

COLORADO BUSINESS REVIEW

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2010 Federal Spending in Colorado

Rachel Ford

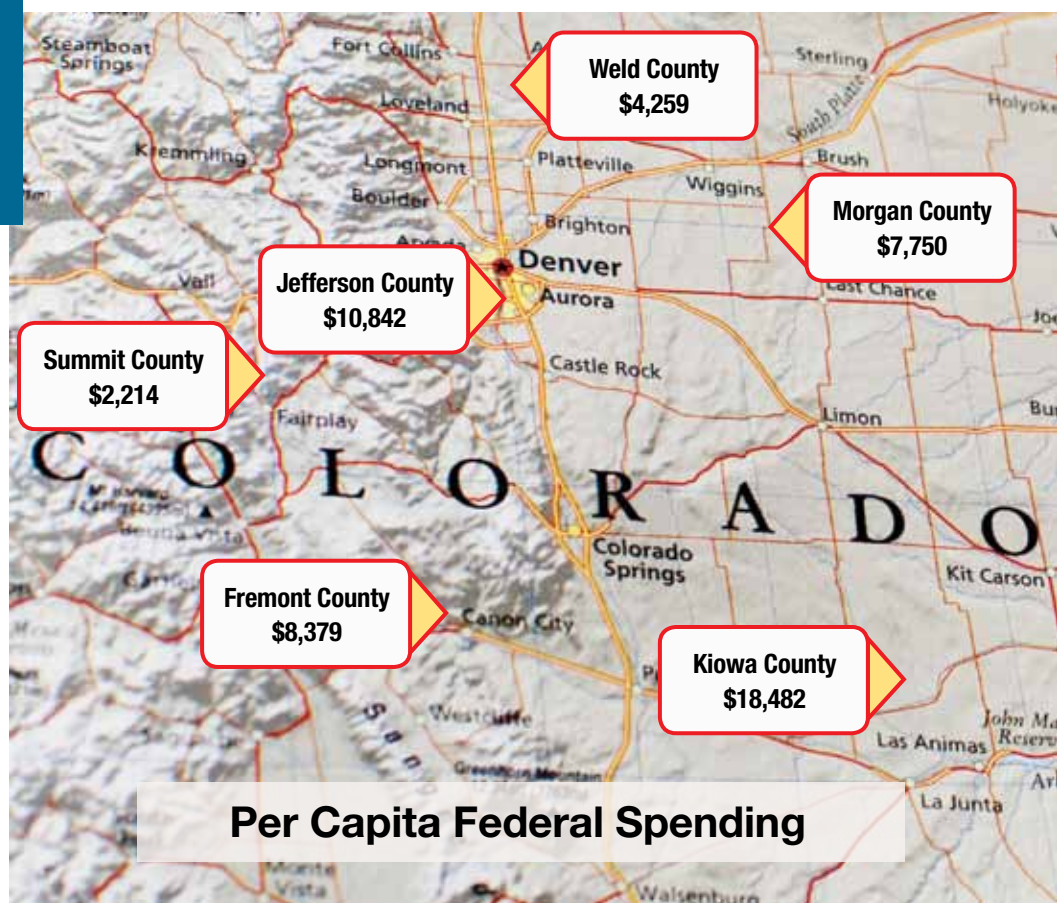
Federal dollars can be seen everywhere in Colorado: paving winding mountain roads, supporting federal research facilities, and growing in rolling fields of grain. The Consolidated Federal Funds Report, a U.S. Census Bureau document detailing federal spending at the state and county level, groups the money paid out by the federal government into six categories: direct payments for individuals (retirement and disability only), direct payments for individuals (other than retirement and disability), direct payments other than for individuals, grants, procurement contracts, and salaries and wages. (Note: Other reported federal commitments include loans and insurance.)

According to a 2005 study by the Tax Foundation, Colorado received about \$0.80 back for every dollar of federal taxes paid. Although the impact of the American Recovery and Reinvestment Act (ARRA) is unknown, it likely increased Colorado's return in the short term. In 2010, Colorado drew the 9th-highest per capita spending in the nation for both procurement contracts and salaries and wages. However, Colorado ranked as one of the lowest states in retirement and disability payments (46th) and in other direct payments (47th). County funding in Colorado fell on a similarly broad spectrum. Per capita federal spending ranged from \$25,149 in Cheyenne County to \$1,136 in Broomfield County. In general, the federal government spent the most per capita in small, rural communities with agricultural economies and the least per capita in counties with mountain resorts and the bustling Front

This issue: Federal Spending begins on this page.

Oil and Gas begins on page 2, Agriculture on page 5, and

Housing Construction on page 6.



Source: U.S. Census Bureau, 2010 Consolidated Federal Funds Report.

Range metropolitan areas. See the maps on page 4.

The federal government devoted 25.8% of its funds in Colorado to retirement and disability payments for individuals, a category of spending that includes disbursements for military retirement and Social Security. Direct payments for retirement and disability were most concentrated in Teller County, making up 76% of spending. Teller was followed closely by Park, Gilpin, and Custer, each receiving more than 70% of their federal dollars as retirement and disability compensation. Of these counties, Custer had the greatest percentage directed toward Social Security (35.1%) and the highest percentage of its population over age 65 (20.1%).

Direct payments other than for retirement and disability, such as Medicare, educational loans, and unemployment compensation, accounted for 15.6% of federal spending in Colorado. Unsurprisingly, the counties with the largest populations over age 65—El Paso,

Arapahoe, Denver, Jefferson, and Adams—collected the highest gross funding for all direct payments for individuals (heavily weighted by Social Security and Medicare). In terms of other direct payments as a slice of total federal spending, Rio Blanco, Sedgwick, and Huerfano ranked as the top three counties. Medicare was the most significant expense in all three counties, especially for hospital and supplementary medical insurance. According to the Colorado Gerontological Society, fewer drug coverage plans were available in 2010, requiring 5,000 Colorado residents to choose new coverage. This shift in the drug insurance market, combined with rising deductibles and premiums, likely caused some counties with high drug coverage payments in 2009 to lose a

CONTINUED ON PAGE 5



Oil and Gas: Cornerstone of Colorado's Economic Recovery

Tisha Conoly Schuller

From the Editor

Lately, newspaper headlines scarcely ignore the instability of the economy for a single day. To bring some aspects of economic uncertainty into perspective, this issue of the *CBR* explores volatility in the Colorado economy, including data on tenuous federal funding to Colorado counties, oil and gas production under unstable commodity prices, fluctuating agricultural income, and the bumpy outlook for housing construction.

Colorado Business Economic Outlook Forum

Mark your calendar to attend the 47th annual Colorado Business Economic Outlook Forum. This half-day event will be held Monday, December 5, at the Grand Hyatt Hotel, 1750 Welton, in downtown Denver. A networking reception will follow the forecast and discussion breakout sessions. New this year, to facilitate networking at the event, participants are asked to register to receive a nametag. Visit <http://leeds.colorado.edu/brd#cbeo> for more information and to register.

Gain valuable insights about national, state, and local trends, and what lies ahead in 2012. Register to attend Colorado's longest-running economic forecast today!

Please contact me at 303-492-1147 with any questions or comments.

Richard Wobbekind

The news on the health of Colorado's oil and gas industry is good. The *Denver Post* reported that Colorado created jobs in August, thanks to the energy extraction industries. By nearly any metric, 90% of energy extraction in Colorado is oil and gas.

Commodity prices are important to the health of the oil and gas industry in Colorado for a number of reasons. But even under depressed commodity prices, Colorado's oil and gas industry continues to serve as a cornerstone of economic recovery, thanks to continual efficiency and improvement.

For context, here are some key Colorado oil and gas numbers:

- 45,956 active wells
- 7th-highest state in natural gas production
- 7th-highest state in number of natural gas wells drilled in 2010
- 12th-highest state in crude oil production
- 18th-highest state in number of crude oil wells drilled in 2010
- \$9.1 billion in production value in 2010
- 102,000 direct and indirect jobs in the oil and gas supply chain in 2010

Prices affect nearly every aspect of the industry within the state of Colorado. First, commodity prices determine if a specific oil and gas play is economically feasible. The higher the commodity prices, the more oil and gas resources are economically recoverable. In turn, more recoverable resources translate to more activity, creating jobs and generating revenue.

Most taxes related to oil and gas are calculated on the value of production, a figure based on the price of these commodities. Lower commodity prices mean lower tax revenue generated.

Additionally, different petroleum product prices determine company strategy. For example, lower natural gas prices coupled with higher oil prices has changed the focus of domestic rigs from natural gas to oil in 2011. Also, natural gas liquids, a by-product of natural gas production used in the petrochemical industry, can often increase the economics of a specific basin and resource.

In generating new markets for natural gas, the long-term projection for lower natural gas prices is important, most notably in the power generation sector. In order to increase their use of natural gas, utilities must be confident that their purchase price for natural gas will be relatively stable.

Succeeding in a Low Price Environment


Nationally, the oil and gas industry has dramatically reduced its development costs while increasing efficiency and reducing its environmental footprint. In just the past few years, operators have improved the time it takes to adapt to a new basin, increasing production with fewer well pads, shorter drilling timeframes, more wells per pad, and significantly more production per well. This allows oil and gas companies to operate profitably in lower price environments. Efficiency is then combined with commodity price strategies, such as maximizing the sale of profitable natural gas liquids, to ensure ongoing successful operations.

Cornerstone of Economic Recovery

Oil and gas activity in Colorado peaked in late 2008 and early 2009. Rig counts are a good indicator of economic activity because they demonstrate where jobs are created and new production is generated. Since Colorado rig counts fell from their peak in September 2008, they have begun to recover, with 75 active rigs in August 2011. Each rig has 25 direct jobs and supports another 100 or more drilling-related jobs.

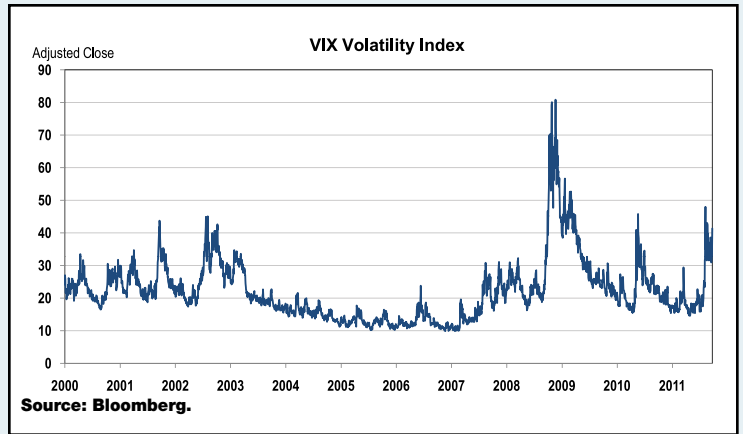
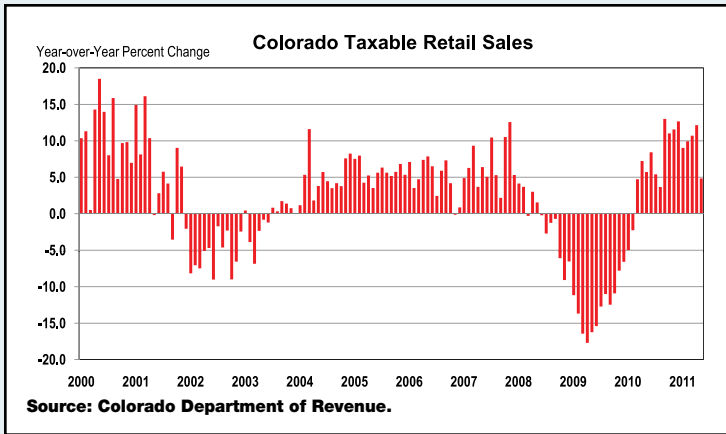
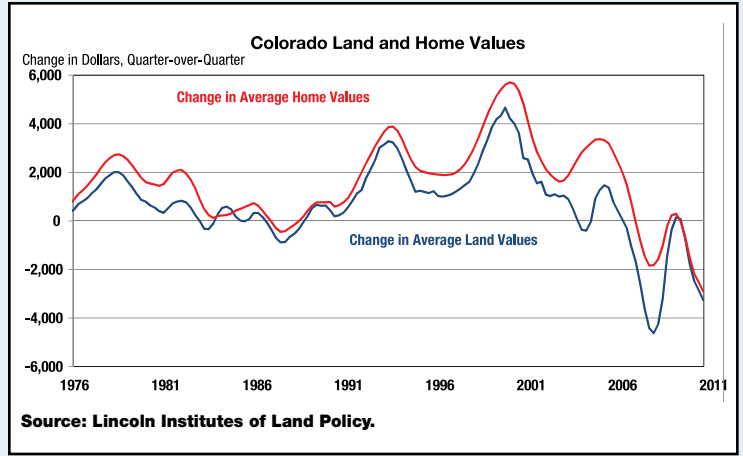
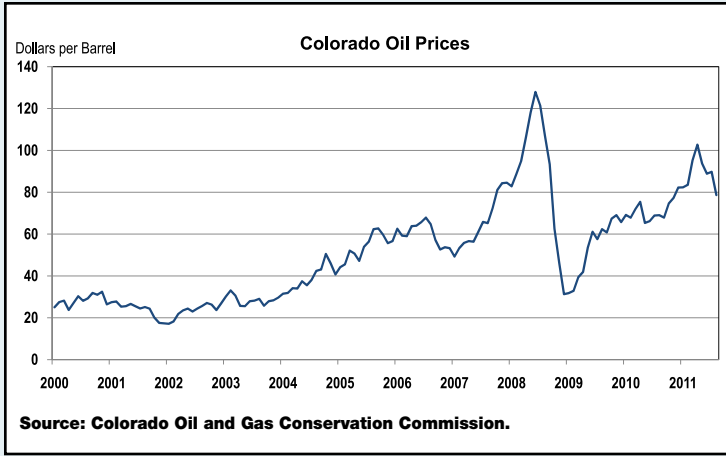
Despite the overall decline in activity and the dramatic drop in commodity prices (oil has fallen 37% and natural gas has tumbled 61% since their 2008 peaks), Colorado's oil and gas industry continues to create jobs, attract investment, and generate revenue for state and local governments. A few recent notable successes include:

- 11.9% projected growth in Colorado Cash Fund Revenue, largely due to severance taxes
- \$1.3 billion in a deal between Chesapeake Energy Corp. and Cnooc Ltd. focused on Niobrara oil development in Colorado and Wyoming
- \$1.1 billion in public revenue generated in 2010 by Colorado's oil and gas industry for the Department of Natural Resources, state and local governments, schools, and other agencies
- \$18.2 million collected for K-12 education and school construction at the State Land Board Mineral Auction on August 18, 2011

Fortunately, oil and gas companies do not depend upon commodity prices to contribute to Colorado's economic recovery. Attracting investment, creating jobs, and building state and local revenue are tasks Colorado's oil and gas industry embraces with pride. 

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Volatility Data



Core Metrics Data

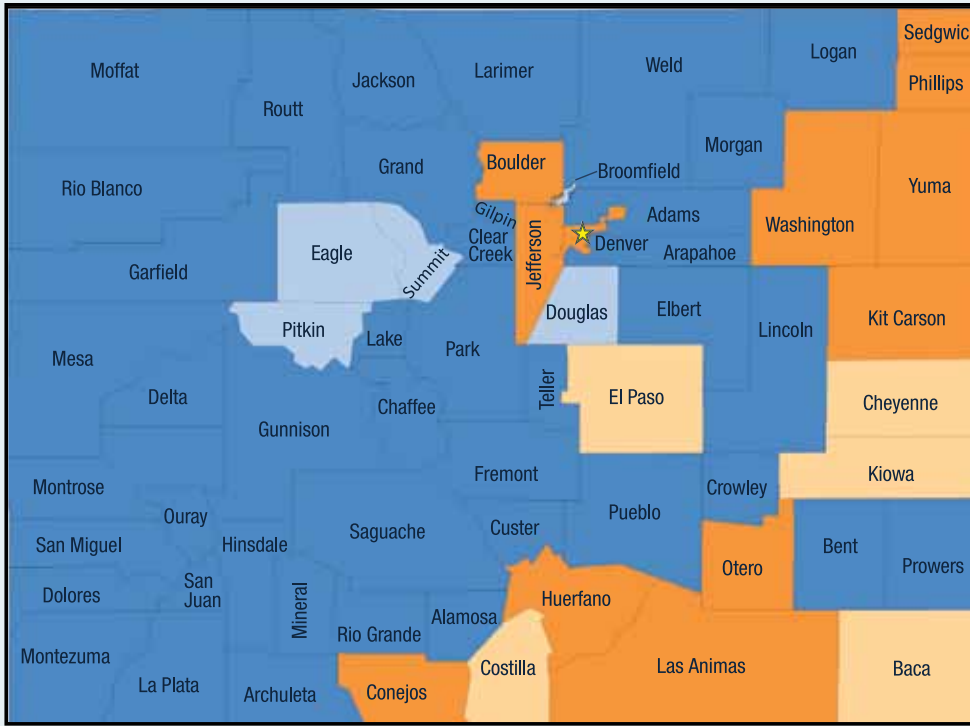
	Colorado Employment (In Thousands)	Colorado Unemployment Rate	Colorado FHFA Quarterly Housing Price Index	U.S. Consumer Price Index (Inflation)	U.S. Consumer Price Index (Core Inflation) ^a		
2009	August	2,235.4	8.3%	--	124.6	119.4	
	September	2,232.0	8.1	269.7	124.7	119.7	
	October	2,231.3	8.1	--	124.8	120.0	
	November	2,227.1	8.2	--	124.8	119.7	
	December	2,234.8	8.7	269.9	124.5	119.5	
	2010	January	2,174.8	9.5	--	125.0	119.4
		February	2,188.6	9.4	--	125.0	119.7
		March	2,201.2	9.7	272.1	125.5	120.0
		April	2,212.3	8.8	--	125.7	120.0
		May	2,225.7	8.7	--	125.8	120.0
		June	2,240.9	8.9	268.0	125.6	120.0
		July	2,231.1	8.8	--	125.6	119.9
August		2,233.8	8.7	--	125.7	120.1	
September		2,228.3	8.4	261.8	125.8	120.2	
October		2,229.2	8.4	--	126.0	120.3	
November		2,231.5	8.9	--	126.0	120.3	
December		2,243.4	8.7	266.5	126.2	120.1	
2011	January	2,192.0	9.9	--	126.8	120.3	
	February	2,204.2	9.7	--	127.4	120.7	
	March	2,213.0	9.3	257.5	128.6	121.1	
	April	2,219.5	8.3	--	129.4	121.4	
	May	2,226.0	8.5	--	129.9	121.6	
	June	2,257.1	8.8	256.7	129.8	121.7	
	July	2,247.3	8.6	N/A	129.9	121.8	
	August	2,250.2	8.3	N/A	130.3	122.2	
Month-over-Month^b		0.13%	-0.3	-0.31%	0.25%	0.28%	
Year-over-Year		0.73%	-0.4	-4.19%	3.61%	1.75%	
5-Year CAGR^c		-0.39%	--	-1.24%	1.94%	1.52%	

^aInflation less food and energy. ^bQuarter-over-Quarter for the FHFA Housing Price Index. ^cCompound annual growth rate.

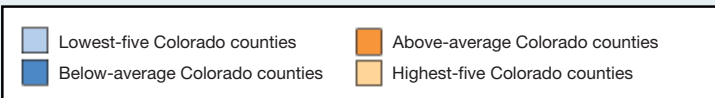
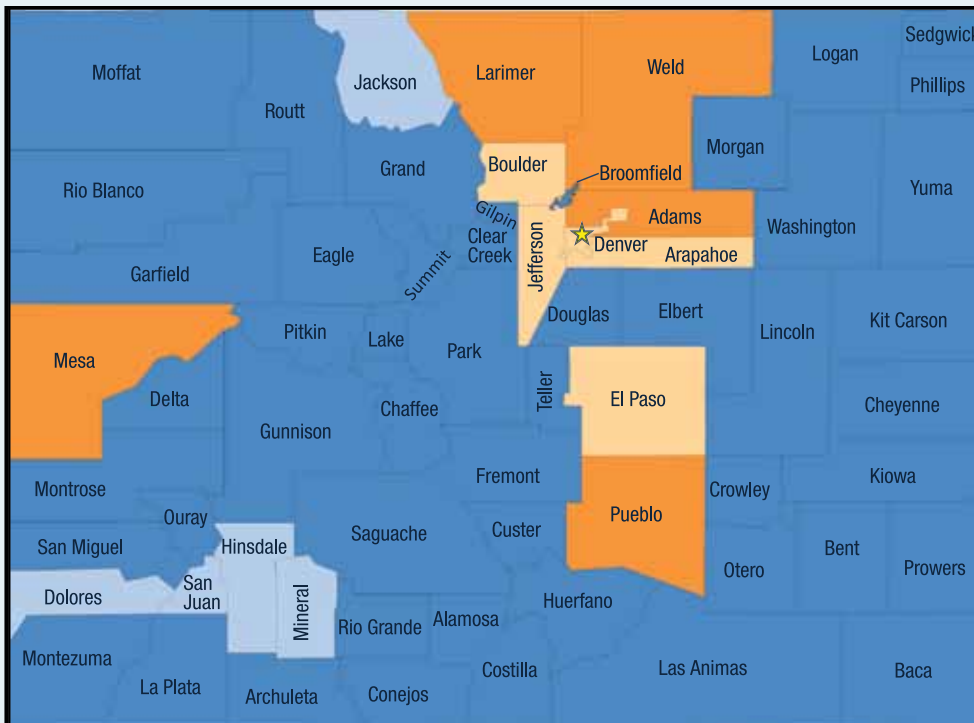
Sources: Bureau of Labor Statistics (CES, LAUS, and CPI) and Federal Housing Finance Agency. Data not seasonally adjusted.

FEDERAL SPENDING IN COLORADO

Per Capita Federal Spending by County



Gross Federal Spending by County



Source: U.S. Census Bureau, 2010 Consolidated Federal Funds Report.

	Federal Spending	
	Per Capita	Total
Adams	\$4,780	\$2,110,798,359
Alamosa	8,804	135,981,380
Arapahoe	9,122	5,218,038,976
Archuleta	5,522	66,731,055
Baca	16,511	62,541,899
Bent	8,842	57,464,450
Boulder	10,586	3,118,163,008
Broomfield	1,136	63,475,549
Chaffee	6,936	123,517,601
Cheyenne	25,149	46,173,695
Clear Creek	4,214	38,294,108
Conejos	10,501	86,700,177
Costilla	15,028	52,957,088
Crowley	5,794	33,736,875
Custer	7,306	31,087,395
Delta	8,097	250,609,432
Denver	14,259	8,557,552,990
Dolores	7,791	16,080,164
Douglas	2,016	575,457,688
Eagle	2,253	117,615,452
El Paso	17,801	11,076,784,719
Elbert	3,668	84,674,278
Fremont	8,379	392,333,579
Garfield	3,689	208,005,863
Gilpin	3,163	17,208,489
Grand	3,752	55,697,130
Gunnison	6,680	102,369,971
Hinsdale	5,962	5,026,047
Huerfano	13,341	89,529,642
Jackson	8,352	11,642,916
Jefferson	10,843	5,795,947,999
Kiowa	18,482	25,838,479
Kit Carson	10,323	85,370,398
La Plata	5,498	282,243,087
Lake	4,208	30,762,334
Larimer	6,274	1,879,747,124
Las Animas	10,901	169,049,142
Lincoln	8,812	48,173,680
Logan	6,817	154,813,328
Mesa	7,255	1,064,454,080
Mineral	6,499	4,627,389
Moffat	6,038	83,293,801
Montezuma	9,213	235,246,752
Montrose	6,957	287,165,641
Morgan	7,750	218,235,099
Otero	12,746	240,023,117
Ouray	4,201	18,634,762
Park	3,744	60,669,257
Phillips	10,928	48,541,589
Pitkin	2,480	42,530,093
Prowers	8,576	107,638,166
Pueblo	9,057	1,440,566,989
Rio Blanco	5,579	37,192,736
Rio Grande	9,068	108,656,071
Routt	3,312	77,851,158
Saguache	8,297	50,677,328
San Juan	4,962	3,468,657
San Miguel	5,969	43,926,785
Sedgwick	13,806	32,844,801
Summit	2,214	61,968,366
Teller	5,046	117,820,330
Washington	10,477	50,434,514
Weld	4,259	1,076,782,542
Yuma	13,360	134,176,099
Colorado	9,880	49,686,856,995

Agriculture: Economic Driver in Rural and Front Range Colorado

Timothy Larsen

Agriculture continues to be a primary economic engine in much of Colorado. However, while revenue has increased in the past 10 years, net farm income has remained flat because increasing production costs have offset higher revenues.

Colorado's rural and Front Range counties benefit from profitable and viable agricultural production. The agribusiness sector of Colorado's economy includes farms and ranches, as well as input and service providers and processors of crops and livestock in the state.

This sector represents a \$23.7 billion industry, employing over 94,000 Coloradans. More than 36,000 farms and ranches form the core of the sector, which uses over 76% of the state's total land mass to produce food and agricultural products for Colorado, U.S., and international markets.

In 2010, Colorado agriculture improved markedly over the previous year, with net farm income increasing \$327 million, or 46%, over the 2009 level. Annual net farm income has varied over the past 10 years, from \$674 million to \$1.38 billion. Income in 2010 fell to just over \$1 billion. The *Income Statement*

for the U.S. Farm Sector, compiled by the U.S. Department of Agriculture, projects a 17.8% increase in cash receipts and 11.4% increase in expenses, contributing to a positive outlook for agriculture in 2011. However, due to mounting production costs, increased sales have allowed agriculture to only maintain its average profits, rather than benefit from increased revenue.

Understanding the Impact of Agriculture on Colorado's Economy

Overall, Colorado's agricultural industry represents 3.3% of the state's total jobs. For much

CONTINUED ON PAGE 8

FEDERAL SPENDING IN COLORADO, CONTINUED FROM PAGE 1

significant share of their payments other than for retirement and disability in 2010. This was the case in San Juan County, which fell from 2nd in other direct payments to 44th because of lost drug coverage funding.

Direct payments other than for individuals, such as crop insurance, conservation reserve programs, and housing assistance, represent 2.8% of federal spending in Colorado. However, because crop insurance dominates this type of funding, these payments are largely responsible for the high per capita funding in sparsely populated, rural counties. Kiowa, Baca, and Kit Carson are all above average in per capita federal dollars and each receive 33%, 27%, and 27% of their respective funding in payments other than for individuals (primarily crop insurance). The per capita gap between rural and urban counties shrunk sharply in 2010 when direct payments other than for individuals in these agricultural counties dropped from 50–70% of spending in 2009 to 25–30%. A restructuring of the Standard Reinsurance Agreement (SRA), the contract that determines the government's share in expense reimbursements, was signed in July 2010. The USDA expects the new SRA to reduce federal funding for crop insurance by \$6 billion over the next 10 years.


Federal grants, the most diverse form of spending in Colorado, spread 17.7% of the state's federal dollars over nearly 700 unique types of funding—from research to construction. San Miguel County had the highest level of grants in proportion to total spending, receiving approximately 63% of its funding as grants, led by support for an airport

improvement project. Also high in grant funding, Conejos, Costilla, and Denver counties received between 41 and 47% of federal monies as grants, primarily for the Medical Assistance Program (Medicaid). While Medicaid grants were a fairly constant share of federal spending in these counties in 2009 and 2010, the dollar amount cumulatively increased \$114 million, largely because of the federal Medicaid matching funds approved by ARRA. Conejos and Costilla counties, both consistently high in their share of grants devoted to Medicaid, had older than average populations, with 16% and 22% older than 65, respectively.

Procurement contracts in Colorado lean heavily toward projects for the Department of Defense and accounted for 20.9% of total federal spending in the state. In both 2009 and 2010, Broomfield County received the highest percentage of federal spending as procurement contracts. However, in 2010, Broomfield lost almost \$400 million in procurement spending and procurement contracts fell from 97.6% of the county's funds to 51.5%. In total federal contract dollars (other than for the U.S. Postal Service), Jefferson and El Paso maintained their position as the highest counties in gross procurement spending in 2010, with \$2.8 billion and \$3.0 billion, respectively. However, high levels of procurement contract spending can be deceiving because funds paid to an entity in one state may be dispersed in operations in a different state.

Salaries and wages make up the remaining 17.1% of Colorado's share of federal funds. El Paso County, home of the Air Force Academy

and NORAD/USNORTHCOM, draws \$4.7 billion salary and wage dollars, more than any other Colorado county. Almost 90% of that total, \$4.2 billion, is dispersed as wages for military employees and 7.6%, or \$359.9 million, for Department of Defense civilian employees. Cheyenne County falls directly behind El Paso in the share of funding disbursed as salaries and wages. Just over one-third of Cheyenne's federal dollars are in this category, a significant portion of which is the \$18.5 million in wages for military employees. Adams, Jackson, and Fremont counties all receive around 20% of their federal funding as salaries and wages. Of these counties, Fremont garners its share through the earnings of federal prison employees. Fremont is home to four federal prisons, including the nation's only supermax facility.

Federal spending amounts to a nearly \$50 billion economic force in Colorado, significantly shaping the lives and livelihoods of Colorado citizens and even the landscapes of the counties in which they live. However, the federal debt crisis, the downgrade of the U.S. credit rating, and the ongoing unpredictability of federal cash flows have cast a shadow of doubt over Colorado's relationship with federal funding. Colorado counties are in an uneasy position as they consider what changes the future may bring. 

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For a version of this article using 2009 data, visit leeds.colorado.edu/brd and click on Publications.

Housing Construction: When Will Housing Completions Return to 1.5 Million Units per Year?

Tom Thibodeau

Construction of new, privately owned housing has led the U.S. economy out of most recessions since the Great Depression. In addition to creating jobs in construction, new housing increases the demand for consumer durables (e.g., appliances, furniture, etc.), generating additional employment in firms that produce consumer durables. These jobs increase aggregate household income, increase consumption, and stimulate additional economic activity throughout the U.S. economy. According to an August 2011 U.S. Census Bureau report, housing completions came in at a seasonally adjusted annual rate of 623,000, down from 651,700 in 2010. Between 1968 and 2010, the average annual number of new, privately owned housing completions was about 1.5 million units.

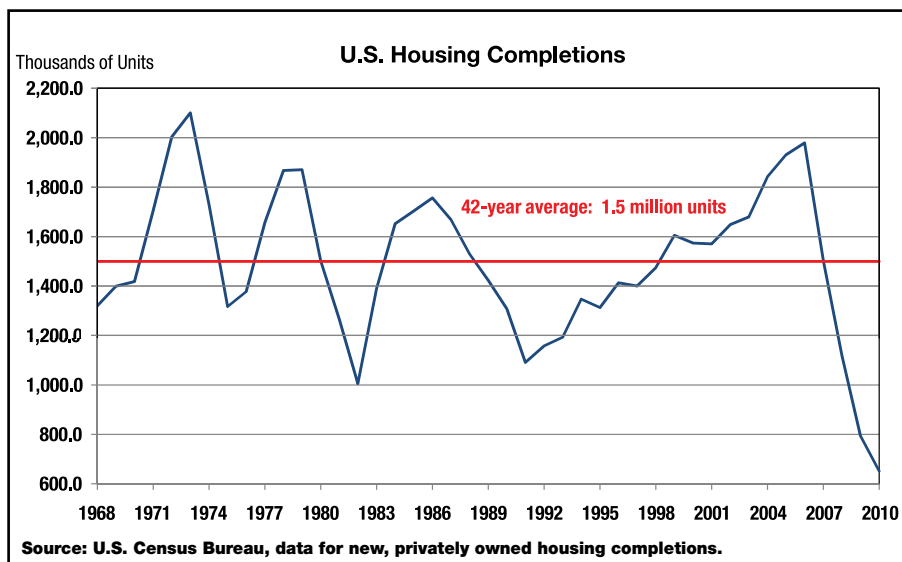
When will the U.S. economy return to pre-housing boom levels of new construction? Certainly, forecasts of housing construction depend on a variety of assumptions, but the fundamental economic determinants of housing construction are relatively easy to identify. The aggregate demand for new housing is determined by population growth and the rate of household formation. Over the past several decades, the U.S. population has been growing at an annual rate of about 0.9%. This rate of growth has been, and is likely to remain, relatively constant. The aggregate supply of housing in any year equals the supply in the previous year, plus additions (through new construction and conversions from nonresidential use to residential use), less losses (including disaster losses and conversions from residential use to nonresidential use). Historically, additions to the housing stock have averaged about 0.2% per year and losses have averaged about 0.5% per year.

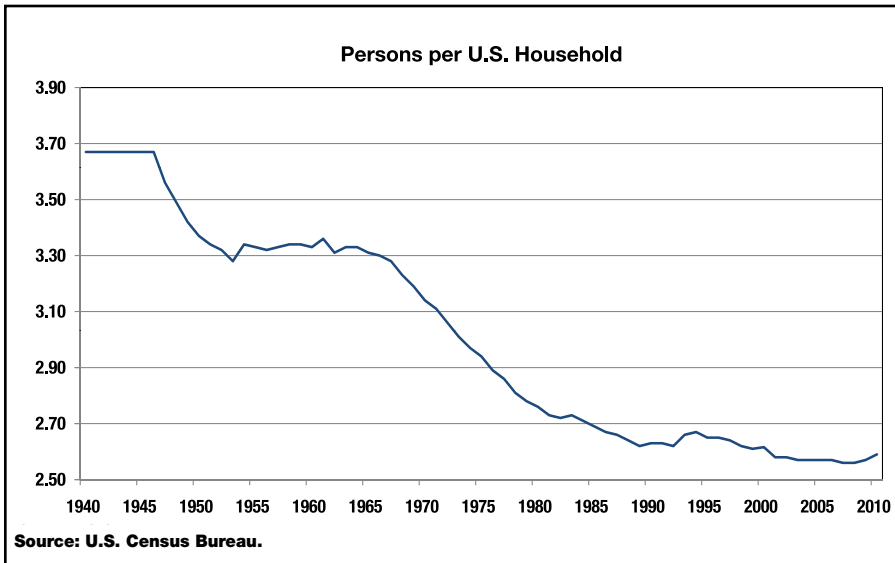
So how did the relatively constant rate of population growth generate such a volatile rate of housing completions over the last 50 years? (See “U.S. Housing Completions” chart.) In financial markets, the cost and availability of debt and equity capital generates cycles in new construction. On the human side of the market, fluctuations in the rate that people form households have a significant influence on aggregate housing demand. Following World War II, there were about 3.67 persons per household in the nation. The rate has declined steadily and, in 2007, reached a historic low of 2.56 persons per household. The number of persons per household stayed constant in 2008, increased to 2.57 in 2009, and increased again to 2.59 persons in 2010. While the increase of 0.02 persons per household between 2009 and 2010 may seem inconsequential, this change resulted in about 1 million unneeded residential dwellings.

Why is the number of persons per household increasing? Of the several explanations, it is hoped that some will have only a temporary influence on aggregate housing demand, while others may permanently reduce it. When underemployed or unemployed, people are temporarily more reluctant to form households or may choose to form larger households. Recent college graduates unable to find full-time employment may return home to live with parents or rent an apartment with three or four roommates instead of one or two—anything to reduce housing expenses. This trend will change when the economy recovers.

But demographic changes may explain why the increase in the number of persons per household could be a permanent trend. Much of the expected population growth is coming from groups that traditionally have had much larger households. Hispanic households, for example, average about 3.5 persons per household, and much of the expected population growth is coming from the Hispanic population. The implication is that the United States will need less new construction to accommodate future population increases.

The number of new, privately owned housing completions between 1968 and 2010 averaged about 1.5 million units per year. However, the recent boom in house prices encouraged residential developers to build more housing. New construction added 1.8 million housing units in 2004, 1.9 million units in 2005, and nearly 2 million units in 2006—well above what was required to meet the increase in aggregate housing demand over these years. As a result, the vacancy rate for housing increased substantially, reaching a historic peak of 14.46% in 2009. In 2010, the vacancy rate declined to 14.35%.





If the number of persons per household remains constant at 2.59 and the vacancy rate declines by its historic average of 0.26 percentage points per year until it reaches the “stabilized” vacancy rate of 10.7%, then new housing construction will reach 1.5 million units per year in 2025—the year that the vacancy rate hits 10.7%. Between 2011 and 2025, new housing construction will average 1.2 million units per year. If the vacancy rate declines faster, say at 0.46 percentage points per year (the historic mean plus one standard deviation), then new housing construction will wait until 2019 to reach 1.5 million units per year because more of the increase in the aggregate demand for housing will be met by the existing stock. Between 2011 and 2018, housing completions will average just under 900,000 units per year.

The average vacancy rate between 1965 and 2010 was about 10.7%. If 10.7% can be considered to be the “stabilized” vacancy rate, then the current vacancy rate can fall as some of the increase in housing demand, attributable to population growth, absorbs the existing stock. Between 1965 and 2010, the average change in the vacancy rate was about 0.26 percentage points (with a standard deviation of about 0.2 percentage points). That is, as the U.S. housing market adjusts to disequilibrium conditions, changes in the vacancy rate are relatively small—about 0.26 percentage points per year.

So when will the economy return to producing 1.5 million housing units per year? The answer depends critically on two things: (1) how quickly the housing market absorbs the vacant stock of housing, and (2) how long and to what extent the trend toward more persons per household continues.

Housing Forecast: Adjusting for Vacancy

In 2010, U.S. housing units totaled 130.60 million, of which 111.86 million were occupied units (a vacancy rate of 14.35%). If the number of persons per household stays constant at 2.59 and the vacancy rate decreases to 14.09% in 2011, then the aggregate demand for housing can be obtained by increasing the number of households by 0.9% and making an allowance for vacancies:

2011 occupied households	=	1.009 x 111.86 million	=	112.87 million
2011 vacant units (at 14.09%)			=	18.51 million
2011 total demand for housing units			=	131.38 million

New housing completions in 2011 are estimated as the difference between the 2010 supply, adjusted for losses and other additions, and 2011 aggregate demand:

2010 housing supply	130.60 million
less housing losses (at 0.5%)	- 0.65 million
plus additions from nonresidential use (at 0.2%)	+ 0.26 million
2011 supply with no new construction	130.21 million
2011 housing construction needed to meet demand (at 14.09% vacancy)	1.17 million

Housing Forecast: Adjusting for Vacancy and Household Size


How will these estimates change if the number of persons per household continues to increase? If the number of persons per household increases to 2.61 in 2011, then the aggregate demand for housing in 2011 is:

2010 population occupying housing units	=	111.86 x 2.59	=	289.72 million
2011 population occupying housing units	=	289.717 x 1.009	=	292.33 million
2011 households (at 2.61 persons per household)			=	112.00 million
2011 vacant units (at 14.09%)			=	18.37 million
2011 total demand for housing units			=	130.37 million

The 0.02 increase in the number of persons per household reduced the aggregate demand for housing by over 1 million units. Only 164,000 housing completions would be required to meet aggregate demand in 2011.

If the vacancy rate continues to decline by 0.26 percentage points per year and the number of persons per household continues to increase by 0.02 until it reaches the 1965–2010 average of 2.91, then the U.S. economy will not see 1.5 million housing completions until 2027. Between 2011 and 2024 (while the vacancy rate climbs to the “stabilized” 10.7% rate), housing completions will average 213,000 units per year. Housing completions will average 640,000 in 2025 and 2026.

Declining vacancy rates are a certainty; the rate of decline is unknown. The faster the decline, the fewer new housing units will be needed to accommodate population growth until the housing market reaches “stabilized” vacancy. Time will reveal whether the trend toward larger households will continue.

This national overview illustrates high-level structural issues within the housing market. Further research may be done to quantify the impacts on specific housing markets throughout the United States based on the local composition of housing stock, the impacts of population and employment growth, and demographic shifts within those markets. 

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UNIVERSITY OF COLORADO BOULDER

BUSINESS RESEARCH DIVISION

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of rural Colorado, this sector is more significant. The High Plains counties (Yuma to Kiowa and west to Elbert, Washington, and Lincoln) average more than 26% of employment in agriculture, with some counties reporting that 40–47% of all jobs are involved in the agribusiness sector. With rural counties so dependent on this sector, the economy of an entire county can experience economic expansion and contraction with the strengths and weaknesses of each production year. Colorado's agribusiness sector also has a significant impact on the Front Range counties. While agribusiness jobs are only 2% of total employment in the Front Range, 46% of Colorado's agribusiness jobs—more than 43,000 jobs—are in the region.

Land Use in Colorado

Of the land in Colorado that is in agricultural use, 31.1 million acres are privately owned and 19.7 million acres are federal and state owned land that is leased to ranchers and farmers for grazing and agricultural production.

Because over 62% of Colorado's agricultural revenue comes from livestock, one might say that cowboy boots come naturally to Colorado agriculture. Grazing cattle use 55% (36.5 million acres) of Colorado's total land mass. An additional 15% of revenue comes from farms that grow and sell animal feed to the livestock industry.

Agricultural Income and Expense Trends

Colorado's farm and ranch revenue from production increased 8.1% in 2010, to \$6.1 billion, which represents the second-highest level of farm income from production. This amount increased 29% in the past 10 years and 6.7% in the past 5.

Net income was up to \$1.04 billion in 2010, the sixth-highest income in the past decade. This was a welcome increase over net income of just \$707 million in 2009, the second-lowest in the past 10 years.

However, because various expenses have increased, net farm income is actually 19.7% lower in 2010 than in 2001. In the past 10 years, the cost of manufactured input expenses, such as fertilizers, pesticides, petroleum fuel, and electricity, grew almost 83%—or by more than \$320 million—increasing from 8.1% of revenue to 11.6% in 2010. Transportation expenses for distribution also rose significantly


over the same period, increasing more than 70%, to an additional \$85 million in operating expenses. Property taxes climbed by over 86% in the past decade as well, representing another \$84 million in operating expenses. In addition, purchases of feed for livestock increased 77%, driving up operating expenses by \$447 million.

Colorado's average value per acre of farm real estate rose 1.9% in 2011, to \$1,100 per acre, which is equal to the value in 2009. For the past five years, Colorado's average farm real estate value per acre increased just 6%, after a strong growth from 2001 to 2006. The value of agricultural real estate has risen 57% in a decade.

Upcoming Trends and Changes

Looking ahead, the largest short-term impact on Colorado agriculture illustrates the link between the farmers and processors. In 2013, Leprino Foods will commence operation of a second cheese factory in Colorado. To fulfill the growing milk requirements, Colorado dairies are currently increasing their herds to supply this operation. To meet demand, dairy farmers must add more than 83,000 additional head of cattle, representing a 75% increase in herd size. This will require an additional 1,438 farm jobs at Colorado's dairies. The new plant will also create up to 1,400 new jobs to process the milk to cheese and other dairy products and another 4,300 jobs to support the dairies with increased services and supplies (e.g., growing hay and other feed crops for the expanded dairy herds).

Exports of agricultural products are an increasingly important element of the nation and state's agricultural marketing focus. In 1971, Colorado's farm and ranch revenue was \$1.48 billion, with agricultural exports totaling \$110 million. By 2010, agricultural revenue had grown 4-fold, and exports had risen 15-fold.

According to the most recent U.S. Census, Colorado's agricultural industry contributes \$4.9 billion in earnings to the state's economy. Maintaining a strong farm and ranch base, coupled with the input and processing sectors, will help grow Colorado's economy for future generations. 

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