Seminar Program

7:45 – 8:00	Coffee and Registration
8:00 – 8:15	**Introduction and Overview** Patrick Barkey
8:15 – 8:45	**U.S. and Montana Outlooks** Patrick Barkey
8:45 – 9:05	**Local Outlook** Paul Polzin
9:05 – 9:25	**Health Care** Gregg Davis
9:25 – 9:35	Coffee Break
9:35 – 9:55	**Nonresident Travel** Norma Nickerson
9:55 – 10:15	**Agriculture** George Haynes
10:15 – 10:35	**Manufacturing and Forest Products** Todd Morgan
10:35 – 10:45	Coffee Break
10:45 – 11:05	**Real Estate** Scott Rickard
11:05 – 11:25	**Energy** Terry Johnson
11:25 – 11:40	**Local Expert Report**
11:40 – 11:50	**Wrap-up and Summary** Patrick Barkey
11:50 – Noon	Break
Noon – 12:50	**Luncheon Keynote** Larry White
12:50	**Closing Remarks**

Table of Contents

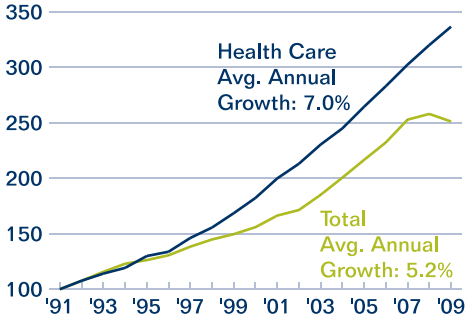
The Best Medicine

How Can Montanans Take Charge of Changes in Health Care?

Larry White, Director, UM Western Montana Area Health Education Center

In case you haven't noticed, things have been changing lately at your doctor's office and your hospital. Perhaps your doctor is getting ready to retire – a large fraction of Montana primary care physicians are at or near retirement age. Maybe your doctor now works for the hospital – individual medical practices are vanishing across the state as the reimbursement, regulatory, and record-keeping requirements cut into private practitioners' time and money. And nothing short of a revolution is sweeping across hospitals as they prepare to cope with the largest changes in health care regulation and finance since Medicare.

Figure 1
Montana Health Care Spending and Total Spending,1991-2009, Index 1991 = 100



Sources: Centers for Medicare and Medicaid Services and Bureau of Economic Analysis.

Nothing short of a revolution is sweeping across hospitals as they prepare to cope with the largest changes in health care regulation and finance since Medicare.

But real change in health care is just getting started. In the next few years, we're going to see things like:

- online kiosks where we can shop for health insurance;
- a government-financed insurance coop to compete with Blue Cross;
- the Frontier Hospital, a new concept where higher Medicare reimbursement rates can help support the survival of our smallest rural facilities;
- retail medicine, where prudent buyers can shop for treatments and surgery like we shop for cars or clothing.

The Patient Protection and Affordable Care Act (the ACA, or Obamacare) is certainly the driver of many of these changes – but not all of them. Changes are coming about because the costs of our current system are on an unsustainable trajectory. Historically, the rate of growth in health care expenditures in the U.S. has exceeded the rest of the economy by about 2 percent for the past 40 years. This same pattern has been seen in Montana where health care spending has grown by 7 percent since 1991(Figure 1). The prospects for continued spending growth are strong due to the aging of Montana's population and the potential for coverage of formerly uninsured by Medicaid and commercial insurance. The system has become unaffordable on a national, state, and personal level.

For Montana consumers, businesses, providers, and governments, this is both a challenge and an opportunity. The issue for all is the same: What are the new decisions that the changing health care system will confront us with, and how do we prepare ourselves to make good ones? Let's take a look at each group in turn.

Consumers

For most people, several questions arise when it comes to health care: Can I get care? Can I afford care? Is it the right care? Access, cost, and quality are the outputs of the health care system (Figure 2). Access to medical care when it is needed is directly related to insurance coverage. People without health insurance delay obtaining care until a condition becomes emergent and when the cost of care is greatest. Today about 195,000 Montanans are without health insurance. And rewarding quality

One of the key decisions for Montana employers will be to decide whether to continue offering a health plan or to shift employees to purchase directly from a new insurance exchange.

of care is increasingly recognized as vital for both patient outcomes as well as controlling costs.

A direct result of providing insurance to more Montanans is a reduction of cost shifting to private payors due to charity and bad debts costs. The savings could be substantial. In 2011, uncompensated care costs for Montana hospitals, doctors, and other providers was about $286 million, or 10 percent of total costs.

Employers

One of the key decisions for Montana employers will be to decide whether to continue offering a health plan or to shift employees to purchase directly from the new insurance exchange. Cost growth has caused smaller businesses in particular to struggle with offering health insurance to their workers and families. In a state where most businesses have fewer than 100 employees (Figure 3, page 4), the ACA will present some attractive opportunities. Its provisions include:

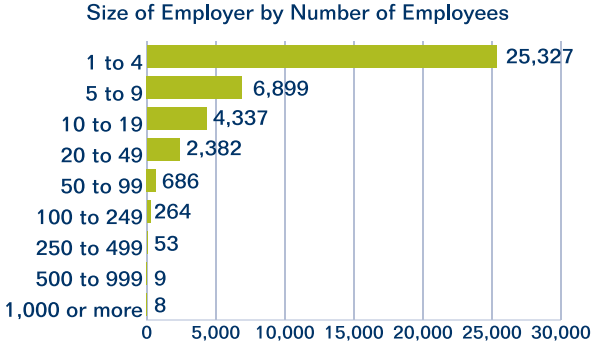
- Employers under 25 employees with average wages under $50,000 are eligible for small business tax credit up to 35 percent (increases to 50 percent in 2014).
- Employers under 50 employees are exempt from the employer "mandate."
- Employers under 100 employees are eligible to shop in the insurance exchange, thereby gaining purchasing advantages of larger employers.
- Insurance exchanges offer choice of plans that meet cost and benefits standards set by state.
- Individuals earning less than $44,680 and families of four earning less than $92,200 are eligible for a federal tax credit.

Collectively, these provisions could enable up to 97 percent of Montana employers to give employees the opportunity to buy their health insurance at the exchange, thus introducing the concept of the "prudent buyer" to the health care marketplace for the first time. Until now, the private consumer has never been a major factor in controlling health care costs because insurance furnished by the employer or government has largely insulated the patient from the cost of the service.

Figure 2
The Health Care System

The Montana Legislature and the executive branch have a pivotal role in this historic opportunity for Montana to make major inroads on this chronic social and economic problem called affordable health care.

Figure 3
Number of Employers by Employee Size, Montana, 2012



Source: Quarterly Census of Employment and Wages.

Providers

For health care providers, more regulation increases compliance and operating costs. Hospitals and practitioners have already reacted in Montana and elsewhere by consolidating into larger organizations that can spread these costs across higher volumes of business. Already, more than 90 percent of all primary care doctors are employees of hospitals. The size and breadth of a new concept of care networks known as Accountable Care Organizations (ACO), which are designed to better manage medical care, could produce as few as one or two such entities in a less populous state such as ours.

Today, Montana has 2,264 practicing physicians, but 78 percent are located in just six counties. Because primary care is the life blood of our Critical Access Hospitals – those designated by Medicare as sufficiently remote and rural to merit higher reimbursement rates for their services – their capability to recruit new doctors is essential for access to care for rural Montanans. Rural communities already have proportionately fewer primary care doctors than urban areas, and aggressive programs to promote residency training in primary care may be needed to head off a shortage-induced decline in rural health care access.

State and Local Governments

The Montana Legislature and the executive branch have a pivotal role in this historic opportunity for Montana to make major inroads on this chronic social and economic problem called affordable health care. Decisions that lie ahead for these policy-makers include:

- whether to increase insurance coverage by authorizing the expansion of Medicaid;
- whether to assist cost control by authorizing the Commissioner of Insurance to approve insurance rate increases;
- whether to assist cost control by improving price transparency the way states like New Hampshire have (nhhealthcost.org); and
- whether to ramp up efforts to support graduate medical education for primary care doctors and other critical workforce shortage areas to address shortages in rural areas.

Conclusion

For the health care system, changes in cost control, access, and quality are already upon us. Whether or not those changes produce more desirable, more affordable outcomes or not depends on the decisions made by all of us.

The Affordable Care Act should be custom-fitted to Montana for these health care changes to maximally benefit Montanans. The best medicine requires a collaborative blend of federal, state, and private health provider efforts.

There are still plenty of unsolved problems in American health care. But it's important to know that the system is not standing still. Is your household or business ready to capitalize on the opportunities they present to us? 13

U.S. Economic Outlook

Economy Healing, Will Congress Help?

Patrick M. Barkey, Director, Bureau of Business and Economic Research

There are probably too many uncertainties directly ahead for the national economy to hope for much more than modest growth in 2013. But if we could somehow peel our attention away from the budget showdown in Washington and the fragile economic situation in Europe, we might notice that in many ways the U.S. economy is in better position for faster growth than it has been in years. That's particularly true for housing, which has hit bottom and is swinging to growth. And consumer credit, inflation, and somewhat healthier state governments are all more supportive of growth today.

The fiscal cliff resolution reached on January 1 gave only limited breathing space for the new Congress before other critical deadlines arrive. Looming particularly large is the threat of a government shutdown as government borrowing again hits the debt ceiling in early spring unless Congress takes action.

Here are the top ten predictions for the U.S. economy in 2013, courtesy of IHS Global Insight:

1. The national recovery will gradually pick up steam. Solving the uncertainty of the fiscal cliff will help. Housing will keep improving all year, but slower global growth will help keep average growth to just 2 percent over the entire year.

2. European growth will be weak in the North and negative in the South. The recessions across southern Europe are dragging the rest of the continent down.

Table 1
Actual and Forecasted Values for Key U.S. Economic Variables

	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2011	2012	2013	2014	2015
Real GDP (Percent Change)	3.1	1.0	1.0	2.4	1.8	2.3	1.7	2.7	3.4
Federal Funds Rate (Percent)	0.14	0.16	0.16	0.16	0.10	0.14	0.16	0.16	0.19
Ten-Year Treasury Yield (Percent)	1.64	1.69	1.79	1.87	2.79	1.80	2.01	2.66	3.02
Oil Prices, Refiner Acquisition Cost (Dollars/Barrel)	98	100	95	92	102	101	91	85	81
Consumer Price Index (Percent Change Year to Year)	1.7	1.9	1.4	1.5	3.1	2.1	1.4	1.7	1.6
Housing Starts (Millions)	0.77	0.87	0.90	0.93	0.61	0.77	0.97	1.28	1.61
Consumer Sentiment (Univ. of Michigan)	75	79	78	82	67	77	81	84	88
Unemployment Rate (Percent)	8.1	7.8	7.7	7.7	9.0	8.1	7.6	7.3	6.7

* Forecasts as of Jan. 2013.
Source: IHS Global Insight, Inc.

3. The Chinese economy will slowly regain momentum. Growth back up to, say, 8 percent will be good news for exporters.

4. Other emerging markets also will show signs of life. Countries in Asia especially are pursuing expansionary policies that should help restart the faster growth that has faltered in the slower growing global environment of late.

5. Commodity prices will move sideways (again). Market forces don't support much growth in most globally traded commodities, including oil and minerals. Wars and other political events are much harder to predict.

6. Inflation will remain tame. The U.S. economy continues to exhibit significant excess capacity, and this has helped inflation remain largely dormant. Food prices may be the exception.

7. Central bank policies will be reactive. Most of the large central banks have already announced policies in effect, with less room to maneuver. More bond-buying by the Federal Reserve is possible, but banks are expected to be more cautious.

8. Fiscal policy will stay tight or get tighter. This is happening no matter what the outcome of the current debate in Washington.

9. The U.S. dollar will strengthen against the euro. This largely reflects negative developments in Europe. The dollar will be largely flat against other currencies.

10. The risks facing the global economy will be more balanced. Crises and bank runs are downside risks, but the possibilities that the spending power of businesses and consumers will break out more rapidly than expected could make this forecast too pessimistic.

Montana Economic Outlook

Smooth Sailing Toward a Cliff?

Patrick M. Barkey, Director, Bureau of Business and Economic Research

Montana Profile	
Total Population, 2012	1,005,141
Percent Change in Population, 2000-2010	9.7%
Median Age, 2011	39.8
Percent 65 or Older, 2011	14.6%
Percent of Population with Bachelor's Degree or Higher, 2011	28.2%
Median Household Income, 2011	$45,324
Percent of Population without Health Insurance Coverage, 2011	17.7%
Unemployment Rate, 2012	6.1%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

A lot of things started to fall into place for the recovering Montana economy in 2012. Income growth was strong, thanks to robust energy activity in the eastern part of the state and a swing to growth in the harder hit cities in the west. Grain and cattle prices remained fairly high, and the state escaped the full brunt of the summer drought that devastated Corn Belt farm production. And after five years of decline, housing prices finally started to rebound in markets across the state.

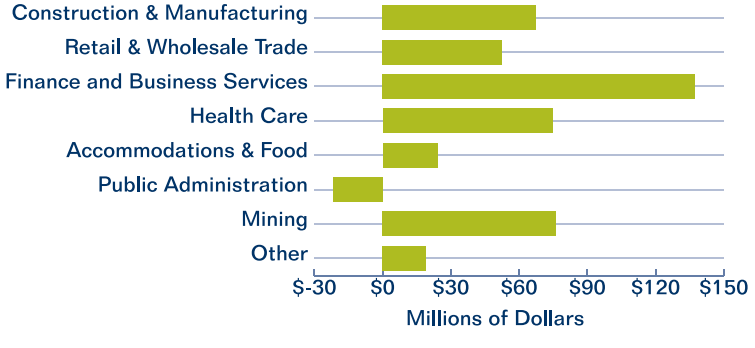
We estimate that the state economy grew by about 2.7 percent, as measured by inflation-adjusted nonfarm earnings, in 2012. This estimate exceeds the forecast we made last year for 2012 of 2.0 percent. It also is above the U.S. overall growth for the same time period.

The state managed this better-than-expected performance during a year of tepid national growth for a number of reasons:

- Strong growth continued in mining industries, particularly oil and gas activities, primarily concentrated in the eastern counties but also affecting Billings (see Figure 1);
- Stronger than anticipated growth in professional business services in Yellowstone, Flathead, and especially Gallatin counties, with the latter seeing a very large, one-time boost in earnings that resulted from the sale of software company RightNow Technologies to Oracle;
- A resumption of stronger growth in health care earnings across all major Montana markets;
- High activity in construction, particularly heavy construction, in Billings and in the eastern counties related to energy development.

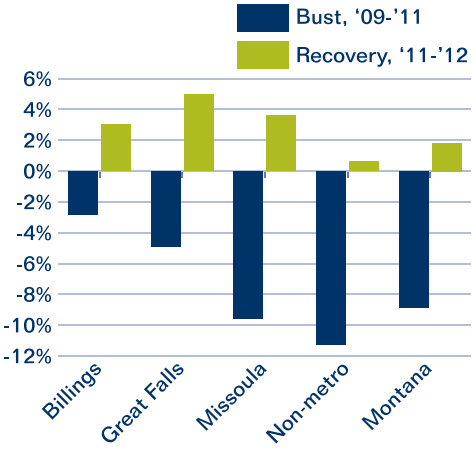
An additional factor supporting stronger growth that is not reflected in wage and salary figures shown in Figure 1 was the performance of

Figure 1
Growth in Inflation-Adjusted Wages and Salaries, Montana, FY 2011-2012



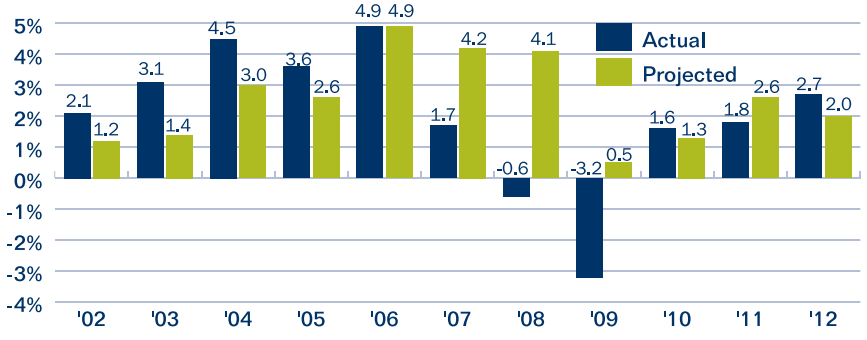
Sources: Quarterly Census of Employment and Wages and Bureau of Economic Analysis.

Figure 2
Bust vs. Recovery, Percent Change in Montana Home Price Index



Source: Federal Home Finance Agency.

Figure 3
Actual and Projected Change in Nonfarm Earnings, Montana, 2002-2011



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Montana's ranchers and farmers. While the summer drought affected yields for some crops, most notably hay, others were less affected and with continued high prices it was a reasonably good revenue year.

The state's economic performance also has been reflected in state revenue collections. Both income tax and corporate tax collections grew strongly in fiscal year 2012, posting growth (not adjusted for inflation) of 10.3 and 7.5 percent, respectively. Minus these two large items, however, general fund revenues were essentially flat.

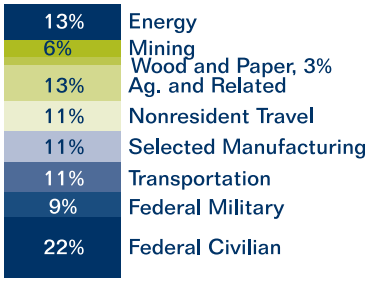
Looking Ahead to 2013 and Beyond

The year ahead will certainly present challenges to the state in trying to repeat last year's performance. Not only is the U.S. economy expected to have another slow-growth year in 2013, but Europe, Japan, and the developing economies of India, Brazil, and even China are projected to turn in worse growth than 2012, with the first two areas experiencing recessions. That's putting less froth into commodity markets, and many prices are expected to, at best, move sideways in the coming year. The weakness in consumer spending experienced both nationally and here in Montana is expected to continue, as households continue to save more and shed debt. And the fiscal cliff negotiations in Congress present a completely new and unwelcome source of uncertainty for the future.

Other trends are working in favor of stronger growth. Of these, the most important is the emerging evidence that the housing bust is over. Between the spring of 2009 and the summer of 2011, housing prices declined by an average of 8.8 percent statewide as real estate markets and new home construction slumped badly (Figure 2). The national price decline was 17.3 percent.

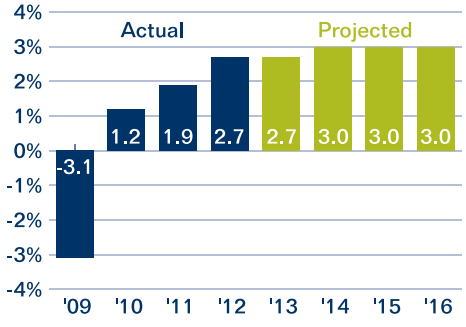
The year ahead will certainly present challenges to the state in trying to repeat last year's performance.

Figure 4
Earnings in Basic Industries, Montana, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 5
Actual and Projected Change in Nonfarm Earnings, Montana, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Since the mid-point of 2011, this trend has reversed, and a trend of gradual increases in prices has taken hold across Montana's major markets. Early evidence suggests that new construction, especially multifamily units serving rental markets, has responded with modest increases. We expect residential construction to improve significantly in 2013.

The Montana Forecast

Our outlook for the state calls for the stronger growth experienced in 2012 to continue. Statewide we expect to see growth in inflation-adjusted nonfarm earnings build to a peak of 3.0 percent by 2014. (Figure 5) In addition to the U.S. and global economic projections, this outlook is based on the assumption that:

- Oil prices remain high enough to support investments already under way and those near implementation. Low natural gas prices, however, will continue to impact drilling and continue to put pressure on coal;
- Commodity and agriculture prices continue at or possibly slightly lower than current levels;
- Gradual improvement in new home construction in markets across Montana;
- Continued pressure on government spending at all levels.

Even though some of the spending cuts and tax increases at the federal level that made up the "fiscal cliff" have been postponed, plenty of thorny issues abound in Washington that could throw a monkey wrench into these projections. The across-the-board spending cuts imposed by the budget agreement Congress reached in the summer of 2011, in particular, have only been postponed for two months. Even more importantly, Treasury borrowing will soon hit the debt ceiling, requiring Congressional action to raise the limit or risk government shutdown or even default. No one looks forward to a repeat of the acrimonious debate and brinksmanship that surrounded the last debt-ceiling crisis, yet the ingredients for another divisive episode are there.

We think that Congress will act responsibly and avoid creating a situation that jeopardizes either our nation's credit or the economic recovery, and these projections reflect that belief. We expect to see no tax or spending adjustments for the remainder of 2013, with higher taxes and spending restraint unfolding gradually in the following years.

The Butte-Silver Bow and Southwestern Montana Outlook

Economic Transformation Continues

Patrick M. Barkey, Director, Bureau of Business and Economic Research

Butte-Silver Bow County Profile	
Total Population, 2011	34,383
Percent Change in Population, 2000-2010	-1.2%
Median Age, 2011	41.7
Percent 65 or Older, 2011	16.2%
Percent of Population with Bachelor's Degree or Higher, 2011	22.5%
Median Household Income, 2011	$40,030
Percent of Population without Health Insurance Coverage, 2011	14.5%
Unemployment Rate, 2012	5.9%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

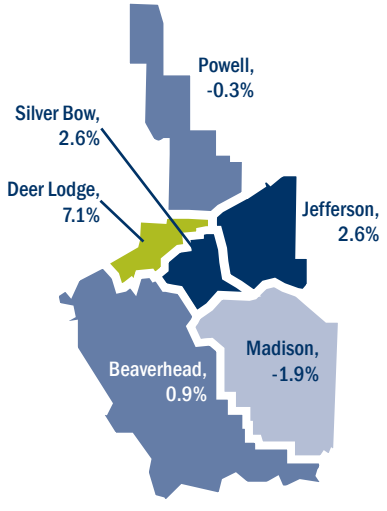
The process of diversification away from its historic mining roots continued in the Butte-Silver Bow economy in 2012, yet the influence of minerals and natural resources to the local economy remains important. Strong growth in health care and administrative support services helped propel Butte-Silver Bow wages and salaries to 2.6 percent growth in the 12-month period ending in June 2012. We expect to see growth between 2.0 percent and 2.5 percent in inflation-adjusted nonfarm earnings in 2013-16 as the economy continues to evolve. This growth is slightly below the state average, but above the annual growth rates of most of the last two decades.

Recent growth across the six-county Southwestern Montana region is varied (Figure 1). Expansion in health care services in early 2012 helped Anaconda see faster growth in wage and salary income, while government cutbacks and a stagnant construction economy held back growth in the outer counties of the region. The activities of Montana Tech in Butte and The University of Montana-Western in Dillon have been stabilizing forces in the local economy.

Particularly in employment, health care growth has outpaced other industries, accounting for more than four out of every five jobs added between the year ending in June 2012 and the preceding 12-month period. When measured in terms of total wages, however, that growth contribution slips to 50 percent, as the mild uptick in the total wages of high-paying mining jobs rises in relative importance.

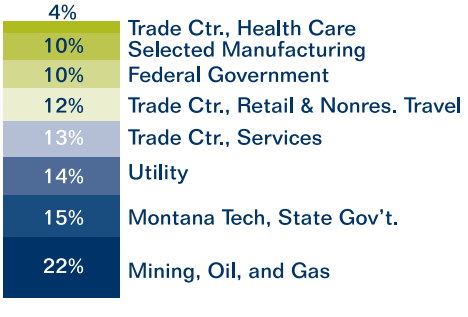
While manufacturing, transportation, and health care have risen in prominence, the outlook for Butte-Silver Bow continues to hinge crucially on the mining sector, especially copper. Bonuses paid (or bonus payments not paid) to miners exert a significant influence on overall growth. In the slowing global economy, this raises some concern as commodity prices are expected to largely move sideways in the next year. Our forecast reflects the expectation that prices remain high enough to not threaten the profitability at Butte's mining operations.

Figure 1
Growth in Real Wage Disbursements, FY2011-2012



Source: Quarterly Census of Employment and Wages.

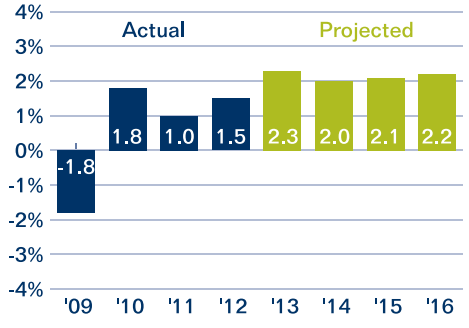
Figure 2
Earnings in Basic Industries, Silver Bow County 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

The uptick in growth in the forecast is partly due to projected growth in manufacturing, perhaps as typified by startups such as diecast maker, Seacast, continued strength in transportation, and an increasing presence of health care facilities serving the state, located both in Butte and Anaconda. 13

Figure 3
Actual and Projected Change in Nonfarm Earnings, Silver Bow County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Cascade County

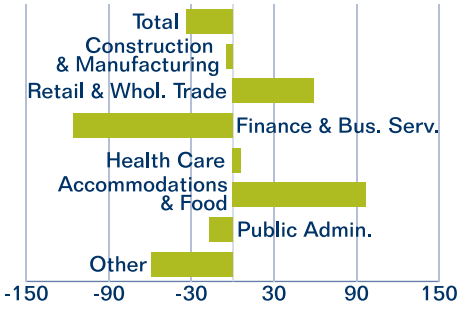
Opportunities and Challenges

Patrick M. Barkey, Director,
Bureau of Business and Economic Research

Cascade County Profile	
Total Population, 2011	81,837
Percent Change in Population, 2000-2010	1.2%
Median Age, 2011	39.0
Percent 65 or Older, 2011	15.4%
Percent of Population with Bachelor's Degree or Higher, 2011	22.8%
Median Household Income, 2011	$44,074
Percent of Population without Health Insurance Coverage, 2011	14.9%
Unemployment Rate, November 2012	5.5%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Cascade County Civilian Wage Growth, by Major Industry, FY 2011-2012



Source: Quarterly Census of Employment and Wages.

The good news for Great Falls and Cascade County is that the recession of 2008-09 was kinder and gentler to the local economy than in almost any other part of the state. The bad news is that as we turn toward year 2013, that relatively benign outcome is becoming less and less relevant. Trends in the energy and agriculture sectors, and its geographic position on the U.S.-Canada trade corridor, give Cascade County economy unique opportunities for growth. But likewise, the economy's dependence on the Malmstrom Air Force Base and other military activities poses a unique risk to growth as the future of those facilities comes into question.

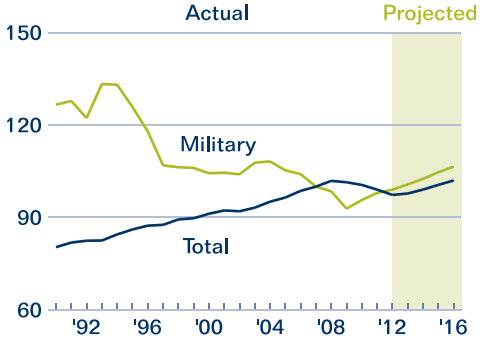
Our expectation for the near-term is that the economy will continue to see modest growth, with stronger gains in agriculture-related businesses and light manufacturing offset in part by government declines. Growth should improve to around 2.0 percent in inflation-adjusted nonfarm earnings, picking up slightly by the decade's midpoint.

The data available suggest that 2012 was largely a sideways year for the Cascade County economy. Civilian wage growth was virtually flat during the 12-month period ending at midyear, with gains in trade and accommodations offset by small declines in administrative, professional, and government jobs (Figure 1). Inflation-adjusted wages and salaries increased by just $1.4 million over this same time period, the smallest gain of any of Montana's larger cities.

The trends in military and civilian totals in Cascade County have been distinctly different, as shown in Figure 2. As measured by employment, the military's economic footprint in the county has declined in two distinct steps since 1990 – a 25 percent decline in the mid-1990s, and a 15 percent decline between the years 2004-2009. Despite a rebound since 2009 and the rather optimistic forecast shown in the figure (from IHS Global Insight, a national forecasting firm), the prospect of further declines can't be dismissed.

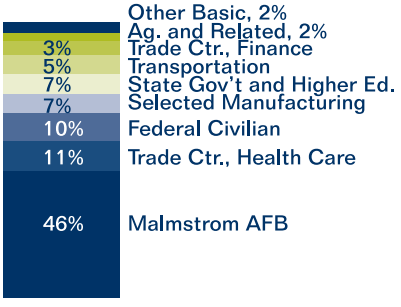
Much more encouraging have been several announcements of new industrial facilities both in and near Cascade County related to oil field developments in Canada and elsewhere. Current plans for fabrication and transportation staging facilities serving the oil sands hold the promise of hundreds of new jobs. 13

Figure 2
Total Employment and Military Employment, Cascade County Actual and Forecast, 1990-2016, Index 2007=100



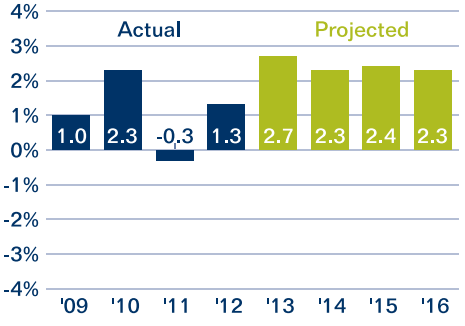
Sources: Bureau of Labor Statistics and IHS Global Insight.

Figure 3
Earnings in Basic Industries, Cascade County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 4
Actual and Projected Change in Nonfarm Earnings, Cascade County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Flathead County

A Matter of Perspective

Gregg Davis, Associate Director, Bureau of Business and Economic Research

Probably all are painfully aware of the impact the Great Recession had in the Flathead Valley economy. Had the Flathead economy grown at its historical average annual growth rate experienced during the robust part of the decade, 2002-2007, total employment in the Flathead today would be over 49,000 jobs. Instead, employment is at just over 37,000, 75 percent of its potential before the Great Recession hit the economy. Still, the Flathead is over 4,000 jobs shy of its 2007 peak employment of more than 41,000 jobs. Economy-wide wages are $57 million shy of their peak in 2008. The private sector bore the brunt of the pain in terms of job and wages lost during the recession. But comparing either gains or losses to the robust growth experienced in the early part of the decade masks the relative position of the economy to growth in other areas.

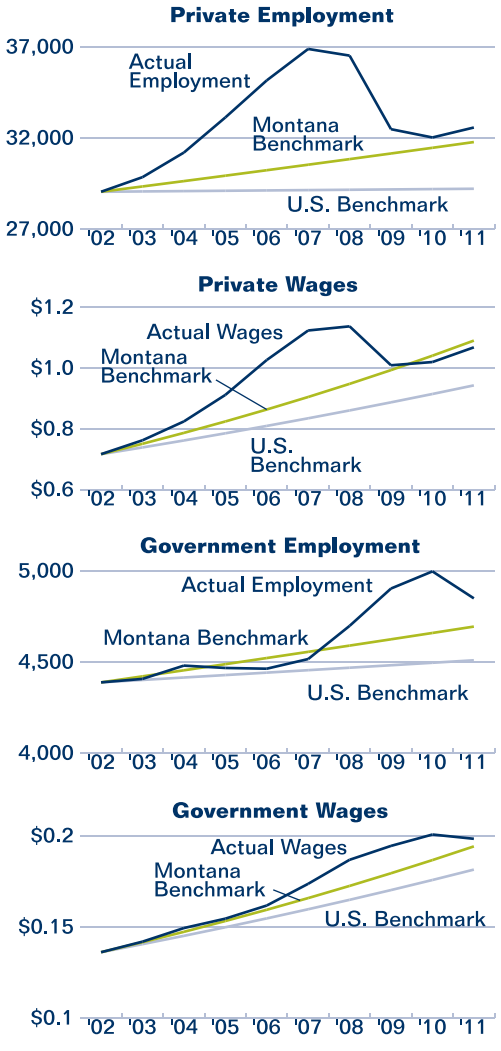
To see another perspective on where the Flathead economy is in 2011 with respect to other economies, we can compare "where we are now" to "where we would be" if, instead, the economy of the Flathead had followed the path of the Montana and the U.S. economies. For this perspective, we'll assume that the Flathead economy grows at the average annual rates of growth for Montana and the national economy during the 2002-2011 period for both employment and total wages. We can then compare where the Flathead economy is in 2011 relative to where it would be if, instead, it had grown at the rates of the Montana and U.S. economies.

Because private and government employment often behave differently during economic downturns, they will be separated.

Flathead County Profile	
Total Population, 2011	91,301
Percent Change in Population, 2000-2010	22.1%
Median Age, 2011	41.0
Percent 65 or Older, 2011	13.9%
Percent of Population with Bachelor's Degree or Higher, 2011	27.6%
Median Household Income, 2011	$45,588
Percent of Population without Health Insurance Coverage, 2011	20.8%
Unemployment Rate, 2012	9.2%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Employment and Wages, Flathead County, 2002-2011 (Wages in Billions of Dollars)



Sources: Quarterly Census of Employment and Wages, Bureau of Business and Economic Research, The University of Montana.

In Figure 1, actual private employment in the Flathead is compared to what private employment would be if, instead, it had grown at the historical state and national growth rates.

In 2002, private employment in Flathead County was just over 29,000. By 2011, private employment had increased by 12 percent to 32,500. If, instead, private employment in 2002 had grown at the historical Montana and U.S. average annual growth rates for the 2002-2011 period, Flathead County would have private employment totaling just 32,000 and 29,000, respectively, in 2011. Despite the plummet in jobs during 2007-2009, overall private employment was still better than if the economy had grown at statewide or national growth rates.

It is the same story for private sector wages. In 2002, the Flathead economy had almost $717 million in private wages, and in 2011 ended up with $1.1 billion in total wages. Had total wages grown at the average annual growth rate experienced in the state, total wages in 2011 would have been $22 million higher. If total wages had instead grown at the national rate, total wages would have been $125 million less than actually experienced.

A similar picture emerges with respect to government employment and wages. Government employment and wages include federal, state, and local governments.

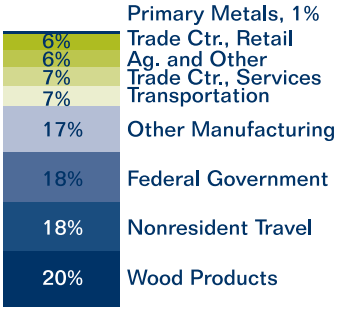
In 2002, government employment in Flathead County was almost 4,400. By 2011, it had increased to over 4,800, an increase of more than 10 percent. If, instead, government employment had grown at the statewide average annual rate, it would have been 155 less (4,700) in 2011 and 340 less (4,500) had employment increased at the national average annual rate.

Government total wages in the Flathead were $136.2 million in 2002 and grew to more than $198.4 million by 2011, an increase of 46 percent. Total wages fell in 2011, mirroring the fall in government employment in the same year.

If, instead, government wages in Flathead County had grown at the state rate of growth, total wages in the Flathead would have been $4.2 million less in 2011. Wages in 2011 would have been $16.9 million less if government wage growth followed the national average annual rate of growth.

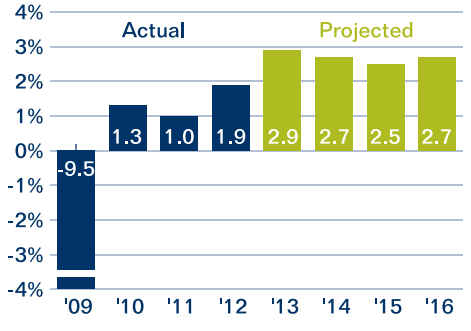
Despite the fact that total Flathead County employment is still just 90 percent of its peak employment in 2007, and total wages are still 96 percent of the peak wages experienced in 2008, comparing the performance of the local economy to what "might have been" given state and national growth rates yields a perspective often lost in evaluating economic performance.

Figure 2
Earnings in Basic Industries, Flathead County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 3
Actual and Projected Change in Nonfarm Earnings, Flathead County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Gallatin County

Shifting to a Higher Gear

Patrick M. Barkey, Director, Bureau of Business and Economic Research

Gallatin County Profile	
Total Population, 2011	91,377
Percent Change in Population, 2000-2010	32%
Median Age, 2011	32.1
Percent 65 or Older, 2011	9.2%
Percent of Population with Bachelor's Degree or Higher, 2011	45.1%
Median Household Income, 2011	$51,391
Percent of Population without Health Insurance Coverage, 2011	14.1%
Unemployment Rate, 2012	6.7%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Is the Gallatin County economy regaining its pre-recession form? Judging from the most recent data you might be tempted to say it has. Inflation-adjusted wage and salary earnings rose by a heady 7.5 percent in the 12-month period ending in June 2012, compared to the previous period. Construction ended its deep slump, posting solid gains for the year as well. Even Bozeman airport has grown to come within a whisker of overtaking Billings as the busiest airport in the state.

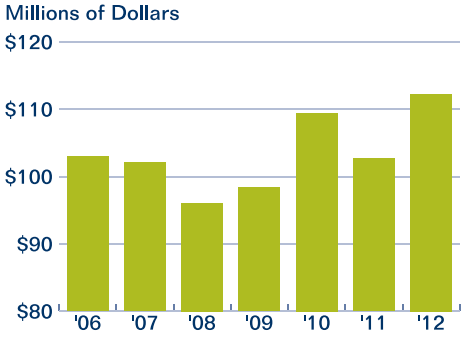
Things are certainly improving in Gallatin County, but not quite as quickly as the latest data suggest. Almost 80 percent of the increase in wages and salaries in the total economy occurred in a single industry – Professional Business Services – and that gain was related to a one-time event, namely, the sale of RightNow Technologies to Oracle. If this industry is dropped from the total, wage growth falls to a much less stratospheric 1.9 percent.

But faster growth does lie in the future. Steady growth in Montana State University, especially in its research activities (Figure 1), good prospects for high-tech manufacturing and services, and an improved outlook for real estate and construction have combined to make our forecast for overall growth in Gallatin County higher than any other major urban area in the state.

The area has needed that faster growth the last few years just to erase the deep declines suffered during the recession. Since the beginning of 2010, job growth has outpaced the state average, yet employment is only back to the levels achieved at the end of 2006 (Figure 2).

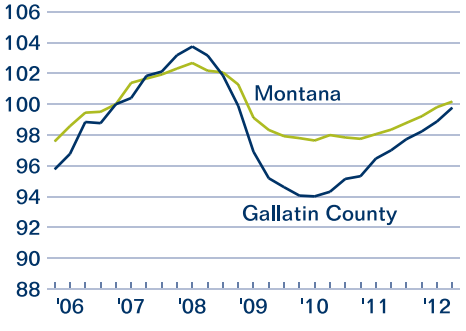
What is impressive about job and income growth in the recovery for Gallatin County to date is the fact that it was achieved largely without any contribution from the construction sector. That will change in the coming years, as residential construction finally begins to restart after four stagnant years. 13

Figure 1
Montana State University –Bozeman, Research Expenditures by Fiscal Year



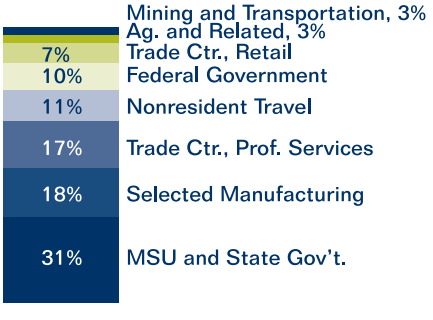
Source: Montana Office of the Commissioner for Higher Education.

Figure 2
Payroll Employment, Gallatin County and Montana, Seasonally Adjusted Index, 2006Q4 = 100



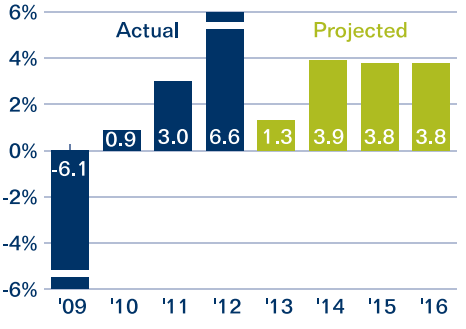
Sources: Quarterly Census of Employment and Wages. Seasonal Adjustment by Bureau of Business and Economic Research, The University of Montana..

Figure 3
Earnings in Basic Industries, Gallatin County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 4
Actual and Projected Change in Nonfarm Earnings, Gallatin County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Lewis and Clark County

Government is Double-Edged Sword

Paul E. Polzin, Director Emeritus, Bureau of Business and Economic Research

Lewis and Clark County Profile	
Total Population, 2011	64,318
Percent Change in Population, 2000-2010	13.8%
Median Age, 2011	40.7
Percent 65 or Older, 2011	13.6%
Percent of Population with Bachelor's Degree or Higher, 2011	36.8%
Median Household Income, 2011	$53,053
Percent of Population without Health Insurance Coverage, 2011	10.2%
Unemployment Rate, 2012	4.9%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

There is no doubt about it – Helena is a government town. Almost three-fourths of the Lewis and Clark County's economic base is directly attributable to state and federal governments. State government workers account for about 46 percent of basic earnings, while federal civilian and military workers represent another 25 percent.

The dependence on government is both good news and bad news for the Lewis and Clark economy. The good news is that dependence on government means that the Helena-area economy is relatively non-cyclic. The Great Recession in Lewis and Clark County was only a couple of years of stability or slower than normal growth.

The bad news is that government is not likely to be a prosperous industry in the near future, and this may lead to slower overall growth in the Lewis and Clark County economy. In this era of deficient reduction and spending cuts, nobody is expecting significant increases in either federal or state employment. In the very short run, the four-year pay freeze for state workers will probably end. But the actual pay raises probably will not go into effect until July 2013, halfway through the calendar year. The full impact will not be felt until 2014.

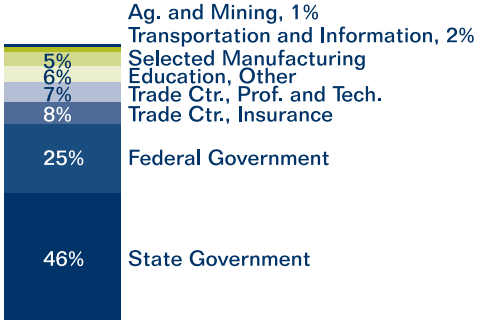
The other sectors of Lewis and Clark County's economic base include agriculture and mining, transportation, and mining. In addition, Helena has evolved into a second-order trade center, with insurance and professional and technical services firms serving clients from throughout the state and region.

Buoyed by a road project in 2012, the construction industry has finally turned the corner and should continue moderate growth.

The Great Recession in Lewis and Clark County was only a couple of years of stability or slower than normal growth.

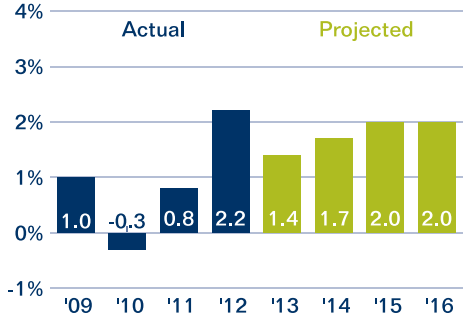
The end of the state government pay freeze should temporarily boost growth in 2014. But the near-term trends for all levels of government will keep overall growth in the Lewis Clark County economy less than 2.0 percent per year, less than the statewide average. 13

Figure 1
Earnings in Basic Industries, Lewis & Clark County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Actual and Projected Change in Nonfarm Earnings, Lewis & Clark County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Missoula County

A New Growth Reality?

Paul E. Polzin, Director Emeritus, Bureau of Business and Economic Research

This has been a long recession for the Missoula County economy. But the end may finally be in sight. The latest data for employment show definite growth during 2012 while corresponding figures for inflation-adjusted wages also turned upward, but with significant volatility. This follows three straight years of declines from 2007 to 2010 and only miniscule growth in 2011. Missoula's average growth over the past decade was much slower than during the previous three decades.

The wood products industry was a major, but certainly not the only, culprit during this recession. Stimson Lumber Co.'s Bonner sawmill and plywood plant closed in 2007 and 2008. This was followed by the shutdown of the Smurfit Stone pulp and paper plant in Frenchtown. All together, the wood and paper industries lost about 1,000 jobs in Missoula County between 2004 and 2011.

Missoula's construction industry plummeted, although not as much as in other areas in Montana which were more dependent on second-home and recreational building. The Great Recession was hard on retail trade, long a cornerstone of the Missoula economy. The longer term changes will be discussed shortly, but the big shockers were the closing of Macys downtown and the more recent shutdown of K-Mart on the 93 Strip. Although in both cases, the immediate causes of the closings were a mixture of recession effects and changes in corporate priorities.

There have also been long-term structural changes in Missoula's economic base. As recently as 2003, the wood and paper products industry accounted for a much larger share of basic earnings than The University of Montana. As shown in Figure 1, The University of Montana and other state agencies are now the largest basic industry and are roughly three times larger than wood and paper products. The University of Montana stands as one of the few basic industries (along with trucking and rail) to experience growth. The growth at UM was primarily due to outside-funded research rather that state-appropriated funds, and the impact of the recent enrollment decline is still uncertain.

Missoula remains the trade and service center for western Montana, but the relative importance of retail trade has declined while the contribution of other services (which includes health care) has risen. This has sometimes been called the "Wal-Mart effect," as this company has opened stores in smaller and smaller communities and decreased the need to travel to a regional center to shop. But it is more than just Wal-Mart as other retailers have done the same – witness the box stores on North 93 in Kalispell.

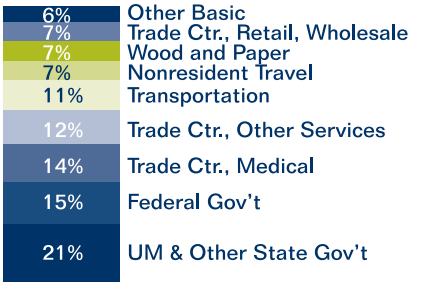
The forecast for 2013 includes both a new transportation equipment manufacturer and an end to the wage freeze for state employees. Overall, the Missoula economy is projected to grow about 2.4 percent per year between 2013 and 2016, slightly less than the statewide average. 13

Missoula County Profile

Total Population, 2011	110,138
Percent Change in Population, 2000-2010	14.1%
Median Age, 2011	34.0
Percent 65 or Older, 2011	11.1%
Percent of Population with Bachelor's Degree or Higher, 2011	38.1%
Median Household Income, 2011	$43,895
Percent of Population without Health Insurance Coverage, 2011	18.1%
Unemployment Rate, 2012	6.1%

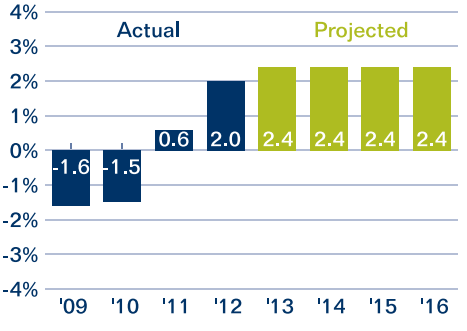
Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Earnings in Basic Industries, Missoula County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Actual and Projected Change in Nonfarm Earnings, Missoula County, 2009-2016



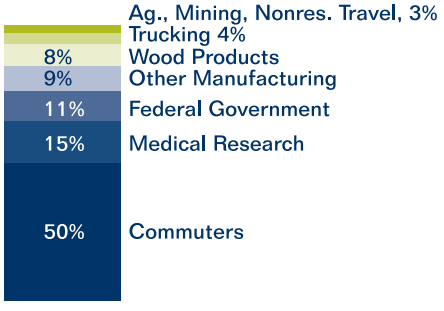
Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Ravalli County

Slowly Coming Out of Recession

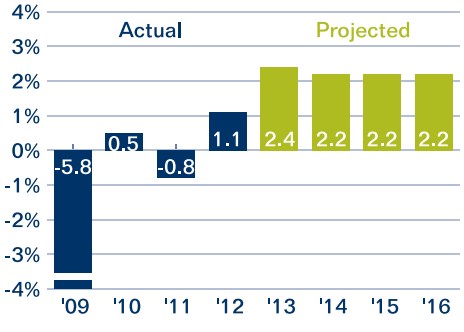
James T. Sylvester, Director of Survey Operations, Bureau of Business and Economic Research

Figure 1
Earnings in Basic Industries, Ravalli County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Actual and Projected Change in Nonfarm Earnings, Ravalli County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Ravalli County's economy appears to be coming out of the Great Recession, albeit slowly. The real estate market has stabilized with the number of residential real estate sales in 2012 increasing over 2011 levels. Prices are about the same, but days on market increased slightly over 2011 levels.

The weak real estate market is affecting Ravalli County household mobility. The latest American Community Survey data show that 14 percent of Ravalli County households live in a different house compared to one year ago. In 2007, 20 percent of households changed homes. In 2010, the latest data available, more people from Ravalli County moved to Missoula County than the reverse. Migration between Missoula and Ravalli counties is influenced by gasoline prices and comparative real estate prices.

Housing construction, a mainstay of the Ravalli economy in the past decade, continues to lag, with employment levels about half what they were in 2007. A return to 2007 levels is not in the foreseeable future.

Metal manufacturing, including small arms manufacturing, is the largest manufacturing sector, replacing the wood products industry. Recovery in the wood products industry, primarily log home manufacturing, depends on a recovery in the national housing market. Wood supply remains a concern, but poor markets for building materials dominate the decline.

Glaxo-Smith-Kline, a major pharmaceutical company and the U.S. Center for Disease Control's Rocky Mountain Lab, employs medical researchers with average annual wages more than double the county average of $23,000 per year. If the national housing market rebounds, Ravalli County's nonfarm earnings should increase about 2.2 percent per year through 2016. 13

Ravalli County Profile	
Total Population, 2011	40,450
Percent Change in Population, 2000-2010	11.5%
Median Age, 2011	45.6
Percent 65 or Older, 2011	18.7%
Percent of Population with Bachelor's Degree or Higher, 2011	25.0%
Median Household Income, 2011	$43,512
Percent of Population without Health Insurance Coverage, 2011	18.9%
Unemployment Rate, 2012	8.3%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Housing construction, a mainstay of the Ravalli County economy in the past decade, continues to lag, with employment levels about half what they were in 2007. A return to 2007 levels is not in the foreseeable future.

Yellowstone County

A Unique Montana Trade Center

Paul E. Polzin, Director Emeritus,
Bureau of Business and Economic Research

The direct and indirect impacts of the eastern Montana energy boom made for a short recession in Yellowstone County. There was one year of stagnation (2008) and one year of decline (2009) followed by accelerating growth in 2010, 2011, and 2012.

The energy boom in rural eastern Montana impacts the Billings economy in a number of ways. First, there are the energy companies and the firms that serve them. Even though oil and gas rigs are located in rural locations, these companies may locate their administrative and service facilities in urban areas – and Billings is the largest city near the Bakken. Secondly, Billings' traditional role as a regional retail and service center suggests that increased economic activity anywhere in its three-state trade area will quickly be transferred to local merchants.

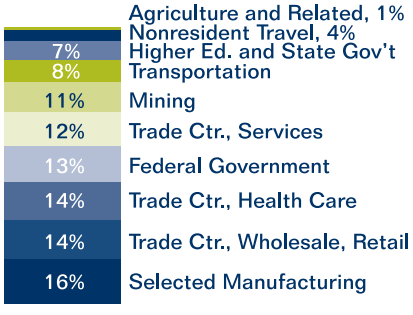
The three oil refineries are another, sometimes forgotten, energy-related component of the Yellowstone County economy. Taken together, they account for almost 60 percent of manufacturing earnings. These facilities refine mostly oil from Canada and Wyoming. There have been sizable investments in all three during recent years, which has slightly increased their capacities but more importantly they can now process the heavy crude oil becoming available from Canada. Oil refinery production is typically stable, and these workers are highly skilled and well paid. These three facilities will remain an important component of Yellowstone County's economic base for years to come.

Retail, health care, and other services remain important, but it is wholesale trade that makes Yellowstone County unique. Almost 40 percent of Montana's wholesale trade earnings are in Yellowstone County. Examples of wholesale trade businesses are distribution centers, farm and mine equipment dealers, and bulk petroleum distributors. These wholesale trade firms also benefit from the increased activity in the Bakken.

The construction industry in the Billings area was not hit as hard as elsewhere in the state. It has experienced continued moderate growth since the cycle trough in 2009. Also, the impact of the pipeline oil spill cleanup was concentrated in a few months of 2011 and is barely noticeable in the annual data.

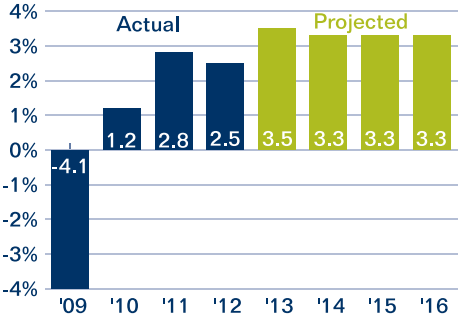
The forecasts are for continued growth in Yellowstone County. The closure in food products may slightly dampen the increase for 2013, but overall growth should average about 3.3 percent per year between 2013 and 2016.

Figure 1
Earnings in Basic Industries, Yellowstone County, 2010-2012, Percent of Total



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Actual and Projected Change in Nonfarm Earnings, Yellowstone County, 2009-2016



Sources: Bureau of Business and Economic Research, The University of Montana; Bureau of Economic Analysis, U.S. Department of Commerce.

Yellowstone County Profile

Total Population, 2011	150,069
Percent Change in Population, 2000-2010	14.4%
Median Age, 2011	38.4
Percent 65 or Older, 2011	14.0%
Percent of Population with Bachelor's Degree or Higher, 2011	29.3%
Median Household Income, 2011	$50,185
Percent of Population without Health Insurance Coverage, 2011	16.6%
Unemployment Rate, 2012	4.9%

Sources: American Community Survey, U.S. Census Bureau; Research and Analysis Bureau, Montana Department of Labor and Industry.

Health Care

Are Montana's Primary Care Providers Ready for the Affordable Care Act?

Gregg Davis, Health Care Director, Bureau of Business and Economic Research

The Affordable Care Act (ACA) will change the way Montanans use the health care delivery system. According to American Community Survey three-year estimates, approximately 172,000 Montanans are uninsured. Exactly how many will gain health insurance either through the Medicaid expansion or Montana's Federally Facilitated Exchange is subject to debate. Certain, however, is that Montana's health care delivery system will experience an increase in the demand for health services of all types.

While the Medicaid expansion is an option for states – and it may not happen in Montana – many of the uninsured will qualify for subsidized health insurance in the exchange beginning in 2014. The uninsured tend to use primary care less and hospital emergency departments more than the privately insured. As the uninsured gain access to health care coverage, their utilization of the health care system will change. Particularly for primary care, can Montana's existing primary care workforce accommodate the increase in demand that will follow the newly insured in Montana? Nationally, the primary care system is strained since many physicians now become specialists, and among those who remain in primary care, an aging workforce may soon mean that shortages will appear.

Current Demand for Primary Care Office Visits

Before the impact of the newly insured can be assessed, the current levels of ambulatory care use need to be addressed. Montana's number of primary care physicians in the state per 100,000 people (51) falls well below the generally accepted national threshold of 60 to 85 primary care physicians per 100,000. The National Association of Community Health Centers estimates that 150,000 Montanans are without access to a primary care provider. Many primary care practitioners are now older and closer to retirement, a demographic that parallels the population in general. In addition, more practitioners are now practicing part time.

The insured use primary care at nearly three times the rate of the uninsured, and hospital emergency departments at half the rate of the uninsured. This is important because as the uninsured gain access to health care coverage, use of the hospital emergency department should fall. Emergency departments are one of the most expensive points of entry in the health care system. Under the expansion of Medicaid to individuals with incomes under 138 percent of the federal poverty level ($15,000), sizable increases in the use of all ambulatory care settings will occur as the uninsured transition to health care insurance. Particularly for primary care, the demand for office visits will increase almost four-fold as individuals go from uninsured to insured under Medicaid (Table 1).

Data on the health insurance status of the Montana population from the American Community Survey is combined with the 2007 National Ambulatory Medical Care Survey to estimate the current demand for five different ambulatory care services: primary care offices, surgical specialty offices, medical specialty offices,

Table 1
Office Visits per 100, by Expected Source of Payment

	Primary Care	Surgical Specialty	Medical Specialty	Hospital Outpatient	Hospital Emergency Dept.
Private Insurance	192	55.1	61.5	17.3	22.5
Medicaid/CHIP	254.7	33.1	44.9	84.9	82.1
No Insurance	65.3	17.2	30.1	19.2	41.5

Sources: 2007 National Ambulatory Medical Care Survey; U.S. Department of Health and Human Services; National Center for Health Statistics.

Table 2
Current Demand for Primary Care Office Visits by Expected Source of Payment

	– Source of Expected Payment –						Total Primary Care Office Visit Demand
	Employer-Sponsored Insurance	Private Insurance	Medicare	Medicaid/CHIP	Uninsured	Unknown	
Montana	742,310	295,037	415,287	141,863	94,653	47,382	1,736,533
Cascade	57,145	19,173	35,625	13,201	7,520	4,589	137,253
Flathead	64,414	26,243	36,229	9,989	12,281	4,015	153,171
Gallatin	78,021	34,120	23,278	5,901	8,279	4,664	154,264
Lewis & Clark	61,198	15,759	25,354	6,581	4,202	2,504	115,598
Missoula	89,937	33,335	36,019	14,480	12,871	3,298	189,939
Ravalli	26,003	13,709	23,627	7,733	4,088	488	75,647
Silver Bow	27,199	8,963	16,448	7,488	3,185	317	63,599
Yellowstone	120,837	37,503	58,811	22,182	15,857	5,302	260,492

Sources: 2007 National Ambulatory Medical Care Survey; American Community Survey; Bureau of Business and Economic Research, The University of Montana.

Table 3
Estimated Increase in the Demand for Ambulatory Care Office Visits

	Primary Care	Surgical Specialty	Medical Specialty	Hospital Outpatient	Hospital Emergency Dept.	Total Office Visits
Private Insurance	131,999	39,485	32,713	(1,979)	(19,795)	182,423
Medicaid/CHIP	128,283	10,853	10,102	44,846	27,713	221,797
Total Change	261,281	50,338	42,815	42,867	7,919	405,220

Sources: 2007 National Ambulatory Medical Care Survey; American Community Survey; Bureau of Business and Economic Research, The University of Montana.

hospital outpatient and hospital emergency department visits.

Table 2 summarizes the current demand for primary care office visits in Montana and select counties. The number of office visits is calculated by type of payment (insurance) and also includes the demand by the uninsured.

The uninsured account for 5 percent of all office visits for primary care. By far the biggest demand placed on primary care providers comes from the Medicare population. Medicare enrollees account for more than 415,000 of the total 1.7 million office visits for primary care, or 24 percent of the total demand for primary care services (Table 2).

By contrast, in Gallatin County, one of the youngest populations in the state, Medicare enrollees account for only 15 percent of total primary care demand in Gallatin County.

Estimated Increase in the Demand for Primary Care Office Visits

Approximately 68,000 uninsured Montanans with incomes below 138 percent of the federal poverty level may become insured under the Medicaid expansion. The remaining uninsured, 104,000, are left to shop for health insurance in Montana's Federally Facilitated Exchange. Assuming all 172,000 previously uninsured become insured either through Medicaid or private insurance, an additional 261,000 primary care office visits are expected statewide (Table 3).

The increase in emergency department use by the Medicaid population (27,713) is partially offset by the decrease in emergency department use by the privately insured. Recall that as the uninsured transition to Medicaid, emergency department use increases two-fold while emergency department use by the privately insured decreases by half.

By far, the greatest impact of the ACA is on the demand for primary care office visits, which account for 64 percent of the total ambulatory care office visits resulting from increased insured rates. Adding the incremental increases for primary care (Table 3) to the estimated current demand for primary care (Table 2) provides

a snapshot of the total anticipated demand for primary care office visits as a result of the ACA and its provisions to increase insured rates.

Total statewide demand for primary care is almost two million office visits per year (Table 4).

Primary Care Capacity

The capacity of the primary care system to accommodate additional demand may be modeled by the number of primary care practitioners and the number of office visits primary care providers can offer each year. In a study by Davis, Roberts, and White (2009), 495 primary care physicians were identified in the state of Montana. Other studies contrast drastically with this number, and range from 629 primary care providers (Stenseth 2009) to 862 primary care providers (Rivard 2009).

The U.S. Department of Health and Human Services uses a guideline of 4,200 office visits per year for primary care physicians, much lower than the American Medical Association guideline of 5,400 office visits per year for family practitioners. The lower threshold is used in this analysis. Table 5 estimates primary care capacity for the state and by select county. By comparing primary care capacity to estimated total demand, the ability of the primary care system to accommodate the increased demand for primary care services can be estimated.

Overall, it appears that Montana can accommodate the increase in demand for primary care office visits that result from the uninsured acquiring health insurance. This may not be the case for all Montana counties, though. Particularly for Flathead, Missoula, and Ravalli counties, Montanans may find access to primary care providers difficult. Efforts to increase primary care providers are needed in order to accommodate some of the changes brought about by passage of the ACA.

Table 4
Total Estimated Demand for Primary Care Office Visits, Montana and Select Counties

County	Total Additional PC Office Visits	Total Demand for PC Office Visits
Montana	261,281	1,997,814
Cascade	17,854	155,107
Flathead	28,252	181,423
Gallatin	18,631	172,895
Lewis & Clark	9,424	125,022
Missoula	30,745	220,684
Ravalli	11,300	86,947
Silver Bow	7,482	71,081
Yellowstone	35,736	296,228

Source: Bureau of Business and Economic Research, The University of Montana.

Table 5
Estimated Shortages/ Surpluses of Primary Care Office Visits, Montana and Select Counties

Locale	Primary Care Supply	Primary Care Demand	Shortage (-)/Surplus (+) Office Visits per Year
Montana	2,079,000	1,997,814	+81,186
Cascade	163,800	155,107	+8,693
Flathead	176,400	181,423	-5,023
Gallatin	226,800	172,895	+53,905
Lewis & Clark	147,000	125,022	+21,978
Missoula	201,600	220,684	-19,084
Ravalli	58,800	86,947	-28,147
Silver Bow	71,400	71,081	+319
Yellowstone	508,200	296,228	+211,972

Source: Bureau of Business and Economic Research, The University of Montana.

Conclusion

Major medical markets, such as Missoula, Great Falls, and Billings, serve areas well beyond the county boundaries. Although primary care is usually delivered locally, it is reasonable to assume that primary care demand is still underestimated to a considerable degree. More illustrative perhaps are the counties with low surpluses of primary care capacity, or in some, shortages of primary care capacity. Ravalli County in particular appears to have a severe shortage of primary care capacity given the additional burdens to be placed on their providers.

Even legislative initiatives nationally and at the local level may not fix the primary care workforce shortage because of the long period of time required to train doctors, nurse practitioners, and physician assistants.

Missing in this analysis is the role that payment to the provider serves in seeing certain payer mixes, particularly Medicaid. As payments fall to the marginal cost of providing services to these patients, doctors will have limited options. Some may decrease the number of Medicaid patients seen, some may simply retire earlier. Many primary care physicians are now employed by local hospitals and federally funded clinics. Hospitals and these clinics receive higher payments from government sources than an independent physician receives for the same services. How this trend affects overall costs is not apparent, but it does provide some support to keep primary care physicians in our communities. 13

Travel and Recreation

Jobs, Lifestyle, and Growth

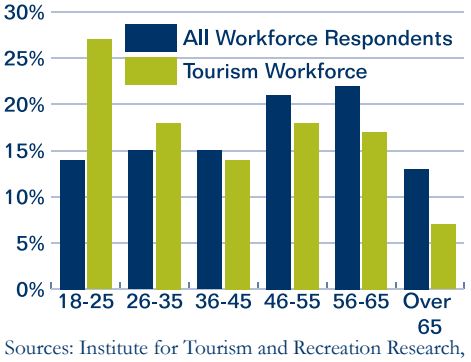
Norma P. Nickerson, Director, Institute for Tourism and Recreation Research

In the election year of 2012, every politician said, "jobs, jobs, jobs" were the number one issue. The travel industry has been a faithful contributor to keeping jobs in Montana. Estimates indicate that resident and nonresident travelers spent $3.6 billion in 2011, directly supporting nearly 36,750 jobs and 50,670 jobs overall around the state (Table 1) (Grau, 2012). While the economic input-output model indicates more than 50,000 jobs are supported by tourism, a jobs study by UM's Institute for Tourism and Recreation Research (ITRR) found that 81,000 Montana jobs have some relationship to the travel industry in Montana and make up 17 percent of Montana's workforce (Nickerson, 2012).

Most economists look at tourism jobs as the sum of the hospitality and leisure sectors. However, respondents to the ITRR jobs study were quick to point out that tourism jobs span a wide range of industries that generally get coded into other sectors: retail or gas stations, outfitters/guides, second home rental and property management, transportation (air, train, bus), travel agency, advertising and promotion agencies, construction, landscaping, car sales and repairs, agriculture, and health care, to name a few. Therefore, when the direct tourism businesses are doing well, their businesses contribute to the need for many other jobs within the state.

When analyzing Montana's workforce through a tourism lens, ITRR found that the average age for Montana's workforce of 47 years is higher than the average age of tourism workers (41 years of age). Tourism workers ages 18-35 represent 45 percent of the industry compared to 29 percent of all other industry workers, demonstrating that tourism provides the younger generation with jobs and income at a higher rate than other industries (Figure 1). Not surprisingly, with the high number of young workers, only 53 percent of the tourism industry workers reported working a full 12 months. An additional 10 percent worked three months in tourism-related jobs (summer jobs) while another 7 percent worked six months (seasonal positions). Eighty-one percent of those working in tourism held only one job for the year, but 16 percent held two jobs during the year.

Figure 1
Montana Workforce Ages, All Workforce vs. Tourism Workforce



Sources: Institute for Tourism and Recreation Research, The University of Montana; U.S. Census Bureau.

Table 1
2011-12 Combined Resident and Nonresident Travel Economic Impact

$3.60 billion in resident & nonresident spending contributes:	Direct	Indirect	Induced	Combined
Industry Output	$2,923,400,000*	$659,500,000*	789,100,000*	4,372,000,000*
Employment (# of jobs)	36,750	5,970	7,950	50,670
Employee Compensation	$798,000,000	$169,000,000	$211,100,000	$1,178,100,000
Proprietor Income	$128,100,000	$37,500,000	$41,800,000	$207,400,000
Other Property Type Income	$392,900,000	$157,700,000	$181,900,000	$732,500,000
State & Local Taxes	-	-	-	$360,600,000

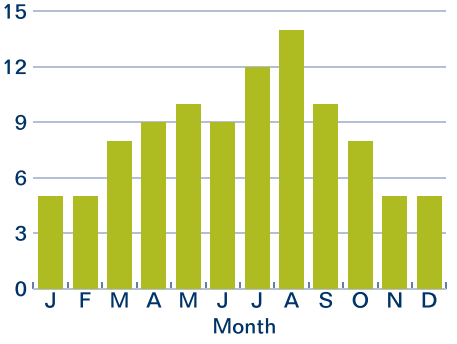
* IMPLAN economic input-output model software was used in these analyses.
Note: Resident travel spending data were collected July 1, 2011 - June 30, 2012. For more info, visit http://www.itrr.umt.edu/reports_res.htm.
Nonresident data were collected January - December 2011. For more information, visit http://www.tourismresearchmt.org/.
Source: Institute for Tourism and Recreation Research, The University of Montana.

Table 2
Percent of Montanans Taking at Least One Trip within the Past Week, Full Year

Pleasure		Business		Other*	
Day Trips	Overnight Trips	Day Trips	Overnight Trips	Day Trips	Overnight Trips
19%	18%	16%	8%	13%	5%

*Other includes funerals, medical or other appointments, necessity shopping, etc.
Source: http://www.itrr.umt.edu/research12/ResidentTravel2011-12RR2012-8.pdf
Institute for Tourism and Recreation Research, The University of Montana.

Figure 2
Monthly Distribution of Resident Pleasure Trips in Montana



Source: http://www.itrr.umt.edu/research12/Resident-Travel2011-12RR2012-8.pdf, Institute for Tourism and Recreation Research, The University of Montana.

Perhaps one of the more interesting aspects of tourism is the reason why employees are working in Montana. Most people who work in the tourism industry mentioned the lifestyle, wide-open spaces, outdoor recreation opportunities, and as one respondent put it poetically: "The light breaking through the clouds near the Beartooth Highway…. If you live here, I don't need to elaborate" (Oschell, 2012).

Part of that lifestyle is staying and playing in Montana. A recently completed year-long study of resident travel in Montana revealed that 15.4 million person trips of 50 miles or more away from home (or 5.7 million group trips) were taken in the past year (Table 2). Montana residents were more likely to travel for pleasure during the month of August (Figure 2) and were in engaged in outdoor recreation (34 percent) or to visit friends and family (20 percent). Interestingly, travel within the state varies from region to region. The most widely visited region by residents from around the state is Glacier Country, and as much as we would like to think that traveling the backroads is the glamorous thing to do, most travel is on the Interstate highway system (Grau & Nickerson, 2012).

2013 Outlook

According to the Bureau of Labor Statistics (2012), people in the United States spend 3.0 percent of their income on travel-related expenses. This spending is brought to Montana by nonresidents because of Montana's open space, clean waters for fishing and wildlife habitat, clean air and a chance to escape from everyday stress. Montana residents are no exception to that spending pattern since 2.7 percent of Montana household expenditures went to travel-related expenses in 2011 (Grau & Nickerson, 2012). This spending on travel in Montana is expected to continue and actually increase in 2013. While the outlook for domestic travel volume at the national level is a very modest growth (1.1 percent), travel spending is projected to increase 3.7 percent over 2012 (Cook, 2012).

Another bright spot in the U.S. travel picture is the continual growth in international inbound travel. With a projection of 65 million international visitors in 2012 and more in 2013, international visitation can help offset slow growth on the domestic side. Yellowstone National Park is the largest international draw in our region, and with three of the five gateways accessed through Montana, our state serves to benefit from this increased international traffic.

The U.S. economy does directly affect nonresident travel in Montana, and Montana tourism business owners are optimistic. In the annual outlook survey conducted in November of 2012, 64 percent of business owners believe they will have a better year in 2013, and 31 percent said it will remain the same, which closely relates to 2012 when 61 percent had an increase and 20 percent stayed the same. Modest growth of 2 percent is projected for Montana's travel industry in 2013 for both nonresident and resident travel in Montana while spending should increase nearly 4 percent. 13

References

–Bureau of Labor Statistics (2012). Accessed Nov. 1, 2012. http://www.bls.gov/spotlight/2010/travel

–Cook, S. (2012). Global Travel Outlook Conference Wrap-up. Presented at the Global Travel Outlook Conference, Chicago, IL, October 26, 2012.

–Grau, K. (2012). Economic Contribution of Travel in Montana – Resident and Nonresident Expenditures in the State.

–Grau K., & Nickerson, N.P. (2012). Resident Travel and In-State Vacation Characteristics (Research Report 2012-8). Institute for Tourism and Recreation Research, College of Forestry and Conservation, The University of Montana.

–Nickerson, N. P. (2012). *Montana People and Jobs: The Tourism Connection* (Research Report 2012-6). Institute for Tourism and Recreation Research, College of Forestry and Conservation, University of Montana.

–Oschell, C. (2012). *The Montana Tourism Industry: The People and the Businesses* (Research Report 2012-5). Institute for Tourism and Recreation Research, College of Forestry and Conservation, University of Montana.

Montana Agriculture in 2012

Impact of the Drought on Commodity Prices and Production

George Haynes, Professor and Extension Specialist, Department of Agricultural Economics and Economics, Montana State University

A severe drought in the Midwest had profound impacts on the crop and livestock sectors in Montana and retail food prices nationwide in 2012. A very light winter snowfall followed by a dry spring and summer resulted in lower average yields for the winter wheat and hay crops in Montana. However, timely rains and good harvesting conditions resulted in higher average yields for spring wheat and barley. At the same time, the Midwest was experiencing a severe drought, which put upward pressure on corn, wheat, and hay prices, increasing feed costs for livestock producers. As a result of higher commodity prices, retail prices for food are expected to rise by 3 to 4 percent in 2013.

Even with these drought conditions, preliminary harvest figures show U.S. and Montana wheat production up by 13.5 and 8.3 percent, respectively, and wheat prices up by nearly 4 percent from one year ago. Hay production was down by 23 percent, but hay prices were up by more than 50 percent. The U.S. cow herd continued to decline as a result of the drought, driving cattle and calf prices higher. While Montana's cow-calf producers are experiencing very good years, cattle feeders and packers nationwide have been facing financial challenges.

Cash receipts are expected to increase by about 3 percent in the U.S. and Montana. However, this increase in cash receipts is expected to be offset by higher cash expenses resulting in a slight decline in net cash farm income in 2012. The Great Recession has largely bypassed Montana agriculture as net farm income and equity have increased since 2009. Looking toward 2013 with stable to slightly higher net farm income, farmland values and cash rents are expected to continue increasing. Since the official end of the recession in 2009, U.S. farmland values have increased by 6.4 percent per year, while Montana farmland values have increased at a much slower pace, 2.4 percent. The farm balance sheet is still very healthy with an average debt-to-equity ratio of less than 13 percent.

The Great Recession has largely bypassed Montana agriculture as net farm income and equity have increased since 2009.

Outlook for Wheat, Other Grains, and Hay

During 2012, the Midwest drought was the most important occurrence in U.S. agriculture, reducing average corn yields by 25 percent from 147 bushels per acre in 2011 to 122 bushels per acre in 2012. Even though corn is not a major commodity grown in Montana, it profoundly influences the state's grain and cattle markets. In early spring, corn production was expected to exceed previous historical records; however, by early fall non-irrigated corn production in the Midwest dramatically declined, leading to a fall in U.S. corn production of 13 percent, or 1.7 billion bushels, from 2011. Stable demand coupled with this substantial decrease in corn production increased average corn prices by 19 percent from $6.95 per bushel in 2011 to $8.25 per bushel in 2012. Given the high correlation between corn and wheat prices, higher corn prices meant higher wheat prices for Montana producers.

World and U.S. wheat prices increased by more than 30 percent in the last two years, going from $6.29 per bushel in 2010 to $8.19 per bushel in 2012. World wheat production declined by 6.4 percent, while U.S. and Montana wheat production increased by more than 8 percent in 2012. Substantial wheat production declines in the European Union and Former Soviet Union countries contributed to the largest year-to-year drop in wheat production since 1992. The return of several important wheat-producing states to more normal levels of production following the floods on the northern plains (especially North Dakota) and drought in southern plains (specially Texas, Oklahoma, and

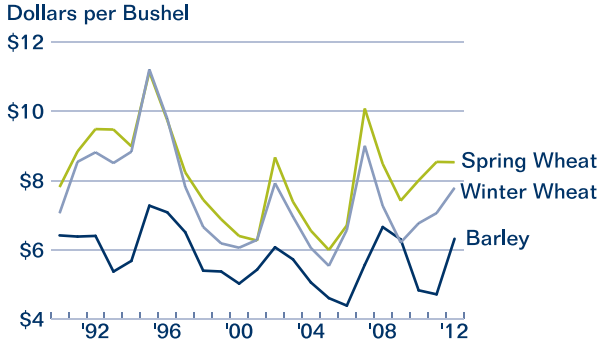
Kansas) in 2011 lead to the increase in U.S. wheat production.

Drought conditions were more severe in the central and southern part of Montana. Wheat production increased to 195 million bushels, or more than 8 percent, in 2012; however, this level of production was well below the 215 million bushels produced in 2010. At harvest, winter wheat production was down by 6 percent because of lower average yields created by the drought. Spring wheat production increased by 29 percent because of 21 percent more acres harvested and higher average yields. Barley production increased by 35 percent because of 29 percent more acres harvested and higher average yields. Grain prices remained strong in 2012 and are expected to be above long-run historical averages in 2013 (Figure 1).

Drought conditions in the central and southern U.S. and a robust export market for hay have impacted hay prices in Montana. Alfalfa hay exports are running 10 percent above last year with the market largely driven by Chinese demand, which doubled this past year. Other important export customers, Japan, South Korea, Taiwan, and United Arab Emirates, have increased hay purchases in 2012. High quality alfalfa hay prices have increased by 53 percent, from $91 per ton in 2011 to $144 per ton in 2012 in Montana. Unfortunately for Montana hay producers, the drought conditions reduced hay production by nearly 23 percent from a record hay production year in 2011. The outlook for hay prices is very favorable with the domestic and international demand for hay expected to remain strong in 2013.

The U.S. exports about 10 times more wheat than it imports. U.S wheat exports are expected to decrease by 5 percent to 1 billion bushels this year with increased competition from Russia and Ukraine. U.S. wheat imports are expected to increase by about 16 percent to 130 million bushels. U.S. wheat stocks at the end of the year are expected to be down 5 percent from 2011 to 704 million bushels. And, world wheat stocks at the end of year are expected to decrease by 12 percent from a year ago to 6.4 billion bushels, reflecting the sharp decrease in global production.

Figure 1
Average Grain Prices for Montana State University, 1990 to 2012



Source: National Agricultural Statistics Service, Montana.

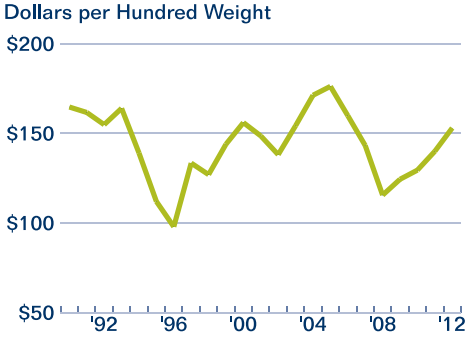
Cattle Outlook

The Montana cattle and calf herd was stable in 2012 at 2.5 million head, although total herd value continues to rise. Drought conditions across the Midwest have resulted in a sell-off of breeding cattle and further reduced the national cattle herd. Even though the national cattle herd has trended downward over the last several years, total beef production has been relatively steady. These drought conditions have driven calf prices up by 9 percent from last year.

The supply side continues to add support to these high beef prices. The U.S. calf crop was about 800,000 calves smaller in 2012 than in 2011. The 2013 calf crop is expected to be even smaller. In addition, smaller numbers of cattle are likely to be imported from Canada and Mexico. The calf crop in Canada is somewhat smaller in 2012, and the severe drought in Mexico in 2011 brought a record number of cattle to the U.S., leaving fewer cattle to import in 2012.

In addition to movements of live cattle across our borders, processed beef moves across our borders, too. Beef exports to our best customers, Canada, Mexico, and South Korea, were down by more than 15 percent. Total exports for 2012 are expected to decline by at least 11 percent. On the other side of the equation, beef imports have increased by 10 percent in 2012. While beef imports from Australia have increased by 46 percent, beef imports

Figure 2
Calf Prices for Montana, 1990 to 2012



Source: National Agricultural Statistics Service, Montana.

from Canada, our largest supplier, have actually declined by 13 percent.

Retail beef prices appear to have reached an upper limit on the demand side. Total red meat and poultry production for 2012 are likely to be slightly lower than 2011. Cattle feeders and beef packers are looking for some financial relief; however, that is unlikely to occur until higher cattle prices are accompanied by higher retail beef prices and feed costs begin to trend lower. High calf prices, exceeding $1.50 per pound, coupled with high corn prices, exceeding $8.00 per bushel, are causing significant financial challenges for both feeders and packers.

U.S. commercial beef production has been relatively stable since 2010. Montana's beef production declined by 8 percent between 2010 and 2011, but increased slightly in 2012. Montana's share of the U.S. beef market remains around 2.5 to 3.0 percent. Calf prices increased nearly 9 percent between 2011 and 2012. Commodity futures prices for the cattle market suggest that calf prices will remain above the long-run historical average in 2013 (Figure 2).

Food Prices

High crop and livestock prices have focused attention on food price inflation again in 2012. Through the end of October, at-home and away-from-home food expenditures have increased by 3.5 and 10.5 percent, respectively, as median household income has increased. Even though the supply disruption (drought) occurred in 2012, the retail food impacts are expected to occur in 2013. Higher corn prices will impact many products, such as beef, pork, poultry, cereal, corn syrup, and corn flour. Historically, a 50 percent increase in the price of a commodity increases retail food prices by 0.5 percent to 1 percent. Over the past 20 years, retail food prices have increased by 2.5 to 3 percent per year; however, food prices are expected to increase by 3 to 4 percent next year with beef and pork products realizing the largest percentage increases.

Conclusions

What a year in Montana agriculture. While some Montana producers in the central and southern parts of the state realized drought conditions, these conditions paled in relation to the severe drought conditions in the Midwest. Lower corn yields reverberated through the grain and cattle markets as wheat and barley prices followed the price of corn upward, and strong calf prices were mitigated by higher feed costs. In addition, cattle herd reductions caused by the Southwest drought in 2011 and Midwest drought in 2012 supported strong calf prices. By the end of the year, high grain, hay, and calf prices improved the profitability of Montana producers.

In 2013, grain prices are expected to be strong; however, more normal grain production in Europe and the Former Soviet Union countries coupled with continued declines in export demand could cause prices to weaken. Cattle prices appear to be on much stronger footing. Even if export demand weakens, it is the shrinking national cattle herd and lower cattle imports coupled with high inputs costs, which limits entry into the market or expansion of cattle herds, which will likely keep cattle prices high in 2013. Montana cattle producers with good access to water, grain, forage, and credit are well positioned for a profitable year.

The one remaining concern with Montana producers is the status of the 2012 Farm Bill. At this juncture, it's most likely that the Farm Bill will be debated in early 2013. Whether major or minor adjustments to the Farm Bill are forthcoming is a question that will be resolved by the House and Senate Agricultural Committees. 13

Montana's Manufacturing Industry

Outlook for Continued Improvement

Todd A. Morgan, Charles E. Keegan III, Steven W. Hayes, and Colin B. Sorenson
Manufacturing and Forest Products, Bureau of Business and Economic Research

Although the Great Recession officially ended in 2009, manufacturing in Montana continued declining through 2010. However, both 2011 and 2012 revealed growth for Montana manufacturers. With annual sales in excess of $13 billion during 2012 and employment topping 21,000 workers for the first time since the recession's end, the state's manufacturing sector is improving. Manufacturing continues to account for roughly 20 percent of Montana's economic base and remains an important piece of Montana's overall economy.

Total Montana manufacturing employment was about 20,411 workers in 2011, but is estimated to be over 21,250 for 2012. Six Montana counties boast more than 1,000 manufacturing employees, and worker earnings of manufacturing employees exceeded $100 million in three counties during 2011 (Table 1).

Virtually all sectors of Montana manufacturing lost employment during the recession but most have turned upward since 2010, with *primary & fabricated metals* and *computers & electronics* having the most rapid growth. After losing 2,500 jobs from 2006 to 2010, the *wood, paper, & furniture* sector has grown modestly in the last two years and remains the largest manufacturing sector in Montana with more than 4,200 workers (Table 2). Worker earnings among manufacturing sectors are highest in the c*hemicals, petroleum, & coal* sector, which has seen growth in employment as well as earnings over the past several years.

More than 180 Montana manufacturing firms responded to BBER's annual outlook survey, representing an 80 percent response rate from the state's largest manufacturers. The general tone was one of improved

Table 1
Montana Manufacturing Employment and Earnings by County, 2011

	2011 Manufacturing Employment	Percent of Total	2011 Manufacturing Earnings (Millions of 2011 $)	Percent of Total
Yellowstone	3,426	17%	$298	29%
Flathead	2,915	14%	$154	15%
Gallatin	2,702	13%	$123	12%
Missoula	2,131	10%	$94	9%
Ravalli	1,089	5%	$39	4%
Cascade	1,032	5%	$63	6%
Lewis and Clark	893	4%	$39	4%
Silver Bow	692	3%	$46	4%
Lake	610	3%	$20	2%
Lincoln	384	2%	$11	1%
Park	341	2%	$13	1%
Other counties	4,196	21%	$140	13%
Montana total	20,411	100%	$1,041	100%

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

Table 2
Employment in Montana Manufacturing Sectors, 2010 and 2012

Manufacturing Sector	2010	2012*	Percent Change
Wood, paper & furniture	4,223	4,255	1%
Food & beverage	3,546	3,531	0%
Primary & fabricated metals	2,059	2,730	33%
Chemicals, petroleum & coal	2,085	2,180	5%
Machinery	1,167	1,350	16%
Nonmetallic minerals	938	960	2%
Textiles, clothing & leather goods	774	845	9%
Computers, electronics & appliances	640	785	23%
All other manufacturing	4,371	4,620	6%
Total	19,803	21,256	7%

*Estimate.
Source: Bureau of Economic Analysis, U.S. Department of Commerce.

conditions during 2012 compared to 2011. For example, 42 percent of firms reported increased profits during 2012, versus 40 percent indicating increased profits for 2011. While 34 percent of firms reported decreased profits in 2011, just 30 percent of firms reported lower profits in 2012. Other positive indicators during 2012: 24 percent of Montana manufacturers reported new product lines in 2012, and 40 percent reported making a major capital expenditure. Just 6 percent of manufacturers reported reducing capacity during 2012, and 80 percent indicated they did not curtail production during the year.

2013 Outlook

The manufacturing outlook for Montana in 2013 is for continued improvements, with expectations of employment growth and increased worker earnings among many of the state's manufacturing sectors.

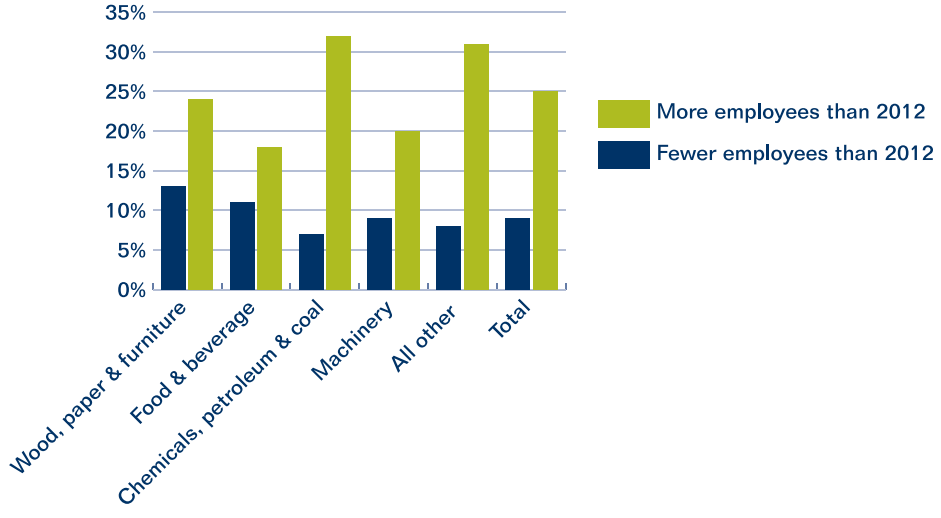
Manufacturers Concerned About Health Care Costs

From a list of eight issues, health insurance cost was rated as the most important issue to Montana manufacturers, with 81 percent of respondents saying it was very important to their business and another 14 percent rating it somewhat important. Other important issues included worker compensation rates, the supply of qualified workers, and cost of energy. Foreign competition was ranked the least important of the eight issues, with 49 percent of respondents rating it as very unimportant and just 21 percent rating it as very important.

In light of the many ongoing and upcoming changes to health care in the U.S., several questions about health insurance costs were posed to survey participants this year. Almost 70 percent of respondents indicated that their firm's health insurance costs increased during 2012, with just 5 percent saying costs decreased. Just 3 percent of respondents indicated they expected health insurance costs to go down in 2013, and 65 percent expected costs to increase. When asked about the impact of health care reform on their business, about half said they expected a substantial impact involving increased costs, while the remainder expected no impact, generally because they employed fewer than 50 workers or were unsure of the impact.

MANUFACTURING OUTLOOK

Figure 1
Employment Outlook for 2013
by Montana Manufacturing Sector



Source: Bureau of Business and Economic Reasearch, The University of Montana.

National forecasts call for modest growth in the U.S. and global economies. Oil and gas development in Montana, North Dakota, and Canada will continue to positively impact Montana manufacturing, with increased business at existing manufacturers and several new facilities planned for 2013 and beyond.

Increasing reports of "re-shoring" – manufacturing jobs returning to the U.S. from overseas locations like China – are providing encouragement to domestic producers of goods as well as the U.S. labor force. Although statistics to support the anecdotal stories are difficult to come by, increasing evidence suggests that several factors are contributing to growth in domestic manufacturing. Wages and benefits earned by Chinese and other foreign workers are reportedly increasing, narrowing the compensation disparities between American workers and their foreign competitors. Costs associated with energy, transportation of goods, logistics management, and customer service are also being recognized as important and frequently lower with domestic production.

Montana manufacturers who responded to the BBER's annual survey continue to express optimism in their outlook for the coming year. More than 35 percent expected improved conditions for 2012, and more than 42 percent expect better conditions during 2013, compared to just 14 percent that expect worsening conditions for 2013. As in 2012, 90 percent of manufacturing respondents expect to keep their workforce at the same level or increase employment during 2013. Specifically, 25 percent expect employment to increase, 65 percent expect employment to remain the same as 2012, and less than 10 percent foresee a decline in employment during 2013 (Figure 1). When asked about their biggest concerns about 2013, however, most indicated the potential for a weakening of the economy and a number mentioned specifically the resolution of the national fiscal situation. 13

Montana's Forest Products Industry

Improved Conditions but Low Expectations

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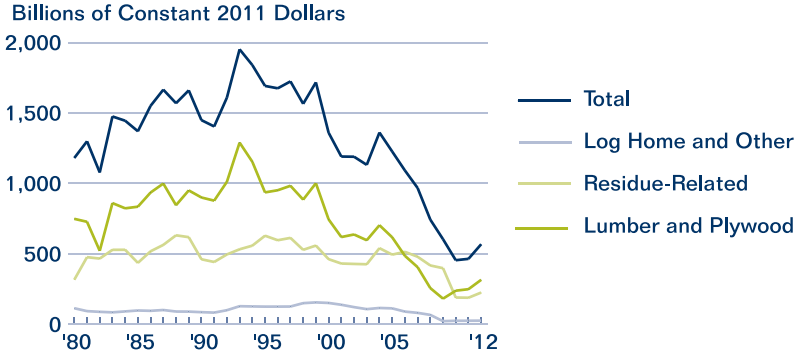
Gains in U.S. Housing Lift Montana's Forest Industry

New housing starts in the U.S. increased more than expected during 2012, helping to buoy the nation's hard-hit forest products industry. Approaching 800,000 units, housing starts were up about 30 percent from 2011 and up by nearly 45 percent from the 2009 50-year low of 554,000. The significant increases in residential construction helped to drive up demand for lumber, plywood, and other wood products. Nationwide lumber prices increased, up approximately 18 percent from 2011, and Montana's sawmills, plywood, and reconstituted board facilities reported 2012 production and sales levels that were higher than 2011. Along with improved markets, there were no major wood products facility closures during 2012, and many facilities reported increased employment and payroll.

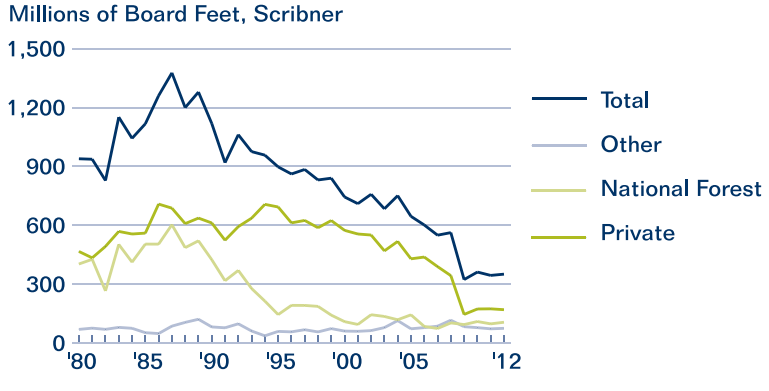
Sales value of Montana's primary wood and paper products during 2012 was estimated to be $580 million (fob the producing mill), up about $114 million, or 25 percent, from 2011. Primary sales were still about $400 million lower than pre-recession 2006, when sales were just under $1 billion (Figure 1). Sales value of Montana's secondary wood products industry was approximately $300 million in 2012. The secondary industry includes window, door, and other wood products manufacturers that use outputs from the primary industry.

Figure 1
Sales Value from Montana Primary Wood Products Industry, 1980-2012



Sources: Bureau of Business and Economic Research, The University of Montana; Western Wood Products Association.

Figure 2
Montana Timber Harvest by Ownership Class, 1980-2012



Sources: Bureau of Business and Economic Research, The University of Montana; U.S. Forest Service Region One.

Total forest industry employment during 2012 was estimated to be 6,650 workers (including private sector foresters and loggers, primary and secondary wood product manufacturers, and forestry support activities), up by almost 3 percent from 2011. Earnings in Montana's forest industry were nearly $295 million during 2012, about 10 percent higher than the updated 2011 figure of $268 million. Among Montana's sawmills, lumber production for 2012 increased almost 10 percent to an estimated 584 million board feet lumber tally.

Montana's timber harvest volume during 2012 was an estimated 351 million board feet (Scribner), up about 2 percent from the revised 2011 estimate of 345 million board feet. Timber harvest levels in Montana have rebounded very little from their 2009 record low, and the remaining industry is still struggling with harvest levels that have been in decline since the early 1990s (Figure 2).

National forest timber harvest during fiscal year 2012 (Figure 3) was 136.8 million board feet Scribner, about 2 percent higher than FY 2011. National forest cut and sold volumes include considerable amounts (54 percent by volume in 2012) of fuelwood and non-sawlog material that result from salvaging dead timber and fuel reduction treatments. With the reductions in private lands timber harvesting during the recession and low housing markets, Montana mills currently rely on Forest Service timber for one-quarter to one-third of their timber inputs.

Outlook: Demand-Driven, Supply-Constrained Growth in 2013

Significant challenges and opportunities face Montana's forest industry. Improving wood products markets associated with a recovery in U.S. homebuilding represent the greatest opportunity for Montana firms, with national forecasts predicting continued growth in the U.S. economy and consumption of wood products. Substantial recovery in U.S. housing starts during 2013 and beyond would benefit Montana's forest industry, stimulating production, sales, and employment for many of the state's mills and loggers that supply the mills.

Forest Industry Concerned About Health Care Costs

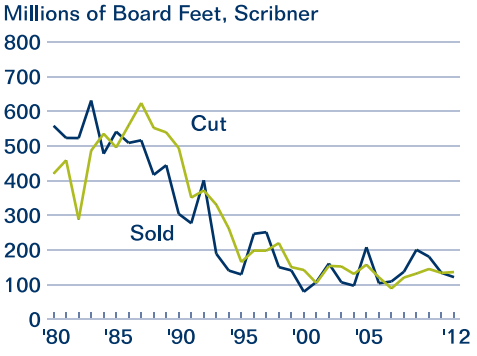
Health insurance costs are a major concern for many Montanans, and they were the most important of eight issues presented to wood products manufacturers for ranking in the Bureau's annual survey. Eighty-three percent of respondents rated health insurance costs very important, and 17 percent rated them as somewhat important.

Other highly ranked issues included worker compensation rates and raw material availability, with more than 63 percent of respondents rating these as very important and one-quarter to one-third rating them as somewhat important.

With many Montana mills currently running well below normal operating levels, timber processors are positioned to increase output as markets improve – provided timber is available.

Availability of timber remains one of the most important challenges to the industry. Without consistently reliable and affordable timber, mills will have difficulty responding to improved market conditions. Factors that influence cost and quantity of timber supply include forest health, land ownership differences, availability of loggers, and fuel prices. Tree mortality associated with the mountain pine beetle has been impacting Montana forests for about a decade. Federal lands, which account for more than 75 percent of the non-reserved timber in the state, are subject to a complex political and legal process causing uncertainty and delays in timber harvest. Montana's logging workforce has undergone major contractions over the past decade, and volatile fuel prices continue to impact operators in the forest and hauling logs to mills.

Figure 3
National Forest Cut & Sold Volumes in Montana, 1980-2012



Source: U.S. Forest Service.

Members of Montana's forest products industry have a guarded outlook for the coming year. While 33 percent of wood products manufacturers responding to the Bureau's annual survey believe that 2013 will generally be better than 2012, 14 percent expect conditions to be worse. Likewise, 45 percent of respondents expect profits will increase, and 24 percent expect profits to decrease in 2013.

Slightly less than 60 percent expect the costs of inputs to increase, and 74 percent do not expect to make major capital expenditures during 2013. Despite overall reluctance to make capital investments, development within Montana's wood-using industries continues with the recent installation of a permanent chipper at the mill site in Bonner, Montana. This investment substantially increases the capability to process lower-value timber.

Montana's Housing Market

Demographics and Trends

Scott Rickard, Director, Center for Applied Economic Research, Montana State University – Billings

Montana's housing market faces some advantages and disadvantages when it comes to its potential home buyers. Existing ownership rates show that even at modest incomes Montanans want to own homes, and relatively young families account for most first-time buyers. With low default rates and above-average credit scores, residents have more access to mortgage loans than in many parts of the county. But overall credit remains tight, and many potential Montana buyers cannot secure a mortgage based upon credit score or household debt.

By examining the demographics of Montana's home owners and home buyers, we can see how sales totals reflect underlying issues of age, income, and credit-worthiness.

Age Group

Nationally, home buyers fall into a 40:40:20 ratio, with roughly equal percentages being first-time buyers (41 percent) or having owned in the past (43 percent). About half as many (17 percent) currently own one or more houses in addition to the one she or he just purchased (see Table 1). Looking at purchasing behavior by age groups, the age 25-to-44 first time buyer is the single largest market, with 30 percent of all transactions coming from this group. Second to this group are those ages 45-to-64 who have owned in the past but weren't owners at the time of this home purchase. By age range, purchases of an additional home by existing home owners ages 25-to-44 represent 6 percent of all buyers, while for those between 45-to-64, this figure is 8 percent.

This home-buying behavior by groups fits into the overall pattern of purchasing and ownership. Based upon national averages – independent of age – there is a one in four (25 percent) chance that a person will be living elsewhere within five years of purchasing a home, and only 50 percent of those who purchase remain in this home 15 years later. Condominium purchasers are somewhat more mobile, with one-quarter moving on within three years of purchase and median tenancy of under six years.

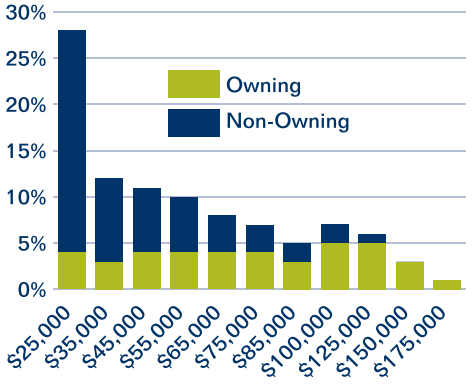
This range of occupancy fits with the observed data on first-time and repeat home buyers. With a median length-of-stay of 15 years, a first-time buyer in the 25-34 age range – which was more than half of all first-time buyers in 2011 – could be expected to purchase and move three additional times before the age of 75.

Table 1
Percentage of Homes Purchased by Age of Purchaser and Prior Ownership

Buying Type	Percent of All Buyers	Percent by Age Range			
		18-24	25-44	45-64	65+
1st-Time	41%	4%	30%	7%	<1%
Previous But Not Current Owner	43%	<1%	13%	21%	8%
2nd Home Purchaser	13%	<1%	4%	7%	2%
3rd Home Purchased (or more)	4%	<1%	2%	1%	<1%

Sources: National Association of Realtors and Montana Department of Revenue.

Figure 2
Montana Home Ownership by Income Level



Sources: National Association of Realtors and Montana Department of Revenue.

Income Level

One-quarter (25 percent) of Montana's population have incomes above $75,000 and represent an estimated 55 percent of home buyers and nearly 38 percent of first-time buyers (Figure 2). Incomes between $45,000 and $75,000 account for another 25 percent of Montana's adult households. These individuals and families purchase homes at rates proportional to their share

of population (26 percent), but are somewhat overrepresented in first-time purchasers (34 percent).

In the bottom half of household income, nearly one-quarter (23 percent) of Montana's population have incomes between $25,000 and $45,000. This income range accounts for 16 percent of all buyers, and these households purchased homes at only two-thirds (69 percent) the rate suggested by their share of the population. In terms of initial home purchases, this group makes up 25 percent of all first-time Montana buyers.

It is in the lowest quartile where income alone doesn't tell us everything concerning home purchasing behavior. Twenty-eight percent of Montana's adult population has household incomes below $25,000, but this group still represents 7 percent of home buyers, far less than their share of the population would suggest, but far more than one would expect given the cost of even modest Montana homes.

Existing home owners from this income range may have purchased when their incomes were higher or when housing prices were lower. Many may own outright. Some may have purchased by borrowing outside formal markets.

Mortgage Trends and Credit Scores

In Montana, there are more than 489,000 housing units, 84 percent of which are single-family homes. Nearly 70 percent of Montanan's own their homes, and two-thirds of owners have one or more mortgages on this property.

The average Montana purchase-only mortgage interest rate was 4.55 percent in 2011 on an average $251,000 purchase price, with 24 percent down and just under one point (0.96) at closing, according to the Federal Housing Finance Agency. In 2012, rates fell further, averaging 3.6 percent for some portfolios and representing a 2 percent decline over the previous five years. Adjustable-rate mortgages have practically disappeared, representing fewer than 2 percent of all conventional single-family mortgages. This is down from rates of 25 percent to 30 percent in the mid-2000s.

A significant number of first-lien mortgages were refinanced in 2012 (20 percent in some portfolios), with the majority keeping the same or lowering their balance.

In 2012, credit-worthiness remained a constraint on affordability. The Fair Isaac Corporation's FICO score is an overall measure of an individual's estimated credit risk, and a variant of this score is used by lenders to determine which mortgage applications will be approved. Scores range from 300 to 850, and for individuals with FICO scores below 700 (roughly half of households covered by this index) it becomes more difficult to be approved. People with lower credit scores can expect to pay higher interest rates to cover the increased risk of defaulting on a loan. In 2012, the average FICO score for approved and closed mortgage loans was 763 (the 67th percentile of scores) while for denied mortgage loans it was 732 (the 57th percentile). Household debt relative to income was a significant driver in acceptance. The average debt-to-income ratio for approved loans was 33 percent of net income, while for denied mortgages it was 41 percent.

Table 2
Average Credit Score by State, 2011

State	Average Credit Score
Nevada	668
Florida	683
California	690
US National	692
Colorado	695
Wyoming	703
Idaho	705
Montana	714
North Dakota	719
South Dakota	719

Source: Fair Isaac Corporation.

The average credit score in Montana is significantly higher than that for most states. In 2011, the U.S. average FICO score was 692, with Montana (average 714) and surrounding states outperforming the national average (Table 2). There are several factors which support our higher credit scores, including Montana's relatively mild recession, fewer foreclosures, and average age of households. The net effect is increased availability of mortgage funding for Montanans wanting to purchase a home.

Summary

As our state economy improves, the real estate market will likely grow with it, but we must recognize the impact of these underlying demographic trends and credit conditions. Policies that increase the rates of home ownership or household mobility can lead to more lifetime home purchases and thus increase the real estate market. 13

Energy Industries

A Real Boom?

Terry Johnson, Director, Natural Resource and Energy Development, Bureau of Business and Economic Research

Montana entered 2012 with its energy sector constantly in the news. Huge increases in oil production next door in North Dakota were impacting the labor market and supplier companies. There were expectations for similar increases on the Montana side of the border. Significant new coal capacity was deep into the planning state. Electric power lines, grid updates, and wind-energy generation were moving ahead. Bio-fuels and biomass were being researched in western Montana. And exciting new investments in technologies such as carbon storage and large capacity battery development were coming closer to reality.

So, where are we? And more importantly, how do these possibilities influence the outlook for the Montana economy?

Montana's energy industry consists of many components – we start by looking coal, oil, and state energy taxation.

Coal

Despite all the talk about new coal mines, the production of coal has remained relatively stable over the past decade, with only a modest increase in 2010 (Figure 1). But one of the major Montana mines has recently announced reduced production and likely layoffs. This apparent contradiction is explained by the fact that there are really two markets for Montana coal – domestic and foreign.

The domestic markets for coal have recently been depressed as electric utilities have switched to abundant, cheap, and environmentally preferable natural gas.

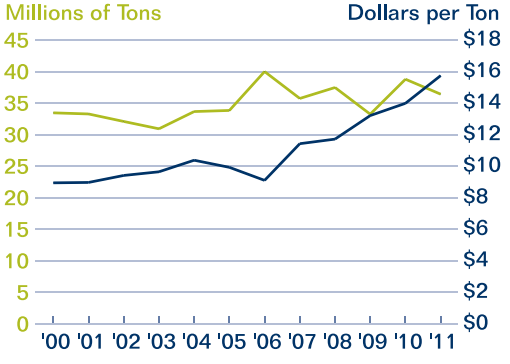
Additional negative factors include a stagnant U.S. economy and unseasonably warm weather. Foreign markets, on the other hand, are just beginning to develop and are expected to grow rapidly as industrializing countries such as China and India build new coal-fired generating plants to meet the demands of their citizens. We are going to have to wait and see how trends in these divergent markets balance out and impact total coal production in Montana in coming years.

Oil

As with coal, the frenzy and hype associated with the Bakken field is not necessarily mirrored in the data. Oil production in Montana actually peaked in 2007 and has declined each year since (Figure 2). But, recent production trends are not a good predictor of what will happen in the future.

Current oil production is strongly influenced by prior drilling and exploration activity. An oil well's production is greatest when it is first drilled and declines steadily thereafter. This means that new wells will constantly have to be brought on line just to keep production stable. Figure 3 reports that the number of drilling rigs in Montana declined from 2006 to 2009 but turned sharply upward since

Figure 1
Montana Coal Production



Source: Montana Department of Revenue.

The energy industries are directly and indirectly responsible for sizable amounts of revenue to state and local governments.

then. This easily explains the decline in production and strongly suggests a reversal in the future. Since the time profile of the rig counts closely parallels the U.S. business cycle (peak in late 2007 and trough in mid-2009), the most likely cause of the decline in Montana was the decreased demand, price weakness, and economic uncertainty associated with the Great Recession.

Comparing Montana and North Dakota

- North Dakota's oil production is more than four times greater than Montana's.
- The U.S. business cycle caused only a deceleration in the growth of North Dakota's production.
- Oil producers in both states face sizable price discounts due to the difficulty of transporting their crude to refineries.

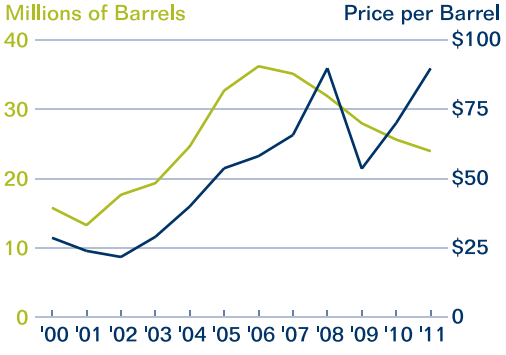
Government Revenue

The energy industries are directly and indirectly responsible for sizable amounts of revenue to state and local governments. The energy industries contribute three direct payments to state government: coal production taxes, oil production taxes, and royalty/rent/bonus payments.

All three energy-related sources of state government revenue have experienced an upward trend during the past decade despite the declines in coal and oil production during certain years. These revenues are based on the value of production – not just the volume – and energy prices have increased. The significant one-time increase in royalties/rents/bonus in FY 2010 was due to the $85 million bonus payment for the state coal in the Otter Creek area.

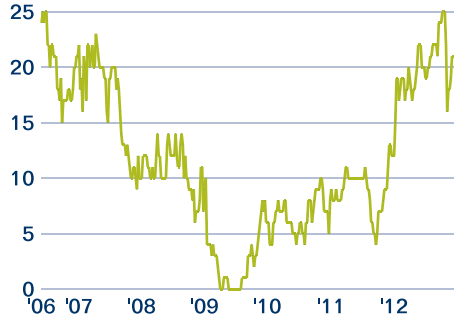
These three sources of revenue increased at an average annual rate of 8.5 percent per year between FY 2000 and FY 2012. To put this in perspective, total state government tax revenues increased an average of 4.2 percent per year during the same period.

Figure 2
Montana Oil Production and Price



Source: Montana Department of Revenue.

Figure 3
Montana Oil Rig Counts By Month



Source: Montana Department of Revenue.

Table 1
Summary of Governmental Revenue (Figures in Millions)

Fiscal Year	Coal Production Taxes	Oil & Gas Production Taxes	Federal / State Royalty, Rent, Bonus	Total Revenue
2000	$46.341	$43.773	$72.029	$162.143
2001	43.836	92.396	90.948	227.180
2002	42.249	50.304	65.475	158.028
2003	39.867	73.389	77.144	190.400
2004	42.113	92.676	78.386	213.175
2005	48.133	137.754	100.304	286.191
2006	48.042	203.681	123.443	375.166
2007	52.450	209.946	115.283	377.679
2008	58.191	324.311	146.112	528.614
2009	64.023	218.425	134.357	416.805
2010	59.791	206.286	212.320	478.397
2011	70.757	215.130	137.139	423.026
2012	72.567	210.644	148.000	431.211

Source: State Accounting System, Mineral Management Service.

Summary

Both coal and oil production have experienced ups and downs during the past decade. Even so, generally rising prices have meant that the contributions from the energy industries have been a growing contributor to state government revenues.

Outlook 2012 Speakers

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Terry Johnson served the state of Montana for more than 39 years as an economist, statistician, and most recently as principal financial analyst for the Montana Legislature. Johnson earned a B.S. in mathematics from Montana State University and developed expertise in economic analysis and government finance. In July 2004, he became the first Montanan to receive a national award from the National Council of State Legislatures in recognition of his achievements in revenue forecasting, state fiscal and tax policy analysis.
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