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Research Report

**The Economic Impact
of the
Rainy River Community College
on Koochiching County**

For the
Koochiching Economic
Development Authority

Bureau of Business and
Economic Research

Labovitz School
OF BUSINESS AND ECONOMICS

UNIVERSITY OF MINNESOTA DULUTH

Driven to Discover

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Executive Summary

Founded in 1967, Rainy River Community College in International Falls, Minnesota, has over 300 full- and part-time students enrolled across 17 programs. The campus boasts 80 acres with eight buildings interconnected with heated walkways and an enclosed courtyard. A residence hall, softball field, lighted cross-country skiing and hiking trail, and three ponds edged by decks and walkways add to Rainy River's appeal. It is one of five colleges in the Northeast Higher Education District and is a member of the Minnesota State colleges and universities system of 54 campuses.

Rainy River Community College contacted the Bureau of Business and Economic Research to conduct an analysis of the college's economic impact on Koochiching County.

The school provides a significant positive impact on the county's economy through its annual operations and student and visitor spending.

In 2016, the total impact of all RRCC operational expenditures and those related to its students and visitors was estimated to have supported, either directly or indirectly, 99 jobs and contributed to more than \$8 million in local production.

This past year Rainy River budgeted about \$6 million in operational expenses, which included \$3 million in compensation and benefits for 68 employees. The spending from the college's operational expenditures resulted in a total of 82



jobs and over \$7 million of additional output in the county.

Student and visitor spending provides a significant impact to the local economy as well. It is estimated that, in 2016, students attending Rainy River Community College spent an estimated \$1 million, while visitors coming from out of the study region to see those students spent almost \$145,000 in the local economy. Combined, this spending produced 17 total jobs and increased output for the region by just over \$1 million.

The BBER used the economic multiplier analysis and input/output modeling of the economic modeling software IMPLAN 3.1¹ for this study. The most recent IMPLAN data available, for the year 2015, were used. Results of this modeling are presented here as a written report using 2017 dollars.

¹ IMPLAN Group LLC, 16905 NorthCross Drive, Suite 120
Huntersville, NC 28078 www.implan.com

The Economic Impact of the Rainy River Community College on Koochiching County

Inputs to the Model

The following section describes the inputs required for modeling the economic impacts of Rainy River Community College (RRCC), including the college's operational spending and spending by students and visitors. Operational inputs required included employment compensation, estimates of local purchases, and the proportion of different types of purchases. Data were provided by RRCC representatives for the most recent year, 2016. In instances where data was not provided by RRCC, the research team relied on IMPLAN estimates and secondary data sources as inputs.

Operations

The following inputs were used in the analysis of the college's 2016 operational impacts: there were 68 full- and part-time faculty and staff employed by the college, institutional spending totaled almost \$6 million with \$3 million allocated to employee compensation and benefits. The amounts used for the model inputs were in 2016 dollars, but all figures stated as outputs from the analysis were adjusted for inflation to reflect current, 2017 dollar amounts.

Student and Visitor Spending

The impacts of student and visitor spending were based on enrollment information provided by RRCC along with student spending estimates collected from secondary sources.

RRCC enrollment for the 2016 academic year totaled 317 students, 137 of whom were from outside the local study area. The economic impact attributable to the college relates only to new money injected into the local economy by non-local students and their visitors. Expenditures by Koochiching County residents represent only a recycling of money that already exists in the local economy. It is for this reason that the analysis is concerned only with non-local students and their visitors.

Student and visitor spending estimates were collected from a series of studies conducted by Wilder Research in 2006. These studies obtained typical student spending patterns, the average number of visitors per year, and visitor spending estimates for a number of the Minnesota State colleges and universities, through surveys of students and their guests. Since RRCC was not included in the series, the BBER used averages from the non-metro Minnesota state community colleges, inflated to 2016 dollars as the inputs for this analysis.

Off-campus student spending on room & board² was based on estimates from the Minnesota Department of Employment and Economic Development (DEED). Inflation adjusted values³ for all student and visitor spending estimates can be found in Table 1 and Table 2.

² <https://mn.gov/deed/data/data-tools/col/>

³ The inflation-adjusted values in table 1 and 2 are shown in 2016 dollars, as they are used as modeling inputs.

Table 1. Estimated Annual Student Spending (2016 dollars)

<i>Living Arrangements</i>	<i>Number of Students</i>	<i>Room & Board</i>	<i>Personal Expenses⁴</i>	<i>Total Expenses</i>
On-Campus	74	0 ⁵	\$6,494	\$480,542
Off-Campus	63	\$4,380	\$6,494	\$685,050
Total	137			\$1,165,592

SOURCE: WILDER, DEED

Table 2. Estimated Annual Visitor Spending (2016 dollars)

<i>Visitor Type</i>	<i>Number of Students</i>	<i>Visits Per Year</i>	<i>Spending Per Visit</i>	<i>Total Spending Per Year</i>
Parents	137	1.7	\$246	\$57,242
Friends	137	6	\$104	\$85,866
Total				\$143,108

SOURCE: WILDER

The two estimates of spending in Tables 1 and 2, just over \$1.3 million combined, served as the inputs used for modeling annual students' and visitors' spending.

Table 3. IMPLAN Sectors Used for Modeling Students' and Visitors' Spending

<i>IMPLAN Commodity Number</i>	<i>Description</i>
156	Petroleum refineries (gasoline)
400	Retail - Food and beverage stores
401	Retail - Health and personal care stores
403	Retail - Clothing and clothing accessories stores
404	Retail - Sporting goods, hobby, musical instrument
405	Retail - General merchandise stores
440	Real estate
499	Hotels and motels, including casino hotels
501	Full-service restaurants
502	Limited-service restaurants
503	All other food and drinking places
504	Automotive repair and maintenance, except car wash

SOURCE: IMPLAN, 2015

Table 3 contains a complete list of the sectors used for modeling the impacts of non-local students' and their visitors' spending. As can be seen in the table, typical expenses include food, beverages, gasoline, etc.⁶

⁴ Personal expenses were based on averages from the eight non-metro, two-year Minnesota State institutions. Personal expenses of on-campus students and off-campus students are assumed to be the same.

⁵ Room and board is included in the tuition of students living on-campus and, thus, is included in the college's impact.

⁶ Sector 156, Petroleum refineries, was used to represent spending on gasoline.

Key Findings

The direct, indirect, and induced effects of each category of spending were calculated after constructing the models for the various inputs discussed previously. These effects represent the economic impact of the Rainy River Community College on Employment, Labor Income, Value Added, and Output within Koochiching County.

Operations

This section describes the direct, indirect, and induced economic impacts resulting from Rainy River Community College's operations in Koochiching County. Impacts are measured in employment, output, and value added.

Table 4. Economic Impact of Rainy River Community College Operations, 2016 (2017 dollars)

<i>Impact Type</i>	<i>Employment</i>	<i>Labor Income</i>	<i>Value Added</i>	<i>Output</i>
Direct Effect	68	\$3,014,100	\$3,014,100	\$5,856,200
Indirect Effect	1	\$58,383	\$89,609	\$208,661
Induced Effect	12	\$348,073	\$731,052	\$1,316,000
Total Effect	82	\$3,420,556	\$3,834,761	\$7,380,861

SOURCE: IMPLAN, 2015

Table 4 shows the economic effects of the college's operational spending. The impacts of direct expenditures (i.e. the college's annual spending on equipment, supplies, staff, and all other purchases) are listed in the row titled Direct Effect. The row labeled Indirect Effect is a measurement of the impacts of increased spending between other commercial and governmental industries as a result of the direct spending. The third row, Induced Effect, relates to the impact of increased household spending as a result of income earned by employees of the direct and indirect industries involved. Total Effect is the sum of each of the three effect levels and represents the total economic impact of RRCC spending on the regional economy.

The left column in Table 4, Employment, is an estimate of the number of new jobs created and supported by the college. This estimate is in terms of jobs created and does not necessarily represent full-time equivalent employees – they may include full- or part-time, temporary, or short-term positions. In addition to the 68 employees directly employed by RRCC, the school's operations adds 13 additional new jobs in the region (indirect and induced).

Labor Income, the second column, is the compensation of all employees involved, including wages, benefits, and proprietor income. In addition to the income of the college's employees, roughly \$3 million, an additional \$400,000 in combined indirect and induced regional income resulted from RRCC's 2016 operations.

The third column, Value Added, represents the estimated contribution to gross regional product (GRP) made by an individual producer, industry, or sector. This impact includes labor income, additional employee compensation, taxes on production and imports, and gross operating surplus across the local economy due to college spending. The Value Added impact of the college's 2016 operations was almost \$4 million in the county.

The far right column in Table 4 shows Output, the total value of all local industry production related to RRCC's operational spending. From the data collected, the college is estimated to have contributed over \$7 million in total county output as a result of the multiplying effect of direct spending and employment.

Students' and Visitors' Spending

The economic impact of the average students' and visitors' spending is summarized in Table 5. The impacts of direct spending by non-local Rainy River students and their visitors are listed in the row titled Direct Effect. It should be noted that the total direct effect output shown in Table 5 (\$800,000) is less than the estimated total spending mentioned earlier (\$1.3 million in combined student and visitor spending, as shown in Tables 1 and 2). This is due to margining. Margins are applied when money is spent in a retail or wholesale sector, as only a small portion of that goes to the local retailer or wholesaler. The price of the goods sold is passed on to producers. All of the retail spending done by non-local students and their visitors is subject to margining, and therefore, the direct effects shown in Table 5 are slightly smaller than what was originally calculated.

Table 5. Economic Impact of Student and Visitor Spending, 2016 (2017 dollars)

<i>Impact Type</i>	<i>Employment</i>	<i>Labor Income</i>	<i>Value Added</i>	<i>Output</i>
Direct Effect	11	\$199,896	\$491,554	\$800,853
Indirect Effect	1	\$24,238	\$38,498	\$84,063
Induced Effect	1	\$24,053	\$50,612	\$91,096
Total Effect	12	\$248,187	\$580,665	\$976,012

SOURCE: IMPLAN, 2015

In total, approximately 12 new jobs are estimated to have been created as a result of non-local students' and visitors' spending, along with an increase in regional output of nearly \$1 million. Most of the impacts of this spending were felt in the local retail and hospitality industries, specifically the sectors shown in Table 3, on page 2.

Total Economic Impact

The overall total effects of Rainy River Community College on the county can be estimated by combining each of the previously discussed impact summaries. This includes the impacts of the college's operational expenditures as well as spending by the students and their friends and families. The results of these effects are summarized in Table 6.

Table 6. Total Economic Impact of Rainy River Community College, 2016 (2017 dollars)

<i>Impact Type</i>	<i>Employment</i>	<i>Labor Income</i>	<i>Value Added</i>	<i>Output</i>
Direct Effect	79	\$3,213,996	\$3,505,654	\$6,657,053
Indirect Effect	2	\$82,621	\$128,108	\$292,724
Induced Effect	13	\$372,126	\$781,664	\$1,407,096
Total Effect	94	\$3,668,743	\$4,415,426	\$8,356,873

SOURCE: IMPLAN, 2015

In total, the model estimated that 94 jobs were supported as a result of the college's ongoing operation in the region (79 direct jobs and 15 indirect or induced). Furthermore, the college contributed nearly \$8.5 million in total output throughout the study region.

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Conclusion

The Rainy River Community College has an important impact on Koochiching County, both in terms of the employment it provides and the economic benefit it produces through its ongoing operations. In 2016, the college employed 68 full- and part-time faculty and staff and had budgeted expenses of almost \$6 million for operations, with \$3 million for employment compensation and benefits. The total economic effects of the college's operational spending resulted in 82 jobs throughout the county and over \$7 million of additional output, because of the multiplying effects of indirect and induced effects.

Non-local students' spending, and spending by their visitors, has a smaller but still significant impact on the region. Students attending RRCC in 2016 were estimated to have spent more than \$1 million, while visitors coming from out of the study region to see those students spent another almost \$145,000. Combined, this spending produced 12 total jobs and increased output for the region by nearly \$1 million.

In total, the impact of RRCC operational expenditures and those related to its students and their friends and families was estimated to have supported almost 100 jobs with a total effect on regional output of almost \$8.5 million.