

The economic impact of Minnesota State Community and Technical College

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Executive summary

Minnesota State Community and Technical College (MSCTC) generates an annual economic impact of \$197 million from its operations in the West Central region. Based on the West Central region economy of \$8 billion, this means that for every \$1,000 produced in the region, \$8 are directly or indirectly related to MSCTC. The direct impact of the college in 2011 was \$142 million, while the indirect impact in other industries was \$55 million.

Similarly, during 2011 the college and its students generated an estimated 2,532 jobs in the West Central region. These jobs included an estimated 2,043 direct jobs, and 489 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the college and its students.

Additionally, by educating its students, MSCTC enhances the productivity of both public and private organizations in Minnesota. Only considering the 1,038 degrees awarded by MSCTC in 2011, this is equivalent to \$27.7 million of future value created in the state.

Introduction

Minnesota State Community and Technical College has campuses in Detroit Lakes, Fergus Falls, Moorhead and Wadena, all of them located in West Central Minnesota. The college has numerous career/technical programs that are additionally accredited by boards, agencies, commissions, or professional organizations in their field or discipline. It offers classes in liberal arts transfer program, and numerous fields including Business, Accounting and Marketing, Dental Hygiene, Graphic Design, Medical - Administrative Assistant, and many others.

MSCTC serves approximately 9,000 students each semester; over 45% of them are full-time students. The college also has approximately 636 employees, of whom 370 are faculty members. In 2011 the college awarded 1,038 associate degrees and 393 diplomas and certificates. During the same year, the college had operational expenses of \$57.7 million.

MSCTC 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 MSCTC on the West Central region. Through its daily activities, the college generates economic value for the region in several ways. First, spending by the college and its students directly impacts the personal income, employment, and tax revenues of the state. Secondly, these expenditures generate an indirect effect; all MSCTC activities induce other organizations and businesses to spend more, creating what is known as a "multiplier effect." Finally, by educating its students, the college enhances the productivity of both public and private organizations in Minnesota.

Data used in the analysis include:

- MSCTC operational expenditures, salaries, and benefits from its 2011 financial statements
- Capital expenditures from the state's bond projects that financed investments for MSCTC during 2010 to 2012 from the Minnesota Management & Budget office¹
- Estimates of MSCTC students' spending. A survey of 166 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

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

MSCTC impact on the West Central region

Regional profile

During 2011, the West Central region had around 222 thousand residents (4 percent of the state's population), with 132 thousand employees and a gross regional product of \$8 billion (3 percent of the state's total regional product). The main industries in the region, by employment levels, were education, food services and drinking places, grain farming, and government.

1. West Central profile 2011

Population	222,688
Total employment	132,751
Gross regional product	\$8 billion
Average household income	\$88,715
Per capita gross regional product	\$36,125

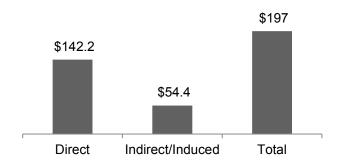
Counties in the region: Becker County, Clay County, Douglas County, Grant County, Otter Tail County, Pope County, Stevens County, Traverse County, Wilkin County.

Economic impact of MSCTC on the West Central region

The annual economic impact of the MSCTC in the West Central region reaches \$197 million (Figure 2). Based on the West Central region economy of \$8 billion, this means that for every \$1,000 produced in the West Central region, \$8 are directly or indirectly related to MSCTC. The sources of these direct and indirect impacts are the institution's operations (\$75 million), students' expenditures (\$82 million), and investments (\$40 million).

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 college's expenditures and their indirect effects come from its operational activities, its capital investments, and its students' spending.

2. Economic impact of MSCTC in the West Central region in 2011 (\$ millions)



Real estate is the main industry sector impacted by MSCTC, with \$48.1 million supported by the college. Other industries impacted by MSCTC 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 MSCTC in 2011.

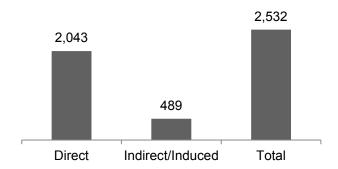
3. Top ten industries impacted by MSCTC in the West Central region in 2011 (\$ millions)

Real estate establishments	
State and local government education	28.5
Food services and drinking places	23.0
Child day care services	15.6
Telecommunications	9.5
Imputed rental activity for owner-occupied dwellings	7.2
Medical and diagnostic labs and outpatient and other ambulatory care services	
Wholesale trade businesses	2.9
Personal and household goods repair and maintenance	2.6
Retail Stores - Food and beverage	2.5

Impact on jobs

During 2011, MSCTC generated an estimated 2,532 jobs in the West Central region. These jobs include 2,043 direct jobs generated by the college and its students, and 489 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the college and its students (Figure 4).

4. Impact on employment of MSCTC in the West Central region in 2011 (jobs)



The sources of these direct and indirect impacts are the institution's operations (1,042 jobs), students' expenditures (1,059 jobs), and investments (431 jobs). A total of 835 jobs are created directly by the college's operational activities (Figure 5).

5. Impact on employment of MSCTC in the West Central region in 2011 (jobs)

	Direct	Indirect	Total
Operational expenditures	835	207	1,042
Students' spending	883	176	1,059
Investments	325	106	431
Total	2,043	489	2,532

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

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

State and local government education	
Food services and drinking places	
Real estate establishments	311
Child day care services	294
Retail Stores - Food and beverage	142
Retail Stores - Clothing and clothing accessories	66
Personal and household goods repair and maintenance	
Medical and diagnostic labs and outpatient and other ambulatory care services	26
Employment services	19
Retail Stores - General merchandise	18

Impact on taxes

MSCTC generates about \$10 million in tax revenues for state and local governments each year. Through its operational activities, its employees' and students' spending, MSCTC supports the activities of the West Central region by paying sales, property, and income taxes. Similarly, the college and its employees' social insurance contributions add to the state tax revenues. Since MSCTC's operational activities and spending create demand for other businesses and industry sectors, additional tax revenues come from businesses that serve the college. These taxes include sales, income, and property taxes, along with others, such as corporate taxes.

Benefits beyond operations: enhanced productivity

By educating its students, MSCTC 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 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 1,038 associate degrees awarded by MSCTC in 2011, this is equivalent to \$27.7 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 \$48 million.⁴

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 Umback'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.