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The Economic Contribution of Craft Brewing in Montana

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By:
Colin B. Sorenson
Todd A. Morgan

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Montana

Introduction

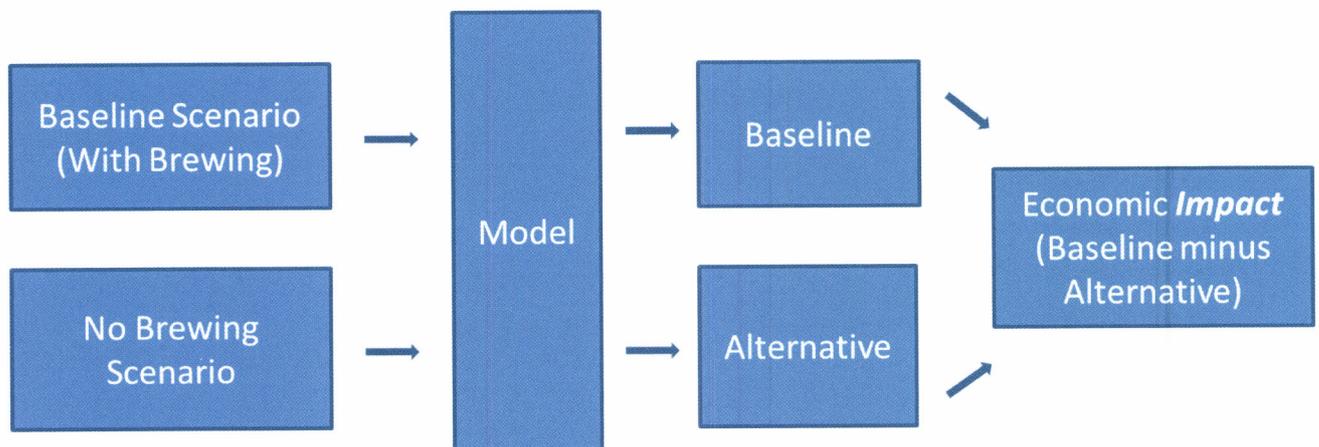
The Bureau of Business and Economic Research (BBER) was commissioned by the Montana Brewers Association (MBA) to study the economic contribution of the craft brewing industry, a growing sector of manufacturing activity in Montana. The project involved working with MBA as well as member and non-member breweries to gather data on production, compensation (wages and salaries plus benefits), expenditures, and other basic operating information for craft breweries in Montana. These data were used in conjunction with an economic impact modeling software package. The research culminated with summarizing and presenting the overall economic impact of craft brewing in the state.

The research was designed to answer the question, “What does the craft brewing industry contribute to the Montana economy?” To begin the analysis, it was critical to obtain accurate data on the income flows that the industry itself produces. The BBER utilized a well-respected economic model, Regional Economic Models, Inc. (REMI), to project the economy with and without brewing industry activities.

A nine-question survey was administered during summer 2012 via email and phone to all Montana brewers. Data were collected for 2010 and 2011 production, sales, employment, compensation, expenditures, and benefits, with 97 percent of brewers (30 of 31) that were in operation by the end of 2011 responding to the survey¹. Survey data were aggregated and input into REMI by economic region within the state.

As depicted in Figure 1, this research compares an economy where the industry never existed in Montana (Alternative) versus the economy with brewing (Baseline). All impacts presented compare a “with brewing” scenario to a “without brewing” scenario. The differences between the Baseline and Alternative economies represent the total contribution of the operations of craft brewers to the Montana economy.

Figure 1.
Research Design



¹ This does not include 2 breweries that began operating in December 2011, but did not have operational data to report for that month, so they were excluded from the survey data collection process. There were actually 33 breweries in business in Montana by the end of calendar year 2011.

Survey Data

The survey data collected by BBER are presented in Table 1. Production increased from just over 87,000 barrels (bbl) to nearly 103,000 bbl from 2010 to 2011 – an 18 percent increase. Beer sales increased from just under \$22 million to more than \$26 million from 2010 to 2011 – a 20 percent increase.

Employment, including both full- and part-time jobs, increased from 231 to 320 from 2010 to 2011 – a 39 percent increase. Compensation (wages and salaries plus the value of benefits packages) increased from \$5.2 million to \$6.4 million from 2010 to 2011 – a 23 percent increase. Expenditures (excluding labor) increased from \$15.6 million to \$18.8 million from 2010 to 2011 – a 21 percent overall increase.

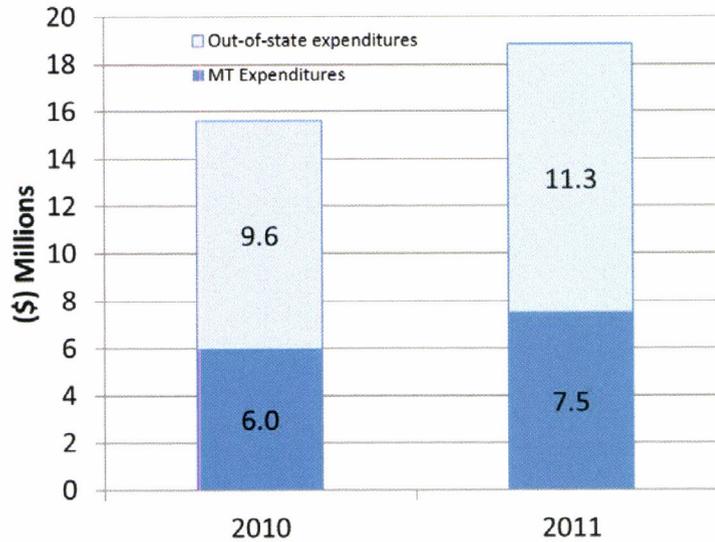
Table 1.
Montana Brewery Survey Data Summary

Category	2010	2011	Percent Change
Production	87,442 Barrels	102,925 Barrels	18%
Beer sales	\$21.8 Million	\$26.1 Million	20%
Employment	231 Jobs	320 Jobs	39%
Compensation	\$5.2 Million	\$6.4 Million	23%
Expenditures (excluding employee compensation)	\$15.6 Million	\$18.8 Million	21%

As shown in Figure 2, brewers were asked what portion of their expenditures, other than employee compensation, occurred in Montana. Overall, expenditures rose by 21 percent, from \$15.6 million to \$18.8 million. The Montana portion of expenditures rose from \$6 million (38 percent of total expenditures) in 2010 to \$7.5 million (40 percent of total expenditures) in 2011. The percentage of expenditures made within the state varied widely amongst brewers, and brewers reported that anywhere from 2 percent to 90 percent of their expenditures were in Montana. Some brewers noted

that they would prefer to buy more supplies from within Montana, but they were unable to obtain some of their inputs locally.

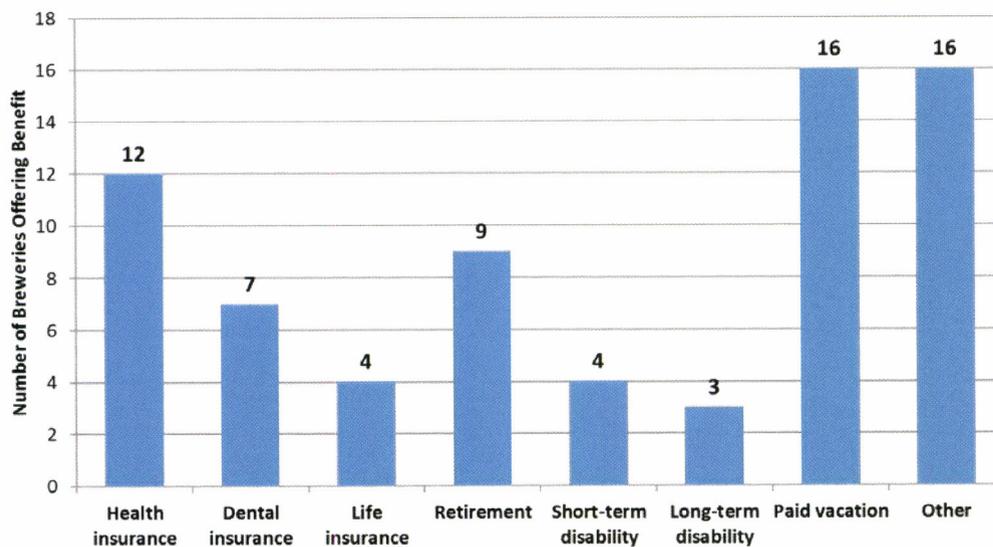
Figure 2.
Montana Brewery Expenditures



Providing health insurance and other benefits is clearly a high priority for many breweries in the state.

Figure 3 shows the number of breweries that offer various benefits to their employees.

Figure 3.
Montana Brewery Employee Benefits



Paid vacation is the most common employee benefit, which is offered by 16 of the breweries in Montana. Health insurance is offered by 12 breweries. The next most common benefit is retirement, followed by dental insurance, life insurance, short-term disability, and long-term disability. While many benefits are not offered at a majority of breweries, the larger and more established breweries tend to offer more comprehensive benefits packages. Therefore, the majority of employees working in the industry are employed at breweries that do offer benefits. For example, of the 320 Montana employees working in the industry in 2011, 78 percent worked at breweries offering health insurance, 65 percent worked at breweries offering retirements benefits, and 57 percent worked at breweries offering dental insurance. However, the survey did not identify the number of employees receiving benefits at each brewery, and it should be noted that not all employees at breweries that offer benefits work enough hours to qualify for benefits. Other benefits offered at breweries include funds for health savings accounts, ski passes, cell phones, merchandise discounts, and flexible work schedules.

Economic Impact Results

Results from the REMI economic impact simulation are summarized in Table 2. This study finds that because the craft brewing industry exists in Montana, the state economy is larger and more prosperous. Government revenues are also higher as a result of the industry. Because of the operations of the craft brewing industry:

- There is an employment impact of 434 jobs across various sectors of the state economy;
- In addition to the jobs in the manufacturing sector, there are significant impacts in the construction, health care, and retail trade sectors;
- There are employment and output (private sector sales) impacts throughout the five regions of the state, though they are concentrated in the northwest region;

- Because of the brewing industry, output (private sector sales) is \$48.4 million higher than would otherwise be the case;
- Private non-farm compensation and government compensation are \$9.8 and \$1.8 million higher, respectively, than they would be without the existence of craft brewing in Montana;
- Population in the state is 36 people higher than it would be without the Montana craft brewing industry;
- State government revenues are \$1.5 million higher than they would be without the Montana craft brewing industry.

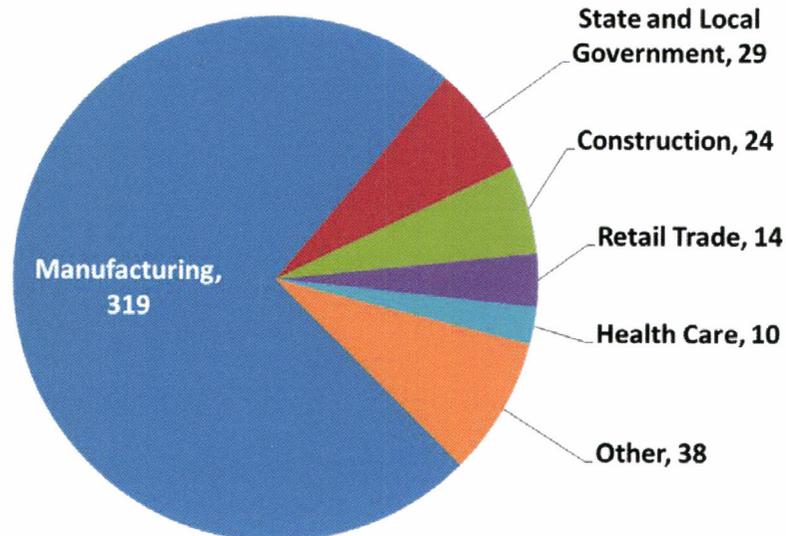
Table 2.
Economic Impacts of Beer Brewing in Montana

Category	Impact
Total Employment	434 Jobs
Output (Private Sector Sales)	\$48.4 Million
Compensation (Private Non-Farm)	\$9.8 Million
Compensation (Government)	\$1.8 Million
Population	36 People
State government revenues	\$1.5 Million

Impacts by Industry Sector and Montana Region

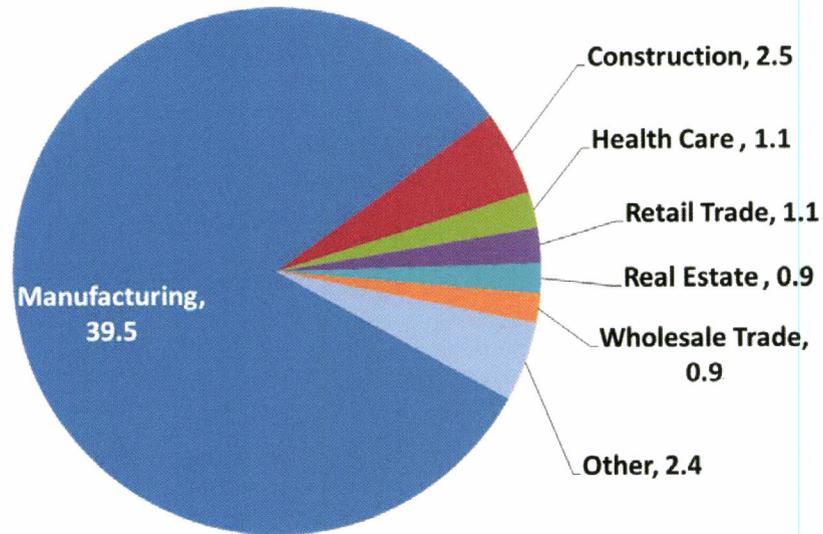
Economic impacts of the brewing industry are spread across several industry sectors and also dispersed across the state. Clearly, the manufacturing sector, which includes the brewing industry, holds the largest share of the employment impacts, as shown in Figure 4.

Figure 4.
Employment Impacts by Industry
(Number of Workers)



However, the employment impacts of the brewing industry are revealed in several other sectors as well. This includes 29 jobs in state and local government, 24 jobs in construction, 14 jobs in retail trade, 10 jobs in health care, and 38 additional jobs in other sectors. Output impacts (Fig 5.), measured by private sector gross sales total \$48.4 million, \$39.5 million of which can be attributed to the manufacturing industry.

Figure 5.
Output (Gross Sales) Impacts by Industry
(Private Sector, \$Millions)



While concentrated in the more populous regions of the state, economic impacts due to craft brewing extend into each region of the state. For the purpose of the analysis, impacts were split into five Montana regions (Figure 6). As of the end of calendar year 2011, there were 12 breweries in northwest Montana, seven in southwest Montana, four in north central Montana, eight in south central Montana, and two in eastern Montana. Figures 7 and 8 show output and the employment impacts by region, respectively.

Figure 6.
Economic Regions & Number of Active Breweries, 2011
(33 total)

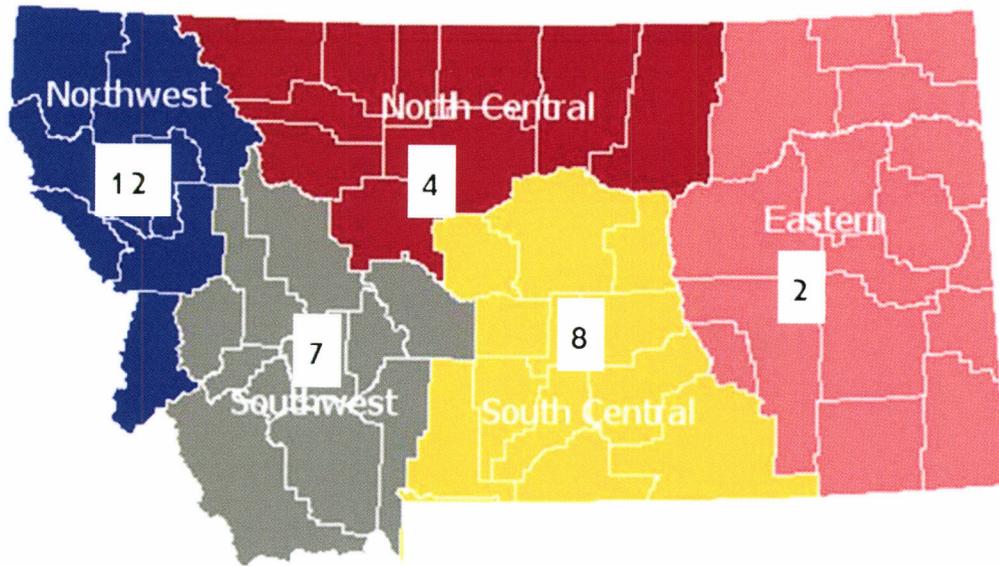
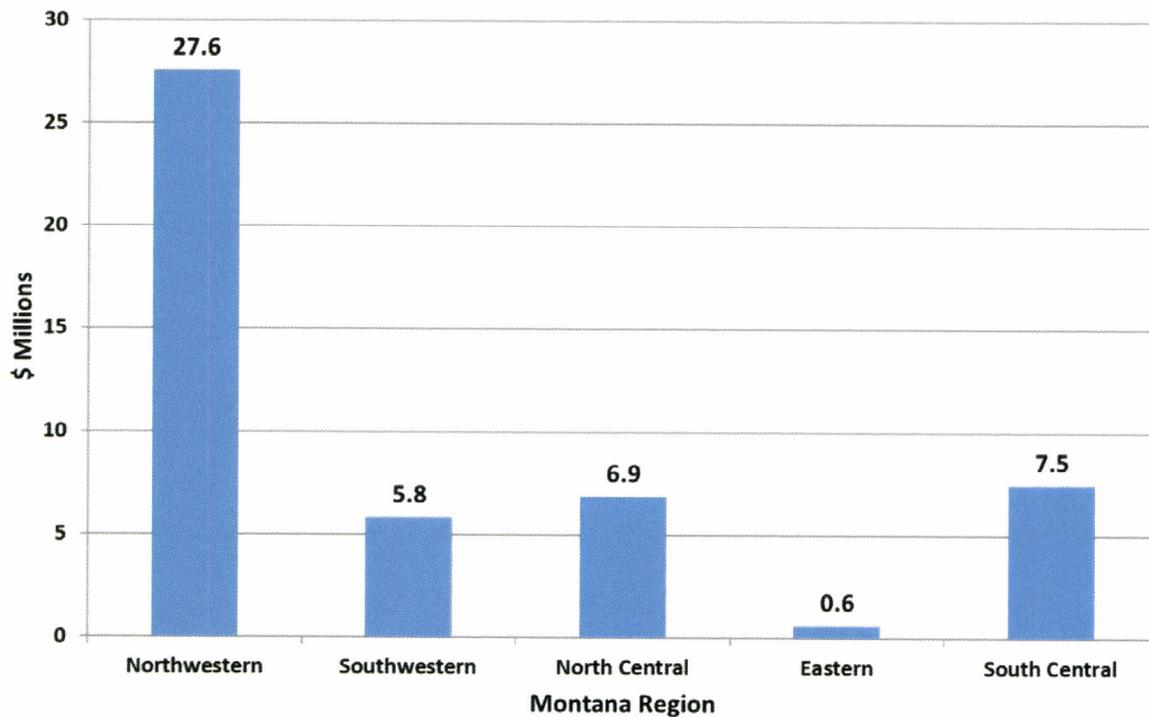
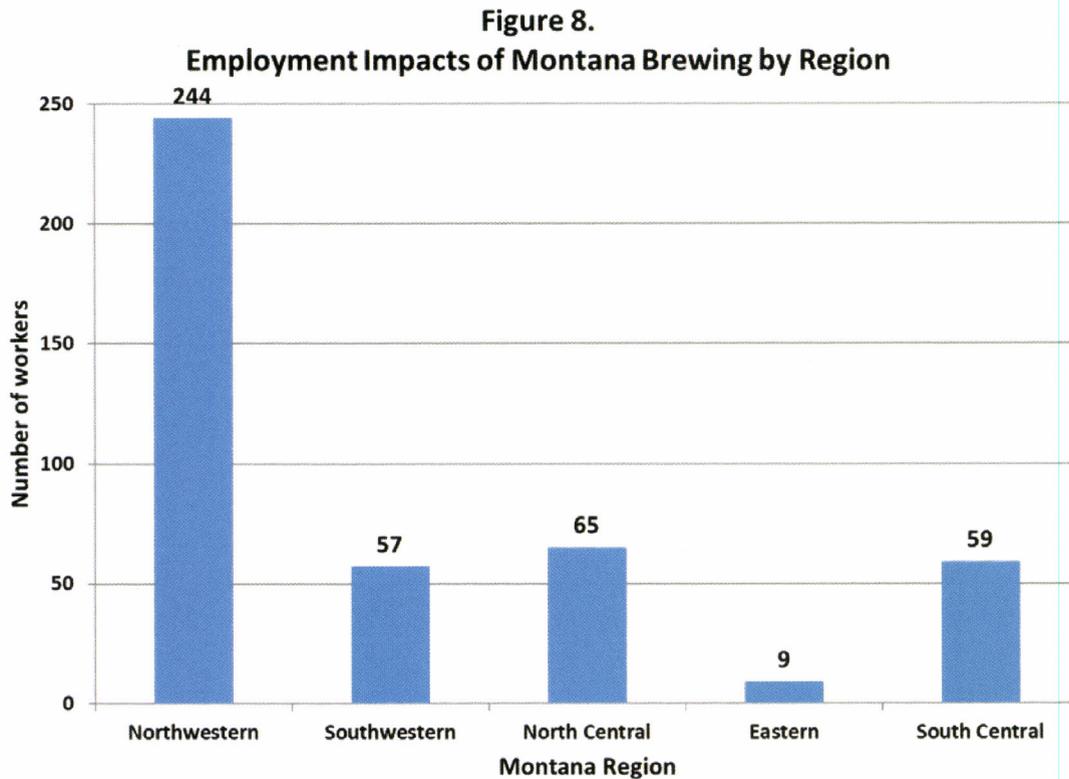


Figure 7.
Output (Gross Sales) Impacts of Montana Brewing by Region





Conclusion

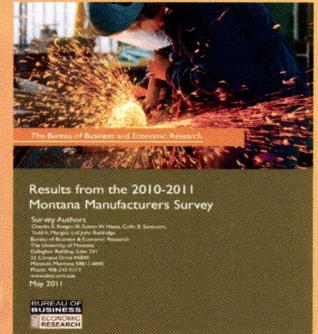
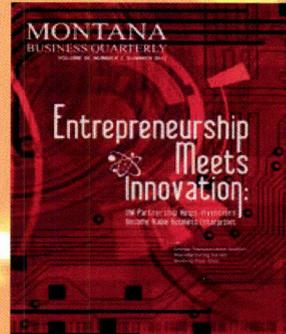
Based on the data collected from Montana breweries, the industry grew rapidly from 2010 to 2011. Production rose 18 percent, sales were up 20 percent, employment (both full- and part-time) was up 39 percent, compensation increased 23 percent, and expenditures were up 21 percent. Operations of craft brewers produce a significant impact on the state economy. More than 430 jobs, nearly \$50 million in private sector sales, \$9.8 million in private non-farm compensation, \$1.8 million in government compensation, and \$1.5 million in state government revenues exist in the economy due to craft brewing operations in Montana. Jobs are spread across a wide spectrum of the economy, and impacts recur every year the brewing industry operates.

This work has developed a baseline economic impact of the brewing industry on Montana's economy. In the future, additional research could be conducted to monitor changes in the economic impact of the industry over time. Furthermore, the effects of legislative changes could be modeled to inform policy-makers on the impact of changing legislation on the Montana economy.

Who we are & what we do

Research branch of UM's School of Business Administration

- Regional economic analysis
- Survey research
- Kids Count
- Publications
- Industry analysis



➤ Manufacturing (brewing, wood products, etc.)

Prior work done by the BBER

Entities we have worked with through contracts and agreements:

- State of Montana
- DNRC
- Dept. of Labor
- DPHHS
- State Auditors Office
- The University of Montana
- Montana Tavern Association
- Montana Brewers Association
- US Forest Service
- Montana Chamber of Commerce
- Arch Coal
- Rocky Mountain Laboratories
- Major hospitals around the state
- Tribal Councils
- And many others...

Research Approach

- Research question: what would the Montana economy look like if the craft brewing industry did not exist in Montana?
- Good data on the income flows that the industry itself produces is a critical starting point for the analysis.
- BBER utilized a well respected economic model (REMI) to project how the economy would look minus brewing industry activities.

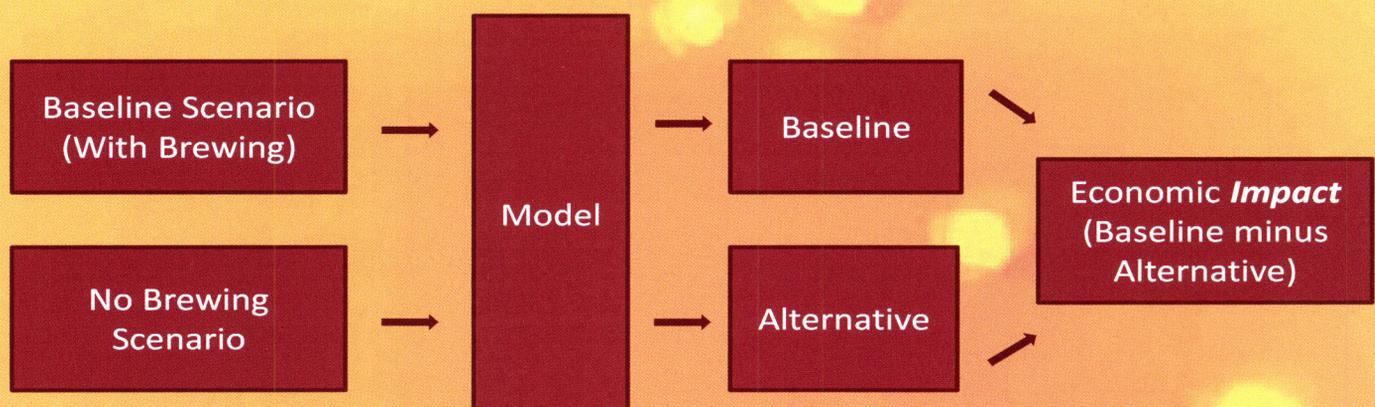
Data Collection

- A survey was administered via email and phone to all Montana brewers.
- Production, sales, employment, compensation, expenditures, benefits.
- 97% of brewers (30 of 31) that operated in 2010/2011 responded to the survey.
- Survey data were aggregated and input into the economic impact model.

Impact Study Research Notes

- Not a “shutdown” scenario – this research imagines an economy where the industry never existed in the state.
- Uses operational and financial data collected from Montana brewers for calendar year 2011.
- All impacts presented compare a “with brewing” scenario to a “without brewing” scenario.
- The figures represent the total contribution of the operations of craft brewers to the Montana economy.

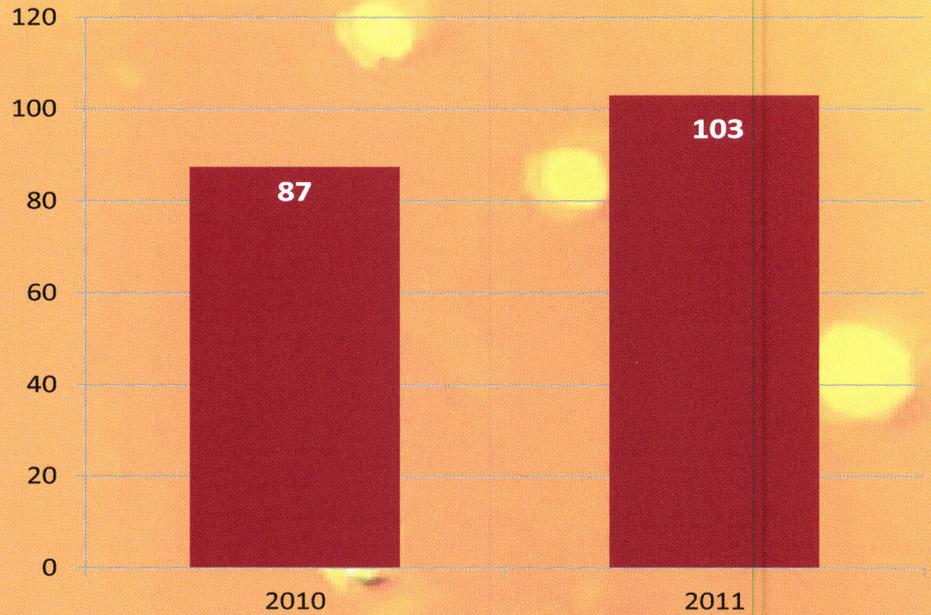
Research Design



Summary Survey Data

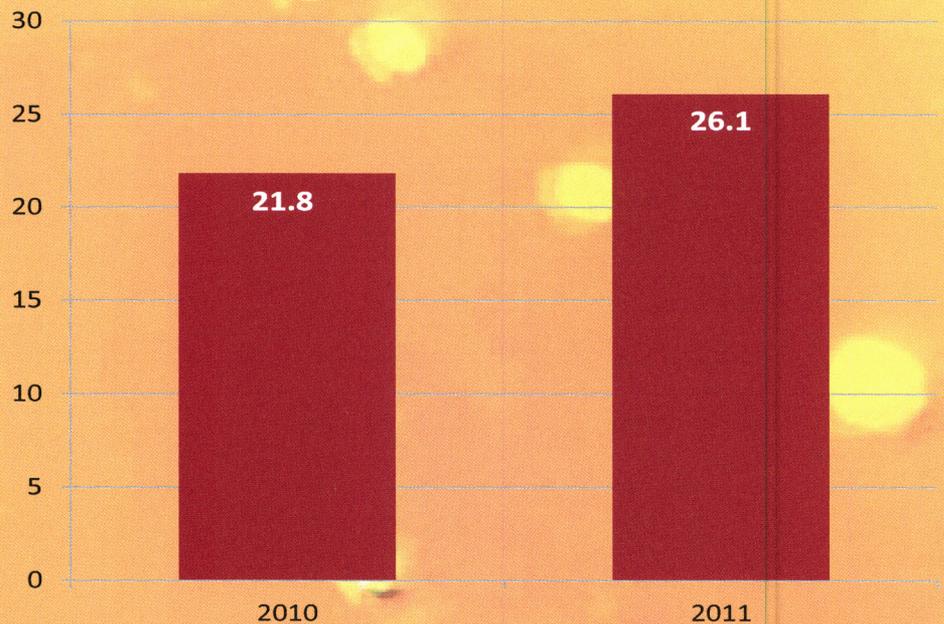
Production increased from just over 87k bbl to nearly 103k bbl from 2010 to 2011 – an 18% increase

Production (1,000 bbl)



Sales increased from just under \$22 million to over \$26 million from 2010 to 2011 – a 20% increase

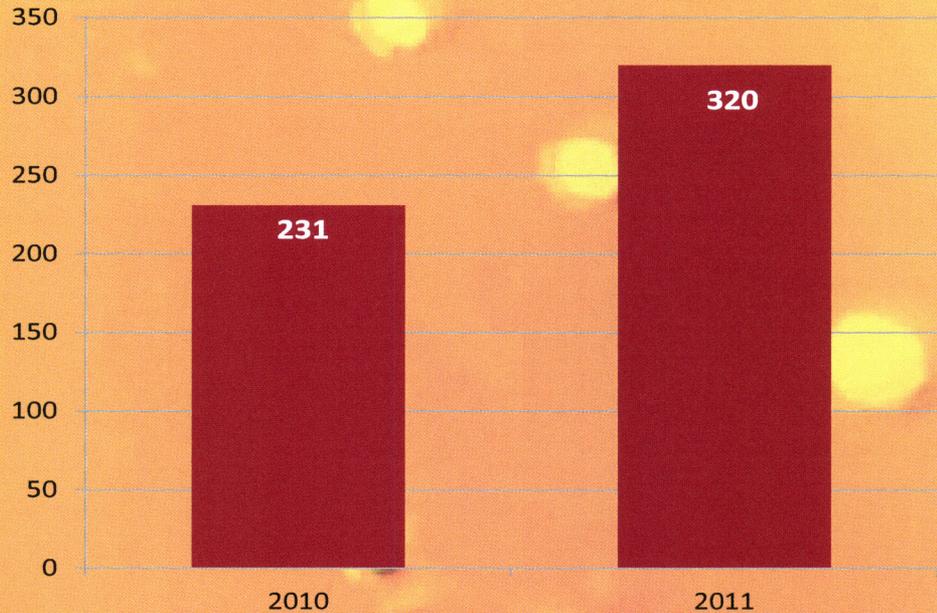
Sales (\$Millions)



Summary Survey Data (cont.)

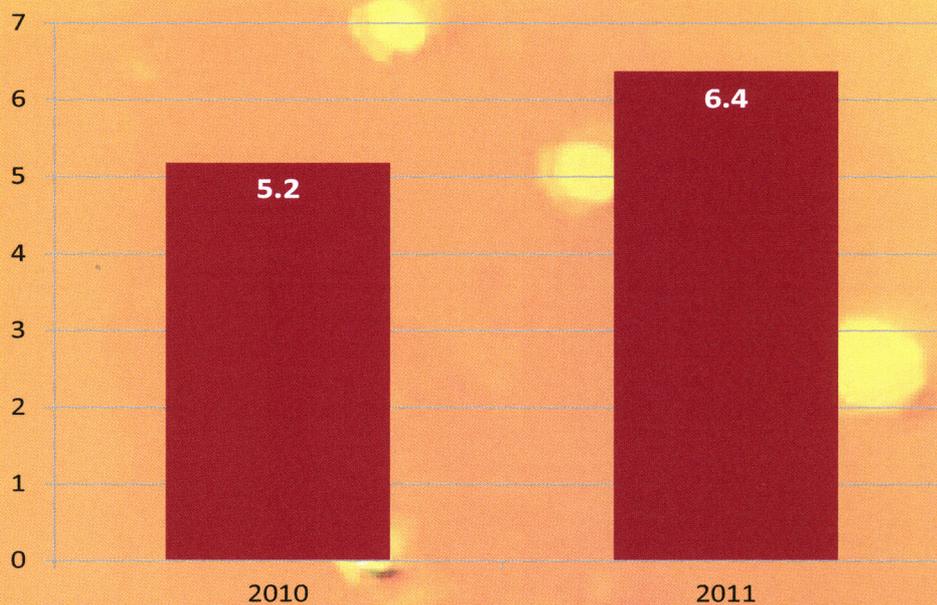
Employment (full & part-time jobs)

Employment increased from 231 to 320 from 2010 to 2011 – a 39% increase



Compensation (\$Millions)

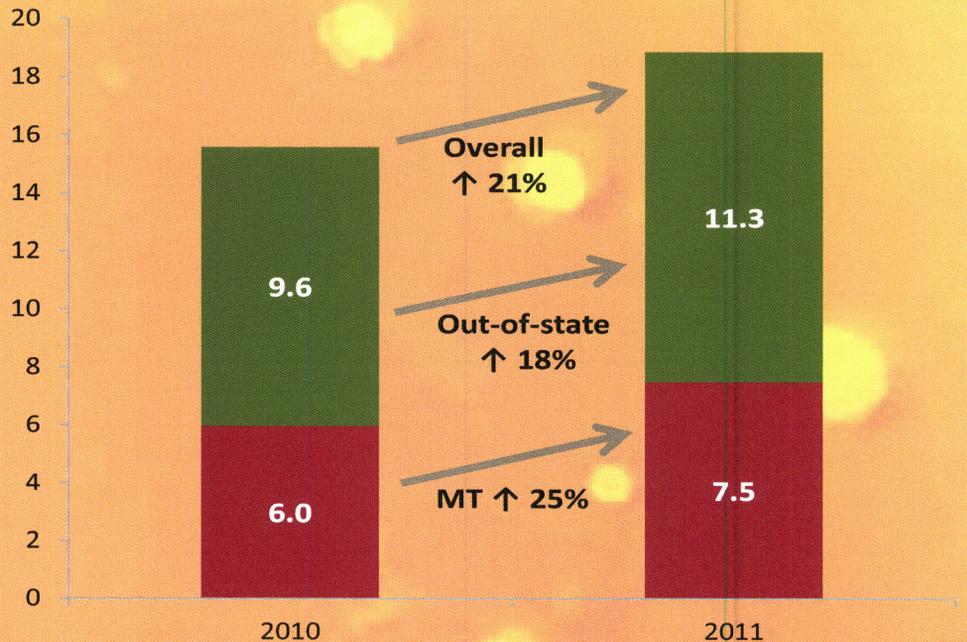
Compensation increased from \$5.2 million to \$6.4 million from 2010 to 2011 – a 23% increase



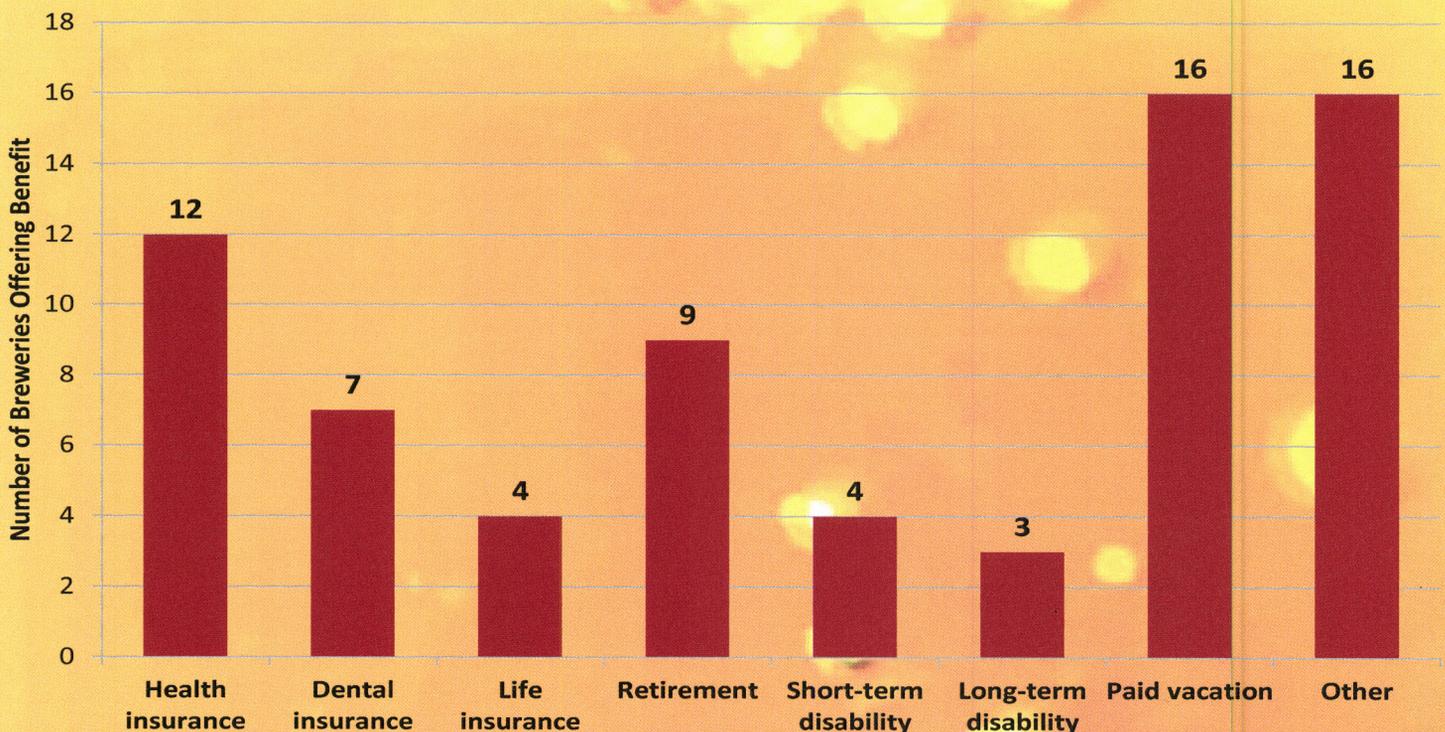
Summary Survey Data (cont.)

Expenditures (excluding labor) increased from \$15.6 million to \$18.8 million from 2010 to 2011 – a 21% overall increase

Brewery Expenditures (\$Millions)



Employee Benefits

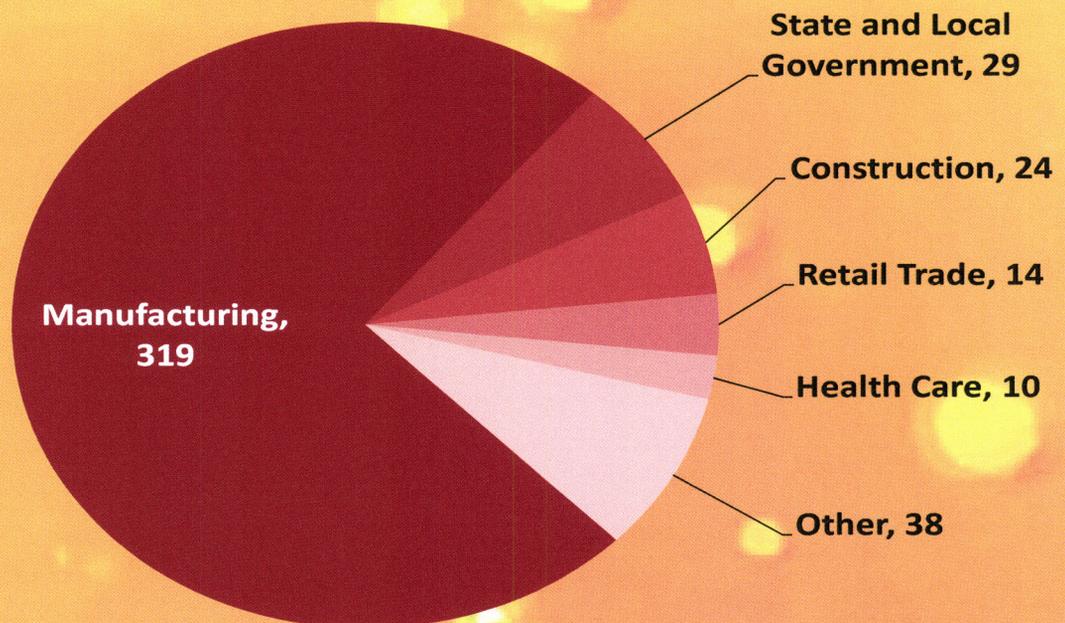


Statewide Economic Impacts Summary

Category	Units	Impact
Total Employment	Jobs	434
Output (private sector sales)	\$ Millions	48.4
Compensation (private non-farm)	\$ Millions	9.8
Compensation (government)	\$ Millions	1.8
Population	People	36
State government revenues	\$ Millions	1.5

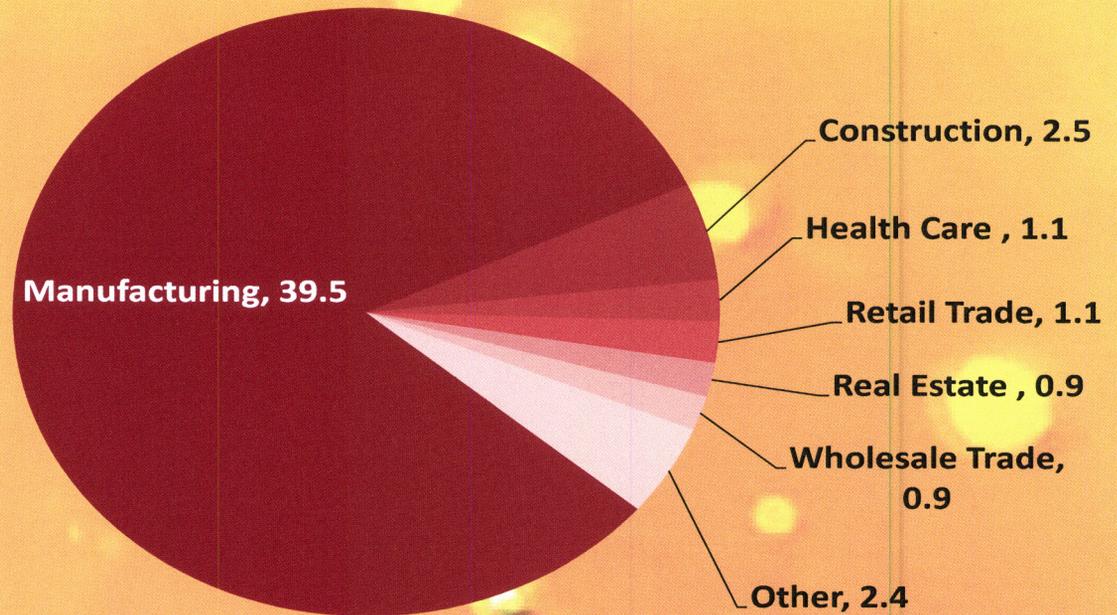
Note: "Impact" refers to the difference between the baseline *with brewing* scenario, and the alternative *without brewing* scenario

Employment Impacts by Industry (Number of Workers)



Output (Gross Sales) Impacts by Industry

(Private Sector, \$Millions)

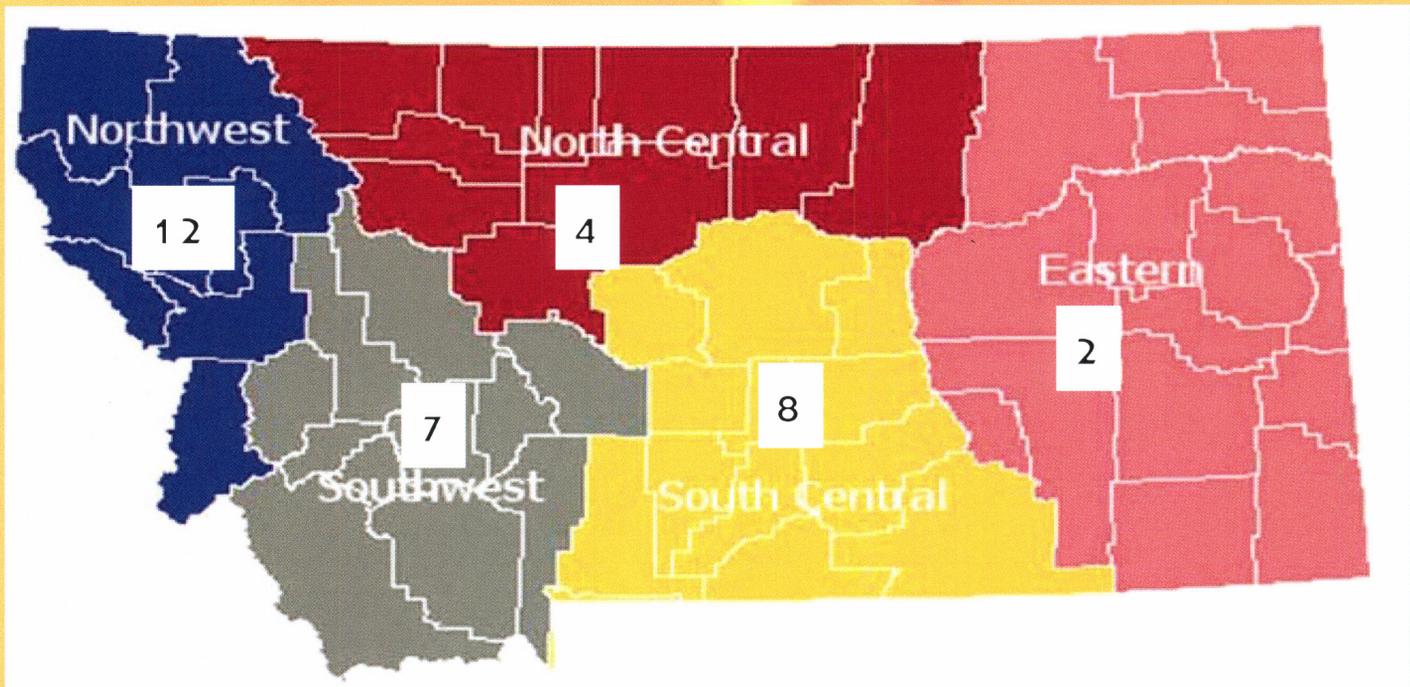


Top 5 States for Fewest People per Craft Brewery

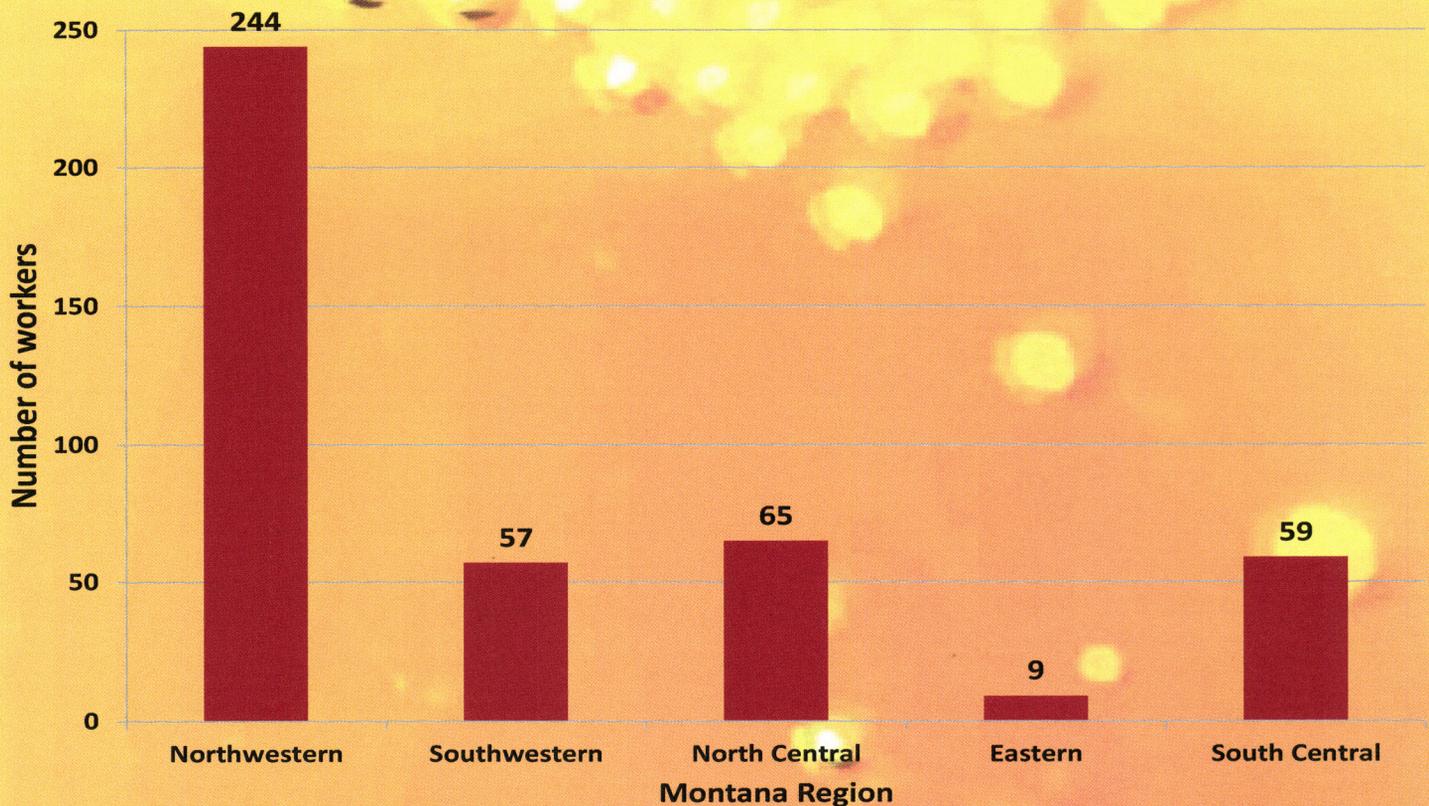
State	People per brewery
1. Vermont	27,206
2. Montana	30,919
3. Oregon	31,662
4. Alaska	35,512
5. Colorado	39,600

Source: Brewers Association, May 2012

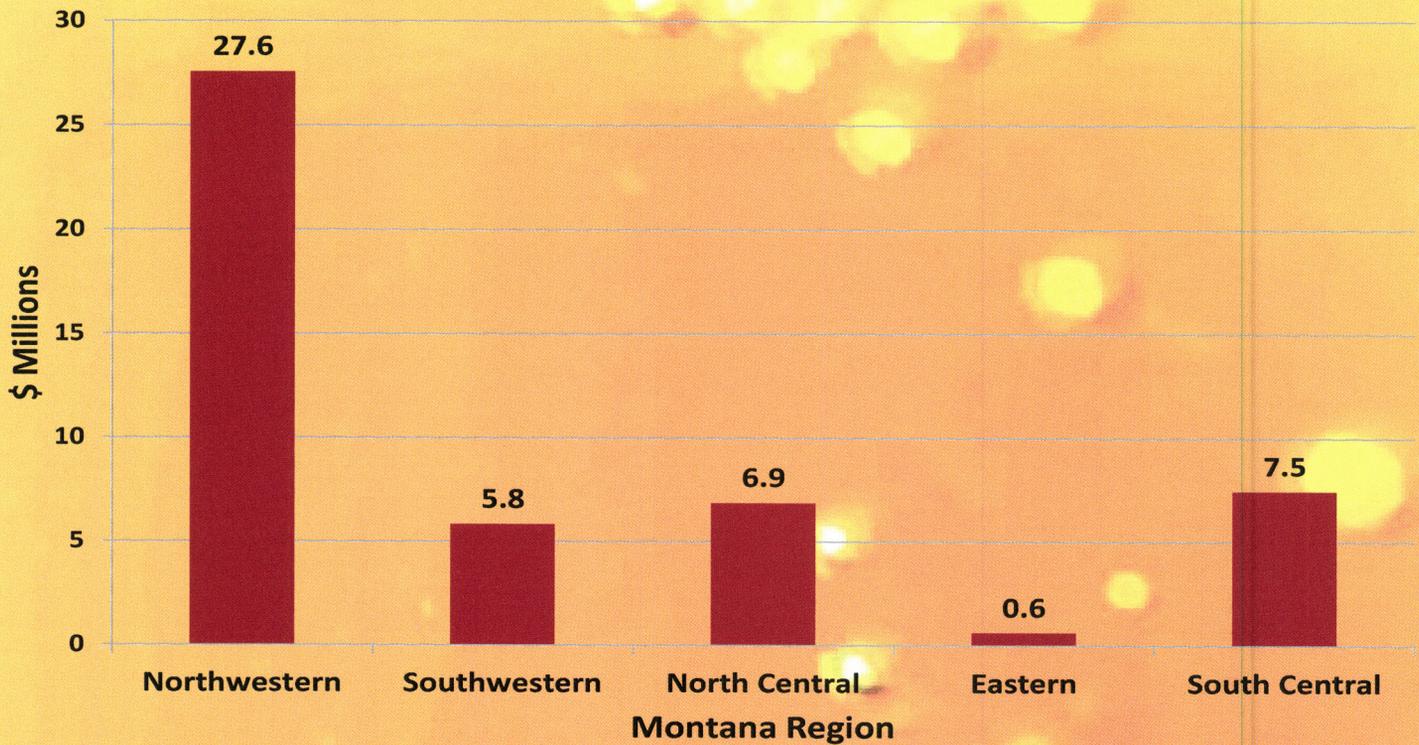
Economic Regions & Number of Active Breweries, 2011 (33 total)



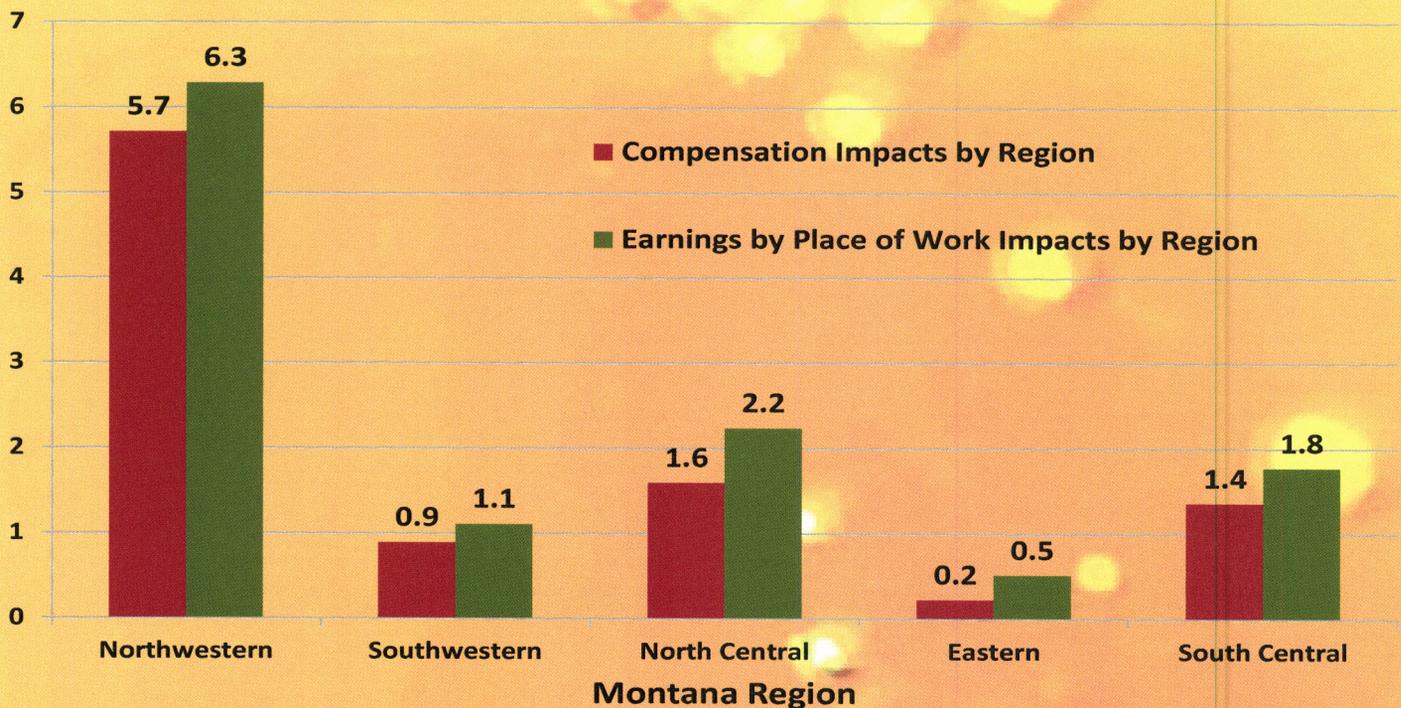
Employment Impacts by Region



Output Impacts (Gross Sales) by Region



Private Non-Farm Compensation and Earnings Impacts by Region



Note: Earnings include proprietors' income

Summary

- The Montana brewing industry has been growing rapidly. From 2010 to 2011:

- ✓ Production +18%
- ✓ Sales +20%
- ✓ Employment +39%
- ✓ Compensation +23%
- ✓ Expenditures +21%

- Operations of craft brewers produce a significant impact on the state economy
- Over 430 jobs, nearly \$50 million in private sector sales, \$9.8 million in private non-farm compensation, \$1.8 million in government compensation, and \$1.5 million in state government revenues exist in the economy due to craft brewing operations
- Jobs are spread across wide spectrum of the economy
- Impacts recur every year the brewing industry operates



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