



# ANNUAL REPORT 2017

---



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

Bureau of Business and Economic Research  
School of Business Administration  
University of Montana

# TABLE OF CONTENTS

---

MESSAGE FROM THE DIRECTOR	04
STAFF & ADVISORY BOARD	05
2017 YEAR IN REVIEW	06
FINANCIAL REPORT	08
ECONOMIC ANALYSIS	10
FOREST INDUSTRY RESEARCH PROGRAM	11
SURVEY RESEARCH	12
MONTANA KIDS COUNT	14
MANUFACTURING RESEARCH	15
HEALTH CARE INDUSTRY RESEARCH	16
SEMINARS AND OUTREACH	17
MONTANA BUSINESS QUARTERLY	18
SERVICE TO THE UNIVERSITY, COMMUNITY AND PROFESSIONAL ASSOCIATIONS	19
RESEARCH PROJECTS	20
RESEARCH PUBLICATIONS	26

## OUR MISSION

---

The Bureau of Business and Economic Research's purpose is to serve the general public, as well as people in business, labor and government, by providing an understanding of the economic environment in which Montanans live and work.

## ABOUT US

---

The Bureau of Business and Economic Research has been providing information and analysis on Montana's state and local economies for nearly 70 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 the local, state and national economies; provides annual income, employment and population forecasts; conducts extensive research on forest products, manufacturing, health care and child welfare; 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.

BBER has grown to become one of the largest and most successful business research centers in the country. That growth has come through an increase in external funding, which has resulted from growth in the BBER's specialized expertise. In the mid-1970s, the bureau established the Forest Industry Research Program, which has attracted \$3.1 million in funding over the past five years and conducts research throughout the West. The Montana KIDS COUNT program, health care industry research program and survey research activities have also contributed to make BBER one of the most visible, sought-after sources of information and research in the state.



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



## MESSAGE FROM THE DIRECTOR

---

We analyze the economy, but we are also a part of it.

State government in general and the University of Montana in particular are going through a rough patch at the moment. Shortfalls in revenue and shifts in enrollment at UM have happened before and they are never pretty. But the opportunity to reexamine and refocus our efforts and priorities, in light of fiscal realities, is one that needs to be grasped.

This year's annual report comes in the midst of that process. Along with other units at the University of Montana our center has completed a report that presents an honest accounting of how we use our funds. It also makes the case for the effectiveness and value of what we produce. We've chosen to include some of the text of that report in this document.

The Montana economy is sailing into a volatile and uncertain future. Unemployment rates are low and the labor market is generally

good, but income growth has stagnated bringing state revenue growth to a surprising halt. Plenty of people in leadership – and in workplaces and living rooms – are asking why. It's a time when we feel that research organizations like ours, who are dedicated to gathering and analyzing the information to find answers, rise in importance. We hope that you will agree.

Have a great fall and good luck to you and your organizations.

Sincerely,

**Patrick M. Barkey**  
BBER Director

## OUR STAFF

---

### Administration

**Patrick Barkey**  
Director

**Debora Simmons**  
Office Manager

**Megan Elensky**  
Office Assistant

### Publications and Outreach

**Scott Hawk**  
Publications Director

**Rob Van Driest**  
Marketing Director

### Economic Analysis

**Brandon Bridge**  
Director of Forecasting

**Paul Polzin**  
Director Emeritus

### Health Care Research

**Bryce Ward**  
Director, Associate Director BBER

### Montana KIDS COUNT

**Thale Dillon**  
Director

**Jennifer Calder**  
Outreach Coordinator

**Kelsey Halverson**  
Research Assistant

### Survey Research

**John Baldridge**  
Project Manager

**Janet Stevens**  
Survey Research Field Coordinator

**Ramona Alspaugh**  
Senior Interviewer

### Forest Industry Research Program

**Todd Morgan**  
Director, Associate Director BBER

**Steve Hayes**  
Research Forester

**Erik Berg**  
Research Forester

**Chelsea McIver**  
Research Specialist

**Eric Simmons**  
Research Associate

**Kate Marcille**  
Research Associate

**Bob Campbell**  
Programmer & Database Administrator

## ADVISORY BOARD MEMBERS 2017-18

---

**Julia Altemus**  
Montana Wood Products Association  
Missoula

**Dennis Beams**  
Glacier Bank  
Kalispell

**Kathy Boelter**  
Arrow Solutions Group, Inc.  
Billings

**Diana Holshue**  
Federal Reserve Bank of Minneapolis  
Helena

**Allison Johnston**  
Payne West Insurance  
Missoula

**Matt Jones**  
BNSF Railway  
Bozeman

**Paddy Fleming**  
Montana Manufacturing Extension  
Center  
Bozeman

**Bill Whitsitt**  
Executive in Residence

## 2017 YEAR IN REVIEW

The research productivity of BBER has been on a strong upward trajectory since 2013, as documented in this annual report. In the past five years, both the number of active or completed projects, as well as the number of publications, have roughly doubled in number.

The quality of these research offerings is evidenced by: a) the frequent authorship of BBER researchers in peer-reviewed publications (five to eight per year); b) the large and growing number of presentations given by BBER personnel; c) the involvement of BBER researchers in leadership roles in professional organizations. BBER research reports continue to receive thousands of impressions on the internet as well.

BBER has earned its reputation as an independent, non-partisan, objective research organization, which brings facts, information and analysis to bear on issues of importance to the Montana economy.

BBER operates in a competitive arena for grants and projects that generate 76 percent of its revenue, with a focus on the price, quality and reliability of its products and services. We have thrived in that environment by continuously seeking ways to streamline and focus our own resources as effectively as possible and by

Year	Projects	Publications
2013	40	32
2014	35	35
2015	33	46
2016	66	54
2017	79	60
<b>Total</b>	<b>253</b>	<b>227</b>

sub-contracting or otherwise partnering with other entities on occasion when BBER lacks the necessary internal capacity.

Partners in past collaborative efforts include: the Rural Institute, Blackstone Launchpad, the Institute for Tourism and Recreation Research, faculty in business, political science, sociology, forestry, public health, education, social work and psychology, as well as MSU centers and departments.

For outreach and projects supported by state funds (most notably the Economic Outlook Seminars), we note that BBER continues to carry out all of its core services that are performed by our peers nationally with one less FTE than a year ago and with salaries that are 30 percent lower than average salaries of centers our size.

Per dollar received of state support, BBER has produced an increasing amount of research output, when the latter is measured by revenues from grants and contracts.

The notable events and activities of the bureau in 2016-17 include:

- BBER hired Dr. Brandon Bridge as an economist and director of forecasting. He holds a Ph.D. and an M.A. in economics from the University of New Mexico and holds a B.A. in economics from Brigham Young University.
- BBER welcomed to its research staff Kelsey Halverson as a research assistant in the Montana KIDS COUNT program.
- BBER published the 2017 edition of its annual Montana Economic Report. This analysis and assessment of Montana's economic performance in 2016 was produced in conjunction with the 2017 Economic Outlook Seminar and was distributed to attendees, as well as decision-makers across the state.
- The 2017 Economic Outlook Seminar concluded a successful tour of nine cities throughout Montana for its 42nd consecutive year. The year featured a different format, which highlighted industries specific to the communities we visited. 2017 also marked the first year of a webinar simulcast from the Bozeman seminar location. The program was introduced by the Sprunk and Burnham endowed dean of the School of Business Administration, Dr. Christopher Shook. The keynote entitled "The High Wage Jobs Puzzle: Finding Montana's Place in the New Geography of Jobs" was presented by Bryce Ward, BBER associate director and director of health care industry research.
- The survey research group continued its collaboration with the Greater Montana Foundation to produce a second in-depth study of news reading habits of Montanans. The report showed that Montanans do tailor their news sources and interactions, thus limiting their exposure to differing or competing views.
- The health care research program was in high demand assessing and projecting Montana Medicaid expansion, studying the contribution of health care to regional economies and developing an understanding of how health status affects economic outcomes.
- The Forest Industry Research Program worked with the USDA Forest Service in collecting data and reporting results from projects inside and outside of Montana, including Alaska, Washington, Oregon, Idaho, New Mexico, California and other western states.
- Montana KIDS COUNT conducted multiple projects relating to child and family well-being, including papers on issues like the gender wage gap in Montana.
- The Montana Business Quarterly completed its redesign under publications director Scott Hawk with recent issues addressing topics from the world economic outlook to the health implications of wildfire smoke. The MBQ also launched a new dedicated website and social media channels.
- The BBER website continued to be a resource for users generating 54,646 page views in 2016-17 with 14,275 unique users and 20,410 sessions. In preparation for the 2018 Economic Outlook Seminars, a new dedicated web site for those events was launched in 2017.

## GOALS FOR 2018

1. Maintain BBER's position as the primary source of information and analysis on Montana's economy.
2. Uphold BBER's reputation for well-researched, impartial and relevant analysis of policy issues that are important to Montanans.
3. Continue to advance BBER's digital footprint relating to publications, the web and economic outlook seminars.
4. Strive for increased reach and engagement in BBER's social media presence, positioned as the foremost authority regarding Montana's business and economic environments.

## FINANCIAL REPORT

---

For the academic years 2013-17, BBER's total revenue has been relatively constant at about \$2 million with a quarter coming from state funds (general fund). That fraction has declined slightly in the last year due to UM budget cuts.

BBER currently generates 76 percent of its revenue from external sources. The portion of its revenue that comes from state support is equal to the average received by university-based business research centers of a similar size across the country.

The largest revenue source comes from contracts and grants averaging about \$1.3 million. These externally funded projects are administered by the Office of Research and Sponsored Programs and carried out by BBER researchers and staff. They include a mixture of multiyear and short-term projects. Sponsors include the federal government, state government, private foundations, non-profits and businesses.

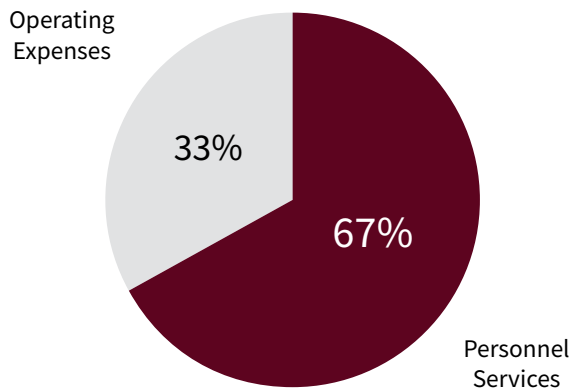
One third of expenditures in 2017 (\$684,734) were used on operations and capital with two-thirds spent on personnel services. The largest fraction (41.7%) of the former was spent on other services, primarily contracted services.



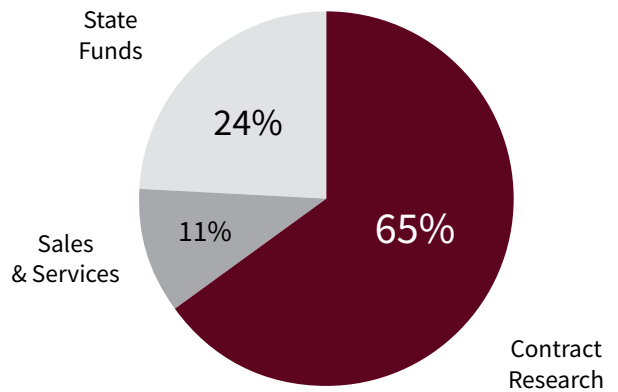
Revenue				
	FY 2016	%	FY 2017	%
Contract Research	\$1,365,097	66%	\$1,330,190	65%
Sales & Services	\$200,582	10%	\$222,354	11%
State Contribution	\$514,744	24%	\$499,098	24%
<b>Total Revenue</b>	<b>\$2,080,423</b>	<b>100%</b>	<b>\$2,051,642</b>	<b>100%</b>

Expenses				
Personnel - State	\$511,818		\$498,210	
Personnel - Other	\$908,962		\$868,690	
<b>Total Personnel Expenses</b>	<b>\$1,420,780</b>	<b>68%</b>	<b>\$1,366,900</b>	<b>67%</b>
Operating Expenses - State	\$2,925		\$888	
Operating Expenses - Other Sources	\$656,718		\$683,854	
<b>Total Operating Expenses</b>	<b>\$659,643</b>	<b>32%</b>	<b>\$684,742</b>	<b>33%</b>
<b>Total Expenses</b>	<b>\$2,080,423</b>	<b>100%</b>	<b>\$2,051,642</b>	<b>100%</b>

**2016-17 Expenses**



**2016-17 Revenues**



# ECONOMIC ANALYSIS

## Providing an Understanding of Montana's Economic Environment

---

The Bureau of Business and Economic Research is Montana's premier economic analysis center providing economic information, modeling and forecasts for a variety of Montana businesses, organizations, trade associations and legislators for nearly 70 years. On an ongoing basis the bureau analyzes local, state and national economies, and provides annual income, employment and population forecasts. The bureau conveys this information across the state via in-person presentations, electronically via the bureau's website and in print media.

### The Economic Contribution of Grizzly Intercollegiate Athletics

---

The ways in which University of Montana's intercollegiate athletic activities – Grizzly Athletics – enrich and expand the economy of Missoula is broad. Intercollegiate sports in general, and the University of Montana's sports programs in particular, have grown in popularity, impact and visibility. While those programs have always been aimed at providing opportunities for student athletes to grow, develop and ultimately realize both their athletic and scholarly potential, the business aspects of sports activities – everything from spending by attendees to the marketing of apparel and merchandise – have important consequences for businesses, households and government in Missoula.

BBER examined the size and scope of those economic contributions by posing the question, "What would the economy of Missoula look like if Grizzly Athletics did not exist?" Using information from financial records, ticket sales, attendance and a survey of Grizzly football season ticket holders, we estimated how much larger the economy is – in terms of jobs, income, spending and population.

As an organization with \$22.9 million in annual revenue, employing 78 paid employees and hundreds more student athletes who receive tuition support and living expenses, Grizzly athletics is a sizable business activity in its own right. But spending from out-of-area visitors who attend its sporting events, as well as other related spending flows, greatly adds to its economic footprint.

When compared to a hypothetical economy where Grizzly Athletics did not exist, we found that the presence of Grizzly Athletics in the Missoula economy supports:

- 1,384 permanent jobs spread across a variety of industries.
- \$120.8 million in gross sales or output from Missoula-area businesses and other providers of goods and services.
- \$44.3 million in annual earnings, including wages, benefits and earnings of the self-employed.
- \$52.8 million in income for Missoula households - \$44.9 million is after-tax income.
- An increase in Missoula's population by 1,334 people.

# FOREST INDUSTRY RESEARCH PROGRAM

The Information Resource for the Western U.S.

Forest Industry Research Program (FIRP) projects not only include the state of Montana, but most of the western U.S. and Alaska. It is a regional operation with national prominence thanks to a long-term working relationship with the USDA Forest Service.

This year was particularly busy for the program. Four major externally-funded projects were completed, including a five-year \$580,000 AFRI-NARA project, which considered the viability of the use of biomass as a source for jet fuel. FIRP successfully brought in \$724,866 in additional funds for new and ongoing research agreements during FY2017 and had about \$4,600 of sales and service revenue.

FIRP continues its core research with the USDA Forest Service's Forest Inventory and Analysis (FIA) Program at both the regional (12 western states) and national levels. Ongoing agreements with FIA involve timber products output (TPO) research, studying timber harvest and use, and the forest industry.

This year the program developed TPO data for several western states and submitted reports for peer review on timber harvest and the forest industry in Wyoming, Montana and Idaho, and logging

in Montana, Arizona and New Mexico. Through cooperators at the FIA program, they published a report on Oregon's harvest and industry and another report on logging in Oregon and Washington.

Other published works included articles in Forest Science, the Journal of Forestry and an article about sawmill energy use published in the Forest Products Journal.

FIRP continues their ongoing work with the Northern Region of the Forest Service, collecting timber harvesting and log hauling costs in Idaho and Montana. These efforts benefit local and national data users seeking more information on the changes, sustainability and economic impacts of timber harvest and the West's forest industry.

All of the members of FIRP co-authored reports or articles, made professional presentations, presented posters, served as BBER representatives on-campus and off, responded to numerous information requests, served as reviewers for peer reviewed journal articles, and/or served in various professional and community organizations throughout the 2017 fiscal year.



## SURVEY RESEARCH

### Providing Information for Better Decision-Making

---

Fiscal 2017 was an active year in survey research. The team, led by project manager John Baldrige, successfully managed 12 research projects and submitted 19 project proposals for consideration.

For over three decades, the team in survey research have utilized the most advanced methodology for study design, instrument development, sample selection and state-of-the-art analysis to ensure they provide clients with the best data possible. The survey research group abides by the professional standards of the American Association for Public Opinion Research.

BBER's survey research program designs studies in a variety of subject areas for respected corporate and government clients. During 2016-17, survey research assisted Montana state agencies, federal agencies, trade associations, the University of Montana and non-profit organizations by collecting and analyzing primary data for a variety of projects, including:

**Internet News Consumption Follow-up Survey.** Greater Montana Foundation. A survey exploring adult Montanans' consumption of news on the internet.

**Montana Department of Transportation Maintenance Survey.** Montana Department of Transportation. A survey examining public opinion about Montana highway maintenance.

**Montana Historical Society Impact.** Montana Historical Society. A study of the economic impact of the Montana Historical Society.

**Montana Manufacturers Survey.** Montana Manufacturing Extension Center. A survey examining the status of manufacturing in Montana.

**Montana Tavern Association Study.** Montana Tavern Association. A study of the impact of craft brewing on the viability of taverns in Montana.

**Montana Crime Victimization Survey.** Montana Board of Crime Control. A survey that examines the level of unreported violent and property crime in Montana.

**Perceptions about Alcohol Survey Follow-up.** Montana Department of Public Health and Human Services. A follow-up study of adult Montanans' opinions about alcohol use and abuse in Montana.

**Montana Department of Transportation Public Involvement Survey.** Montana Department of Transportation. A survey studying public perceptions about Montana’s transportation system.

**Montana Department of Transportation Stakeholders Survey.** Montana Department of Transportation. A survey studying key stakeholder’s opinions about the Montana transportation system.

**Southwest Crown of the Continent Survey.** USDA Forest Service. A survey of Seeley Lake area residents to study their views on the effectiveness of Forest Service activities in the region.

**Social Survey: Monitoring Forest Contribution to Social Sustainability.** USDA Forest Service. A survey to examine the contribution of Region 1 to the social well-being of Region 1 residents.

**Strategic Partnership Framework: Community-Level Data Analysis.** Montana Department of Public Health and Human Services. An analysis of data generated by 22 local substance abuse prevention programs.

## How Montanans Get Their News

A recent survey sponsored by the Greater Montana Foundation and conducted by the Bureau of Business and Economic Research at the University of Montana examined how Montanans get their news and the results illuminate two concerns:

The first is that the internet allows consumers to tailor their news sources and conversations, thus limiting their exposure to differing views. The second involves the endless stream of news sources and whether a person can treat them with the skepticism required to know the difference between rigorous reporting and fake news.

When consuming news via the internet, Montanans don’t always go directly to a news provider’s website, they often access it via social media, like Facebook or Twitter. In fact, a majority of adult Montanans (53 percent) reported accessing a news item through social media. Not only that, but they did so frequently – more than one in five (22.4 percent) access news through social media twice a day.

Almost half of all adults in Montana (46.2 percent) reported that they have shared a news article in an email or on social media – most of the time it is shared with friends. When asked about their motives for sharing, it was most often cited that the item was interesting, relevant or important to them. When asked specifically whether or not they sometimes shared a news item on the internet to influence others, 19.7 percent of Montanan’s said they did.

Two types of data highlight the concern of the news echo chamber effect – Do Montanans access a news provider’s website or social media feeds that reinforces their views and do they access news shared with them by others who hold similar views? Both types of data show that some Montanans do tailor their news sources and interactions, thus limiting their exposure to differing or competing views.

You can read the entire article on the Montana Business Quarterly website at [www.montanabusinessquarterly.com](http://www.montanabusinessquarterly.com).

# MONTANA KIDS COUNT

## MTKC Continues to Grow

---

For the last 17 years, Montana KIDS COUNT has been based in the Bureau of Business & Economic Research conducting data and policy research as a member of the larger national KIDS COUNT network and performing additional independent contract work related to child and family well-being in Montana. KIDS COUNT staff also make presentations on a variety of topics, but most notably in the areas of early childhood education and development, mental health care and suicide prevention, traffic safety and substance abuse prevention in the state.

In 2017, Montana KIDS COUNT received a supplemental policy research grant from the Annie E. Casey Foundation in the amount of \$30,000. The funded work includes developing communications materials for stakeholders to use in their interactions and

communications with Montana employers, as they advocate for passing of legislation that establishes a paid family and medical leave policy for Montana in the 2019 legislature.

The program hosted by BBER is one of over 50 KIDS COUNT offices throughout the United States and its territories. They work to promote the well-being of children and families in Montana. The Annie E. Casey Foundation is devoted to developing a brighter future for millions of children at risk of poor educational, economic, social and health outcomes.

# MANUFACTURING RESEARCH

## Montana Manufacturers Remain Optimistic



BBER conducts several manufacturing surveys over the course of a typical year. In the past fiscal year, the bureau conducted three manufacturing studies. The Montana Manufacturers Survey, which examined the status of the manufacturing sector in the state; The State of Montana Manufacturing 2017, which looked into how manufacturers view their industry and their outlook for the future; and the Montana Manufacturing Extension Center's (MMEC) client satisfaction survey. BBER also houses the Montana Manufacturers Information System.

The traditional image of a factory with a smokestack does not apply to Montana manufacturing. In fact, manufacturing in Montana is dominated by small businesses. The U.S. government reports nearly 3,000 entities conduct manufacturing activities. Of these, about 1,250 have employees. The average size of a manufacturing establishment with employees is 18 workers. More than one half of these establishments have less than five workers. Montana has no manufacturers in the larger size category (500 or more workers).

Some quick facts about Montana manufacturing:

- Employs about 24,500 workers, including the self-employed.
- Accounts for roughly 16 percent of Montana's economic base.
- Pays about \$46,000 per year in earnings, well above the statewide average of \$39,000.
- The value of shipments was about \$9.7 billion.

Manufacturing has provided fewer and fewer jobs in both the U.S. and Montana over the past several decades. But increases in labor productivity have led to continued growth in manufactured goods at about the same rate as the other sectors of the economy.

Since the trough of the Great Recession in 2009, U.S. manufacturing employment has increased about 4 percent. In Montana, employment rose 15 percent during this same period. If the wood products industry is excluded, employment in the remaining sectors of Montana manufacturing grew nearly 23 percent. In other words, the most recent data show employment growth in manufacturing in both the U.S. and Montana, with faster growth in Montana.

The two most important issues facing manufacturers in 2016 were health insurance costs and the availability of qualified workers.

Montana manufacturers were generally optimistic about 2017. Optimism was expressed for all economic indicators and was widespread among the manufacturing categories. The least optimistic firms were food and beverage manufacturers.

# HEALTH CARE INDUSTRY RESEARCH

## Turbulence and Uncertainty

---

There is a great deal of uncertainty in the health care industry these days. The health care research program is engaged in monitoring supply and demand, along with costs of health care impacting Montana's health care markets. Because of potential changes in health care markets, BBER is planning several new projects in the coming year.

The program has continued its collaboration with the University of Montana's Research and Training Center on Disability in Rural Communities (RTC). RTC conducts disability research to help improve the lives of people living with disabilities in rural communities. In the past year, BBER worked on six projects with the program including:

- The contribution of the health care sector to Flathead County's economy.
- Determining how many people in a given geographic area have unmet health care needs.
- Investigating women's participation in pre-entrepreneurial activities with the Blackstone Launchpad and the Kauffman Foundation.

## The Contribution of Health Care to Flathead County's Economy

---

Health care is essential. It is essential for healthy people and it is essential for healthy economies. A recent BBER study described the different ways that health care contributes to Flathead County's economy and provided an assessment of the magnitude of its contribution.

Without its health care sector many people and businesses would move away from Flathead County. Those who remained would travel elsewhere for care draining hundreds of millions of dollars from the region. Losing people, firms or health care spending would harm Flathead County's economy. It would reduce economic activity (i.e., the number of jobs and amount of income) and it would reduce Flathead County's capacity to grow.

Quantifying the effects of the loss of health care is tricky. Because economists have not seen what happens when a large community loses health care, our ability to describe the full effects is limited.

However, we can use existing models to provide an imperfect answer to the question, "How much would total employment, income and output fall, if Flathead County lost all of its health care jobs and all of its health care payroll?"

The results of the analysis reveal an outsized impact of this industry. Specifically, we found:

- Flathead County's health care sector directly or indirectly accounts for over 30 percent of the county's economy.
- Flathead County's health care sector is efficient. Life expectancy at age 40 is two to four years longer in the county than the U.S. overall. This ranks Flathead County in the top 5 percent of areas in the U.S. and its health care facilities receive high quality ratings from the federal government.
- Health care is expected to continue to grow. The Bureau of Labor Statistics projects that health care employment in the U.S. will grow by 21 percent between 2014 and 2024. This exceeds the projected growth rate for every other industry.



# SEMINARS AND OUTREACH

## Forty-Two Years Old and Going Strong

BBER continually assesses its most important outreach activities, including the Economic Outlook Seminars (EOS). Over 2013-17, EOS has averaged 1,326 annual registrations. Recent attendance is double what it was 10 years ago and over 94 percent of attendees reported in 2017 that they were either satisfied or very satisfied with the program.

96 percent of those surveyed indicated that they were satisfied or very satisfied with the Montana Economic Report, produced in conjunction with the EOS.

### 42nd Annual Economic Outlook Seminars

#### The High Wage Jobs Puzzle – Finding Montana’s Place in the New Geography of Jobs

In early 2017, the bureau traveled to nine cities for its 42nd Annual Economic Outlook Seminar and offered its second live webcast of the seminar from Bozeman. BBER’s Bryce Ward presented the keynote address on the high wage jobs puzzle in Montana.

Every year between late January and the middle of March, BBER presents the Montana Economic Outlook Seminar series. Bureau

economists, along with other industry experts, travel across Montana to offer statewide and regional economic forecasts for the coming year. These forecasts include reports on key industries, such as health care, forest industry products, real estate/housing, agriculture, tourism and energy.

In 2017, seminars were held in Missoula, Helena, Great Falls, Billings, Bozeman, Butte, Kalispell, Sidney and Miles City. Audiences for the seminars included professionals from finance and insurance, real estate, manufacturing, utilities and public administration.

### 12th Annual Montana Economic Update Series

#### Infrastructure Builds Montana’s Economy

During the summer of 2017, BBER and the Montana Chamber Foundation presented its 12th Annual Economic Update Series, “Infrastructure Builds Montana’s Economy,” in seven cities across the state. The program included BBER director, Patrick Barkey,

emeritus director Paul Polzin and Daryl James, executive director of the Montana Infrastructure Coalition.

At mid-year, growth in Montana’s earnings remained slow, farmers and ranchers continued to cope with low commodity prices and drought, and Montana’s unemployment rate continued to improve, however, business proprietor’s income saw steep declines.

# MONTANA BUSINESS QUARTERLY

## Montana's Premier Business Publication

For more than 50 years, the award-winning Montana Business Quarterly has provided a comprehensive overview of business and economic trends throughout the state.

The Montana Business Quarterly has a readership of more than 4,800 across Big Sky Country. Its readers include business executives, legislators, government officials and policymakers, as well as businesses, libraries and universities.

Issues from the past year tackled subjects important to Montana, such as the gender pay gap in the state, how Montanans get their news, what residents think about a primary seat belt law, the affordable housing crisis in Missoula, Montana's high tech boom and creating tourism opportunities in northeast Montana.

A special retrospective issue was published this past summer to celebrate 55 years of the magazine. It featured selected articles from past issues, including the University of Montana's enrollment decline in the 1970s and a look at heritage tourism in small Montana towns from the 1990s.

The magazine continues looking toward the future with its subject matter, design and digital distribution. A new digital publishing platform and social media channels have allowed the magazine to reach a broader audience across Montana.



# SERVICE TO THE UNIVERSITY, COMMUNITY AND PROFESSIONAL ASSOCIATIONS

## A Dedicated Partner to the University System and the State

BBER researchers are frequent collaborators in educational and research activities at the University of Montana. This includes co-authoring research reports and academic articles, as well as teaching and serving on thesis committees. BBER has worked closely with the Rural Institute, the Blackstone Launchpad, faculty in business, political science, sociology, forestry, public health, education, social work, psychology, as well as the Mansfield Center and the Western Montana Family Medicine Residency program.

120 presentations were given to audiences throughout the state in 2016-17, including work to support the legislature, responses to hundreds of data requests, offering expert opinion for the media, its publications and podcasts, as well as the Economic Outlook Seminars held across the state.

BBER also works with smaller communities that lack the resources for planning, research and analysis. These activities raise the image of UM among taxpayers and decision-makers across the state by providing services and information of value.

BBER collaborates with a variety of units within the Montana University System to share expertise and regularly collaborates with state and local government leaders (legislators, city councilors, agency heads), economic development agencies, industry associations, and local business and non-profit executives on research projects, informational presentations and network building.

BBER's researchers and staff have served on boards and committees for 15 different organizations, including:

- Society of American Foresters
- Forest Products Society
- Montana Environmental Education Association
- Montana Manufacturing Extension Center
- American Association for Public Opinion Research
- Association for University Business and Economic Research
- Pacific Northwest Regional Economic Conference
- Montana Health Care Forum
- Mountain Pacific Quality Health Foundation
- Montana Council on Economic Education
- Montana Economic Developers Association
- Missoula Development Authority
- City Club Missoula

The bureau is one of the founding members of its national organization, the Association for University Business and Economic Research, established in 1947. BBER currently serves as secretary-treasurer for the organization.

# RESEARCH PROJECTS

---

## Economic Analysis

**The Economic Contribution of Grizzly Intercollegiate Athletics.** An economic impact study of intercollegiate sports at UM, based in part on a survey of UM football season ticket holders. August 2016.

**The Economic Contribution of Montana Historical Society.** An economic impact study of the Montana Historical Society, both current operation, as well as their proposed expansion. December 2016.

**Montana Economic Forecast,** ongoing. Developing state and county-level forecasts of employment and wages by industrial sector.

**Montana Tavern Association Study.** Montana Tavern Association. A study of the impact of craft brewing on the viability of taverns in Montana, spring 2017.

**2016 Evaluation and Economic Impact of the Montana Manufacturing Extension Center.** A study of the economic impact of the Montana Manufacturing Extension Center across the state.

## Forest Products Industry

**Southwest Crown of the Continent Survey,** ongoing. USDA Forest Service. A survey of Seeley Lake area residents to study their views on the effectiveness of Forest Service activities in the region.

**Social Survey: Monitoring Forest Contribution to Social Sustainability,** ongoing. USDA Forest Service. A survey to examine the contribution of Region 1 to the social well-being of Region 1 residents.

**Pacific West Timber Product Output and Forest Industry Analysis,** new. A joint venture research agreement with the USDA Forest Service, Pacific Northwest Research Station, Portland, OR, to provide analysis of the forest industry, timber use and impact on timber inventory in the Pacific Coast states (\$200,000 first year). Project completion May 2022.

**Oregon Sawmill Production Functions,** new. A joint venture research agreement with Dr. Jean Daniels of the USDA Forest Service, Pacific Northwest Research Station, Portland, OR, to analyze changes in the productivity of Oregon sawmills from 2003 through 2018 (\$15,000). Project completion May 2022.

**Region 2 Capacity and Capability Analysis,** new. A challenge cost share agreement with the USDA Forest Service to analyze timber flow, timber-processing capacity and capability by tree size class among mills for national forests in Region 2 (Wyoming and Colorado). (\$51,500). Project completion September 2021.

**National Forest System Timber Flow Analysis for Economic Impact Modeling,** new. A challenge cost share agreement with the USDA Forest Service to analyze timber flow by forest and product type for national forests throughout the United States. (\$60,000). Project completion September 2021.

**Timber Product Output and Forest Industry Analysis for the Interior West States,** ongoing. A joint venture research agreement with the USDA Forest Service, Rocky Mountain Research Station, Ogden, UT, to provide analysis of the forest industry, timber use and impact on timber inventory in the Rocky Mountain region (\$503,395 first two years). Project completion April 2021.

**Monitoring in the Southwest Crown of the Continent – Contract Attributes Monitoring,** ongoing. A challenge cost share agreement with the USDA Forest Service to develop a contract attributes database of Collaborative Forest Landscape Restoration Program contracts issued in the SWCC and perform local contract capture analysis of CFLRP contracts awarded in the SWCC area. (BBER portion \$6,600). Project completion December 2020.

**Alaska Logging Utilization,** ongoing. A joint venture research agreement with the USDA Forest Service, Pacific Northwest Research Station, Portland, OR, to study and report on the quantities of logging residue generated while harvesting timber in Alaska (\$98,157). Project completion date July 2020.

**Socioeconomic Direct Effects Monitoring for NEW Forest Vision 2020**, ongoing. A cost-reimbursable agreement with the USDA Forest Service to measure and understand the distribution and effects of Forest Service contracts for projects on the Colville National Forest in northeast Washington. (\$27,335). Project completion May 2020.

**Region 1 Logging and Log Hauling Costs**, ongoing. A challenge cost share agreement with the USDA Forest Service, Region 1, Missoula, MT, to conduct an analysis of logging and log-hauling costs in Montana and Idaho (\$34,000). Project completion January 2019.

**Alaska Timber Harvest and Log Export Data Evaluation**, ongoing. A joint venture research agreement with the USDA Forest Service, Pacific Northwest Research Station, Portland, OR, to identify, understand and reconcile differences in published timber harvest and log export data in Alaska and other Pacific states. Examining published data and working with the agencies and businesses that collect, compile and report log export and timber harvest information (\$47,141). Project completion December 2017.

**Pacific States Forest Industry and Timber Harvest Analysis**, ongoing. A joint venture research agreement with the USDA Forest Service, Pacific Northwest Research Station, Portland, OR, to conduct a comprehensive analysis of the primary forest products industry in Alaska, California, Hawaii, Oregon, and Washington by examining trends in wood products, industry structure, source of timber supply and employment (\$644,000). Project completion July 2017.

**Southern Rockies Logging Utilization**, ongoing. A joint venture research agreement with the USDA Forest Service, Rocky Mountain Research Station, Ogden, UT, to study and report on the quantities of logging residue generated while harvesting timber in Arizona and New Mexico (\$180,000). Project completion July 2017.

**Employment and Income Response**. A challenge cost share agreement with the USDA Forest Service, Ecosystem Management Coordination (EMC), Fort Collins, CO, to conduct a national analysis of direct employment and worker earnings associated with the harvesting, hauling and processing of timber into primary wood products (\$91,000). Project completed December 2016.

**Expanding Bioenergy Production from Mill and Fuel Treatment Residues in the Southern Rocky Mountains**. A joint venture research

agreement with the USDA Forest Service, Rocky Mountain Research Station, Missoula, MT, to quantify supply, demand, capacity, energy balance and emissions related to woody materials potentially available for use for biomass energy in Arizona, Colorado and New Mexico (\$49,996). Project completed December 2016.

**Monitoring in the Southwest Crown of the Continent - Contract Attributes Monitoring**. A challenge cost share agreement with the USDA Forest Service to develop a contract attributes database of Collaborative Forest Landscape Restoration Program (CFLRP) contracts issued in the SWCC and perform local contract capture analysis of CFLRP contracts awarded in the SWCC. (BBER portion \$23,614). Project completed September 2016.

**AFRI Northwest Biomass Feedstock Analysis**. A cooperative research agreement through WSU with the USDA Agriculture and Food Research Initiative (AFRI) to conduct a comprehensive analysis of the woody biomass supply and potential for bio-jet fuel production in Montana, Idaho, Oregon and Washington. (\$580,126). Project completed July 2016.

**Idaho 2015 FIDACS**, ongoing. A JVA agreement with Rocky Mountain Research Station, Interior West FIA to collect and report information on Idaho's primary forest products industry and timber harvest for the year 2015.

**California 2016 FIDACS**, ongoing. A JVA agreement with Pacific Northwest Research Station, PNW FIA to collect and report information on California's primary forest products industry and timber harvest for the year 2016.

**Timber Product Output**, ongoing. Provide data management and analytical support to timber product output (TPO) reporting for the USFS Forest Inventory and Analysis (FIA) periodic national and state-level reports.

**Wyoming 2014 FIDACS**. A JVA agreement with Rocky Mountain Research Station, Interior West FIA to collect and report information on Wyoming's primary forest products industry and timber harvest for the year 2014.

**Nevada 2015 FIDACS**, ongoing. A JVA agreement with Rocky Mountain Research Station, Interior West FIA to collect and report

information on Nevada's primary forest products industry and timber harvest for the year 2015.

**Montana 2014 FIDACS.** A JVA agreement with Rocky Mountain Research Station, Interior West FIA to collect and report information on Montana's primary forest products industry and timber harvest for the year 2014.

**WO Timber Flow Analysis and Direct Response Coefficients,** ongoing. A challenge cost-share agreement with the USDA Forest Service Washington Office to characterize federal timber flow and utilization for input-output modeling using western TPO data.

**The Forest Products Industry in Montana,** ongoing. Quarterly reports on Montana's timber harvest, timber flow and end uses of timber.

**Region 1 Logging/Hauling Cost Study,** ongoing. Design and administer logging cost survey form, compile data and report to Region 1 USDA Forest Service headquarters, along with posting on the Forest Industry Research Program website.

**5-Year Monitoring Report: The First Five Years – Measuring the Impact of the Collaborative Forest Landscape Restoration Program on Local Communities in Northwestern Montana,** ongoing. A challenge cost-share agreement with USDA Forest Service Region One to analyze and report on the impacts of the Collaborative Forest Landscape Restoration Program during the first five years by: 1) updating contract capture analysis for service, stewardship, timber and agreements to understand local community benefit from CFLRP, 2) characterize the way CFLRP funds have been used and how this has changed over time, and 3) include a discussion of the impact of federal employment on the study area and its communities. New funds added: \$14,896.

**Wyoming's Forest Products Industry and Timber Harvest, 2014.** A JVA with Rocky Mountain Research Station and Interior West FIA, to collect updated data on Wyoming's primary forest products industry and timber harvest, and produce a joint report covering Wyoming and South Dakota in cooperation with the Northern Research Station and the South Dakota Department of Agriculture, Forestry and Conservation Division. Reports are available online at: [http://www.bber.umt.edu/FIR/S\\_WY.asp](http://www.bber.umt.edu/FIR/S_WY.asp)

**California's Forest Products Industry and Timber Harvest, 2016,** ongoing. A JVA with Pacific Northwest Research Station and PNW FIA, to collect updated data on California's primary forest products industry and timber harvest and produce a series of reports covering California's timber harvest trends, forest products industry and the industry's impact on the California economy.

**Employment and Wage Impacts of Timber Harvesting and Processing in the U.S.,** ongoing. A challenge cost share agreement to develop regional direct response coefficients for timber harvesting and processing. Journal article published in the Journal of Forestry: <http://www.ingentaconnect.com/content/saf/jof/pre-prints/content-jof14082>

**Characterizing Federal Timber Flow and Utilization for Input-Output Modeling by the U.S. Forest Service,** ongoing. A challenge cost-share agreement to test the validity of using TPO data to inform assumptions in USFS input-output models related to the flow and ultimate utilization of federal timber. Validation will be conducted using load data from a sample of projects across the West. The results of this analysis will help the Forest Service to more accurately model the location and size of economic impacts associated with timber harvest activities.

**Redesign of Timber Harvest and Industry Reports,** ongoing. An effort supported by IW and PNW joint venture agreements to redesign the periodic reports from a single, longer print document to a series of shorter, electronic documents with the goals of improving relevance and timeliness of publications and increasing the profile of BBER.

**Implementation of Methods and Standards for Conducting Economic Contribution Analyses of the Forest Products Sector,** ongoing. An internal effort to increase the impact and usability of our reports by adding the results of contribution analyses to the economics section of our FIDACS report.

**Socioeconomic Context of the Redwood Region.** A collaborative research project with Erin Kelly at Humboldt State College to describe and analyze the social, economic and demographic trends in the redwood region of northern California. Results were presented by Prof. Kelly at the Redwood Symposium and will be published in the symposium's proceedings as a general technical report.

**Four Corners Harvest and Industry Report 2016**, ongoing. A JVA with Rocky Mountain Research Station and Interior West FIA, to collect updated data on the four corners states' forest products industry and timber harvest to produce critical data for the RPA-TPO reporting process, and provide a point in time analysis with comparisons to previous reports in an ongoing periodic series.

**Arizona and New Mexico Logging Utilization**. A four-year JVA with Rocky Mountain Research Station and Interior West FIA, to collect updated data and provide an analysis of logging utilization at the state level for Arizona and New Mexico, that describes the characteristics of current logging operations in both states with comparisons between current and past analyses, and provide logging residue factors for the RPA-TPO reporting process. Field measurements completed March 2017. Analyses completed and draft report written. Currently in process of outside peer review. June 2017.

**Alaska Logging Utilization Study**, ongoing. A JVA with Pacific Northwest Research Station FIA, to collect updated data and provide an analysis of logging utilization at the state level for Alaska, that describes the characteristics of current logging operations in Alaska with comparisons between current and past analyses and provide logging residue factors for the RPA-TPO reporting process. Measurements taken in logging sites on Prince of Wales Island (October 2016) and near Fairbanks (July 2017). Trip to measure sites on Prince of Wales and Afognak Island took place in August 2017.

**Idaho's Forest Products Industry and Timber Harvest 2015**, ongoing. A JVA with Rocky Mountain Research Station and Interior West FIA, to collect updated data on Idaho's forest products industry and timber harvest to produce critical data for the RPA-TPO reporting process, and provide a point in time analysis with comparisons to previous reports in an ongoing periodic series. Data collection and analyses completed with drafts of briefs in process of outside peer review.

**Alaska's Forest Products Industry and Timber Harvest, 2015**. Funded by the USDA Forest Service Pacific Northwest Research Station (PNW). This work characterizes Alaska's 2015 timber harvest, primary wood product industry, mill residues, sales revenues, and employment.

**Alaska Exports, Industry and Timber Harvest Analysis**. Funded by the USDA Forest Service Pacific Northwest Research Station (PNW) through a JVA. The recent 2011 Alaska FIDACS effort highlighted substantial problems and lack of understanding of Alaska timber harvest and log export data. PNW research scientist Dr. Jean Daniels leads this joint venture effort, which seeks to clearly define data problems and outline potential solutions.

**Oregon's Forest Products Industry and Timber Harvest, 2013**. Funded by USDA Forest Service Pacific Northwest Research Station (PNW). This work characterizes Oregon's 2013 timber harvest, primary wood product industry, mill residues, sales revenues, and employment.

**Logging Utilization**. Funded by the Interior West USDA Forest Service Forest Inventory and Analysis (FIA) (Idaho sites only) and a USDA grant to the Northwest Advanced Renewables Alliance (NARA). The primary research objective is to characterize the variability in woody logging residues at Pacific Northwest and Southwestern state and regional levels.

## Health Care

**The Contribution of Health Care to Flathead County's Economy**. This project described how the health care industry contributes to Flathead County's economy.

**Unmet Health Care Need in the Partnership Health Center Service Area**. This project defined the market area for Partnership Health Center and then identified how many people likely have unmet health care needs within this area.

**An Evaluation of Montana's Patient Centered Medical Home Program**. This analysis described existing research on the effectiveness of PCMH programs and examined the available data that describe Montana's PCMH program.

**Effort Capacity and Choice: Investigating a Dynamic Model of Participation**, on-going. This project (a collaboration with the University of Montana's Rural Institute for Inclusive Communities) investigates the role of effort constraints on participation decisions among individuals with disabilities using a randomized evaluation of both a physical training and a home modification intervention.

**Research and Training Center on Independent Living**, ongoing. National Institute on Disability, Independent Living and Rehabilitation Research. This project (a collaboration with the University of Kansas and the University of Montana's Rural Institute for Inclusive Communities) investigates the effects of home usability on people with disabilities.

**Measurement of Disability**, on-going. Collaboration with the University of Montana RTC: Rural. Prepared multiple scholarly articles that describe movement in individual reports of disability over short periods of time and describe the sources of movement and consequences for scholars understanding of the effects of disability.

**Rural Penalty**, on-going. Collaboration with the University of Montana RTC: Rural. In this effort, we document that individuals living in rural areas experience disability at much higher rates than those living in metro areas.

**Geographic Variation in Labor Force Participation of the Disabled**, on-going. Collaboration with the University of Montana RTC: Rural. In this effort, we describe and explain the large variation across counties in the labor force participation of the disabled population.

**Pain and Participation**. Collaboration with the University of Montana RTC: Rural. Prepared multiple scholarly articles using Ecological Momentary Assessment data that examine the impact of pain, disability, etc. on individual's daily choices.

**Home and Health**, on-going. Collaboration with the University of Montana RTC: Rural. Prepared multiple scholarly articles using original survey and American Time Use Survey to describe the effect of home environment on individual participation in daily life.

**Rural Community Living**, on-going. Collaboration with the University of Montana RTC: Rural. Prepared multiple scholarly articles using original survey to examine participation in daily life for people with disabilities living in rural communities.

## High Tech

**Montana High Tech Business Alliance Survey**, ongoing. Montana High Tech Business Alliance. An internet survey of 129 high tech

businesses in Montana that examined those business's contributions to the Montana economy.

**Internet News Consumption Follow-up Survey**. Fall 2016 through spring 2017. Greater Montana Foundation. A survey exploring adult Montanans' consumption of news on the internet.

## Manufacturing

**Montana Manufacturing**. Montana Manufacturing Extension Center. A survey examining the status of the manufacturing segment in Montana.

**The State of Montana Manufacturing 2017**. A survey of Montana manufacturers examining their feelings and concerns about the sector, and their outlook for the future.

**Montana Manufacturing Extension Center Client Satisfaction Survey**. A survey of MMEC clients to determine the value added by MMEC and the consulting services they offer clients.

## Montana KIDS COUNT

**Healthy Montana Teen Parents Program**, ongoing. Early Childhood Services Bureau and Montana DPHHS (from U.S. Office of Adolescent Health). State-level evaluation of grant implementation and outcomes for nine sub-grantee programs that deliver services to expecting and parenting teens across the state.

**Montana Behavioral Initiative**, ongoing. Montana Office of Public Instruction (from U.S. Department of Education). Initiative that promotes positive behavior and climate in Montana schools, in part through the national Parent-Teacher Home Visit Program (PTHVP) and the Academic Parent-Teacher Teams (APTT) model. Collaborative project with Missoula County Public Schools, Missoula City-County Health Department, UM School of Education, School of Counselor Education, School of Social Work and School of Psychology, that builds the capacity of professionals to more effectively engage families in education.

**Montana KIDS COUNT 2017**, ongoing. Annie E. Casey Foundation Data and policy analysis, and information dissemination on issues pertaining to child and family well-being in Montana.



**Montana SPF-PFS/Partnership Program**, ongoing. Addictive & Mental Disorders Division and Montana DPHHS (from U.S. Substance Abuse & Mental Health Services Administration) State-level evaluation of implementation and outcomes of two-tiered substance abuse prevention effort across 22 Montana communities.

**Paid Family and Medical Leave Policy Research Grant**. Annie E. Casey Foundation. Developing communications material and methods for policy advocates to work with Montana business owners and other employers in order to succeed in passing a paid family and medical leave policy in the 2019 legislature.

## Real Estate & Housing

**2017 Montana Housing Starts Report**. Gathered data for calculation of housing starts in Montana for 2016.

## Transportation

**Montana Department of Transportation Maintenance Survey**. Montana Department of Transportation. A survey examining public opinion about Montana highway maintenance.

**Montana Department of Transportation Public Involvement Survey**, ongoing. Montana Department of Transportation. A survey studying public perceptions about Montana's transportation system.

**Montana Department of Transportation Stakeholder's Survey**, ongoing. Montana Department of Transportation. A survey studying key stakeholders' opinions about the Montana transportation system. Winter 2017.

## Other

**Montana Crime Victimization Survey**, ongoing. Montana Board of Crime Control. A survey that examines the level of unreported violent and property crime in Montana.

**Perceptions about Alcohol Survey Follow-up**, ongoing. Montana Department of Public Health and Human Services. A follow-up study of adult Montanans' opinions about alcohol use and abuse in Montana.

**Strategic Partnership Framework: Community-Level Data Analysis**. Montana Department of Public Health and Human Services. An analysis of data generated by 22 local substance abuse prevention programs.

**Understanding Women's Participation in Pre-entrepreneurial Activities: Evidence from a Blackstone Launchpad**, on-going. Ewing Marion Kauffman Foundation. This research created a model for pre-entrepreneurship and examined the rates that men and women engaged in pre-entrepreneurial activities.

**The Friend Vote**. This project investigated the efficacy of a tool that allows individuals to view the public voting records of their friends.

**Montana's Knowledge Economy**, on-going. Montana has long experienced net outmigration of its young college-educated workers. This project describes and attempts to explain this phenomenon and asks what can be done to change it.

# RESEARCH PUBLICATIONS

---

## Economic Analysis

Barkey, Patrick M. "Statewide Economic Performance: A Tale of Two Years," Montana Economic Report, January 2017.

Barkey, Patrick M. "The U.S. Economy: Is Optimism Finally Justified?" Montana Economic Report, January 2017.

Barkey, Patrick M. "Major Economic Events of 2016: Speed Bumps or Slowdown?" Montana Economic Report, January 2017.

Barkey, Patrick M. "Montana's Regions and Cities: Western Cities Lead the Way," Montana Economic Report, January 2017.

Barkey, Patrick M. "The Performance of the BBER Forecast: Recasting History," Montana Economic Report, January 2017.

Barkey, Patrick M. "The Economic Contribution of the Montana Historical Society," Montana Historical Society, October 2016.

Barkey, Patrick M. and Kyle Morrill. "The Economic Contribution of Grizzly Intercollegiate Athletics," The University of Montana Department of Athletics, August 2016.

Polzin, Paul E. "Four Decades of Economic Analysis: How Has BBER Done?" Montana Economic Report 2017: 19-22, 2017.

Polzin, Paul E. "Transportation and Logistics, World Slowdown Hits Home," Montana Economic Report 2017: 30-31, 2017.

Polzin, Paul E. "Manufacturing. New Firms Stimulate Growth," Montana Economic Report 2017: 28-29, 2017.

Polzin, Paul E. "2016 Evaluation and Economic Impact of the Montana Manufacturing Extension Center," 2017.

Polzin, Paul E. "What in the World is Going On?" Montana Business Quarterly, Vol. 54 (2), 2016.

Polzin, Paul E. "The State of Montana Manufacturing 2017," 2017.

Polzin, Paul E. "From Boom to Bust. The Economic Impact of the Bakken." Montana Business Quarterly, Vol. 54 (3), 2016.

Polzin, Paul E. "2017 Economic Round Table: Manufacturing." Montana Business Quarterly, Vol. 55 (1), 2017.

Ward, Bryce. "The High Wage Jobs Puzzle: Finding Montana's Place in the New Geography of Jobs." Montana Economic Report: An Analysis and Assessment of Montana's Economic Performance: 16-18, 2017.

Ward, Bryce. "The High Wage Jobs Puzzle." Montana Business Quarterly, Vol. 55 (1), 2017.

## Forest Products

Berg, Erik, Todd A. Morgan, Eric A. Simmons, Stanley J. Zarnoch and Micah G. Scudder. "Predicting Logging Residue Volumes in the Pacific Northwest." Forest Science 62 (5):564-573, 2016. Print. Peer Reviewed Publication.

Loeffler, Dan, Nate Anderson, Todd A. Morgan and Colin B. Sorenson. "On-site Energy Consumption and Selected Emissions at Softwood Sawmills in the Southwestern United States." Forest Products Journal 66(5/6):326-337, 2016. Print. Peer Reviewed Publication.

Simmons, Eric A., Micah G. Scudder, Todd A. Morgan, Erik C. Berg and Glenn A. Christensen. "Oregon's Forest Products Industry and Timber Harvest 2013 with Trends through 2014." Gen. Tech. Rep. PNW-GTR-942. Portland, OR: U.S. Department of Agriculture, Forest Service Pacific Northwest Research Station, November 2016. Print. Peer Reviewed Publication.

Simmons, Eric A., Todd A. Morgan, Erik C. Berg, Steven W. Hayes and Glenn A. Christensen. "Logging Utilization in Oregon and Washington, 2011-15." Resour. Bull. PNW-RB-268. Portland, OR:

U.S. Department of Agriculture, Forest Service Pacific Northwest Research Station, November 2016. Print. Peer Reviewed Publication.

Sorenson, Colin B., Steven W. Hayes, Todd A. Morgan, Eric A. Simmons, Micah G. Scudder, Chelsea P. McIver, Mike T. Thompson. "The Four Corners Timber Harvest and Forest Products Industry, 2012." Resour. Bull. RMRS-RB-21. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 2016. Print. Peer Reviewed Publication.

Sorenson, Colin B., Charles E. Keegan, III, Todd A. Morgan, Chelsea P. McIver, Michael J. Niccolucci. "Employment and Wage Impacts of Timber Harvesting and Processing in the United States." Journal of Forestry 114(4), 474-482, 2016. Print. Peer Reviewed Publication.

Werstack, Charles E., Jr., John D. Shaw, Sara A. Goeking, Chris Witt, Jim Menlove, Michael T. Thompson, R. Justin DeRose, Michael C. Amacher, Sarah Jovan, Todd A. Morgan, Colin B. Sorenson, Steven W. Hayes, Chelsea P. McIver. "Utah's Forest Resources, 2003-12." Resour. Bull. RMRS-RB-20. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 2016. Print. Peer Reviewed Publication.

Hayes, Steven W., Todd A. Morgan. "Montana's Forest Products Industry and Timber Harvest, Part I: Timber Harvest, Products and Flow." Forest Industry Brief BBER-FIB-3. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

Hayes, Steven W., Todd A. Morgan. "Montana's Forest Products Industry and Timber Harvest, Part II: Industry Sectors, Capacity and Outputs." Forest Industry Brief BBER-FIB-4. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

Marcille, Kate C., Chelsea P. McIver, Steven W. Hayes, Todd A. Morgan. "The Contribution of the Forest Products Industry to Montana's Economy, Part III: Sales, Employment and Multiplier Effect." Forest Industry Brief BBER-FIB-6. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

McIver, Chelsea P., Eric A. Simmons, Todd A. Morgan. "Timber Use, Processing Capacity and Capability of Mills to Utilize Timber by Diameter Size Class in the Grand Mesa, Uncompahgre and Gunnison

National Forests." Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Electronic.

McIver, Chelsea P., Eric A. Simmons, Todd A. Morgan. "Timber Use, Processing Capacity and Capability of Mills to Utilize Timber by Diameter Size Class in the Rio Grande National Forest." Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Electronic.

McIver, Chelsea P., Colin B. Sorenson, Todd A. Morgan. "Wyoming's Forest Products Industry and Timber Harvest, Part I: Timber Harvest, Products and Flow." Forest Industry Brief BBER-FIB-1. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

McIver, Chelsea P., Colin B. Sorenson, Todd A. Morgan. "Wyoming's Forest Products Industry and Timber Harvest, Part II: Industry Sectors, Capacity and Outputs." Forest Industry Brief BBER-FIB-2. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

McIver, Chelsea P., Kate C. Marcille, Todd A. Morgan. "The Contribution of the Forest Products Industry in Wyoming, Part III: Sales, Employment and Multiplier Effect." Forest Industry Brief BBER-FIB-5. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Print.

Berg, Erik, Randy Brooks, Charles Burke, Karl Englund, Michael Gaffney, R.J. Hougham, M. Kern, M and Vikram Yadama. "Informing and Engaging Stakeholders." NARA Final Reports. Pullman, WA. Northwest Advanced Renewables Alliance, 2017.

Berg, Erik C., Todd A. Morgan and Eric A. Simmons. "Timber Products Output (TPO): Forest Inventory, Timber Harvest, Mill and Logging Residue-essential Feedstock Information Needed to Characterize the NARA Supply Chain". NARA final reports. Pullman, WA. Northwest Advanced Renewables Alliance (NARA), 2016.

Simmons, Eric A., Todd A. Morgan, Steven W. Hayes, Erik C. Berg, and John D. Shaw. "Logging Utilization in Arizona and New Mexico, 2012-2017: Current and Past Trends." Draft General Technical Report. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 2017.

Berg, Erik C, Eric A. Simmons, Steven W. Hayes, Todd A. Morgan, and John D. Shaw. "Logging Utilization in Montana, 2011-16." U.S. Department of Agriculture, Forest Service Rocky Mountain Research Station Ft. Collins, Colorado Resource Bulletin RM-RB-XXX. Submitted for publication May 2017. Peer Reviewed Publication.

Daniels, Jean M., Micha Scudder, Kate C. Marcille, Erik C. Berg, and Todd A. Morgan. "Alaska Log Exports & Timber Harvest Analysis." *Forest Science (X): XX*. Currently under review by USFS internal reviewers.

Marcille, K.C., Chelsea P. McIver, Steven W. Hayes, and Todd A. Morgan. "Montana's Forest Products Industry and Timber Harvest, 2014, Part 3: Montana's Sales, Employment and Economic Impacts." *RMRS Resource Bulletin XX*. USDA Forest Service, Rocky Mountain Research Station, Ogden, UT. XX, 2017.

Marcille, K.C., Erik C. Berg, Todd A. Morgan and G. Christensen. "Alaska's Forest Products Industry and Timber Harvest, 2015, Part 1: Timber Harvest, Products and Flow." *PNW Resource Bulletin XX*. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. XX, 2017.

Marcille, K.C., Chelsea P. McIver, Steven W. Hayes, and Todd A. Morgan. "Alaska's Forest Products Industry and Timber Harvest, 2015, Part 2: Industry Sectors, Capacity and Outputs". *PNW Resource Bulletin XX*. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. XX, 2017.

Marcille, K.C., Chelsea P. McIver, Steven W. Hayes, and Todd A. Morgan. "Alaska's Forest Products Industry and Timber Harvest, 2015, Part 3: Sales, Employment and Economic Impacts". *PNW Resource Bulletin XX*. USDA Forest Service, Pacific Northwest Research Station, Portland, OR. XX, 2017.

McIver, Chelsea P. "Leveraging Public Investments in Restoration to Benefit Local Communities." *Rural Connections*, 2016. Print.

McIver, Chelsea P., Kate C. Marcille. "Characterizing Federal Timber Flow and Utilization for Input-Output Modeling by the U.S. Forest Service." White Paper. Missoula, MT: University of Montana, Bureau of Business and Economic Research, 2017. Electronic

## Health Care

Ward, Bryce. "Health Care: More Changes and Uncertainty." 2017 Montana Economic Report: An Analysis and Assessment of Montana's Economic Performance: 29-30, 2017.

Ward, Bryce. "2017 Economic Round Table: Health Care." *Montana Business Quarterly*, Vol. 55 (1), 2017.

Ward, Bryce, et al. "Disability Items from the Current Population Survey (2008–15) and Permanent versus Temporary Disability Status." *American Journal of Public Health* 107.5: 706-708, 2017. Peer Reviewed Publication.

Greiman, Lillie, S.P. Fleming, A. Myers, B. Ward and C. Ravesloot. "Life Starts at Home: Bathing, Exertion and Participation for People with Mobility Impairment." Under Review at *Archives of Physical Medicine and Rehabilitation*.

Myers, Andrew, B. Ward, J. Wong and C. Ravesloot. "Disability Moves with Health Status Change Over Time." Under review at *Disability and Health Journal*.

Sage, Reyna, B. Ward, A. Myers and C. Ravesloot. "Place, Age and the Onset of Impairment." Under review at *Journal of Rural Health*.

Ward, Bryce. "Differences in Participation between Those with Enduring and Transitory Disability." Working Paper.

## Montana KIDS COUNT

Herling, Daphne. "Co-Occurring Disorders in Montana Youth", Missoula, MT, Montana KIDS Count, 2017.

Herling, Daphne. "Gender Pay Inequality in the U.S. and in Montana", Montana KIDS Count, 2017.

Herling, Daphne. "Montana's Gender Pay Gap", *Montana Business Quarterly*, Vol. 55 (2), 2017.

Herling, Daphne. Montana's KIDS COUNT (2017), Montana Senate District data report sheets.

Herling, Daphne. Montana KIDS COUNT (2017), Montana House District data report sheets.

Annie E. Casey Foundation. "2017 Montana KIDS COUNT Profile Montana," Baltimore, MD 2017.

Annie E. Casey Foundation. "2017 National KIDS COUNT Data Book: State Trends in Child Well-being," Baltimore, MD. The Annie E. Casey Foundation, 2017.

## Real Estate & Housing

Barkey, Patrick M. "Real Estate and Residential Construction: Getting Back to Boom Times?" Montana Economic Report, January 2017.

Bridge, Brandon. "Missoula's Affordable Housing Crisis", Montana Business Quarterly, Vol. 55 (2), 2017.

## Transportation

Baldrige, John. "Montana Maintenance Survey Final Report," June 2017.

## Other

Baldrige, John. "How Montanans Get Their News." Montana Business Quarterly, Vol. 55 (2), 2017.

Polzin, Paul E. "2016 AUBER Membership Report," Bureau of Business and Economic Research, University of Montana, 2017.

Polzin, Paul E. "2016 Montana Manufacturers Survey," 2017.

Ward, Bryce. "Picking the Right College." Montana Business Quarterly, Vol. 54 (3), 2016.

Ward, Bryce. "Curse of the College Town." Montana Business Quarterly, Vol. 54 (2), 2016.

Ward, Bryce. "Building Missoula's Entrepreneurial Ecosystem." Missoulian, January 29, 2017.

Ward, Bryce. "Barriers to Women's Entrepreneurship." Montana Business Quarterly, Vol. 55 (2), 2017.

Ward, Bryce and Craig Ravesloot. "Socializing In-Person Matters." Working Paper.

Ward Bryce. "Moving Beyond Time and Money: Understanding the Effect of Effort Scarcity on Individual Choices." Working Paper.







**Bureau of Business and Economic Research**

Gallagher Business Building, Suite 231

32 Campus Drive

Missoula, Montana 59812

Phone: (406) 243-5113

[info@business.umt.edu](mailto:info@business.umt.edu)

[www.bber.umt.edu](http://www.bber.umt.edu)