

# You've Come A Long Way, Cowboy:



## Ten Truths & Trends in the New American West

Published September 29, 2006



**T**he West is changing rapidly. Our population is growing and becoming more diverse. Our economy is booming, though a number of traditional industries are not faring well and many places are left out. With more people and economic activities, many of our landscapes are under more pressure than ever.

Whether you have lived in the West for a long time or a short time, you may have wondered: What happened to the West we once knew? What kind of West are we creating?

In recent decades, the West has been significantly affected by the global economy and overseas markets, the aging of our population, and the growing popularity of our unique public lands and natural amenities. How we support our families has changed considerably in the last generation alone.

And yet our perceptions have often not been so quick to evolve. As with the persistent myth of the individualist cowboy, we cling to notions that are out of step with today's realities. This report highlights ten important – often misread – truths and economic trends that every Westerner should know.

These truths and trends can provide some insight into what has become of the West we once knew. More importantly they can help guide us toward “a West both prosperous and environmentally healthy, with a civilization to match its scenery,” as Western writer Wallace Stegner envisioned.

### Ten Truths & Trends

#### 1. The West is more than big cities and remote rural landscapes.

The vast majority of the West's people live in urban areas. Some of its cities are among the nation's fastest growing. At the same time, the region contains great expanses of open lands with very low population densities. These two facts can lead us to overlook a thriving middle ground where people are finding ways to enjoy the benefits of small-town living while still having access to larger markets.

#### 2. Your next job will likely be in services.

As our national economy evolves beyond competitive advantages in basic commodity production and even manufacturing, we're seeing a mature service sector emerge as the new economic goliath. The West is by no means exempt from this trend. Seventy percent of all net new jobs created in the West between 1970 and 2000 were service and professional jobs.

#### 3. More and more of us don't have conventional jobs.

We know that many people are punching time clocks, filing paperwork, selling products or harvesting crops across the West. But it might surprise you to know that non-labor income, such as retirement and investments, is now the second largest source of income (after services) in the West.

#### 4. The more you learn, the more you earn!

In the West's longstanding lament over low wages, there is a glimmer of hope: education. Places that successfully educate their young and attract and retain educated workers are seeing rising wages.

#### 5. Public lands benefit the economy of the West.

In the West, the presence of public lands in a county is good for the economy. Personal income, adjusted for inflation, grows faster in counties with a significant percentage of their land base in public ownership. What's more, counties with protected public lands – land set aside for conservation – show an even more marked increase in personal income.

#### 6. The extractive economy of the Old West is rare in the New West.

Much of the West and our regional sense of place have been shaped by mining, energy development and timber production. Yet today there are few truly resource-dependent counties left – even in the face of a sharp push for energy development in the interior West.

#### 7. Agriculture is not growing.

Agriculture has a long and important history in the West and is still the most extensive land use in the region. However, its relative economic contribution has been flat in recent decades. As the rest of the economy grows, agriculture's importance in terms of jobs and income has diminished, and in some cases the industry is having trouble competing for scarce resources, such as water, with other users.

#### 8. More residences don't mean extra tax revenues.

County officials and other elected leaders are often led to believe that land converted to residential use will bring government extra revenue due to an expanded tax base. But the financial contribution that residences make via tax revenues is far outweighed by their increased demand on the local infrastructure and services like roads, public health and safety, and education.

#### 9. Energy development has high opportunity costs.

There is not enough oil recoverable at reasonable cost in the United States to substantially displace imports. Reserves in the intermountain West contain only a three-and-one-half-month supply of petroleum. Pursuing these limited resources could jeopardize the emerging competitive advantage of the West: quality of life.

#### 10. Standard of living is not the same as quality of life.

Economic success is often measured in terms of growth, such as changes in employment and total personal income. While growth is a good gauge for comparing different regions of the West, it is a blunt and often misleading instrument for understanding well-being.

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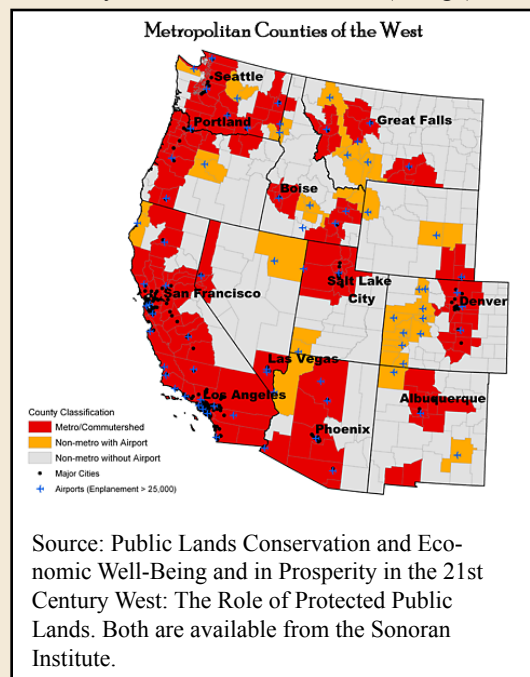
### #1 - The West is more than big cities and remote rural landscapes.

The vast majority of the West's people live in urban areas. Some of its cities, such as Las Vegas and Phoenix, are among the nation's fastest growing. At the same time, the region contains great expanses of open lands with very low population densities. These two facts can lead us to overlook a thriving middle ground where people are finding ways to enjoy the benefits of small-town living while having access to larger markets.

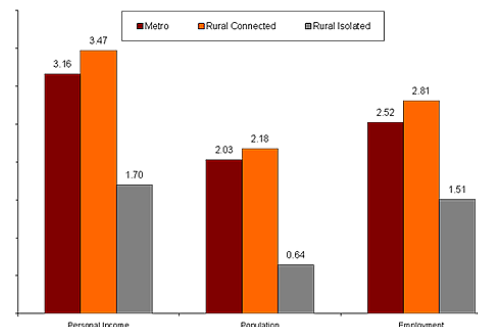
The map below shows metropolitan counties (those with over 50,000 residents) and counties within an hour's drive of metropolitan areas in red. Counties in grey are rural by virtue of smaller populations and isolated due to lack of ready access to commercially viable airports.

Counties in orange are rural in population size but are functionally connected to larger cities by regular commercial airline service. Unlike much of the rural and isolated (grey) West, which is losing population and struggling economically, the rural and connected (orange) counties are experiencing strong

population, employment and income growth, as the chart below shows.



Annual Percent Growth, 1990-2004



Source: U.S. Department of Commerce, 2004. Bureau of Economic Analysis, Regional Economic Information system (REIS CD-ROM). Washington, D.C.

The connected rural counties in orange have found ways to stay connected to larger, more dynamic markets. These economies are often trading on the quality of life associated with spectacular landscapes and small-town friendliness as a business advantage. Their populations are highly educated and their economies are diversified by regional norms.

The stereotype of tourist boom towns does not accurately capture the breadth of the rural resurgence. Ski towns, for example, often appear to be resort communities with unaffordable housing and transient populations, but even in these places, people who once came only to play are staying to raise families, start businesses and retire.

Elsewhere in the connected rural West, a broad spectrum of communities are holding their own and creating new opportunities. Some began as county seats or military towns and are developing into regional service centers; others are emerging retirement towns that capture the energies of "downshifting" baby boomers and young retirees; and still others are university towns that are spinning off high-tech entrepreneurs.

### Additional Resources

\* Methods for categorizing the three Wests can be found in chapter three of Public Lands Conservation and Economic Well-Being and in Prosperity in the 21st Century West: The Role of Protected Public Lands. Both are available from the Sonoran Institute.

\* Calvin Beale with the U.S. Department of Agriculture created what has become known as "Beale" codes showing counties along a rural-urban spectrum: [www.prb.org/rfdcenter/USACountiesBealeCodes2003.pdf](http://www.prb.org/rfdcenter/USACountiesBealeCodes2003.pdf).

\* John Cormartie at the U.S. Department of Agriculture has developed rural-urban commuting area codes for the entire country. See the following link for more information: [www.ers.usda.gov/Data/RuralUrbanCommutingAreaCodes](http://www.ers.usda.gov/Data/RuralUrbanCommutingAreaCodes).

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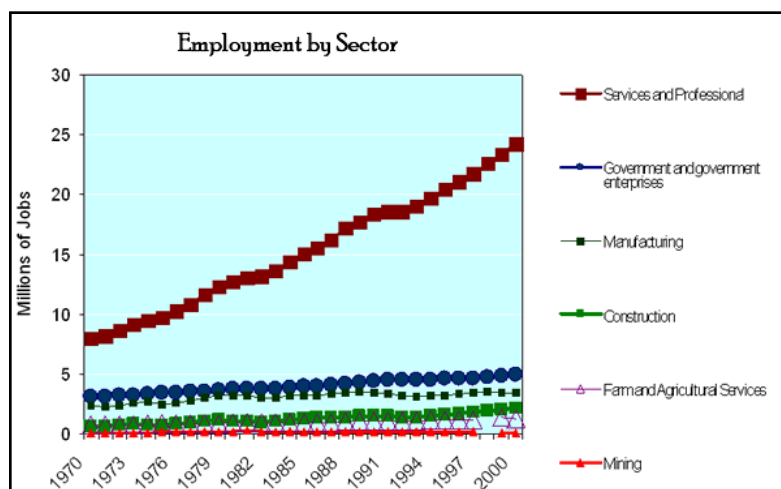


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### #2 - Your next job will likely be in services.



Source: U.S. Department of Commerce, 2004. Bureau of Economic Analysis, Regional Economic Information system (REIS CD-ROM). Washington, D.C.

As our national economy evolves beyond competitive advantages in basic commodity production and even manufacturing, we're seeing a mature service economy emerge as the new goliath. The West is by no means exempt from this trend, as the graph below illustrates. Seventy percent of all net new jobs created in the West between 1970 and 2000 were in service and professional industries.

What are services? Some economists define services broadly as all output that does not come from the three goods-producing sectors: natural resources and mining, manufacturing, and construction. We use the term "services and professional" to underscore the important point that services consist of a combination of high-paying and low-paying professions, mixing physicians with barbers and hotel workers with architects and financial consultants.

Since services account for as many as nine out of ten new jobs created in the United States today, the important point is less that service employment is up, but rather what types of service jobs are increasing. According to economist Lester Thurow, "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."

The table below compares the scale and wages of various service-providing and goods-producing industries for the West.

Goods-producing sectors account for 21 percent of employment in the West, and on average they have higher wages than service-providing jobs. Service-providing jobs make up 79 percent of the employment base and pay less on average. However, fast-growing sectors like professional and business services pay even better than goods-producing sectors.

Wages and Employment in the West, 2003  
(Private Sector Only)

	Employment	% of Total	Average Annual Wages
<b>Total: all industries</b>	<b>22,942,965</b>	<b>100%</b>	<b>38,612</b>
<b>Total: Goods-Producing</b>	<b>4,920,886</b>	<b>21%</b>	<b>43,552</b>
Natural Resources and Mining	692,714	3%	26,002
Construction	1,625,303	7%	39,507
Manufacturing	2,602,869	11%	50,749
<b>Total: Service-Providing</b>	<b>18,022,080</b>	<b>79%</b>	<b>37,262</b>
Trade, Transportation, and Utilities	5,128,818	22%	34,291
Information	812,313	4%	70,052
Financial Activities	1,838,252	7%	54,999
Professional and Business Services	3,613,832	16%	45,948
Education and Health Services	2,822,678	12%	36,455
Leisure and Hospitality	2,891,992	13%	18,487
Other Services	1,058,758	5%	22,894
Unclassified	55,439	0.2%	36,398

Source: U.S. Bureau of Labor Statistics, 2004. Quarterly Census of Employment and Wages (CEW). Washington, D.C.

### Additional Resources

\* For a big-picture look at the post-industrial development of the United States economy, see Lester Thurow's *The Future of Capitalism* (New York: William and Morrow and Company, 1996).

\* Ray Rasker offers a good summary on the evolving service economy in the article, "Your Next Job Will be in Services. Should You be Worried?" *Chronicle of Community* 2000 Vol.3 No. 2.

\* A more academic and in-depth treatment of the service economy can be found in Sven Illeris' *The Service Economy: A Geographical Approach* (Hoboken: Wiley, 1996).

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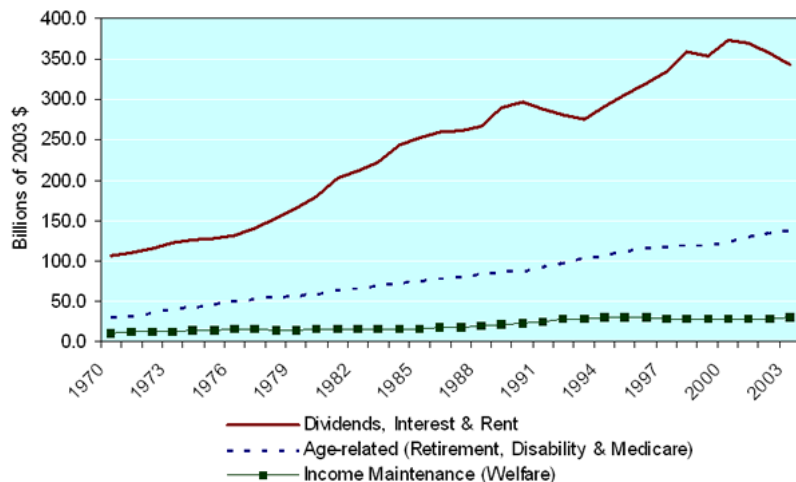
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### #3 - More and more of us don't have conventional jobs.

Trends in Non-labor Income



Source: U.S. Department of Commerce, 2004. Bureau of Economic Analysis, Regional Economic Information System (REIS CD-ROM). Washington, D.C.

We know that many people are punching time clocks, filing paperwork, selling products or harvesting crops across the West. But it might surprise you to learn how much of today's personal income is not related to present employment.

Non-labor income is now the second largest source of income (after services) in the West. Non-labor income consists of dividends, interest and rent (also referred to by some economists as money earned from investments) and transfer payments. Transfer payments include retirement benefits, health care and disability-insurance payments, Medicare and Medicaid, welfare, and other government payments to individuals.

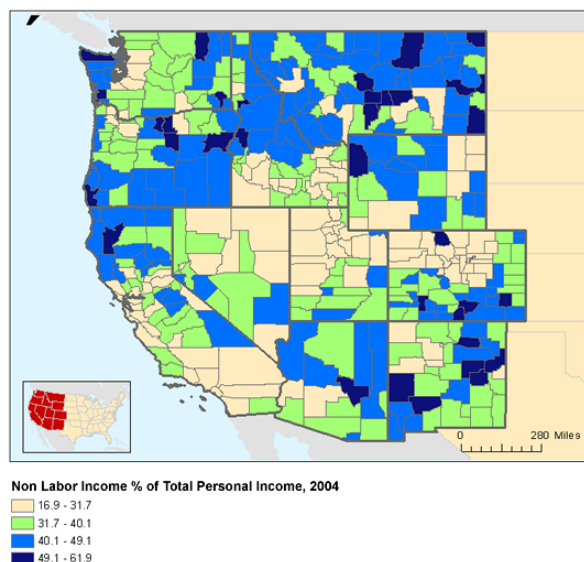
As the map below indicates, non-labor income can amount to more than 60 cents of every dollar earned in a county today. West-wide, non-labor

sources account for 30 percent of total personal income and 21 percent of the growth in real income over the last three decades.

As the population of the West ages, it is logical that retirement-related sources of income also rise. Nationwide, as well as in the West, more than 60 percent of transfer payments are age-related (retirement, disability, insurance payments, and Medicare).

Non-labor income can help diversify a local economy and is generally less vulnerable to local fluctuations in business cycles. For many communities non-labor income is the only sizeable source of income keeping a place alive; in others, non-labor sources of income have boosted per capita income well above average earnings per job. People with non-labor income often provide other benefits to a community through their personal efforts, such as volunteer and community service work.

Non Labor Income in the West



Source: U.S. Department of Commerce, 2004. Bureau of Economic Analysis, Regional Economic Information System (REIS CD-ROM). Washington, D.C.

### Additional Resources

\* For an analysis of the anticipated generational transfer of wealth, see this excellent report from Boston College's Social Welfare Research Institute: [www.bc.edu/research/swri/meta-elements/pdf/m&m.pdf](http://www.bc.edu/research/swri/meta-elements/pdf/m&m.pdf).

\* A sobering look at the aging of America can be found in Peter Peterson's *Grey Dawn: How the Coming Age Wave Will Transform America – and the World* (New York: Random House, 1999).



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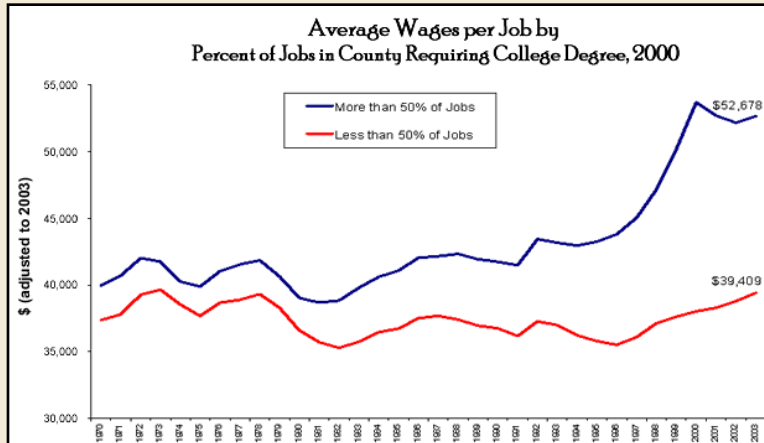


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### #4 - The more you learn, the more you earn!



Source: U.S. Bureau of the Census. 2004. STF4, Jobs by Occupation. Washington D.C. Census job information, organized by the Standard Occupational Classification System (SOCS) was divided into two categories: jobs that require a college education, and jobs that do not require a college education. Information on education levels required per job category were obtained from the Occupational Outlook Handbook (OOH), 2006-07 Edition

In the West's longstanding lament over low wages, particularly in rural states like Montana, there is a glimmer of hope: education. Places that successfully educate their young and attract and retain educated workers are seeing rising wages.

It is well known that education plays a key role in people's ability to succeed in today's globally competitive labor market. Some counties in the West have an educated workforce, while others do not. This difference is playing a key role in the prosperity of different parts of the West.

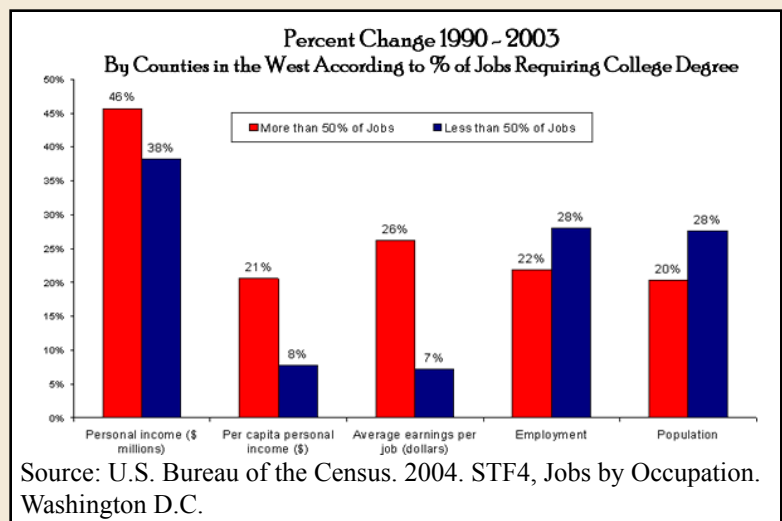
From 1990 to 2003, real wages in counties where more than 50 percent of the jobs require a college degree grew by 26 percent, compared to 7 percent growth in counties where less than 50 percent of the jobs required a college degree.

As the table above shows, by 2003 the average wage in the "college degree required" counties was \$52,678, or

75 percent higher than the \$39,409 average wage in counties where most jobs do not require a college degree.

It's getting harder and harder to increase earnings in sectors without educational requirements. The dramatic gap that developed in the 1990s between counties with and without occupations requiring a college degree indicates the growing importance of education in today's economy.

We are familiar with the notion that plenty of Westerners are working hard but not being well paid for their efforts. As the chart above indicates, the population in counties in the West with a majority of jobs that do not require a college degree grows faster than those that do. But their earnings per job, per capita income, and overall personal income growth are not keeping pace.



### Additional Resources

\* The Bureau of Labor Statistics Occupational Outlook Handbook shows the training and education needed, earnings, and expected job prospects for all occupations. See [www.bls.gov/oco](http://www.bls.gov/oco).

\* The Bureau of Labor Statistics National Occupational Employment and Wage Estimates database is also an excellent resource: [stats.bls.gov/oes/2000/oes\\_nat.htm](http://stats.bls.gov/oes/2000/oes_nat.htm).

\* The Southern Rural Development Center's publication - The Role of Education: Promoting the Economics and Social Vitality of Rural America - outlines the importance of education and human capital to economic success. See [srdc.msstate.edu/publications/ruraleducation.pdf](http://srdc.msstate.edu/publications/ruraleducation.pdf).

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### #5 - Public lands benefit the economy of the West.

Vast expanses of open space are one of the defining characteristics of the West. More than half the region's land is in public ownership and managed by the Bureau of Land Management, U.S. Forest Service, National Park Service, or U.S. Fish and Wildlife Service. In mountainous regions, some counties are eighty percent publicly owned, and some in states like Arizona and Nevada are more than ninety percent.

In the West, the presence of public lands in a county is good for the economy. Personal income, adjusted for inflation, grows faster in counties where more than 60 percent of the land is in federal ownership (Forest Service, Bureau of Land Management, Park Service, etc.), compared to counties with less than 10 percent of their land base in public ownership.

While public lands appear to stimulate growth in personal income in counties around the West, counties with public lands protected from development show an even more marked increase. Counties where more than 60 percent of the federal public lands are in protected status (Wilderness, National Parks, Wildlife Refuges, National Monuments, etc.) have grown 66 percent faster from 1970 to 2000 than counties where the same percentage of public land had no permanent protective status.

Wilderness, National Parks, National Monuments and other protected public lands set aside for their wild land characteristics can and do play an important role in stimulating economic growth. In effect, protected public lands can be a competitive advantage for many Western counties.

#### Additional Resources

For a detailed description and maps of "protected" and "non-protected" public lands, see: Public Lands Conservation and Economic Well-Being and Prosperity in the 21st Century West: The Role of Protected Public Lands. Both are available from the Sonoran Institute.

Four useful studies on the role of public lands and protected public lands are:

- \* Rudzitis, G. and H.E. Johansen. 1989. "Migration into Western Wilderness Counties: Causes and Consequences." Western Wildlands. Spring, Pages 19-23.
- \* Hansen, A.J.; R. Rasker, B. Maxwell, J.J. Rotella, J.D. Johnson, A.W. Parmenter, L. Langner, W.B. Cohen, R.L. Lawrence; and M.P.V. Kraska. 2002. "Ecological Causes and Consequences of Demographic Change in the New West." Bioscience. Vol. 52 (2), Pages: 151-162.
- \* Lorah, P. and R. Southwick. 2003. "Environmental Protection, Population Change, and Economic Development in the Rural Western United States." Population and the Environment. Vol. 24 (3), Pages 255-272.
- \* McGranahan, D.A. 1999. "Natural Amenities Drive Population Change." Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Report 781, Pages 1-24.

Wild, public lands have biological, intrinsic, historical and cultural value. They also have tremendous economic value. One of the more direct economic benefits of our public lands can be seen in the amount of revenue generated from hunters and anglers.

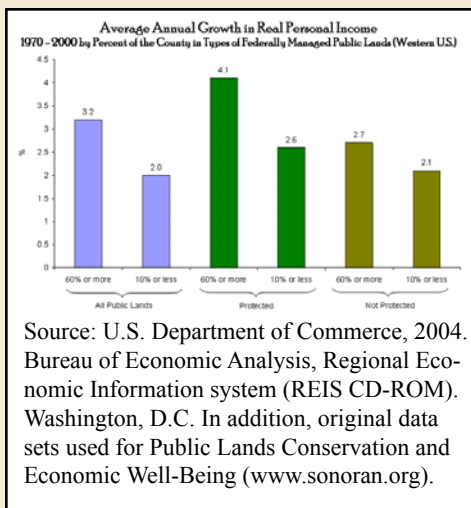


- Hunters and anglers have generated more than \$10 billion through recreation-related licenses, taxes and fees to support federal, state and private-sector conservation.

- The economic impact of hunting and angling and related industries in the West is significant, adding nearly \$3 billion in 2001 to the combined economies of Arizona, Idaho, New Mexico, Montana, Utah and Wyoming. Conservation of public lands in the West is critical to attracting and retaining these revenues.

The number of hunters and anglers in the nation in 2001 was 38 million, and overall they contributed nearly \$70 billion to the national economy, including \$276 million on lodging alone. More than revenues from licenses, taxes and fees, sportsmen also "pay to play," spending an average of \$1,851 annually on hunting and fishing activities, according to a 2001 study by the International Association of Fish and Wildlife Agencies (IAFWA). Protected public lands, such as wilderness and roadless areas, often provide the best fish and wildlife habitat and therefore give a competitive advantage to Western counties with such lands.

Source: Backcountry Bounty: Hunters, Anglers and Prosperity in the American West, 2006. See [www.sonoran.org/programs/socioeconomics/backcountry\\_bounty.html](http://www.sonoran.org/programs/socioeconomics/backcountry_bounty.html).



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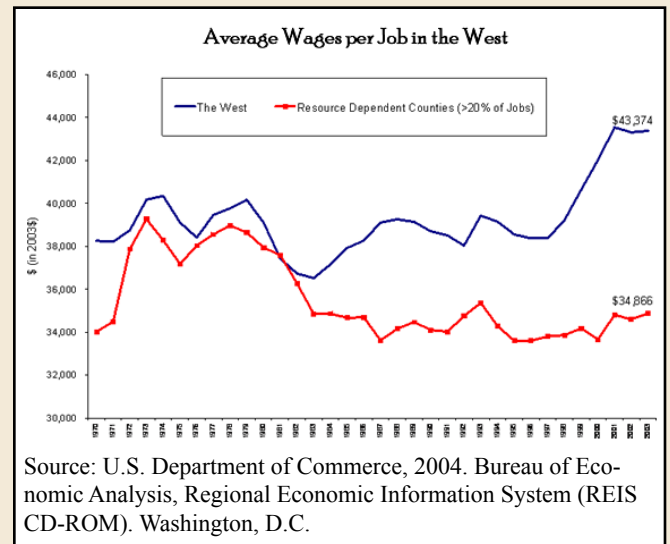
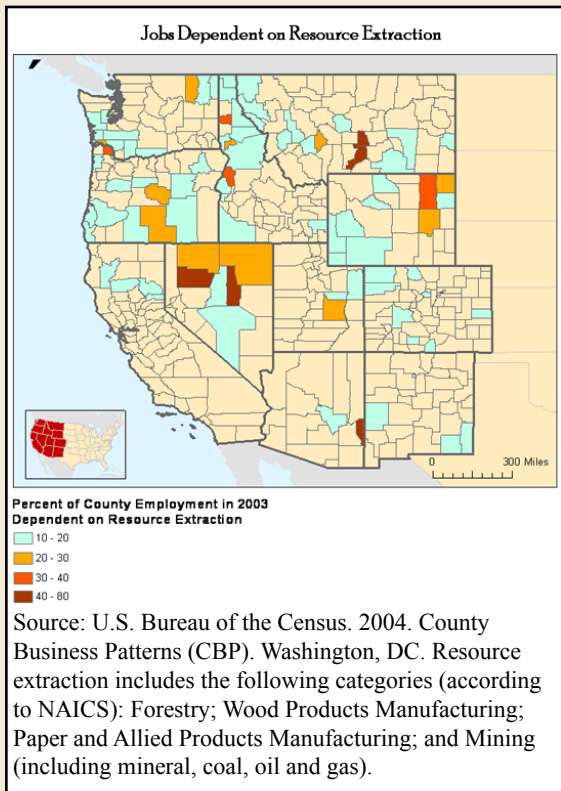


### #6 - The extractive economy of the “Old West” is rare in the New West.

Much of the West – and Westerners’ sense of place – has been shaped by mining, energy development and timber production. Yet today there are few truly resource-dependent counties left – even in the face of a sharp push for energy development in the interior West.

This is true for a couple of basic reasons: by and large our regional competitive advantage no longer lies in basic commodity, or even energy, production; technology investments in extractive enterprises have dramatically reduced jobs without decreasing output; and the service-based economy has eclipsed extractive enterprises.

Today less than 5 percent of the counties in the West (20 out of 411 counties) have more than 20 percent of their job base in timber, mining or energy development (including oil, gas and coal), as the figure below shows.



Less than one percent of the counties in the West (five counties to be precise: Stillwater and Golden Valley, Montana; Eureka and Pershing, Nevada; Greenlee, Arizona) have more than 50 percent of their jobs in resource extraction.

In these few instances, extractive industry jobs remain important. However, their traditional strength – wages – no longer looks so rosy. In 2003 the average wage per job in counties that were over 20 percent dependent on resource extractive jobs was \$34,866. This was significantly lower than for the West as a whole (\$43,374).

In addition, for more than a decade resource-dependent counties have had the slowest rate of increase in wages, growing by only 2 percent from 1990 to 2003 in real terms. By contrast, wages in the West as a whole grew by 12 percent during that time.

The “Old West” is still out there, though in fewer places and with less to offer than in the past.

### Additional Resources

\* The USDA’s county typology codes, which include a mining dependent category, are an alternative way to think about economic dependence generally. See [www.ers.usda.gov/briefing/rurality/Typology](http://www.ers.usda.gov/briefing/rurality/Typology).

\* A good book on the West’s struggle to move beyond its 19th century economic roots is Tom Power’s *Post-Cowboy Economics: Pay and Prosperity in the New American West* (Washington, DC: Island Press, 2001).



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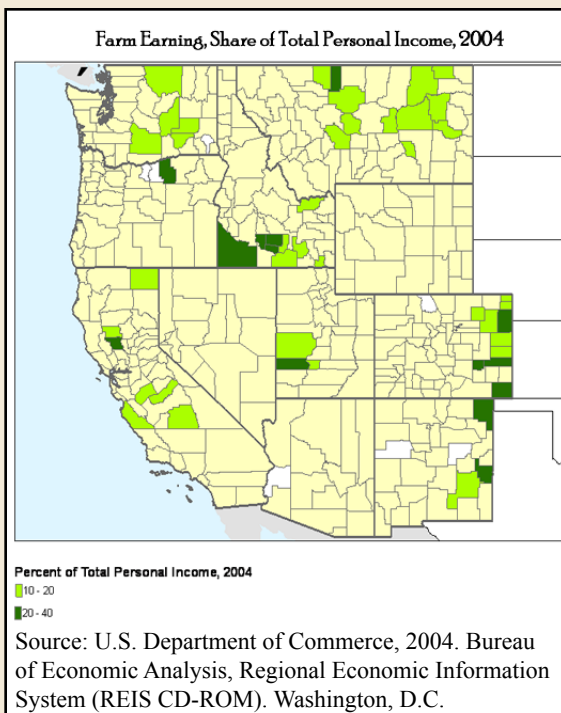
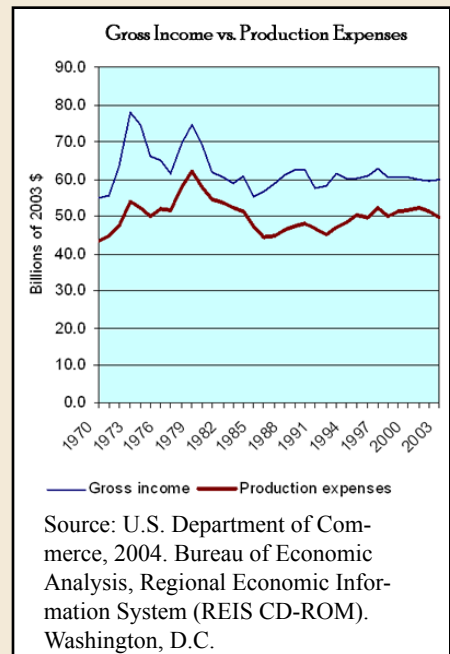
### #7 - Agriculture is not growing.

Agriculture has a long and important history in the West. It's still the most extensive land use in the region. However, its overall economic contribution has been flat in recent decades. As the rest of the economy grows, agriculture's importance in terms of jobs and income has diminished, and in some cases the industry is having trouble competing for scarce resources like water with other users.

For the West as a whole, agriculture, including ranching and agricultural services, made up 3.7 percent of total employment and 1.5 percent of total personal income in 2000.

Agricultural enterprises are producing a large volume and wide array of products, but few are getting wealthy doing so. Technological innovations have cut deeply into employment, and, as the graph below shows for the entire West, high production costs and thin margins for undifferentiated commodities have meant that only high volume or niche-market players can consistently turn a profit.

As a result, agriculture is not as economically prevalent today. The map below shows counties in the West that have 20 percent or more of their personal income from farming and ranching. In some cases, agricultural dependence is associated with concentrated activities like a feedlot; in others, agriculture is so prominent because the rest of the economy has withered, leaving only agriculture.



On its own, agriculture is not successfully supporting many communities in the West. Out-migration and poverty tend to characterize agriculturally dependent areas. In more rapidly growing settings, agriculture is struggling to compete with other land uses.



### Additional Resources

\* For an alternative map of farm dependent counties, see [www.ers.usda.gov/Emphases/Rural/Gallery/FarmingDependent.htm](http://www.ers.usda.gov/Emphases/Rural/Gallery/FarmingDependent.htm).

\* For a good summary of challenges facing the rural West and policy options, see [www.ers.usda.gov/Amberwaves/April05/Features/Policy-Options.htm](http://www.ers.usda.gov/Amberwaves/April05/Features/Policy-Options.htm).



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### #8 - More residences don't mean extra tax revenues.

County officials and other elected leaders are often led to believe that land converted to residential use will provide local government with extra revenue due to an expanded tax base. Acres of houses clearly pay more taxes than do acres of farmland and open space. But when the cost of services such as roads, public health and safety, education and others are taken into account, the financial contribution that residences make to tax revenues is far outweighed by their increased demand on the local services and infrastructure.

A cost-revenue comparison, or Cost of Community Services study (COCS), can provide elected officials with an understanding of the amount spent in services on each type of land use and the amount that each type brings the county in revenue.

What have COCS studies around the country found? In general, they find that counties have a combination of land uses – residential, commercial, industrial, agricultural and open space. Commercial and industrial uses usually provide a positive balance; in other words, a county receives more taxes from these types of development than has to be paid out in the form of services. The same is true for farmland and open space. Residential use, which usually generates more gross revenue than the other types of use, often leaves a county with a net financial loss after the costs of roads, schools, sewers and the like are factored in. The assumption that residential development would alleviate financial constraints for cash-strapped counties does not necessarily play true. Instead, what seems to be clear from studies done across the country is that residential development that is uncontrolled, or not balanced by business growth and agricultural preservation, will either increase property taxes or lead to decreased public services.

The box below shows the relationship between each dollar of tax revenue and the amount spent providing services (a land use that shows fiscal balance would be a \$1:\$1 ratio; a land use in deficit will show more expenditures, i.e., \$1:\$2; and one in surplus would show more revenues, i.e., \$1:\$0.50).

It is important to understand that COCS studies provide a static “snapshot” of a county’s revenues and expenditures. They also do not distinguish between types of residential development. With these caveats in mind, this approach to understanding fiscal realities of land development can be flexibly applied in any jurisdiction.

Right are some examples of Cost of Community Service studies done in the West. These ratios are especially significant when you consider that between 1992 and 1997 more than 6 million acres of agricultural land was converted to other uses nationally.

Cost of Community Services studies provide a useful view of both the costs and benefits of different types of land use – and often show that expanding residential areas are not the answer to county fiscal problems. Instead, preserving agricultural land and open space, as well as encouraging commercial and industrial development, can provide a better balance. More is not always better; balance is important too.

#### Additional Resources

\* American Farmland Trust, 2006. Farmland Information Center, Statistics: this website provides information and links to the Bureau of the Census of Agriculture, as well as the National Resources Inventory. [www.farmlandinfo.org/agricultural\\_statistics](http://www.farmlandinfo.org/agricultural_statistics).

\* Reports on the Gallatin County, Mont., and Custer County, Colo., statistics are available online at Sonoran Institute’s Northern Rockies Program. [www.sonoran.org/programs/northern\\_rockies/si\\_nr\\_services.html](http://www.sonoran.org/programs/northern_rockies/si_nr_services.html).

\* For the resources on Deerfield, Mass., see the American Farmland Trust publication: Does Farmland Protection Pay? The Cost of Community Services in Three Massachusetts Towns. Julia Freedgood; Northampton, Mass.: American Farmland Trust; AFT Publication; page(s) iii, 38; 1992; MA; Reports and Studies. It is also available online at [www.farmlandinfo.org/documents/30643/DOES\\_FARMLAND\\_PROTECTION\\_PAY.pdf](http://www.farmlandinfo.org/documents/30643/DOES_FARMLAND_PROTECTION_PAY.pdf).

**In a national survey of Cost of Community Services studies, the American Farmland Trust found the following national medians (in dollars):**

Residential ratio: \$1: \$1.15  
Commercial ratio: \$1: \$0.37  
Agricultural ratio: \$1: \$0.29

#### Ratios between a dollar of tax revenue and the amount spent providing services

Ratios of a dollar of tax revenue to the amount spent providing services

Custer County, CO, 2000	Residential land use	Commercial/Industrial land use	Agricultural/Open Space
Ratio of Revenues to Expenditures	\$1: \$1.16	\$1: \$0.71	\$1: \$0.54

Cassia County, ID, 1997	Residential land use	Commercial/Industrial land use	Agricultural/Open Space
Ratio of Revenues to Expenditures	\$1: \$1.19	\$1: \$0.87	\$1: \$0.41

Cache County, UT, 1994	Residential land use	Commercial/Industrial land use	Agricultural/Open Space
Ratio of Revenues to Expenditures	\$1: \$1.27	\$1: \$0.25	\$1: \$0.57

Gallatin County, MT, 1994	Residential land use	Commercial land use	Industrial land use	Agricultural/Open Space
Ratio of Revenues to Expenditures	\$1: \$1.45	\$1: \$0.18	\$1: \$0.07	\$1: \$0.25

# You've Come A Long Way, Cowboy:



## Ten Truths & Trends in the New American West

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### #9 - Energy development has high opportunity costs.

The United States consumes 20.7 million barrels of petroleum each day. Of that, we import 58 percent, or more than 12.1 million barrels a day. The proven oil reserves in the United States are 21 billion barrels, which would last the U.S. at its current rate of consumption just under three years, if we stopped importing oil tomorrow. While some estimates of the amount of oil under the Arctic National Wildlife Refuge reach up to 16 billion barrels of oil, the U.S. Geological Service says the amount that could be recovered economically is roughly 3.2 billion barrels. That amounts to less than a six-month supply of oil.

To lessen our reliance on foreign oil, there has been a significant push to develop energy reserves in the West. Of the 11 Western states, only six have proven crude oil reserves. Of those, California, with its offshore capacity, has the largest supply available. In the interior West, petroleum reserves are meager. As the table below shows, at current rates of consumption there is less than three and one-half months' worth of petroleum in the interior West. At rates of consumption predicted for 2025, we would use up these reserves in about 75 days.

What every Westerner must consider when thinking about energy development in the West is whether the benefits exceed the costs. The opportunity cost of developing three and one-half months' supply of petroleum can include degraded landscapes and wildlife habitat. As shown previously, the long-term trends for resource-dependent communities are not favorable: boom and bust cycles leave communities with few resources once the petroleum has been extracted; they are impacted when world prices change; and resource-industry wages are stagnating.

Finally, it is questionable whether it makes sense to damage the environment for a few months' worth of oil in today's economy of footloose businesses, increased retirement income, services-based occupations, and a highly mobile and educated population in search of a high quality of life.

#### Petroleum Reserves in the Intermountain West

State	Proven Reserves (million barrels)	Will be depleted in:	
		At current consumption rates (days)	At estimated 2025 consumption rates (days)
Colorado	225	11	8
Montana	364	18	13
New Mexico	669	32	24
Utah	215	10	8
Wyoming	628	30	22
Total	2,101	101	75

Source: Energy Information Administration, Department of Energy; Forecasts and Analysis, 2004

#### Additional Resources

Most of the information in this section is available from the Energy Information Administration, which provides official energy statistics from the Department of Energy of the U.S. Government. The following sources are especially helpful:

\* Energy Information Administration, Annual Energy Outlook 2004, Annual Energy Outlook 2005. [www.eia.doe.gov/oiaf/archive/aeo04/gas.html](http://www.eia.doe.gov/oiaf/archive/aeo04/gas.html) and [www.eia.doe.gov/oiaf/archive/aeo05/index.html](http://www.eia.doe.gov/oiaf/archive/aeo05/index.html).

\* Energy Information Administration, 2006 Petroleum Basics, Petroleum Summary [tonto.eia.doe.gov/dnav/pet/pet\\_sum\\_top.asp](http://tonto.eia.doe.gov/dnav/pet/pet_sum_top.asp).

\* Energy Information Administration, 2006 Crude Oil Imports By Country [www.eia.doe.gov/neic/rankings/crudebycountry.htm](http://www.eia.doe.gov/neic/rankings/crudebycountry.htm).

\* Energy Information Administration, 2006 Publications, Crude Oil and Natural Gas Reserves Domestic and International. [www.eia.doe.gov/emu/international/reserves.html](http://www.eia.doe.gov/emu/international/reserves.html) and [www.eia.doe.gov/pub/oil\\_gas/natural\\_gas/data\\_publications/crude\\_oil\\_natural\\_gas\\_reserves/current/pdf/ch3.pdf](http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/crude_oil_natural_gas_reserves/current/pdf/ch3.pdf)

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### #10 - Standard of living is not the same as quality of life.

Many Westerners appreciate the ability to earn a good living and maintain quality of life issues such as excellent recreational opportunities like mountain biking.

Economic success is often measured in terms of growth, such as with employment and total personal income. While growth is a useful gauge for comparing different regions of the West, it should not be considered the only measure of economic well-being.

There are many ways to measure well-being. Some, like per capita income, labor income, population, average earnings per job, and total personal income, are measures of standard of living and are not necessarily measures of quality of life. Crime rate, air and water quality, recreational opportunities, social capital (e.g., the amount of volunteerism in the community), leisure time, and myriad other measures cannot be as easily quantified in economic terms yet may be equally important to individuals and communities as high wages or growth.

The table below shows characteristics associated with rapidly growing populations (positive correlation) or declining populations (negative correlation) for counties in the West from 1990 to 2005.

Fast-growing counties tend to have several advantages, shown in the first row in the table above: an educated workforce, high per capita income and average earnings per job, and a high percent of workers in white collar jobs. These are quantitative measures of standard of living.

The negative aspects of high growth counties can also be seen in the table in the second row: home values and rent are high, forcing many people to commute to their jobs from more affordable neighboring counties, and the middle class gives way to income stratification. These measures indicate the costs of high growth that can diminish quality of life.

The third row of the table shows county characteristics where population is declining. Counties that don't have fast growth tend to have affordable housing and a high percent of jobs that do not require a college degree. They are also characterized by poverty.

This table shows a typical predicament for Westerners: high growth can degrade quality of life, yet low or no growth can degrade standard of living. For this reason, all efforts at stimulating economic growth should include a cost/benefit analysis to take into account the impact on quality of life. All efforts to protect quality of life should take into consideration their effects on standard of living.

#### Additional Resources

Cornelia Flora has written extensively on this topic. See, for example: [www.ag.iastate.edu/centers/rdev/newsletter/Winter%2098-99/From%20the%20Director.html](http://www.ag.iastate.edu/centers/rdev/newsletter/Winter%2098-99/From%20the%20Director.html).

She has also discussed a related approach: the Triple Bottom Line. See [www.ncrcrd.iastate.edu/newsletter/Vol27No2-2004/bottomline.htm](http://www.ncrcrd.iastate.edu/newsletter/Vol27No2-2004/bottomline.htm).

Variables that Strongly Correlate with Annual Change in Population 1990 to 2005	Correlation Value
Educational Attainment BA or Greater	0.85
Per capita income	0.79
Average earnings per job (dollars)	0.76
% adults employed in white collar jobs	0.71
Percent of workforce income from commuting	0.82
Ratio of rich (earn over \$100,000/yr) to poor (<\$30,000)	0.81
Median house value	0.56
Commute Greater than 30 Min - Share of Commuters	0.43
Affordable Housing	-0.33
Percent of jobs in county requiring no college degree	-0.62
% of households who earn under \$30,000	-0.70
% families living below federal poverty line	-0.54
Non labor income % of total	-0.53

Source: 2000 Decennial Census. Census Bureau, U.S. Department of Commerce, Washington, DC. U.S. Bureau of the Census. 2004. Decennial Census on Population and Housing. Washington, DC. A housing affordability index for each county was developed as follows: we assumed a 20 percent down payment and that no more than 25 percent of a family's income goes to paying the mortgage. It is based on an interest rate of 8.03 percent in 2000. It is a statistic that is best used for comparative, rather than absolute, measures.



