

# A SocioEconomic Profile

## Cascade County, Montana

### Economic Profile System (EPS)



Produced by the  
**Sonoran Institute's**  
**Economic Profile System (EPS)**

December 22, 2005

### About The Economic Profile System (EPS)

This profile was produced using the Economic Profile System (EPS). EPS is designed to allow any user to automatically and efficiently produce a detailed socio-economic profile using the spreadsheet program Microsoft Excel. This profile contains 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; and agriculture. 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 as a tool to assist public land managers, planners, elected officials, and citizens. EPS, databases for the entire country, the User's Manual, and a related PowerPoint demonstration are available for free from the Sonoran Institute at: [www.sonoran.org/eps](http://www.sonoran.org/eps). For more information about EPS or to request a training workshop please contact: [ray@sonoran.org](mailto:ray@sonoran.org) or [ben@sonoran.org](mailto:ben@sonoran.org).

### About The Sonoran Institute

A nonprofit organization established in 1990, the Sonoran Institute brings diverse people together to accomplish their conservation goals. The Institute works with communities to conserve and restore important natural landscapes in western North America, including the wildlife and cultural values of these lands. The lasting benefits of the Sonoran Institute's work are healthy landscapes and vibrant communities that embrace conservation as an integral element of their quality of life and economic vitality.

Main Office

7650 E. Broadway Blvd., Suite 203  
Tucson, Arizona 85710  
(520) 290-0828

Phoenix Office

4835 E. Cactus Road, Suite 270  
Scottsdale, Arizona 85254  
(602) 393-4310

Northwest Office

201 S. Wallace Avenue  
Bozeman, Montana 59715  
(406) 587-7331

[www.sonoran.org](http://www.sonoran.org)



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There are two related systems for producing socioeconomic profiles: 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' 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 step-by-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.

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 most often has data gaps, or disclosure restrictions. EPS has a built-in system for estimating data gaps.

### 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 Cascade County, Montana:

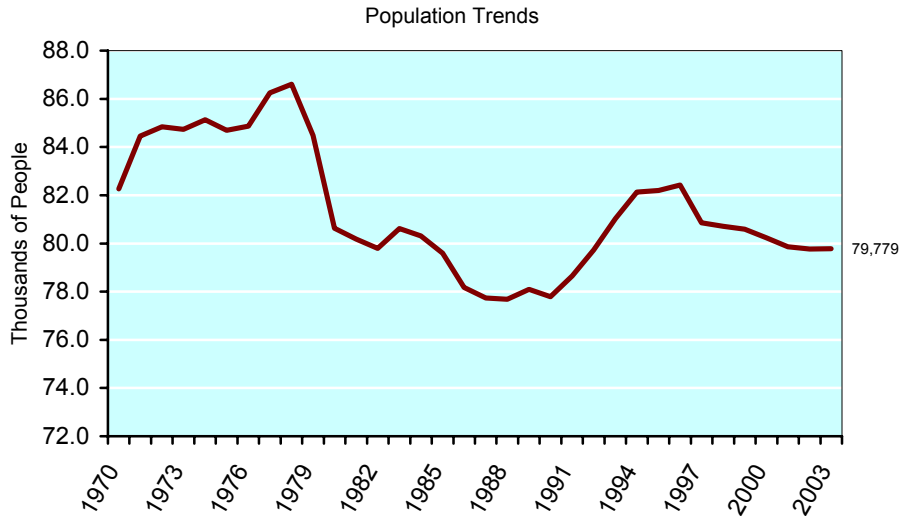
- Population Growth (Annualized rate, 1970-2003) was somewhat slow.
- Employment Growth (Annualized rate, 1970-2003) was somewhat slow.
- Personal Income Growth (Adjusted for Inflation, Annualized rate, 1970-2003) was somewhat slow.
- Non-labor Income Share of Total in 2003 was somewhat low.
- Median Age\* was roughly average.
- Per Capita Income (2003) was somewhat high.
- Average Earnings Per Job (2003) was somewhat high.
- Education Rate (% of population 25 and over who have a college degree)\* was somewhat high.
- 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 2004\*\* was somewhat low.

\*\*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.

\* from 2000 US Census \*\* from Bureau of Labor Statistics

Population

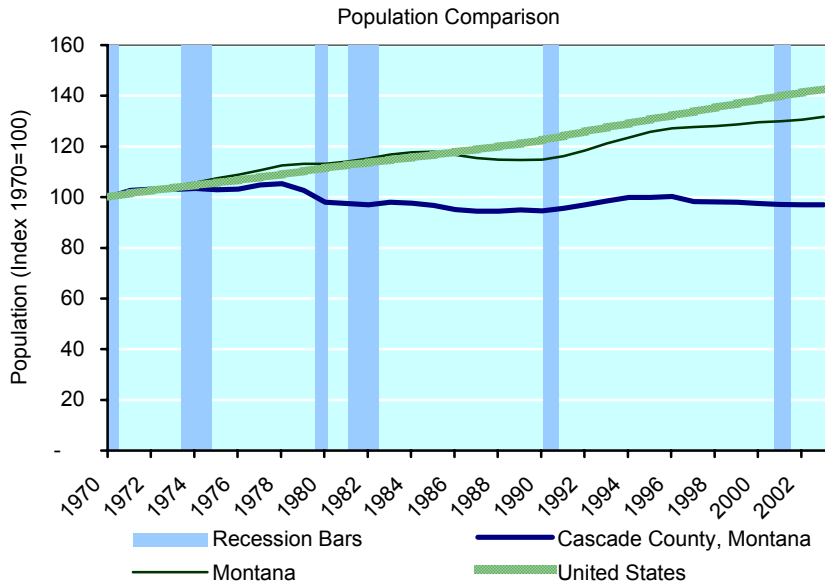
- From 1970 to 2003 population fell by 2,479 people, a 3% decline in population.
- At an annual rate, this represents an decline of 0.1%.



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 33 years population growth in Cascade County, Montana has been slower than the state and slower than the nation.
- Population growth is not generally impacted by national recessions.



Source: BEA REIS 2003 Table CA30

### How well do we recover from recessions?

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

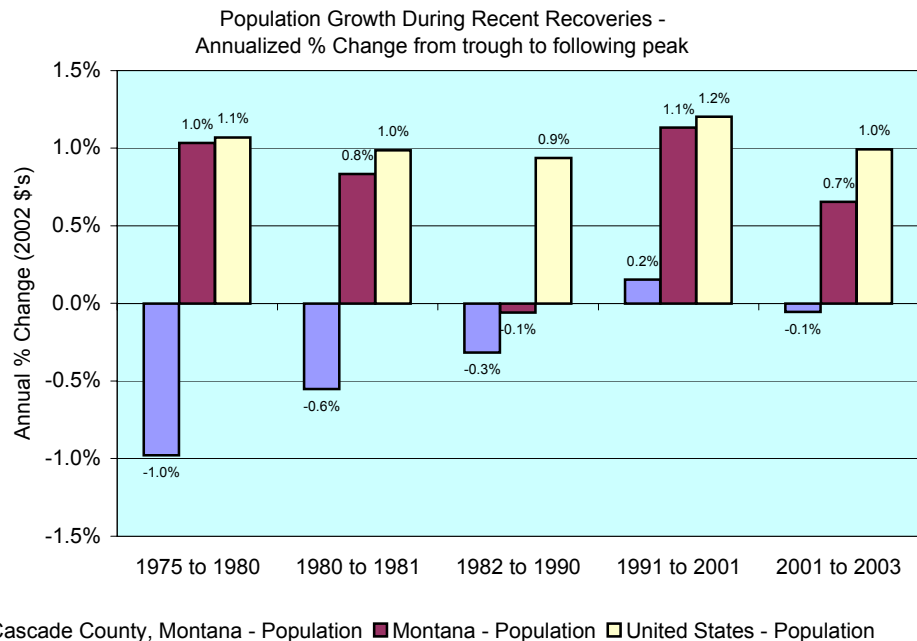
A recession is defined by the National Bureau of Economic Research as “a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail sales.”

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 <http://www.nber.org/cycles.html> for more information about business cycles.

- In the latest recovery (2001 to 2003), population growth in the United States (up 1.0%) outpaced Montana and Cascade County, Montana.
- Similarly, in the last recovery (1991 to 2001), the United States (up 1.2%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 0.9%) grew the fastest.



Source: BEA REIS 2003 Table CA30

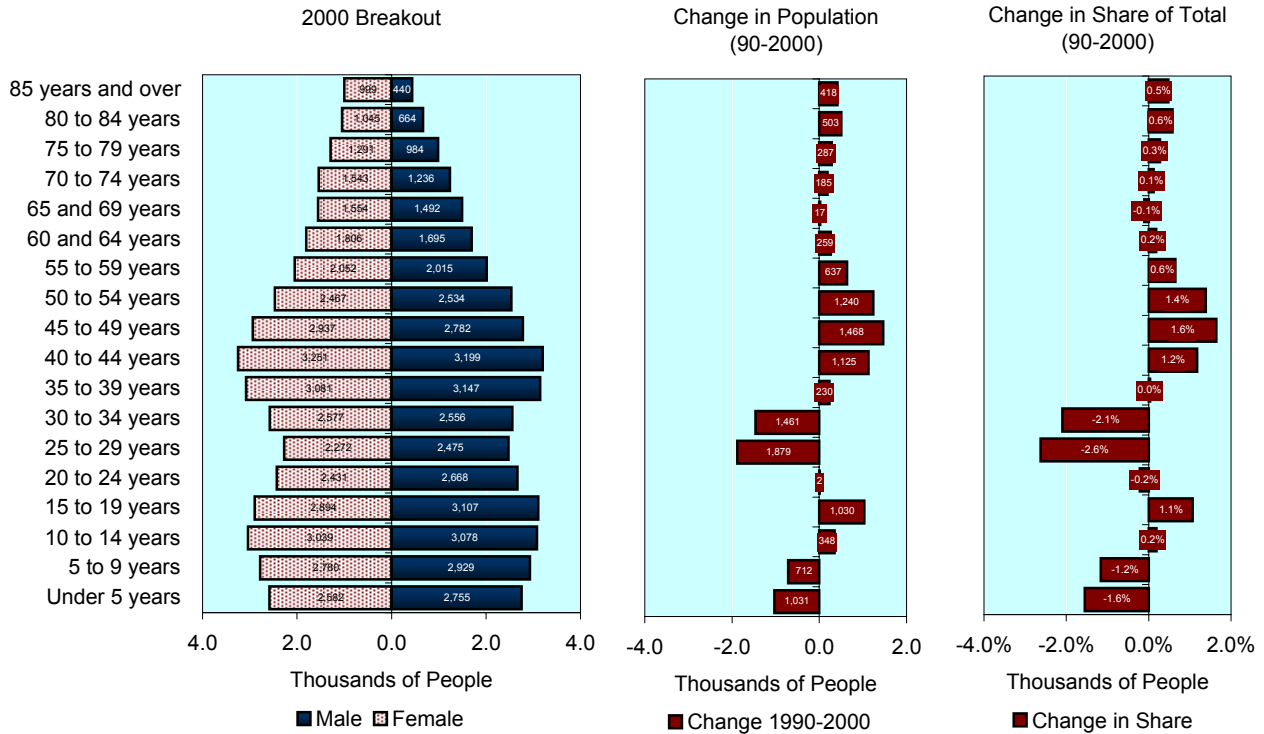
(From EPSC)

- The population has gotten older since 1990. The median age in 2000 is 36.7 years, up from 32.7 years in 1990.
- The largest age category is 40 to 44 years old (6,450 people or 8.0% of the total).
- Total Population in 2000 was 80,357 people, up 3% from 77,691 in 1990.
- The age group that has grown the fastest, as a share of total, is 45 to 49 years, up 1,468 people. Their share of total rose by 1.6%

Population by Age and Sex									
	Total Number	Under 20 years Number Share		40 - 54 (Baby Boom in 2000) Number Share		65 years and over Number Share		Median Age	Density (Pop. per sq. mi.)
Total Population									
2000	80,357	23,164	29%	17,170	21%	11,248	14%	36.7	30
1990	77,691	23,529	30%	13,337	17%	9,838	13%	32.7	29
10 Yr. Change	2,666	(365)	-1%	3,833	4%	1,410	1%	4.0	1
10 Yr. % Change	3%	-2%		29%		14%		12%	3%
2000 Sex Breakout									
Male	39,756	11,869	30%	8,515	21%	4,816	12%	35.6	
Female	40,601	11,295	28%	8,655	21%	6,432	16%	38.0	
Male/Female Split	49% / 51%	51% / 49%		50% / 50%		43% / 57%			

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).

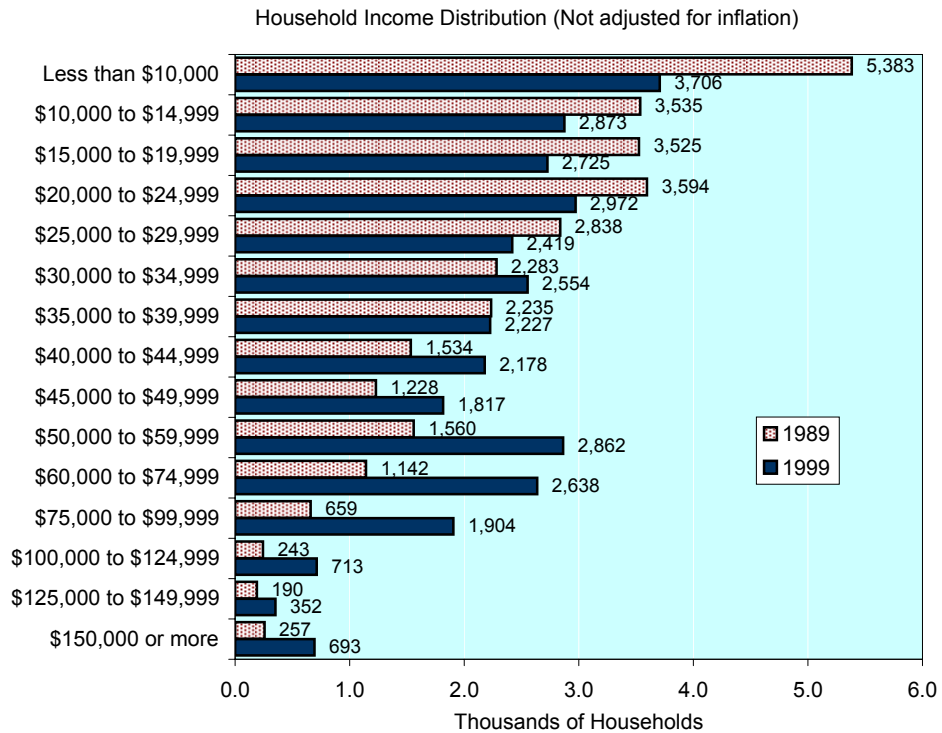


Source: Census 2000 and Census 1990



## Income Distribution

- In 1999, for every household that made over \$100K, there were 8.4 households that made under \$30K. 10 years earlier, for every household that made over \$100K, there were 27.4 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 153, which suggests that the median family can afford the median house. \*
- Housing affordability has become more affordable in the last decade, from 138 in 1990 to 153 in 2000.

Owner Occupied Housing Affordability	1990	2000
Specified owner-occupied housing units: Median value (Adjusted for inflation)	\$ 79,051	\$ 92,500
% of median income necessary to buy the median house	18%	16%
Income required to qualify for the median house	\$ 26,662	\$ 26,138
Housing Affordability Index: (100 or above means that the median family can afford the median house.)*	138	153

Universe: Specified owner-occupied housing units

SF3 - H76

Income in:	1989	1999
Per capita income		\$ 17,566
Median household income (Adj. for Inflation in 2000 \$)	\$ 31,225	\$ 32,971
Median family income (Adj. for Inflation in 2000 \$)	\$ 36,760	\$ 39,949

Universe: Total population, Households, Families

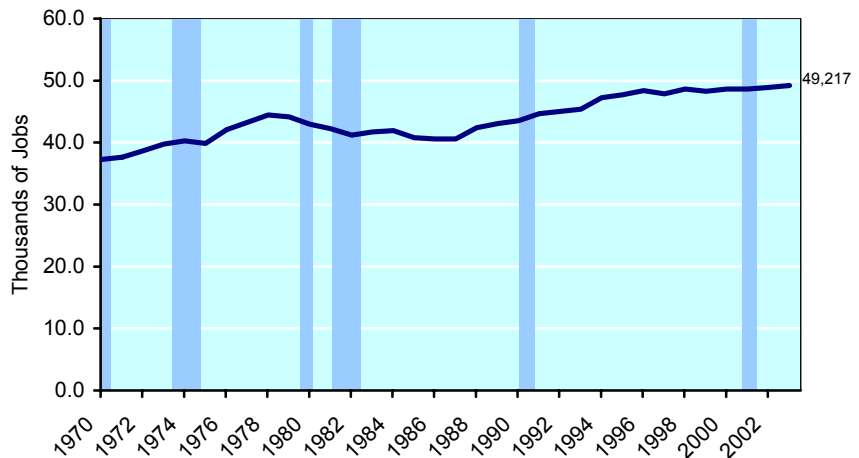
SF3 - P82,P53,P77

\* 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.

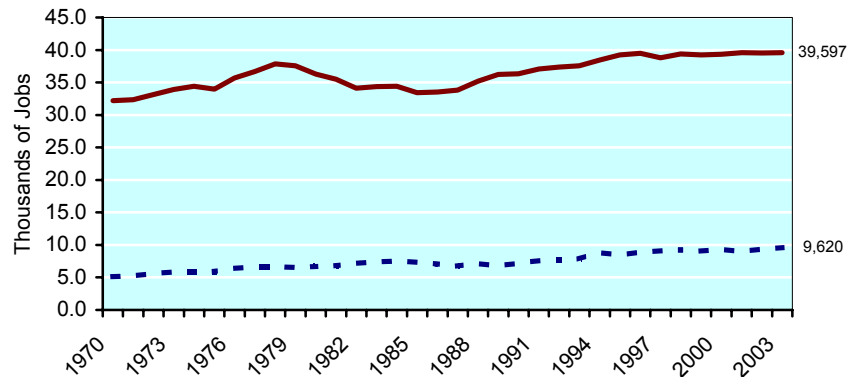
Source: Census 2000 and Census 1990

Total Employment

- From 1970 to 2003, 11,920 new jobs were created.
- From 1970 to 2003, the majority of job growth, 62% of new jobs, has been in wage and salary employment (people who work for someone else).



- Employment of proprietors contributed to 38% of new employment from 1970 to 2003, and 47% of new employment since 1993.
- In 1970, proprietors represented 13.7% of total employment; by 2003, they represented 19.5%.



— Wage and salary jobs    - - - Number of proprietors

**Employment by Industry**  
Changes from 1970 to 2003

	1970	% of Total	1993	2003	% of Total	New Employment (70-03)	% of New Employment	New Employment (93-03)	% of New Employment
Total full-time and part-time employment	37,297		45,395	49,217		11,920		3,822	100.0%
Wage and salary jobs	32,198	86.3%	37,575	39,597	80.5%	7,399	62.1%	2,022	52.9%
Number of proprietors	5,099	13.7%	7,820	9,620	19.5%	4,521	37.9%	1,800	47.1%
Number of nonfarm proprietors 5/	4,239	11.4%	6,942	8,584	17.4%	4,345	36.5%	1,642	43.0%
Number of farm proprietors	860	2.3%	878	1,036	2.1%	176	1.5%	158	4.1%

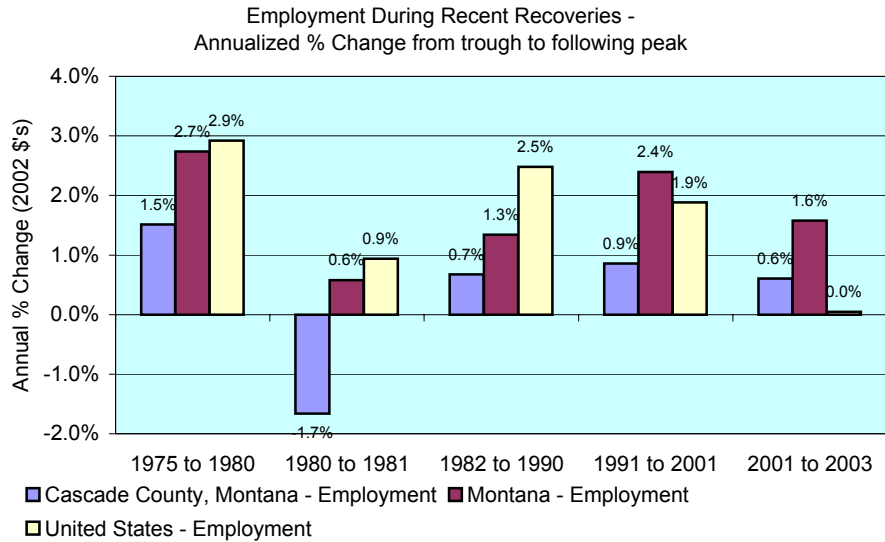
**Proprietors** include sole proprietorships, partnerships, and tax-exempt cooperatives. A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization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

**Wage and salary** employment refers to employees.

Source: BEA REIS 2003 Table CA30

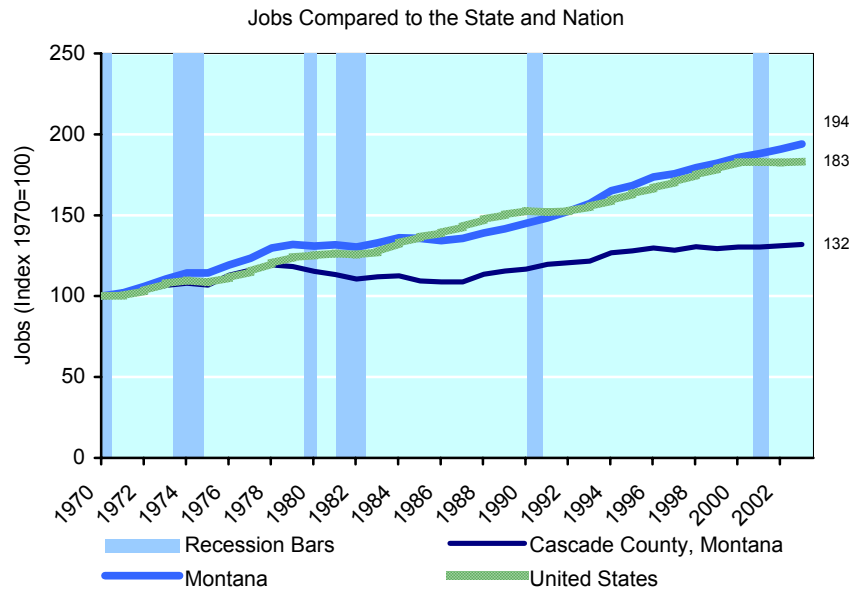
How well do we recover from recessions?

- In the latest recovery (2001 to 2003), employment growth in Montana (up 1.6%) has outpaced Cascade County, Montana and the United States.
- Similarly, in the last recovery (1991 to 2001), Montana (up 2.4%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 2.5%) grew the fastest.



Job Growth Compared to the State and the Nation

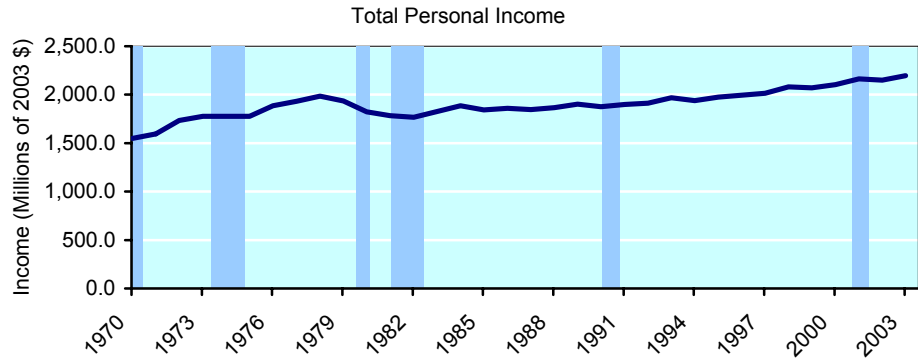
- Over the last 33 years job growth in Cascade County, Montana has been slower than the state and slower than the nation.
- Some areas can experience employment gains even during the recessions. If so, check to see how much is due to migration and population changes.



Source: BEA REIS 2003 Table CA30

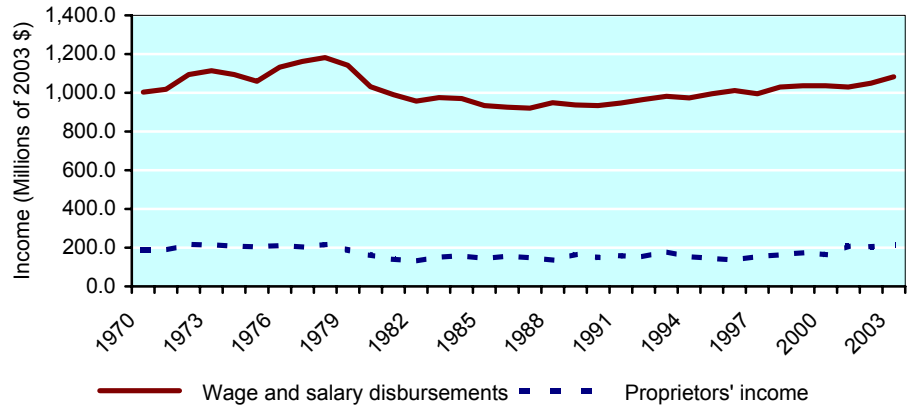
Long term trend

- From 1970 to 2003, personal income added \$646 million in real terms.
- The annualized growth rate was 1.1%.



Importance of Proprietors

- In the last 33 years, proprietors' income grew at an annual rate of 0.4%, outpacing wage and salary disbursements which was roughly unchanged.
- 13.7% of new labor income from 1970 to 2003 was from proprietors' income.



Wages and Salaries vs. Proprietors

All income in millions of 2003 dollars	1970		1993		2003		New Income 70-03	% of New Income
	1970	% of Labor	1993	% of Labor	2003	% of Labor		
<b>Labor Sources</b>	1,218	100%	1,265	100%	1,422	100%	203	100.0%
Wage and salary disbursements	1,004	82%	982	78%	1,083	76%	79	38.8%
Proprietors' income	187	15%	179	14%	215	15%	28	13.7%
Nonfarm proprietors' income	136	11%	139	11%	216	15%	80	39.4%
Farm proprietors' income	51	4%	40	3%	(2)	0%	(52)	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 2003 Table CA05N and CA30

Definitions:

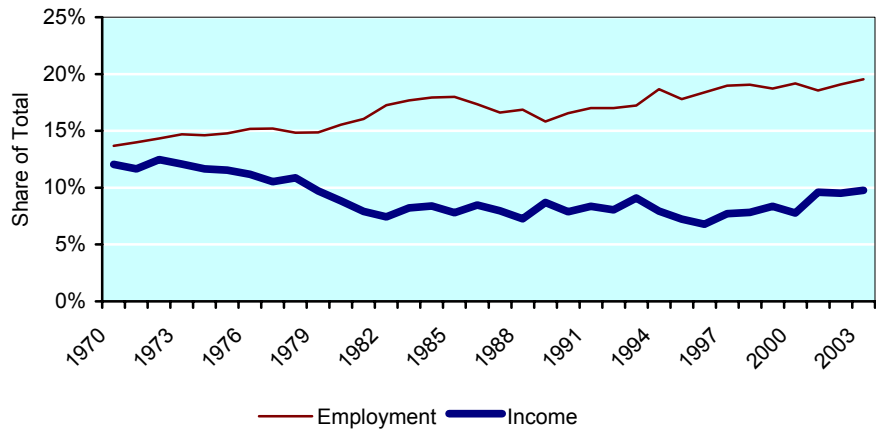
“Proprietors” refers to employment and income from sole proprietorships, partnerships, and tax-except cooperatives. “Wage and salary” refers to employees; people who work for someone else.

Are proprietors an important indicator of economic health?

- 1) 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).
- 2) 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 indicators in this profile: unemployment rates over time, changes in earnings per job.

Proprietors' Share of Total (Income vs. Employment)

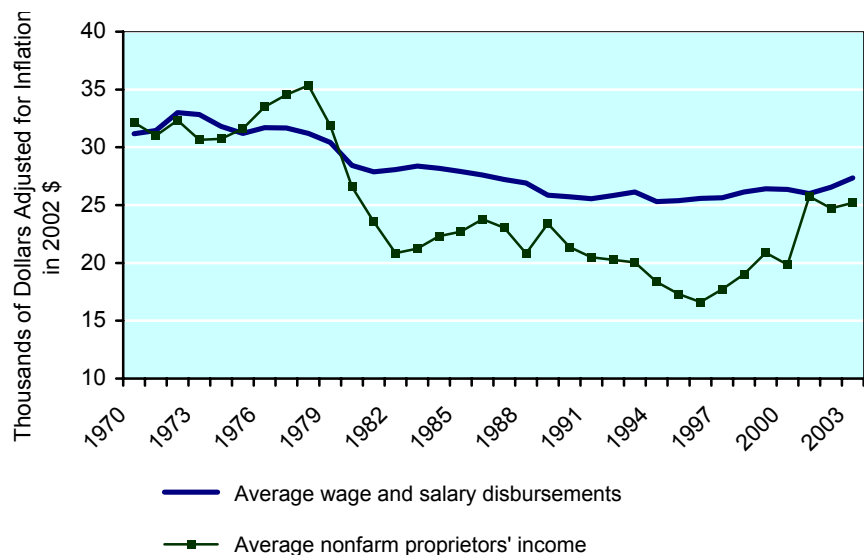
- In 2003, proprietors' share of total employment (20%) was higher than proprietors' income share of total (10%).
- From 1970 to 2003, proprietors' income share of total fell by 18.8%, while proprietors' employment share of total grew by 43.0%.



How are Proprietors Doing?

- From 1970 to 2003, average wage and salary disbursements fell at an annualized rate of 0.4% (adjusted for inflation), declining slower than from average nonfarm proprietors' income, which fell by 0.7%.
- In 2003, average wage and salary disbursements were \$27,343 (adjusted for inflation), more than average nonfarm proprietors' income (\$25,204).
- In 1970, it was the other way around. Average nonfarm proprietors' income was \$32,143 (adjusted for inflation), more than average wage and salary disbursements (\$31,176).

If these shares vary widely, it suggests that proprietors and wage earners have different earnings.

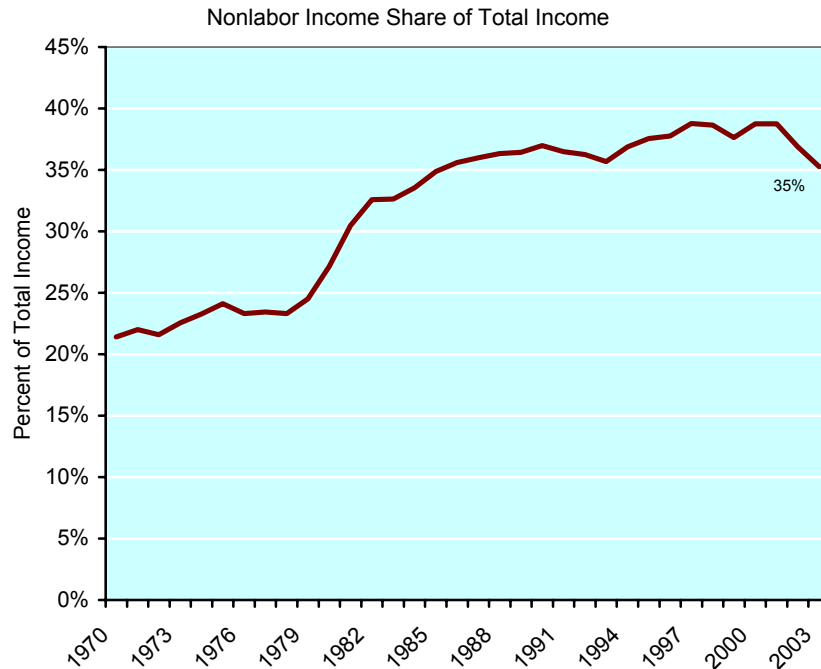


Source: BEA REIS 2003 Table CA30

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 33 years, non-labor sources grew at an annual rate of 2.6%, outpacing labor sources which grew at a 0.5% rate.
- 35.3% of total personal income in 2003 was from non-labor sources.
- 68.5% of new income from 1970 to 2003 was from non-labor sources.



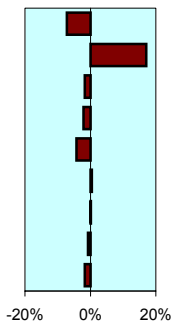
Non-labor income under estimates retirement income because it does not include pensions (401Ks).

Labor vs. Non-Labor											
	1970	1970		1993	1993		2003	New	% of	% Chg	% Chg
All income in millions of 2003 dollars	1970	% of Total	% of 1993	% of Total	% of 2003	% of Total	Income 70-03	New Income	Ann. Rate 70-03	Ann. Rate 93-03	
<b>Total Personal Income</b>	1,550	100%	1,968	100%	2,196	100%	646	100.0%	1.1%	1.1%	
<b>Labor Sources</b>	1,218	79%	1,265	64%	1,422	65%	203	31.5%	0.5%	1.2%	
<b>Non-Labor Sources</b>	332	21%	702	36%	774	35%	442	68.5%	2.6%	1.0%	
Dividends, interest, and rent	204	13%	388	20%	404	18%	200	31.0%	2.1%	0.4%	
Personal current transfer receipts	128	8%	314	16%	370	17%	242	37.5%	3.3%	1.7%	

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

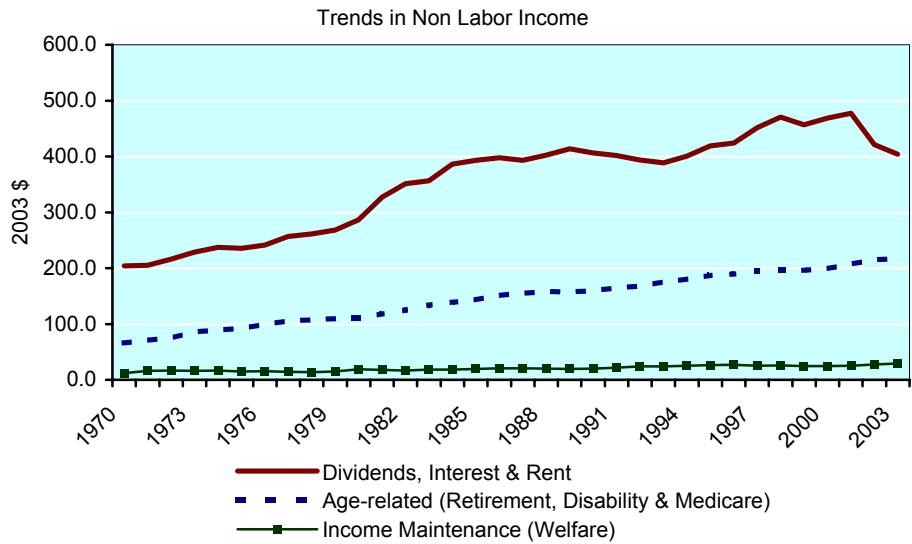
Source: BEA REIS 2003 Table CA30

Components of Transfer Payments							
All figures in millions of 2003 dollars	1970	% of Total TP	2003	% of Total TP	New Payments 1970 to 2003	% of New Payments	Change in Share of Total (1970 - 2003)
Total transfer payments	127.7		369.9		242.1		
Government payments to individuals	119.0	93%	353.6	96%	234.6	96.9%	
Retirement & disab. insurance benefit payments	65.7	51%	163.6	44%	97.9	40.5%	
Medical payments	21.7	17%	125.9	34%	104.2	43.0%	
Income maintenance benefit payments ("welfare")	12.3	10%	29.4	8%	17.1	7.1%	
Unemployment insurance benefit payments	5.3	4%	7.6	2%	2.3	0.9%	
Veterans benefit payments	13.2	10%	22.5	6%	9.2	3.8%	
Federal educ. & trng. asst. pay. (excl. vets)	0.8	0.6%	3.8	1.0%	3.0	1.2%	
Other payments to individuals	0.1	0.1%	0.9	0.2%	0.7	0.3%	
Payments to nonprofit institutions *	4.8	4%	11.4	3%	6.6	2.7%	
Business payments to individuals	3.9	3%	4.8	1%	0.9	0.4%	
Age-related (Retirement, Disability & Medicare)	65.8	52%	216.7	59%	150.9	62.3%	



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 2003 welfare represented 8.0% of transfer payments, and 1.3% of total personal income. This is down slightly from 1970 and down slightly from 1980.



Components of Transfer Payments

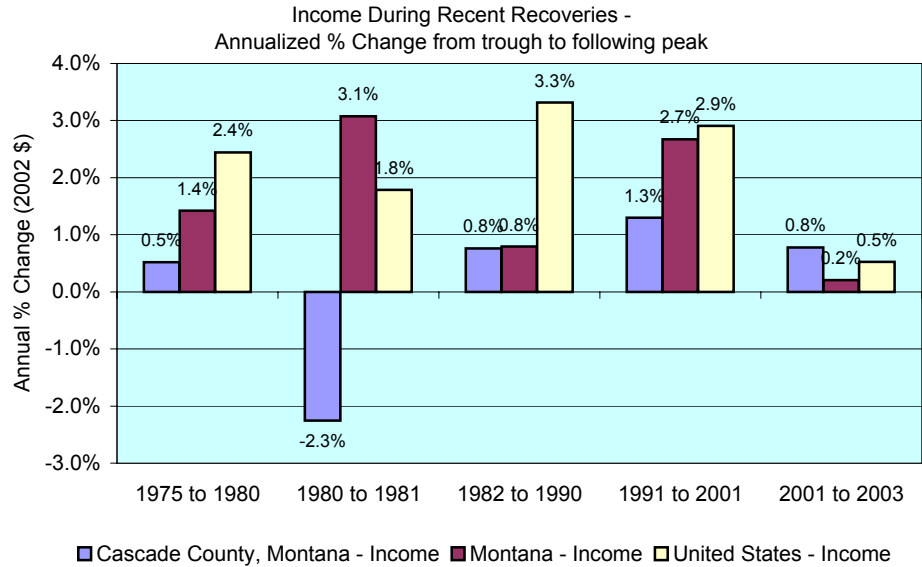
- In 2003, 59% of Transfer Payments were from age-related sources (retirement, disability, insurance payments, and Medicare), while 8% was from welfare.

\* See glossary for definitions.

Source: BEA REIS 2003 Table CA35

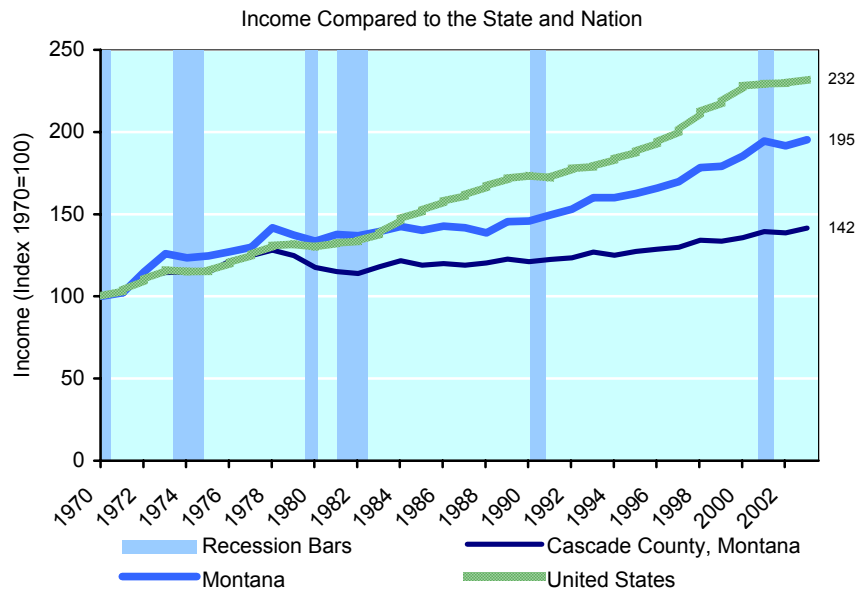
How well do we recover from recessions?

- In the latest recovery (2001 to 2003), income growth in Cascade County, Montana (up 0.8%) outpaced the United States and Montana.
- Alternatively, in the last recovery (1991 to 2001), the United States (up 2.9%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 3.3%) grew the fastest.



Income Growth Compared to the State and the Nation

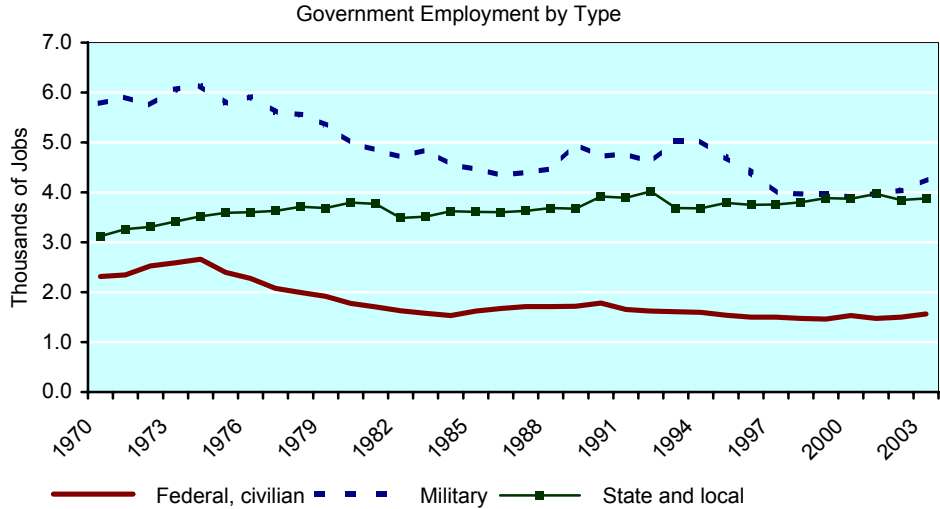
- Over the last 33 years income growth in Cascade County, Montana has been slower than the state and slower than the nation.
- Some areas can experience income gains even during the recessions. If so, check to see how much of the change is due to changes in earnings per job, employment, migration and population changes.



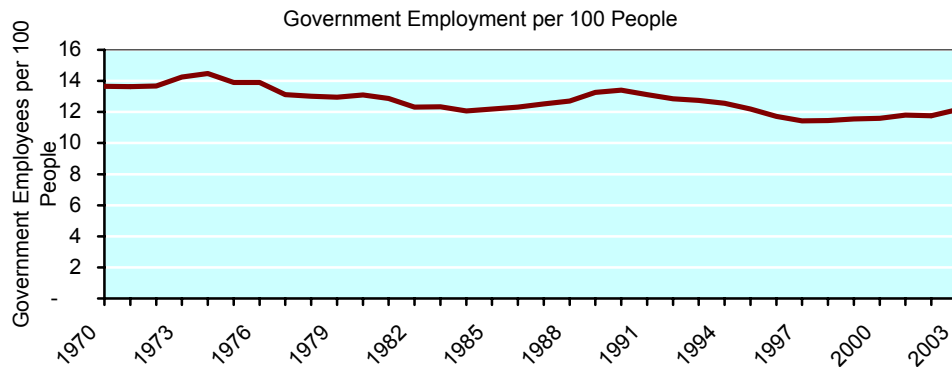
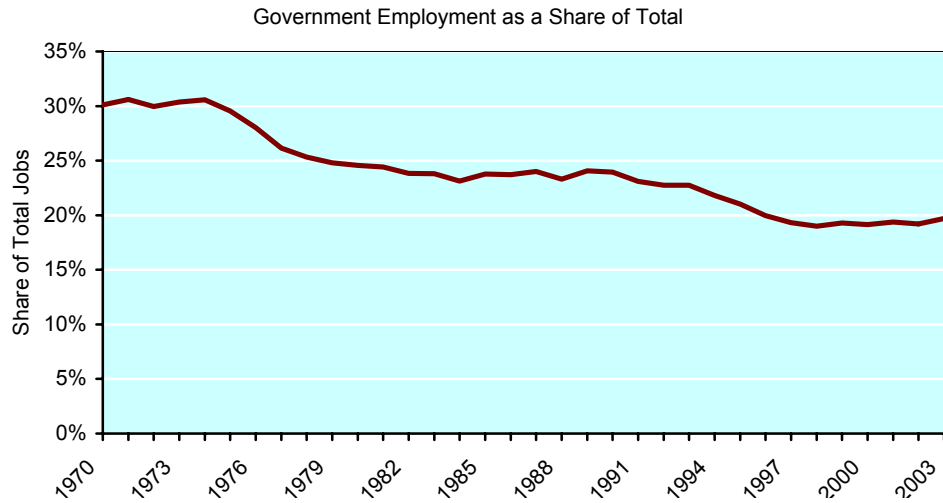
Source: BEA REIS 2003 Table CA30



- The majority of the growth in government employment has been in state and local government (-49%).



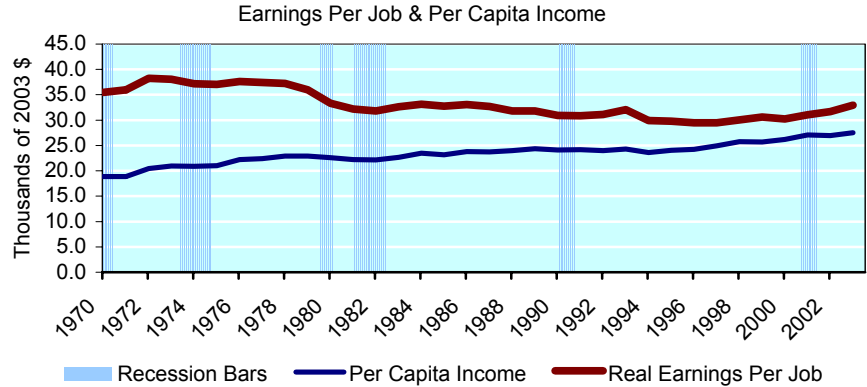
- Is the size of government getting bigger? One way to answer this is to look at whether government employment has grown. If so, what type of government employment, and how does it compare to population growth? The figures on this page show government employment by type.



Source: BEA REIS 2003 Table CA25 and CA25N

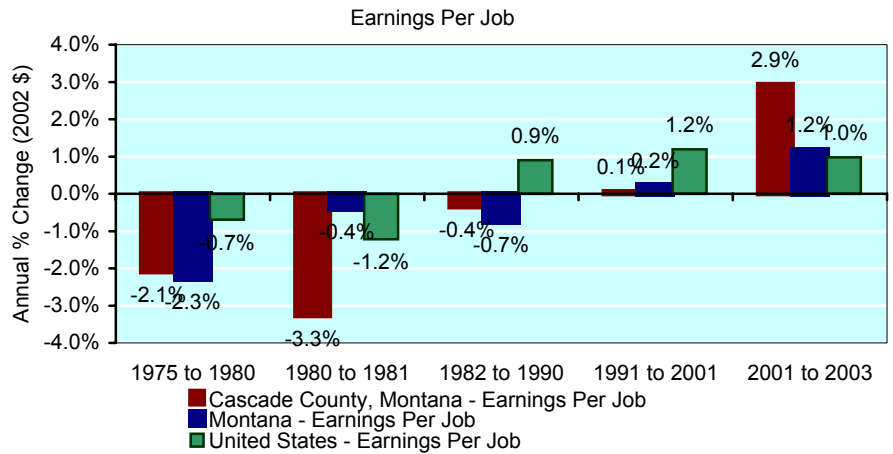
$$\text{Average Earnings per Job} = \frac{\text{Total Wages Earned}}{\text{Total \# of Workers}}$$

- Average earnings per job, adjusted for inflation, have fallen from \$35,496 in 1970 to \$32,925 in 2003.
- In 2003, Average earnings per job in Cascade County, Montana (\$32,925) were higher than the state (\$29,281) and lower than the nation (\$42,553).



How well do we recover from recessions?

- In the current recovery (2001 to 2003), earnings per job growth in Cascade County, Montana (up 2.9%) have outpaced Montana and the United States.
- Alternatively, in the last recovery (1991 to 2001), the United States (up 1.2%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 0.9%) grew the fastest.



There are several 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.

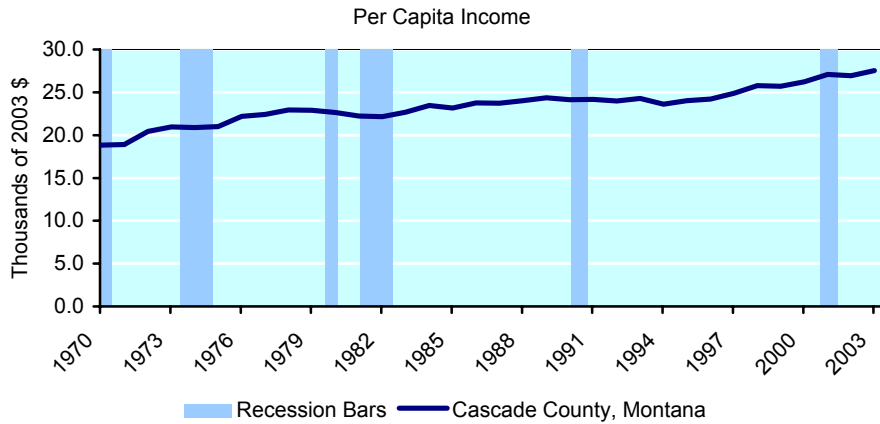
Source: BEA REIS 2003 Table CA30

$$\text{PCI} = \frac{\text{Total Personal Income}}{\text{Population}}$$

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:

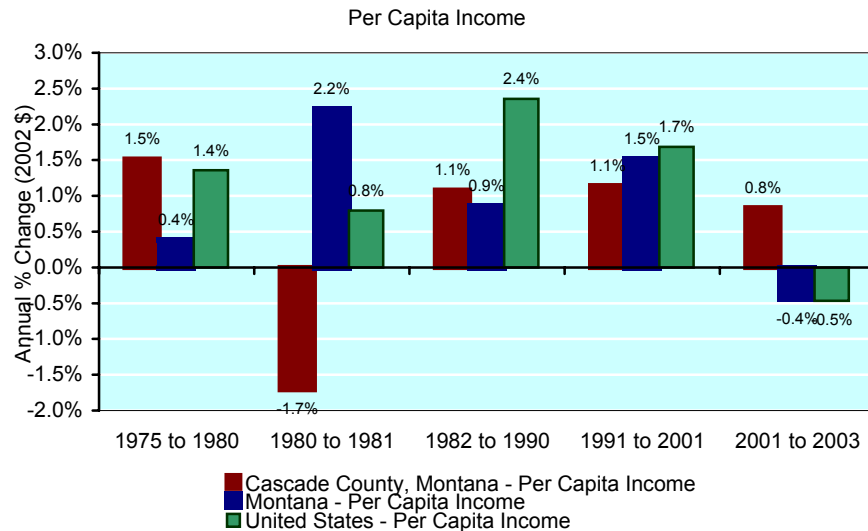
Since total personal income includes income from 401(k) plans as well as other non-labor income sources like transfer payment, dividends, and rent, it is possible for per capita income to rise, even if the average wage per job declines over time. In other words, the non-labor sources of income can cause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

- Per capita income, adjusted for inflation, has risen from \$18,846 in 1970 to \$27,523 in 2003.
- In 2003, per capita income in Cascade County, Montana (\$27,523) was higher than the state (\$25,406) and lower than the nation (\$31,472).



How well do we recover from recessions?

- In the current recovery (2001 to 2003), per capita income growth in Cascade County, Montana (up 0.8%) has outpaced Montana and the United States.
- Alternatively, in the last recovery (1991 to 2001), the United States (up 1.7%) grew the fastest.
- In the recovery from 1982 to 1990, the United States (up 2.4%) grew the fastest.



Source: BEA REIS 2003 Table CA30

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.

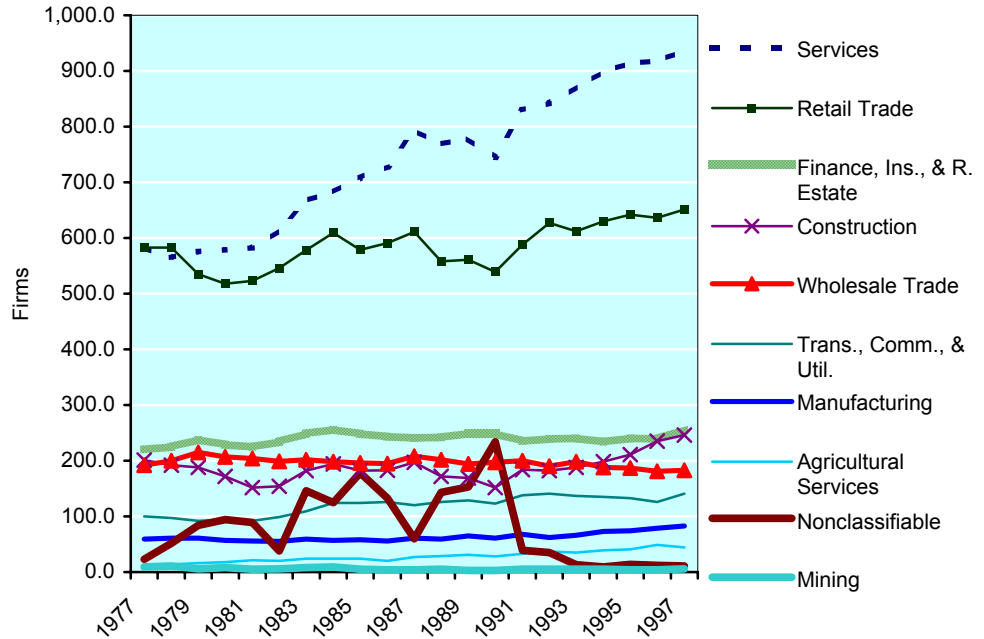
Growth

- The employment category whose share of total gained the most was services, which went from 29.3% in 1977 to 36.6% in 1997.

Decline

- The category whose share of total shrank the most was retail trade, which went from 29.4% in 1977 to 25.5% in 1997.

County Business Patterns Number of Establishments



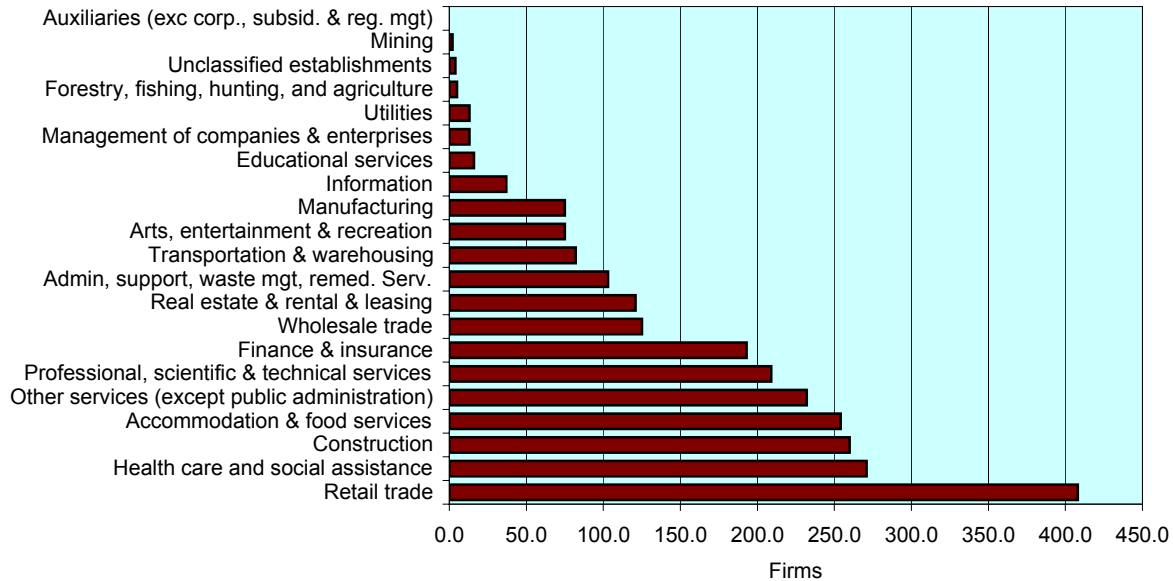
Firms by Industry

	1977		1987		1997		New Firms 77-97		Change in Share of Total
	Shr of Tot	1983	Shr of Tot	2322	Shr of Tot	2557	Shr of Tot		
Total							574		
Agricultural Services	14	0.7%	27	1.2%	44	1.7%	30	5.2%	
Mining	9	0.5%	4	0.2%	6	0.2%	-3	NA	
Construction	201	10.1%	197	8.5%	246	9.6%	45	7.8%	
Manufacturing	59	3.0%	61	2.6%	83	3.2%	24	4.2%	
Trans., Comm., & Util.	100	9.7%	120	9.0%	141	7.2%	-9	NA	
Wholesale Trade	192	9.7%	208	9.0%	183	7.2%	-9	NA	
Retail Trade	583	29.4%	611	26.3%	651	25.5%	68	11.8%	
Finance, Ins., & R. Estate	220	11.1%	241	10.4%	256	10.0%	36	6.3%	
Services	582	29.3%	793	34.2%	936	36.6%	354	61.7%	
Nonclassifiable	23	1.2%	60	2.6%	11	0.4%	-12	NA	

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 2003



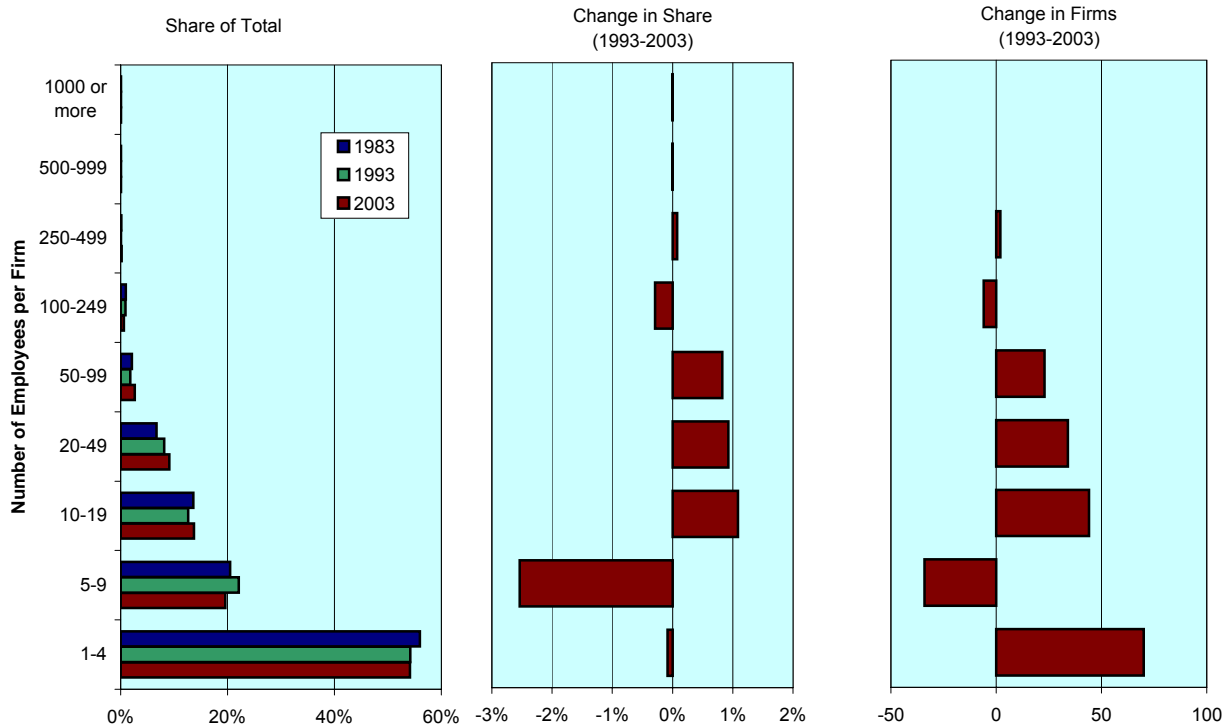
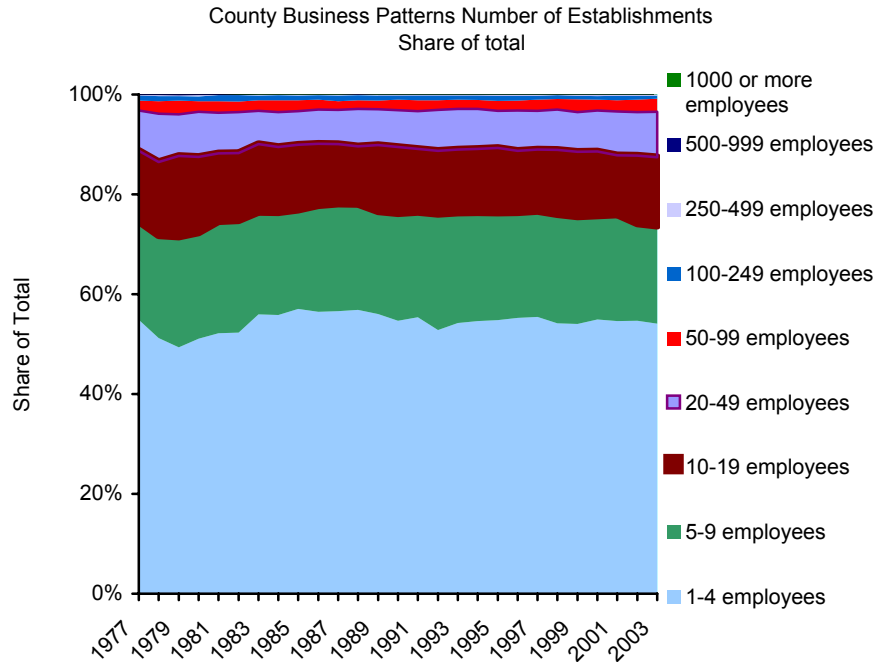
Firms by size and industry in 2003

	Total	Number of Employees per Firm								
		1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000 or more
Forestry, fishing, hunting, and agriculture s	5	5	0	0	0	0	0	0	0	0
Mining	2	2	0	0	0	0	0	0	0	0
Utilities	13	7	2	2	0	2	0	0	0	0
Construction	260	182	42	22	10	4	0	0	0	0
Manufacturing	75	40	14	9	6	5	1	0	0	0
Wholesale trade	125	61	35	15	11	3	0	0	0	0
Retail trade	408	169	113	70	35	16	4	0	1	0
Transportation & warehousing	82	44	13	15	4	6	0	0	0	0
Information	37	16	4	5	11	0	1	0	0	0
Finance & insurance	193	127	21	19	20	3	2	1	0	0
Real estate & rental & leasing	121	106	8	6	1	0	0	0	0	0
Professional, scientific & technical services	209	138	33	25	12	1	0	0	0	0
Management of companies & enterprises	13	5	3	2	2	1	0	0	0	0
Admin, support, waste mgt, remed. Serv.	103	60	21	11	5	4	2	0	0	0
Educational services	16	8	3	1	1	2	0	1	0	0
Health care and social assistance	271	126	63	43	22	10	4	2	0	1
Arts, entertainment & recreation	75	38	10	11	12	4	0	0	0	0
Accommodation & food services	254	67	50	67	64	5	1	0	0	0
Other services (except public administratio	232	147	54	20	11	0	0	0	0	0
Auxiliaries (exc corp., subsid. & reg. mgt)										
Unclassified establishments	4	4	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2498</b>	<b>1,352</b>	<b>489</b>	<b>343</b>	<b>227</b>	<b>66</b>	<b>15</b>	<b>4</b>	<b>1</b>	<b>1</b>

Source: Census County Business Patterns

Firms by Size

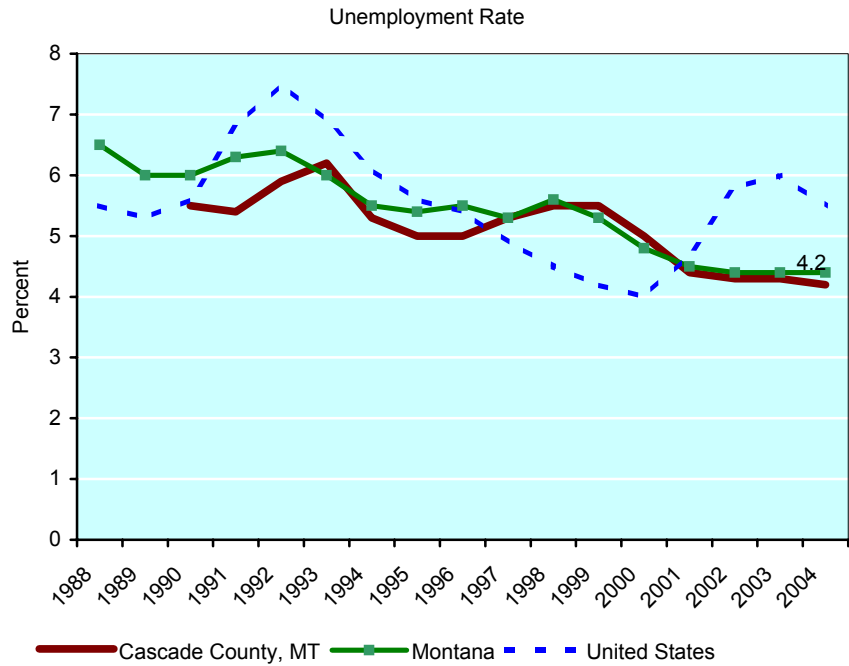
- The size category that grew the most was 1-4 employees.
- As a share of total, the size category that gained the most was 10-19 employees.
- In 2001, 87% of the firms had fewer than 20 employees.



Source: Census County Business Patterns

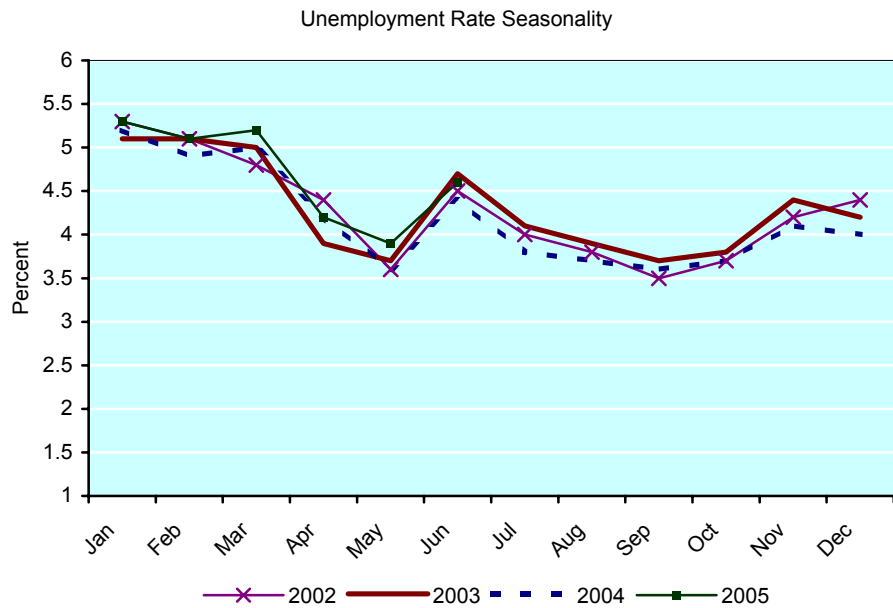
## Annual Average Unemployment Rate Compared to the State and the Nation

- In 2004, the unemployment rate was 4.2%, compared to 4.4% in the state and 5.5% in the nation.



## Unemployment Rate Seasonality

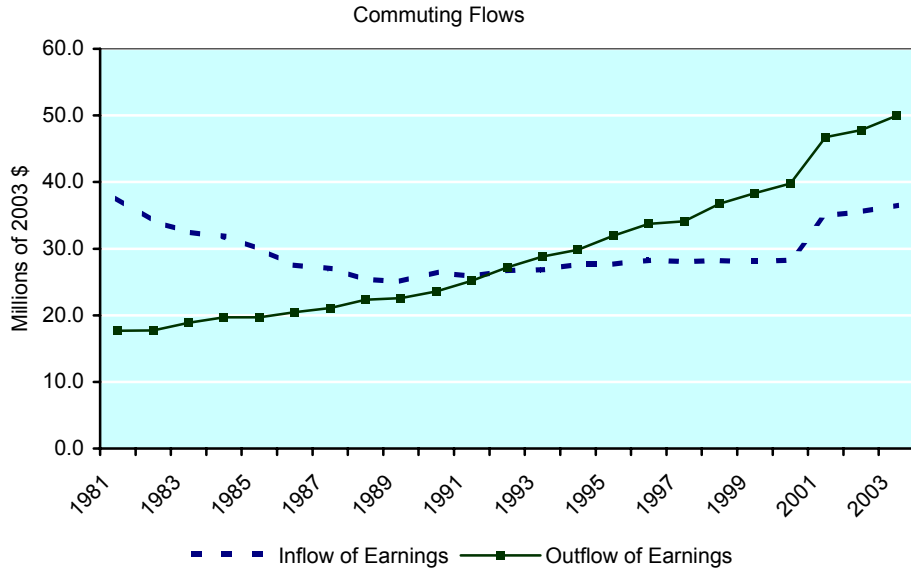
- This graph illustrates the seasonal variation in the unemployment rate over the last three years. In 2004, the unemployment rate varied from from a low of 3.6% in September 2004 to a high of 5.2% in January 2004



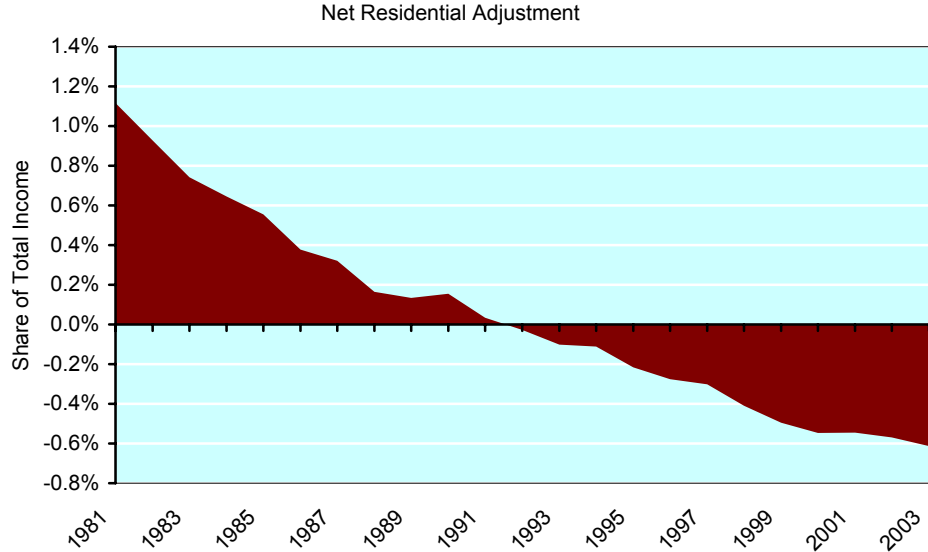
Source: Bureau of Labor Statistics

Inflow & Outflows

- Commuting data suggests that Cascade County, Montana is an employment hub. (Income derived from people commuting into the county exceeds the income from people commuting out of the county.) The net difference represents 0.6% of total income in the county.



- A negative Net Residential Adjustment indicates in-commuting for work from 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.

Source: BEA REIS 2003 Table CA91

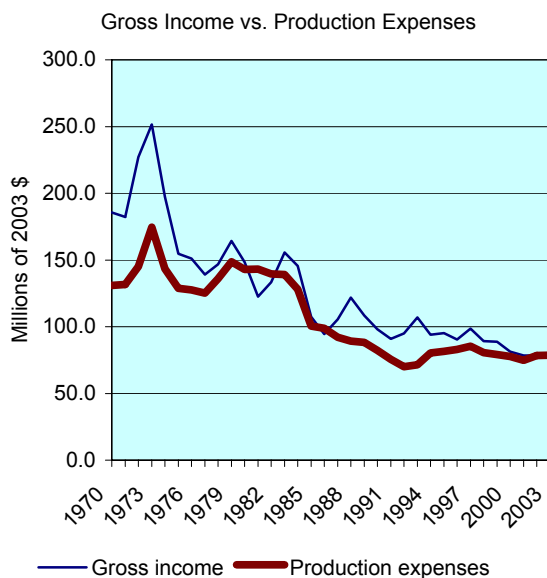


Farm income figures presented on this page reflect income from farming *enterprises* (income of the business). The term “farm” includes farming and ranching, but not agricultural services such as soil preparation services and veterinary services. In contrast, farm income figure presented in the next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

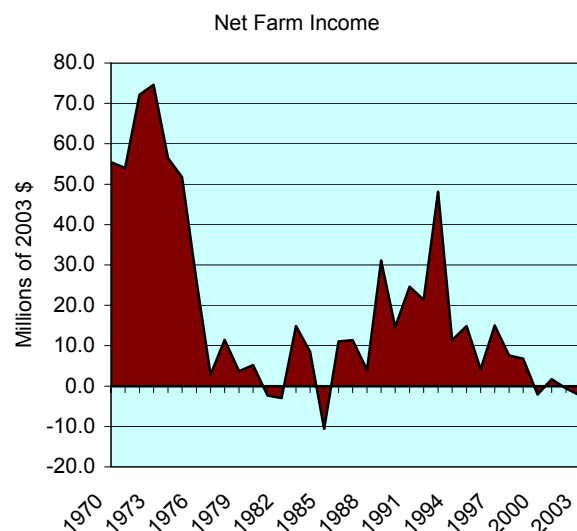
Farm income of businesses differs from individual farm income because it also includes government payments, rent, the value of inventory change and production expenses. In some areas, net farm income can be negative when production expenses exceed gross income.

Gross Income, Expenses, and Net Income from Farming and Ranching							
All figures in thousands of 2003 dollars	1970	% of Gross Income	1993	% of Gross Income	2003	% of Gross Income	70-03 Change in Share
Gross Income (Cash + Other)	185,726		106,840		76,549		
Cash Receipts from Marketings	168,692	91%	87,407	82%	58,213	76.0%	-15%
Livestock & Products	133,741	72%	45,281	42%	35,988	47.0%	-25%
Crops	34,951	19%	42,126	39%	22,225	29.0%	10%
Other Income	17,034	9%	19,433	18%	18,336	24.0%	15%
Government Payments	14,379	8%	14,003	13%	9,989	13.0%	5%
Imputed Rent & Rent Received	2,656	1%	5,430	5%	8,347	10.9%	9%
Production Expenses	130,920		71,540		78,701		
Realized Net Income (Income - Expenses)	54,806		35,300		(2,152)		
Value of Inventory Change	598	0%	12,858	12%	(158)	NA	NA
Total Net Income (Inc. corporate farms)	55,404		48,158		(2,310)		

Gross Income vs. Production Expenses



Net Farm Income

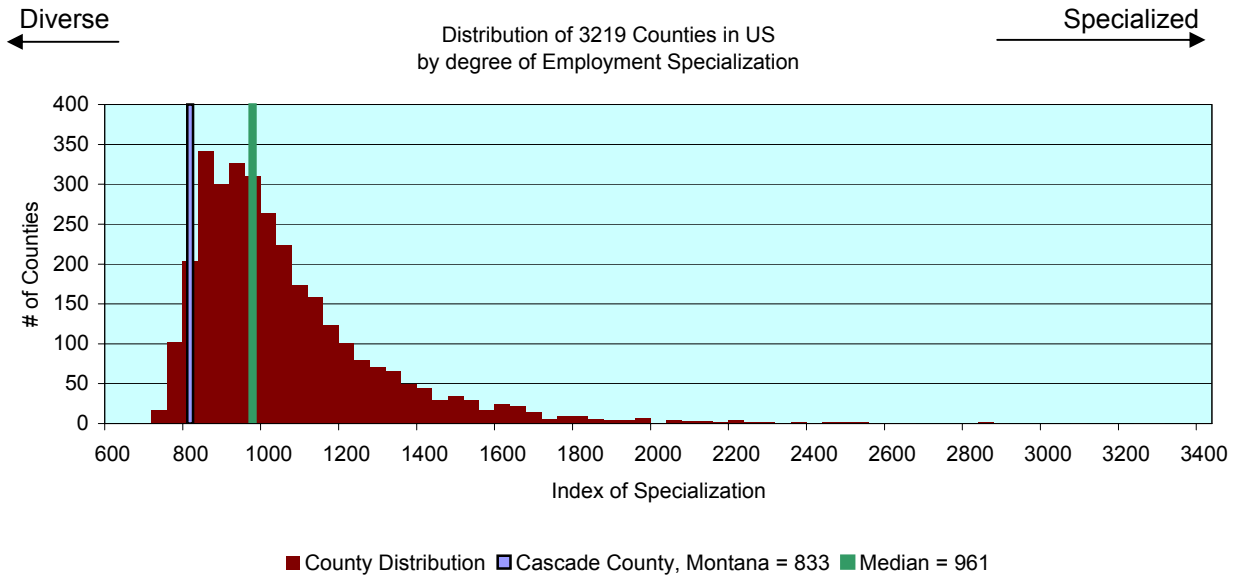


Source: BEA REIS 2003 CD Table CA45

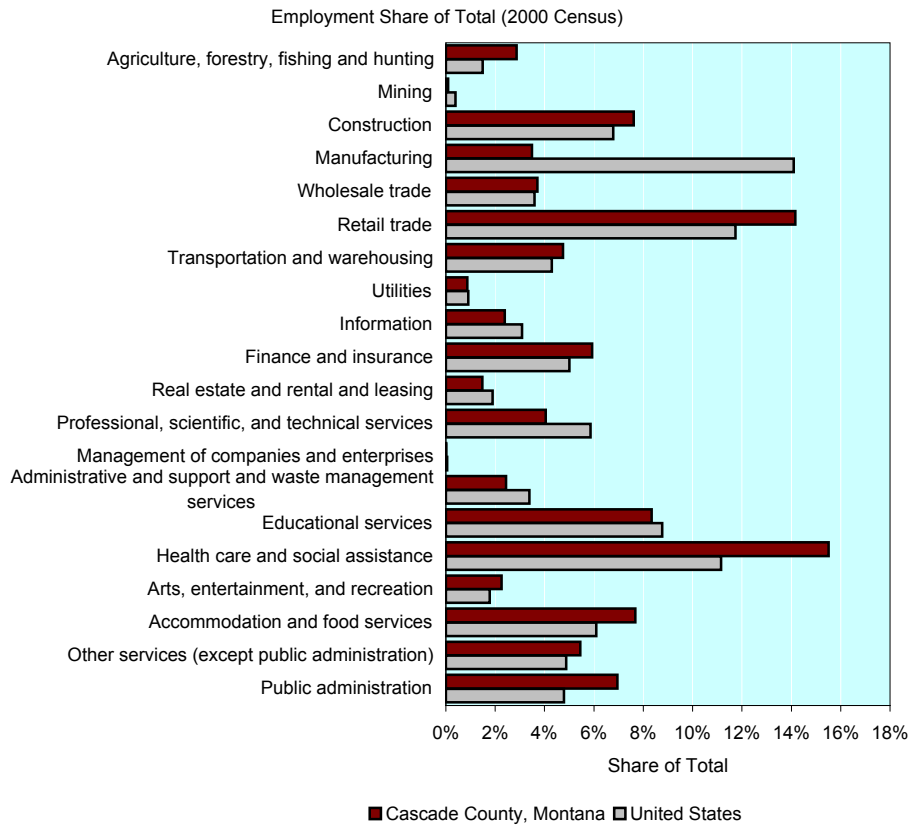
In the following pages (23-25) you will learn about:

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”).

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.



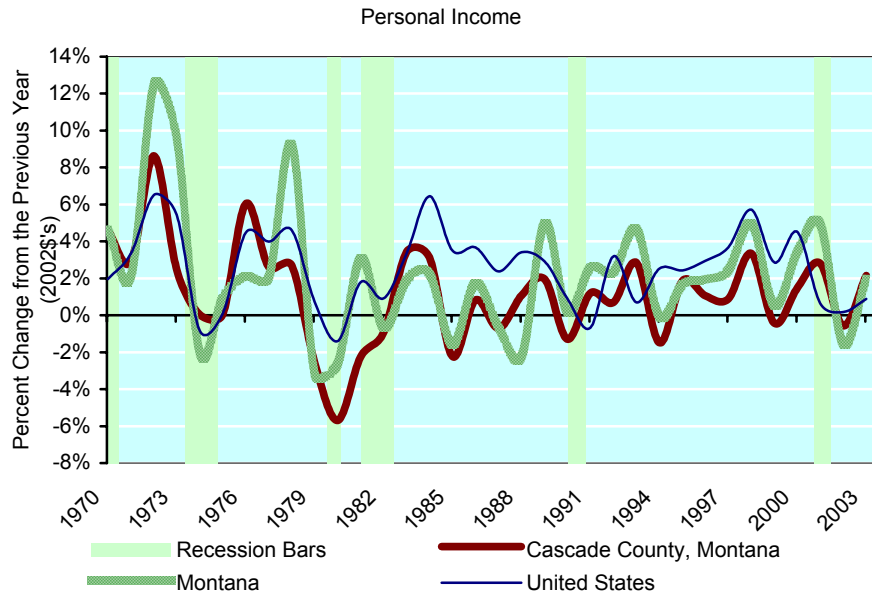
- The above chart illustrates how this county compares to all of the other counties in the nation. Each bar represents the number of counties that have a index of specialization in that range. The green vertical line illustrates the value for the mean. As you can see, most counties are similar, but there are a few counties that are wildly specialized (the long tail on the right).
- Cascade County, Montana is roughly average (833 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 later in the profile.



Source: Census 2000 SF3 Table P49.

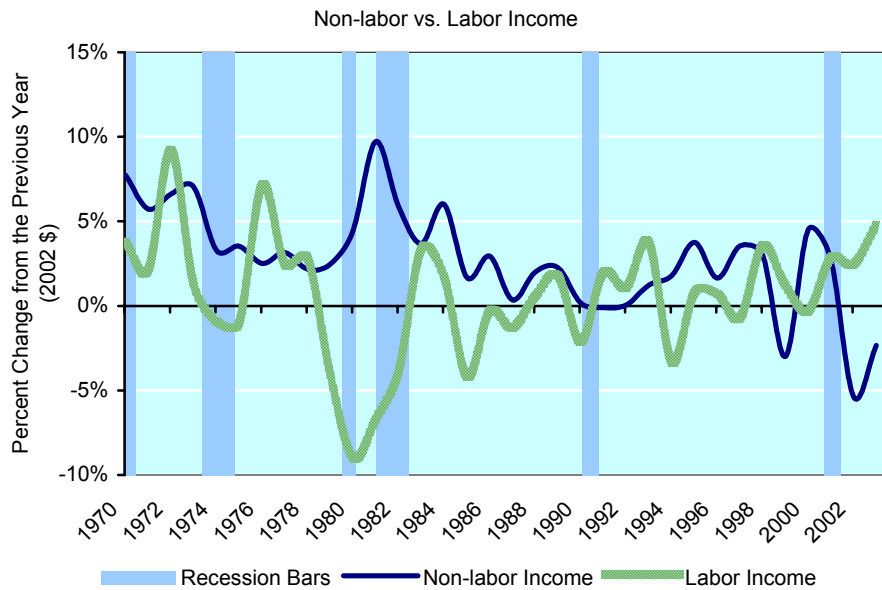
Stability vs. State and Nation

- 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

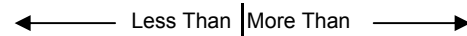
- Non-labor income sources can have a stabilizing effect on the economy and are sometimes, but not always, counter-cyclical to labor income.



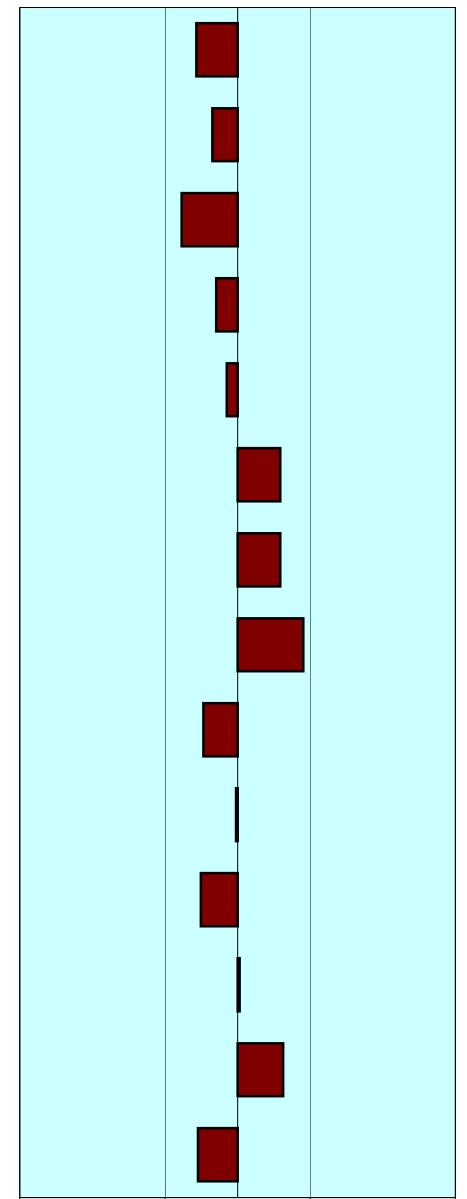
Source: BEA REIS 2003 Table CA30

Benchmark = Median of all Counties in U.S. \*\*\*

Compared to benchmark area, the county has:



	County	US Median
<b>Population Growth (Annualized rate, 1970-2003)</b>	-0.1%	0.7%
<b>Employment Growth (Annualized rate, 1970-2003)</b>	0.8%	1.4%
<b>Personal Income Growth (Adjusted for Inflation, Annualized rate, 1970-2003)</b>	1.1%	2.2%
<b>Non-labor Income Share of Total in 2003</b>	35.3%	37.6%
<b>Median Age*</b>	36.7	37.3
<b>Per Capita Income (2003)</b>	\$ 27,523	\$ 24,082
<b>Average Earnings Per Job (2003)</b>	\$ 32,925	\$ 28,076
<b>Education Rate</b> (% of population 25 and over who have a college degree)*	21.5%	14.5%
<b>Employment Specialization*</b>	833.2	961.0
<b>Ratio Rich/Poor</b> (Number of households that made under \$30K for every household that made over \$100K.)*	8.4	8.7
<b>Housing Affordability</b> (100 or above means that the median family can afford the median house.)*	153	186
<b>Change in Housing Affordability (1990-2000)*</b>	10.9%	10.3%
<b>Government share of Total employment</b>	20%	15%
<b>Unemployment Rate in 2004**</b>	4.2%	5.4%



(3.00) (1.00) 1.00 3.00  
# of Standard Deviations from the Median

\* from 2000 US Census \*\* from Bureau of Labor Statistics

\*\*\*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.

In the following pages (28-30) you will learn about:

1. Employment and personal income trends, from 1970 to 2003
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.

We are currently building a new system that will allow you to estimate these data that have not been disclosed. Once the new system is done, we will send an email to all of our registered users to announce the release.

### 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. 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.
- 2) 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 be estimated using a variety of techniques.

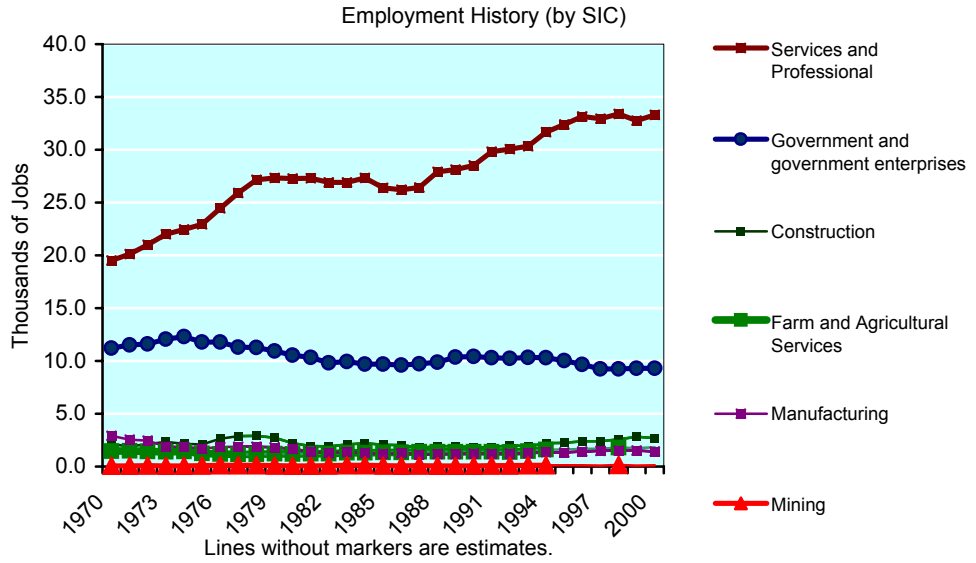
Data ends in 2000 because the BEA switched to a different classification system (NAICS) in 2001.

**Growth**

- The employment category whose share of total gained the most was services (health, legal, business, others), which went from 28.0% in 1990 to 30.9% in 2000.

**Decline**

- The category whose share of total shrank the most was government, which went from 24.0% in 1990 to 19.1% in 2000.



Employment by Industry Changes from 1990 to 2000							
	1990	% of Total	2000	% of Total	New Employment	% of New Employment	Change in Share
Total Employment	43,517		48,647		5,130		
Wage and Salary Employment	36,317	83.5%	39,324	80.8%	3,007	58.6%	
Proprietors' Employment	7,200	16.5%	9,323	19.2%	2,123	41.4%	
Farm and Agricultural Services	1,404	3.2%	1,814	3.7%	410	8.0%	
Farm	1,036	2.4%	1,296	2.7%	260	5.1%	
Ag. Services	368	0.8%	518	1.1%	150	2.9%	
Mining	66	0.2%	106	0.2%	40	0.8%	
Manufacturing (incl. forest products)	1,246	2.9%	1,439	3.0%	193	3.8%	
Services and Professional	28,516	65.5%	33,296	68.4%	4,780	93.2%	
Transportation & Public Utilities	2,160	5.0%	2,062	4.2%	-98	NA	
Wholesale Trade	2,364	5.4%	1,930	4.0%	-434	NA	
Retail Trade	8,673	19.9%	10,163	20.9%	1,490	29.0%	
Finance, Insurance & Real Estate	3,126	7.2%	4,089	8.4%	963	18.8%	
Services (Health, Legal, Business, Others)	12,193	28.0%	15,052	30.9%	2,859	55.7%	
Construction	1,862	4.3%	2,687	5.5%	825	16.1%	
Government	10,423	24.0%	9,305	19.1%	-1,118	NA	

**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 2003 CD Table CA25



**Growth**

● Missing data prevents this ranking

**Decline**

● Missing data prevents this ranking.

## Employment by Industry (NAICS) Changes from 2001 to 2003 Share of Total

Category	2001	2003	2003 Share of Total	New Jobs	Change in Share of Total (2003 - 2001)
Total employment	48,627.0	49,217.0	100%	590.0	
Wage and salary employment	39,602.0	39,597.0	80%	(5.0)	
Proprietors employment	9,025.0	9,620.0	20%	595.0	
Farm proprietors employment	1,013.0	1,036.0	2%	23.0	
Nonfarm proprietors employment	8,012.0	8,584.0	17%	572.0	
Farm employment	1,271.0	1,267.0	3%	(4.0)	
Nonfarm employment	47,356.0	47,950.0	97%	594.0	
Private employment	37,933.0	38,253.0	78%	320.0	
Forestry, fishing, related activities, and oth.	#N/A	#N/A	#N/A	#N/A	
Mining	#N/A	#N/A	#N/A	#N/A	
Utilities	189.0	191.0	0%	2.0	
Construction	2,856.0	2,882.0	6%	26.0	
Manufacturing	1,128.0	1,020.0	2%	(108.0)	
Wholesale trade	1,563.0	1,630.0	3%	67.0	
Retail Trade	7,000.0	6,687.0	14%	(313.0)	
Transportation and warehousing	1,445.0	1,361.0	3%	(84.0)	
Information	812.0	855.0	2%	43.0	
Finance and insurance	2,773.0	2,922.0	6%	149.0	
Real estate and rental and leasing	1,564.0	1,425.0	3%	(139.0)	
Professional and technical services	1,974.0	2,137.0	4%	163.0	
Management of companies and enterprises	113.0	79.0	0%	(34.0)	
Administrative and waste services	1,535.0	1,602.0	3%	67.0	
Educational services	863.0	771.0	2%	(92.0)	
Health care and social assistance	6,168.0	6,441.0	13%	273.0	
Arts, entertainment, and recreation	1,185.0	1,442.0	3%	257.0	
Accommodation and food services	3,976.0	3,948.0	8%	(28.0)	
Other services, except public administration	2,493.0	2,613.0	5%	120.0	
Government and government enterprises	9,423.0	9,697.0	20%	274.0	
Federal, civilian	1,474.0	1,565.0	3%	91.0	
Military	3,983.0	4,256.0	9%	273.0	
State and local	3,966.0	3,876.0	8%	(90.0)	
State government	880.0	880.0	2%	-	
Local government	3,086.0	2,996.0	6%	(90.0)	

Source: BEA REIS 2003 CD Table CA25N

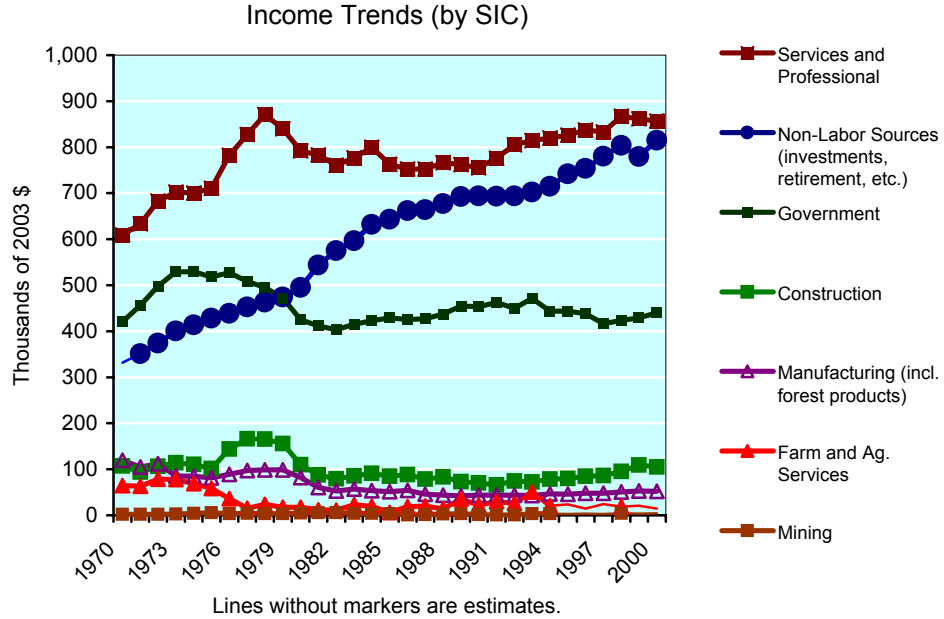
Data ends in 2000 because the BEA switched to a different classification system (NAICS) in 2001.

Growth

- The income category whose share of total gained the most was non-labor income, which went from 37.0% in 1990 to 38.8% in 2000.

Decline

- The category whose share of total shrank the most was government, which went from 24.1% in 1990 to 20.9% in 2000.



New Income by Type

All figures in millions of 2000 dollars	1990		2000		New Income 1990 to 2000	% of New Income	Change in Share
		% of Total		% of Total			
Total Personal Income*	1,877		2,103		226		
Farm and Agricultural Services	23	1.2%	14	0.7%	-8	NA	
Farm	17	0.9%	5	0.2%	-12	NA	
Ag. Services	5.6	0.3%	9.2	0.4%	4	2%	
Mining	1.6	0.1%	4.0	0.2%	2	1%	
Manufacturing (incl. forest products)	44	2.3%	52	2.5%	8	4%	
Services and Professional	755	40.2%	857	40.7%	102	45%	
Transportation & Public Utilities	91	4.9%	80	3.8%	-11	NA	
Wholesale Trade	83	4.4%	75	3.6%	-8	NA	
Retail Trade	175	9.3%	174	8.3%	0	NA	
Finance, Insurance & Real Estate	71	3.8%	116	5.5%	46	20%	
Services (Health, Legal, Business, Oth.	335	17.9%	410	19.5%	75	33%	
Construction	70	3.7%	105	5.0%	35	15%	
Government	453	24.1%	440	20.9%	-13	NA	
Non-Labor Income	694	37.0%	815	38.8%	121	54%	
Dividends, Interest & Rent	406	21.6%	469	22.3%	63	28%	
Transfer Payments	288	15.3%	346	16.5%	59	26%	

\*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.

Source: BEA REIS 2003 CD Table CA05

Growth

● Missing data prevents this ranking

Decline

● Missing data prevents this ranking.

**Income by Industry (NAICS)**  
Changes from 2001 to 2003 Share of Total

Category	2001	2003	2003 Share of Total		New Income	Change in Share of Total (2003 - 2001)
Personal income	2,161.9	2,195.7	100%		33.9	
Wage and salary disbursements	1,030.0	1,082.7	49%		52.7	
Proprietors' income	207.5	214.8	10%		7.3	
Farm proprietors'	1.2	(1.5)	0%		(2.7)	
Nonfarm proprietor	206.4	216.4	10%		10.0	
Farm earnings	7.4	5.0	0%		(2.5)	
Nonfarm earnings	1,503.5	1,615.5	74%		111.9	
Private earnings	1,064.3	1,110.7	51%		46.4	
Forestry, fishing, related act., and oth.	#N/A	#N/A	#N/A		#N/A	
Mining	#N/A	#N/A	#N/A		#N/A	
Utilities	14.2	14.4	1%		0.2	
Construction	102.8	109.1	5%		6.3	
Manufacturing	41.3	47.2	2%		5.8	
Wholesale trade	64.1	70.5	3%		6.4	
Retail Trade	141.4	139.5	6%		(2.0)	
Transportation and warehousing	56.6	56.5	3%		(0.1)	
Information	29.6	32.8	1%		3.2	
Finance and insurance	90.9	98.5	4%		7.6	
Real estate and rental and leasing	46.1	39.0	2%		(7.1)	
Professional and technical services	84.6	88.2	4%		3.6	
Management of companies & enterp.	6.3	3.5	0%		(2.8)	
Administrative and waste services	30.4	32.0	1%		1.6	
Educational services	10.9	10.2	0%		(0.6)	
Health care and social assistance	234.1	257.7	12%		23.7	
Arts, entertainment, and recreation	13.7	17.1	1%		3.4	
Accommodation and food services	48.4	48.4	2%		0.1	
Other services, except public admin.	40.7	41.3	2%		0.6	
Government and government enterp.	439.2	504.8	23%		65.5	
Federal, civilian	94.4	103.6	5%		9.2	
Military	206.4	258.0	12%		51.6	
State and local	138.5	143.2	7%		4.7	
State government	30.7	33.2	2%		2.5	
Local government	107.7	109.9	5%		2.2	

Source: BEA REIS 2003 CD Table CA05N

## Data Sources

Data for this profile were obtained from four sources:

- Regional Economic Information System (REIS CD-ROM) of the Bureau of Economic Analysis, U.S. Department of Commerce.
- Bureau of Labor Statistics, U.S. Department of Labor.
- County Business Patterns, Bureau of the Census, U.S. Department of Commerce.
- Bureau of Census, U.S. Department of Commerce.

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:

- Bureau of Economic Analysis:  
<http://www.bea.doc.gov>; Tel. 202-606-9600
- Bureau of Labor Statistics:  
<http://stats.bls.gov:80/bls/home>; Tel. 202-606-5886
- Bureau of Census:  
<http://www.census.gov>; Tel. 303-969-7750
- 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; 2003 is the latest for REIS, while state data sources provide data for as recent as 2003 and in some instances 2004. By providing long-term trends data, from 1970 to 2003, 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.

## The Standard Industrial Classification (SIC) System

Employment and income information is organized by the US Department of Commerce according to the Standard Industrial Classification (SIC) code. Industries are classified in broad categories (e.g., Farm), sub-categories (e.g., Agricultural production - crops), and progressively finer levels of detail (e.g., Ag. Production – cash grains). For a detailed description of SIC codes consult *The Standard Industrial Classification Manual* (National Technical Information Service, order no. PB-100012, Tel. 703-487-4600).

## Services

Since much of the growth in labor earnings in the U.S. economy over the last two decades has been in "services," it should be noted that the term is defined in various ways by different researchers. Some economists define services broadly as "all output that does not come from the four goods-producing sectors: agriculture, mining, manufacturing, and construction."<sup>[1]</sup> The U.S. Department of Commerce defines services more narrowly as major groups 70-89 of the SIC code.<sup>[2]</sup> However, even their restricted classification includes a wide variety of sectors, ranging from hotels and lodging, and social services to business services, and engineering and management services.

[1] E. Ginzberg and G.J. Vojta. 1981. "The Service Sector in the U.S. Economy." *Scientific American*. 244 (3): 48-55.

[2] SIC codes 70-89 are: Hotels, Lodging and Other Places, Personal Services, Business Services, Auto Repair, Miscellaneous Repair Services, Motion Pictures, Amusement and Recreation Services, Health Services, Legal Services, Educational Services, Social Services, Museum Services, Museums, Botanical, and Zoological Services, Engineering and Management Services, Private Households, and Services Not Elsewhere Classified.

In this profile, we define services broadly as “Services and Professional” industries, and then also into categories -- such as producer, consumer, social and government services -- to gain a clearer picture of where service growth is taking place. 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 chambers maids with architects and financial consultants.

According to economist Lester Thurow, “Services is simply too heterogeneous to be an interesting category. The real issue is not the growth of services but whether the economy is making a successful transition from low-wage, low-skill industries ... to high-wage, high-skill industries.”<sup>[1]</sup> One way to gauge this is to follow the long-term trends in average earnings per job.

### A Transition from SIC system to NAICS: An Important Precaution on the Interpretation of Economic Trend Data.

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.

[1] Lester Thurow, *The Future of Capitalism* (New York: William and Morrow and Company), p. 71.

### SIC Divisions vs. NAICS Sectors

SIC Divisions	NAICS Sectors
• Agriculture, Forestry, and Fishing	• Agriculture, Forestry, Fishing and Hunting
• Mining	• Mining
• Construction	• Construction
• Manufacturing	• Manufacturing
• Transportation, Communications, and Public Utilities	• Utilities
• Wholesale Trade	• Transportation and Warehousing
• Retail Trade	• Wholesale Trade
• Finance, Insurance, and Real Estate	• Retail Trade
• Services	• Accommodation and Food Services
	• Finance and Insurance
	<b>Real Estate and Rental and Leasing</b>
	• Information
	• Professional, Scientific, and Technical Services
	• Administrative and Support and Waste
	• Management and Remediation Services
	• Educational Services
	• Health Care and Social Assistance
	• Arts, Entertainment, and Recreation
	• Other Services (except Public Administration)
• Public Administration	• Public Administration
• None (previously, categories within each division)	• Management of Companies and Enterprises

### 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.

### Disclosures

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.

In some of the profiles a few disclosure restrictions were encountered. Sometimes *County Business Patterns* data was used to estimate data where disclosures exist in the REIS/BEA database. In other instances the missing data was left blank, particularly if doing so has little effect on the ability to discern long-term trends. In other cases, where data was missing for one or two years, a rolling average was used to estimate the data gaps. In each case where disclosures were estimated, annotations were made in the Excel files.

### 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) 2003 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 Footnote:

Note that farm income figures on pages 28, 30 & 31 are not the same. In brief, the figures on page 28 (see table) reflect income from farming *enterprises* (farm proprietors and corporate income), while the farm figure on pages 30 & 31(see table) indicates personal income earned by *individuals* (both proprietors, and wage and salary employees) who work in farming.

Note also that the term “farm” includes farming and ranching, but not agricultural services such as supplying soil preparation services and veterinary and other animal services – see table on page 9.

**Farm income on page 28 is calculated as follows:**

- Total cash receipts and other income
- less: Total production expenses
- Realized net income
- plus: Value of inventory change
- Total net income including corporate farms

**Farm income on pages 30 & 31 is calculated as follows:**

- Total net income including corporate farms
- less: Net income of corporate farms
- plus: Statistical adjustment
- Total net farm proprietors' income
- plus: Farm wages and perquisites
- plus: Farm other labor income
- Total farm labor and proprietors' income



## Specialization Index

The specialization index was calculated as:

$$\text{SPECIAL}_{it} = \sum_{j=1}^n (\text{EMP}_{ijt}/\text{EMP}_{it})^2$$

$\text{SPECIAL}_{it}$  = specialization of economy in county i in year t

$\text{EMP}_{ijt}$  = employment in industry j in county i in year t

$\text{EMP}_{it}$  = 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.

## Mean, Median and Modes

### mean

The sum of a list of numbers, divided by the total number of numbers in the list.

### median

"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 50%.

### mode

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").

### Income:

- Total Personal Income = 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.
- Proprietors' income = 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:

- Transfer payments = 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.
- Unemployment insurance benefit payments = unemployment compensation for state and federal civilian employees, unemployment compensation for railroad workers, and unemployment compensation for veterans.
- Veterans benefits = primarily compensation to veterans for their disabilities and payments to their survivors.
- Federal education and training assistance = 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.
- Payments to nonprofit institutions = payments for development and research contracts. For example, it includes payments for foster home care supervised by private agencies.
- Business payments to individuals = personal-injury liability payments, cash prizes, and pension benefits financed by the Pension Benefit Guarantee Corporation.