

The economic impact of Rochester Community and Technical College

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Contents

Executive summary	. 1
Introduction	. 2
Rochester Community and Technical College impact on the South East region	. 4
Regional profile	. 4
Economic impact of Rochester Community and Technical College on the South East region	. 4
Impact on jobs	. 5
Impact on taxes	. 7
Benefits beyond operations: enhanced productivity	. 7

Figures

1.	South East regional profile 2011	4
2.	Economic impact of Rochester Community and Technical College in the South East region in 2011 (\$ millions)	5
3.	Top ten industries impacted by Rochester Community and Technical College in the South East region in 2011 (\$ millions)	5
4.	Impact on employment of Rochester Community and Technical College in the South East region in 2011 (jobs)	6
5.	Impact on employment of Rochester Community and Technical College in the South East region by source (jobs)	6
6.	Top ten industries impacted by employment in 2011 (jobs)	6

Executive summary

Rochester Community and Technical College generates an annual economic impact of \$165 million from its operations in the South East region. Based on the South East region economy of \$22.6 billion, this means that for every \$1,000 produced in the region, \$70 are directly or indirectly related to Rochester Community and Technical College. The direct impact of the college in 2011 was \$114 million, while the indirect impact in other industries was \$51 million.

Similarly, during 2011 the college and its students generated an estimated 2,047 jobs in the South East region. These jobs included an estimated 1,608 direct jobs, and 439 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the college and its students.

Additionally, by educating its students, Rochester Community and Technical College enhances the productivity of both public and private organizations in Minnesota. Only considering the 811 degrees awarded by Rochester Community and Technical College in 2011, this is equivalent to \$59.2 million of future value created in the state.

Introduction

Rochester Community and Technical College was founded in 1915 in Rochester, part of the South East region. The college offers more than 300 different online classes and 70 credit-based programs with more than 130 credential options in the areas of liberal arts, allied health, business, services and technical career pathways. The largest programs are Liberal arts, Nursing, Health information technology, Law enforcement and Veterinary technology. Rochester Community and Technical College offers degrees in Associate in Applied Science, Associate in Arts, Associate in Science, Associate of Fine Arts, Certificates, and Diplomas.

Rochester Community and Technical College serves approximately 8,000 students each year in credit-based courses; 55% are full-time students. In 2011 the college awarded 811 associate degrees and 248 diplomas and certificates. During the same year, the college had operational expenses of \$53.5 million.

Rochester Community and Technical College 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 Rochester Community and Technical College on the South East 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 Rochester Community and Technical College 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:

- Rochester Community and Technical College operational expenditures, salaries, and benefits from its 2011 financial statements
- Capital expenditures from the state's bond projects that financed investments for Rochester Community and Technical College during 2010 to 2012 from the Minnesota Management & Budget office¹
- Estimates of Rochester Community and Technical College students' spending. A survey of 249 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 <u>http://www.mmb.state.mn.us/doc/bonds/proceeds/mnscu-bonds-fund-4020-FY10.pdf</u>

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

Rochester Community and Technical College impact on the South East region

Regional profile

During 2011, the South East region had around 496 thousand residents (close to 10 percent of the state's population), with 300 thousand employees and a gross regional product of \$22.6 billion (8.5 percent of the state's total regional product). The main industries in the region, by employment levels, were offices of physicians, dentists, and other health practitioners, food services and drinking places, education, and private hospitals.

1. South East regional profile 2011

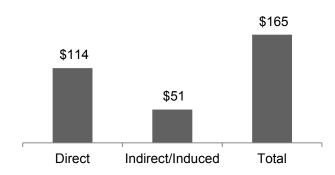
Population	496,463
Total employment	309,520
Gross regional product	\$22.6 billion
Average household income	\$99,451
Per capita gross regional product	\$45,590

Counties in the region: Dodge County, Fillmore County, Freeborn County, Goodhue County, Houston County, Mower County, Olmsted County, Rice County, Steele County, Wabasha County, Winona County.

Economic impact of Rochester Community and Technical College on the South East region

The annual economic impact of the Rochester Community and Technical College in the South East region reaches \$165 million (Figure 2). Based on the South East region economy of \$22.6 billion, this means that for every \$1,000 produced in the South East region, \$70 are directly or indirectly related to Rochester Community and Technical College. The sources of these direct and indirect impacts are the institution's operations (\$71 million), students' expenditures (\$93 million), and investments (\$765,108).

2. Economic impact of Rochester Community and Technical College in the South East region in 2011 (\$ millions)



Real estate is the main industry sector impacted by Rochester Community and Technical College, with \$43 million supported by the college. Other industries impacted by Rochester Community and Technical College 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 Rochester Community and Technical College in 2011.

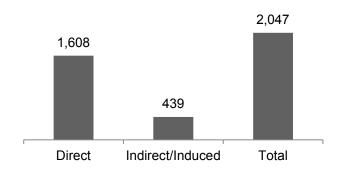
3. Top ten industries impacted by Rochester Community and Technical College in the South East region in 2011 (\$ millions)

Real estate establishments	43.2
State and local government education	28.5
Food services and drinking places	14.5
Child day care services	10.5
Telecommunications	5.9
Imputed rental activity for owner-occupied dwellings	4.9
Medical and diagnostic labs and outpatient and other ambulatory care services	4.6
Wholesale trade businesses	3.6
Personal and household goods repair and maintenance	3.2
Retail Stores - Food and beverage	2.6

Impact on jobs

During 2011, Rochester Community and Technical College generated an estimated 2,047 jobs in the South East region. These jobs include 1,608 direct jobs generated by the college and its students, and 439 additional indirect jobs, created by vendors, contractors, and businesses supplying inputs to the college and its students (Figure 4).

4. Impact on employment of Rochester Community and Technical College in the South East region in 2011 (jobs)



The sources of these direct and indirect impacts are the institution's operations (951 jobs), students' expenditures (1,089 jobs), and investments (7 jobs). A total of 735 jobs are created directly by the college's operational activities (Figure 5).

5. Impact on employment of Rochester Community and Technical College in the South East region by source (jobs)

	Direct	Indirect	Total
Operational expenditures	735	216	951
Students' spending	868	221	1,089
Investments	5	2	7
Total	1,608	439	2,047

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

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

State and local government education	697
Food services and drinking places	278
Real estate establishments	277
Child day care services	179
Retail Stores - Food and beverage	60
Retail Stores - Clothing and clothing accessories	45
Personal and household goods repair and maintenance	35
Medical and diagnostic labs and outpatient and other ambulatory care services	32
Employment services	22
Retail Stores - General merchandise	21

Impact on taxes

Rochester Community and Technical College generates about \$10 million in tax revenues for state and local governments each year. Through its operational activities, its employees' and students' spending, Rochester Community and Technical College supports the activities of the South East region by paying sales, property, and income taxes. Similarly, the college and its employees' social insurance contributions add to the state tax revenues. Since Rochester Community and Technical College'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, Rochester Community and Technical College 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 811 associate degrees awarded by Rochester Community and Technical College in 2011, this is equivalent to \$59.2 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 \$103 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 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.