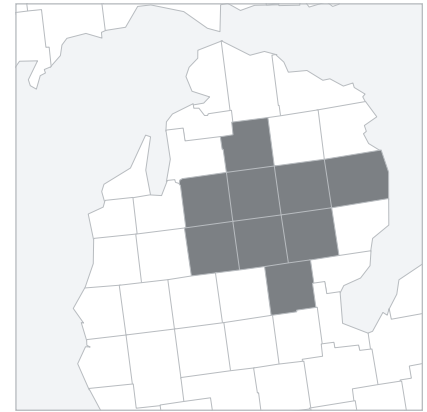




The Economic Value of Kirtland Community College

EXECUTIVE SUMMARY



KIRTLAND SERVICE AREA

KIRTLAND Community College (Kirtland) 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 Kirtland Service Area.* Kirtland provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, Kirtland is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

*The value of Kirtland influences both the **lives of its students** and the **regional economy**.*

This study measures the economic impacts created by Kirtland 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) 2017-18. Impacts on the Kirtland Service Area 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.

* For the purposes of this analysis, the Kirtland Service Area as is comprised of Alcona, Crawford, Gladwin, Kalkaska, Missaukee, Ogemaw, Oscoda, Otsego, and Roscommon Counties in central lower Michigan.



Economic impact analysis

Kirtland promotes economic growth in the Kirtland Service Area 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 operations. The college's activities attract students from outside the Kirtland Service Area, whose expenditures benefit regional vendors. In addition, Kirtland is a primary source of higher education to the Kirtland Service Area residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations spending impact



Kirtland adds economic value to the Kirtland Service Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2017-18, the college employed 133 full-time and part-time faculty and staff, 95% of whom lived in the Kirtland Service Area. Total payroll at Kirtland was \$10.6 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 \$5 million on day-to-day expenses related to facilities, supplies, and professional services.

Kirtland's day-to-day operations spending added \$11.8 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 \$11.8 million in added income is equivalent to supporting 158 jobs in the region.

Construction spending impact



Kirtland commissioned contractors to build or renovate its facilities in FY 2017-18. The quick infusion of income and jobs that occurred in the regional economy as a result of this construction spending is considered short-term due to the one-time nature of such projects. Nonetheless, the college's construction spending had a substantial impact on the regional economy in FY 2017-18, equal to \$398.7 thousand in added income and equivalent to supporting eight jobs.

Student spending impact



A portion of Kirtland's in-region students would have left the Kirtland Service Area, if not for the existence of the college. These students are referred to as retained students. While attending Kirtland,

IMPACTS CREATED
BY KIRTLAND IN FY 2017-18



\$11.8 million

Operations Spending Impact



\$398.7 thousand

Construction Spending Impact



\$514.5 thousand

Student Spending Impact



\$50.3 million

Alumni Impact



\$63 million

TOTAL IMPACT

- OR -

912

JOBS SUPPORTED

retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$514.5 thousand in added income for the regional economy in FY 2017-18, which supported 14 jobs in the Kirtland Service Area.

Alumni impact

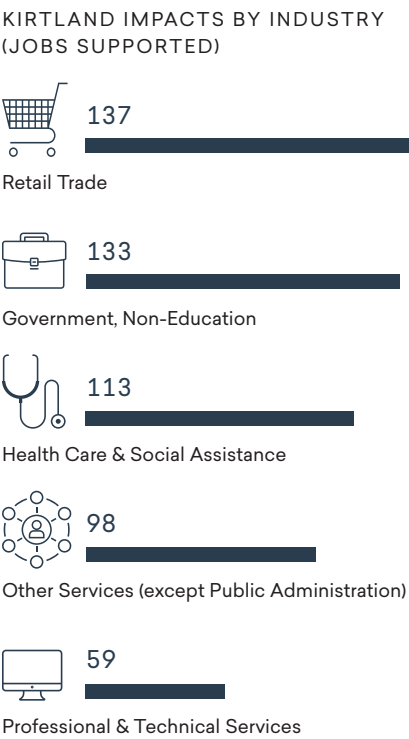


The education and training Kirtland provides for regional residents has the greatest impact. Since its establishment, students have studied at Kirtland and entered the regional workforce with greater knowledge and new skills. Today, thousands of former Kirtland students are employed in the Kirtland Service Area. As a result of their Kirtland educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2017-18, Kirtland alumni generated \$50.3 million in added income for the regional economy, which is equivalent to supporting 732 jobs.

Total impact

Kirtland added \$63 million in income to the Kirtland Service Area 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 \$63 million impact was equal to approximately 1.5% of the total gross regional product (GRP) of the Kirtland Service Area. This contribution that the college provided on its own was about twice as large as the entire Arts, Entertainment, & Recreation industry in the region.

Kirtland's total impact can also be expressed in terms of jobs supported. The \$63 million impact supported 912 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 69 jobs in the Kirtland Service Area is supported by the activities of Kirtland and its students. In addition, the \$63 million, or 912 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, Kirtland's spending and alumni in the Retail Trade industry sector generated an impact of \$9.2 million in FY 2017-18. These are impacts that would not have been generated without the college's presence in the Kirtland Service Area.



One out of every 69 jobs in the Kirtland Service Area is supported by the activities of Kirtland and its students.



Investment analysis

An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. If the benefits outweigh the costs, then the investment is financially worthwhile. The analysis presented here considers Kirtland as an investment from the perspectives of students, taxpayers, and society in Michigan.

Student perspective



In FY 2017-18, Kirtland served 1,927 credit and 452 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 Kirtland's students in FY 2017-18 amounted to a present value of \$8.2 million, equal to \$5.3 million in out-of-pocket expenses (including future principal and interest on student loans) and \$2.9 million in forgone time and money.

In return for their investment, Kirtland's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Kirtland associate degree graduate from FY 2017-18 has an annual salary of \$30,800, which is a \$7,600 difference from a person working in Michigan with a high school diploma or equivalent. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$334.4 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that Kirtland's FY 2017-18 students will receive over their working careers is \$46.4 million.

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN KIRTLAND



21.2%

Average annual return for Kirtland students



9.9%

Stock market 30-year average annual return



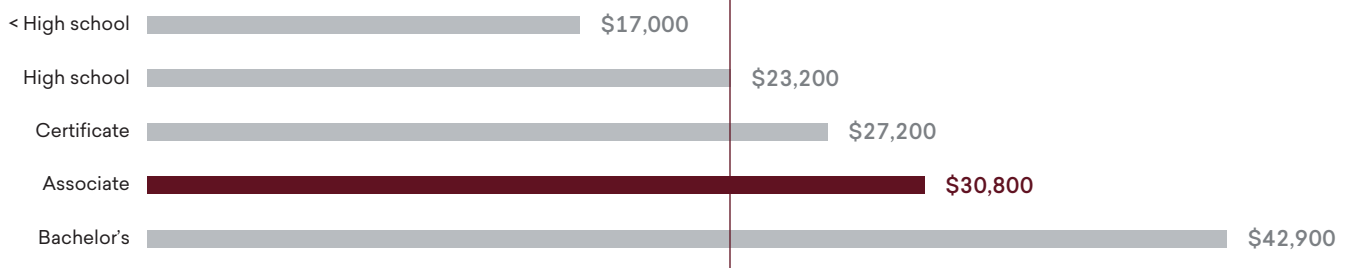
0.8%

Interest earned on savings account (National Rate Cap)

Source: Forbes' S&P 500, 1989-2018. FDIC.gov, 6-2019.

Present value is the current value of a future sum of money or stream of cash flow. Future sums or cash flows are discounted at a specific rate, called the discount rate. The higher the discount rate is the lower the present value of the sum or cash flow.

The average Kirtland associate degree graduate from FY 2017-18 has an annual salary of \$30,800, which is a **\$7,600** difference from a person working in Michigan with a high school diploma or equivalent.



Source: Emsi employment data.

The students' benefit-cost ratio is 5.6. In other words, for every dollar students invest in Kirtland, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$5.60 in higher future earnings. Annually, the students' investment in Kirtland has an average annual internal rate of return of 21.2%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



Kirtland generates more in tax revenue than it takes. 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 Kirtland 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 2017-18 students' working lives, the state and local government will have collected a present value of \$15.7 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Kirtland students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' Kirtland educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, students will be less likely to interact with the criminal justice system, resulting in a reduced demand for law enforcement and victim costs. Kirtland 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 a Kirtland education will generate \$1.6 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$17.3 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$11.5 million, equal to the amount of state and local government funding Kirtland received in FY 2017-18. These benefits and costs yield a benefit-cost ratio of 1.5. This means

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



STUDENT PERSPECTIVE

\$46.4 million
Present value benefits

\$8.2 million
Present value costs

\$38.1 million
Net present value

Benefit-cost ratio	Rate of return
5.6	21.2%



TAXPAYER PERSPECTIVE

\$17.3 million
Present value benefits

\$11.5 million
Present value costs

\$5.8 million
Net present value

Benefit-cost ratio	Rate of return
1.5	3.1%



SOCIAL PERSPECTIVE

\$196 million
Present value benefits

\$21.5 million
Present value costs

\$174.5 million
Net present value

Benefit-cost ratio	Rate of return
9.1	n/a*

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

that for every dollar of public money invested in Kirtland in FY 2017-18, taxpayers will receive a cumulative value of \$1.50 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 3.1%.

Social perspective



Society as a whole in Michigan benefits from the presence of Kirtland in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to higher student earnings and increased business output, which raise economic prosperity in Michigan.

Benefits to society also consist of the savings generated by the improved lifestyles of Kirtland 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. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Savings related to crime include reduced security expenditures and insurance administration, lower victim costs, and reduced expenditures by the criminal justice system. 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.

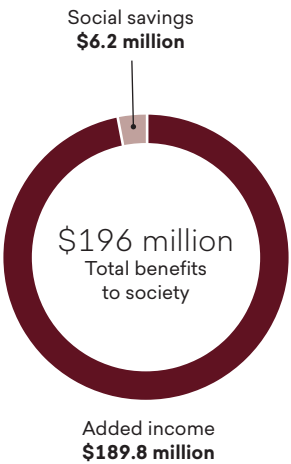
Altogether, the social benefits of Kirtland equal a present value of \$196 million. These benefits include \$189.8 million in added income through students' increased lifetime earnings and increased business output, as well as \$6.2 million in social savings related to health, crime, and income assistance in Michigan. People in Michigan invested a present value total of \$21.5 million in Kirtland in FY 2017-18. The cost includes all the college and student costs.

The benefit-cost ratio for society is 9.1, equal to the \$196 million in benefits divided by the \$21.5 million in costs. In other words, for every dollar invested in Kirtland, people in Michigan will receive a cumulative value of \$9.10 in benefits. The benefits of this investment will occur for as long as Kirtland's FY 2017-18 students remain employed in the state workforce.

Summary of investment analysis results

The results of the analysis demonstrate that Kirtland 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 a Kirtland education. At the same time, taxpayers' investment in Kirtland returns more to government budgets than it costs and creates a wide range of social benefits throughout Michigan.

SOCIAL BENEFITS
IN MICHIGAN FROM KIRTLAND



Conclusion

The results of this study demonstrate that Kirtland 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. Kirtland 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, Kirtland 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 2017-18 academic and financial reports from Kirtland, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi'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.

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multiple perspectives.



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