

# A SocioEconomic Profile Stevens County, Washington

Produced by the **Economic Profile System (EPS)**July 24, 2007

**About EPS** 

#### **About The Economic Profile System (EPS)**

This profile was produced using the 2007 version of the Economic Profile System (EPS), last updated in June 2007. EPS is designed to allow users to automatically and efficiently produce detailed socioeconomic profiles at a variety of geographic scales using the spreadsheet program Microsoft Excel.

Profiles contain tables and figures that illustrate long-term trends in population; employment and personal income by industry; average earnings; business development; retirement and other non-labor income; commuting patterns; agriculture; and earnings by industry.

Databases used for EPS profiles are from: Bureau of the Census, County Business Patterns, Bureau of Labor Statistics, and the Regional Economic Information System (REIS) of the Bureau of Economic Analysis, U.S. Department of Commerce.

EPS was developed in partnership with the Bureau of Land Management by Ray Rasker, Jeff van den Noort, Ben Alexander and Patty Gude when they were employees of the Sonoran Institute, and continues to be refined and improved by these authors under the auspices of their new organization, Headwaters Economics.

EPS is available for free download from Headwaters Economics (www.headwaterseconomics.org).

For technical questions about EPS, contact Jeff van den Noort at jeff@headwaterseconomics.org.



www.headwaterseconomics.org

**Headwaters Economics** conducts social science research to understand demographic and socioeconomic trends and their impacts on changing land use patterns. We use this knowledge to assist individuals, organizations and communities to benefit from their competitive advantages.



www.blm.gov

The Bureau of Land Management (BLM), an agency within the U.S. Department of the Interior, administers 262 million surface acres of America's public lands, located primarily in 12 Western States. The BLM sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Cover	
About the Economic Profile System	
Table of Contents	
Read This First	
Demographic, Employment and Income Trends	
Demographic, Employment and Income	1
Population Trends	2
<u>Population</u>	3
Age and Gender	4
Income Distribution & Housing	5
<u>Employment</u>	6
<u>Employment</u>	7
Personal Income	8
<u>Proprietors</u>	9
Non-labor Income	10
<u>Transfer Payments</u>	11
Personal Income	12
Government Employment	13
Earnings Per Job	14
Per Capita Income	15
Firms by Industry	16
Firms by Industry in 2001 (NAICS)	17
Firms by Size	18
<u>Unemployment Trends</u>	19
<u>Commuting</u>	20
Agriculture (Business Income)	21
Relative Performance Comparisons	
Relative Performance Comparisons	22
Employment Diversity Index	23
<u>Stability</u>	24
Performance Comparisons	25
Employment and Personal Income by Industry	
Employment and Income by Industry	26
Read This First	27
Employment (SIC)	28
Employment (NAICS)	29
Personal Income (SIC)	30
Personal Income (NAICS)	31
Wages and Employment	32
<u>Data Sources</u>	Data Source
<u>Methods</u>	Methods
Glossary	Glossary

There are two related systems for producing socioeconomic profiles: this one, the Economic Profile System (EPS) and the Economic Profile System Community (EPSC). For best results, use both profile systems. Below is a table highlighting how the two systems complement each other.

	EPS	EPSC
Geographic level of detail	Nation Region (metro, non-metro, total) State (metro, non-metro, total) County	Nation, Region, Division, States, Counties, County Subdivisions, Places (Towns), Indian Reservations, Congressional Districts
Databases used	Bureau of the Census (Census) County Business Patterns (CBP) Bureau of Labor Statistics (BLS) Bureau of Economic Analysis (BEA), Regional Economic Information System (REIS)	Bureau of the Census, Decennial Census of Population and Housing, 1990, 2000. (1990 to 2000 comparisons at the county level only)
Time series used	Continuous data from 1970 to as close to the present as possible.	2000. At the county level only 1990 to 2000 comparisons can be made to show changes in age and household income distribution.
Advantages	Long-term trend analysis; changes in employment and personal income by sector, change of businesses establishments by type and size, and non-labor sources of income, like retirement and age-related income.  Counties are compared to states and nation.	Age distribution, race, housing costs, housing affordability, education rates, poverty.  Finer geographic detail.  Allows comparisons to user-selected 'benchmark'
	Counties are compared to states and nation.	areas.
Disadvantages	For some counties employment and personal income data may be suppressed for some industries and for some years. EPS includes a system for estimating these data gaps, and a chapter in the EPS User's Manual profiles stepby-step instructions.	Census data is not suppressed, but it is less useful than REIS data used in EPS for long-term trends by industry; it is only available only for 2000.

#### Important notes:

- 1) Total employment figures from the Bureau of the Census (used in EPSC) and the Regional Economic Information System (used in EPS) can differ for the following reasons:
  - Census employment figures are reported by place of residence, while BEA REIS figures are by place of work.
  - BEA REIS counts all jobs, regardless of whether part-time or whether a person has several jobs. For example, if a person has three part-time jobs, they count it as three jobs.
  - In some areas seasonality may play a role: the census is taken in the spring, a shoulder season for many "resort" areas, while BEA REIS data is an annual average.
- 2) Tables and charts may be copied from Excel into any other program, like Word or PowerPoint: highlight the selection, choose copy from the edit menu, then open Word or PowerPoint and insert by choosing "Paste Special" in the Edit Menu. We recommend that you paste charts as a picture.
- 3) EPS is updated every year with the latest figures.
- 4) This profile also shows business cycles, represented as vertical bars on selected charts.

### **Demographic, Employment and Income**

The following pages (2-25) contain long-term trends in demographics, employment and income, for types of information where no disclosure restrictions occur.

#### What is a 'disclosure restriction'?

A disclosure restriction means a gap exists in the data. Information has been suppressed by the U.S. Department of Commerce to avoid disclosure of confidential information. Generally, the smaller the geographic level of analysis and the smaller the population of the county, the higher the chances that industry-specific information is suppressed and that disclosure restrictions will occur.

The last section of this profile contains long-term trends on employment and personal income by industry sector (services, retail trade, manufacturing, etc.). This type of data often has data gaps, or disclosure restrictions. EPS has a built-in system for estimating data gaps through 2000 for the 11 contiguous western states (AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY).

#### In this section you will learn about:

- 1. Changes in population, age distribution, household income distribution and housing affordability.
- 2. Comparisons of the county to the state and the nation.
- 3. Employment and income by type: proprietors versus wage and salary.
- 4. Personal income by type: labor versus non-labor income.
- 5. The role of transfer payments.
- 6. How well do we recover from recessions?
- 7. Trends in government employment.
- 8. Earnings per job versus per capita income.
- 9. Growth in firms by size and industry type.
- 10. Unemployment rates.
- 11. Cross-county flow of dollars via commuting.
- 12. Trends in agricultural businesses.

#### **Highlights\*\* - In Stevens County, Washington:**

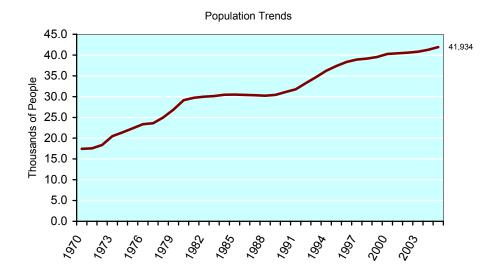
- Population Growth (Annualized rate, 1970-2005) was fast.
- Employment Growth (Annualized rate, 1970-2005) was somewhat fast.
- Personal Income Growth (Adjusted for Inflation, Annualized rate, 1970-2005) was somewhat fast.
- Non-labor Income Share of Total in 2005 was somewhat high.
- Median Age\* was somewhat old.
- Per Capita Income (2005) was somewhat low.
- Average Earnings Per Job (2005) was roughly average.
- Education Rate (% of population 25 and over who have a college degree)\* was roughly average.
- Employment Specialization\* was somewhat diverse.
- Ratio Rich/Poor (Number of households that made under \$30K for every household that made over \$100K)\* was roughly average.
- Housing Affordability (100 or above means that the median family can afford the median house)\* was somewhat less affordable.
- Government share of Total employment was somewhat high.
- Unemployment Rate in 2006\*\* was high.

<sup>\*\*</sup>These highlights are based on how this area compares to the distribution of all of the counties in the United States. See the methodology section at the end for more information.

<sup>\*</sup> from 2000 US Census \*\* from Bureau of Labor Statistics

#### **Population**

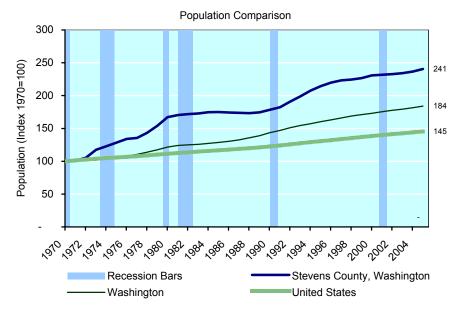
- From 1970 to 2005 population grew by 24,498 people, a 141% increase in population.
- At an annual rate, this represents an increase of 2.5%.



The vertical shaded bars on the figure below represent the last five recession periods: November 1973 to March 1975; January 1980 to July 1980; July 1981 to November 1982; July 1990 to March 1991; March 2001 to November 2001. More information about recessions is available on the next page.

#### **Population Growth Compared to the State and the Nation**

- Over the last 35 years population growth in Stevens County, Washington has outpaced that of the state and the nation.
- Population growth is not generally impacted by national recessions.



#### How well do we recover from recessions?

An important indicator of economic performance is the ability to recover quickly from recessions.

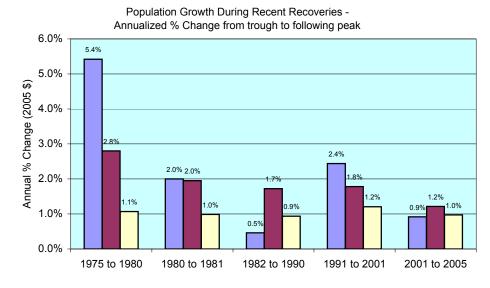
A recession is defined by the National Bureau of Economic Research as "a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail sales."

The graph below shows how well we have recovered from the last five recessions. The recovery period used is from the end of one recession (the trough) to the beginning of the next recession (the peak).

This type of graph is repeated throughout the profile to show how the region recovers from recessions compared to the state and the nation.

See <a href="http://www.nber.org/cycles.html">http://www.nber.org/cycles.html</a> for more information about business cycles.

- In the latest recovery (2001 to 2005), population growth in Washington (up 1.2%) outpaced the United States and Stevens County, Washington.
- Alternatively, in the last recovery (1991 to 2001), Stevens County, Washington (up 2.4%) grew the fastest.
- In the recovery from 1982 to 1990, Washington (up 1.7%) grew the fastest.



■ Stevens County, Washington - Population ■ Washington - Population ■ United States - Population

(From EPSC)

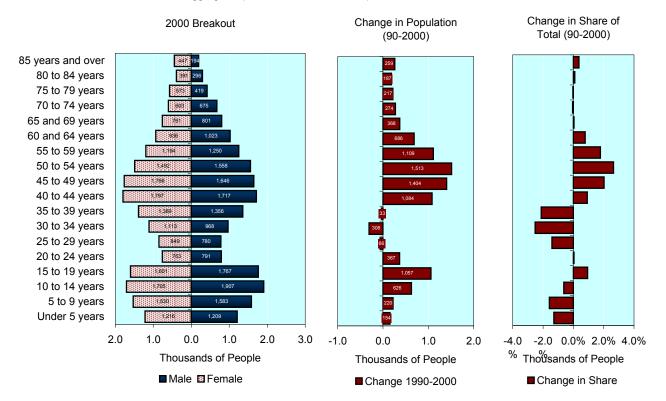
- The population has gotten older since 1990. The median age in 2000 is 39.2 years, up from 34.5 years in 1990.
- The largest age category is 10 to 14 years old (3,612 people or 9.0% of the total).
- Total Population in 2000 was 40,066 people, up 29% from 30,948 in 1990.
- The age group that has grown the fastest, as a share of total, is 50 to 54 years, up 1,513 people. Their share of total rose by 2.6%

<b>Population</b>	by Age	and Sex	(						
	Total Number	Under 20 yea Number 3ha		40 - 54 (B Boom in 2 Number	(000	65 years over Number		Median Age	Density (Pop. per sq. mi.)
Total Population									
2000	40,066	12,518 31	1%	9,976	25%	5,160	13%	39.2	16
1990	30,948	10,461 34	4%	5,975	19%	3,855	12%	34.5	12
10 Yr. Change	9,118	2,057 -3	3%	4,001	6%	1,305	0%	4.7	4
10 Yr. % Change	29%	20%		67%		34%		14%	29%
2000 Sex Breakout									
Male	19,940	6,466 32	2%	4,921	25%	2,385	12%	38.7	
Female	20,126	6,052 30	0%	5,055	25%	2,775	14%	39.7	
Male/Female Split	50% / 50%	52% / 48%		49% / 51	۱%	46% / 54	1%		

2000 Table SF1 - P12 & 1990 SF1 Table P05 & P12

In the graphs below, changes in population by age are shown two ways. The "Change in Population" graph illustrates how each age bracket has changed in the last 10 years. The "Change in Share" graph illustrates how each category has changed as a share of total. Note that an age bracket can have an increase in population while declining as a share of total. The "Change in Share" graph usually demonstrates how the baby boom has caused a demographic shift in the population (growth in the 40-60 age brackets).

Note: In aggregated profiles, medians are interpolated.



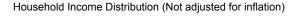
Source: Census 2000 and Census 1990

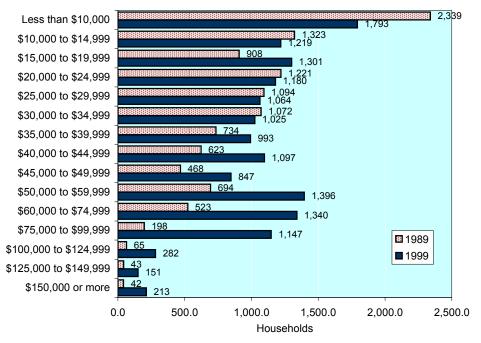
# **Income Distribution & Housing**

(From EPSC)

#### **Income Distribution**

- In 1999, for every household that made over \$100K, there were 10.2 households that made under \$30K. 10 years earlier, for every household that made over \$100K, there were 45.9 households that made under \$30K.
- Please note that the income distribution is not adjusted for inflation so some of the changes are due to inflation.





#### **Housing Affordability - Owner Occupied**

- The housing affordability index is 127, which suggests that the median family can afford the median house. \*
- Housing affordability has become less affordable in the last decade, from 150 in 1990 to 127 in 2000.

Owner Occupied Housing Affordability	1990	2000
Specified owner-occupied housing units: Median value (Adjusted for	\$ 74,835	\$ 112,000
% of median income necessary to buy the median house	17%	20%
Income required to qualify for the median house	\$ 25,240	\$ 31,648
Housing Affordability Index: (100 or above means that the median		
family can afford the median house.)*	150	127

Universe: Specified owner-occupied housing units SF3 - H76

Income in:	1989	1999
Per capita income		\$ 15,895
Median household income (Adj. for Inflation in 2000 \$)	\$ 32,200	\$ 34,673
Median family income (Adj.for Inflation in 2000 \$)	\$ 37,739	\$ 40,250

Universe: Total population, Households, Families

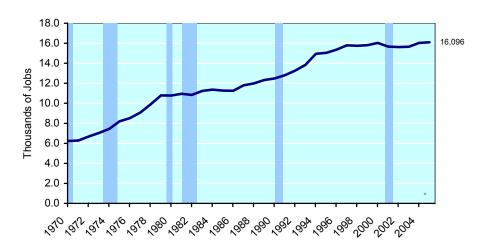
SF3 - P82,P53,P77

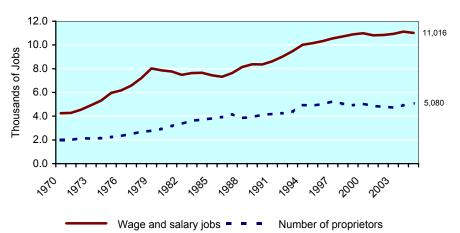
Source: Census 2000 and Census 1990

<sup>\*</sup> Note: The housing affordability figures assume a 20% down payment and that no more than 25% of a family's income goes to paying the mortgage. It is based on an interest rate of 10.01% in 1990 and 8.03% in 2000. Use this statistic as a comparative, rather than absolute, measure.

#### Long term trend

- From 1970 to 2005, 9,867 new jobs were created.
- From 1970 to 2005, the majority of job growth, 69% of new jobs, has been in wage and salary employment (people who work for someone else).
- Employment of wage and salary employment (people who work for someone else) contributed to 69% of new employment from 1970 to 2005, and 82% of new employment since 1995.
- In 1970, proprietors represented 31.9% of total employment; by 2005, they represented 31.6%.





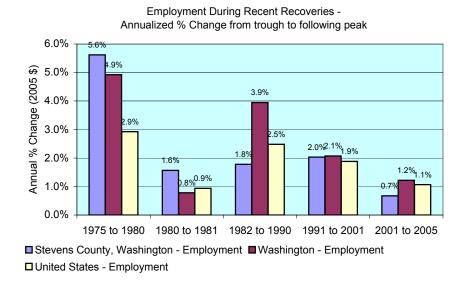
	Wages and Salaries vs. Proprietors Changes from 1970 to 2005												
							% of	New	% of				
						New	New	Employm	New				
		% of			% of	Employme	Employm	ent (95-	Employm				
	1970	Total	1995	2005	Total	nt (70-05)	ent	05)	ent				
Total full-time and part-time employmer	6,229		15,037	16,096		9,867		1,059	100.0%				
Wage and salary jobs	4,241	68.1%	10,148	11,016	68.4%	6,775	68.7%	868	82.0%				
Number of proprietors	1,988	31.9%	4,889	5,080	31.6%	3,092	31.3%	191	18.0%				
Number of nonfarm proprietors 5/	949	15.2%	3,561	3,883	24.1%	2,934	29.7%	322	30.4%				
Number of farm proprietors	1,039	16.7%	1,328	1,197	7.4%	158	1.6%	-131	NA				

**Proprietors** include sole proprietorships, partnerships, and tax-exempt cooperatives. A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its members.

Wage and salary employment refers to employees.

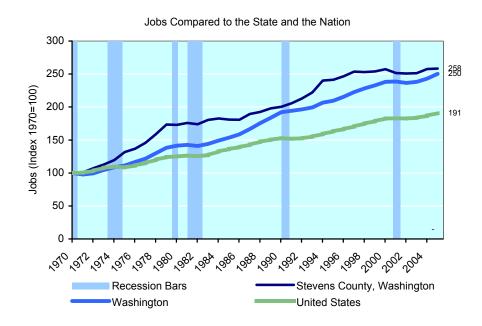
#### How well do we recover from recessions?

- In the latest recovery (2001 to 2005), employment growth in Washington (up 1.2%) has outpaced the United States and Stevens County, Washington.
- Similarly, in the last recovery (1991 to 2001), Washington (up 2.1%) grew the fastest.
- In the recovery from 1982 to 1990, Washington (up 3.9%) grew the fastest.



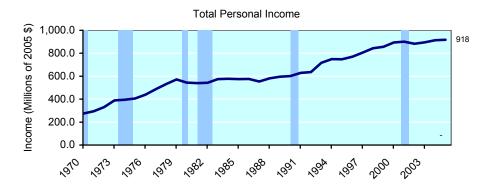
#### **Job Growth Compared to the State and the Nation**

- Over the last 35 years job growth in Stevens County, Washington has outpaced that of the state and the nation.
- Some areas can experience employment gains even during the recessions. If so, check to see how much is due to migration and population changes.



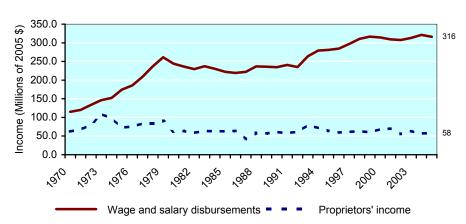
#### Long term trend

- From 1970 to 2005, personal income added \$644 million in real terms.
- The annualized growth rate was 3.5%.



#### **Importance of Proprietors**

 In the last 35 years, wage and salary disbursements grew at an annual rate of 2.9%, outpacing proprietors' income which was roughly unchanged.



Wages and Salaries vs	s. Proprie	tors						
		1970		1995		2005	New	% of
		% of		% of		% of	Income	New
All income in millions of 2005 dollars	1970	Labor	1995	Labor	2005	Labor	70-05	Income
Labor Sources	193	100%	451	100%	527	100%	334	100.0%
Wage and salary disbursements	115	60%	281	62%	316	60%	201	60.2%
Proprietors' income	62	32%	64	14%	58	11%	(4)	NA
Nonfarm proprietors' income	34	18%	57	13%	58	11%	24	7.2%
Farm proprietors' income	28	15%	7	2%	0	0%	(28)	NA

Wage and salary is monetary remuneration of employees, including employee contributions to certain deferred compensation programs, such as 401(K) plans.

**Proprietors** is income of sole proprietorships, partnerships and tax-exempt cooperatives. A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its members.

Source: BEA REIS 2005 Table CA05N and CA30

#### **Definitions:**

"Proprietors" refers to employment and income from sole proprietorships, partnerships, and tax-except cooperatives.

"Wage and salary" refers to employees; people who work for someone else.

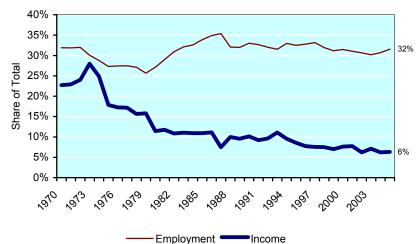
#### Are proprietors an important indicator of economic health?

Growth of proprietor employment and income can be a healthy sign that opportunities for entrepreneurship exist. Another way to gauge the health of small business growth is to look at changes in businesses by type and size of establishment (later in this profile).

Growth of proprietors can also mean that a rising number of people in the community want to (or need to) have side jobs in addition to their wage and salary jobs. When this is the case, earnings from second jobs can pull down average wages. To see if this is a sign of stress, look for other potential stress indictors in this profile: unemployment rates over time and changes in earnings per job.

#### **Proprietors' Share of Total (Income vs. Employment)**

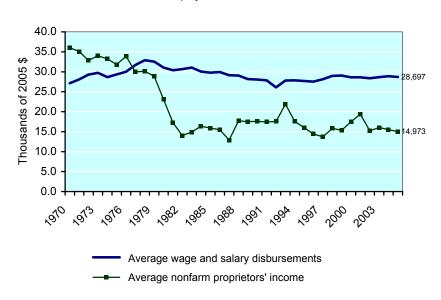
- In 2005, proprietors' share of total employment (32%) was higher than proprietors' income share of total (6%).
- From 1970 to 2005, proprietors' income share of total fell by 72.1%, while proprietors' employment share of total fell by 1.1%.



#### **How are Proprietors Doing?**

- From 1970 to 2005, average wage and salary disbursements grew at an annualized rate of 0.2% (adjusted for inflation), faster than from average nonfarm proprietors' income, which fell by 2.5%.
- In 2005, average wage and salary disbursements were \$28,697 (adjusted for inflation), more than average nonfarm proprietors' income (\$14,973).
- In 1970, it was the other way around. Average nonfarm proprietors' income was \$36,020 (adjusted for inflation), more than average wage and salary disbursements (\$27,146).
- If these shares vary widely, it suggests that proprietors and wage earners have different earnings.

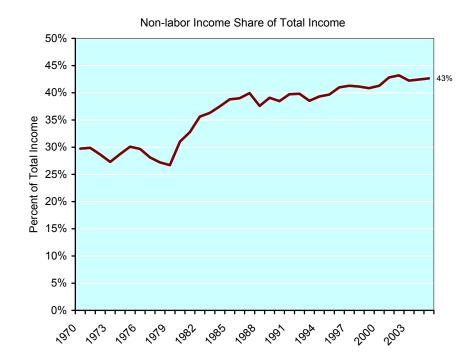




The term "Non-Labor Income" is also referred by some economists as "Non-Earnings Income". It consists of Dividends, Interest and Rent (collectively often referred to as money earned from investments) and Transfer Payments (payments from governments to individuals, age-related, including Medicare, disability insurance payments, and retirements).

(See methods section for definitions and further explanations.)

- In the last 35 years, nonlabor sources grew at an annual rate of 4.6%, outpacing labor sources which grew at a 2.9% rate.
- 42.7% of total personal income in 2005 was from non-labor sources.
- 48.2% of new income from 1970 to 2005 was from non-labor sources.



Non-labor income under estimates retirement income because it does not include pensions (401Ks).

		1970		1995		2005	New	% of	% Chg	% Chg
All income in millions of 2005		% of		% of		% of	Income	New	Ann. Rate	Ann. Rate
dollars	1970	Total	1995	Total	2005	Total	70-05	Income	70-05	95-05
Total Personal Income	274	100%	748	100%	918	100%	644	100.0%	3.5%	2.1%
Labor Sources	193	70%	451	60%	527	57%	334	51.8%	2.9%	1.6%
Non-Labor Sources	81	30%	297	40%	392	43%	310	48.2%	4.6%	2.8%
Dividends, interest, and rent	41	15%	134	18%	143	16%	102	15.9%	3.6%	0.7%
Personal current transfer receipts	41	15%	163	22%	248	27%	208	32.3%	5.3%	4.3%

Percentages do not add to 100 because of adjustments made by BEA, such as residence, social security, and others.

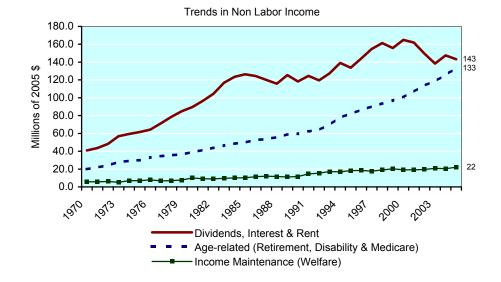
All figures in millions of 2005 dollars	1970	% of Total TP	2005	% of Total TP	New Payments 1970 to 2005	New Payme	Change in Share of
Total transfer payments	40.6		248.5		207.9		
Government payments to individuals	38.5	95%	238.0	96%	199.5	96.0%	
Retirement & disab. insurance benefit payments	18.4	45%	101.4	41%	83.1	40.0%	
Medical payments	5.9	15%	96.2	39%	90.2	43.4%	
Income maintenance benefit payments ("welfare")	5.8	14%	22.1	9%	16.3	7.8%	
Unemployment insurance benefit payments	3.5	9%	6.1	2%	2.6	1.2%	
Veterans benefit payments	4.5	11%	11.1	4%	6.6	3.2%	
Federal educ. & trng. asst. pay. (excl. vets)	0.1	0.3%	0.4	0.2%	0.3	0.1%	
Other payments to individuals	0.1	0.3%	0.6	0.2%	0.4	0.2%	
Payments to nonprofit institutions *	1.2	3%	7.7	3%	6.5	3.1%	
Business payments to individuals	0.9	2%	2.9	1%	1.9	0.9%	
Age-related (Retirement, Disability & Medicare)	19.8	49%	133.2	54%	113.4	54.5%	-20% 0% 20% 40%

#### **Trends in Non-Labor Income by Type**

- The largest components of Non-Labor Income are from Dividends, Interest & Rent (i.e. money earned from past investments).
- In 2005 welfare represented 8.9% of transfer payments, and 2.4% of total personal income. This is down from 1970 and down from 1980.

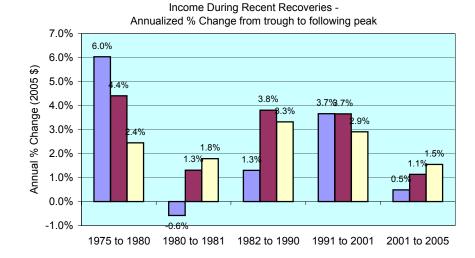
# **Components of Transfer Payments**

- In 2005, 54% of Transfer Payments were from agerelated sources (retirement, disability, insurance payments, and Medicare), while 9% was from welfare.
- See glossary for definitions.



#### How well do we recover from recessions?

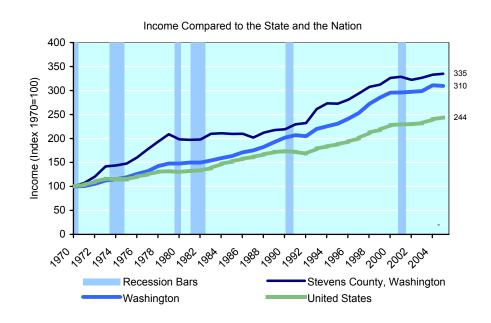
- In the latest recovery (2001 to 2005), income growth in the United States (up 1.5%) outpaced Washington and Stevens County, Washington.
- Alternatively, in the last recovery (1991 to 2001), Stevens County, Washington (up 3.7%) grew the fastest.
- In the recovery from 1982 to 1990, Washington (up 3.8%) grew the fastest.



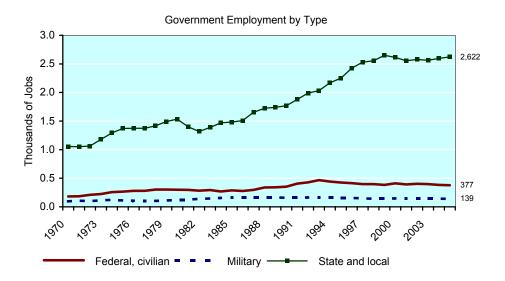
■ Stevens County, Washington - Income ■ Washington - Income ■ United States - Income

#### **Income Growth Compared to the State and the Nation**

- Over the last 35 years income growth in Stevens County, Washington has outpaced that of the state and the nation.
- Some areas can experience income gains even during the recessions. If so, check to see how much of the change is due to changes in earnings per job, employment, migration and population changes.



 The majority of the growth in government employment has been in state and local government (87%).



• Is the size of government getting bigger? One way to answer this is to look at whether government employment has grown. If so, what type of government employment, and how does it compare to population growth? The figures on this page show government employment by type.





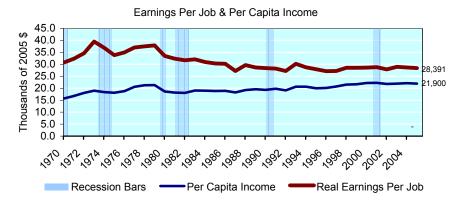
Source: BEA REIS 2005 Table CA25 and CA25N

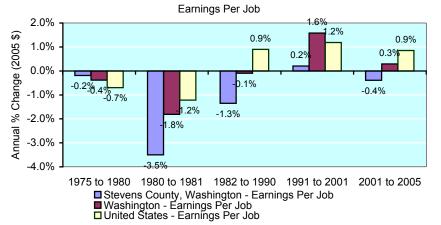
- Total Wages Earned

  Average Earnings per Job = ----
  Total # of Workers
- Average earnings per job, adjusted for inflation, have fallen from \$30,760 in 1970 to \$28,391 in 2005.
- In 2005, Average earnings per job in Stevens County, Washington (\$28,391) were lower than the state (\$47,057) and the nation (\$45,817).

# How well do we recover from recessions?

- In the current recovery (2001 to 2005), earnings per job growth in the United States (up 0.9%) have outpaced Washington and Stevens County, Washington.
- Alternatively, in the last recovery (1991 to 2001), Washington (up 1.6%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 0.9%) grew the fastest.





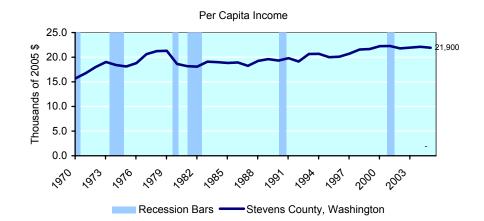
#### Reasons why earnings per job may change over time:

- 1) Average earnings per job statistics include full and part-time employment. In some counties only a portion of the eligible workforce works full-time, driving down wage statistics. Run an EPSC profile to see the percentage of people working full-time.
- 2) Communities with an increase in tourism may see a decline in earnings due to a rise in seasonal (part-time) workers.
- 3) Communities that have established themselves as regional retail trade centers may see a decline in wages due to the low wages paid in retail trade.
- 4) Structural changes may have resulted in the loss of relatively high-wage occupations. Look at the long-term trends in employment, by industry, and compare to the nation and other counties. Are the changes local, or part of nation-wide trends?
- 5) More women have entered the workforce, and because of relatively lower pay, or because of fewer hours worked (depending on the region both may occur), earnings may decline over time. For a comparison of male versus female income run an EPSC profile.
- 6) Earnings will decline if job growth is primarily from low-wage services industries. Look at the breakdown of different industrial sectors to see the type of service industries that are growing. Does the community have what it takes (education, airports, amenities, etc.) to attract the high-wage service industries (engineering, finance, etc.)?
- 7) People may be choosing to live in some communities for quality of life reasons. In some areas the increase in population can outpace the rate of job creation, thereby flooding the labor market and causing a downturn in wages. Look at the growth rates of population relative to growth in jobs and personal income.

Per capita income is often used as a measure of economic performance, but it should be combined with changes in earnings for a realistic picture of economic health:

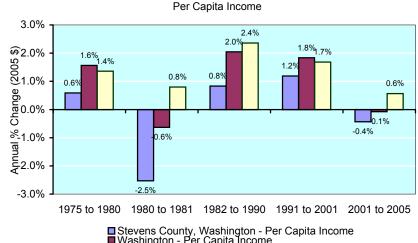
Since total personal income includes income from 401(k) plans as well as other non-labor income sources like transfer payment, dividends, and rent, it is possible for per capita income to rise, even if the average wage per job declines over time. In other words, the non-labor sources of income can cause per capita income to rise, even if people are earning less per job.

- Per capita income, adjusted for inflation, has risen from \$15,725 in 1970 to \$21,900 in 2005.
- In 2005, per capita income in Stevens County. Washington (\$21,900) was lower than the state (\$35,479) and the nation (\$34,471).



#### How well do we recover from recessions?

- In the current recovery (2001 to 2005), per capita income growth in the United States (up 0.6%) has outpaced Washington and Stevens County, Washington.
- Alternatively, in the last recovery (1991 to 2001), Washington (up 1.8%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 2.4%) grew the fastest.



■ Stevens County, Washington - Per Capita Income ■ Washington - Per Capita Income □ United States - Per Capita Income

The advantage of this data source is that it never has disclosure restrictions. This source also releases data for hundreds of sectors (available on demand). The data on this page are from the US Census County Business Patterns, which unlike the REIS data, does NOT include proprietors, government, household services or railroad workers. If available, we encourage you to look at employment and income data from BEA REIS starting on page 26 as well.

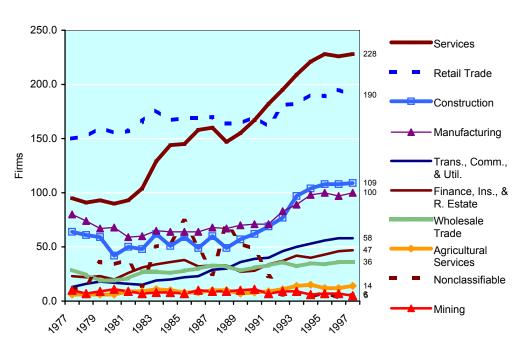
#### Growth

 The employment category whose share of total gained the most was services, which went from 19.8% in 1977 to 28.8% in 1997.

#### **Decline**

 The category whose share of total shrank the most was retail trade, which went from 31.3% in 1977 to 24.0% in 1997.

#### County Business Patterns Number of Establishments

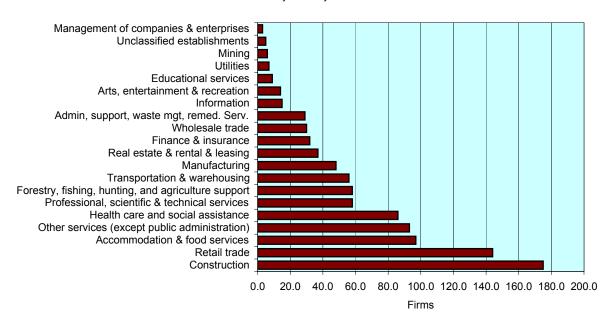


							New	Firms	Change i	n Share
	1977 S	Shr of Tot	1987 S	Shr of Tot	1997	Shr of Tot	77-97	Shr of Tot	of To	otal
Total	480		597		793		313			
Agricultural Services	6	1.3%	10	1.7%	14	1.8%	8	2.6%		
Mining	10	2.1%	9	1.5%	5	0.6%	-5	NA		
Construction	64	13.3%	60	10.1%	109	13.7%	45	14.4%		
Manufacturing	80	16.7%	68	11.4%	100	12.6%	20	6.4%		
Trans., Comm., & Util.	13	2.7%	29	4.9%	58	7.3%	7	2.2%		
Wholesale Trade	29	6.0%	33	5.5%	36	4.5%	7	2.2%		
Retail Trade	150	31.3%	170	28.5%	190	24.0%	40	12.8%		
Finance, Ins., & R. Estate	23	4.8%	33	5.5%	47	5.9%	24	7.7%		
Services	95	19.8%	160	26.8%	228	28.8%	133	42.5%		
Nonclassifiable	10	2.1%	25	4.2%	6	0.8%	-4	NA		
									-10% 0%	10%

Data ends in 1997 because the CBP switched to a different classification system (NAICS) in 1997.

**Source: Census County Business Patterns** 

Firms by Industry in 2005



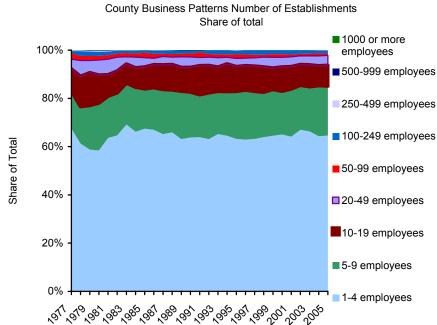
Firms by size and industry in 2005

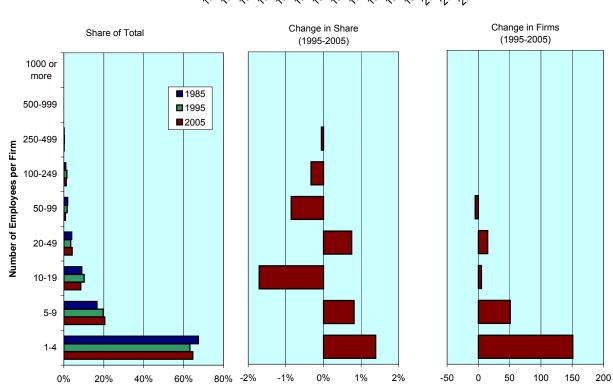
				Number	of Emplo	oyees per	r Firm			
	Total	1-4	5-9	10-19	20-49	50-99	100- 249	250- 499	500- 999	or more
Forestry, fishing, hunting, and agriculture s	58	41	10	5	2	0	0	0	0	0
Mining	6	1	3	1	1	0	0	0	0	0
Utilities	7	2	3	0	2	0	0	0	0	0
Construction	175	143	18	9	5	0	0	0	0	0
Manufacturing	48	19	11	4	6	2	6	0	0	0
Wholesale trade	30	16	9	2	3	0	0	0	0	0
Retail trade	144	78	41	15	7	2	0	1	0	0
Transportation & warehousing	56	43	8	1	3	1	0	0	0	0
Information	15	7	7	0	1	0	0	0	0	0
Finance & insurance	32	17	10	3	2	0	0	0	0	0
Real estate & rental & leasing	37	27	7	3	0	0	0	0	0	0
Professional, scientific & technical services	58	45	10	3	0	0	0	0	0	0
Management of companies & enterprises	3	1	1	1	0	0	0	0	0	0
Admin, support, waste mgt, remed. Serv.	29	24	3	2	0	0	0	0	0	0
Educational services	9	8	0	0	0	0	0	1	0	0
Health care and social assistance	86	47	18	11	3	3	4	0	0	0
Arts, entertainment & recreation	14	6	3	3	0	0	2	0	0	0
Accommodation & food services	97	49	22	19	7	0	0	0	0	0
Other services (except public administratio	93	68	22	3	0	0	0	0	0	0
Unclassified establishments	5	5	0	0	0	0	0	0	0	0
Total	1002	647	206	85	42	8	12	2	0	0

Source: Census County Business Patterns

#### Firms by Size

- The size category that grew the most was 1-4 employees.
- As a share of total, the size category that gained the most was 1-4 employees.
- In 2004, 94% of firms had fewer than 20 employees.

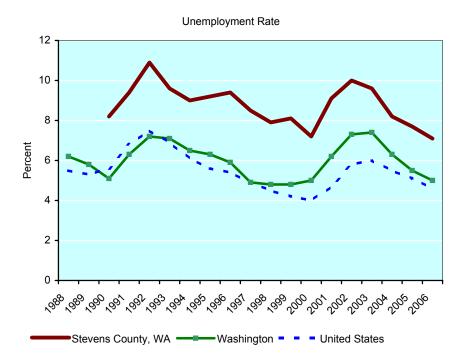




**Source: Census County Business Patterns** 

#### **Annual Average Unemployment Rate Compared to the State and the Nation**

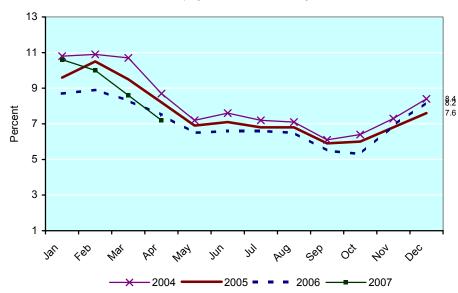
 In 2006, the unemployment rate was 7.1%, compared to 5.0% in the state and 4.6% in the nation.



#### **Unemployment Rate Seasonality**

 This graph illustrates the seasonal variation in the unemployment rate over the last three years. In 2006, the unemployment rate varied from from a low of 5.3% in October 2006 to a high of 8.9% in February 2006

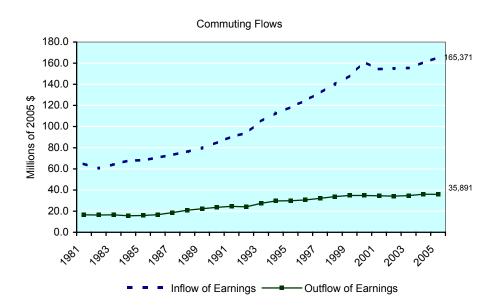
#### **Unemployment Rate Seasonality**



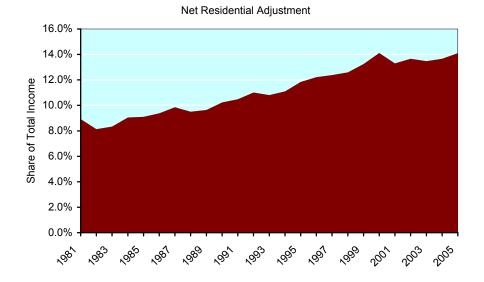
Source: Bureau of Labor Statistics

#### **Inflow & Outflows**

 Commuting data suggests that Stevens County, Washington is a bedroom community. (Income derived from people commuting out of the county to work exceeds the income from people commuting into the county.) The net difference represents 14.1% of total income in the county.



 A positive Net Residential Adjustment indicates out-commuting for work to adjacent counties.



The Bureau of Economic Analysis (BEA) reports personal income in terms of location of residence. BEA calculates how much money is earned in the county by people living outside the county (Total Gross Earnings Outflow) and it calculates how much money is brought into the county by residents who work outside of the county (Total Gross Earnings Inflow). Subtracting one from the other gives the Net Residence Adjustment. The Inflow and Outflow trends indicate whether the county is closely tied to others in terms of commuting.

# **Agriculture (Business Income)**

Farm income figures presented on this page reflect income from farming *enterprises* (income of the business). The term "farm" includes farming and ranching, but not agricultural services such as soil preparation services and veterinary services. In contrast, farm income figures presented in the next section reflect personal income earned by *individuals* (income of individuals, both proprietors and wage and salary employees) who work in farming and ranching.

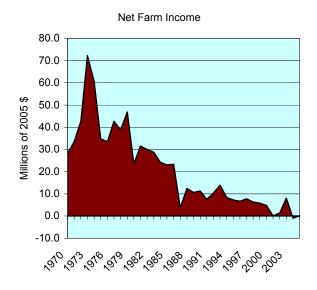
Farm income of businesses differs from individual farm income because it also includes government payments, rent, the value of inventory change and production expenses. In some areas, net farm income can be negative when production expenses exceed gross income.

Gross Income, Expenses, a	nd Net II	ncome	from Fa	rming	and Ran	ching	
		% of		% of		% of	70-04
		Gross		Gross		Gross	Change in
All figures in thousands of 2005 dollars	1970	Income	1995	Income	2005	Income	Share
Gross Income (Cash + Other)	75,633		57,011		42,386		
Cash Receipts from Marketings	69,739	92%	36,328	64%	29,688	70.0%	-22%
Livestock & Products	42,654	56%	24,356	43%	20,877	49.3%	-7%
Crops	27,085	36%	11,972	21%	8,811	20.8%	-15%
Other Income	5,894	8%	20,683	36%	12,698	30.0%	22%
Government Payments	2,879	4%	1,084	2%	673	1.6%	-2%
Imputed Rent & Rent Received	3,015	4%	19,599	34%	12,025	28.4%	24%
Production Expenses	43,102		49,350		43,683		
Realized Net Income (Income - Expenses)	32,532		7,661		(1,297)		
Value of Inventory Change	(4,329)	-6%	(402)	-1%	1,422	3.4%	NA
Total Net Income (Inc. corporate farms)	28,203		7,258		125		

#### **Gross Income vs. Production Expenses**

## 

#### **Net Farm Income**



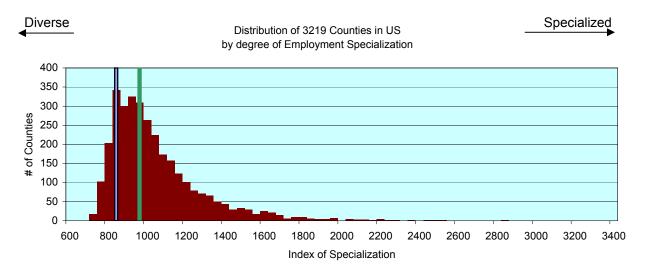
# **Relative Performance Comparisons**

#### In the following pages (23-25) you will learn about:

- 1. The economic diversity of the county, compared to the state and the nation.
- 2. The year to year stability of personal income growth, comparing the county to the state and the nation.
- 3. The stability of personal income over time, comparing labor versus non-labor income.
- 4. If this is a county profile, numerous performance characteristics of the county (population growth, employment growth, employment stability, etc.), are used to compare the county to the median county in the country (a "benchmark").

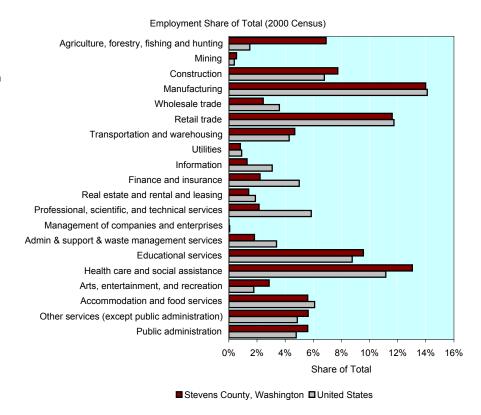
# **Employment Diversity Index**

One measure of economic success is economic diversity, or the lack of specialization. Communities that are heavily reliant on only a few industries are economically vulnerable to disruptions. This page documents one measure of specialization based on employment data from the 2000 Census.



■ County Distribution ■ Stevens County, Washington = 848 ■ Median = 961

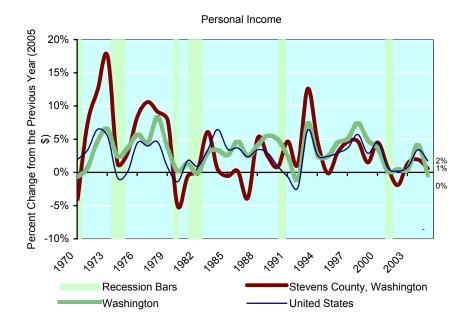
- The above chart illustrates how this county compares to all of the other counties in the nation. Each bar represents the number of counties that have a index of specialization in that range. The green vertical line illustrates the value for the mean. As you can see, most counties are similar, but there are a few counties that are wildly specialized (the long tail on the right).
- Stevens County, Washington is roughly average (848 versus a median of 961 for the US counties.)
- The chart to the right illustrates the data on which the index is based employment share of total from the 2000 Census. There are more timely breakouts by industry from a different data source on pages 28-



Source: Census 2000 SF3 Table P49.

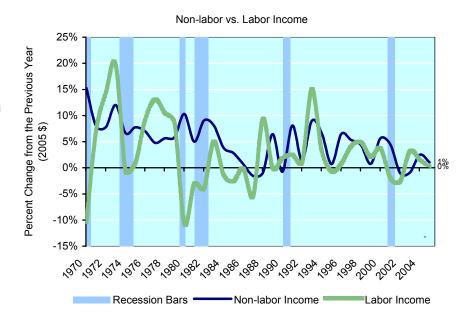
#### Stability vs. State and Nation

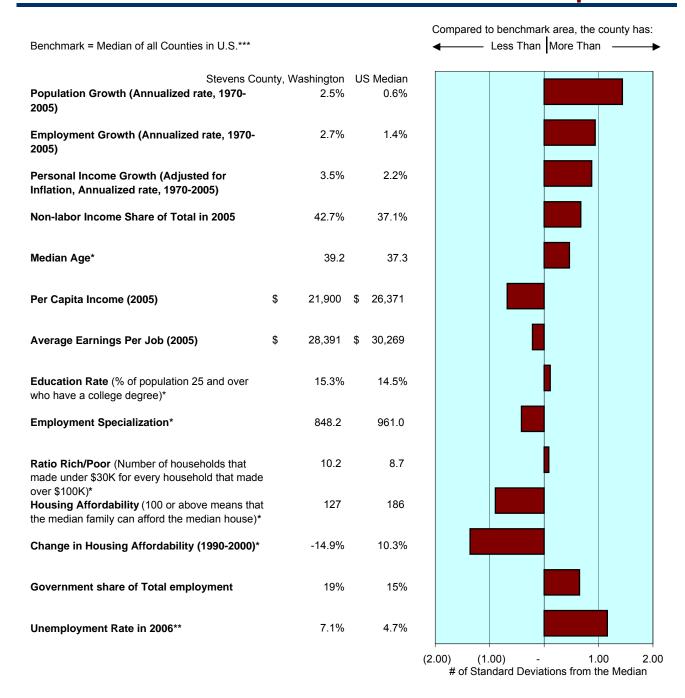
- Different regions can behave very differently during recessions and recoveries.
- Note: Below 0% means absolute decline. Above 0% means absolute growth, but at different rates.



#### **Labor vs. Non-Labor Income Stability**

 Non-labor income sources can have a stabilizing effect on the economy and are sometimes, but not always, counter-cyclical to labor income.





All data are from REIS except \* are from 2000 US Census and \*\* is from Bureau of Labor Statistics.

<sup>\*\*\*</sup>Median is the middle value of a list of numbers. This is different from mean (average), which is the sum of all the numbers in a list divided by the number of numbers in the list.

# Stevens County, Washington Employment and Income by Industry

#### In the following pages (28-31) you will learn about:

- 1. Long-term employment and personal income trends, from 1970 to 2005
- 2. How the structure of the economy has changed during the last three decades

Information for some industries and for some years may not be available from the U.S. Department of Commerce because of disclosure restrictions.

#### What is a 'disclosure restriction'?

A disclosure restriction means a gap exists in the data. Information has been suppressed by the U.S. Department of Commerce to avoid disclosure of confidential information. Generally, the smaller the geographic level of analysis and the smaller the population of the county, the higher the chances that industry-specific information is suppressed and that disclosure restrictions will occur.

Our model to estimate the disclosure restrictions currently provides estimates for employment and income using the SIC classification method through 2000 for the western states only.

#### Important Notes on the Industrial Classification Systems used by EPS

The U.S. Department of Commerce made a transition in how economic information is gathered and organized in 2001. The Standard Industrial Classification System (SIC) was used from 1970 to 2000; the North American Industrial Classification System (NAICS, pronounced "nakes") is used currently, for data from 2001 and beyond.

Unfortunately the two systems are not backward comparable, so they are presented separately in EPS: 1970 to 2000 data are organized by SIC, and data beyond those years are organized by NAICS.

The most important change resulting from the shift to NAICS is the recognition of hundreds of new businesses in today's economy. NAICS divides the economy into 20 broad sectors rather than the SIC's 10 divisions. This is especially helpful in giving a more detailed breakdown of the fastest growth area in the country's economy – "services." For example, advanced technology related "service" industries (e.g., professional, scientific and technical services) are clearly differentiated from "in-person" services (e.g., health care) and low-wage services (e.g., accommodation and food services).

For historical data (1970-2000, organized by SIC) EPS was designed to illustrate the complexity of the service economy in a couple of ways:

- 1) We use the term "Services and Professional" to underscore an important point: service occupations are not just "hamburger flippers and maids," but rather consist of a combination of high-paying and low-paying professions, mixing physicians with barbers, and chambermaids with architects and financial consultants.
- We reorganized the SIC categories into different types of services, such as Consumer Services, Producer Services, Social Services, and Government Services.

The transition to NAICS has alleviated the need to explain that "services" are actually a wide mix of low, medium, and high-wage industries.

#### **About Missing Data**

This profile is organized so that all non-disclosed information is presented first. Employment and personal income by industry is presented last. For some rural counties, and for some industries, data gaps may occur. EPS has a built-in system for estimating data gaps through 2000 for the 11 contiguous western states (AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY). When estimates are used in the tables on pages 28 and 30, they are highlighted in bold red text.

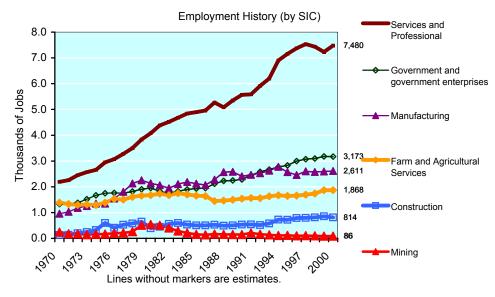
Data ends in 2000 because the BEA switched to a different classification system (NAICS) in 2001.

#### Growth

 The employment category whose share of total gained the most was services and professional, which went from 36.1% in 1977 to 46.7% in 2000.

#### **Decline**

 The category whose share of total shrank the most was farm, which went from 15.0% in 1977 to 9.1% in 2000.



	1977	% of Total	2000	% of Total	New	Employment	% of New Employ ment	Change ir Share
Total Employment	9,079.0		16,032.0		6,953.0			
Wage and Salary Employment	6,586.0	72.5%	10,987.0	68.5%	4,401.0		63.3%	
Proprietors' Employment	2,493.0	27.5%	5,045.0	31.5%	2,552.0		36.7%	
Farm and Agricultural Services	1,504.0	16.6%	1,868.0	11.7%	364.0		5.2%	
Farm	1,366.0	15.0%	1,452.0	9.1%	86.0		1.2%	
Ag. Services	138.0	1.5%	416.0	2.6%	278.0		4.0%	
Mining	211.0	2.3%	86.0	0.5%	(125.0)		NA	
Manufacturing (incl. forest products)	1,804.0	19.9%	2,611.0	16.3%	807.0		11.6%	
Services and Professional	3,278.0	36.1%	7,480.0	46.7%	4,202.0		60.4%	
Transportation & Public Utilities	226.0	2.5%	505.0	3.1%	279.0		4.0%	
Wholesale Trade	174.0	1.9%	305.0	1.9%	131.0		1.9%	
Retail Trade	1,207.0	13.3%	2,384.0	14.9%	1,177.0		16.9%	
Finance, Insurance & Real Estate	371.0	4.1%	695.0	4.3%	324.0		4.7%	
Services (Health, Legal, Business, Others)	1,300.0	14.3%	3,591.0	22.4%	2,291.0		32.9%	
Construction	530.0	5.8%	814.0	5.1%	284.0		4.1%	
Government	1,752.0	19.3%	3,173.0	19.8%	1,421.0		20.4%	

<sup>\*</sup> Estimates for data that were not disclosed are bold and red in the above table.

<sup>\*</sup> Agricultural Services include soil preparation services, crop services, etc. It also includes forestry services, such as reforestation services, and fishing, hunting and trapping. Manufacturing includes paper, lumber and wood products manufacturing.

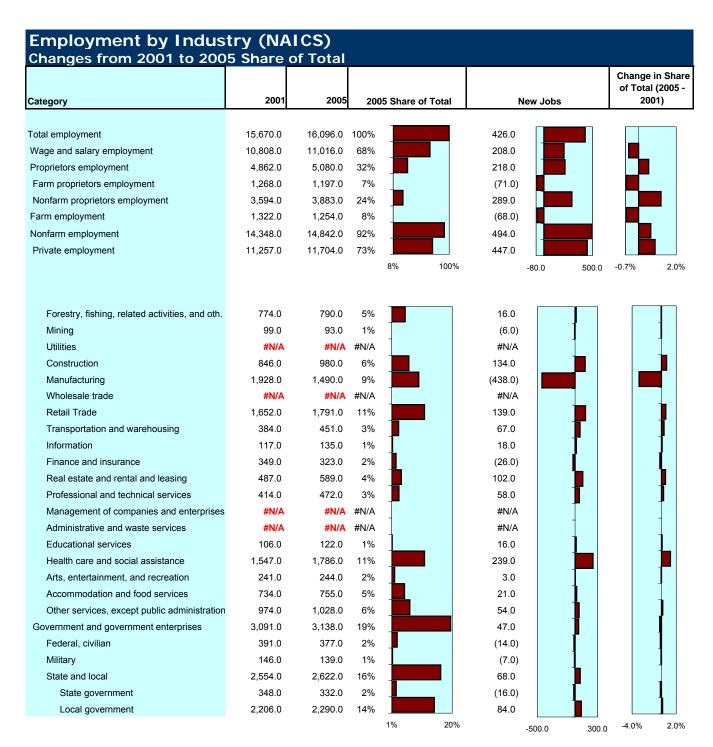
Source: BEA REIS 2005 CD Table CA25

#### Growth

Missing data prevent this ranking

#### **Decline**

Missing data prevent this ranking.



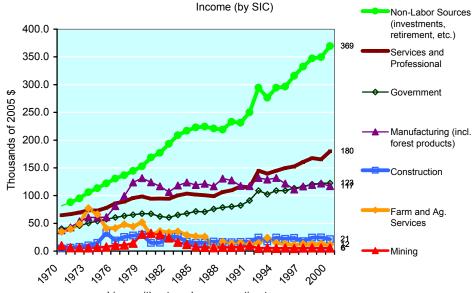
Data ends in 2000 because the BEA switched to a different classification system (NAICS) in 2001.

#### Growth

 The income category whose share of total gained the most was nonlabor income, which went from 28.1% in 1977 to 41.3% in 2000.

#### **Decline**

 The category whose share of total shrank the most was farm, which went from 9.3% in 1977 to 0.7% in 2000.



Lines without markers are estimates.

All figures in millions of 2000 dollars	1977 % of Total		2000 % of Total		New Income 1977 to 2000		% of New Income	Change in Share	
Total Personal Income*	486.5		894.6		408.2				
Farm and Agricultural Services	48.0	9.9%	11.9	1.3%	(36.1)		NA		
Farm	45.2	9.3%	6.0	0.7%	(39.2)		NA		
Ag. Services	2.8	0.6%	5.9	0.7%	3.1		1%		
Mining	10.8	2.2%	5.5	0.6%	(5.3)		NA		
Manufacturing (incl. forest products)	99.2	20.4%	117.0	13.1%	17.8		4%		
Services and Professional	89.1	18.3%	179.9	20.1%	90.9		22%		
Transportation & Public Utilities	11.3	2.3%	27.8	3.1%	16.5		4%		
Wholesale Trade	6.7	1.4%	8.0	0.9%	1.3		0%		
Retail Trade	32.1	6.6%	40.0	4.5%	7.9		2%		
Finance, Insurance & Real Estate	6.4	1.3%	9.8	1.1%	3.4	į l	1%		
Services (Health, Legal, Business, Oth.	32.6	6.7%	94.3	10.5%	61.6		15%		
Construction	25.5	5.2%	21.4	2.4%	(4.1)		NA		
Government	63.4	13.0%	122.7	13.7%	59.3		15%		
Non-Labor Income	136.8	28.1%	369.4	41.3%	232.6		57%		
Dividends, Interest & Rent	71.3	14.7%	165.0	18.4%	93.7		23%		
Transfer Payments	65.4	13.4%	204.4	22.8%	138.9		34%		

<sup>\*</sup> Estimates for data that were not disclosed are bold and red in the above table.

<sup>\*</sup>The sum of the above categories do not add to total due to adjustments made for place of residence and personal contributions for social insurance made by the U.S. Department of Commerce.

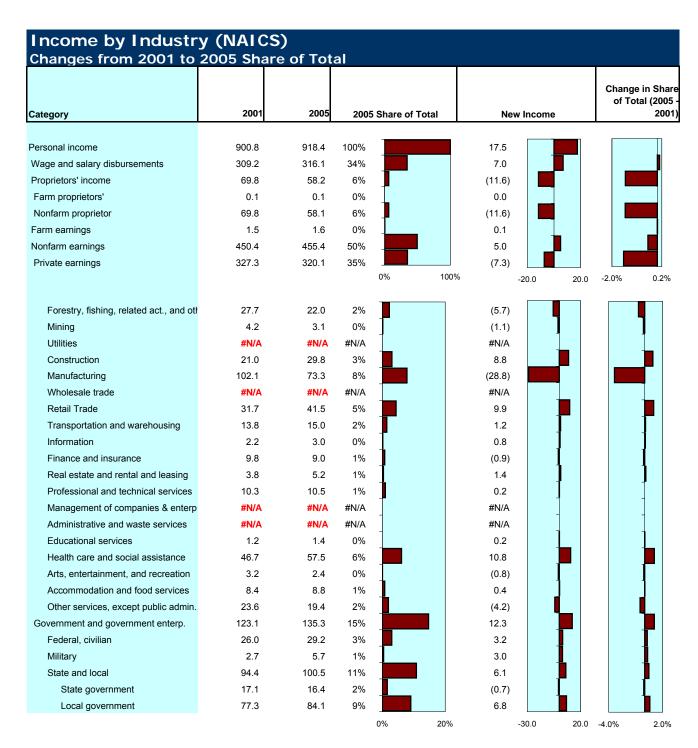
# **Personal Income (NAICS)**

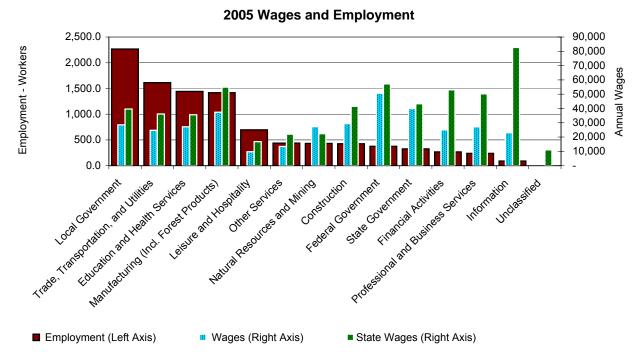
#### Growth

Missing data prevent this ranking

#### Decline

Missing data prevent this ranking.





- Of the major categories, the highest paying sector is Federal Government. It accounts for 5.3% of total employment and pays \$50,695 per year.
- Of the major categories that have data, the largest employment sector is Local Government. It accounts for 22.6% of total employment and pays \$28,508 per year.
- Goods-producing employees (2,276 workers) were paid an average of \$33,964.
- Service-providing employees (4,787 workers) were paid an average of \$22,356.
- Wages in the public sector (\$32,576) exceeded wages in the private sector (\$26,097) by 24.8%.

<b>County Wages and Emp</b>	lovment	in 2005	
	,		Average Annual
	Employment	% of Total	Wages
Total Private & Public	10,033	100%	28,016
Total Private	7,063	70%	26,097
Goods-Producing	2,276	23%	33,964
Natural Resources and Mining	433	4%	27,361
Agriculture, forestry, fishing & hunting	369	4%	26,354
Mining	64	1%	33,180
Construction	425	4%	29,454
Manufacturing (Incl. Forest Products)	1,418	14%	37,333
Service-Providing	4,787	48%	22,356
Trade, Transportation, and Utilities	1,614	16%	24,695
Information	90	1%	23,051
Financial Activities	268	3%	25,031
Professional and Business Services	238	2%	27,182
Education and Health Services	1,443	14%	27,226
Leisure and Hospitality	696	7%	9,691
Other Services	439	4%	13,427
Unclassified	#N/A	#N/A	#N/A
Total Public	2,970	30%	32,576
Federal Government	376	4%	50,695
State Government	327	3%	39,984
Local Government	2,267	23%	28,508

Wages are shaded in green when they are more than 20% higher than the wages for all sectors and in red when they are less than 20% lower.

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)

Page 32 Wages Employment

#### **Data Sources**

The Economic Profile System was designed to focus on long-term trends at the county level. We used this method and geographic scale for several reasons: (1) trend analysis provides a more comprehensive view of change than spot data for select years, (2) the most reliable information on long-term employment and income trends is available at the county level, and (3) communities within counties rarely function as economic units themselves. Finally, even though in many areas the most accurate geographic scale to understand economic changes may be at the multi-county or regional level, county-level data is useful in the context of existing political jurisdictions, such as county commissions and planning departments. The list below contains the World Wide Web sites and telephone numbers for the databases used in this report:

#### • Regional Economic Information System (REIS)

Bureau of Economic Analysis, U.S. Department of Commerce.

http://bea.gov/bea/regional/data.htm

Tel.202-606-9600

#### Quarterly Census of Employment and Wages (QCEW)

**Bureau of Labor Statistics** 

http://www.bls.gov/cew

Tel. 202-691-6567

#### • Local Area Unemployment Statistics (LAUS)

**Bureau of Labor Statistics** 

http://www.bls.gov/LAU

Tel. 202-691-6392

#### • 1990 and 2000 U.S. Census

Bureau of Census

http://www.census.gov

Tel. 303-969-7750

#### County Business Patterns (CBP)

Bureau of the Census, U.S. Department of Commerce.

http://www.census.gov/epcd/cbp/view/cbpview.html

Tel 301-763-2580

#### . County Business Patterns (Before 1986)

University of Virginia, Geospatial and Statistical Data Center:

http://fisher.lib.virginia.edu

Tel. 804-982-2630

#### **Use of Federal Rather than State Data Bases**

Data from state agencies was not used for this profile. Many of the state and local sources of data do not include information on the self-employed or on the importance of non-labor income, such as retirement income and money earned from past investments. In many counties this can result in the underestimation of employment and total personal income by at least one third. The REIS disk of the Bureau of Economic Analysis contains the most robust data set and for this reason it was used as the primary source.

The only disadvantage of the REIS dataset is it's not as recent; 2005 is the latest for REIS, while state data sources provide data for as recent as 2006. By providing long-term trends data, from 1970 to 2005, having the most recent data is less important than being able to discern where the county's economy has been, and the direction in which it has been headed in recent years.

#### **Industrial Classification Systems (SIC & NAICS)**

The long-term historic industry data used in this profile are based on data that is organized by the U.S. Department of Commerce using the Standard Industrial Classification (SIC) system. In recent years, the Department of Commerce has reorganized economic data according to a new system, called the North American Industry Classification System (NAICS, pronounced "nakes"). County Business Patterns started organizing their data using new NAICS in 1998, Census in 2000, and the Regional Economic Information System (REIS) in 2001.

The NAICS system is an improvement to the SIC system in several ways: first, businesses that use similar processes to produce goods or services are classified together. Previously, under the SIC system, some businesses were classified on the basis of their production processes while others were classified under different principles, such as class of consumer. Second, NAICS is a flexible system that will be updated every five years in order to keep pace with changes in the economy. Third, the NAICS system recognizes the uniqueness and rising importance of the "information economy," and provides several new categories, such as cable program distributors and database and directory publishers. Finally, and perhaps the most useful, the NAICS system provides seven sectors to better reflect services-producing businesses that were previously combined into one generic SIC division (the Services division).

This new system allows the data user to differentiate more clearly between what was previously often lumped under the general heading of "services," into categories such as arts and entertainment; education; professional, scientific and technical services; health care and social assistance, among others.

Arguably the most important change of NAICS is the recognition of hundreds of new businesses in the economy. NAICS divides the economy into 20 broad sectors rather than the SIC's 10 divisions as seen in the table on the following page. Creating these additional sector-level groupings allows NAICS to better reflect key business activities, as well as chronicle their changes.

#### SIC Divisions vs. NAICS Sectors

# SIC Divisions Agriculture, Forestry, and Fishing Mining Construction Manufacturing Transportation, Communications, and Public Wholesale Trade Retail Trade Finance, Insurance, and Real Estate Services Public Administration None (previously, categories within each division)

IAIC3 3ECIDI 3
NAICS Sectors
Agriculture, Forestry, Fishing and Hunting
Mining
Construction
Manufacturing
Utilities
Transportation and Warehousing
Wholesale Trade
Retail Trade
Accommodation and Food Services
<ul> <li>Finance and Insurance</li> </ul>
Real Estate and Rental and Leasing
Information
<ul> <li>Professional, Scientific, and Technical Services</li> </ul>
<ul> <li>Administrative and Support and Waste</li> </ul>
<ul> <li>Management and Remediation Services</li> </ul>
Educational Services
<ul> <li>Health Care and Social Assistance</li> </ul>
<ul> <li>Arts, Entertainment, and Recreation</li> </ul>
Other Services (except Public Administration)
Public Administration
<ul> <li>Management of Companies and Enterprises</li> </ul>

#### **Non-Labor Income**

Non-labor income is a mix of Dividends, Interest, and Rent (money earned from past investments), and Transfer Payments (government payments to individuals). Private pension funds (e.g. 401(K) plans) are not counted as part of transfer payments.

Some data sources, such as "Section 202" data available from state unemployment insurance records and reported by the Bureau of Labor Statistics, do not report non-labor income. The Bureau of Economic Analysis (BEA), on the other hand, tracks non-labor income. In order to understand the actual growth (labor and non-labor) of personal income, the REIS/BEA data set must be used, and this is what was used for this profile. From REIS table CA05, we added together the following two categories to derive non-labor income: "Personal current transfer receipts" and "Dividends, interest, and rent."

#### **Disclosure Gaps**

Some data, such as employment and income figures in counties with small economies, are not available because of confidentiality restrictions. In order to protect information about individual businesses, data are sometimes suppressed or, in the case of the publication County Business Patterns, a range of values are given instead of a specific value. Generally, the smaller the geographic level of analysis or the smaller the economy under examination the higher the chances that industry-specific information will be suppressed.

Where disclosure gaps exist, the EPS User's Manual outlines a few ways to handle the gaps. One approach is to use a built-in system within EPS for estimating data gaps through 2000 for the 11 contiguous western states (AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY). In order to calculate the estimates, we first estimated gaps in the County Business Patterns data by using the firms by size information. Then we used these County Business Patterns data to estimate the gaps in the REIS data. Finally, we scaled the estimates up or down to force known identities. There is an option in EPS to either show these estimates or not. When these estimates are shown, annotations were made in the profile documenting where estimates were used. For a description of the methods used to estimate the data gaps in EPS, see the EPS User's Manual.

#### **Aggregated Profiles**

The economic profile system has an option to allow you to aggregate data from multiple counties into one profile. The majority of the data in the profiles are summed in the aggregate profile. For some data points, however, the data are averaged. In order to do this, EPS has to replace some of the data in the raw data tables with formulae. For example, the aggregate unemployment rate for a group of counties is calculated from the sum of the unemployed divided by the sum of the labor force. This results in a proportionally weighted average, where larger counties are given more weight then smaller counties.

The Economic Profile System interpolates the medians from the data that are available. When the Census releases data expressed as a median, they also release the number of observations that fall in the full range of categories, or "brackets". For example, median age is interpolated from the number of people in each age bracket. EPS aggregates the number of people in each bracket, and then interpolates the median from the aggregated data. In some cases, the Census have more detailed brackets than we do in the EPS databases so the interpolations in aggregated EPS profiles are rough estimates.

#### **Adjustments from Current to Real Dollars**

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in this profile were adjusted to real (or constant) 2005 dollars using the Consumer Price Index, except the Income Distribution information on page 5 of the profile.



#### **Unemployment Rate**

Unemployment is generally available as seasonally unadjusted or adjusted, and there is an advantage to using adjusted data. From the Bureau of Labor Statistics web site (http://stats.bls.gov/lauseas.htm), an explanation of why adjusted figures should be used, whenever possible: "Over the year, the size of the Nation's labor force, the levels of employment and unemployment, and other measures of labor market activity undergo sharp fluctuations due to seasonal events including changes in weather, harvests, major holidays, and the opening and closing of schools. Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make it easier to observe the cyclical, long term trend, and other non-seasonal movements in the series."

Unadjusted numbers were used in this profile in order to obtain an annual average and because county-level data are not available in adjusted format from the Bureau of Labor Statistics web site. This may introduce some error in counties where the size of the workforce fluctuates seasonally, such as tourist destination areas.

#### **Farm Income**

Note that farm income figures on pages 21 are not the same as the figures on pages 30 & 31. The figures on page 21 reflect income from farming *enterprises* (farm proprietors and corporate income), while the farm income on pages 30 & 31 is personal income earned by *individuals* (both proprietors, and wage and salary employees) who work in farming.

#### **Specialization Index**

The specialization index was calculated as:

$$SPECIAL_{it} = \sum_{i=1}^{\infty} (EMP_{ijt}/EMP_{it})^{2}$$

 $SPECIAL_{it}$  = specialization of economy in county i in year t

EMP<sub>ijt</sub> = employment in industry j in county i in year t

EMP<sub>it</sub> = total employment in county i in year t

n = number of industries

This index is commonly used as a measure of industrial specialization in the economy. Counties with a high specialization index can also be described as not being economically diverse.

#### Income

- <u>Total Personal Income</u> = private earnings, income from government and government enterprises, dividends, interest, and rent, and transfer payments plus adjustments for residence minus personal contributions for social insurance.
- Wage and salary = monetary remuneration of employees, including employee contributions to certain deferred compensation programs, such as 401K plans.
- Other labor income = payments by employers to privately administered benefit plans for their employees, the fees paid to corporate directors, and miscellaneous fees.
- <u>Proprietors' income</u> = income from sole proprietorships, partnerships, and tax-exempt cooperatives. A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its members.

#### **Transfer Payments**

- <u>Transfer payments</u> = payments to persons for which they do not render current services. As a component of personal income, they are payments by government and business to individuals and nonprofit institutions.
- Retirement & disab. insurance benefit payments = Old-Age, Survivors, and Disability Insurance payments (Social Security),
  Railroad Retirement and Disability payments, Federal Civilian Employee & Disability Payments, Military Retirement, and State and
  Local Government Employee retirement payments.
- Medical payments = Medicare, public assistance medical care and CHAMPUS payments.
- Income maintenance (welfare) = Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), Food Stamps, and Other Income Maintenance Payments, such as emergency assistance, foster care payments and energy assistance payments.
- <u>Unemployment insurance benefit payments</u> = unemployment compensation for state and federal civilian employees, unemployment compensation for railroad workers, and unemployment compensation for veterans.
- <u>Veterans benefits</u> = primarily compensation to veterans for their disabilities and payments to their survivors.
- <u>Federal education and training assistance</u> = Job Corps payments, interest payments on Guaranteed Student Loans, federal fellowship payments, and student assistance for higher education.
- Other government payments = compensation of survivors of public safety officers and compensation of victims of crime. In Alaska this item includes Alaska Permanent Fund payments.
- <u>Payments to nonprofit institutions</u> = payments for development and research contracts. For example, it includes payments for foster home care supervised by private agencies.
- <u>Business payments to individuals</u> = personal-injury liability payments, cash prizes, and pension benefits financed by the Pension Benefit Guarantee Corporation.

#### Mean, Median and Modes

- Mean = The sum of a list of numbers, divided by the total number of numbers in the list.
- <u>Median</u> = "Middle value" of a list. The smallest number such that at least half the numbers in the list are no greater than it. If the list has an odd number of entries, the median is the middle entry in the list after sorting the list into increasing order. If the list has an even number of entries, the median is equal to the sum of the two middle (after sorting) numbers divided by two. The median can be estimated from a histogram by finding the smallest number such that the area under the histogram to the left of that number is
- <u>Mode</u> = For lists, the mode is the most common (frequent) value. A list can have more than one mode. For histograms, a mode is a relative maximum ("bump").