

The Economic Value of North Central Michigan College





NORTH CENTRAL MICHIGAN COLLEGE (NCMC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. The college draws students to the region, generating new dollars and opportunities for the Four-County Region.* NCMC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, NCMC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

NCMC influences both the lives of its students and the regional economy. The college supports a variety of industries in the Four-County Region, serves regional businesses, and benefits society as a whole in Michigan from an expanded economy and improved quality of life. Additionally, the benefits created by NCMC extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by NCMC on the business community and the benefits the college generates in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The following two analyses are presented:

 **Economic impact analysis**

 **Investment analysis**

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2023-24. Impacts on the Four-County Region economy are reported under the economic impact analysis and are measured in terms of added income. The returns on investment to students, taxpayers, and society in Michigan are reported under the investment analysis.



NCMC influences both the **lives of its students** and the **regional economy**.

* For the purposes of this analysis, the Four-County Region is comprised of Charlevoix, Cheboygan, Emmet, and Otsego Counties.



Economic impact analysis



NCMC promotes economic growth in the Four-County Region through its direct expenditures and the resulting expenditures of students and regional businesses. The college serves as an employer and buyer of goods and services for its day-to-day and construction operations. The college's activities attract students from outside the Four-County Region, whose expenditures benefit regional vendors. In addition, NCMC is one of the primary sources of higher education to the Four-County Region residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations spending impact



NCMC adds economic value to the Four-County Region as an employer of regional residents and a large-scale buyer of goods and services. In FY 2023-24, the college employed 210 full-time and part-time faculty and staff, 93% of whom lived in the Four-County Region. Total payroll at NCMC was \$13.8 million, much of which was spent in the region for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$7.0 million on expenses related to facilities, supplies, and professional services (excluding construction).

NCMC's operations spending added \$15.1 million in income to the region during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-region spending of the college and its employees, and a downward adjustment to account for funding that the college received from regional sources. The \$15.1 million in added income is equivalent to supporting 226 jobs in the region.

Construction spending impact



NCMC invests in capital projects each year to maintain its facilities, create additional capacities, and meet its growing educational demands. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the regional economy. In FY 2023-24, NCMC's construction spending generated \$969.2 thousand in added income, which is equivalent to supporting 15 jobs. It is worth noting that the CATEE Project, which constitutes the bulk of the construction expenditures for NCMC in FY 23-24 is in its nascent stages. The project is projected to cost \$22 million, which covers everything from demolition of the old tech building to architect fees and everything in between. A majority of these future expenditures will occur outside FY 23-24, and instead occur in FY 24-25 and

Impacts created by
NCMC in FY 2023-24



Operations spending impact
\$15.1 million

+



Construction spending impact
\$1.0 million

+



Student spending impact
\$1.5 million

+



Alumni impact
\$61.4 million



Total economic impact
\$78.9 million

OR



Jobs supported
1,030



FY 25-26, with final completion in the summer of 2026. The future impacts of these construction expenditures is expected to be substantial, as the \$22 million that will be spent on the CATEE Project represents an almost ten-fold increase in the construction expenditures measured in FY 23-24.

Student spending impact

About 15% of students attending NCMC originated from outside the region in FY 2023-24, and an estimated 132 of these students relocated to the Four-County Region to attend NCMC. These students may not have come to the region if the college did not exist. In addition, an estimated 92 in-region students, referred to as retained students, would have left the Four-County Region if not for the existence of NCMC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$1.5 million in added income for the regional economy in FY 2023-24, which supported 25 jobs in the Four-County Region.

Alumni impact

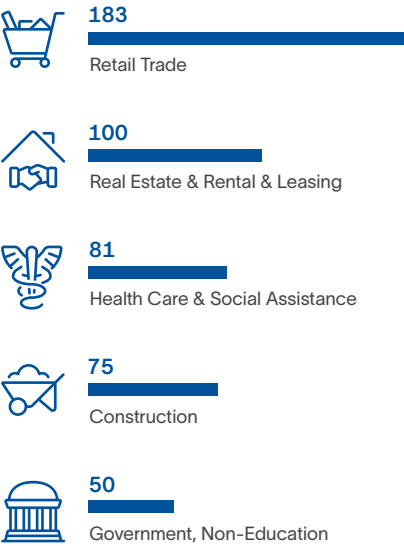
The education and training NCMC provides for regional residents has the greatest impact. Since the establishment of the college, students have studied at NCMC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former NCMC students are employed in the Four-County Region. As a result of their education from NCMC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2023-24, NCMC alumni generated \$61.4 million in added income for the regional economy, which is equivalent to supporting 765 jobs.

Total impact

NCMC added \$78.9 million in income to the Four-County Region economy during the analysis year, equal to the sum of the operations and construction spending impacts; the student spending impact; and the alumni impact. For context, the \$78.9 million impact was equal to approximately 1.2% of the total gross regional product (GRP) of the Four-County Region. This contribution that the college provided on its own is nearly as large as the entire Arts, Entertainment, & Recreation industry in the region.

NCMC's total impact can also be expressed in terms of jobs supported. The \$78.9 million impact supported 1,030 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 66 jobs in the Four-County Region is supported by the activities of NCMC and its students. In addition, the \$78.9 million, or 1,030 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of NCMC and its students and the activities of its alumni in the Real Estate & Rental & Leasing industry sector supported 100 jobs in FY 2023-24. If the college did not exist, these impacts would not have been generated in the Four-County Region.

NCMC impacts by industry (jobs supported)



One out of every 66 jobs in the Four-County Region is supported by the activities of NCMC and its students.

Investment analysis



An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. The analysis presented here evaluates NCMC as an investment from the perspectives of students, taxpayers, and society in Michigan. As with the economic impact analysis, this analysis considers only FY 2023-24 activities.

Student perspective



In FY 2023-24, NCMC served 2,078 credit and 1,039 non-credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. They also took out loans and will incur interest on those loans. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by NCMC's students in FY 2023-24 amounted to a present value of \$10.0 million, equal to \$5.2 million in out-of-pocket expenses (including future principal and interest on student loans) and \$4.8 million in forgone time and money.

In return for their investment, NCMC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average NCMC associate degree graduate from FY 2023-24 will see annual earnings that are \$8,400 higher than a person with a high school diploma or equivalent working in Michigan. Over a working lifetime, the benefits of an associate degree over a high school diploma will amount to an undiscounted value of \$369,600 in higher earnings per graduate. The present value of the cumulative higher future earnings that NCMC's FY 2023-24 students will receive over their working careers is \$44.6 million.

The students' benefit-cost ratio is 4.5. In other words, for every dollar students invest in NCMC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.50 in higher future earnings. Annually, the students' investment in NCMC has an average annual internal rate of return of 15.6%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.1%.

Students see a high rate of return for their investment in NCMC



Average annual return for NCMC students

15.6%



Stock market 30-year average annual return

10.1%



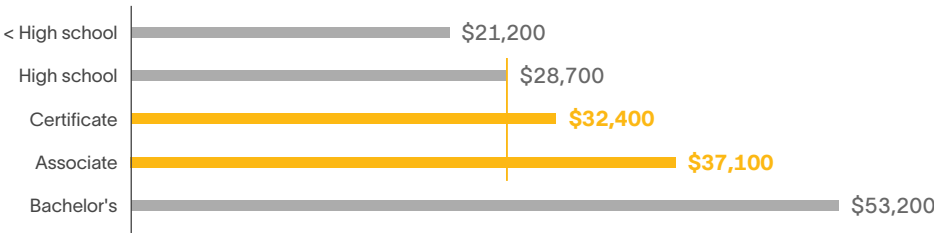
Interest earned on savings account (national deposit rate)

0.5%

Source: Forbes' S&P 500, 1994-2023; FDIC.gov, March 2023

Average earnings by education level at career midpoint

The average associate degree graduate and certificate completer from NCMC will see an increase in earnings of **\$8,400** and **\$3,700** each year, respectively, compared to a person with a high school diploma or equivalent working in Michigan.



Source: Lightcast employment data



Taxpayer perspective



NCMC generates more in tax revenue than it receives. These benefits to taxpayers consist primarily of taxes that the state and local government will collect from the added revenue created in the state. As NCMC students will earn more, they will make higher tax payments throughout their working lives. Students' employers will also make higher tax payments as they increase their output and purchases of goods and services. By the end of the FY 2023-24 students' working lives, the state and local government will have collected a present value of \$17.3 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of NCMC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that NCMC students receive will generate savings in three main categories: 1) health care, 2) justice system, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, costs related to the justice system will decrease. NCMC students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers. For a list of study references, contact the college for a copy of the main report. Altogether, the present value of the benefits associated with an education from NCMC will generate \$1.8 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$19.1 million, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$12.4 million, equal to the amount of state and local government funding NCMC received in FY 2023-24. These benefits and costs yield a benefit-cost ratio of 1.5. This means that for every dollar of public money invested in NCMC in FY 2023-24, taxpayers will receive a cumulative present value of \$1.50 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 2.9%, which compares favorably to other long-term investments in the public sector.

For every dollar of public money invested in NCMC, taxpayers will receive a cumulative value of **\$1.50** over the course of the students' working lives.

Social perspective



Society as a whole in Michigan benefits from the presence of NCMC in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business income), which raise economic prosperity in Michigan.

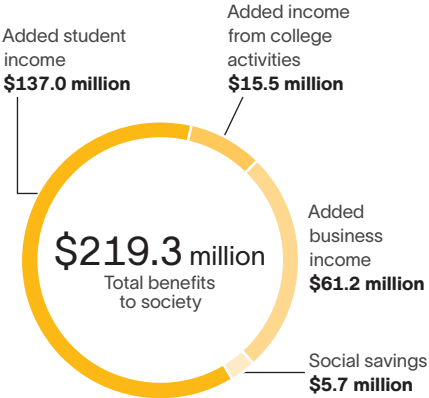
Benefits to society also consist of the savings generated by the improved lifestyles of NCMC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Health care savings include avoided medical costs associated with smoking, obesity, substance abuse, and depression. Justice system savings include avoided costs to the government and society due to less judicial activity.

Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact the college for a copy of the main report.

Altogether, the social benefits of NCMC equal a present value of \$219.3 million. These benefits include \$137.0 million in added student income, \$61.2 million in added business income, \$15.5 million in added income from college activities, as well as \$5.7 million in social savings related to health, the justice system, and income assistance in Michigan. People in Michigan invested a present value total of \$30.6 million in NCMC in FY 2023-24. The cost includes all the college and student costs.

The benefit-cost ratio for society is 7.2, equal to the \$219.3 million in benefits divided by the \$30.6 million in costs. In other words, for every dollar invested in NCMC, people in Michigan will receive a cumulative value of \$7.20 in benefits. The benefits of this investment will occur for as long as NCMC’s FY 2023-24 students remain employed in the state workforce.

Social benefits in Michigan from NCMC



Source: Lightcast impact model

Summary of investment analysis results

The results of the analysis demonstrate that NCMC is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, students receive a great return for their investments in an education from NCMC. At the same time, taxpayers’ investment in NCMC returns more to government budgets than it costs and creates a wide range of social benefits throughout Michigan.

Summary of investment analysis results

Student perspective		Taxpayer perspective		Social perspective	
Present value benefits \$44.6 million		Present value benefits \$19.1 million		Present value benefits \$219.3 million	
Present value costs \$10.0 million		Present value costs \$12.4 million		Present value costs \$30.6 million	
Net present value \$34.6 million		Net present value \$6.6 million		Net present value \$188.7 million	
Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return
4.5	15.6%	1.5	2.9%	7.2	n/a*

* The rate of return is not reported for the social perspective because the beneficiaries are not necessarily the same as the original investors.

Conclusion

*The results of this study demonstrate that NCMC creates value from **multiple perspectives**.*

The college benefits regional businesses by increasing consumer spending in the region and supplying a steady flow of qualified, trained workers to the workforce. NCMC enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The college benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, NCMC benefits society as a whole in Michigan by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.

About the study

Data and assumptions used in the study are based on several sources, including the FY 2023-24 academic and financial reports from NCMC, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Lightcast's Multi-Regional Social Accounting Matrix model, and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness. For a full description of the data and approach used in the study, please contact the college for a copy of the main report.



Lightcast provides colleges and universities with labor market data that help create better outcomes for students, businesses, and communities. Our data, which cover more than 99% of the U.S. workforce, are compiled from a wide variety of government sources, job postings, and online profiles and résumés. Hundreds of institutions use Lightcast to align programs with regional needs, drive enrollment, connect students with in-demand careers, track their alumni's employment outcomes, and demonstrate their institution's economic impact on their region. Visit lightcast.io/solutions/education to learn more or connect with us.