

The economic impact of Bemidji State University

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Executive summary

Bemidji State University generates an annual economic impact of \$166 million from its operations in the Headwaters region. Based on the Headwaters region economy of \$2.4 billion, this means that for every \$100 produced in the region, \$7 are directly or indirectly related to Bemidji State University. The direct impact of the university in 2011 was \$118 million, while the indirect impact in other industries was \$48 million.

Similarly, during 2011 the university and its students generated an estimated 2,225 jobs in the Headwaters region. These jobs included an estimated 1,786 direct jobs, and 439 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the university and its students.

Additionally, by educating its students, Bemidji State University enhances the productivity of both public and private organizations in Minnesota. Only considering the 872 degrees awarded by Bemidji State University in 2011, this is equivalent to \$139.1 million of future value created in the state.

Introduction

Bemidji State University is located in northern Minnesota, in the Beltrami County, part of the Headwaters economic region. The university offers over 65 undergraduate majors and pre-professional programs as well as 14 graduate programs and graduate certificates. Its largest undergraduate majors are education, business, science, technological studies, criminal justice, and psychology. Similarly, its master's programs include master of science, master of arts, master of education, and master of special education.

Bemidji State University has approximately 5,000 undergraduate and over 300 graduate students registered each year. In 2011 the university awarded 50 associate degrees, 800 bachelor's degrees, and 72 master's degrees. About 88% of its students come from Minnesota; close to 30% of incoming freshmen are from the St. Paul-Minneapolis area, while 55% are from northern Minnesota.

Bemidji State University is one of the 31 institutions in the Minnesota State Colleges and Universities (MnSCU) system; the largest single provider of higher education in the state of Minnesota. The colleges and universities operate 54 campuses in 47 Minnesota communities, serving 430,000 students in credit and non-credit courses, with about 34,700 graduates each year.

This report estimates the economic impact of Bemidji State University on the Headwaters region. Through its daily activities, the university generates economic value for the region in several ways. First, spending by the university and its students directly impacts the personal income, employment, and tax revenues of the state. Secondly, these expenditures generate an indirect effect; all Bemidji State University activities induce other organizations and businesses to spend more, creating what is known as a “multiplier effect.” Finally, by educating its students, the university enhances the productivity of both public and private organizations in Minnesota.

Data used in the analysis include:

- Bemidji State University operational expenditures, salaries and benefits from its 2011 financial statements
- Capital expenditures from the state’s bond projects that financed investments for Bemidji State University during 2010 to 2012, from the Minnesota Management & Budget office¹
- Estimates of Bemidji State University students’ spending. A survey of 202 students and their spending patterns was used in the IMPLAN model to estimate the direct and indirect effect of this spending for a given year²

¹ Minnesota Management and Budget (2012). Bond’s Proceeds Report. Retrieve at <http://www.mmb.state.mn.us/doc/bonds/proceeds/mnscu-bonds-fund-4020-FY10.pdf>

² The method used in the calculations of these impacts is the Input-Output model developed by IMPLAN. This method measures the direct impact of an organization’s spending in a particular region (a country, state or county) by estimating the inputs used by the organization and the multiplier effects in other industries in the region. For purposes of this study, the university’s expenditures and its indirect effects come from its operational activities, its capital investments, and its students’ spending.

Bemidji State University impact on the Headwaters region

Regional profile

During 2011, the Headwaters region had around 83 thousand residents (approximately 2 percent of the state's population), with 41 thousand employees and a gross regional product of \$2.4 billion (1 percent of the state's total regional product). The main industries in the region, by employment levels, were education, government, food services and drinking places, and retail stores.

1. Headwaters regional profile 2011

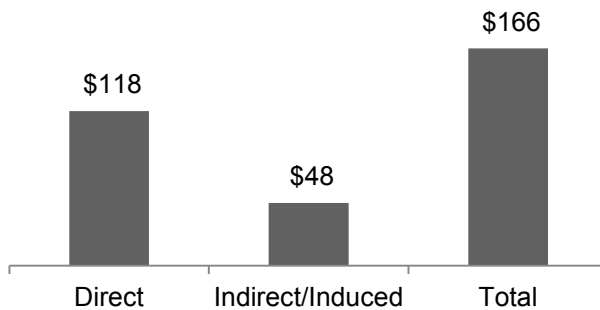
Population	83,804
Total employment	41,812
Gross regional product	\$2.4 billion
Average household income	\$77,747
Per capita gross regional product	\$26,146

Counties in the region: Beltrami County, Clearwater County, Hubbard County, Lake of the Woods County, Mahnomon County

Economic impact of Bemidji State University on the Headwaters region

The annual economic impact of the Bemidji State University in the Headwaters region reaches \$166 million (Figure 2). Based on the Headwaters region economy of \$2.4 billion, this means that for every \$100 produced in the Headwaters region, \$7 are directly or indirectly related to Bemidji State University. The sources of these direct and indirect impacts are the institution's operations (100 million), students' expenditures (66 million), and investments (\$31,109).

2. Economic impact of Bemidji State University in the Headwaters region in 2011 (\$ millions)



Real estate is the main industry sector impacted by Bemidji State University, with \$64 million supported by the University. Other industries impacted by Bemidji State University are state and local government education (e.g. public universities), and food services and drinking places (e.g. restaurants, bars, etc.). Figure 3 below shows the top ten industries affected by Bemidji State University in 2011.

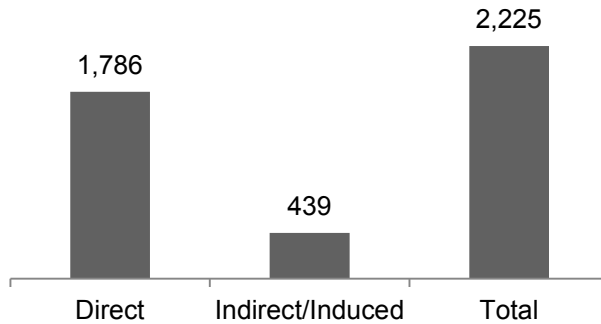
3. Top ten industries impacted by Bemidji State University in the Headwaters region in 2011 (\$ millions)

Real estate establishments	64.2
State and local government education	19.8
Food services and drinking places	11.5
Child day care services	9.0
Telecommunications	7.4
Imputed rental activity for owner-occupied dwellings	4.8
Medical and diagnostic labs and outpatient and other ambulatory care services	3.6
Wholesale trade businesses	2.9
Personal and household goods repair and maintenance	2.5
Retail Stores - Food and beverage	2.0

Impact on jobs

During 2011, Bemidji State University generated an estimated 2,225 jobs in the Headwaters region. These jobs include 1,786 direct jobs generated by the University and its students, and 439 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the University and its students (Figure 4).

4. Impact on employment of Bemidji State University in the Headwaters region in 2011 (jobs)



The sources of these direct and indirect impacts are the institution’s operations (1,412 jobs), and students’ expenditures (813 jobs). A total of 1,121 jobs are created directly by the University’s operational activities (Figure 5).

5. Impact on employment of Bemidji State University in the Headwaters region by source (jobs)

	Direct	Indirect	Total
Operational expenditures	1,121	291	1,412
Students' spending	664	149	813
Investments	0	0	0
Total	1,785	439	2,225

The same three industries mentioned before are also the most impacted by the University in its employment, directly or indirectly (Figure 6).

6. Top ten industries impacted by employment in 2011 (jobs)

State and local government education	1,074
Food services and drinking places	234
Real estate establishments	221
Child day care services	116
Retail Stores - Food and beverage	54
Retail Stores - Clothing and clothing accessories	32
Personal and household goods repair and maintenance	24
Medical and diagnostic labs and outpatient and other ambulatory care services	21
Employment services	18
Retail Stores - General merchandise	15

Impact on taxes

Bemidji State University generates about \$9 million in tax revenues for state and local governments each year. Through its operational activities, its employees' and students' spending, Bemidji State University supports the activities of the Headwaters region by paying sales, property, and income taxes. Similarly, the university and its employees' social insurance contributions add to the state tax revenues. Since Bemidji State University's operational activities and spending create demand for other businesses and industry sectors, additional tax revenues come from businesses that serve the University. These taxes include sales, income, and property taxes, along with others, such as corporate taxes.

Benefits beyond operations: enhanced productivity

By educating its students, Bemidji State University enhances the productivity of both public and private organizations in Minnesota. Its alumni provide the skills and knowledge needed to improve the functioning of many organizations in the state.

Since performing a direct measurement of the contribution of graduates to Minnesota businesses and governments is not feasible, we estimate the additional earnings of graduates as a result of their training. This measure of additional earnings is equivalent to estimating the increase in productivity due to students' education; the students are able to earn more as they better fit the needs of businesses and government.

Only considering the 872 bachelor's and master's degrees awarded by Bemidji State University in 2011, this is equivalent to \$139.1 million of future value created in the state. Unlike previous estimations in this report, this is an additional value to the state, not just the region, since we cannot know where the students live after graduation.³

Some studies present the enhanced productivity without discounting the future income received by students (for example, the Tripp Umbach study for the University of Minnesota). If we calculate the additional future earnings in this way, the economic benefit from enhanced productivity reaches \$241 million.⁴

³ This estimation assumes 40 years of work life, a discount rate of 3 percent and two important parameters. The first one is that the total is adjusted by 30 percent (similar to Tripp Umbach's 2011 report for the University of Minnesota), to allow for the forgone income while attending the college or university, future periods of unemployment, time out of the labor force, and other events. The second parameter included in the estimation is that 80 percent of students stay in the state after graduation (MnSCU Amazing Facts, 2010). The economic value created by the enhanced productivity of students should consider only those students staying in the state; if they leave there is not economic impact for Minnesota in the years following their graduation.

⁴ Tripp Umbach (2011). *The Economic and Societal Impact of the University of Minnesota*.