

MONTANA

BUSINESS QUARTERLY

FROM BOOM TO BUST

The Economic Impact of the Bakken



WINTER 2016

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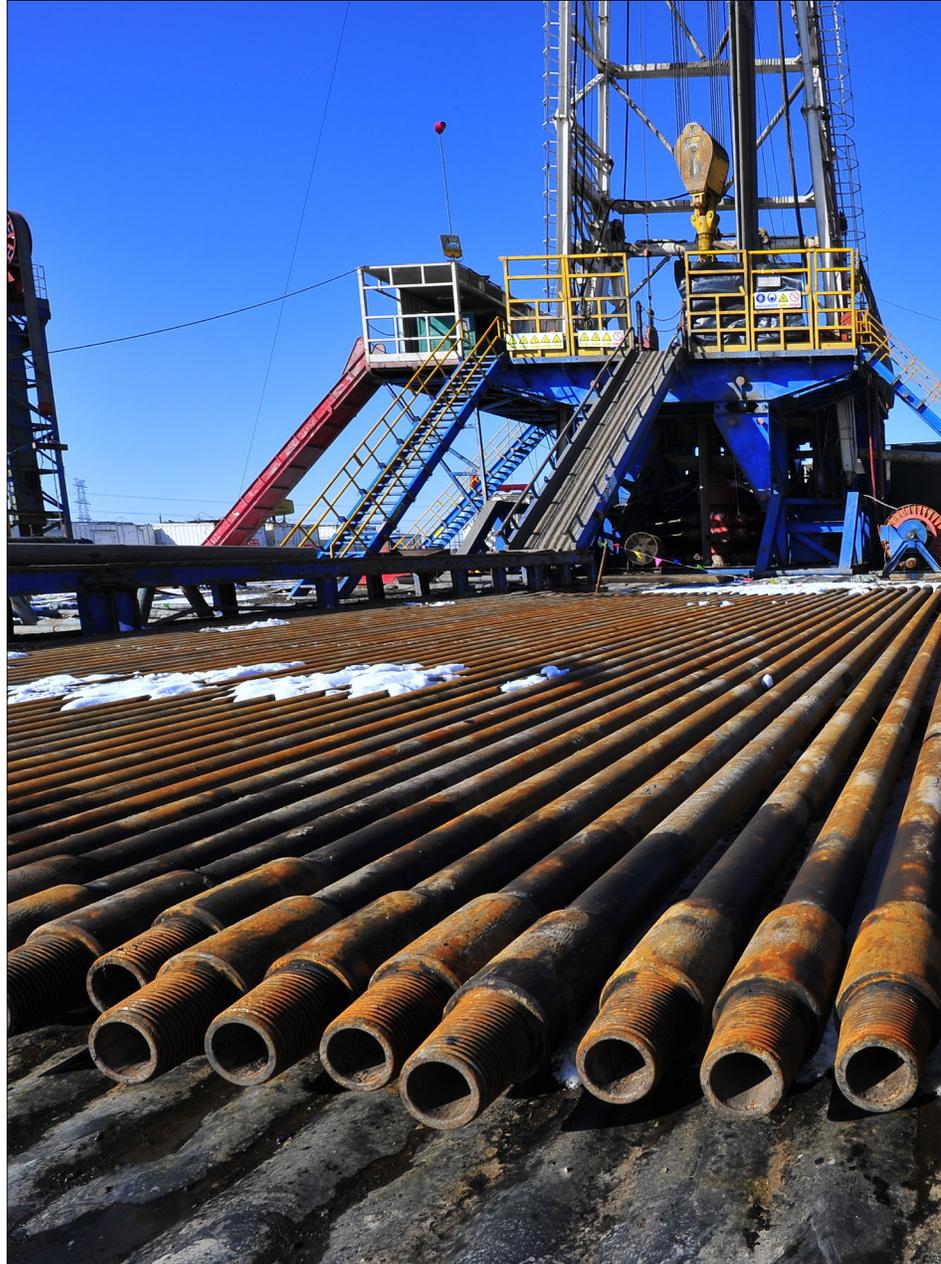
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**BUREAU OF BUSINESS AND
ECONOMIC RESEARCH**
UNIVERSITY OF MONTANA

The Bureau of Business and Economic Research has been providing information about Montana's state and local economies for more than 50 years. Housed on the Missoula campus of the University of Montana, the bureau is the research and public service branch of the School of Business Administration. On an ongoing basis, the bureau analyzes local, state and national economies; provides annual income, employment and population forecasts; conducts extensive research on forest products, manufacturing, health care and Montana Kids Count; designs and conducts comprehensive survey research at its on-site call center; presents annual economic outlook seminars in cities throughout Montana; and publishes the award-winning Montana Business Quarterly.

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Message from the Vice President for Research & Creative Scholarship

This issue of the Montana Business Quarterly continues the tradition of examining Montana's economy in a number of areas, from craft brewing in the state to the impact of the Bakken formation. Research like this continues to thrive at the University of Montana.

This past year we set a record for the amount of research funding received – \$87 million in new research awards. The local impact resulting from those grants and contracts can be extrapolated from a study done by the Bureau of Business and Economic Research in 2014, which demonstrates that UM research supports 700 direct jobs, 1,400 permanent, high-paying, year-round jobs in the Montana economy with an average earning of \$64,000 and produces \$180 million in annual sales to Montana businesses and other organizations.

We established the Blackstone LaunchPad, which helps take concepts from ideas to startup. To date we have over 400 people who have registered with the LaunchPad and 30 ventures have reached the startup phase. For those startups, as well as others in the region, we provide HR and financial support through our business incubator, MonTEC, which is focused on high growth and technology ventures. The purpose of MonTEC is to help start-up companies mature to a stage where they can graduate and become a successful business. The 32,000 square feet of business incubator space is now full and we are considering expansion possibilities.

The Montana Code School was launched in 2015 to fill the workforce pipeline for software developers in the state, with more than 50 individuals completing the program in the inaugural year, touting a 95 percent job placement rate. MonTEC also started a business accelerator program, Accelerate MT, in late 2015. The purpose of the accelerator program is to assist companies in preparing for and seeking venture capital.

We also provide support to other regional and state companies through our Small Business Development Center, Procurement Technical Assistance Center and the Montana World Trade Center. Our portfolio of



business support units works with over 700 Montana-based companies each year.

The Bureau of Business and Economic Research has been a part of the School of Business Administration for over 65 years. And it's with great pleasure that I present the latest issue of their publication. I hope you enjoy reading it.

Sincerely,

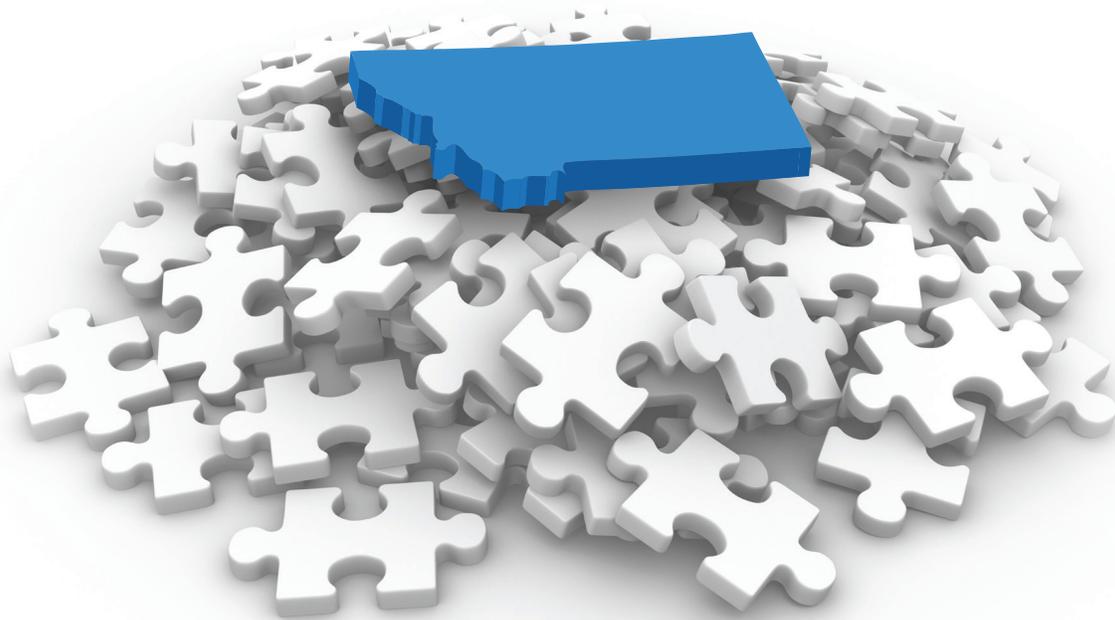
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Vice President for Research and Creative Scholarship
University of Montana

The

HIGH WAGE JOBS PUZZLE

Finding Montana's Place in the New Geography of Jobs



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Great Falls

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Missoula

January 27, 2017 (Friday)
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January 31, 2017 (Tuesday)
Crowne Plaza/DoubleTree

Bozeman

February 1, 2017 (Wednesday)
The Commons

Butte

February 2, 2017 (Thursday)
NorthWestern Energy Building

Kalispell

February 7, 2017 (Tuesday)
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One Beer at a Time

Craft breweries are contributing in big ways to Montana's economy

BY NATE HEGYI

For years, northwestern Missoula was a declining industrial district with shuttered warehouses and empty industrial areas, lacking places to drink and socialize. Then in 2011, Draught Works, a craft brewery, arrived. For Jeff Grant and Paul Marshall, the brewery's owners, the spot was perfect. They moved into an open, industrial warehouse complete with a loading dock and commercial zoning.

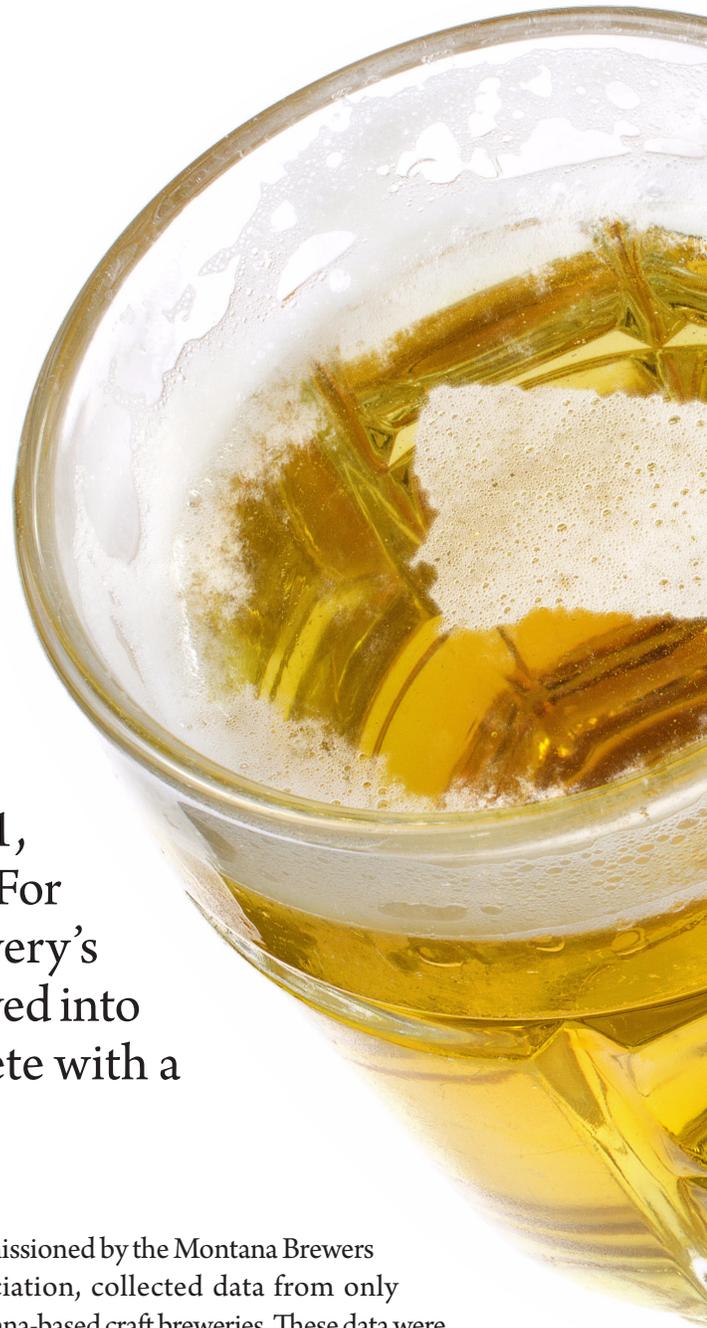
Within a few short years, they turned a backwater section of Missoula into a family friendly hot spot, selling a product grown, brewed and enjoyed in Montana. It's a success story that's repeating itself across the state as craft breweries have continued to add to Montana's economy.

Since 2010, craft brewing in the state has grown by 87 percent, according to "The Continuing Economic Impact of Craft Brewing in Montana," a new report by the Bureau of Business and Economic Research. The industry isn't slowing down, either. At least seven new breweries are in development across the state.

Unlike federal statistics, which group breweries into a single category, the bureau's report, which was

commissioned by the Montana Brewers Association, collected data from only Montana-based craft breweries. These data were collected via an online survey in which 61 out of 71 breweries responded. The study built on information from two previous reports completed in 2012 and 2014. They found that from 2010 to 2015, Montana craft brewing production increased by 87 percent, while sales increased by 111 percent and employment ballooned by more than 200 percent. The industry contributed around a thousand new jobs to the state and increased its population by almost 300 people.

This sector's growth has been remarkably steady and shows no signs of slowing down. Last year, Montana





This sector's growth has been remarkably steady and shows no signs of slowing down.

brewers directly accounted for \$46 million in gross sales, 702 jobs and \$13.2 million in employee compensation and benefits. According to the report, a total of \$17.6 million in capital investment is currently being planned for 2016 and 2017 – this is up from an estimated \$9 million planned for 2014 and 2015.

All this success means a lot more beer is being produced. In 2015, Montana's craft brewers produced over 163,000 barrels. Furthermore, the study found that each craft beer sold at a local brewery contributes \$9 to Montana businesses and \$2.95 in Montana resident personal income, and every 11,000 pints sold equals one new job in the state.

Brewers are also keeping it local when it comes to supply. In 2010, 38 percent of vendor purchases by

breweries came from within the state. By 2015, that number grew to 58 percent, totaling \$19.8 million in spending directly to Montana businesses. The state's agricultural sector is benefiting as well. Beer needs yeast, barley, hops and sometimes fruits and honey. In 2014 and 2015 around 36 percent of these products were purchased within the state, totaling \$1.4 million and \$1.6 million in expenditures respectively.

Employment in Montana has also benefited from the rise in craft brewing, adding \$35.6 billion in wages, salaries and benefits to the state's economy. And each new job in the brewing sector has an average earning of \$34,111.

The new jobs created by Montana craft brewers help to attract new residents to the state or help keep existing residents here. The study found that craft brewing has increased the state's population by 278 people. While most of these new jobs were in the manufacturing sector, which include brewing, a few other sectors were supported as well. These included construction and retail trade – industries supported by the spending of workers hired by the breweries or by vendor purchases made by the brewery.

Breweries are embodying a new and exciting era in Montana. They're turning old industrial districts into exciting areas, kick-starting new development. They're providing a meeting place for locals to gather and relax, which is not just good for our sense of community, it's good for our wallets, too. ■

Nate Hegyi is a journalist based in Salt Lake City, Utah. He graduated with an M.A. in Environmental Science and Natural Resource Journalism at the University of Montana in 2016.

From Boom to Bust

The Economic Impact of the Bakken

BY PAUL E. POLZIN

The American energy boom began with improvements in technology. Advances in geophysics, nanotechnology, engineering and production management led to the shale-energy revolution and a dramatic increase in U.S. energy production. Increases in the supply of natural gas and crude oil have come from locations as varied as the Mid-Atlantic states, the Montana-North Dakota border and traditional supply areas, like Texas and Oklahoma. This increase in supply has recently led to a dramatic drop in oil prices – there have been a number of media stories about its impact on the oil industry as a whole and the possibility that an oil bust could return new production areas to their pre-boom economic conditions. This article attempts to put events into perspective by looking at the Bakken area on the Montana-North Dakota border over the entire boom and bust cycle.



Two areas will be analyzed: Richland County, Montana (Sidney), and Williams County, North Dakota (Williston). The oil wells themselves are distributed over the entire Montana-North Dakota border area, but these two communities are the largest in the region and serve as trade and service centers. Employment and income data is analyzed to identify local economic trends, but impacts on infrastructure, housing, crime and other social factors will not be examined here.

The Beginning

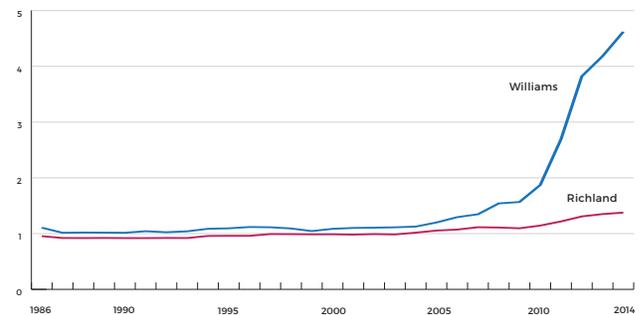
Richland and Williams counties weren't always booming. As Figure 1 shows, both economies experienced stagnation during the past 30 years. From 1986 until the mid-2000s, total nonfarm jobs in each county did not grow. There were small upward blips between 2007 and 2009, but the Bakken boom really began in 2011. Since then growth has been larger in North Dakota than Montana.

Nonfarm employment in Williams County increased about 140 percent from 2010 to 2014, while Richland County grew about 33 percent. The difference between the two areas was caused by the characteristics of the oil deposits, the expertise of the drillers and other factors. Most experts agree that differences in the tax rates between the states was not a major factor.

The Boom

From 2011 to 2014, there were boomtown atmospheres in Sidney, Montana, and Williston, North Dakota. Oil drilling rigs multiplied, traffic became astonishing and there were no vacancies in the few existing motels. The

Figure 1. Nonfarm Wage and Salary Employment, 1986 to 2014, Richland and Williams Counties. Source: U.S. Bureau of Economic Analysis.



streets were packed with petroleum engineers, drilling managers and environmental specialists, along with roustabouts and roughnecks who put in long days.

Not only were the streets packed with new people, but new jobs that paid well. Table 1 provides employment and average annual wages and salaries for oil-related industries in Richland and Williams counties. Most of the industry titles are self-explanatory – trucking was included as an oil related industry because of the large number of vehicles needed to haul mining materials into the field and oil from the wells to catchment areas.

High wages were paid mostly to well-educated and skilled professionals who did not live in the area prior to the boom. But what about the locals? As it turns out, their job opportunities and wages were also favorably impacted by the boom.

Table 2 presents information about the accommodations industry, which has traditionally paid low

Table 1. Employment and Average Annual Wages and Salaries for Oil Related Industries, Richland and Williams Counties, 2014. Source: U.S. Bureau of Labor Statistics, QCEW.

NAICS Code and Title	Richland County, Montana		Williams County, North Dakota	
	Employment	Average Annual Wages	Employment	Average Annual Wages
211 Oil and Gas Extraction	317	\$117,500	1,035	\$119,300
213111 Oil and Gas Drilling	25	\$109,800	3,820	\$107,700
213112 Oil and Gas Support Services	642	\$88,500	9,815	\$105,600
4842 Specialized Trucking	403	\$70,700	3,197	\$81,800

The Bakken Formation. Source: U.S. Bureau of Land Management, Bakken Resources Inc.



wages and is often mentioned as providing entry-level positions for those with few skills. Employment in the Montana accommodations industry increased 9 percent from 2010 to 2014, while corresponding growth in North Dakota rose 41 percent. In Richland County, it grew 80 percent, but in Williams County it increased 216 percent. Average wages in Montana rose 14 percent during this four year period, while wages North Dakota rose 50 percent. Once again, the increases in Richland and Williams counties were well above their respective statewide figures – 108 percent in the former and 124 percent in the latter.

Similar conclusions were found for construction, professional services and other industries. Overall, employment opportunities and wage growth improved in most sectors of the economy within oil boom regions. But the economic impact of the oil boom was not confined to eastern Montana and western North Dakota. A number of Montana businesses across the state service

the oil industry and due to the local housing shortage, many workers from urban areas commuted to jobs on the Montana and North Dakota sides of the border.

The American Petroleum Association compiled a list of 224 firms in Montana that are vendors to the petroleum industry – their locations across the state are

Table 2. Percent Changes in Employment and Average Wages, Accommodations Industry (NAICS 721), 2010-14. Source: U.S. Bureau of Labor Statistics, QCEW.

Area	Change in Employment	Change in Wages per Worker
Montana	9%	14%
Richland County	80%	108%
North Dakota	41%	50%
Williams County	216%	124%

Table 3. Vendors to Montana’s Oil Industry, By Community. Source: American Petroleum Institute.

Community	Vendors
Billings Area	49
Sidney Area	22
Missoula Area	12
Great Falls Area	10
Bozeman Area	7
Helena Area	6
Flathead Area	5
Butte-Anaconda Area	4
Miles City Area	3
All Other Areas	106
TOTAL	224

reported in Table 3. Communities are identified because the locations were reported by ZIP code rather than county boundaries. Allowing for a few approximations, petroleum industry vendors – ranging from catering to oil field vehicle servicing – were in 36 of Montana’s 56 counties. The statewide distribution of vendors can be seen as far away as Missoula and the Flathead, each containing a number of firms.

Bakken economic impacts have also dispersed across Montana by the commuting of workers. Because housing was scarce near the exploration and drilling

sites, many workers lived in temporary quarters and returned to their homes between work sessions. These commuters were persons working in the Bakken, but living and spending much of their incomes elsewhere.

A U.S. Census Bureau report identified commuters’ places of work and residence in 2014. As shown in Table 4, a sizable numbers of workers travel from Montana’s major urban areas to jobs in the Bakken. For example, about 229 people commuted from the Billings area (Yellowstone County) to jobs in Richland County, while another 298 worked in Williams County, North Dakota.

A Bust or a Pause?

It is not hard to identify when things began to turn south. As shown in Figure 2, trends were favorable until late spring 2014. Oil prices remained high and total employment was growing in both Richland and Williams counties. Then in June 2014, oil prices started to drop and plummeted to half by early 2015. There was a deathly silence in oil producing areas as people waited for the shoe to drop. Richland and Williams counties continued to see modest growth as late as 2014 in nonfarm employment, then in early 2015, about six months after oil prices started to drop, nonfarm employment in both Richland and Williams counties turned downward and continued to decline into early 2016 (the latest data available for employment).

The big news is not that these local economies started

Table 4. Workers by Place of Work and Residence, 2014. Source: U.S. Census Bureau.

Residence	Place of Work	
	Richland County, Montana	Williams County, North Dakota
Flathead County	29	241
Missoula-Ravalli Counties	39	384
Cascade County	53	266
Lewis and Clark County	18	169
Gallatin County	34	248
Yellowstone County	229	298
Butte-Anaconda	5	132
Custer County	137	195
Dawson County	424	226

The big news is not that these local economies started to decline, but that they have not declined more.

to decline, but that they have not declined more. Which begs the question – why haven't the declines been more like earlier energy busts, such as the mid-1980s? The decreases in nonfarm employment from January 2015, when the declines began in earnest, to March 2016 was about 16 percent in Richland County and roughly 38 percent in Williams County. Both are still well above their pre-boom levels of January 2011.

Plummeting oil prices have led to an almost complete cessation of drilling activity in the Bakken and other oil producing areas of the country. Even so, oil continues to be extracted from existing wells, meaning continued employment for workers in these sectors. In terms of the

Figure 2. West Texas Intermediate, Richland County and Williams County, Total Nonfarm Employment.

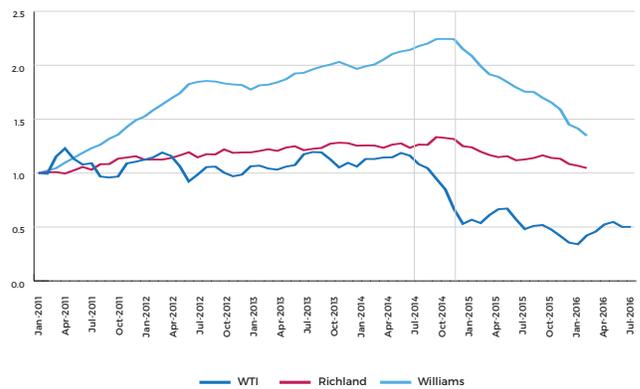
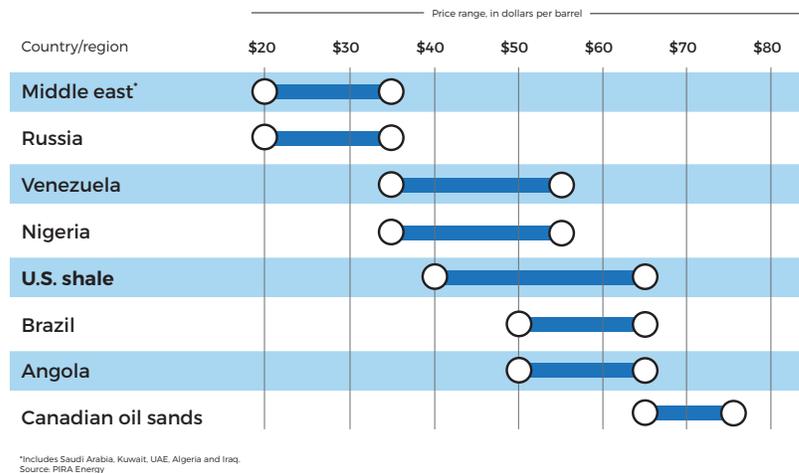


Figure 3. Global Break-Even Oil Prices.
Source: The Wall Street Journal.



four sub-categories of the oil industry shown in Table 1, employment in the extraction sector has risen, while the drilling category has almost disappeared. Declines in the other NAICS industries, such as support and trucking, remain relatively modest.

But the current situation cannot continue indefinitely. There cannot be a continued extraction of oil without a resumption of drilling. Even though shale wells have a very long tail – where production continues, but at a very small volume – sooner or later the existing wells will run dry.

The Future

The very existence of the Bakken is closely tied to improved technology. Geologists and petroleum engineers have long known of the potential of shale oil deposits. The problem was always getting to the oil, as there were no methods to efficiently gather the oil from these deep pools. But advances in fracking, horizontal drilling and other technologies provided the means to extract it.

Significant and rapid decreases in costs are often associated with the introduction of new technologies – practitioners learn what they are doing and how to do it better. In addition, within the shale industry, there was the belt tightening and squeezing out of inefficiencies associated with the recent drop on oil prices. All of these factors have led to a significant decline in extraction costs, relative to just five years ago when the Bakken boom began.

The North Dakota Department of Mineral Resources estimates break-even prices on the best sites in the state to be about \$29 a barrel. Figure 3 presents data published in the Wall Street Journal, which presents the range of break-even costs for U.S. shale that includes production areas besides the Bakken. It shows break-even prices in a range between the inexpensive Saudis and capital intensive projects, like the Canadian Tar Sands.

What does all this mean? Most experts believe that oil prices will once again turn upward as worldwide demand grows and existing reserves of oil diminish. Exploration and drilling will resume first at the most cost effective sites. This suggests that the Bakken is well positioned to benefit early from increased activities, while large capital intensive projects in the Arctic, deep water drilling and the tar sands may be much further down the list. ■

Paul E. Polzin is the director emeritus at the Bureau of Business and Economic Research at the University of Montana.



Picking the Right College

What can we learn about college quality from the average earnings of its students?

BY BRYCE WARD

Deciding where to attend college can be one of life's pivotal decisions – one that can largely shape a student's future. Every year, high school seniors across Montana apply to schools based on limited information, often making their decisions on vague rankings, a school's reputation or how much they like the football team.

Making a cold, rational calculation on costs can be difficult. For example, how much would they earn down the road by attending one school over the other? To help students make a more informed decision, the Department of Education released a trove of data about colleges on the website collegescorecard.ed.gov. It allows a user to compare colleges based on a variety of metrics, including the net cost (after financial aid), the school's graduation rate and their possible income 10 years after enrollment.

Some of the data presented could be confusing to young people, who might be led to choose one school over another due to what the data suggests. The biggest problem with the Department of Education's website is its income data, which can be misleading.

To understand the problem, consider the mean earnings, median earnings and the share of students earning more than \$25,000 ten years after enrollment for Montana's main four-year universities presented in Table 1. (I've added Harvard University and the national average of all similar universities for comparison.) The table also presents the average net cost of each college.

A couple of things stand out. First, the difference

in average earnings between colleges is quite large and secondly, the earnings outcomes for all Montana's colleges is relatively poor. Those earning fall below the national average. (And yes, for students who qualify for federal financial aid, Harvard is cheaper than the other universities.)

While it is tempting to look at these data and infer that colleges with higher earnings are better, in that they are doing a better job preparing their students for the labor market, this conclusion is not supported by the data presented on the College Scorecard website. In fact, it does nothing to reveal the quality of any institution listed.

Before delving into big conceptual issues, it is worth noting that the income data has its limitations. One must keep in mind that the reported information does not represent the earnings for all students enrolled in a particular college. It only represents the earnings for students who received some form of federal financial aid. And the earnings data only covers the first 10 years after a student's initial enrollment. For most students, this is five or six years after graduation – some will be enrolled in graduate school, while others may be taking

Table 1. Comparative Earnings for Students from Montana's Universities.

	Mean earnings	Median earnings	Share earning >\$25K	Mean net cost (public)	Mean net cost (private)
Harvard University	\$130,500	\$87,200	0.90	-	\$11,138
Montana Tech	\$51,600	\$39,800	0.70	\$11,619	-
US (weighted)	\$50,043	\$44,367	0.76	\$13,923	\$22,361
Rocky Mountain College	\$47,000	\$38,200	0.73	-	\$17,119
Carroll College	\$46,700	\$44,000	0.79	-	\$23,583
Montana State University	\$44,800	\$39,700	0.72	\$16,236	-
MT (weighted)	\$41,760	\$36,340	0.69	\$14,019	\$19,780
University of Montana	\$39,900	\$34,100	0.67	\$12,776	-
Montana State University-Northern	\$39,100	\$35,300	0.69	\$14,641	-
Montana State University-Billing	\$37,200	\$32,500	0.66	\$13,126	-
University of Montana-Western	\$34,900	\$31,700	0.62	\$9,132	-
University of Great Falls	\$32,000	\$31,000	0.60	-	\$17,188

Making the right college choice requires more than looking to a simple ranking.

time off to raise children. As such, the reported income data may not reflect the true long-term earnings potential of its graduates.

But even if one assumes that the data is accurate in describing a student's earnings potential, it still cannot support any conclusion on the effect a particular college has on future earnings. Differences in income across colleges reflect the offering of different programs, supplying workers to different labor markets and enrolling different types of students.

Not every college offers the same majors and some majors earn more than others. Plus, earnings vary widely across major fields. For instance, engineering majors earn nearly twice as much as fine arts majors, \$70,620 to \$36,360 a year respectively. As such, the differences in the majors offered explains much of the discrepancy in earnings between colleges. Research also indicates that students seeking to earn more money may gain more by switching from a low earnings major to high earnings major rather than by switching schools.

A university's location also matters as earnings for college graduates vary by state and region. Many students stay in the vicinity of their school after graduation. For instance, nearly 70 percent of Montana University System graduates work in Montana their first year after graduation. As such, colleges in a region with lower than average wages will likely have lower average wages for their graduates.

Earnings for schools in the Rocky Mountain region are over \$5,000 less than students who attend schools in New England and almost \$4,000 less than students who attend schools in the Far West. Thus, the low earnings for Montana's colleges tell us more about Montana's economy than the performance of our colleges.

Some schools are also highly selective. They only accept students with high test scores or ample family resources and as a result, their average earnings reflect

the underlying abilities of their enrollees. There is a clear correlation between a school with higher admissions standards and higher average earnings.

Finally, student demographics matter as people with different characteristics earn different amounts. For instance, women earn less than men and a college with a higher proportion of female students, or some other lower earning group, will have lower earnings in the College Scorecard data.

Thus, data on a student's average earnings post-graduation does not provide a reliable measure of college quality. Choosing a college with a higher average earning is not likely to change a student's lifetime earnings, unless changing schools leads the student to a different major or labor market.

This does not mean that college choice does not matter, it merely indicates that organizing colleges into a simple hierarchy, where those on the top are clearly better than those on the bottom, can be misleading. While choosing one college over another may affect the quality of one's experience overall, making the right college choice requires more than looking to a simple ranking.

The appropriate college is the college that is the best fit for a particular student. Figuring out which school is a good fit is another subject, but it certainly requires more information than the average earnings across schools provided by the Department of Education. ■

Bryce Ward is the associate director at the Bureau of Business and Economic Research at the University of Montana.

Traveler Spending

Visitors Are Keeping Dollars Local

BY NORMA P. NICKERSON & KARA GRAU

When asked what souvenirs were the best to sell in a store, a blogger responded by saying, “Tourists buy any and all crap. That’s what’s so great about tourists.” While there is likely some truth to that statement, nonresident visitors to Montana who purchase “Made in Montana” goods and services, are more likely to spend more money in the state than other types of visitors.

In 2015, nonresident visitors to Montana spent \$3.6 billion in the state, an increase of 170 percent over 20 years. Adjusted for inflation that’s \$1.9 billion more than expected in 2015, if spending patterns had remained consistent, but why is this happening?

Over the years, the Institute for Tourism and Recreation Research (ITRR) has conducted nonresident visitor studies to assess spending and economic impacts of tourism to Montana, and to identify visitor characteristics and travel patterns. In 2007, the Montana tourism industry adopted the geotourism charter as a way to promote the state to the best type of visitor for Montana and to help sustain Montana’s distinct character. By doing this, Montana sought to invite visitors who

best represented a geotraveler – one who cares about our well-being, our scenic and natural qualities, our culture and heritage, and looks to experience what it’s like to be a Montanan. Purchasing local products and services is one way this geotraveler attempts to experience our state.

Two recent ITRR studies have assessed the spending patterns of visitors. In one study, the Geotourism Tendency Scale was used, created and tested by University of Montana graduate student Bynum Boley. It was discovered that visitors with strong geotraveler tendencies tend to spend more nights and more money in Montana than those who did not display strong geotraveler tendencies.

The second study focused on the details of spending.



Did these visitors really care about Montana and express it through their pocketbook, putting their money where their mouth is, so to speak? Were they spending their money on homegrown, homemade products and services? The goal was to measure the economic benefit to our state.

Within economic impacts, economists refer to leakages as an important component to recognize when estimating the impact of spending by visitors in a locale. Leakages refer to the dollars leaving an area because the products purchased by visitors are produced outside of the local region. The key is the smaller the leakage, the higher the economic effect. Therefore, locally made items and local services sold to visitors produce a higher impact to the region.

ITRR's on-going nonresident study was used to gather data. On-site visitor intercepts of travelers in Montana were conducted on random days and times, at a random

Visitors with strong geotraveler tendencies tend to spend more nights and more money in Montana than those who did not.

Table 1. Average Daily Group Spending in Montana by Nonresident Travelers, 2015 – Groups Who Spent on Montana-made Goods & Services vs. Groups Who Did Not.

	Spent on Montana-made Goods/ Services (n=2,239)	Did Not Spend on Montana-made Goods/Services (n=11,843)
Made-in-Montana Expenditure Categories	Average Daily Group Expenditure	Average Daily Group Expenditure
Made in MT products	\$57.37	--
Farmers Market	\$4.54	--
Outfitter, Guide	\$60.55	--
Other Expenditure Categories		
Restaurant, Bar	\$42.14	\$22.56
Licenses, Entrance Fees	\$29.88	\$9.88
Retail Sales	\$25.54	\$15.04
Hotel, B&B, etc.	\$19.41	\$16.27
Gasoline, Diesel	\$19.33	\$31.97
Groceries, Snacks	\$19.03	\$10.58
Rental Cabin, Condo	\$7.11	\$1.78
Auto Rental	\$6.99	\$2.45
Campground, RV Park	\$2.31	\$1.21
Misc. Services	\$1.75	\$0.79
Auto Repair	\$1.55	\$0.70
Gambling	\$1.03	\$0.66
Transportation Fares	\$0.11	\$0.02
TOTAL	\$298.64	\$113.91

sample of gas stations and rest areas throughout the state, as well as at each of Montana’s seven largest airports from January through December of 2015. In that time period, 14,082 nonresidents were intercepted and asked about their spending over the past 24-hour period. That day could have been the travelers’ first, last or any day in between their visit, providing a randomized sample of all possible spending days.

We split the data into visitors who purchased at least one Montana made good or service and those who did not purchase such goods or services – this included actual “Made in Montana” products, goods from farmers markets or utilizing local outfitters or guides for trips. Table 1 displays a side-by-side comparison of average daily group expenditures for the two types of visitors.

Visitors who did not spend any money on local products had their highest expenditure in gasoline followed by restaurants and bars, and hotels. Visitors who spent money on made-in-Montana products and services, spent the most on outfitter and guides, made-in-Montana products, then restaurants and bars. The clear difference in spending between the two groups also shows that visitors who spend on Montana-made products also spend more per day in all other categories except gasoline and diesel. Forty-one percent of their daily spending was on made-in-Montana products and services.

While only 16 percent of travelers purchased locally made products or services, they spent nearly \$185 more per day than the traveler who did not spend

Visitors who purchased local products and services stayed an average 4.62 nights longer than those who did not make purchases locally.

money on local products. Clearly, the amount spent by those who purchased Montana-made goods and services is significantly higher. Furthermore, we found that visitors purchasing Montana-made products and services were more likely to be on vacation and to be domestic travelers who flew into Montana.

Adding to these differences was the length of stay. Visitors who purchased local products and services stayed an average 4.62 nights longer than those who did not make local purchases.

And finally, ITRR data shows that 5 percent of nonresidents used the services of a guide during their



Historic district of Livingston, Montana, near Yellowstone National Park. (Nick Fox)

The geotraveler appears to be the type of visitor who values what Montanans value and who is interested enough to take a piece of Montana home with them, whether it is huckleberry taffy or the thrill of a rafting trip.

visit – perhaps a half-day raft trip or an eight-day hunting trip in the Bob Marshall Wilderness. Money dropped into the pockets of guides and outfitters rarely leaks out of the local economy.

Additionally, the products purchased (Table 2) by nonresidents vary widely, assisting a variety of producers

Table 2. “Made in Montana” Goods Purchased by Nonresident Travelers, 2015.

Local item purchased	# of reported purchases	% of goods purchased
Food (huckleberry items, baked goods, candy)	830	34%
Beer/alcohol	759	31%
General (toys, souvenirs, etc.)	440	18%
Arts & crafts	164	7%
Clothing	101	4%
Jewelry	72	3%
Sporting goods (fishing flies, etc.)	37	2%
Health & beauty (lotion, soaps)	27	1%
Furniture (log bed, table, etc.)	11	0.5%

from candy makers to log furniture builders. Thirty-four percent of local goods purchased by travelers were food items, followed by 31 percent in local brews.

The geotraveler appears to be the type of visitor who values what Montanans value and who is interested enough to take a piece of Montana home with them, whether it is huckleberry taffy or the thrill of a rafting trip. They are sustainable visitors who contribute to the well-being of local residents by purchasing goods and services made and delivered in Montana. Their economic contribution is greater because the items purchased locally reduce leakages and enhance the recirculation of outside dollars in the community.

The Montana Office of Tourism and Business Development has been promoting to the geotraveler, which connects these travelers to locally made products, enhancing their visit and their experiences. But it’s important to remember that while a growing tourism industry is beneficial to the state, it must grow in a way that is sustainable and desirable for local residents, too. ■

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