increase, and 35th in terms of percentage increase. By contrast, the State of Washington increased by a total of 54.92% during the same period, for a compound annual increase of 1.68%. Clearly, the county is growing more slowly than the state as a whole.

This slower rate of growth is not an unusual or recent circumstance for the county which, until 1930, grew at a faster rate than the state as a whole. Since then, the county has not surpassed the state growth rate, and saw population declines in the 1930's and 1980's.

Population (2007 est.)							
	Area (sq. miles)	2000 Population	2007 Population	Change 2000 to 2007	Total Households	Avg. Household Size	Population Density (per Sq. Mi.)
Aberdeen	11.94	16,461	16,450	-0.07%	6,858	2.40	1,377.72
Cosmopolis	1.56	1,595	1,645	3.13%	704	2.34	1,054.49
Elma	1.41	3,049	3,140	2.98%	1,310	2.40	2,226.95
Hoquiam	13.27	9,097	8,845	-2.77%	3,791	2.33	666.54
McCleary	1.88	1,484	1,555	4.78%	589	2.64	827.13
Montesano	10.62	3,312	3,550	7.19%	1,420	2.50	334.27
Oakville	0.45	675	715	5.93%	268	2.67	1,588.89
Ocean Shores	9.30	3,836	4,705	22.65%	2,367	1.99	505.91
Westport	7.12	2,137	2,335	9.27%	1,075	2.17	327.95
Grays Harbor County	1,916.90	67,194	70,800	5.37%	29,341	2.41	36.93
Washington	66,544.10	5,894,143	6,488,000	10.08%	2,528,292	2.57	97.50
Entire US	3,794,082.90	281,421,906	301,575,789	7.16%	110,197,000	2.74	79.49

Source: SRS LLC - Decision Data Resources; Experian; Washington State OFM; US Census Bureau



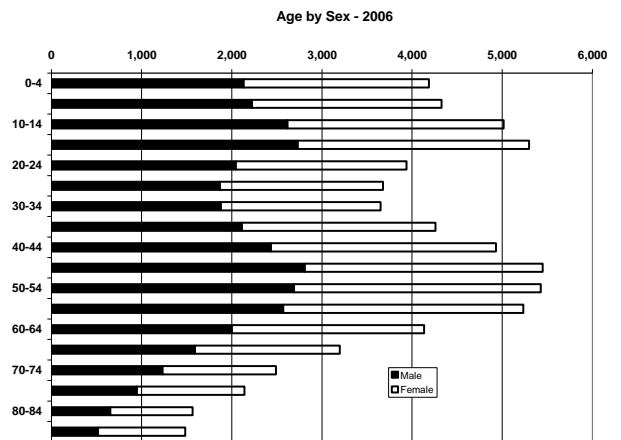
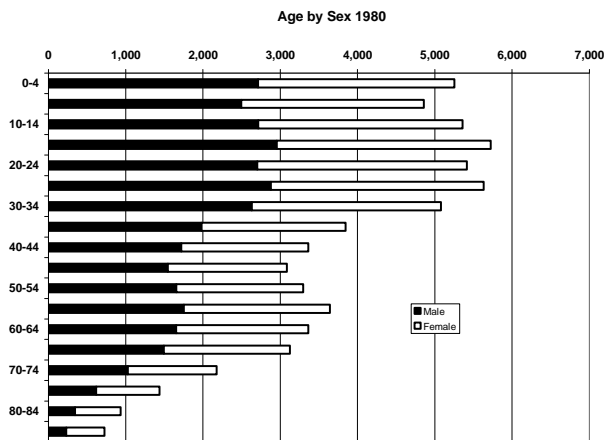
Source: U.S. Census

About 80% of the growth in the county since 1980 occurred between 2000 and 2007 as a result of in-migration. Natural increase, the difference between births and deaths, accounted for only about 7% of the growth in the last seven years, with new residents moving into the area accounting for the other 93%.

Not only is the county growing more slowly than the state, it is aging more quickly. In 1980, the county's median age was 30.91 years, while the state's median age was 29.77, a difference of 1.14 years. By 2006, the median age in Grays Harbor County had reached 40.86, while the state's median age had only increased to 36.61, a difference of 4.25 years. This change has been driven by a sharp decline in the number of people between the ages of 20 and 34, and an increase in the number of people between the ages of 40 and 64. This change is likely to compound itself since the age group experiencing the greatest decline is also the age group most represented in child-bearing. As fertility rates decrease, natural increase is likely to decline even further as a component of population growth, with in-migration of an older cohort making-up a greater share of growth.

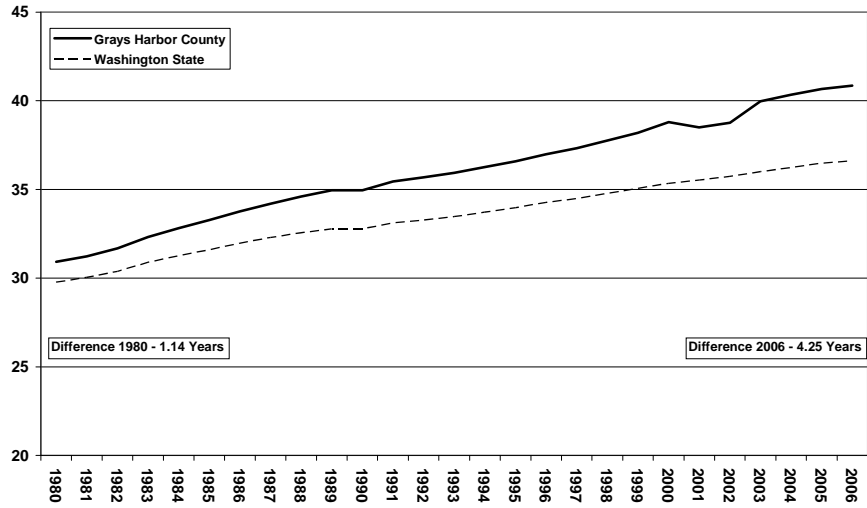
Incorporated Share of Population				
	2000 Population	% of County	2007 Population	% of County
Aberdeen	16,461	24.50%	16,450	23.23%
Cosmopolis	1,595	2.37%	1,645	2.32%
Elma	3,049	4.54%	3,140	4.44%
Hoquiam	9,097	13.54%	8,845	12.49%
McCleary	1,484	2.21%	1,555	2.20%
Montesano	3,312	4.93%	3,550	5.01%
Oakville	675	1.00%	715	1.01%
Ocean Shores	3,836	5.71%	4,705	6.65%
Westport	2,137	3.18%	2,335	3.30%
Grays Harbor County	67,194	100.00%	70,800	100.00%

Source: SRS LLC - Decision Data Resources; Experian; Washington State OFM; US Census Bureau



Source: Washington State Office of Financial Management

Median Age 1980 - 2006



Source: Washington State Office of Financial Management

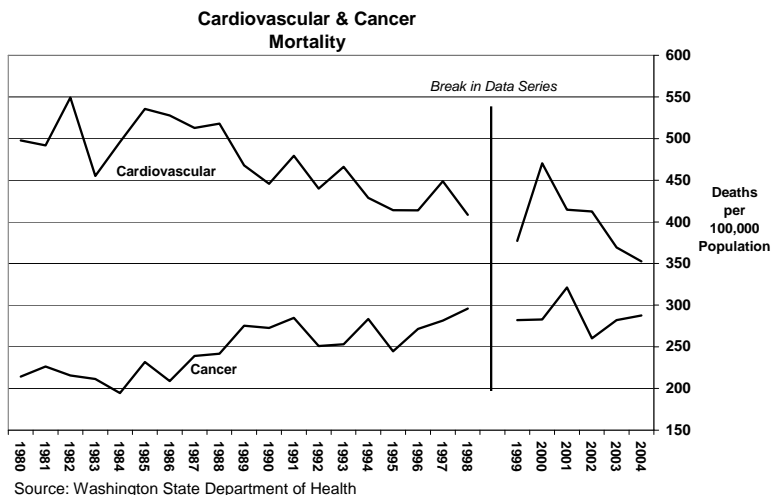
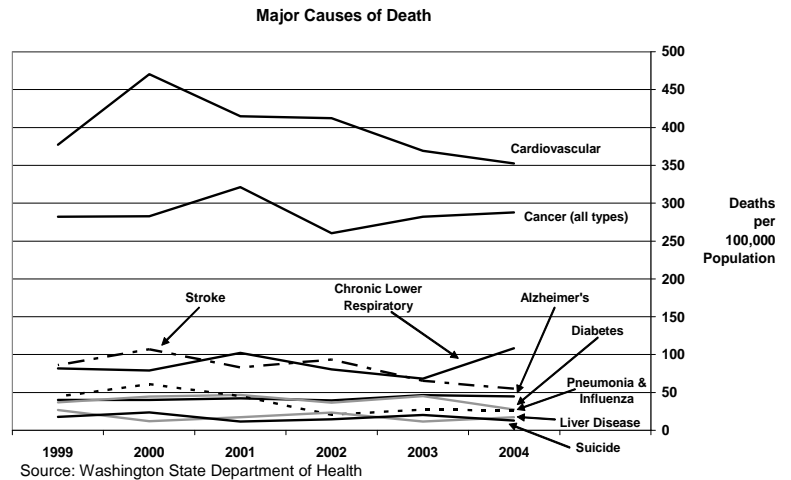
The city of Ocean Shores has been the epicenter for this shift by accounting for 67% of the growth in incorporated areas, and 24% of the County's overall growth from 2000 through 2007. While five of the nine cities and towns shrank as a percentage of total county population, and three others showed minimal growth, Ocean Shores increased from 5.71% to 6.65% of the county total. This is significant because Ocean Shores has the smallest average household size in the county, at 1.99, and the highest median age, at 51.5 in 2000, indicating that retired households are an increasingly significant portion of the county's demographic mix.

Health & Safety:

The health and safety of a community help determine, in part, the ability of residents to enjoy a high quality of life and spend their time and resources pursuing their dreams instead of on health issues or personal safety. Two important factors influence Grays Harbor's need and ability to address health and safety issues. First, an aging population has implications for medical and emergency services ranging from first-responder and hospital services to convalescent and hospice care. Second, the area's location on the coast makes it a magnet for tourists. With millions of people visiting the area there is, at times, an urban-level population being protected by emergency services with rural-level staffing, infrastructure and funding.

Evidence of the aging population, discussed above, can also be seen in mortality statistics. In 1980, 66.5% of deaths occurred in the population 65 years or older, whereas by 2004, that number had risen to 72.2%. On the other hand, during the same period, infant deaths (deaths in children less than 1 year old) fell from 1.5% of all deaths to 0.4%, and have consistently been below the rate for Washington State as a whole. In fact, deaths for people under the age of 20 in Grays Harbor have been consistently below the state rate. The range from age 20 to 65 is the only group with higher rates of death in Gray Harbor than in the state as a whole.

A change in the way mortality statistics are maintained prevents making direct comparisons of the data from before 1999 to the period 1999-2004. However, even viewing the data as separate time series it appears that cardiovascular disease is declining as the most prevalent cause of death, and all forms of cancer combined are increasing. The other most common causes of death have remained fairly constant, with occasional spikes of variation.



Age at Death				
Age	1980		2004	
	Count	% of Total	Count	% of Total
< 1	10	1.49%	3	0.39%
1-4	4	0.60%	0	0.00%
5-14	5	0.75%	2	0.26%
15-19	7	1.05%	5	0.64%
20-24	8	1.20%	1	0.13%
25-34	22	3.29%	12	1.54%
35-44	17	2.54%	32	4.11%
45-54	39	5.83%	64	8.23%
55-64	112	16.74%	97	12.47%
65-74	161	24.07%	130	16.71%
75-84	161	24.07%	221	28.41%
85 & Over	123	18.39%	211	27.12%
Total	669		778	

Source: Washington State Department of Health

Selected Age Ranges at Death				
1980	Age Range			
	<1	<20	<65	65+
Washington State	2.50%	4.67%	32.12%	67.86%
Gray Harbor County	1.49%	3.89%	33.48%	66.52%
2004				
Washington State	1.01%	1.97%	25.94%	74.06%
Gray Harbor County	0.39%	1.29%	27.76%	72.24%

Source: Washington State Department of Health

As discussed above, natural increase is a shrinking component of population growth in Grays Harbor County. This finding is further illuminated when viewing birth rates by age. The greatest growth in population is in older age groups. Those women age 30 and above have lower birth rates than do the slower-growing age groups from 20 through 29, whether compared within the county or the state.

One area the county exceeds the state is birth rates for teen mothers. From 1997 through 2005, teen birth rates in Grays Harbor County have been 1.42 times the state rate. During that period the state rate has been steadily declining while the local rate has fluctuated, trending generally downward, but possibly showing a recent increase. Like the aging population, this trend has implications for health services in the community. Teen mothers are less likely to have medical insurance or the ability obtain and hold employment that pays enough for them to afford quality health care or child care.

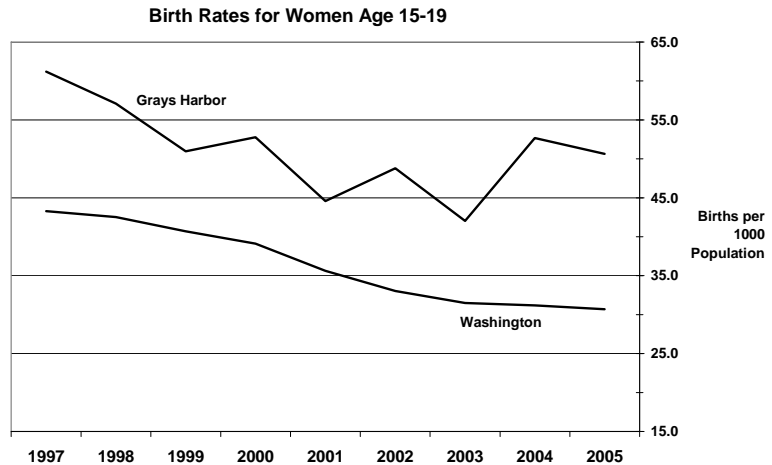
Age Specific Live Birth Rates* 2005									
	All Ages	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44
State Total	63.1	30.7	14.9	54.5	91.4	115.7	95.9	47.6	9.2
Grays Harbor	67.6	50.6	22.2	100.6	147.2	139.5	79.1	26.3	3.1

* The general fertility rate shown under "All Ages" equals total live births per 1,000 women of childbearing age (15-44). Age-Specific rate equals the number of live births to women in a specific age group per 1,000 women in the age group.
Source: Washington State Dept. of Health

Birth Rates* for Teens by Age Group by Year							
Year	Grays Harbor			Washington State			Grays Harbor Relative to State
	15-19	15-17	18-19	15-19	15-17	18-19	
2005	50.6	22.2	100.6	30.7	14.9	54.5	1.65
2004	52.7	23.1	103.9	31.2	15.5	54.4	1.69
2003	42.0	23.0	75.7	31.5	15.3	55.9	1.34
2002	48.8	31.1	80.1	33.0	16.8	57.7	1.48
2001	44.6	23.5	82.0	35.6	17.7	62.9	1.25
2000	52.8	33.4	87.2	39.1	20.4	67.6	1.35
1999	51.0	30.8	86.9	40.7	21.6	69.5	1.25
1998	57.1	34.3	100.1	42.5	23.2	73.5	1.34
1997	61.2	36.3	110.4	43.3	24.4	74.5	1.41

* Birth rate is the number of live births to teen women per 1,000 women in these age groups.

Source: Washington State Dept. of Health

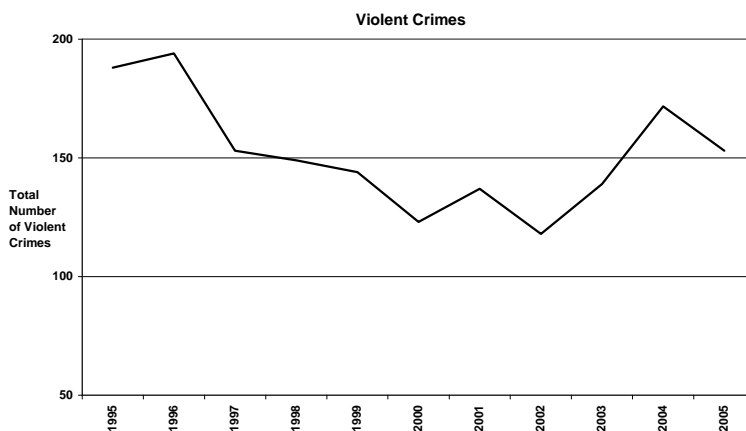
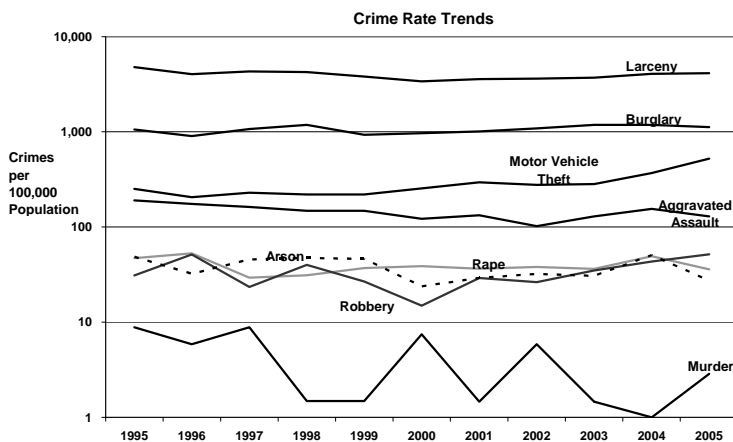


Source: Washington State Department of Health

Crime statistics, like health statistics, help paint a picture of life in the community. The total number of violent crimes in Grays Harbor County followed national trends by generally decreasing through the 1990's, and showing resurgence from 2002 forward. However, when controlled for population growth, crime rates per 100,000 population have remained fairly constant with aggravated assault showing some decline and motor vehicle theft on the rise. Murder, a relatively uncommon occurrence in the area, fluctuates greatly from year to year and was highest in 1995 and 1997 with 6 in each of those years and lowest in 2004 when there were none. Larceny is the largest class of crimes committed in the area, followed by burglary.

Major Crimes (rate per 100,000 population)								
Year	Murder	Rape	Robbery	Agg. Assault	Arson	Burglary	Larceny	Motor Vehicle Theft
1995	8.84	47.14	30.94	190.04	48.62	1,054.80	4,784.91	251.92
1996	5.87	52.82	51.35	174.58	32.28	900.80	4,034.51	205.39
1997	8.80	29.33	23.46	162.79	45.46	1,067.64	4,307.21	228.78
1998	1.48	31.07	39.95	147.96	47.35	1,185.14	4,249.34	218.98
1999	1.48	37.12	26.73	148.48	46.03	932.46	3,812.97	219.75
2000	7.44	38.69	14.88	122.03	23.81	970.32	3,402.09	254.49
2001	1.46	36.50	29.20	132.85	29.20	1,011.68	3,576.64	294.89
2002	5.85	38.01	26.32	102.34	32.16	1,086.26	3,621.35	277.78
2003	1.45	36.34	34.88	129.36	30.52	1,186.05	3,710.76	281.98
2004	0.00	49.13	43.35	154.62	50.58	1,182.08	4,060.69	368.50
2005	2.87	35.82	51.58	128.94	27.22	1,121.78	4,131.81	521.49

Source: Washington State Association of Sheriffs and Police Chiefs



Source: Washington State Association of Sheriffs and Police Chiefs

Another concern regarding community health care and emergency services involves the impact of tourism on the area. Comprehensive data on this topic is not available, and it is therefore difficult to assess if there is a problem and if so, of what magnitude. However, one recent study concluded that:

“...many rural areas are heavily impacted by seasonal population fluctuations...that create stress on health systems. Many of these impacts are local or regional in nature and sometimes go unrecognized by national and statewide policy-makers. This problem is compounded by the fact that data collection fluctuates, if it is done at all, and is scattered among a variety of agencies, each with different missions.” (2003; “Seasonal Population Fluctuations in Rural and Frontier Areas”; Federal Office of Rural Health Policy)

These impacts can occur in a variety of ways. Large fluctuations can cause problems with staffing, in terms of adjusting levels to serve an increased transient population, and then reducing staff during off-season periods. This problem can be particularly difficult for rural emergency services, often staffed by volunteers. Surveys in other communities have found that residents believe large seasonal influxes of visitors increase the crime rate, thereby placing an increased burden on local law enforcement. Conversely, some people believe the influx of tourist spending more than offsets increased burdens on local services. Again, there is no reliable data available to judge the accuracy of these perceptions.

Education:

How we educate successive generations has a direct impact on their ability to address society's challenges with creativity, compassion and character. As the accumulated knowledge of mankind increases at an exponential pace, it is increasingly difficult for a single person to have the specialized expertise that makes them effective in their chosen career and a broad enough perspective to see how their activities fit into and affect the events of their lifetime. Assuring that our education system can meet that challenge is more important than ever before, and requires an understanding of how the current system is performing.

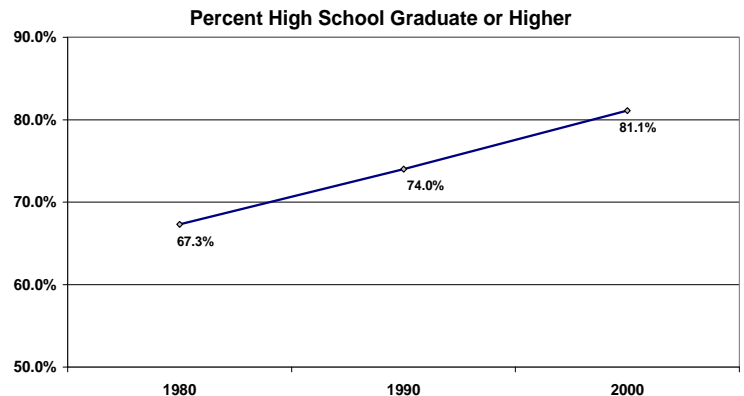
Grays Harbor County has a greater percentage of people with a high school diploma or some college than does Washington State or the U.S. as a whole. However, it also has a lower percentage of people with college degrees at any level, and a higher percentage without a high-school diploma. While the gap between the County and State in percent of population with a post-secondary degree increased from 1990 to 2000, the proportion of Gray Harbor County's population with a high-school diploma or higher has been steadily increasing since 1980, from 67% to 81%.

Educational Attainment (2000)									
	Total Pop. Age 25+	Grade K - 9	Grade 9 - 11, No diploma	High School Graduate	Associate Degree	Bachelor Degree	Graduate Degree	Some College, No Degree	No Schooling Completed
Aberdeen	10,382	5.50%	13.30%	32.90%	7.30%	7.70%	4.50%	26.90%	1.90%
Cosmopolis	1,057	3.40%	11.50%	34.00%	10.00%	7.20%	4.60%	28.90%	0.50%
Elma	1,906	4.80%	14.50%	39.20%	9.20%	7.10%	1.20%	22.50%	1.60%
Hoquiam	5,878	6.30%	17.40%	34.20%	6.00%	6.10%	3.70%	25.70%	0.70%
McCleary	997	5.30%	18.00%	33.90%	7.50%	5.60%	2.80%	26.40%	0.60%
Montesano	2,227	3.40%	10.90%	29.20%	8.20%	13.60%	6.50%	27.90%	0.30%
Oakville	404	5.40%	14.10%	39.70%	5.40%	5.10%	2.40%	27.10%	0.70%
Ocean Shores	3,011	0.20%	9.20%	33.90%	8.60%	9.30%	7.80%	29.70%	1.40%
Westport	1,554	5.30%	13.70%	37.60%	4.90%	5.90%	4.90%	27.20%	0.50%
Grays Harbor County	44,620	4.60%	13.30%	34.30%	7.60%	7.90%	4.80%	26.50%	1.00%
Washington	3,820,917	3.30%	8.60%	24.90%	8.00%	18.40%	9.30%	26.40%	1.00%
Entire US	181,984,640	6.10%	12.10%	28.60%	6.30%	15.50%	8.90%	21.10%	1.40%

Source: US Census; SRS LLC - DemographicsNow.com

Percent of Population 25 Year and Over with Associates Degree or Higher				
	1990		2000	
	Percentage	Difference from Grays Harbor	Percentage	Difference from Grays Harbor
Grays Harbor County	17.90%		20.30%	
Washington	31.00%	13.10%	35.70%	15.40%
Entire US	26.50%	8.60%	30.70%	10.40%

Source: U.S. Census



Source: U.S. Census

One measure of the community's effectiveness in educating the next generation is drop-out rates. There are at least two ways to discuss drop-out statistics. One way, which is most often discussed, is to ask all the students who started in fall, how many left school before the end of the year. When viewed this way we generally see drop-out rates in the range of 7% to 8%. However, another way is to ask how many finished their senior year of high school. This second questions is called the "cohort drop-out rate." When viewed from this longer perspective, the results can be alarming.

Cohort drop-out rates for the graduating class of 2003 ranged from a high of 42.1% in the Oakville district to a low of 3.3% in the Quinalt Lake district. There is a fairly strong relationship between the number students in a district and its drop-out rate, as demonstrated by the correlation coefficient .43, which means that on average, the smaller the cohort class, the lower the drop-out rate. Unfortunately, cohort drop-out rate data was only published for the 2002-2003 school year, and the information required to calculate cohort drop-out rates is not readily available. Still, it is possible to follow classes to some degree and get a sense of how many students are leaving before they receive a high school diploma. For all Grays Harbor

Cohort Drop-Out Rates, Class of 2003		
	High School Enrollment	Cohort Drop-Out Rate
Aberdeen	1,741.00	34.1%
Elma	935.00	40.7%
Hoquiam	804.00	26.9%
Montesano	528.00	12.1%
Ocosta	277.00	26.6%
North Beach	269.00	34.9%
Oakville	133.00	42.1%
Quinalt Lake	110.00	3.3%
Wishkah Valley	84.00	11.2%
Taholah	83.00	14.3%
r =		0.43

Source: Washington State Office of the Superintendent of Public Instruction

County school districts, the graduating class of 2005, from 10th through 12th grades, had a cohort drop-out rate of about 23%, which implies a four-year drop-out rate of about 30%.

Cohort Dropouts for Class of 2005 - Grays Harbor County															
School Year	Grade 9			Grade 10			Grade 11			Grade 12			Total, Grades 9-12		
	Net Served	Drop outs	Drop out Rate	Net Served	Drop outs	Drop out Rate	Net Served	Drop outs	Drop out Rate	Net Served	Drop outs	Drop out Rate	Net Served	Drop outs	Drop out Rate
01-02															
02-03	1,194	107	9.0%	1,089	79	7.3%	1,068	94	8.8%	1,019	105	10.3%	4,370	385	8.8%
03-04	1,082	100	9.2%	1,013	62	6.1%	1,054	88	8.3%	893	51	5.7%	4,042	301	7.4%
04-05	1,224	45	3.7%	923	48	5.2%	960	77	8.0%	879	68	7.7%	3,986	238	6.0%

Source: Washington State Office of the Superintendent of Public Instruction – 2005 cohort in bold

Another useful metric of educational effectiveness is test scores. Results from the Iowa Test of Basic Skills in both math and reading are generally near the 50th percentile when ranked against national averages. Some districts tend to have results just below median and some a bit above without a clear trend from the 1999-2000 school year through to the 2004-2005 school year. The Montesano, Hoquiam and North Beach district appear to be showing clear improvements in reading at the 6th grade level, and Ocosta and Oakville have both made gains in 9th grade scores. Similarly, Taholah and North Beach have made gains in 6th grade math scores, while McCleary has shown a decline, and Oakville's 6th grade scores have been falling while 9th grade scores advance.

It is interesting to note how scores in a single year change by grade level. For example, reading scores in the Aberdeen district in the 1999-2000 school year ranged from 53 in 3rd grade, to 49 in 6th, and 46 in 9th. As more data becomes available, it will be possible to track cohort test scores, in a similar fashion to tracking drop-out rates, to see how a particular graduating class of students performs in successive waves of testing. It is also important to view educational achievement data in the national context. Washington State generally ranks in the top 10 in the U.S. in standardized testing. At the same time, the state consistently ranks in the bottom 10 for per-pupil spending, class size and teachers wages. Such cost-effective results suggest the state has an efficient educational system.

Iowa Test of Basic Skills - Reading National Percentile Rank (by grade and year)																		
	3rd Grade						6th Grade						9th Grade					
	99-00	00-01	01-02	02-03	03-04	04-05	99-00	00-01	01-02	02-03	03-04	04-05	99-00	00-01	01-02	02-03	03-04	04-05
Aberdeen	53	55	48	51	53	51	49	47	51	48	51	47	46	42	38	39	40	43
Hoquiam	48	53	48	55	66	49	46	47	46	51	54	55	38	46	45	47	39	44
North Beach	50	46	46	67	66	60	42	47	50	52	48	54	50	39	44	51	51	53
McCleary	53	54	55	65	62	59	52	50	50	53	53	40						
Montesano	66	72	65	63	68	59	54	53	64	61	62	65	54	51	51	45	52	60
Elma	41	54	62	51	49	50	48	45	44	45	48	46	48	42	47	46	43	47
Taholah	39	48	49	51	65		17	20	37	58	51	37	14	13	31	15	30	30
Quinalt Lake	51	46	29	42	44	58	41	29	48	45	55	43	27	22	21	36	31	37
Cosmopolis	67	59	62	71	62	56	58	49	37	56	57	57						
Wishkah Valley	58	63	63	65		58	49	61	67	50	66	59	47	50	42	51	58	41
Ocosta	47	57	50	53	58	50	54	52	53	47	56	50	46	40	53	56	54	57
Oakville	35	50	46	40	52	48	33	36	45	14	49	39	23	39	39	44	37	50

Source: Washington State Office of the Superintendent of Public Instruction

Iowa Test of Basic Skills - Math National Percentile Rank (by grade and year)																		
	3rd Grade						6th Grade						9th Grade					
	99-00	00-01	01-02	02-03	03-04	04-05	99-00	00-01	01-02	02-03	03-04	04-05	99-00	00-01	01-02	02-03	03-04	04-05
Aberdeen	62	58	49	52	58	55	54	50	58	53	56	54	49	47	45	48	47	53
Hoquiam	54	52	51	59	69	64	46	49	45	43	45	44	52	51	52	49	50	52
North Beach	58	52	54	59	61	59	36	47	48	53	49	56	57	46	52	52	60	57
McCleary	57	56	42	61	55	56	66	50	53	51	49	39						
Montesano	74	81	75	73	75	58	63	61	64	66	69	68	61	50	60	55	58	64
Elma	40	50	62	68	62	68	44	46	45	44	46	50	56	55	57	53	50	54
Taholah	39	49	64	69	76		19	23	36	39	45	46	24	28	38	22	34	44
Quinalt Lake	48	48	45	48	49	66	56	26	61	56	54		38	43	45	53	49	52
Cosmopolis	67	62	61	75	74	64	58	50	41	60	68	47						
Wishkah Valley	50	59	72	77		61	41	60	61	46	57	54	54	66	42	66	67	40
Ocosta	53	64	51	62	57	54	62	64	66	56	71	63	50	52	57	68	61	66
Oakville	30	58	42	43	40	29	40	30	29	24	25	26	32	44	49	47	36	59

Source: Washington State Office of the Superintendent of Public Instruction

Economy:

An examination of economic structure helps explain how the local economy functions and what its most dominant characteristics are. Typically, such an examination explores the size of the workforce, what industries are strong and which ones are expanding or contracting, where people work, how much people earn and what they can afford to buy, and how much of what they buy is purchased locally. How the economy works affects and is affected by the dynamics in population discussed above. How a population grows, ages and is educated, its mortality and morbidity, all have implications for the labor force and the opportunities for businesses to grow and thrive.

Despite the aging population, labor-force participation has remained stable since 1980. The proportion of people age 16 and over in the labor force (people that are, have been or wished to be employed) has averaged 57.3%. The number and proportion of

Components of Labor Force Participation			
	1980	1990	2000
Population 16 years and over	49,702	48,631	52,065
Labor Force	29,103	26,978	30,120
Labor Force Participation	58.6%	55.5%	57.9%
Armed Forces	161	75	58
Civilian	28,942	26,903	30,062
Employed	25,835	24,390	27,556
Unemployed	3,107	2,513	2,506

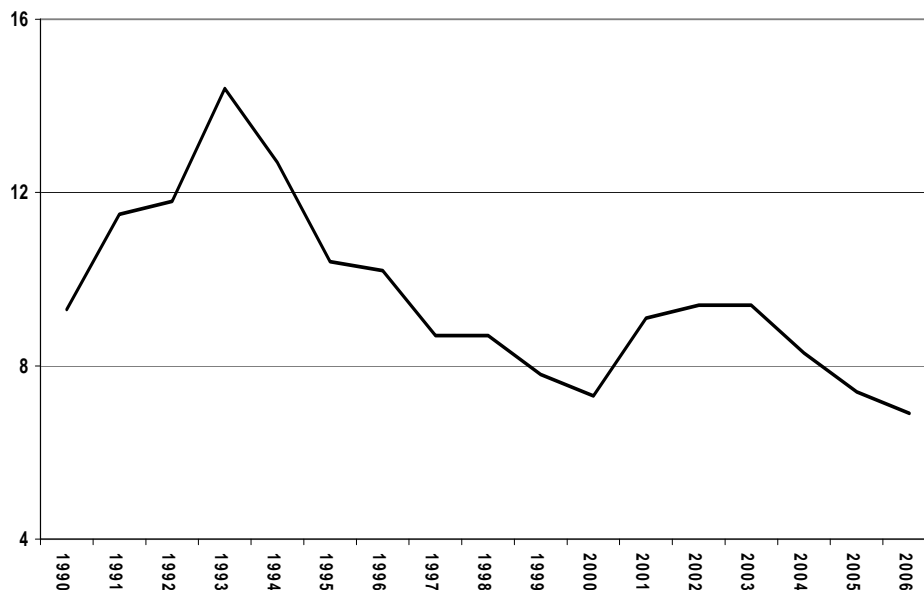
Source: U.S. Census; Washington State Office of Financial Management

residents in the armed forces has steadily declined, from .6% of the labor force in 1980, to .2% in 2000. The unemployment rate, as measured by the Census, declined from 10.7% in 1980 to 8.3% in 2000.

As measured by the Bureau of Labor Statistics, unemployment in 2000 averaged 7.3%, rose to 9.4% in 2003, and has since dropped to an average of 7.0% through July of 2007.

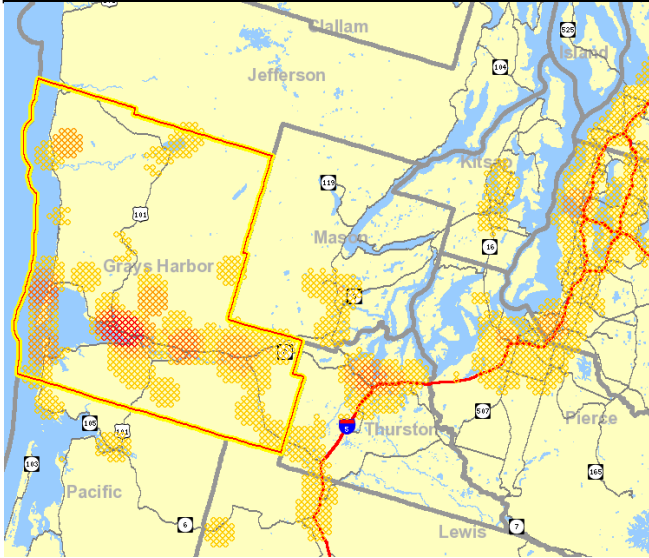
unemployment in 2000 averaged 7.3%, rose to 9.4% in 2003, and has since dropped to an average of 7.0% through July of 2007.

Unemployment Rate



Source – Bureau of Labor Statistics

Commute Shed – Where Residents Work



Source: U.S. Census; Bureau of Labor Statistics

The majority of Grays Harbor's workforce works within the county, although a significant number commute to the Greater Puget Sound area, even as far north as Skagit County.

In 2004, 68.0% of the labor force worked in Grays Harbor County, with 25.5% reporting to work in Aberdeen, and 17.0% working in unincorporated areas. For those working outside of the county, 8.8% travel to Thurston County, with 5.1% working in Olympia, and 8.2% going to King County.

For all workers, regardless of where they work, the average travel time to work increased from 19.3 minutes in 1990 to 22.4 minutes in 2000.

The largest concentration of employer firms in the county is in the Other Services sector, with 30.6% of all employers, followed by Retail Trade as a distant second with 9.6% and Construction third, with 9.0%. Despite the large advantage in number of firms, the Other Services sector only accounts for 5.5% of the employment and 2.4 %of the wages paid. The highest concentration of employment is in Local Government, with 19.6% of the jobs locally and 21.1% of the wages paid to covered workers.

Manufacturing comes in second, despite having only 3.7% of the firms, and is the largest private employment sector, with 15.3% of the employment, and the overall leader in wages paid at 21.3%. Manufacturing also pays the second highest average wage per job at \$42,860 annually. Management of Companies and Enterprises pays the most per job, at an average of \$47,361 annually.

Journey to Work

Cities/Towns Where Residents are Employed	2003		2002	
	Count	Share	Count	Share
Aberdeen, WA	4,373	28.20%	4,408	28.80%
Unincorporated Areas	2,642	17.00%	2,327	15.20%
Hoquiam, WA	1,721	11.10%	1,706	11.20%
Ocean Shores, WA	726	4.70%	715	4.70%
Seattle, WA	644	4.20%	586	3.80%
All Other Locations	5,397	34.80%	5,552	36.30%
Counties Where Residents are Employed				
	2003		2002	
	Count	Share	Count	Share
Grays Harbor Co., WA	10,032	64.70%	9,890	64.70%
King Co., WA	1,643	10.60%	1,576	10.30%
Thurston Co., WA	976	6.30%	927	6.10%
Pierce Co., WA	691	4.50%	774	5.10%
Lewis Co., WA	315	2.00%	328	2.10%
All Other Locations	1,846	11.90%	1,799	11.80%

Source: U.S. Census; Bureau of Labor Statistics

Industry Employment and Wages - 2nd Quarter 2006								
NAICS Code	Industry	Employer Firms		Average Employment		Wages Paid		Average Wages Per Job
		Count	%	Count	%	Count	%	
	Total	2,525	100.0%	25,039	100.0%	\$192,752,769	100.0%	\$30,792
11	Agriculture, forestry, fishing and hunting	213	8.4%	1,154	4.6%	\$9,181,550	4.8%	\$31,825
23	Construction	228	9.0%	1,328	5.3%	\$11,964,355	6.2%	\$36,037
31-33	Manufacturing	94	3.7%	3,834	15.3%	\$41,081,350	21.3%	\$42,860
42	Wholesale trade	59	2.3%	783	3.1%	\$7,875,845	4.1%	\$40,234
44-45	Retail trade	243	9.6%	2,764	11.0%	\$15,907,641	8.3%	\$23,021
48-49	Transportation and warehousing	97	3.8%	615	2.5%	\$4,977,585	2.6%	\$32,375
51	Information	14	0.6%	229	0.9%	\$1,838,361	1.0%	\$32,111
52	Finance and insurance	59	2.3%	612	2.4%	\$5,495,667	2.9%	\$35,919
53	Real estate and rental and leasing	82	3.2%	296	1.2%	\$1,254,164	0.7%	\$16,948
54	Professional and technical services	87	3.4%	461	1.8%	\$4,830,732	2.5%	\$41,915
55	Management of companies and enterprises	4	0.2%	91	0.4%	\$1,077,464	0.6%	\$47,361
56	Administrative and waste services	54	2.1%	373	1.5%	\$2,020,929	1.0%	\$21,672
62	Health care and social assistance	167	6.6%	2,132	8.5%	\$16,763,152	8.7%	\$31,451
71	Arts, entertainment, and recreation	33	1.3%	281	1.1%	\$809,692	0.4%	\$11,526
72	Accommodation and food services	214	8.5%	2,271	9.1%	\$7,272,780	3.8%	\$12,810
81	Other services, except public administration	773	30.6%	1,365	5.5%	\$4,715,671	2.4%	\$13,819
	Federal Government	12	0.5%	242	1.0%	\$2,228,589	1.2%	\$36,836
	State Government	22	0.9%	1,228	4.9%	\$12,156,781	6.3%	\$39,599
	Local Government	65	2.6%	4,911	19.6%	\$40,762,808	21.1%	\$33,201

Source: Washington State Employment Security Department: Above average wages in **Bold**

Understanding the local mix of industries is important, but it doesn't say much about how that mix compares to other regions. It's good to know that manufacturing is an important component in the local economy, but is it more or less important here than in other areas, and is it growing or shrinking in importance? Two analytical techniques shed some light on those questions. Location Quotients can answer questions about the relative importance of an industry and therefore those that enjoy some competitive advantage due to location, and Shift Share Analysis can show which industries are growing by capitalizing on that locational advantage.

Throughout the economy, at every level, there is a mix of different industries. For example, a certain percent of businesses manufacture goods, another portion move those goods from one place to another, and another portion sells those goods to the final consumer. Some businesses serve only local residents. Other businesses produce more products or services than the local community can consume, so they sell excess outside the local area. In general, businesses will locate where they have a competitive advantage. It may be access to a natural resource or a specialized labor pool. Or, it may be favorable production costs due to energy prices or labor costs, or some other factor of production.

Analysis of locational advantage asks the question, “in what industries in a given area is there a higher concentration of employment than would be expected if all areas produced only for local consumption?” In other words, if locational advantages did not exist, and firms only produced to serve the local market, what would the mix of industries look like, and how does the local community differ from what would be expected? This is accomplished by examining the mix of industries at the national or state level, then comparing it to the mix of industries at the local level. The result is called a “location quotient” (LQ). If the LQ for an industry is greater than 1, the area has a greater share of employment in that industry than does the nation or state on average, and therefore likely has some locational advantage. If the LQ is less than 1, employment in that industry is under-represented and the area is assumed to have some disadvantage for those firms.

One difficulty in using Location Quotients in an area with a relatively small population is that much of the data used for the analysis is not generally available. Some industries simply don’t have enough employees to make the calculations reliable, and some industries are so dominated by one or two firms that the information cannot be disclosed. But even those limitations can reveal information. An industry that has little or no employment in the area can lead to questions about why that is the case. What is it about the local area that makes it so difficult for a firm in a given industry to survive? Having major employers in industries where the data cannot be disclosed may lead to questions about diversification in the economy and susceptibility of the area to economic shocks should that industry falter at the national or global level.

In general, where Grays Harbor County shows strength compared to the U.S. as a whole, it also shows strength when compared to Washington. Given the county’s historic connection to natural resource industries and scenic location on the Pacific coast, it’s not surprising that industries related to those attributes are dominant. The highest LQ’s are in Forestry and Logging, Wood Product Manufacturing and Fishing, and Hunting and Trapping. Also strong are the Scenic and Sightseeing Transportation and Accommodations industries. While manufacturing as a whole is fairly strong, that strength is not spread across all sub-sectors, and it would be even stronger if data for Transportation Equipment were included. The lowest LQ’s are found in the Furniture and Related Products, Plastics and Rubber Products and Miscellaneous Manufacturing sectors. Membership Organizations is also an unusually strong sector, which normally includes staffing of community organizations such as the Elks or Lions Clubs. In the case of Grays Harbor, most of the strength for this industry sector comes from Native American Tribal Administration, and is driven by employment by the Quinault Indian Nation.

Location Quotients - 2005					
Industry	Industry Employment Percentages			Location Quotients	
	U.S. TOTAL	Washington Total	Grays Harbor County	Grays Harbor County Compared to U.S.	Grays Harbor County Compared to Washington
Base Industry: Total, all industries	100.00%	100.00%	100.00%	1	1
NAICS 111 Crop production	0.50%	2.40%	1.33%	2.67	0.55
NAICS 113 Forestry and logging	0.06%	0.25%	3.30%	51.2	13.3
NAICS 114 Fishing, hunting and trapping	0.01%	0.09%	0.82%	100.09	8.96
NAICS 236 Construction of buildings	1.55%	1.88%	2.35%	1.52	1.25
NAICS 237 Heavy and civil engineering construction	0.84%	0.91%	1.70%	2.02	1.87
NAICS 238 Specialty trade contractors	4.18%	4.50%	2.48%	0.59	0.55
NAICS 311 Food manufacturing	1.34%	1.47%	2.86%	2.14	1.94
NAICS 321 Wood product manufacturing	0.51%	0.87%	9.51%	18.82	10.94
NAICS 326 Plastics and rubber products manufacturing	0.72%	0.44%	0.11%	0.15	0.25
NAICS 332 Fabricated metal product manufacturing	1.37%	0.77%	0.40%	0.29	0.52
NAICS 333 Machinery manufacturing	1.05%	0.59%	0.78%	0.74	1.33
NAICS 337 Furniture and related product manufacturing	0.51%	0.36%	0.04%	0.07	0.1
NAICS 339 Miscellaneous manufacturing	0.59%	0.47%	0.06%	0.1	0.13
NAICS 423 Merchant wholesalers, durable goods	2.71%	2.80%	1.88%	0.69	0.67
NAICS 424 Merchant wholesalers, nondurable goods	1.82%	1.91%	0.97%	0.53	0.51
NAICS 441 Motor vehicle and parts dealers	1.73%	1.80%	2.24%	1.29	1.24
NAICS 442 Furniture and home furnishings stores	0.52%	0.50%	0.54%	1.03	1.08
NAICS 443 Electronics and appliance stores	0.49%	0.48%	0.14%	0.29	0.3
NAICS 444 Building material and garden supply stores	1.15%	1.19%	1.60%	1.39	1.35
NAICS 445 Food and beverage stores	2.54%	2.66%	4.21%	1.66	1.58
NAICS 446 Health and personal care stores	0.86%	0.66%	0.83%	0.97	1.25
NAICS 447 Gasoline stations	0.78%	0.64%	0.85%	1.09	1.32
NAICS 448 Clothing and clothing accessories stores	1.28%	1.16%	0.64%	0.5	0.56
NAICS 451 Sporting goods, hobby, book and music stores	0.59%	0.76%	0.43%	0.74	0.57
NAICS 452 General merchandise stores	2.65%	2.52%	3.05%	1.15	1.21
NAICS 453 Miscellaneous store retailers	0.82%	0.91%	0.64%	0.78	0.7
NAICS 454 Nonstore retailers	0.39%	0.42%	0.33%	0.86	0.78
NAICS 484 Truck transportation	1.26%	1.03%	2.01%	1.6	1.95
NAICS 485 Transit and ground passenger transportation	0.35%	0.25%	0.14%	0.39	0.55
NAICS 487 Scenic and sightseeing transportation	0.02%	0.03%	0.10%	4.12	3.78
NAICS 488 Support activities for transportation	0.50%	0.77%	0.53%	1.06	0.69
NAICS 517 Telecommunications	0.90%	1.14%	0.43%	0.48	0.38
NAICS 522 Credit intermediation and related activities	2.60%	2.39%	2.52%	0.97	1.06
NAICS 531 Real estate	1.32%	1.51%	1.19%	0.9	0.79
NAICS 532 Rental and leasing services	0.58%	0.59%	0.39%	0.67	0.66
NAICS 541 Professional and technical services	6.38%	5.98%	2.77%	0.43	0.46
NAICS 551 Management of companies and enterprises	1.58%	1.47%	0.88%	0.56	0.6
NAICS 561 Administrative and support services	6.99%	5.50%	1.38%	0.2	0.25
NAICS 562 Waste management and remediation services	0.31%	0.60%	0.43%	1.4	0.71
NAICS 621 Ambulatory health care services	4.62%	4.93%	4.05%	0.88	0.82
NAICS 623 Nursing and residential care facilities	2.57%	2.37%	2.60%	1.01	1.1
NAICS 624 Social assistance	1.89%	2.26%	1.79%	0.95	0.79
NAICS 713 Amusements, gambling, and recreation	1.24%	1.46%	1.28%	1.03	0.88
NAICS 721 Accommodation	1.64%	1.26%	3.01%	1.84	2.39
NAICS 722 Food services and drinking places	8.19%	8.24%	8.98%	1.1	1.09
NAICS 811 Repair and maintenance	1.12%	1.15%	0.91%	0.81	0.79
NAICS 813 Membership associations and organizations	1.17%	1.06%	2.59%	2.21	2.44

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

It is important to point out that a number significant industries are not represented in the LQ table above. Paper Manufacturing, Transportation Equipment Manufacturing and Hospitals are notable examples. The employment dominance in the region of Westport Shipyard, Grays Harbor Paper and Grays Harbor Community Hospital explain why LQ's for those industries are not calculated. Industries for which LQ's are calculated represent about 82 percent of the covered employment in Grays Harbor. Adding those three major employers would bring the total to about 90 percent leaving about 10 percent still unaccounted for.

Location Quotients not Calculated	
Reasons - Not Disclosable	Reason - Not Calculable
NAICS 112 Animal production	NAICS 213 Support activities for mining
NAICS 115 Agriculture and forestry support activities	NAICS 211 Oil and gas extraction
NAICS 212 Mining, except oil and gas	NAICS 313 Textile mills
NAICS 221 Utilities	NAICS 314 Textile product mills
NAICS 312 Beverage and tobacco product manufacturing	NAICS 315 Apparel manufacturing
NAICS 322 Paper manufacturing	NAICS 316 Leather and allied product manufacturing
NAICS 323 Printing and related support activities	NAICS 324 Petroleum and coal products manufacturing
NAICS 325 Chemical manufacturing	NAICS 334 Computer and electronic product manufacturing
NAICS 327 Nonmetallic mineral product manufacturing	NAICS 335 Electrical equipment and appliance mfg.
NAICS 331 Primary metal manufacturing	NAICS 481 Air transportation
NAICS 336 Transportation equipment manufacturing	NAICS 486 Pipeline transportation
NAICS 425 Electronic markets and agents and brokers	NAICS 516 Internet publishing and broadcasting
NAICS 482 Rail transportation	NAICS 518 ISPs, search portals, and data processing
NAICS 483 Water transportation	NAICS 519 Other information services
NAICS 491 Postal service	NAICS 533 Lessors of nonfinancial intangible assets
NAICS 492 Couriers and messengers	NAICS 999 Unclassified
NAICS 493 Warehousing and storage	
NAICS 511 Publishing industries, except Internet	
NAICS 512 Motion picture and sound recording industries	
NAICS 515 Broadcasting, except Internet	
NAICS 521 Monetary authorities - central bank	
NAICS 523 Securities, commodity contracts, investments	
NAICS 524 Insurance carriers and related activities	
NAICS 525 Funds, trusts, and other financial vehicles	
NAICS 611 Educational services	
NAICS 622 Hospitals	
NAICS 711 Performing arts and spectator sports	
NAICS 712 Museums, historical sites, zoos, and parks	
NAICS 812 Personal and laundry services	
NAICS 814 Private households	

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

In addition to looking at which industries are over- or under-represented in an area, understanding locational advantage also requires looking at which industries are growing more than expected. Shift-share analysis attempts to address this issue. Industry growth can be broken-down into three components: growth due to growth of the economy overall; growth due to changes in the industry at the national or global level, and; growth due to local conditions. The analysis starts with industry employment in one year and compares it with industry employment in another year, then subtracts growth due to the overall economy and industry changes. The remainder is attributed to locational advantage.

From 2001 through 2004, employment in Grays Harbor County grew by about 1,100 jobs. During that time, the national economy grew at 1.84% and would have accounted for 584 of those jobs. Industries which are most heavily represented in the county did not do especially well nationally during that period, and would have accounted for a loss of 4 jobs. As a result, local firms added about 519 jobs due to factors other than effects of the business cycle and industry dynamics. Overall, Grays Harbor County employment grew an additional 1.64% because a larger proportion of industries grew more quickly locally than nationally. Manufacturing made an especially strong showing, with growth of 21.76% due to the regional shift. Recent mill closings will likely impact those numbers negatively when more recent data becomes available. Still, it is encouraging to see a sector with a strong Location Quotient and above average wages rates also exhibit a strong regional shift. The Information sector also grew during the period of the “Dot Com Bust.” While the sector started from a relatively small number, a 22.73% regional shift and the addition of 60 jobs is notable, especially in an industry with above average wages. Management of Companies and Enterprises shows a regional shift of 326%. That figure is greatly distorted because the sector started the period with only 36 jobs. Still, the addition of 117 jobs in most sectors would be a welcome occurrence.

Shift-Share Components of Grays Harbor County Employment Growth						
2001 - 2004						
Industry	National Growth ¹		Industry Mix ²		Regional Shift ³	
	Percent	Net	Percent	Net	Percent	Net
Agriculture, Forestry, Fishing & Hunting	1.84	11	-4.69	-27	1.13	7
Construction	1.84	30	1.7	28	-0.98	-16
Manufacturing	1.84	68	-14.31	-531	21.76	808
Retail Trade	1.84	76	-0.53	-22	-0.92	-38
Information	1.84	5	-14.65	-38	22.73	60
Finance & Insurance	1.84	18	0.89	9	-8.59	-82
Real Estate, Rent. & Leasing	1.84	18	11.46	109	-6.78	-64
Professional & Technical Services	1.84	20	0.31	3	-0.64	-7
Management of Companies & Enterprises	1.84	1	-2.7	-1	325.85	117
Admin. & Waste Services	1.84	12	5.1	33	4.2	28
Arts, Entertainment & Recreation	1.84	9	4.74	23	6.6	32
Accommodation & Food Services	1.84	46	4.21	105	-5.89	-147
Other Services	1.84	38	4.92	103	-8.39	-175
Federal Government, Civilian	1.84	4	-1.73	-4	-7.22	-15
Federal Government Military	1.84	5	-2.65	-8	1.16	3
State Government	1.84	23	-0.83	-10	3.62	45
Local Government	1.84	88	1.53	73	-2.49	-118
Unreported	1.84	115	2.45	152	1.33	83
TOTAL	1.84	584	-0.01	-4	1.64	519

¹ National Growth: The change in local employment that would have occurred for a specific industry had it grown at the national growth rate of all industries combined.

² Industry Mix: The additional gain (or loss) in local employment that would have occurred for a specific industry (additional to the national growth effect) due to the industry growing faster (or slower) nationally than the rate of all industries combined.

³ Regional Shift: The additional gain (or loss) in local employment for a specific industry beyond the national growth and industry mix effects resulting from the industry growing faster (or slower) than the same industry nationally.

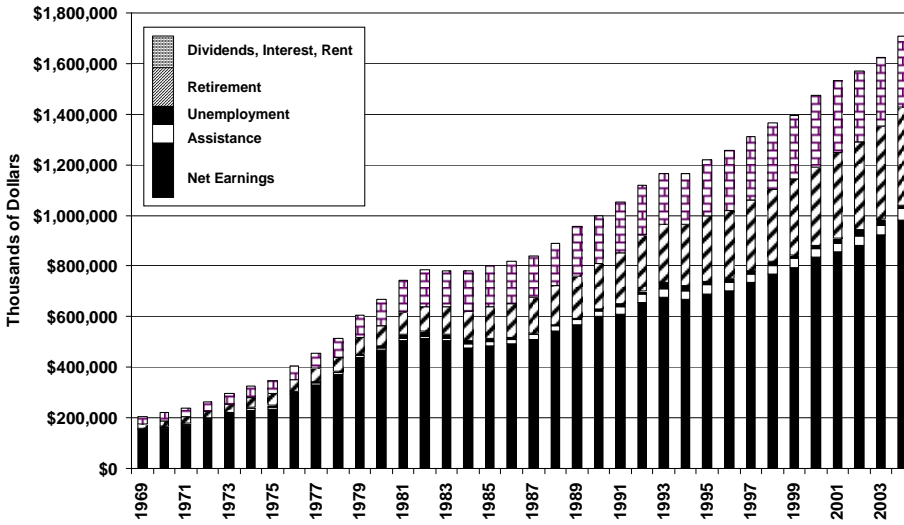
Source: Pacific Northwest Regional Economic Analysis Project; Bureau of Economic Analysis

Location Quotients and Shift-Share Analysis describe industries – where people work at jobs in Grays Harbor. Occupational employment describes what people do, regardless of where or in what industry they work. Nearly 50% of the labor force of Grays Harbor County is employed in the occupational classifications of Office and Administrative Support, Sales, Production, Management, Food Preparation and Serving, and Construction Trades occupations.

Occupational Employment			
	Count	Percent	Cumulative Percent
Total:	27,556	100.0%	
Office and administrative support occupations	3,533	12.8%	12.8%
Sales and related occupations	2,753	10.0%	22.8%
Production occupations	2,217	8.0%	30.9%
Management occupations, except farmers and farm managers	1,780	6.5%	37.3%
Food preparation and serving related occupations	1,664	6.0%	43.4%
Construction trades workers	1,622	5.9%	49.2%
Education, training, and library occupations	1,526	5.5%	54.8%
Installation, maintenance, and repair occupations	1,379	5.0%	59.8%
Farming, fishing, and forestry occupations	1,289	4.7%	64.5%
Personal care and service occupations	1,194	4.3%	68.8%
Motor vehicle operators	1,178	4.3%	73.1%
Building and grounds cleaning and maintenance occupations	1,134	4.1%	77.2%
Material moving workers	1,037	3.8%	80.9%
Healthcare practitioners and technical occupations:	947	3.4%	84.4%
Healthcare support occupations	796	2.9%	87.3%
Business and financial operations occupations	626	2.3%	89.5%
Fire fighting, prevention, and law enforcement workers, including supervisors	446	1.6%	91.2%
Community and social services occupations	417	1.5%	92.7%
Architecture and engineering occupations:	310	1.1%	93.8%
Farmers and farm managers	259	0.9%	94.7%
Life, physical, and social science occupations	239	0.9%	95.6%
Arts, design, entertainment, sports, and media occupations	207	0.8%	96.4%
Other protective service workers, including supervisors	206	0.7%	97.1%
Computer and mathematical occupations	204	0.7%	97.8%
Supervisors, construction and extraction workers	170	0.6%	98.5%
Legal occupations	169	0.6%	99.1%
Rail, water and other transportation occupations	143	0.5%	99.6%
Supervisors, transportation and material moving workers	62	0.2%	99.8%
Extraction workers	28	0.1%	99.9%
Aircraft and traffic control occupations	21	0.1%	100.0%

Source: U.S. Census, Census 2000

Components of Income



Total income for the County increased from \$206.3 million in 1969, to \$1.7 billion in 2004. During that time, net earnings (income earned from wages, salaries, bonuses and proprietors income, minus contributions for social insurance) dropped from 74.89% of total income, to 57.5%, while retirement income rose from 9.03% to 22.56% of total income.

Source: Bureau of Economic Analysis

Income from investments fluctuated around 17%, ranging from a low of 13.5% to a high of 20.55%. During that period, per-capita income grew from \$3,541 to \$24,312. When inflation is factored in, there was still an increase in per-capita income of 33%. From 1996 through 2006, median household income increased by 30.54%, while the statewide median grew by 39.99%. As a result, Grays Harbor's median income fell from 73.4% of the state-wide median, to 68.45% of the statewide median household income. Put another way, real income has been growing, but not as quickly in Grays Harbor as in Washington State as a whole. Much of the cause for this has been the vibrant economic expansion in the Seattle area, where the majority of the State's population lives. That expansion has not been as vibrant outside of the greater Puget Sound region.

Median Household Income											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Washington	\$ 40,580	\$ 42,401	\$ 44,484	\$ 45,776	\$ 48,397	\$ 49,301	\$ 49,755	\$ 50,496	\$ 53,005	\$ 53,771	\$ 56,807
Grays Harbor	\$ 29,788	\$ 31,363	\$ 33,148	\$ 34,160	\$ 36,076	\$ 36,109	\$ 36,280	\$ 36,179	\$ 36,404	\$ 36,463	\$ 38,884
Grays Harbor % of Washington Median Income	73.40%	73.97%	74.52%	74.62%	74.54%	73.24%	72.92%	71.65%	68.68%	67.81%	68.45%

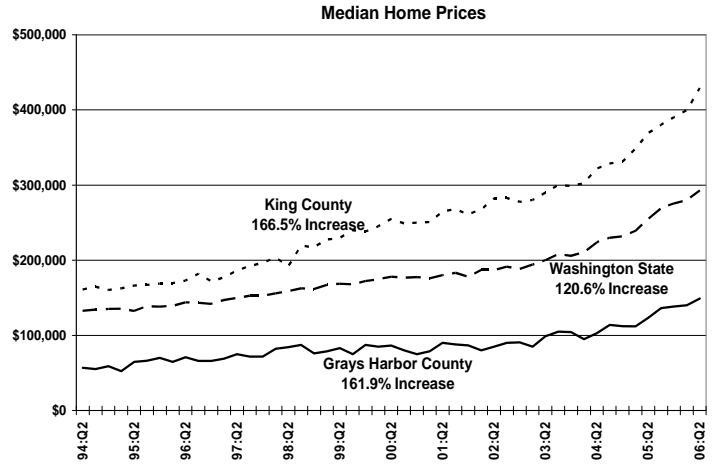
Source: Washington State Office of Financial Management

From 1994 - 2005, median house prices in the county have increased at an annual average rate of 7.14 percent, although from 2003 - 2005 that rate has nearly doubled to 13.65%. As a result, median home prices have increased a total of 161.9% since 1994, while median incomes increased by 42.7%. The increasing gap between house prices and incomes is a statewide phenomenon. Housing prices have revealed a darker side to the prosperity taking hold in the Puget Sound region, where from 1994 through 2005 median incomes increased by 45.2%, but median house prices increased by a total of 166.5%.

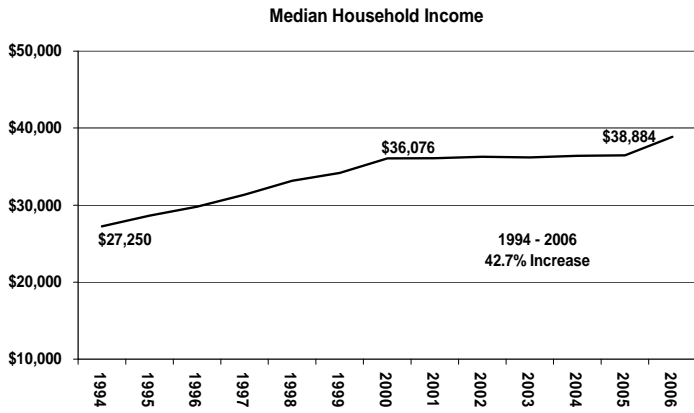
Despite those figures, the real estate market has seen an unprecedented level of activity. Declining interest rates, new mortgage products such as adjustable-rate mortgages and interest-only terms, and more liberal lending policies such as loan-to-value ratios at or above 100%, and higher debt to income ratio limits, have all allowed middle-income households to enter the housing market. As a result, the Housing Affordability Index has not been as volatile as the increasing gap between income and house prices might suggest.

Annual Average Mortgage Interest Rates*					
	Federal Housing Finance Board				Average
	Freddie Mac	Nation	Seattle Metro	Mortgage Bankers Association	
1994	8.38	8.17	6.80	8.42	7.94
1995	7.93	8.18	7.57	7.97	7.91
1996	7.81	7.98	7.60	7.89	7.82
1997	7.60	7.89	7.65	7.67	7.70
1998	6.94	7.19	7.07	6.88	7.02
1999	7.44	7.44	7.00	7.48	7.34
2000	8.05	8.25	7.58	8.04	7.98
2001	6.97	7.11	6.91	6.93	6.98
2002	6.54	6.69	6.34	6.43	6.50
2003	5.83	5.88	5.51	5.67	5.72
2004	5.84	6.02	5.53	5.78	5.79
2005	5.87	6.07	5.75	5.85	5.88
2006	6.41				6.41

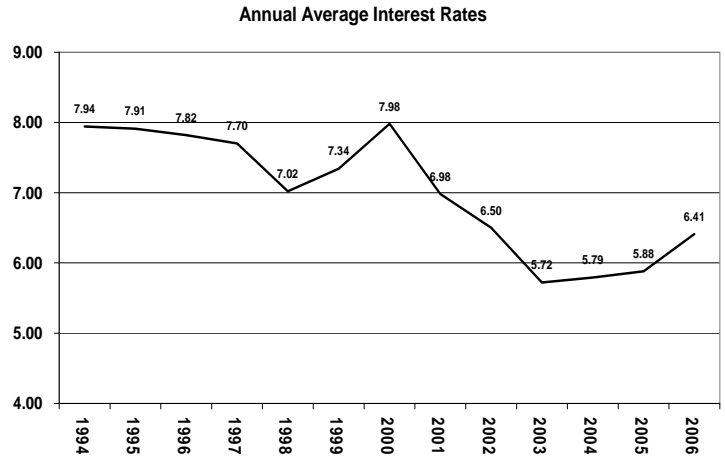
*Annual average interest rates for conforming, conventional 30-year fixed-rate mortgages
Source: Freddie Mac; Federal Housing Finance Board; Mortgage Bankers Association



Source: Washington Center for Real Estate Research

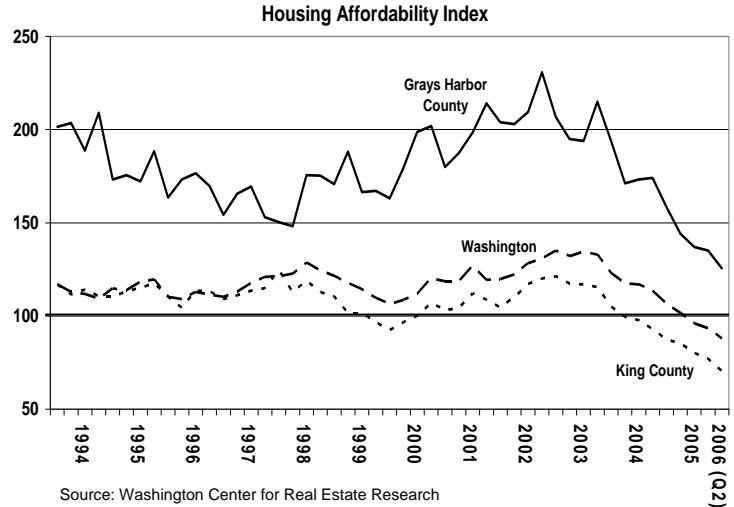


Source: Washington State Office of Financial Management

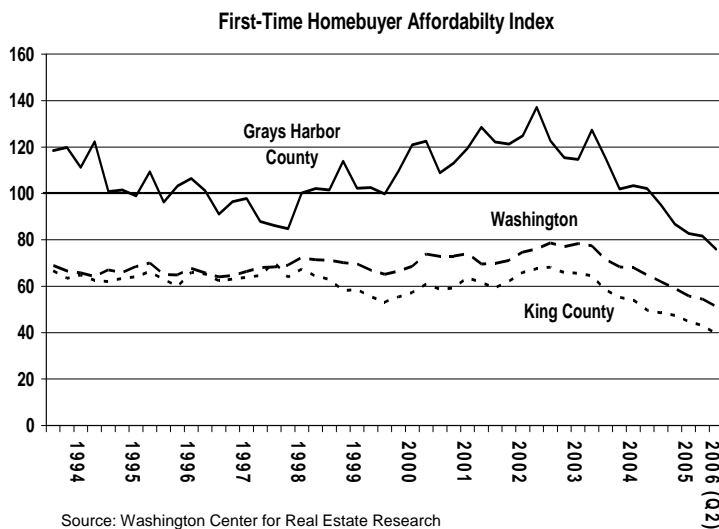


Source: Freddie Mac; Federal Housing Finance Board; Mortgage Bankers Association

Housing affordability is tracked by the National Association of Realtors, and for local areas in Washington by the Washington Center for Real Estate Research (WCRER) at Washington State University. The index uses house prices, incomes and interest rates, and assumes a 20% down payment and 30-year fixed-rate mortgage. A value of 100 means a household with a median income would be able to pay the principle and interest on a median priced home without paying more than 30 percent of their income for the mortgage. Grays Harbor County has traditionally had housing costs affordable to a broad spectrum of households, and to a much greater degree than Washington State as a whole. The Index reached one of its highest points in the first quarter of 2002 when it reached a value of 214.1. The Index has been dropping steadily since the first quarter of 2004, and stood at 125.6 as of the second quarter 2006.



WCRER also calculates an index for first-time homebuyers. This index recognizes that first-time buyers have a harder time obtaining a down payment, tend to have lower incomes, will likely have to pay private mortgage insurance, and will likely purchase a lower cost home. Therefore, the index uses home prices and incomes at 85% of their respective medians, current interest rates, assumes a 10% down payment and a 30-year fixed-rate mortgage with private mortgage insurance. A value at or above 100 means the market offers housing that is affordable to first-time home buyers. While first-time buyers have fared better in Grays Harbor County than in Washington State as a whole for some time, the recent run-up in house prices coupled with slow increases in interest



rates have put pressure on this segment of the market. The First-Time Homebuyers Affordability Index reached a high of 137.2 in the first quarter of 2003, and has since fallen, dropping below the 100 mark in the second quarter of 2005, and stood at 75.9 in the second quarter of 2006. With home prices and interest rates both on the rise, it is unclear when this trend might reverse and bring housing back into an affordable range for first-time buyers.

Environment:

A primary tenet of sustainability is that a society is only as viable as the physical environment that supports it. For communities dependent upon the regeneration of natural resources this may be especially true. With Grays Harbor's traditional reliance upon seafood and timber for economic livelihood, it would seem that protecting the health of those resources would be of paramount importance. Over a century of human activity has left a number of highly polluted sites county-wide, and the potential for exposure to pollutants is higher in Grays Harbor than in its coastal neighbors in Pacific and Jefferson Counties, due to the greater level of industrial development.

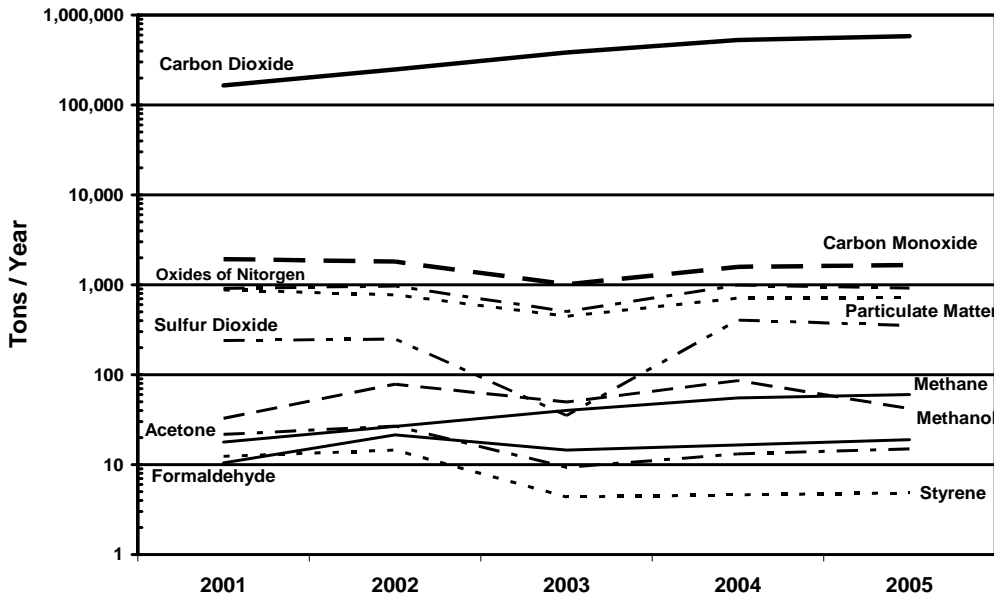
Data regarding the environment is at the same time both plentiful and inaccessible. There is a great deal of information available regarding water quality, air quality and toxic releases. However, very little data is collected in such a way that it leads to a broad understanding of community-wide environmental health, and how it has changed over time. Most data is collected for a single place and results may not be generalized to a larger area. Data which covers a large area and long time period is often subject to changes in administrative reporting or regulatory requirements. It also requires a high level of technical knowledge to develop an in-depth understanding of its implications. For example, the Toxic Release Inventory provides a time series of data reported by industries regarding the amount of toxic materials they release into the environment. But the data is of limited use because it has been subject to changes in reporting standards, says nothing about the relative dangers of one substance compared to another, and is silent regarding toxic materials released by non-industrial sources.

Despite the dearth of easily-digestible data, there are a few notable issues which can be quickly discussed. The area has fairly clean surface and ground water. From 2003 through 2006, three episodes in Grays Harbor County related to sewage spills or treatment plant malfunctions lead to advisory warnings on beaches in the county, lasting a total of 11 beach-days. By contrast, Kitsap had 15 events that closed beaches, with 1 additional health advisory, all together representing 432 beach-days and over 1.2M gallons of sewage spilled. Still, in 2006, 6 commercial shellfish monitoring areas were listed by the Department of Health as "Threatened" or of "Concern" due to high levels of fecal coliform bacteria. The primary water quality issue apparent was chronic fecal coliform bacteria contamination in Grays Harbor. Fecal coliform bacteria enter marine waters through runoff. Thus, areas most sensitive to water quality problems are generally areas with high runoff, low mixing, and human-caused inputs of nutrients and sewage.

The air in Grays Harbor is generally in good condition. Low levels of emissions and prevailing winds off the ocean create favorable conditions. From October, 2002 - April, 2007, 95.7% of days had an average Air Quality Index rating of "good", and 4.3% were "moderate", with no days "unhealthy". The most prevalent pollutant in the area is small particulate matter, mainly coming from wood-burning stoves used for home heating. Consequently, all but three "moderate" days during that period occurred between October - February. Air quality is particularly impacted on days of stagnant weather, typically during a temperature inversion, when there is very little mixing of air currents in the atmosphere. In terms of industrial air emissions, from 2001 - 2005, most major pollutants have remained steady, with the exception of carbon dioxide and methane, emissions of which have each been steadily increasing.



Common Industrial Air Emmissions



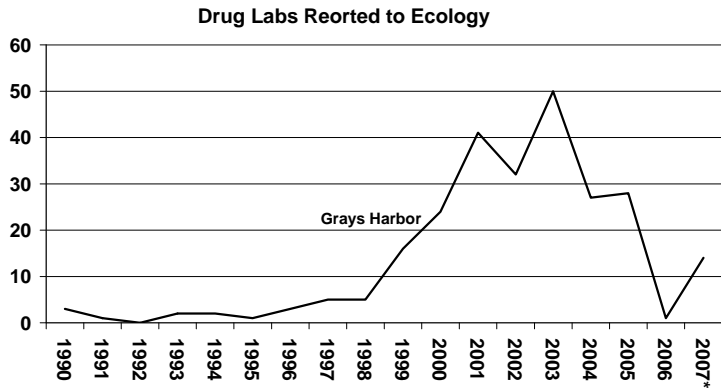
Source: Olympic Region Clean Air Agency, Annual Emission Inventory

The Department of Ecology maintains a list of sites contaminated with hazardous materials from spills or other activities. In August of 2007, the list named 15 sites in Grays Harbor County. This number has been slowly increasing from the 9 sites listed a decade ago. But sites are also coming off the list, even as new sites are added. The same report shows that 3 sites have been remediated to the point that no further action is necessary. To put this into perspective, the

report also shows that King County has 219 sites, 19 of which are federal Superfund sites. That means that King County has one hazardous waste site for every 9.7 sm, whereas Grays Harbor has one for every 127.8 sm. The Environmental Protection Agency has not identified any Superfund Sites locally (sites deemed most severely contaminated).

Methamphetamine production and use presents a special problem for communities and highlights the inter-related nature of the social, economic and environmental aspects of sustainability. The social costs of methamphetamine use include the devastation of families, poor educational outcomes, health problems and increased crime. Economically, methamphetamine use reduces productivity, leads to work-place injuries, degrades the pool of available labor and requires increased tax revenues to combat the problem. Environmentally, methamphetamine production creates toxic contamination that is hazardous and expensive to clean and remediate. Materials used in the production process can cause severe injury or death if inhaled or touched, and they require special handling to remove safely. Iodine, acids, sodium hydroxide, flammable solvents, anhydrous ammonia, lithium, sodium metals and red phosphorous are just some of the toxic substances used to produce methamphetamine. The contamination is not restricted to the site of production, but rather, presents a community-wide hazard.

"When the cooks learned we were fingerprinting meth-lab waste, they began dumping it off bridges into the local rivers. It's the ripple effect we worry about - to the environment, to homes that become unsafe to live in, to neighborhood property values and other crimes related to meth" (Keith Fouts, Grays Harbor Drug Task Force, Department of Ecology News Release, 2005).



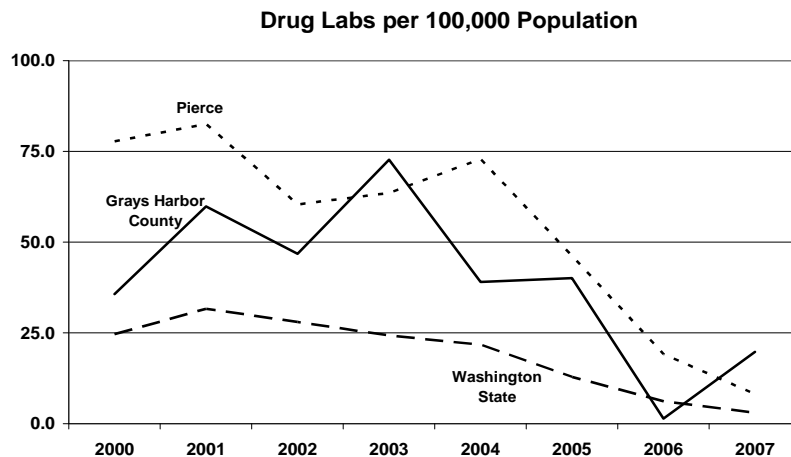
Recent changes in state law making it more difficult to procure ingredients necessary to manufacture methamphetamine have had an impact throughout Washington. As a result, the number of drug labs reported to the Department of Ecology has started to fall after rising sharply in the late 1990's. From 1990 -

October of 2007, there were a total of 255 drug labs reported in Grays Harbor County, representing 2.32% of the state-wide total, and making the county 10th in the state in total number of labs during that period.

During that same period, the number of labs per 100,000 population has ranged from a low of 1.4 to a high 72.7, with an apparent downward trend from 2003 to the present. Similarly, both Washington State and Pierce County, the number one county in terms of total labs reported during between 1990 - 2007, also seem to be declining in the number of labs per 100,000 population.

Methamphetamine Labs per 100,000 Population								
	2000	2001	2002	2003	2004	2005	2006	2007
Grays Harbor County	35.7	59.9	46.8	72.7	39.0	40.1	1.4	19.8
Pierce County	77.8	82.6	60.4	63.5	72.8	46.2	19.1	8.1
Washington State	24.7	31.6	28.0	24.3	21.7	12.9	6.1	3.0

Source: Washington Department of Ecology; Office of Financial Management



Source: Washington State Department of Ecology; Office of Financial Management

Conclusion:

Behind every datum, there's a story and an opportunity. Where the numbers reveal positive aspects of the community, there is the opportunity to build on strengths and make what's good even better. Where the numbers are not favorable, there is an opportunity for community action to change the course of events. The purpose of this environmental scan is to help form a baseline of understanding from which those opportunities can begin to be defined. While it provides much information, it cannot be expected to answer the broader questions which concern the community. It should provoke questions, because in the process of answering those questions, people will unite and move forward toward a more sustainable future.

Changing demographics will impact how the community prepares for tomorrow. How will the aging of Grays Harbor affect average incomes, social service needs, school district operations, spending patterns, medical facilities and public transportation? How much of the change is an artifact of living in a vacation and retirement attractive setting, and how much is due to the retiring baby-boom generation demographic bubble? What does it all mean for the social infrastructure of the community?

To be prepared for the years to come, the education system needs to be responsive to current trends. Is a 30% cohort drop-out rate conducive to the sustainable future of the community? What will it take to increase the proportion of kids who stay in school? Is change needed to make sure those that leave traditional public school have opportunities to finish their education? Can programs such as tutoring or early childhood education improve learning and student success? Is the disparity between districts in student success a problem and how can it be addressed?

How will housing affordability affect businesses' ability to recruit an increasingly productive workforce? To what extent are increases in home prices an artifact of the immigration of an older population, and what impact is that having on affordability for younger families and first-time home buyers? Is there a split market, with more expensive properties out on the coast distorting the market data, while there is still affordable housing in the interior?

How might a changing environment impact the ability of resource-dependant industries to create value? What impact will retirees and tourists have on the environment? Is the natural environment attractive to workers with the skills needed in the "information economy"? How is human health impacted by the changing environment, and are those impacts more or less significant for an older population? Exploring how these different domains interact is a first step toward understanding sustainability.

The data presented here is but a snapshot of life in Grays Harbor County. It is one set of measures and leaves many holes in a complete picture of the community. To complete the tapestry and have a fuller understanding of how these pieces fit together will require weaving in the knowledge and judgment of local residents. After a vision for its future has been articulated, the community can develop a path for moving toward its vision of a more sustainable future.