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**TO: Kirk Johnson**  
**FROM: Beth Goodman**  
**SUBJECT: SKAGIT COUNTY PRELIMINARY EMPLOYMENT FORECAST**

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The Skagit Alternative Futures Project is designed to highlight tradeoffs between natural resource protection and urbanization in Skagit County. The objective of the project is to develop a plan that addresses natural resource protection, conservation, and urban growth and development over the next 50-years. One of the key inputs into the Alternative Futures Project is forecasting future employment growth in Skagit County and allocating that growth to urban and rural areas within the County.

Skagit County adopted an employment forecast in 2003. The forecast projects employment growth by broad categories of land uses (commercial, industrial, agriculture, natural resource, or public/institutional) to 2025.<sup>1</sup> ECONorthwest used this forecast as the basis for forecasting employment growth in the County through 2035 as part of the update to the Metropolitan and Regional Transportation Plan (M/RTP).

In this project, ECONorthwest built from the analysis and forecast of employment growth to 2035 to develop a range of employment forecasts that extend to 2060 for the County. This memorandum presents high, medium, and low forecasts for employment growth in Skagit County between 2035 and 2060. It also allocates employment growth into the ten Urban Growth Areas (UGAs) and unincorporated areas within the County.

The remainder of this memorandum is organized into the following sections:

- **Summary of employment forecast for 2009 to 2035** provides a summary of the employment forecast developed for the M/RTP project, which provides the basis for the employment forecast for the 2035 to 2060 period.
- **Employment forecasts for 2035 to 2060** presents a high, low, and planned trend forecast for employment growth at the County-level and for the UGAs, as well as a discussion of the limitations of the forecasts.

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<sup>1</sup> Many employment forecasts are disaggregated by industrial sector. Forecasts by land use types are typically developed by aggregating employment by sector.

- **Appendix A** presents details of the forecast of employment growth for Skagit County, which was developed as part of the Metropolitan and Regional Transportation Plan (M/RTP) project.
- **Appendix B** presents the factual basis for the 2009 to 2035 forecast described in Appendix A.
- **Appendix C** discusses issues with small area forecasts.

## SUMMARY OF EMPLOYMENT FORECAST FOR 2009 TO 2035

The forecasts presented in this memorandum are based on: (1) Skagit County's adopted employment forecast through 2025 and (2) the forecast for employment growth between 2025 and 2035 that ECONorthwest developed as part of the M/RTP project. Appendix A describes the methods used to develop the forecast of employment growth in Skagit County through 2035.

Table 1 presents the employment forecast for Skagit County developed as part of the M/RTP project. ECO projects that employment in Skagit County will grow by about 12,700 employees, an increase of 21% at an average annual growth rate of 0.7% between 2009 and 2035. The employment forecast in Table 3 is based on the following assumptions:

- **Growth rate.** The employment forecast for Skagit County for 2009 to 2035 uses the growth rate assumption from the adopted forecast, 0.7% average annual growth rate (AAGR). We used this growth rate for several reasons: (1) it is the County's adopted growth rate for employment growth through 2025; (2) the growth preference in the County seems to be for moderate or slow growth; and (3) the availability of labor may cause employment growth to slow in Skagit County.
- **Mix of industries.** Table 3 assumes that most industries will maintain the share of employment by sector in 2035 as they had in 2009. For example, Table 3 assumes that agricultural employment will account for 4% of all employment in 2035, which was the same share of employment in agriculture in 2009. The largest change in the mix of industries is a projected increase in health services, as a result of projected growth in people 60 years and older, the age group that typically requires the most health services.

**Table 1. Employment forecast by sector grouping, Skagit County, 2009 to 2035**

Field Name	2009		2035		Change 2009 to 2035			
	Emp.	Percent of Total	Emp.	Percent of Total	Emp.	Percent Change	AAGR	Share
AGEMP	2,348	4%	3,105	4%	757	32%	1.1%	0.3%
FORESTRY	150	0%	199	0%	49	33%	1.1%	0.0%
MINING	75	0%	99	0%	24	32%	1.1%	0.0%
CONSTRUCTION	5,671	9%	6,398	9%	727	13%	0.5%	-0.6%
MANUFACTURING	6,343	10%	6,764	9%	421	7%	0.2%	-1.2%
TPU	2,116	3%	2,808	4%	692	33%	1.1%	0.3%
WHOLESALE	1,254	2%	1,554	2%	300	24%	0.8%	0.0%
RETAIL	14,450	23%	16,996	23%	2,546	18%	0.6%	-0.7%
FIRES	7,705	12%	9,310	12%	1,605	21%	0.7%	0.0%
SCHOOL	3,404	6%	4,209	6%	805	24%	0.8%	0.1%
HEALTH	5,402	9%	7,999	11%	2,597	48%	1.5%	1.9%
OTHERSERVICES	4,888	8%	5,871	8%	983	20%	0.7%	-0.1%
PUBLICADMIN	7,959	13%	9,575	13%	1,616	20%	0.7%	-0.1%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>13,122</b>	<b>21%</b>	<b>0.7%</b>	<b>0.0%</b>

Source: ECONorthwest

Note: AAGR is average annual growth rate

Shaded areas indicate assumptions in the forecast.

Table 2 shows the allocation of employment growth to UGAs within the County. The methodology used to allocate employment within the County is described in the documentation for the M/RTP forecast project. The key factors in the allocation were:

- **Existing employment.** TAZs with existing employment were allocated additional employment in 2035. Employment was allocated based on the amount of employment in 2009 by sector and overall forecast growth in the sector.
- **Development capacity.** This factor considered the availability of vacant land designated for employment and expected employment density.

**Table 2. Employment forecast by UGA, Skagit County, 2009 to 2035**

	2009		2035 Projection	Change 2009 to 2035		
	Employment	Share		Number	Percent Change	AAGR
Anacortes	9,546	15%	11,447	1,900	20%	0.7%
Bayview Ridge	1,768	3%	2,045	277	16%	0.6%
Burlington	11,328	18%	13,581	2,252	20%	0.7%
Hamilton	204	0%	225	21	10%	0.4%
La Conner	628	1%	733	105	17%	0.6%
Lyman	138	0%	160	22	16%	0.6%
Mount Vernon	22,453	36%	27,835	5,382	24%	0.8%
Sedro-Woolley	4,876	8%	5,989	1,113	23%	0.8%
Swinomish	1,813	3%	2,165	352	19%	0.7%
Rural	9,010	15%	10,708	1,698	19%	0.7%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>13,122</b>	<b>21%</b>	<b>0.7%</b>

Source: ECONorthwest

Note: AAGR is average annual growth rate.

Note: The employment forecast for the M/RTP project did not include a forecast for Concrete because it is not located within a TAZ.

## EMPLOYMENT FORECASTS 2035 TO 2060

The purpose of this memorandum is to develop a range of employment growth scenarios for Skagit County, which will be used to illustrate growth management policy choices for accommodating employment growth in the Skagit Alternative Futures project. The forecasts in this section are based on the following considerations:

- Existing long-term forecasts of population and employment growth at the State- and County-levels.
- The population forecasts for the Skagit Alternative Futures project.
- Analysis of factors affecting employment growth (e.g., labor force availability, historical employment growth, etc.) developed for the M/RTP project.
- Priorities for growth and potential policies developed through the Skagit Alternative Futures project.

This section is divided into:

- **Skagit County Forecast** presents three scenarios for employment growth in Skagit County and discusses broad implications of the forecasts.
- **Allocation of Employment Growth** presents an allocation of each of the three growth scenarios to UGAs and rural areas within Skagit County
- **Allocation of Employment Growth by Land Use Category** presents an allocation of each of the three growth scenarios to broad land use categories (e.g., commercial or public administration) for UGAs and rural areas within Skagit County.

- **Limitations of the forecasts** discusses the limitations of small area forecast in general and these forecasts in particular.

## 1.1 SKAGIT COUNTY FORECAST

Table 3 presents three projections for employment growth in Skagit County. The forecasts each use the estimate of employment in Skagit County in 2009 (61,765 employees) as the base for the forecast. The forecasts are based on the following assumptions:

- **Low.** The low forecast assumes that employment will grow at 0.7% per year between 2009 to 2035, consistent with the M/RTP forecast and the County's adopted forecast. Between 2035 and 2060, the low forecast assumes that employment growth will slow to 0.5% per year. The low forecast projects that Skagit County will add about 23,000 jobs over the 2009 to 2060 period, growth of more than one-third of the County's existing workforce.
- **Planned Trend.** The planned trend assumes that employment will grow at 0.7% per year between 2009 to 2035, consistent with the M/RTP forecast and the County's adopted forecast. It assumes that employment will continue to grow at 0.7% annually until 2060, adding about 28,300 jobs over the 2009 to 2060 period, a 46% increase over the County's existing workforce.
- **High.** The high forecast assumes that Skagit County will have more employment growth than the M/RTP forecast projects. The high forecast assumes 1.3% average annual growth over the 2009 to 2035 period and 1% annual growth over the 2035 and 2060 period. The high forecast projects that Skagit County will add about 49,000 jobs over the 2009 to 2060 period, a 79% increase over the County's existing workforce.

**Table 3. Employment forecast, Skagit County, 2009 to 2060**

Year	Low	Planned	
		Trend	High
2009	61,765	61,765	61,765
2035	74,887	74,887	86,415
2040	76,778	77,699	90,823
2045	78,717	80,617	95,456
2050	80,705	83,644	100,325
2055	82,743	86,785	105,443
2060	84,832	90,044	110,822
<b>Change 2009 to 2060</b>			
Number	23,067	28,279	49,057
Percent	37%	46%	79%
AAGR	0.6%	0.7%	1.2%
<b>Change 2009 to 2035</b>			
Number	13,122	13,122	24,650
Percent	21%	21%	40%
AAGR	0.7%	0.7%	1.3%
<b>Change 2035 to 2060</b>			
Number	9,945	15,157	24,407
Percent	13%	20%	28%
AAGR	0.5%	0.7%	1.0%

Source: ECONorthwest

Note: AAGR is average annual growth rate.

The low and planned trend scenarios project that Skagit County's employment will grow substantially slower than historical employment growth rates. Skagit County's employment base grew at 3.0% average annual growth over the 1980 to 2008 period and at an average annual growth rate of 1.5% over the 2001 to 2008 periods. The high scenario projects that employment would grow slower than historical growth rates but faster than the adopted forecast growth rate (0.7% average annual growth).

Table 4 shows a comparison of historical and projected population and employment growth over the 1980 to 2060 period. Table 4 compares the employment growth presented in Table 3 with projected population growth based on the "Hypothetical SCOG Target" population growth scenario.

The comparison between population and employment is expressed as a population to employment ratio (PE), which describes the number of persons per job. For example, the State of Washington's PE decreased from 2.0 in 1980 to 1.6 in 2008, indicating that employment grew faster than population in the State over the 28-year period. A regional employment center should have a lower-than-average PE. For example, King County's PE in 1980 was 1.6, decreasing to 1.2 by 2008.

Table 4 shows that Skagit County's PE decreased from 2.1 to 1.7 between 1980 and 2007. All of the forecasts in Table 4 show Skagit County's PE increasing because population is forecast to grow at a higher overall rate than employment in any of the growth scenarios shown in Table 4. The high forecast shows the smallest change in PE

over the forecast period, with a PE of 2.0 by 2060. The plan trend shows the PE increasing to 2.4 by 2060 and the low forecast shows the PE increasing to 2.6 by 2060.

**Table 4. Comparison of employment forecast with the population forecast, Skagit County, 1980 to 2060**

Year	Population	Low		Plan Trend		High	
		Emp	PE	Emp	PE	Emp	PE
1980	64,138	30,094	2.1	30,094	2.1	30,094	2.1
1990	79,545	43,166	1.8	43,166	1.8	43,166	1.8
2001	104,100	59,483	1.8	59,483	1.8	59,483	1.8
2007	115,300	67,218	1.7	67,218	1.7	67,218	1.7
2035	168,386	74,887	2.2	74,887	2.2	86,415	1.9
2040	178,670	76,778	2.3	77,699	2.3	90,823	2.0
2045	188,393	78,717	2.4	80,617	2.3	95,456	2.0
2050	197,736	80,705	2.5	83,644	2.4	100,325	2.0
2055	207,757	82,743	2.5	86,785	2.4	105,443	2.0
2060	217,578	84,832	2.6	90,044	2.4	110,822	2.0
<b>Change 2035 to 2060</b>							
Number	49,192	9,945	0.3	15,157	0.2	24,407	0.0
Percent	29%	13%		20%		28%	
AAGR	1.0%	0.5%		0.7%		1.0%	

Source: ECONorthwest

Note: The forecast period is shown in the shaded area

PE is population to employment ratio and AAGR is average annual growth rate.

Assuming that the forecast of population is reasonably accurate, the implications of the changes to population to employment ratio are:

- The low and planned trend forecasts assumes that Skagit County will become more of a bedroom community, with a larger share of workers commuting out of the County for work. The increase in the PE in the first two decades in the forecast period can be explained in part by projected growth in retired people, resulting from the aging of the baby boomers. Unless Skagit County attracts more retired people during the last few decades of the forecast, the continued decrease in the PE will most likely be the result of slower employment growth relative to population growth.
- The high trend forecast assumes that Skagit County will have faster population than employment growth through 2035 but that employment will grow at about the same rate between 2035 and 2060.

In order to achieve the employment growth projected in any of the scenarios, the County will need to have buildable employment land available to accommodate both employment growth for services to serve residents, as well as land available for traded-sector industries, such as manufacturing or services used outside of the County (e.g., call centers). Traded-sector industries often have special land requirements (e.g., site

over 10 acres in size with flat topography and direct access to I-5). Growth of traded-sector industries is generally limited to urban areas, with the exception of rural industries such as logging. Attracting traded-sector firms will require the availability of land with the characteristics needed by traded-sector industries in locations within UGAs that are attractive to prospective firms.

## 1.2 ALLOCATION OF EMPLOYMENT GROWTH

This section allocates employment growth to UGAs and unincorporated rural areas within Skagit County. Table 2 shows the allocation of employment growth to UGAs from the M/RTP project, which was based on the existing conditions (amount of employment currently located within the UGA) and a rough estimate of the capacity to accommodate employment growth (approximate amount of vacant employment land within the UGA).

Allocating employment growth from 2035 to 2060 to UGAs using a similar method would require: (1) an estimate of employment that will be located in each UGA in 2035 and (2) an estimate of development capacity in 2035. While we have the estimate of employment growth by UGA, it would be very difficult to make even a rough estimate of development capacity on employment land in 2035.

As a result, the allocations of employment growth presented in this section assume that the distribution of employment among UGAs and rural areas will not change between 2035 and 2060. For example, Mount Vernon is projected to account for 37% of employment within the County in 2035 and 2060, resulting in growth of 3,696 employees in Mount Vernon over the twenty-five year period.

Table 5 presents allocation of employment growth in the UGAs and rural areas based on the low growth scenario. Table 5 shows that over the 2035 to 2060 period:

- Employment will grow by about 9,945 employees.
- Employment will be concentrated in Mount Vernon (37% of the County's 2060 employment), Burlington (18% of employment), and Anacortes (15% of employment).
- The majority of employment growth will occur within UGAs. About 14% of employment growth will occur in rural areas outside of UGAs.



**Table 5. Allocation of employment growth to UGA and rural areas, low growth scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	11,447	15%	12,967	15%	1,520	13%
Bayview Ridge	1,768	3%	2,045	3%	2,317	3%	272	13%
Burlington	11,328	18%	13,581	18%	15,384	18%	1,803	13%
Concrete	230	0%	273	0%	309	0%	36	13%
Hamilton	204	0%	225	0%	255	0%	30	13%
La Conner	628	1%	733	1%	830	1%	97	13%
Lyman	138	0%	160	0%	181	0%	21	13%
Mount Vernon	22,453	36%	27,835	37%	31,531	37%	3,696	13%
Sedro-Woolley	4,876	8%	5,989	8%	6,784	8%	795	13%
Swinomish	1,813	3%	2,165	3%	2,453	3%	288	13%
Rural	8,780	14%	10,436	14%	11,822	14%	1,386	13%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>84,832</b>	<b>100%</b>	<b>9,945</b>	<b>13%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

Table 6 presents allocation of employment growth in the UGAs and rural areas based on the planned trend scenario. Table 5 shows that over the 2035 to 2060 period employment within the County will grow by 15,157 employees. The assumptions about distribution of employment among the UGAs and rural areas of the County is the same as the assumptions in Table 5.

**Table 6. Allocation of employment growth to UGA and rural areas, planned trend scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	11,447	15%	13,764	15%	2,317	20%
Bayview Ridge	1,768	3%	2,045	3%	2,459	3%	414	20%
Burlington	11,328	18%	13,581	18%	16,330	18%	2,749	20%
Concrete	230	0%	273	0%	328	0%	55	20%
Hamilton	204	0%	225	0%	271	0%	46	20%
La Conner	628	1%	733	1%	881	1%	148	20%
Lyman	138	0%	160	0%	192	0%	32	20%
Mount Vernon	22,453	36%	27,835	37%	33,468	37%	5,633	20%
Sedro-Woolley	4,876	8%	5,989	8%	7,201	8%	1,212	20%
Swinomish	1,813	3%	2,165	3%	2,603	3%	438	20%
Rural	8,780	14%	10,436	14%	12,548	14%	2,112	20%
<b>County Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>90,044</b>	<b>100%</b>	<b>15,157</b>	<b>20%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

Table 7 presents allocation of employment growth in the UGAs and rural areas based on the high growth scenario. Table 5 shows that over the 2035 to 2060 period employment within the County will grow by 24,407 employees. The assumptions about distribution of employment among the UGAs and rural areas of the County is the same as the assumptions in Table 5.

**Table 7. Allocation of employment growth to UGA and rural areas, high growth scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	13,209	15%	16,940	15%	3,731	28%
Bayview Ridge	1,768	3%	2,360	3%	3,026	3%	666	28%
Burlington	11,328	18%	15,672	18%	20,098	18%	4,426	28%
Concrete	230	0%	315	0%	404	0%	89	28%
Hamilton	204	0%	260	0%	333	0%	73	28%
La Conner	628	1%	845	1%	1,084	1%	239	28%
Lyman	138	0%	185	0%	237	0%	52	28%
Mount Vernon	22,453	36%	32,119	37%	41,191	37%	9,072	28%
Sedro-Woolley	4,876	8%	6,911	8%	8,863	8%	1,952	28%
Swinomish	1,813	3%	2,498	3%	3,204	3%	706	28%
Rural	8,780	14%	12,043	14%	15,444	14%	3,401	28%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>86,415</b>	<b>100%</b>	<b>110,822</b>	<b>100%</b>	<b>24,407</b>	<b>28%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

### 1.3 ALLOCATION OF EMPLOYMENT GROWTH BY LAND USE CATEGORY

This section presents allocations of employment growth to broad categories of land use for each UGA. Table 8 shows the projected distribution of employment by land use type by UGA in 2035 from the M/RTP project, which is based on existing employment (in 2009) and current capacity to accommodate new employment (between 2009 and 2035). The land use types are groupings of sectors that require land with similar attributes (e.g., topography or infrastructure access). Table 8 shows:

- **Commercial** includes employment in retail, health services, finance and real estate, and other services (e.g., accommodations and food services, information, etc.). Fifty-four percent of Skagit County's employment is projected to be in commercial by 2035.
- **Industrial** includes construction, manufacturing, transportation and warehousing, utilities, and wholesale. Twenty-three percent of Skagit County's employment is projected to be in industrial by 2035.
- **Agricultural and Natural Resources** includes agriculture, forestry, and mining. Five percent of Skagit County's employment is projected to be in agriculture and natural resources by 2035.
- **Schools** account for 6% of projected employment in Skagit County in 2035.
- **Public Administration** accounts for 13% of projected employment in Skagit County in 2035.

**Table 8. Share of employment by land use type by UGA, Skagit County, 2035**

Area	Commercial	Industrial	Agriculture and Nat. Resource	Schools	Public Admin.	Total
Anacortes	53%	33%	0%	5%	9%	100%
Bayview Ridge	20%	75%	5%	0%	0%	100%
Burlington	67%	22%	2%	4%	5%	100%
Concrete	43%	29%	18%	4%	6%	100%
Hamilton	10%	89%	1%	0%	0%	100%
La Conner	28%	24%	0%	24%	24%	100%
Lyman	30%	51%	9%	0%	10%	100%
Mount Vernon	57%	16%	3%	5%	18%	100%
Sedro-Woolley	52%	15%	1%	17%	16%	100%
Swinomish	34%	11%	0%	0%	55%	100%
Rural Total	43%	29%	18%	4%	6%	100%
<b>County Total</b>	<b>54%</b>	<b>23%</b>	<b>5%</b>	<b>6%</b>	<b>13%</b>	<b>100%</b>

Source: ECONorthwest.

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: Information about the share of employment by land use type is not available for Concrete. The assumption about distribution by land use type in Concrete is based on the distribution in rural areas.

Tables 9 through 11 present a forecast of employment growth by land use type by UGA for each of the three employment growth scenarios over the 2025 to 2060 period. These tables show: (1) amount of employment by land use type and UGA in 2035, (2) the assumed future share of employment by land use type and UGA in 2060, and (3) the projected employment by land use type and UGA in 2060.

The projections of employment by UGA are based on the share of employment by land use types shown in Table 8. For the most part, the projections assume an increase in employment in each sector, except there is no employment in a sector in a UGA. The share of employment is assumed to be the same in 2060 as it was in 2035, with the following exceptions<sup>2</sup>:

- **Bayview Ridge.** The projections assume an increase in the share of employment in schools (from 0% in 2035 to 4% in 2060) and public administration (from 0% to 1%) and a decrease in industrial employment (from 75% to 73%) and commercial (from 20% to 18%).
- **Hamilton.** The projections assume an increase in commercial (from 10% to 19%) and a decrease in industrial (from 89% to 80%).
- **Mount Vernon.** The projections assume an increase in commercial (from 57% to 59%) and a decrease in public administration (from 18% to 16%).

<sup>2</sup> These exceptions are based on discussions with County Planning Staff.

- **Swinomish.** The projections assume an increase in commercial (from 34% to 36%) and in agriculture and natural resources (from 0% to 3%), as well as a decrease in public administration (from 55% to 50%).

**Table 9. Allocation of employment by land use type and UGA, low forecast scenario, Skagit County, 2035 and 2060**

UGA	Commercial			Industrial			Ag. & Natural Resource			Schools			Public Admin		
	2060			2060			2060			2060			2060		
	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060
Anacortes	6,064	53%	6,869	3,801	33%	4,306	43	0%	49	562	5%	637	977	9%	1,107
Bayview Ridge	412	18%	417	1,529	73%	1,680	100	5%	113	0	4%	93	4	1%	14
Burlington	9,041	67%	10,241	2,946	22%	3,337	310	2%	351	604	4%	684	680	5%	770
Concrete	116	43%	133	79	29%	89	49	18%	56	12	4%	14	16	6%	18
Hamilton	23	19%	48	200	80%	204	2	1%	2	0	0%	0	0	0%	0
La Conner	205	28%	232	176	24%	199	0	0%	0	179	24%	203	173	24%	196
Lyman	48	30%	54	81	51%	92	15	9%	17	0	0%	0	16	10%	18
Mount Vernon	15,932	59%	18,617	4,591	16%	5,201	951	3%	1,077	1,404	5%	1,590	4,957	16%	5,045
Sedro-Woolley	3,127	52%	3,542	874	15%	990	44	1%	50	992	17%	1,124	952	16%	1,078
Swinomish	731	36%	889	233	11%	264	10	3%	74	0	0%	0	1,191	50%	1,227
Rural	4,478	43%	5,073	3,014	29%	3,414	1,879	18%	2,129	456	4%	517	609	6%	690
<b>County Total</b>	<b>40,177</b>	<b>54%</b>	<b>46,115</b>	<b>17,524</b>	<b>23%</b>	<b>19,776</b>	<b>3,403</b>	<b>5%</b>	<b>3,918</b>	<b>4,209</b>	<b>6%</b>	<b>4,862</b>	<b>9,575</b>	<b>13%</b>	<b>10,163</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA.

Note: The allocation in Table 9 may not add exactly to the forecasts shown in Table 5 as a result of rounding error.

**Table 10. Allocation of employment by land use type and UGA, plan trend scenario, Skagit County, 2035 and 2060**

UGA	Commercial			Industrial			Ag. & Natural Resource			Schools			Public Admin		
	2060			2060			2060			2060			2060		
	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060
Anacortes	6,064	53%	7,292	3,801	33%	4,570	43	0%	52	562	5%	676	977	9%	1,175
Bayview Ridge	412	18%	443	1,529	73%	1,783	100	5%	120	0	4%	98	4	1%	15
Burlington	9,041	67%	10,871	2,946	22%	3,542	310	2%	373	604	4%	726	680	5%	818
Concrete	116	43%	141	79	29%	95	49	18%	59	12	4%	14	16	6%	19
Hamilton	23	19%	51	200	80%	217	2	1%	2	0	0%	0	0	0%	0
La Conner	205	28%	247	176	24%	211	0	0%	0	179	24%	215	173	24%	208
Lyman	48	30%	58	81	51%	97	15	9%	18	0	0%	0	16	10%	19
Mount Vernon	15,932	59%	19,761	4,591	16%	5,520	951	3%	1,143	1,404	5%	1,688	4,957	16%	5,355
Sedro-Woolley	3,127	52%	3,760	874	15%	1,051	44	1%	53	992	17%	1,193	952	16%	1,145
Swinomish	731	36%	943	233	11%	280	10	3%	78	0	0%	0	1,191	50%	1,302
Rural	4,478	43%	5,384	3,014	29%	3,624	1,879	18%	2,259	456	4%	548	609	6%	732
<b>County Total</b>	<b>40,177</b>	<b>54%</b>	<b>48,951</b>	<b>17,524</b>	<b>23%</b>	<b>20,990</b>	<b>3,403</b>	<b>5%</b>	<b>4,157</b>	<b>4,209</b>	<b>6%</b>	<b>5,158</b>	<b>9,575</b>	<b>13%</b>	<b>10,788</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA.

Note: The allocation in Table 10 may not add exactly to the forecasts shown in Table 6 as a result of rounding error.

**Table 11. Allocation of employment by land use type and UGA, high growth scenario, Skagit County, 2035 and 2060**

UGA	Commercial			Industrial			Ag. & Natural Resource			Schools			Public Admin		
	2060			2060			2060			2060			2060		
	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060	2035	Share	2060
Anacortes	6,998	53%	8,974	4,386	33%	5,625	50	0%	64	649	5%	832	1,127	9%	1,446
Bayview Ridge	425	18%	545	1,711	73%	2,194	115	5%	148	94	4%	121	14	1%	18
Burlington	10,433	67%	13,379	3,400	22%	4,360	358	2%	459	697	4%	894	785	5%	1,006
Concrete	135	43%	173	91	29%	117	57	18%	73	14	4%	18	18	6%	24
Hamilton	49	19%	63	208	80%	266	2	1%	3	0	0%	0	0	0%	0
La Conner	236	28%	303	203	24%	260	0	0%	0	206	24%	265	200	24%	256
Lyman	56	30%	71	94	51%	120	17	9%	22	0	0%	0	19	10%	24
Mount Vernon	18,965	59%	24,321	5,298	16%	6,794	1,097	3%	1,407	1,620	5%	2,078	5,139	16%	6,591
Sedro-Woolley	3,608	52%	4,628	1,009	15%	1,293	51	1%	65	1,145	17%	1,468	1,099	16%	1,409
Swinomish	905	36%	1,161	269	11%	345	75	3%	96	0	0%	0	1,249	50%	1,602
Rural	5,167	43%	6,627	3,478	29%	4,460	2,168	18%	2,781	526	4%	675	703	6%	901
<b>County Total</b>	<b>46,977</b>	<b>54%</b>	<b>60,245</b>	<b>20,147</b>	<b>23%</b>	<b>25,834</b>	<b>3,990</b>	<b>5%</b>	<b>5,118</b>	<b>4,951</b>	<b>6%</b>	<b>6,351</b>	<b>10,353</b>	<b>12%</b>	<b>13,277</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA.

Note: The allocation in Table 11 may not add exactly to the forecasts shown in Table 7 as a result of rounding error.



## 1.4 LIMITATIONS OF THE FORECASTS

The forecasts presented in this memorandum are long-term forecasts and build from many assumptions about future growth. Appendix C describes limitations with forecasting growth in small areas, which includes Skagit County. In brief, Appendix C concludes that (1) forecasting growth requires a consideration of many variables that interact in complicated ways, and (2) any forecast of a single future is bound to be wrong – there are many possible futures that are more or less likely depending on one’s assessment of the likelihood of the assumptions. The longer the forecast, the greater the potential that actual employment growth will vary from the forecast. This implies that the County and cities should closely monitor actual growth so that either (1) plans can be modified to account for variations, or (2) policies can be implemented that increase the likelihood of achieving the population growth.

The limitations of the forecast presented in this memorandum include:

- The forecasts have a degree of uncertainty because they are for a long period (50-years) and for a small area (Skagit County and each of its UGAs). The disaggregation of the forecasts, from the County to the UGAs and from all employment to categories of employment (e.g., commercial or public administration), introduce increasing levels of uncertainty in the forecast.
- The forecasts do not account for plausible exogenous events, such as the location of a firm with 200 employees in a small UGA.
- The forecasts do not account for the economic development aspirations of the communities in Skagit County. For example, a city could have an aspiration to develop a cluster of food processors. Achieving these aspiration will require policies that support development of a food processing cluster. For example, a city that wants to develop a cluster of food processors would need to: (1) have suitable land for development of the processing plant, (2) provide necessary water and wastewater services, (3) have necessary transportation access and capacity, (4) have policies that allow food processing and related activities, and (5) have affordable, skilled workforce to provide labor.<sup>3</sup>

The forecasts presented in this memorandum could be refined to reflect other anticipated future conditions, anticipated changes in the availability of employment land, and policies and aspirations that may affect economic development in the cities within Skagit County.

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<sup>3</sup> These factors are necessary but not sufficient to developing a food processing cluster. Some other factors necessary to attract firms that would develop a food processing cluster include: access to agricultural products at competitive prices, access to markets for the food products, and competitive land, construction, and labor costs.

## APPENDIX A. SKAGIT COUNTY EMPLOYMENT FORECAST TO 2035

This appendix presents the forecast for Skagit County from 2009 to 2035 based on the forecast presented in the memorandum from ECONorthwest to SCOG "Employment Forecasts for Skagit and Island Counties for the 2009-2035," dated July 19, 2010. The main difference between the forecast presented in this appendix and the one presented in the July memorandum to the SCOG is that the July memorandum to the SCOG forecasted growth for employment located inside of TAZ. About 2,000 employees are located in areas of Skagit County outside of TAZ, located in the eastern part of the County.

### METHODS

The Skagit County employment forecast is based on ECO's evaluation of: (1) historical data from the U.S. Census for 2000 and 2009; (2) data from the Washington State Employment Security Department; and (3) existing planning documents. The economic analysis presented in this memorandum builds on a range of primary and secondary data sources:

- The U.S. Census of population and housing provides decennial population figures as well as a broad range of demographic and socioeconomic variables for 2000, and the U.S. Census' American Community Survey provides the same information for 2008;
- The Washington State Employment Security Department provides covered employment data for Skagit County and the U.S. Bureau of Economic Analysis provides total employment data for the County;
- U.S. Census Longitudinal Employer-Household Dynamics (LEHDs) data about employment in Skagit County by Census Tract;
- Other data sources, including the U.S. Bureau of Labor Statistics, which provides data about unemployment rates, and Washington Prospector, which provides community profiles and data about household expenditures.
- Skagit County adopted population and employment forecasts, which were documented in the report "Skagit County Population & Employment Allocation Final Report" from December 2003 by Berryman & Henigar Inc.;
- Skagit County's most recent economic development strategy, "Skagit County Comprehensive Economic Development Strategy (CEDS)" prepared in July 2003 by E.D. Hovee and Company

Developing the forecasts of employment required the following steps:

1. **Establish base employment for the projection.** We start with the estimate of covered employment for Skagit County based on the .S. Census Longitudinal

Employer-Household Dynamics (LEHDs) data about employment in Skagit County by Census Tract data. Covered employment does not include all workers, so we adjusted covered employment to reflect total employment in Skagit County. Employment by sector was summarized into employment categories provided by SCOG for the purposes of estimating travel demand by employment types.

2. **Forecast county-wide employment growth.** The projection of employment growth is based on: (1) the adopted forecast for employment growth in Skagit County for the 2000 to 2025 period; (2) the Washington Employment Department's regional forecast of growth by sector for the 2007 to 2017 period; and demographic and economic factors that may affect employment growth (summarized in Section 3 of this memorandum).

The remainder of this section presents the employment forecast for the Skagit County based on these steps.

## **ESTABLISH BASE EMPLOYMENT FOR THE PROJECTION**

A base year estimate of the number of total employees is needed to forecast employment growth. Covered employment does not include all employees, most notably sole proprietors.<sup>4</sup> ECO converted covered employment to total employment based on ratios of covered employment to total employment by sector. The base year for the employment forecast is 2009. Table A-1 shows ECO's estimate of total employment by sector in Skagit County in 2009 grouped into the categories needed for the trip generation model. Skagit County had about 61,765 employees in 2009.

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<sup>4</sup> Covered employment is employment that the State tracks because it is covered by unemployment insurance and reported. Total employment, which includes all employment, is tracked by the U.S. Bureau of Labor Statistics and is not available at the city level. Comparison of covered and total employment in Skagit County showed that covered employment was 73% of total employment in the County in 2007. Covered employment excludes sole proprietors and other workers not covered by unemployment insurance.

**Table A-1. Estimate of total employment, Skagit County, 2009**

Field Name	Sectors	Employees	Percent of Employees
AGEMP	Agriculture	2,348	4%
FORESTRY	Forestry	150	0%
MINING	Mining	75	0%
CONSTRUCTION	Construction	5,671	9%
MANUFACTURING	Manufacturing	6,343	10%
TPU	Transportation and Warehousing, Utilities, and Admin, Support, Waste Mgmt & Remediation Svcs	2,116	3%
WHOLESALE	Wholesale	1,254	2%
RETAIL	Retail, Arts and Entertainment, and Food Services and Accomodations	14,450	23%
FIRES	Finance, Insurance, Real Estate, Professional Services, and Management of Companies	7,705	12%
SCHOOL	Public Education	3,404	6%
HEALTH	Health Care & Social Assistance	5,402	9%
OTHERSERVICES	Information, Private Education, and Other Services	4,888	8%
PUBLICADMIN	Public Administration	7,959	13%
<b>All Employees</b>		<b>61,765</b>	<b>100%</b>

Source: Total employment estimate by ECONorthwest based on covered employment estimate from Census LEHDS data.

## FORECAST COUNTY-WIDE EMPLOYMENT GROWTH

Table A-2 shows the adopted employment forecast by land use type in Skagit County for 2000 to 2025 from the report "Skagit County Population & Employment Allocation Final Report."<sup>5</sup> The forecast projects employment to grow in Skagit County by about 12,071 employees, an increase of 20% at an average annual rate of 0.74%.

**Table A-2. Employment forecast by land use type, Skagit County, 2000 to 2025**

Land Use Type	2000 Employees		2025 Employees		Change 2000 to 2025		
	Employees	Percent	Employees	Percent	Employees	Percent Change	Share
Commercial	30,317	51%	24,952	35%	(5,365)	-18%	-16%
Industrial	15,025	25%	15,540	22%	515	3%	-4%
Natural Resource	1,184	2%	3,770	5%	2,586	218%	3%
Agriculture	1,084	2%	2,610	4%	1,526	141%	2%
Public / Institutional	8,833	15%	18,227	26%	9,394	106%	11%
Covered	56,443	95%	65,099	91%	8,656	15%	-4%
Self-Employment	2,876	5%	6,290	9%	3,414	119%	4%
<b>Total Employment</b>	<b>59,319</b>	<b>100%</b>	<b>71,389</b>	<b>100%</b>	<b>12,070</b>	<b>20%</b>	

Source: 2000-2025 Berryman & Henigar Inc., Skagit County Population & Employment Allocation Final Report

Notes: 2000 employment is based on Table 4 in the Skagit County Population & Employment Allocation Final Report and 2025 employment is based on Table A-1 in the same report.

Self-employment refers to farm employment in the Skagit County Population & Employment Allocation Final Report

<sup>5</sup> The "Skagit County Population & Employment Allocation Final Report" does not describe what industries are included in the land use types shown in Table 2. We assumed that "commercial" includes retail trade, FIRE, and all other types of services. We assumed that "industrial" includes construction, transportation and public utilities, and wholesale trade. We assumed that "natural resource" and "agriculture" include agricultural services and forestry and mining. We assumed that "public/institutional" include government employment.

Share refers to the change in the percent of total. For example, commercial employment decreases from 51% in 2000 to 35% in 2025, a share change of negative 16%.

The employment forecast in Table A-2 shows that public/institutional employment will grow from 15% of employment in 2000 to 26% of employment in 2025, an increase of more than 9,000 employees. The forecast also shows that commercial employment will decrease from 51% of employment in 2000 to 35% of employment in 2025, a decrease of more than 5,000 employees. This assumption about the change in the overall composition of the County's employment seems difficult to justify, given that government employment typically grows with population growth and that school employment, which accounts for a large share of government employment, changes based on the number of school-aged children in the County. In addition, commercial employment accounted for 58% of employment growth in Skagit County between 2001 and 2008.

Table A- 3 shows the employment forecast by sector for Skagit County between 2009 and 2035. ECO projects that employment in Skagit County will grow by about 12,700 employees, an increase of 21% at an average annual growth rate of 0.7%. The employment forecast in Table A-3 is based on the following assumptions:

- **Growth rate.** The employment forecast for Skagit County for 2009 to 2035 uses the growth rate assumption from the adopted forecast, 0.7% average annual growth rate (AAGR). This growth rate is relatively low and it is possible that other growth rates may be appropriate. For example, Skagit County's total employment grew at an average annual growth rate of 2.1% between 2001 and 2007 and the Washington Employment Department forecasts that employment will grow by 1.1% between 2007 and 2017 in the Northwest area (which includes the following counties: Skagit, Island, San Juan, and Whatcom).

We used this growth rate for several reasons: (1) it is the County's adopted growth rate for employment growth through 2025; (2) the growth preference in the County seems to be for moderate or slow growth; (3) and the availability of labor may cause employment growth to slow in Skagit County.

- **Mix of industries.** The employment forecast in Table A-2 projects shifts in the composition of Skagit County's economy. The most notable changes are: (1) a 16% decrease in the share of employees in Commercial industries from 51% of employees in 2000 to 35% of employees in 2025 and (2) an increase in an 11% increase in the share of Public/Institutional employees from 15% of employees in 2000 to 26% of employees in 2025.<sup>6</sup>

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<sup>6</sup> For context, The Washington Employment Department forecasts employment growth in Island, Skagit, San Juan, and Whatcom Counties. Their forecast projects that government employment have more modest growth, increasing from 21% of employment in 2007 to 22% of employment in 2017, an increase of 5,400 employees.

The forecast in Table A-3 makes different assumptions about the future mix of industries. Table A-3 assumes that most industries will maintain the share of employment by sector in 2035 as they had in 2009. For example, Table A-3 assumes that agricultural employment will account for 4% of all employment in 2035, which is the same share of employment in agriculture in 2009.

The most significant difference between the forecast in Tables 2 and 3 is that the forecast in Table A-3 assumed that public administration and schools would maintain their current share of employment (about 19%), compared with an 11% increase in the share of employment shown in Table A-2. Conversely, we assumed that the share of commercial employment<sup>7</sup> would increase from 58% of employment to 59% of employment, with the majority of the increase occurring in health services. The adopted forecast in Table A-2 shows the share of commercial employment decreasing by 18%. ECO's rationale for this assumption includes:

- Employment in public administration or schools will grow with population growth. We see no evidence that employment in public administration will grow faster than population; employment at schools is dependent on household characteristics and the county's age structure. Population is forecast to grow at about 1.5% annually, increasing by nearly 30,000 people between 2010 and 2035. The State forecasts that the largest growth will be in people aged 60 years and older. Growth in the senior population may result in increases in government employment for services for seniors. The State forecasts slower growth in school-aged children, resulting in less growth in employment in schools.
- Growth in employment in some commercial services is also related to growth in population. The forecast shows growth of about 8,500 employees in commercial services, with the largest growth in health services (2,597 employees) and retail (2,546 employees). The forecast projects that health services will have the fastest growth rate in Skagit County (1.5% average annual growth) because of projected growth in people 60 years and older, the age group that typically requires the most health services.

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<sup>7</sup> Commercial employment includes the following categories of industries: Retail, FIRES, Health, and Other Services.

**Table A-3. Employment forecast by sector grouping, Skagit County, 2009 to 2035**

Field Name	2009		2035		Change 2009 to 2035			
	Emp.	Percent of Total	Emp.	Percent of Total	Emp.	Percent Change	AAGR	Share
AGEMP	2,348	4%	3,105	4%	757	32%	1.1%	0.3%
FORESTRY	150	0%	199	0%	49	33%	1.1%	0.0%
MINING	75	0%	99	0%	24	32%	1.1%	0.0%
CONSTRUCTION	5,671	9%	6,398	9%	727	13%	0.5%	-0.6%
MANUFACTURING	6,343	10%	6,764	9%	421	7%	0.2%	-1.2%
TPU	2,116	3%	2,808	4%	692	33%	1.1%	0.3%
WHOLESALE	1,254	2%	1,554	2%	300	24%	0.8%	0.0%
RETAIL	14,450	23%	16,996	23%	2,546	18%	0.6%	-0.7%
FIRES	7,705	12%	9,310	12%	1,605	21%	0.7%	0.0%
SCHOOL	3,404	6%	4,209	6%	805	24%	0.8%	0.1%
HEALTH	5,402	9%	7,999	11%	2,597	48%	1.5%	1.9%
OTHERSERVICES	4,888	8%	5,871	8%	983	20%	0.7%	-0.1%
PUBLICADMIN	7,959	13%	9,575	13%	1,616	20%	0.7%	-0.1%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>13,122</b>	<b>21%</b>	<b>0.7%</b>	<b>0.0%</b>

Source: ECONorthwest

Note: AAGR is average annual growth rate

Green shaded areas indicate assumptions in the forecast.

The last step in the forecast is to allocate employment in UGAs within the County. The methodology used to allocate employment within the County is described in a separate memorandum. The key factors in the allocation were:

- **Existing employment.** TAZ with existing employment were allocated additional employment in 2035. Employment was allocated based on the amount of employment in 2009 by sector and overall forecast growth in the sector.
- **Development capacity.** This factor considered the availability of vacant land designated for employment and expected employment density.

Table A-4 presents the employment forecast UGA for employment growth between 2009 and 2035.

**Table A-4. Employment forecast by UGA, Skagit County, 2009 to 2035**

	2009		2035 Projection	Change 2009 to 2035		
	Employment	Share		Number	Percent Change	AAGR
Anacortes	9,546	15%	11,447	1,900	20%	0.7%
Bayview Ridge	1,768	3%	2,045	277	16%	0.6%
Burlington	11,328	18%	13,581	2,252	20%	0.7%
Hamilton	204	0%	225	21	10%	0.4%
La Conner	628	1%	733	105	17%	0.6%
Lyman	138	0%	160	22	16%	0.6%
Mount Vernon	22,453	36%	27,835	5,382	24%	0.8%
Sedro-Woolley	4,876	8%	5,989	1,113	23%	0.8%
Swinomish	1,813	3%	2,165	352	19%	0.7%
Rural	9,010	15%	10,708	1,698	19%	0.7%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>13,122</b>	<b>21%</b>	<b>0.7%</b>

Source: ECONorthwest  
 Note: AAGR is average annual growth rate.

Table A-5 presents the employment forecast for 2035 by sector and UGA.

**Table A-5 Employment forecast by sector grouping and UGA, Skagit County, 2035**

	FOR- AGEMP	ESTRY	MINING	CONSTR- UCTION	MANUFACT- URING	WHOLE- TPU	SALE	RETAIL	FIRES	SCHOOL	HEALTH	OTHER SERVICES	PUBLIC ADMIN	TOTAL
Anacortes	39	2	2	863	2,517	325	96	2,337	1,496	562	1,314	917	977	11,447
Bayview Ridge	94	6	0	111	1,074	295	49	54	347	0	0	11	4	2,045
Burlington	291	19	0	1,050	995	528	373	4,795	2,672	604	521	1,053	680	13,581
Hamilton	2	0	0	0	200	0	0	10	0	0	0	13	0	225
La Conner	0	0	0	7	163	0	6	122	30	179	47	6	173	733
Lyman	14	1	0	10	51	20	0	43	3	0	0	2	16	160
Mount Vernon	873	56	22	2,262	645	1,044	640	4,901	3,541	1,404	4,897	2,593	4,957	27,835
Sedro-Woolley	41	3	0	134	628	38	74	831	476	992	1,161	659	952	5,989
Swinomish	9	1	0	79	127	12	15	513	30	0	20	168	1,191	2,165
Rural	1,742	111	75	1,882	364	546	301	3,390	715	468	39	450	625	10,708
<b>Total</b>	<b>3,105</b>	<b>199</b>	<b>99</b>	<b>6,398</b>	<b>6,764</b>	<b>2,808</b>	<b>1,554</b>	<b>16,996</b>	<b>9,310</b>	<b>4,209</b>	<b>7,999</b>	<b>5,872</b>	<b>9,575</b>	<b>74,887</b>

Source: ECONorthwest  
 Note: Manufacturing employment in Hamilton reflects a quality assurance change made by County staff, adding 200 employees to Hamilton, which is different from the forecast presented in the July 2010 forecast developed for SCOG.



## APPENDIX B. FACTUAL BASIS FOR THE 2009 TO 2035 EMPLOYMENT FORECAST

This section presents the factual basis for the Skagit County employment forecast for the 2010 to 2035 period. The information presented in this appendix is taken from the memorandum: "Employment Forecasts for Skagit and Island Counties for the 2009-2035," dated July 19, 2010. It begins with a summary of competitive advantage in Skagit County and presents historical socioeconomic, demographic, and economic trends that may affect employment growth in Skagit County. Several sections of this appendix present data for both Island and Skagit County, rather than removing information about Island County. This appendix includes the following topics:

- Summary of the context for employment growth in Skagit County
- Competitive advantage in Skagit County
- Socioeconomic and demographic trends

### SUMMARY OF THE CONTEXT FOR EMPLOYMENT GROWTH IN SKAGIT COUNTY

Forecasting changes in employment requires considering the context for employment growth, such as regional and local changes in the composition of the economy or demographic changes that may affect employment growth. These trends are most useful for forecasting employment growth over the next 5 to 20 years. A longer-term forecast, such as the 50 year forecast presented in this memorandum, will be less directly affected by recent and current employment and demographic trends.

This section presents a summary of the current and recent trends socioeconomic, demographic, and economic trends that may affect employment growth in the County. A review of these factors can help identify potential growth industries in Skagit County. In other words, economic opportunities in the County is a function of regional historical trends and future economic shifts. These trends are discussed in greater detail later in this appendix.

The summary below describes these trends and how they may affect employment growth in Skagit County. We considered the affect that these trends may have on employment growth in the County, as described below.

- **Growing population.** Skagit County has a growing population. Over the 1990 to 2008 period, Skagit County added nearly 38,000 people and the County's population is forecast to by nearly 70,000 people over the 2000 to 2035 period, with most growth concentrated in urban areas.

The growth of population will provide labor for businesses that relocate or grow within the County. The population growth will also drive growth in services, such as retail, education, financial, real estate, and health care.

- **Aging population.** Consistent with national trends, Skagit County has an aging population. Between 1990 and 2008, the share of population 60 years and older increased by 1% in Skagit County. The OFM's projection for population growth shows the trend continuing between 2010 and 2030, with the share of population 60 years and older increasing by 18% in Skagit County.

The aging of the population will affect the economy of Skagit County. The housing needs of retirees are different from the needs of families with children, with retirees needing less space than families with children. An increasing share of retirees (especially younger retirees) are choosing to age in place, meaning that they prefer to continue to live in their home community, even if they downsize their home. Growth in the population of retirees will drive growth in services geared towards retirees, such as health care or recreational opportunities.

The relatively modest growth forecasts for school-aged children in the County has implications for government employment growth, suggesting that growth in school employment will be relatively modest over the 20 year period.

- **Labor availability.** Businesses typically consider the availability and quality of the workforce when deciding where to locate or expand. The presence of a skilled workforce may be attractive to businesses that depend heavily on labor, such as service industries.

One measure of labor availability is workforce participation. Skagit County has lower workforce participation than the State average. Sixty-two percent of Skagit County's population participated in the workforce, compared to the State average of 67% workforce participation. Labor force participation trends since 2000 suggest that people are continuing to work until they are older. Skagit County had a larger share of people in the workforce in 2008 who were 65 years and older, compared with labor force participation in 2000.

The key question that will affect labor availability over the next 25 years is about the effect that the aging population will have on worker availability. Recent trends suggest that a growing share of people will continue to work past the traditional retirement age. Labor force participation, however, drops to below 10% for people 75 years and older, an age group that is expected to grow substantially over the next 25 years. While labor force participation for people 65 years and older has increased, workers in this age group account for about 5% of the workforce.

The growing share of people over 60 years old, especially those over 70 years old, may affect future availability of workers. In addition, Skagit County's lower average educational attainment suggests that the County has a smaller share of educated, skilled workers than the State average.

- **Commuting patterns.** Commuting is one way that businesses can get access to skilled workers. Most of Skagit County's workers live within the County, with

two-thirds of the County's residents employed at businesses within the County. Employment in Skagit County is concentrated in communities located along Interstate 5. Businesses in Skagit County have access to workers in the northern Puget Sound Region.

Commuting patterns in Skagit County may be affected by potential lack of available skilled workers in the County, resulting from the aging of the population. Businesses may attract more workers from outside of the County to fill existing jobs.

- **Employment trends.** The number of jobs in Skagit County increased by about 10% over the 2001 to 2008 period. The sectors with the largest growth in the County was: Government, Retail Trade, and Health Care and Social Assistance. These are also the sectors that the Washington State Employment Security Department forecast as having the greatest growth potential for the 2007 to 2017 period.

## COMPETITIVE ADVANTAGE IN SKAGIT COUNTY

Each economic region has different combinations of productive factors: land (and natural resources), labor (including technological expertise), and capital (investments in infrastructure, technology, and public services). While all areas have these factors to some degree, the mix and condition of these factors vary. The mix and condition of productive factors may allow firms in a region to produce goods and services more cheaply, or to generate more revenue, than firms in other regions.

The mix of productive factors present in Skagit County, relative to other regions in the Pacific Northwest, are the foundation of the county's competitive advantage. Local economic factors will help determine the amount and type of development in Skagit County relative to other counties in Washington and regions within the Pacific Northwest. Competitive advantages in Skagit County are: its quality of life, access to I-5 for automotive and freight movement, the concentration of population and employment within its urban areas, and access to high-quality natural resources,

The subsequent sections reports industries that have shown growth and business activity in Skagit County over the past few years. These industries are indicative of businesses that might locate or expand in the County. When developing the employment forecasts for Skagit County, we considered what mix of employment growth would most likely occur in the County over the 2010 to 2035 period. We concluded that the types of employment most likely to grow in the County over the next 25 years include:

- **Health care.** One of the fastest growing industries in the U.S. is health care. Growth in health care will range from growth in in-home health care to doctors' offices to large institutional facilities. Areas with large populations of retirees,

which Skagit County has to some extent, are areas where health care is likely to grow fastest.

- **Professional and business services.** Firms that provide professional and business services typically prefer to locate in areas with high amenity and high quality of life. Firms that have flexibility in where they locate (because they do not need direct access to their clients or materials) may choose to locate either in urban areas or in relatively rural parts of Skagit County. Firms that provide business services may prefer to locate in urban areas, especially in urban areas along I-5 in Skagit County.
- **Warehousing and transportation and Wholesaling.** The access to I-5 through Skagit County may attract firms involved in warehousing and transportation or wholesaling. These firms generally prefer to locate in an area with easy access to an interstate and/or rail lines and prefer comparatively inexpensive land at the fringe of an urban area or in a rural area.
- **Services for seniors.** The growth of people 60 years and older creates opportunities for businesses that provide services to seniors, such as health care for seniors or recreation targeted at seniors. Another opportunity is for construction and operation of housing for seniors, including single-family units, quality multifamily units, active adult retirement communities, assisted living facilities, and nursing homes.
- **Services for residents.** As population grows in the County, demand for services will grow. These services include: a variety of retailers, financial services like banks, real estate services, restaurants, health care, and repair services. Population growth will also lead to growth in government services, especially education.
- **Manufacturing.** The types of manufacturing businesses likely to locate in Skagit County are those that need easy access to transportation, a comparatively less expensive workforce, and a semi-rural setting with proximity to agriculture. Examples include: food processing, alternative energy producers (e.g. biodiesel or ethanol production), recreation equipment manufacturing, and other specialty manufacturing.

## SOCIOECONOMIC AND DEMOGRAPHIC TRENDS

This section presents socioeconomic and demographic trends that may affect employment growth in Skagit County.

### Population and demographic trends

Table B-1 shows historical population change in Skagit County and Urban Growth Areas (UGAs) within the County. Population in Skagit County grew by nearly 38,000 people over the 1990 to 2008 period, an increase of 48% at an average annual growth rate (AAGR) of 2.2%. Since 2000, population growth in Skagit County slowed to 1.7% average annual growth, with population increasing by 14% over the eight-year period.

More than two-thirds of population growth in the County located in urban areas over the 18 year period. The UGAs with the most growth between 1990 and 2008 were Mount Vernon, which grew by about 12,500 people at an average annual rate of 3.0%, and Anacortes, which grew by nearly 5,200 people at an average annual rate of 2.1%.

**Table B-1. Population change, Skagit County and urban areas, 1990, 2000, and 2008**

	1990	2000	2008	Change 1990-2008			Change 2000 to 2008		
				Number	Percent	AAGR	Number	Percent	AAGR
<b>Skagit County</b>	<b>79,555</b>	<b>102,979</b>	<b>117,500</b>	<b>37,945</b>	<b>48%</b>	<b>2.2%</b>	<b>14,521</b>	<b>14%</b>	<b>1.7%</b>
Anacortes	11,451	14,557	16,640	5,189	45%	2.1%	2,083	14%	1.7%
Burlington	4,349	6,757	8,460	4,111	95%	3.8%	1,703	25%	2.8%
Concrete	735	790	845	110	15%	0.8%	55	7%	0.8%
Hamilton	228	309	325	97	43%	2.0%	16	5%	0.6%
La Conner	656	761	885	229	35%	1.7%	124	16%	1.9%
Lyman	275	409	445	170	62%	2.7%	36	9%	1.1%
Mount Vernon	17,647	26,232	30,150	12,503	71%	3.0%	3,918	15%	1.8%
Sedro-Woolley	6,031	8,658	10,030	3,999	66%	2.9%	1,372	16%	1.9%
Total in UGAs	41,372	58,473	67,780	26,408	64%	2.8%	9,307	16%	1.9%
Total Unincorporated	38,183	44,506	49,720	11,537	30%	1.5%	5,214	12%	1.4%

Source: U.S. Census 1990 and Washington Office of Financial Management: <http://www.ofm.wa.gov/pop/april1/finalpop2009.xls>

Note: AAGR is average annual growth rate

Skagit County went through a local process to forecast future population growth and adopted a forecast of population growth for the County the 2000 to 2025 period. Skagit County's forecast allocates population growth to each of the County's UGAs. The County's forecast is described in the document *Skagit County Population & Employment Allocation Final Report*, dated December 2003. The County is in the process of developing long-term population growth scenarios that extend to 2060 through the *Skagit Alternative Futures projects*.

Table B-2 shows the population forecast for Skagit County for the 2025 to 2035 period. The forecast of population to 2025 is from the County's adopted forecast. As part of the process of updating the Metropolitan and Regional Transportation Plan (M/RTP), ECO extrapolated the County's 2025 forecast to 2035, using the same assumptions about the rate of growth and the allocation of that growth to UGAs within the County.

The 2035 projection (highlighted in green) is ECO's projection of Skagit County's population in 2035 based on the growth assumptions from the County's adopted forecast. Table 8 shows that the County will add nearly 23,800 people over the 2025 to 2035 period. Nearly 90% of the new population will locate within a UGA. More than half of the new population (about 13,000 people) will locate in Mount Vernon.

**Table B-2. Population forecast, Skagit County and UGAs, 2025 to 2035**

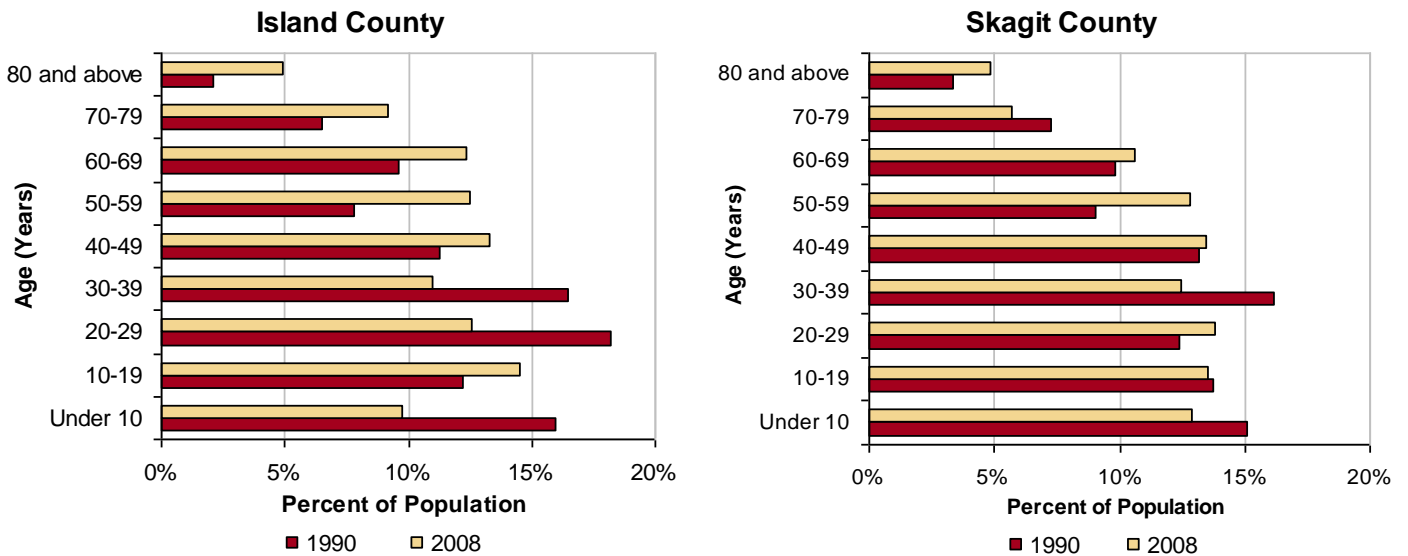
	Adopted Forecast			Change 2025 to 2035		
	2025 Population	2000 to 2025 Growth Rates	2035 Projection	Number	Percent Change	AAGR
Anacortes	18,300	0.9%	20,054	1,754	10%	0.9%
Burlington	12,000	1.4%	13,801	1,801	15%	1.4%
Concrete	1,350	2.2%	1,673	323	24%	2.2%
Hamilton	450	1.5%	523	73	16%	1.5%
La Conner	950	0.9%	1,038	88	9%	0.9%
Lyman	550	1.2%	619	69	13%	1.2%
Mount Vernon	47,900	2.4%	60,945	13,045	27%	2.4%
Sedro-Woolley	15,000	2.2%	18,688	3,688	25%	2.2%
Swinomish	3,650	1.3%	4,140	490	13%	1.3%
Bayview	5,600	4.9%	9,022	3,422	61%	4.9%
Total UGAs	105,750	2.0%	130,503	24,753	23%	2.1%
Total unincorporated	43,330	0.5%	42,354	(976)	-2%	-0.2%
<b>Total County</b>	<b>149,080</b>	<b>1.5%</b>	<b>172,857</b>	<b>23,777</b>	<b>16%</b>	<b>1.5%</b>

Source: 2025 forecast from: *Skagit County Population & Employment Allocation Final Report*, Berryman & Henigar Inc, December 2003; 2035 forecast by ECONorthwest

Note: The column highlighted in green shows the projection for population growth in 2035.

Figure B-1 shows change in the age structure in Island and Skagit Counties between 1990 and 2008. Both Counties had a change in the age structure, with a smaller share of population under 9 years old and a larger share of population 50 years and older. Over the 18 year period, Island County's share of population 60 years and older increased from 18% in 1990 to 26% in 2008, an increase of 8%. The change in share of population 60 years and older was smaller in Skagit County, increasing from 20% in 1990 to 21% in 2008, an increase of 1%.

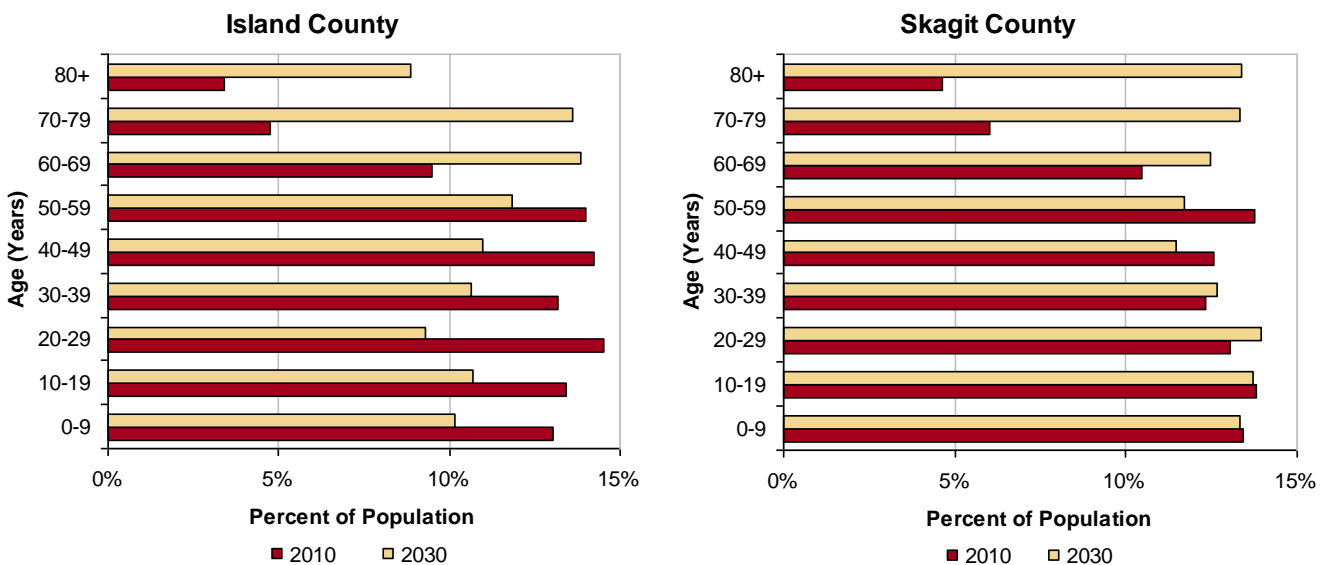
**Figure B-1. Change in age structure, Island and Skagit Counties, 1990 and 2008**



Source: U.S. Census: 1990 Decennial Census and 2008 American Community Survey

The Washington State Office of Financial Management (OFM) projects growth by county, including changes in the age structure. Figure B-2 shows the OFM’s projection for change in age structure in Island and Skagit Counties over the 2010 to 2030 period. The forecast shows that the fastest growing age group will be people 60 years and older. The share of people 60 years and older is projected to increase from 18% in Island County in 2010 to 36% in 2030. In Skagit County, the share of people 60 years and older is projected to increase from 21% in 2010 to 39% in 2030.

**Figure B-2. Forecast of Change in age structure, Island and Skagit Counties, 2010 to 2030**



Source: U.S. Census: Washington Office of Financial Management; Medium Forecast, 2007

The changes in age structure in Figure B-2 are consistent with State and national trends. The growing share of people over 60 years old may affect future availability of workers, especially in Island County. A lack of workers may negatively impact economic growth, especially if business are unable to find skilled workers.

Figure B-2 shows that the share of school-aged children will decrease in Island County and stay flat in Skagit County. The State forecasts that over the 20 year period, Island County will have growth of about 2,300 additional children aged 19 and younger, a decrease from 26% of all population in 2010 to 21% in 2030. The State forecasts that over the 20 year period, Skagit County will have growth of about 14,800 additional children aged 19 and younger, holding steady at 27% of all population over the 20 year period. The relatively modest growth in school-aged children in both Counties has implications for government employment growth, suggesting that growth in school employment will be relatively modest over the 20 year period.

## Labor market

The current labor force participation rate is an important consideration in the availability of labor. The labor force in any market consists of the adult population (16 and over) who are working or actively seeking work. The labor force includes both the employed and unemployed. Children, retirees, students, and people who are not actively seeking work are not considered part of the labor force.

Table B-3 shows workforce participation in Washington, Island County, and Skagit County in 2008. Island and Skagit County have lower workforce participation than the State average. Workforce participation for population 16 years and older in Island County was 60% and 62% in Skagit County, compared with the State average of 67%. The lower workforce participation may be a reflection of an older population, especially in Island County.

**Table B-3. Workforce participation, population 16 years and older, Washington, Island County, and Skagit County, 2008**

Labor Force Status	Washington		Island County		Skagit County	
	Number	Percent	Number	Percent	Number	Percent
In Labor Force	3,474,972	67%	39,380	60%	58,069	62%
Employed	3,219,312	62%	30,923	47%	55,417	59%
Unemployed	192,443	4%	1,827	3%	1,829	2%
In Armed Forces	63,217	1%	6,630	10%	823	1%
Not in Labor Force	1,712,563	33%	26,636	40%	35,675	38%
<b>Population 16+</b>	<b>5,187,535</b>	<b>100%</b>	<b>66,016</b>	<b>100%</b>	<b>93,744</b>	<b>100%</b>

Source: 2008 American Community Survey

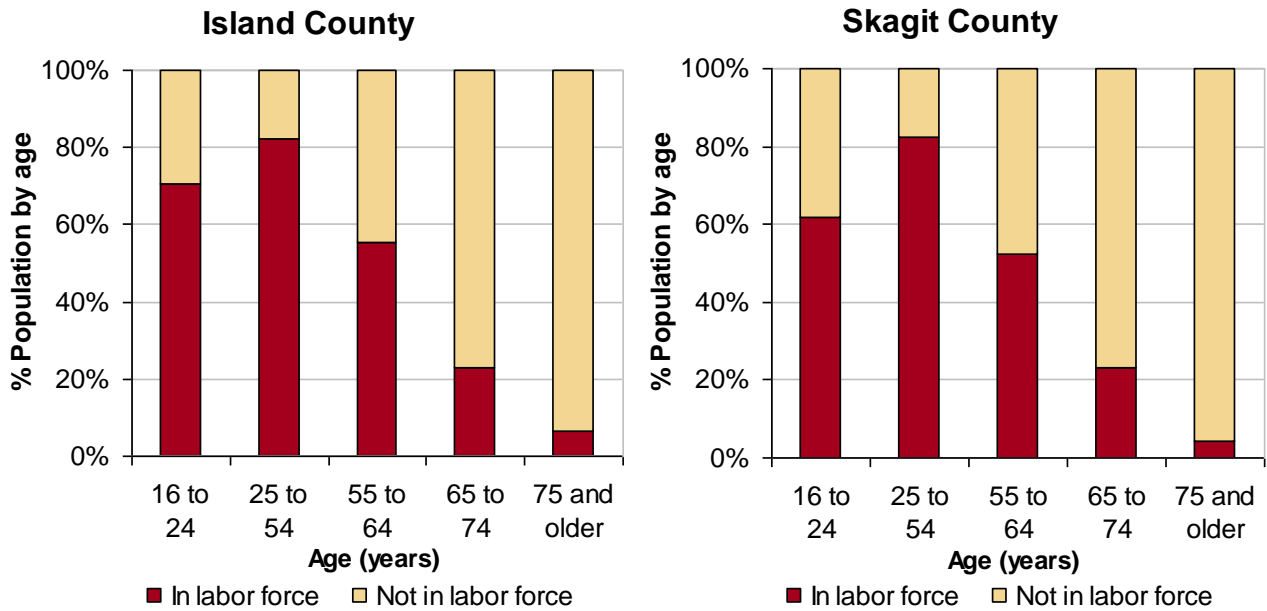
The age of the workforce may affect the future availability of workers, especially in light of the changes in the age structure as the baby-boomers grow older. The majority of the workforce is between the ages of 16 and 64 years old. About two-thirds of the



workforce in the two counties is between 25 and 54 years old. Workers 65 years and older account for about 5% of the workforce in both counties.

Figure B-3 shows labor force participation by age in Island and Skagit Counties in 2008. Labor force participation is higher for workers between 16 and 64 years old and is highest for workers 25 to 54 years old. The labor force participation rate drops to nearly 20% for 65 to 74 year olds and less than 7% for workers 75 years and older. The labor force participation rates are similar for the two counties. Island County has a higher labor force participation rate for workers 16 to 24 years and Skagit County has higher labor force participation rate for workers 55 to 64 and 75 years and older.

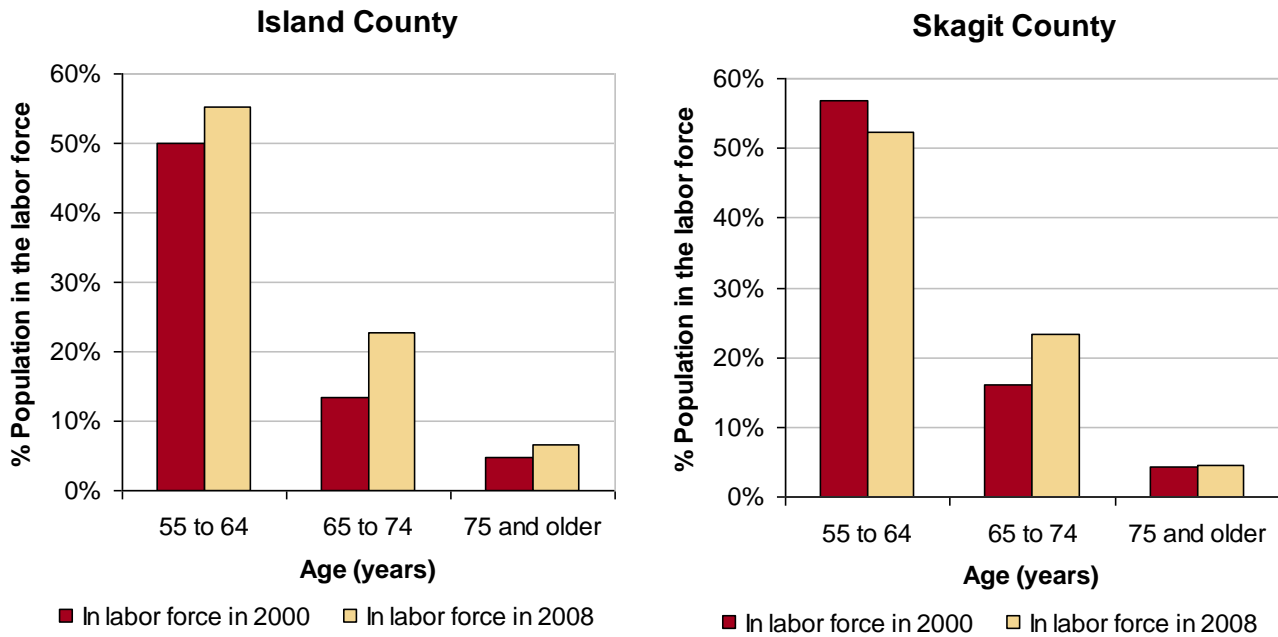
**Figure B-3. Labor force participation by age, Island and Skagit Counties, 2008**



Source: 2008 American Community Survey

One of the key factors that will affect the availability of workers in the future is whether workers who reach traditional retirement ages will continue to work until later in life. Figure B-4 shows the change in labor force participation for workers 55 years and older between 2000 and 2008. Workers in Island County have continued working until they are older, with a larger share of people 55 years and older participating in the labor force in 2008 compared with 2000. In Skagit County, the labor force participation rate increased over the 8 year period for workers 65 years and older but decreased for workers 55 to 64 years. Although labor force participation increased for workers 65 and older, workers in this age group accounted for less than 5% of the workforce in 2008.

**Figure B-4. Change in labor force participation for workers 55 years and older, Island and Skagit Counties, 2000 and 2008**

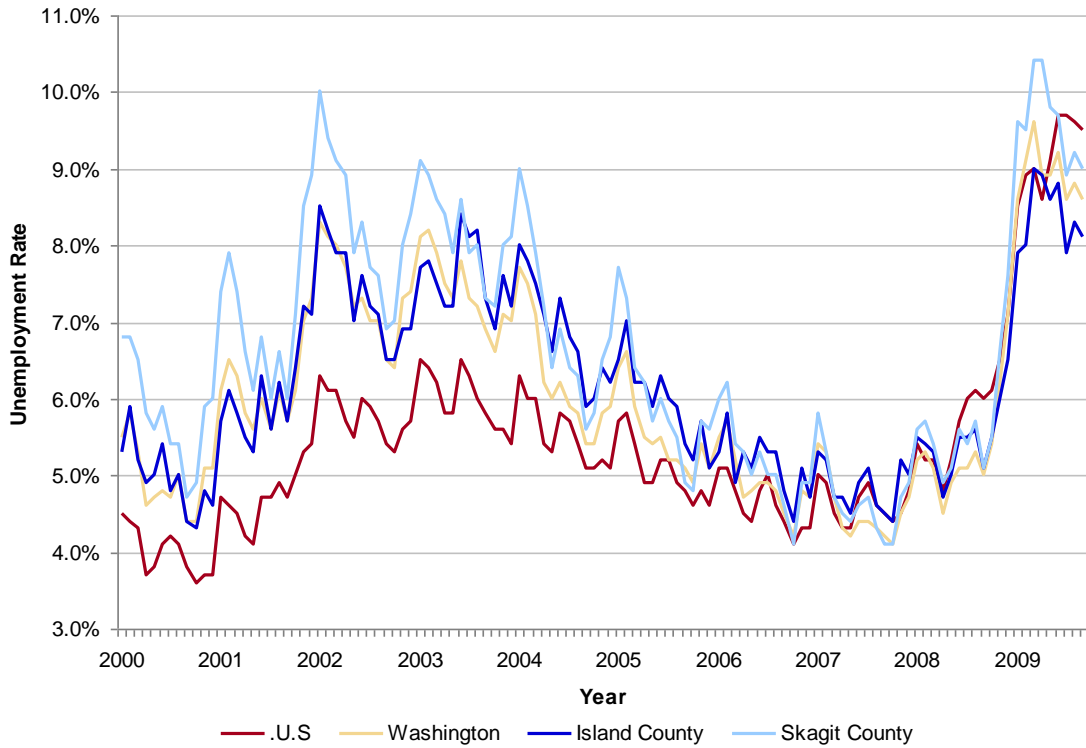


Source: 2008 American Community Survey

Labor force participation rates are likely to decrease in Island and Skagit Counties by 2035, assuming that labor force participation by people over 65 years do not substantially increase by 2035. In 2008, people 65 years and older accounted for approximately 10% of the labor force in both Counties. People aged 65 years and older accounted 12% of Island County’s population and 15% of Skagit County’s population in 2010. By 2030, the State forecasts that people 65 years and older are will account for 30% of Island County’s population and 20% of Skagit County’s population.

The unemployment rate is one indicator of local economic conditions and reflects the relative number of workers who are actively seeking employment. Figure B-5 shows the unemployment rate in the U.S., Washington, Island County, and Skagit County from January 2000 to September 2009. The unemployment rates in Island and Skagit Counties have generally been higher than the State and national average. In general, Skagit County’s unemployment rate is higher than the rate in Island County or the State average. The unemployment rate in September 2009 was 8.1% in Island County and 9.0% in Skagit County, compared to the State average of 8.6% and the national average of 9.5%.

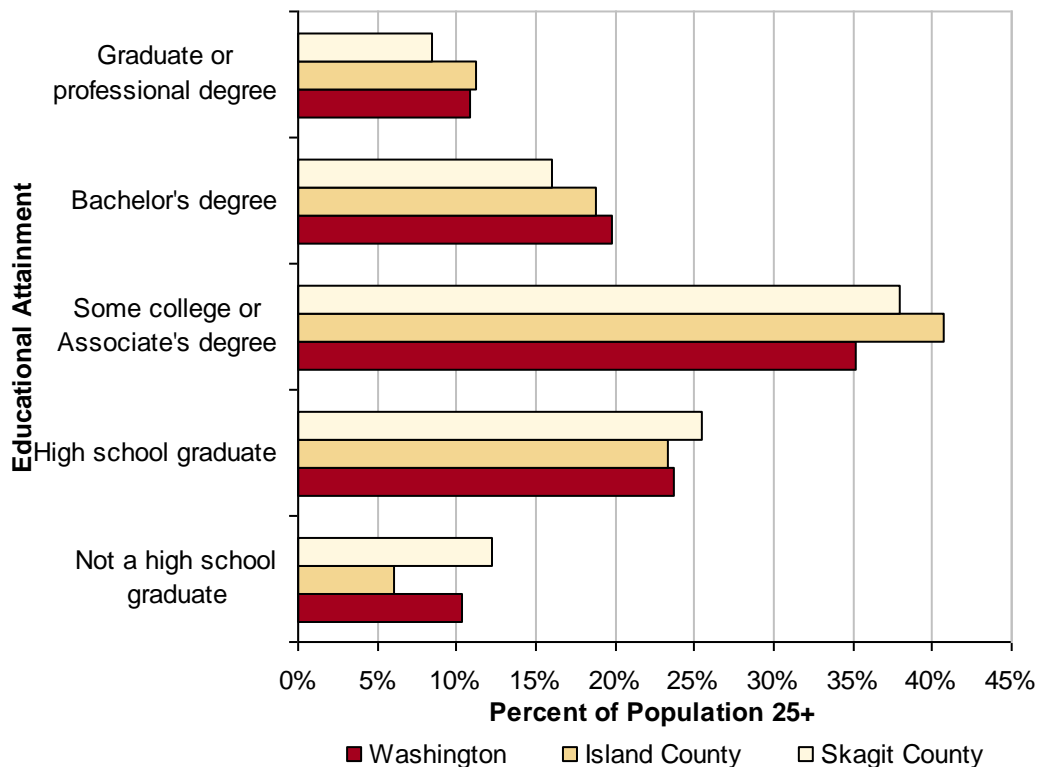
**Figure B-5. Unemployment rate, U.S., Washington, Island County, and Skagit County, January 2000 to September 2009**



Source: Bureau of Labor Statistics, <http://data.bls.gov/PDQ/outside.jsp?survey=ln>  
<http://data.bls.gov/PDQ/outside.jsp?survey=la>

Figure B-6 shows educational attainment for people 25 years and older in Washington, Island County, and Skagit County in 2008. About 30% of Island County’s population and 24% of Skagit County’s population had a Bachelor’s degree or higher, compared with 31% of all State residents.

**Figure B-6. Educational attainment, population 25 years and older, Washington, Island County, and Skagit County, 2008**



Source: 2008 American Community Survey

The information presented in this section suggests that the aging of the population may result in workforce shortages in the future. Workforce participation has historically been lower in Skagit and Island Counties than the State average. The State forecasts the greatest growth in people 60 years and older. Work force participation drops below 20% for people 65 years and older, with less than 10% of people 75 years and older in the workforce.

## Commuting Patterns

Tables B-4 and B-5 and Figures B-7 and B-8 show commuting patterns for Skagit County. Workers of firms located in Skagit County were likely to live and work within the County. Table B-4 shows that 65% of Skagit County workers at firms located in the County also lived in the County. Workplaces are located throughout the County, with the largest concentration in Mount Vernon (17% of workers) and Anacortes (9% of workers).

**Table B-4. Place of residence for workers employed by a firm located in Skagit County, 2006**

Location	Number	Percent
Skagit County	26,709	65%
Mount Vernon	7,086	17%
Anacortes	3,653	9%
Sedro-Woolley	2,533	6%
Burlington	2,031	5%
Snohomish County	3,754	9%
Whatcom County	3,538	9%
Bellingham	1,710	4%
Island County	2,345	6%
Oak Harbor	731	2%
All other locations	4,537	11%
<b>Total</b>	<b>40,883</b>	<b>100%</b>

Source: U.S. Census OnTheMap. <http://lehdmap3.did.census.gov/themap3/>

Table B-5 shows that 62% of residents of Skagit County worked for firms located within Skagit County. In addition, 13% of residents of Skagit County worked in King County and 11% in Snohomish County.

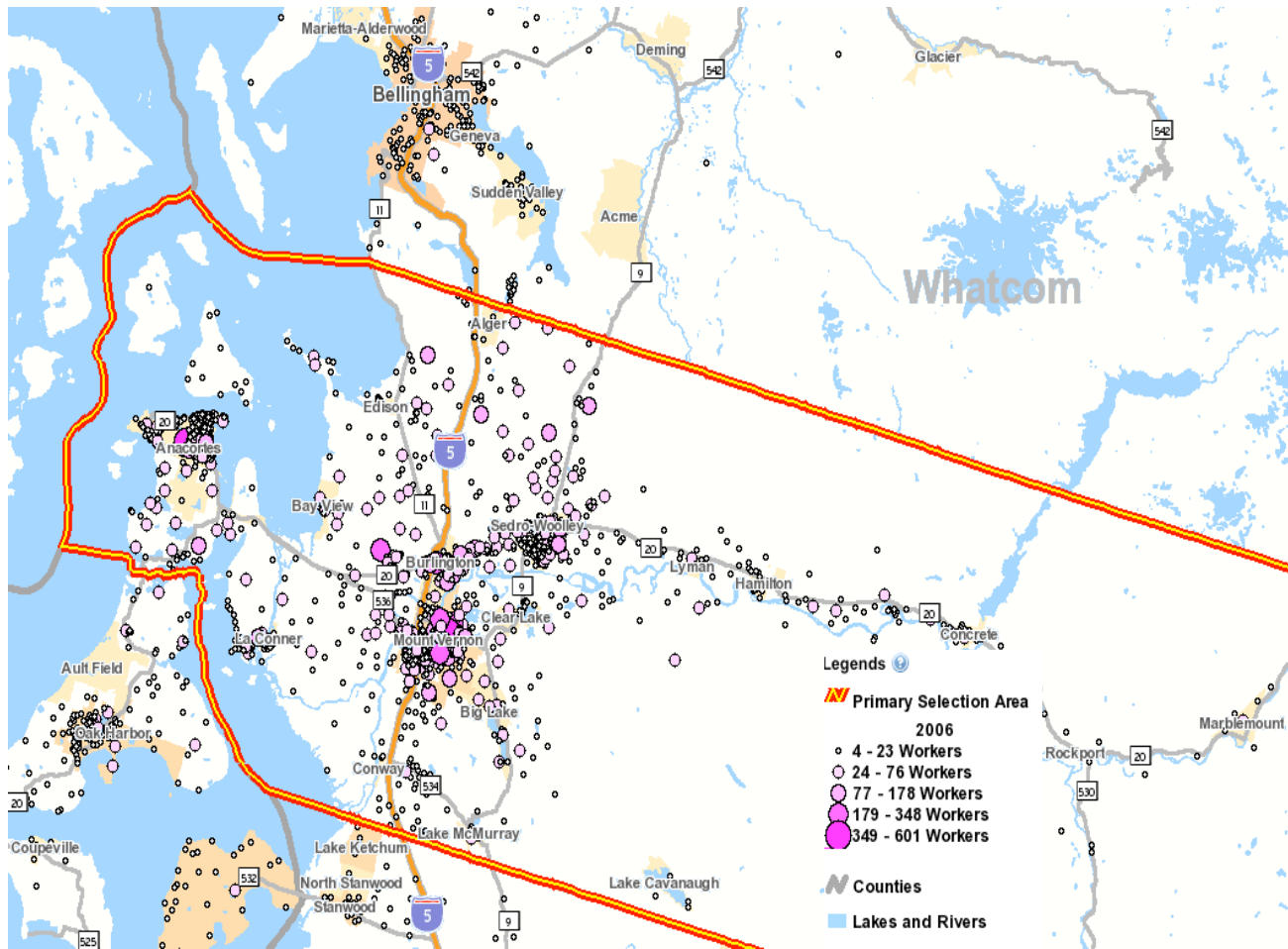
**Table B-5. Where residents of Skagit County were employed, 2006**

Location	Number	Percent
Skagit County	26,709	62%
Mount Vernon	9,300	21%
Anacortes	4,307	10%
Burlington	4,244	10%
Sedro-Woolley	2,189	5%
King County	5,434	13%
Snohomish County	4,703	11%
Whatcom County	3,310	8%
Bellingham	2,232	5%
Island County	619	1%
All other locations	2,496	6%
<b>Total</b>	<b>43,271</b>	<b>100%</b>

Source: U.S. Census OnTheMap. <http://lehdmap3.did.census.gov/themap3/>

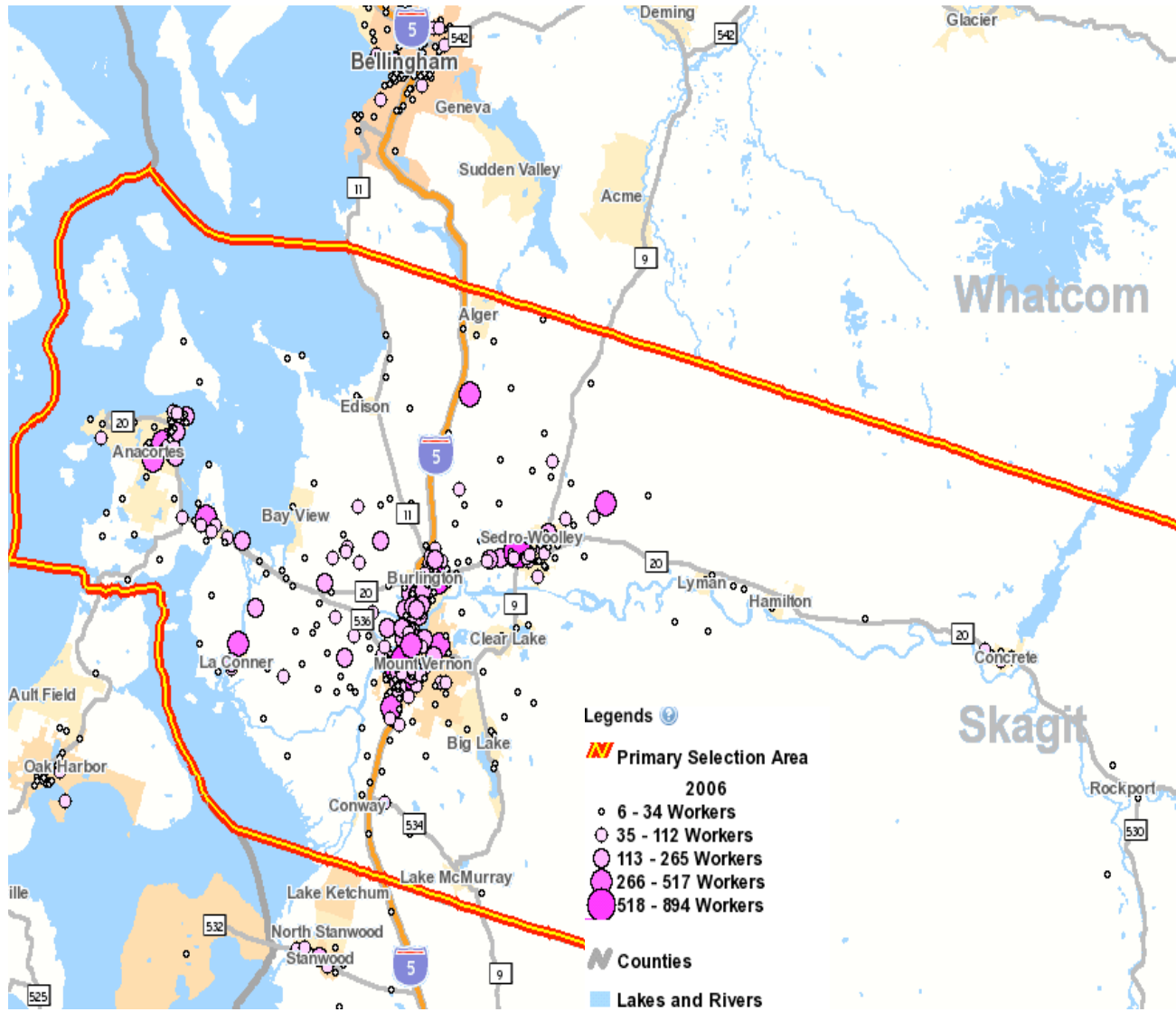
The information in Tables B-4 and B-5 and Figures B-7 and B-8 show that about one-third of workers commute to Skagit County for work and one-third of residents commute outside of the County.

**Figure B-7. Place of residence for workers employed by a firm located in Skagit County, 2006**



Source: U.S. Census OnTheMap. <http://lehdmap3.did.census.gov/themap3/>

Figure B-8. Where residents of Skagit County were employed, 2006



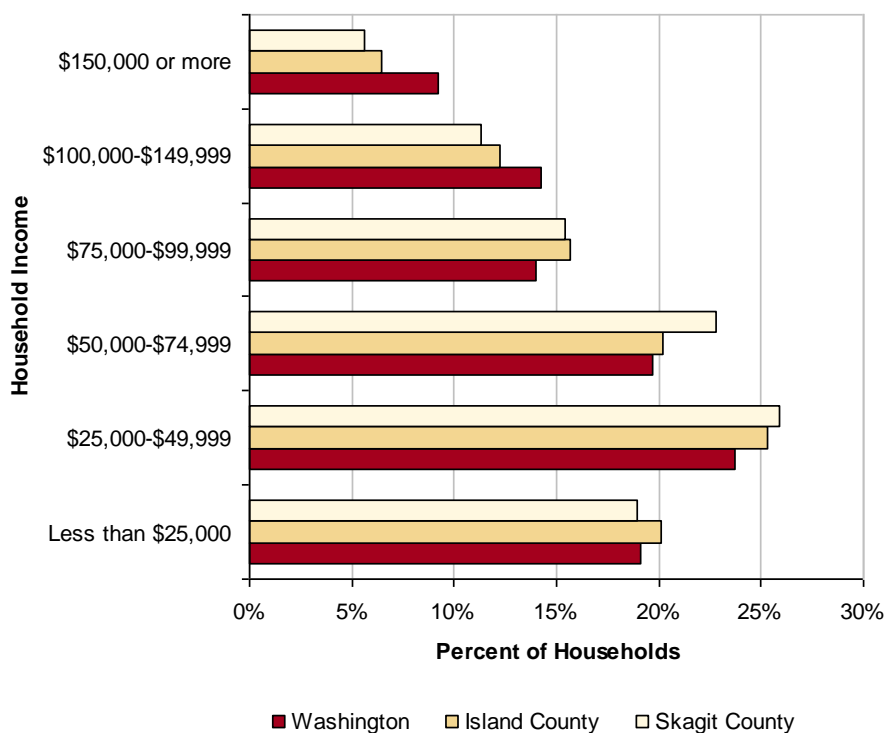
Source: U.S. Census OnTheMap. <http://lehdmap3.did.census.gov/themap3/>

### Household income and expenditures

Household income and the buying power of households can affect the types of firms, especially retailers, likely to locate in a community. According to the American Community Survey, the median household income in Island County in 2008 was \$55,525 and \$53,348 in Skagit County, lower than the State average of \$58,078. Figure B-9 shows household income in Washington, Island County, and Skagit County in 2008.

Households in Island and Skagit Counties generally had lower income and a smaller share of high-income households than the State average. Nineteen percent of Island County households and 17% of Skagit County households had income of \$100,000 or greater, compared to the State average of 23% of households.

**Figure B-9. Annual household income, Washington, Island County, and Skagit County, 2008**



Source: 2008 American Community Survey

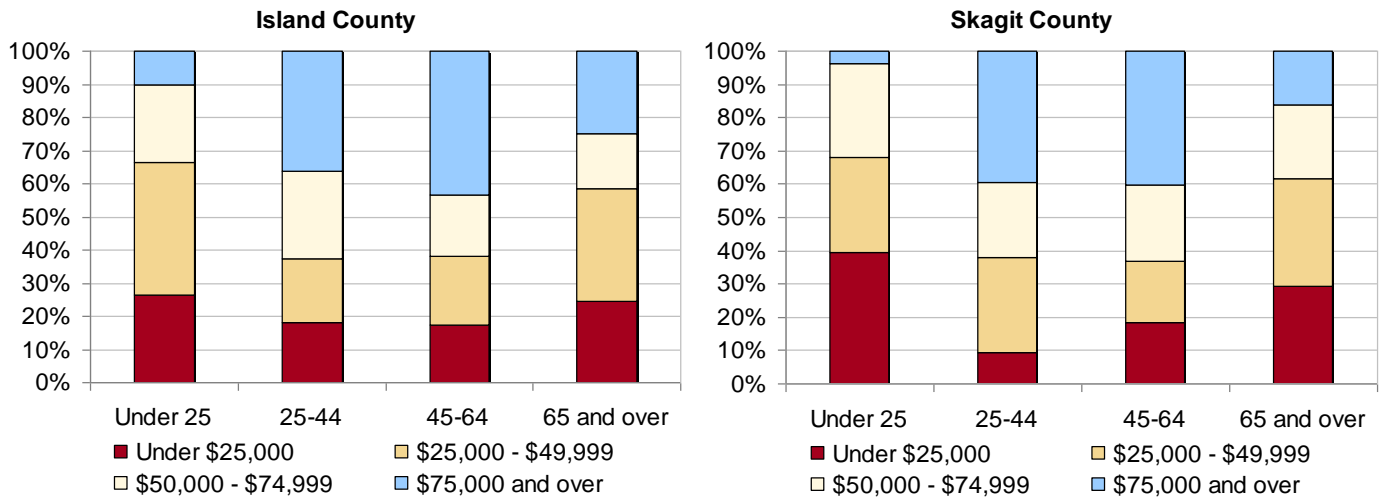
Income varies throughout a person’s life, with incomes typically lower for younger people and retirees and highest for experienced workers nearing retirement. Figure B-10 shows household income by age of householder in Island and Skagit Counties. Figure B-10 shows that:

- *Households under 25 years old had lower annual income on average.* More than one-quarter Island County and nearly 40% of Skagit County households 25 years or younger had income of \$25,000 or less. Less than 70% of these households in both counties had income less than \$50,000.



- Working-aged households, between 25 and 64 years old, had higher annual income on average. More than 60% of households 25 and 64 years old had income of \$50,000 or more and about 40% of these households had income of \$75,000 or more.
- Retirees generally had lower income than working-aged households. About 60% of households 65 years and older had income of less than \$50,000 and about one-quarter of these households had income of \$25,000 or less.

**Figure B-10. Annual household income by age of householder, Island County and Skagit County, 2008**



Source: 2008 American Community Survey

The level of discretionary income in a market area is a primary determinant for the level of demand for commercial goods and services in that market. Discretionary income is income *minus* the cost of the fixed expenses of life (such as rent/mortgage, car payments, insurance, etc.). Discretionary income can be saved or spent on goods and services. In addition, credit and equity can also be used to support expenditures on goods and services.

Table B-6 shows consumer expenditures per household in Island County and Skagit County in 2009. Average annual household expenditures in Island County averaged \$56,065 and \$52,821 in Skagit County. Fifty-five percent of expenditures were in the following categories: transportation, shelter, and food and beverages.

**Table B-6. Annual consumer expenditures per household, Island County and Skagit County, 2009**

Expenditure	Island County		Skagit County	
	HH Expenditures	% of Total Expenditures	HH Expenditures	% of Total Expenditures
Transportation	\$11,365	20%	\$10,659	20%
Shelter	\$10,774	19%	\$10,174	19%
Food and Beverages	\$8,579	15%	\$8,096	15%
Utilities	\$3,917	7%	\$3,698	7%
Health Care	\$3,467	6%	\$3,267	6%
Entertainment	\$3,135	6%	\$2,954	6%
Apparel	\$2,664	5%	\$2,510	5%
Household Furnishings & Equipment	\$2,485	4%	\$2,327	4%
Contributions	\$2,056	4%	\$1,944	4%
Household Operations	\$1,981	4%	\$1,870	4%
Gifts	\$1,472	3%	\$1,387	3%
Education	\$1,294	2%	\$1,223	2%
Miscellaneous Expenses	\$939	2%	\$888	2%
Personal Care	\$814	1%	\$765	1%
Personal Insurance	\$570	1%	\$537	1%
Tobacco	\$368	1%	\$349	1%
Reading	\$185	0%	\$173	0%
<b>Total</b>	<b>\$56,065</b>	<b>100%</b>	<b>\$52,821</b>	<b>100%</b>

Source: WashingtonProspector.com City and County Profiles

## Employment growth

The economy of the nation changed substantially over the past three decades. These changes affected the composition of Washington's economy, including Island and Skagit Counties. The most important shift during this period at the national-level was the shift in employment from a focus on manufacturing to services. The most important shift in Washington's economy, including Island and Skagit Counties, has been the shift from a resource-based economy to a more diverse economy, with the greatest employment in services.

Over the past few decades, employment in the U.S. has shifted from manufacturing and resource-intensive industries to service-oriented sectors of the economy. Increased worker productivity and the international outsourcing of routine tasks have led to declines in employment in the major goods-producing industries.

Table B-7 presents data from the Washington State Employment Security Department that show changes in covered employment<sup>8</sup> for Skagit County between 2001 and 2008. Employment data in this section is summarized by *sector*, each of which includes several individual *industries*. For example, the Retail Trade sector includes General

<sup>8</sup> Covered employment refers to jobs covered by unemployment insurance, which includes most wage and salary jobs but does not include sole proprietors, seasonal farm workers, and other classes of employees.

Merchandise Stores, Motor Vehicle and Parts Dealers, Food and Beverage Stores, and other retail industries.

Table B-7 shows covered employment by industry in Skagit County in 2001 and 2008. Skagit County added nearly 4,700 jobs over the eight year period, an increase of 11%. The largest job growth was in Government, Retail Trade, and Health Care and Social Assistance, which combined accounted for nearly 70% of job growth (about 3,200 jobs) in the County. The largest decrease in employment was in Agriculture, Forestry, Fishing and Hunting, which lost more than 500 jobs.

**Table B-7. Covered employment by industry, Skagit County, 2001 and 2008**

Industry	2001	2008	Change 2001-2008		
			Number	Percent	AAGR
Agriculture, Forestry, Fishing & Hunting	3,498	2,978	-520	-15%	-2.27%
Mining	34	54	20	59%	6.83%
Utilities	167	208	41	25%	3.19%
Construction	2,857	3,515	658	23%	3.01%
Manufacturing	5,383	5,611	228	4%	0.59%
Wholesale Trade	977	1,075	98	10%	1.37%
Retail Trade	5,952	7,146	1,194	20%	2.65%
Transportation and Warehousing	975	1,155	180	18%	2.45%
Information	514	393	-121	-24%	-3.76%
Finance and Insurance	946	1,601	655	69%	7.81%
Real Estate and Rental and Leasing	544	513	-31	-6%	-0.83%
Professional and Technical Services	1,121	1,200	79	7%	0.98%
Management of Companies and Enterprise	146	120	-26	-18%	-2.76%
Administrative and Waste Services	990	937	-53	-5%	-0.78%
Educational Services	245	312	67	27%	3.51%
Health Care and Social Assistance	3,941	4,695	754	19%	2.53%
Arts, Entertainment, and Recreation	654	572	-82	-13%	-1.90%
Accommodation and Food Services	4,039	4,094	55	1%	0.19%
Other Services	1,713	1,932	219	13%	1.73%
Government	9,296	10,576	1,280	14%	1.86%
<b>Total</b>	<b>43,992</b>	<b>48,687</b>	<b>4,695</b>	<b>11%</b>	<b>1.46%</b>

Source: Workforce Explorer Washington, Covered Employment and Wages.  
<http://www.workforceexplorer.com/cgi/dataanalysis/AreaSelection.asp?tableName=Industry>

The Washington State Employment Security Department forecasts employment growth in counties. Table B-8 shows the State's employment forecast by industry from 2007 to 2017 for the Northwest Region, which includes Island, San Juan, Skagit, and Whatcom Counties. The State projects that employment will grow by 18,000 jobs, an increase of 12% at an average annual rate of 1.1%.

The sectors that are projected to have the greatest growth are: Government (5,400 jobs), Health Care and Social Assistance (3,200 jobs), Administrative and Support Services (1,700 jobs), Retail Trade (1,400 jobs), and Professional and Technical Services (1,300 jobs). The State forecasts that the following sectors will each lose 100 jobs: Natural Resources and Mining, Information, and Accommodation and Food Services.

**Table B-8. Employment forecast, Northwest Region (Island, San Juan, Skagit, and Whatcom Counties), 2007-2017**

Sector	2007 Emp.	2017 Emp.	Change 2007 to 2017		
			Number	Percent Change	AAGR
Natural Resources & Mining	600	500	(100)	-17%	-1.8%
Construction	14,200	15,100	900	6%	0.6%
Manufacturing	16,000	16,300	300	2%	0.2%
Wholesale Trade	4,400	5,600	1,200	27%	2.4%
Retail Trade	21,400	22,800	1,400	7%	0.6%
Transportation, Warehousing & Utilities	4,000	4,700	700	18%	1.6%
Information	2,400	2,300	(100)	-4%	-0.4%
Finance & Insurance	4,000	4,500	500	13%	1.2%
Real Estate & Rental Leasing	2,300	2,400	100	4%	0.4%
Professional, Scientific & Technical Services	5,100	6,400	1,300	25%	2.3%
Management of Companies & Enterprises	800	900	100	13%	1.2%
Administrative & Support Services	5,600	7,300	1,700	30%	2.7%
Private Education Services	1,600	2,000	400	25%	2.3%
Health Care & Social Assistance	15,500	18,700	3,200	21%	1.9%
Arts, Entertainment & Recreation	2,600	2,800	200	8%	0.7%
Accommodation & Food Services	15,600	15,500	(100)	-1%	-0.1%
Other Services	5,500	6,400	900	16%	1.5%
Government	32,000	37,400	5,400	17%	1.6%
<b>Total</b>	<b>153,600</b>	<b>171,600</b>	<b>18,000</b>	<b>12%</b>	<b>1.1%</b>

Source: Workforce Explorer Washington, Nonagricultural Wage and Salary Employment Estimates,  
[http://www.workforceexplorer.com/admin/uploadedPublications/5004\\_indlongp.xls](http://www.workforceexplorer.com/admin/uploadedPublications/5004_indlongp.xls)

## APPENDIX C. ISSUES WITH SMALL AREA FORECASTS<sup>9</sup>

Planning implies forecasting. To use policies to change the future in ways that decision makers think their constituents would find beneficial, one must first have an idea of what could or is likely to occur in the absence of those policy changes.

Forecasting is usually better, and better received, if it is based on a model of how the world works. In the context of housing and economic development, that understanding must certainly include how households and businesses make decisions about where to locate, and what types of buildings to occupy.

In the context of land use and growth management, the main variables that one must forecast are population and employment, which are then used to forecast the demand for new built space (housing, offices, warehouses, retail stores, and so on). The demand for built space creates a derived demand for land on which to build that space.

The amount of land needed depends on the type and density of space that will be built to accommodate population and employment growth. The type and density of development will be a function of market factors (demand and supply conditions) and public policy (especially about density and infrastructure, but also about transportation, economic development, environmental protection, and so on). This function of forecasting is central to Skagit and Island County and its cities: it will allow us to forecast future distribution of population and employment.

The main point is that (1) forecasting growth requires a consideration of many variables that interact in complicated ways, and (2) any forecast of a single future is bound to be wrong – there are many possible futures that are more or less likely depending on one's assessment of the likelihood of the assumptions.

In conjunction with the forecasts, it is useful to describe the limitations of small area forecasts. Following is a discussion of why small area forecasts are highly uncertain:

- Projections for population in most cities and counties are not based on deterministic models of growth; they are simple projections of past growth rates into the future. They have no quantitative connection to the underlying factors that explain why and how much growth will occur.
- Even if planners had a sophisticated model that links all these important variables together (which they do not), they would still face the problem of having to forecast the future of the variables that they are using to forecast growth (in, say, population or employment). In the final analysis, all forecasting requires making *assumptions* about the future.

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<sup>9</sup> This appendix builds from previous forecasting projects completed by ECONorthwest.

- Comparisons of past population projections to subsequent population counts have revealed that even much more sophisticated methods than the ones used in the study "are often inaccurate even for relatively large populations and for short periods of time."<sup>10</sup> The smaller the area and the longer the period of time covered, the worse the results for any statistical method.
- Small areas start from a small base. A new subdivision of 200 homes in the Seattle Metropolitan has an effect on total population of less than one one-hundredth of a percent. That same subdivision in Anacortes would increase the community's housing stock by approximately 3% – and population by a similar percentage.
- Especially for small cities in areas that can have high growth potential (e.g., because they are near to concentrations of demand in neighboring metropolitan areas, or because they have high amenity value for recreation or retirement), there is ample evidence of very high growth rates in short-term; there are also cases (fewer) of high growth rates sustained over 10 to 30 years.
- Public policy makes a difference. Cities can affect the rate of growth through infrastructure, land supply, incentives and other policies. Such policies generally do not have an impact on growth rates in a region, but may cause shifts of population and employment among cities.

Because of the uncertainty associated with small area forecasts, many forecasts present ranges of future population (the OFM county forecasts present ranges). Cities have many reasons to use point forecasts: among the most important are projections of future revenues, need for infrastructure, and need for land. These factors provide sufficient rationale for cities to develop and adopt point forecasts. That fact, however, does not mean they are any more accurate.

In summary, the longer the forecast, the greater the potential that actual population growth will vary from the forecast. This implies that cities should closely monitor actual population growth so that either (1) plans can be modified to account for variations, or (2) policies can be implemented that increase the likelihood of achieving the population growth.

One final comment on forecasts: population forecasts are often viewed as "self-fulfilling prophecies." In many respects they are intended to be; local governments create land use, transportation, and infrastructure plans to accommodate the growth forecast. Those planning documents represent a series of policy decisions. Thus, how much population a local government (particularly cities) chooses to accommodate is also a policy decision. In short, the forecast and the plans based on the forecast represent the city's future vision.

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<sup>10</sup>Murdock, Steve H., et. al. 1991. "Evaluating Small-Area Population Projections." *Journal of the American Planning Association*, Vol. 57, No. 4, page 432.

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**December 17, 2010**

**TO: Kirk Johnson**  
**FROM: Beth Goodman**  
**SUBJECT: SKAGIT COUNTY ALTERNATIVE EMPLOYMENT FORECASTS**

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The Skagit Alternative Futures Project is designed to highlight tradeoffs between natural resource protection and urbanization in Skagit County. The objective of the project is to develop a plan that addresses natural resource protection, conservation, and urban growth and development over the next 50-years. One of the key inputs into the Alternative Futures Project is forecasting future employment growth in Skagit County and allocating that growth to urban and rural areas within the County.

ECONorthwest prepared preliminary employment forecasts for Skagit County and urban growth areas (UGAs) within the County, dated September 28, 2010. That memorandum presented high, medium, and low forecasts for employment growth in Skagit County between 2035 and 2060. The low and planned trend forecasts used the forecasts developed consistent with the M/RTP forecast and the County's adopted forecast for 2009 to 2035 (with a growth assumption of 0.7% average annual growth rate).

City staff requested that the County develop alternative forecast of employment growth for the County and the UGAs during the entire 2009 to 2060 period. This memorandum presents two alternative employment forecasts for the County and UGAs, assuming higher growth rates over the 51 year period. One forecast assumes an average growth rate of 1.5% annually over the 51 year period and the other assumes an average growth rate of 2.0% annually.

Appendix A presents the previous forecast for a high, low, and planned trend projection of employment growth. The methods used to develop the alternative forecasts are consistent with the methods used in the previous memorandum (dated September 28, 2010) and summarized in Appendix A.

## ALTERNATIVE EMPLOYMENT FORECASTS FOR 2009 TO 2060

Table 1 presents three forecasts for employment growth in Skagit County for the 2009 to 2060 period. The forecasts are:

- **Plan Trend.** This forecast was developed based on existing forecasts and presented in the September 28, 2010 memorandum. The plan trend forecast assumes that employment in Skagit County will grow from nearly 62,000 employees to about 90,000 employees, an increase of more than 28,000 employees or 46% growth. This scenario forecasts that employment will grow at an 0.7% average annual growth rate (AAGR) over the 51 year period.

The planned trend assumes that the population to employment (PE) ratio will change from 1.9 persons per job in 2009 to 2.4 persons per job in 2060. In comparison, the State of Washington's PE decreased from 2.0 in 1980 to 1.6 in 2008, indicating that employment grew faster than population in the State over the 28-year period. The implication of this forecast is that employment will grow at a slower rate the population, possibly as a result in the change in the composition of the residents of the County (e.g., an increase in retirees) or as a result of increased commuting to other areas for employment (e.g., cities in King County).

- **1.5% Growth.** This forecast assumes that employment in Skagit County will grow from nearly 62,000 employees to about 132,500 employees, an increase of more than 71,000 employees or 115% growth. This scenario assumes that employment will grow at 2.0% annually between 2009 to 2035 and 1.0% from 2035 to 2060.

This scenario assumes that the PE ratio will change from 1.9 persons per job in 2009 to 1.6 persons per job in 2060. The implication of this forecast is the employment will grow at a faster rate than population. This assumption is consistent with historical trends, with the population and employment ratio decreasing from 2.1 to 1.9 persons per job between 1980 and 2009. In order to achieve faster employment growth, jurisdictions will need to provide serviced land with the characteristics that employers need (e.g., large, flat sites with direct access to I-5 or smaller flat sites in dense urban areas).

- **2.0% Growth.** This forecast assumes that employment in Skagit County will grow from nearly 62,000 employees to about 169,000 employees, an increase of more than 108,000 employees or 175% growth. This scenario assumes that employment will grow at 2.0% annually between 2009 to 2060. T

This scenario assumes that the PE ratio will change from 1.9 persons per job in 2009 to 1.3 persons per job in 2060. The implication of this forecast is the employment will grow at a faster rate than population. Achieving this goal may be difficult because such comparatively low PE ratios are generally achieved in areas with a high concentration of jobs, such as large regional employment



centers (e.g., Seattle). A PE of 1.3 is substantially lower than the State average of 1.8 persons per job.

This amount of employment growth implies a change in the character of Skagit County, with a large increase in employment concentration, relative to population. In order to achieve faster employment growth, jurisdictions will need to provide serviced land with the characteristics that employers need (e.g., large, flat sites with direct access to I-5 or smaller flat sites in dense urban areas).

**Table 1. Employment forecast scenarios, Skagit County, 2009 to 2060**

Year	Population	Plan Trend		1.5% Growth		2.0% Growth	
		Emp	PE	Emp	PE	Emp	PE
1980	64,138	30,094	2.1	30,094	2.1	30,094	2.1
1990	79,545	43,166	1.8	43,166	1.8	43,166	1.8
2001	104,100	59,483	1.8	59,483	1.8	59,483	1.8
2009	118,900	61,765	1.9	61,765	1.9	61,765	1.9
2035	168,386	74,887	2.2	103,359	1.6	103,359	1.6
2040	178,670	77,699	2.3	108,631	1.6	114,117	1.6
2045	188,393	80,617	2.3	114,172	1.7	125,994	1.5
2050	197,736	83,644	2.4	119,996	1.6	139,108	1.4
2055	207,757	86,785	2.4	126,117	1.6	153,586	1.4
2060	217,578	90,044	2.4	132,550	1.6	169,571	1.3
<b>Change 2009 to 2060</b>							
Number	98,678	28,279	0.5	70,785	-0.3	107,806	-0.6
Percent	83%	46%		115%		175%	
AAGR	1.2%	0.7%		1.5%		2.0%	

Source: ECONorthwest

Note: AAGR is average annual growth rate

Shaded areas indicate assumptions in the forecast.

Table 2 presents the planned trend employment forecast by UGA for 2009 to 2060. Table 2 assumes that the share of employment by UGA will remain the same in each City from 2009 to 2060. For example, 15% of Skagit County's population was located in Anacortes in 2009 and remains constant through 2060.

**Table 2. Planned trend employment forecast by UGA, Skagit County, 2009 to 2060**

UGA	2009		2060		Change 2009 to 2060	
	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15.5%	13,764	15.3%	4,218	44%
Bayview Ridge	1,768	2.9%	2,459	2.7%	691	39%
Burlington	11,328	18.3%	16,330	18.1%	5,002	44%
Concrete	230	0.4%	328	0.4%	98	43%
Hamilton	204	0.3%	271	0.3%	67	33%
La Conner	628	1.0%	881	1.0%	253	40%
Lyman	138	0.2%	192	0.2%	54	39%
Mount Vernon	22,453	36.4%	33,468	37.2%	11,015	49%
Sedro-Woolley	4,876	7.9%	7,201	8.0%	2,325	48%
Swinomish	1,813	2.9%	2,603	2.9%	790	44%
Rural	8,780	14.2%	12,548	13.9%	3,768	42.9%
<b>Total</b>	<b>61,765</b>	<b>100.0%</b>	<b>90,044</b>	<b>100%</b>	<b>28,279</b>	<b>45.8%</b>

Source: ECONorthwest

Shaded areas indicate assumptions in the forecast.

Table 3 presents the 1.5% average annual growth employment forecast by UGA for 2009 to 2060. Table 3 assumes that employment in each city will increase and the share of employment by UGA will remain the same in each City from 2009 to 2060. The exceptions to this assumption are that the share of population in Burlington and La Conner will decrease and that the share of population in Mount Vernon and Sedro-Woolley will increase. The assumptions about the distribution of employment by UGA can be modeled using different assumptions, based on feedback from city staff.

**Table 3. Employment growth at 1.5% by UGA, Skagit County, 2009 to 2060**

UGA	2009		2060		Change 2009 to 2060		
	Employees	Share	Employees	Share	Employees	Percent	Share change 09 to 60
Anacortes	9,546	15.5%	20,545	15.5%	10,999	115%	0.0%
Bayview Ridge	1,768	2.9%	3,844	2.9%	2,076	117%	0.0%
Burlington	11,328	18.3%	17,232	13.0%	5,904	52%	-5.3%
Concrete	230	0.4%	490	0.4%	260	113%	0.0%
Hamilton	204	0.3%	398	0.3%	194	95%	0.0%
La Conner	628	1.0%	928	0.7%	300	48%	-0.3%
Lyman	138	0.2%	292	0.2%	154	111%	0.0%
Mount Vernon	22,453	36.4%	52,901	39.9%	30,448	136%	3.6%
Sedro-Woolley	4,876	7.9%	13,255	10.0%	8,379	172%	2.1%
Swinomish	1,813	2.9%	3,844	2.9%	2,031	112%	0.0%
Rural	8,780	14.2%	18,822	14.2%	10,042	114%	0.0%
<b>Total</b>	<b>61,765</b>	<b>100.0%</b>	<b>132,550</b>	<b>100%</b>	<b>70,785</b>	<b>115%</b>	<b>0.0%</b>

Source: ECONorthwest

Shaded areas indicate assumptions in the forecast.

Table 4 presents the 2.0% average annual growth employment forecast by UGA for 2009 to 2060. Table 4 assumes that employment in each city will increase and the share

of employment by UGA will remain the same in each City from 2009 to 2060. The exceptions to this assumption are that the share of population in Burlington and La Conner will decrease and that the share of population in Mount Vernon and Sedro-Woolley will increase. The assumptions about the distribution of employment by UGA can be modeled using different assumptions, based on feedback from city staff.

**Table 4. Employment growth at 2.0% by UGA, Skagit County, 2009 to 2060**

UGA	2009		2060		Change 2009 to 2060		
	Employees	Share	Employees	Share	Employees	Percent	Share change 09 to 60
Anacortes	9,546	15.5%	26,284	15.5%	16,738	175%	0.0%
Bayview Ridge	1,768	2.9%	4,918	2.9%	3,150	178%	0.0%
Burlington	11,328	18.3%	16,957	10.0%	5,629	50%	-8.3%
Concrete	230	0.4%	627	0.4%	397	173%	0.0%
Hamilton	204	0.3%	509	0.3%	305	150%	0.0%
La Conner	628	1.0%	1,017	0.6%	389	62%	-0.4%
Lyman	138	0.2%	373	0.2%	235	170%	0.0%
Mount Vernon	22,453	36.4%	71,237	42.0%	48,784	217%	5.7%
Sedro-Woolley	4,876	7.9%	18,653	11.0%	13,777	283%	3.1%
Swinomish	1,813	2.9%	4,918	2.9%	3,105	171%	0.0%
Rural	8,780	14.2%	24,079	14.2%	15,299	174%	0.0%
<b>Total</b>	<b>61,765</b>	<b>100.0%</b>	<b>169,571</b>	<b>100%</b>	<b>107,806</b>	<b>175%</b>	<b>0.0%</b>

Source: ECONorthwest  
Shaded areas indicate assumptions in the forecast.

Table 5 presents a summary of the employment forecast alternatives for each UGA, showing employment growth in each scenario in 2060.

**Table 5. Summary of employment forecast alternatives, employment in 2060, by UGA, Skagit County**

UGA	Plan Trend		1.5% Growth		2.0% Growth	
	Employment	Percent	Employment	Percent	Employment	Percent
Anacortes	13,764	15.3%	20,545	15.5%	26,284	15.5%
Bayview Ridge	2,459	2.7%	3,844	2.9%	4,918	2.9%
Burlington	16,330	18.1%	17,232	13.0%	16,957	10.0%
Concrete	328	0.4%	490	0.4%	627	0.4%
Hamilton	271	0.3%	398	0.3%	509	0.3%
La Conner	881	1.0%	928	0.7%	1,017	0.6%
Lyman	192	0.2%	292	0.2%	373	0.2%
Mount Vernon	33,468	37.2%	52,901	39.9%	71,237	42.0%
Sedro-Woolley	7,201	8.0%	13,255	10.0%	18,653	11.0%
Swinomish	2,603	2.9%	3,844	2.9%	4,918	2.9%
Rural	12,548	13.9%	18,822	14.2%	24,079	14.2%
<b>Total</b>	<b>90,044</b>	<b>100.0%</b>	<b>132,550</b>	<b>100.0%</b>	<b>169,571</b>	<b>100.0%</b>

Source: ECONorthwest

## APPENDIX A. EMPLOYMENT FORECASTS 2035 TO 2060

This appendix presents a portion of the September 28, 2010 memorandum, with a range of employment growth scenarios for Skagit County, which will be used to illustrate growth management policy choices for accommodating employment growth in the Skagit Alternative Futures project. The forecasts in this section are based on the following considerations:

- Existing long-term forecasts of population and employment growth at the State- and County-levels.
- The population forecasts for the Skagit Alternative Futures project.
- Analysis of factors affecting employment growth (e.g., labor force availability, historical employment growth, etc.) developed for the M/RTP project.
- Priorities for growth and potential policies developed through the Skagit Alternative Futures project.

This section is divided into:

- **Skagit County Forecast** presents three scenarios for employment growth in Skagit County and discusses broad implications of the forecasts.
- **Allocation of Employment Growth** presents an allocation of each of the three growth scenarios to UGAs and rural areas within Skagit County
- **Allocation of Employment Growth by Land Use Category** presents an allocation of each of the three growth scenarios to broad land use categories (e.g., commercial or public administration) for UGAs and rural areas within Skagit County.
- **Limitations of the forecasts** discusses the limitations of small area forecast in general and these forecasts in particular.

### SKAGIT COUNTY FORECAST

Table A-1 presents three projections for employment growth in Skagit County. The forecasts each use the estimate of employment in Skagit County in 2009 (61,765 employees) as the base for the forecast. The forecasts are based on the following assumptions:

- **Low.** The low forecast assumes that employment will grow at 0.7% per year between 2009 to 2035, consistent with the M/RTP forecast and the County's adopted forecast. Between 2035 and 2060, the low forecast assumes that employment growth will slow to 0.5% per year. The low forecast projects that

Skagit County will add about 23,000 jobs over the 2009 to 2060 period, growth of more than one-third of the County’s existing workforce.

- **Planned Trend.** The planned trend assumes that employment will grow at 0.7% per year between 2009 to 2035, consistent with the M/RTP forecast and the County’s adopted forecast. It assumes that employment will continue to grow at 0.7% annually until 2060, adding about 28,300 jobs over the 2009 to 2060 period, a 46% increase over the County’s existing workforce.
- **High.** The high forecast assumes that Skagit County will have more employment growth than the M/RTP forecast projects. The high forecast assumes 1.3% average annual growth over the 2009 to 2035 period and 1% annual growth over the 2035 and 2060 period. The high forecast projects that Skagit County will add about 49,000 jobs over the 2009 to 2060 period, a 79% increase over the County’s existing workforce.

**Table A-1. Employment forecast, Skagit County, 2009 to 2060**

Year	Low	Planned Trend	High
2009	61,765	61,765	61,765
2035	74,887	74,887	86,415
2040	76,778	77,699	90,823
2045	78,717	80,617	95,456
2050	80,705	83,644	100,325
2055	82,743	86,785	105,443
2060	84,832	90,044	110,822
<b>Change 2009 to 2060</b>			
Number	23,067	28,279	49,057
Percent	37%	46%	79%
AAGR	0.6%	0.7%	1.2%
<b>Change 2009 to 2035</b>			
Number	13,122	13,122	24,650
Percent	21%	21%	40%
AAGR	0.7%	0.7%	1.3%
<b>Change 2035 to 2060</b>			
Number	9,945	15,157	24,407
Percent	13%	20%	28%
AAGR	0.5%	0.7%	1.0%

Source: ECONorthwest

Note: AAGR is average annual growth rate.

The low and planned trend scenarios project that Skagit County’s employment will grow substantially slower than historical employment growth rates. Skagit County’s employment base grew at 3.0% average annual growth over the 1980 to 2008 period and at an average annual growth rate of 1.5% over the 2001 to 2008 periods. The high scenario projects that employment would grow slower than historical growth rates but faster than the adopted forecast growth rate (0.7% average annual growth).

Table A-2 shows a comparison of historical and projected population and employment growth over the 1980 to 2060 period. Table A-2 compares the employment growth presented in Table A-1 with projected population growth based on the "Hypothetical SCOG Target" population growth scenario.

The comparison between population and employment is expressed as a population to employment ratio (PE), which describes the number of persons per job. For example, the State of Washington's PE decreased from 2.0 in 1980 to 1.6 in 2008, indicating that employment grew faster than population in the State over the 28-year period. A regional employment center should have a lower-than-average PE. For example, King County's PE in 1980 was 1.6, decreasing to 1.2 by 2008.

Table A-2 shows that Skagit County's PE decreased from 2.1 to 1.7 between 1980 and 2007. All of the forecasts in Table A-2 show Skagit County's PE increasing because population is forecast to grow at a higher overall rate than employment in any of the growth scenarios shown in Table A-2. The high forecast shows the smallest change in PE over the forecast period, with a PE of 2.0 by 2060. The plan trend shows the PE increasing to 2.4 by 2060 and the low forecast shows the PE increasing to 2.6 by 2060.

**Table A-2. Comparison of employment forecast with the population forecast, Skagit County, 1980 to 2060**

Year	Population	Low		Plan Trend		High	
		Emp	PE	Emp	PE	Emp	PE
1980	64,138	30,094	2.1	30,094	2.1	30,094	2.1
1990	79,545	43,166	1.8	43,166	1.8	43,166	1.8
2001	104,100	59,483	1.8	59,483	1.8	59,483	1.8
2007	115,300	67,218	1.7	67,218	1.7	67,218	1.7
2035	168,386	74,887	2.2	74,887	2.2	86,415	1.9
2040	178,670	76,778	2.3	77,699	2.3	90,823	2.0
2045	188,393	78,717	2.4	80,617	2.3	95,456	2.0
2050	197,736	80,705	2.5	83,644	2.4	100,325	2.0
2055	207,757	82,743	2.5	86,785	2.4	105,443	2.0
2060	217,578	84,832	2.6	90,044	2.4	110,822	2.0
<b>Change 2035 to 2060</b>							
Number	49,192	9,945	0.3	15,157	0.2	24,407	0.0
Percent	29%	13%		20%		28%	
AAGR	1.0%	0.5%		0.7%		1.0%	

Source: ECONorthwest

Note: The forecast period is shown in the shaded area

PE is population to employment ratio and AAGR is average annual growth rate.

Assuming that the forecast of population is reasonably accurate, the implications of the changes to population to employment ratio are:

- The low and planned trend forecasts assumes that Skagit County will become more of a bedroom community, with a larger share of workers commuting out of the County for work. The increase in the PE in the first two decades in the forecast period can be explained in part by projected growth in retired people, resulting from the aging of the baby boomers. Unless Skagit County attracts more retired people during the last few decades of the forecast, the continued decrease in the PE will most likely be the result of slower employment growth relative to population growth.
- The high trend forecast assumes that Skagit County will have faster population than employment growth through 2035 but that employment will grow at about the same rate between 2035 and 2060.

In order to achieve the employment growth projected in any of the scenarios, the County will need to have buildable employment land available to accommodate both employment growth for services to serve residents, as well as land available for traded-sector industries, such as manufacturing or services used outside of the County (e.g., call centers). Traded-sector industries often have special land requirements (e.g., site over 10 acres in size with flat topography and direct access to I-5). Growth of traded-sector industries is generally limited to urban areas, with the exception of rural industries such as logging. Attracting traded-sector firms will require the availability of land with the characteristics needed by traded-sector industries in locations within UGAs that are attractive to prospective firms.

## **ALLOCATION OF EMPLOYMENT GROWTH**

This section allocates employment growth to UGAs and unincorporated rural areas within Skagit County. Table 2 in the September 28, 2010 memorandum shows the allocation of employment growth to UGAs from the M/RTP project, which was based on the existing conditions (amount of employment currently located within the UGA) and a rough estimate of the capacity to accommodate employment growth (approximate amount of vacant employment land within the UGA).

Allocating employment growth from 2035 to 2060 to UGAs using a similar method would require: (1) an estimate of employment that will be located in each UGA in 2035 and (2) an estimate of development capacity in 2035. While we have the estimate of employment growth by UGA, it would be very difficult to make even a rough estimate of development capacity on employment land in 2035.

As a result, the allocations of employment growth presented in this section assume that the distribution of employment among UGAs and rural areas will not change between 2035 and 2060. For example, Mount Vernon is projected to account for 37% of employment within the County in 2035 and 2060, resulting in growth of 3,696 employees in Mount Vernon over the twenty-five year period.

Table A-3 presents allocation of employment growth in the UGAs and rural areas based on the low growth scenario. Table A-3 shows that over the 2035 to 2060 period:

- Employment will grow by about 9,945 employees.
- Employment will be concentrated in Mount Vernon (37% of the County's 2060 employment), Burlington (18% of employment), and Anacortes (15% of employment).
- The majority of employment growth will occur within UGAs. About 14% of employment growth will occur in rural areas outside of UGAs.

**Table A-3. Allocation of employment growth to UGA and rural areas, low growth scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	11,447	15%	12,967	15%	1,520	13%
Bayview Ridge	1,768	3%	2,045	3%	2,317	3%	272	13%
Burlington	11,328	18%	13,581	18%	15,384	18%	1,803	13%
Concrete	230	0%	273	0%	309	0%	36	13%
Hamilton	204	0%	225	0%	255	0%	30	13%
La Conner	628	1%	733	1%	830	1%	97	13%
Lyman	138	0%	160	0%	181	0%	21	13%
Mount Vernon	22,453	36%	27,835	37%	31,531	37%	3,696	13%
Sedro-Woolley	4,876	8%	5,989	8%	6,784	8%	795	13%
Swinomish	1,813	3%	2,165	3%	2,453	3%	288	13%
Rural	8,780	14%	10,436	14%	11,822	14%	1,386	13%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>84,832</b>	<b>100%</b>	<b>9,945</b>	<b>13%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

Table A-4 presents allocation of employment growth in the UGAs and rural areas based on the planned trend scenario. Table A-3 shows that over the 2035 to 2060 period employment within the County will grow by 15,157 employees. The assumptions about distribution of employment among the UGAs and rural areas of the County is the same as the assumptions in Table A-3.



**Table A-4. Allocation of employment growth to UGA and rural areas, planned trend scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	11,447	15%	13,764	15%	2,317	20%
Bayview Ridge	1,768	3%	2,045	3%	2,459	3%	414	20%
Burlington	11,328	18%	13,581	18%	16,330	18%	2,749	20%
Concrete	230	0%	273	0%	328	0%	55	20%
Hamilton	204	0%	225	0%	271	0%	46	20%
La Conner	628	1%	733	1%	881	1%	148	20%
Lyman	138	0%	160	0%	192	0%	32	20%
Mount Vernon	22,453	36%	27,835	37%	33,468	37%	5,633	20%
Sedro-Woolley	4,876	8%	5,989	8%	7,201	8%	1,212	20%
Swinomish	1,813	3%	2,165	3%	2,603	3%	438	20%
Rural	8,780	14%	10,436	14%	12,548	14%	2,112	20%
<b>County Total</b>	<b>61,765</b>	<b>100%</b>	<b>74,887</b>	<b>100%</b>	<b>90,044</b>	<b>100%</b>	<b>15,157</b>	<b>20%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

Table A-5 presents allocation of employment growth in the UGAs and rural areas based on the high growth scenario. Table A-3 shows that over the 2035 to 2060 period employment within the County will grow by 24,407 employees. The assumptions about distribution of employment among the UGAs and rural areas of the County is the same as the assumptions in Table A-3.

**Table A-5. Allocation of employment growth to UGA and rural areas, high growth scenario, Skagit County, 2009 to 2060**

UGA	2009		2035		2060		Change 2035 to 2060	
	Employees	Share	Employees	Share	Employees	Share	Employees	Percent
Anacortes	9,546	15%	13,209	15%	16,940	15%	3,731	28%
Bayview Ridge	1,768	3%	2,360	3%	3,026	3%	666	28%
Burlington	11,328	18%	15,672	18%	20,098	18%	4,426	28%
Concrete	230	0%	315	0%	404	0%	89	28%
Hamilton	204	0%	260	0%	333	0%	73	28%
La Conner	628	1%	845	1%	1,084	1%	239	28%
Lyman	138	0%	185	0%	237	0%	52	28%
Mount Vernon	22,453	36%	32,119	37%	41,191	37%	9,072	28%
Sedro-Woolley	4,876	8%	6,911	8%	8,863	8%	1,952	28%
Swinomish	1,813	3%	2,498	3%	3,204	3%	706	28%
Rural	8,780	14%	12,043	14%	15,444	14%	3,401	28%
<b>Total</b>	<b>61,765</b>	<b>100%</b>	<b>86,415</b>	<b>100%</b>	<b>110,822</b>	<b>100%</b>	<b>24,407</b>	<b>28%</b>

Source: ECONorthwest

Note: Share is the percent of employment in each UGA. For example, Anacortes' share of County-wide employment in 2009 was 15% and Bayview Ridge's share was 3%.

Note: The estimate for employment in Concrete in 2009 was not available from the M/RTP project and is based on information from Washington Prospector, the State's economic development web site.

Shaded areas indicate forecast assumptions.

## LIMITATIONS OF THE FORECASTS

The forecasts presented in this memorandum are long-term forecasts and build from many assumptions about future growth. Appendix C describes limitations with forecasting growth in small areas, which includes Skagit County. In brief, Appendix C concludes that (1) forecasting growth requires a consideration of many variables that interact in complicated ways, and (2) any forecast of a single future is bound to be wrong – there are many possible futures that are more or less likely depending on one's assessment of the likelihood of the assumptions. The longer the forecast, the greater the potential that actual employment growth will vary from the forecast. This implies that the County and cities should closely monitor actual growth so that either (1) plans can be modified to account for variations, or (2) policies can be implemented that increase the likelihood of achieving the population growth.

The limitations of the forecast presented in this memorandum include:

- The forecasts have a degree of uncertainty because they are for a long period (50-years) and for a small area (Skagit County and each of its UGAs). The disaggregation of the forecasts, from the County to the UGAs and from all employment to categories of employment (e.g., commercial or public administration), introduce increasing levels of uncertainty in the forecast.
- The forecasts do not account for plausible exogenous events, such as the location of a firm with 200 employees in a small UGA.

- The forecasts do not account for the economic development aspirations of the communities in Skagit County. For example, a city could have an aspiration to develop a cluster of food processors. Achieving these aspiration will require policies that support development of a food processing cluster. For example, a city that wants to develop a cluster of food processors would need to: (1) have suitable land for development of the processing plant, (2) provide necessary water and wastewater services, (3) have necessary transportation access and capacity, (4) have policies that allow food processing and related activities, and (5) have affordable, skilled workforce to provide labor.<sup>1</sup>

The forecasts presented in this memorandum could be refined to reflect other anticipated future conditions, anticipated changes in the availability of employment land, and policies and aspirations that may affect economic development in the cities within Skagit County.

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<sup>1</sup> These factors are necessary but not sufficient to developing a food processing cluster. Some other factors necessary to attract firms that would develop a food processing cluster include: access to agricultural products at competitive prices, access to markets for the food products, and competitive land, construction, and labor costs.