

# The Economic Value of East Central College to the East Central College Taxing District





**E**AST CENTRAL COLLEGE (ECC) 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 ECC Taxing District.\* ECC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, ECC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by ECC 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) 2022-23. Impacts on the ECC Taxing District 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 Missouri are reported under the investment analysis.



**The ECC Taxing District, Missouri**

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

\* For the purposes of this analysis, the ECC Taxing District is comprised of 16 zip codes spanning across Crawford, Franklin, St. Charles, and Warren Counties in Missouri.

# Economic impact analysis



ECC promotes economic growth in the ECC Taxing District 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 ECC Taxing District, whose expenditures benefit regional vendors. In addition, ECC is one of the primary sources of higher education to the ECC Taxing District residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

## Operations spending impact



ECC adds economic value to the ECC Taxing District as an employer of regional residents and a large-scale buyer of goods and services. In FY 2022-23, the college employed 453 full-time and part-time faculty and staff, 65% of whom lived in the ECC Taxing District. Total payroll at ECC was \$18.2 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 \$8.7 million on expenses related to facilities, supplies, and professional services.

ECC's operations spending added \$10.9 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 \$10.9 million in added income is equivalent to supporting 346 jobs in the region.

## Student spending impact



Around 34% of students attending ECC originated from outside the region in FY 2022-23, and most of them relocated to the ECC Taxing District to attend ECC. These students may not have come to the region if the college did not exist. In addition, some in-region students, referred to as retained students, would have left the ECC Taxing District if not for the existence of ECC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$9.5 million in added income for the regional economy in FY 2022-23, which supported 167 jobs in the ECC Taxing District.

Impacts created by  
ECC in FY 2022-23



Operations spending impact

**\$10.9 million**

+



Student spending impact

**\$9.5 million**

+



Alumni impact

**\$90.5 million**



Total economic impact

**\$110.9 million**

OR



Jobs supported

**1,891**



## Alumni impact



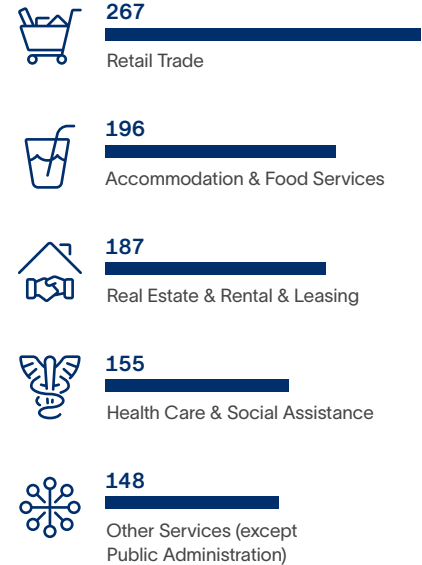
The education and training ECC provides for regional residents has the greatest impact. Since the establishment of the college, students have studied at ECC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former ECC students are employed in the ECC Taxing District. As a result of their education from ECC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2022-23, ECC alumni generated \$90.5 million in added income for the regional economy, which is equivalent to supporting 1,378 jobs.

## Total impact

ECC added \$110.9 million in income to the ECC Taxing District economy during the analysis year, equal to the sum of the operations spending impact, the student spending impact, and the alumni impact. For context, the \$110.9 million impact was equal to approximately 2.7% of the total gross regional product (GRP) of the ECC Taxing District. This contribution that the college provided on its own is nearly as large as the entire Accommodation & Food Service industry in the region.

ECC's total impact can also be expressed in terms of jobs supported. The \$110.9 million impact supported 1,891 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 26 jobs in the ECC Taxing District is supported by the activities of ECC and its students. In addition, the \$110.9 million, or 1,891 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of ECC and its students and the activities of its alumni in the Health Care & Social Assistance industry supported 155 jobs in FY 2022-23. If the college did not exist, these impacts would not have been generated in the ECC Taxing District.

### ECC impacts by industry (jobs supported)



**One out of every 26 jobs** in the ECC Taxing District are supported by the activities of ECC 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 ECC as an investment from the perspectives of students, taxpayers, and society in Missouri. As with the economic impact analysis, this analysis considers only FY 2022-23 activities.

## Student perspective



In FY 2022-23, ECC served 3,192 credit and 1,095 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 ECC's students in FY 2022-23 amounted to a present value of \$13.3 million, equal to \$7.7 million in out-of-pocket expenses (including future principal and interest on student loans) and \$5.7 million in forgone time and money.

In return for their investment, ECC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average ECC associate degree graduate from FY 2022-23 will see annual earnings that are \$7,500 higher than a person with a high school diploma or equivalent working in Missouri. Over a working lifetime, the benefits of an associate degree over a high school diploma will amount to an undiscounted value of \$330,000 in higher earnings per graduate. The present value of the cumulative higher future earnings that ECC's FY 2022-23 students will receive over their working careers is \$74.3 million.

The students' benefit-cost ratio is 5.6. In other words, for every dollar students invest in ECC 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'

### Students see a high rate of return for their investment in ECC



Average annual return for ECC students  
**17.9%**



Stock market 30-year average annual return  
10.1%

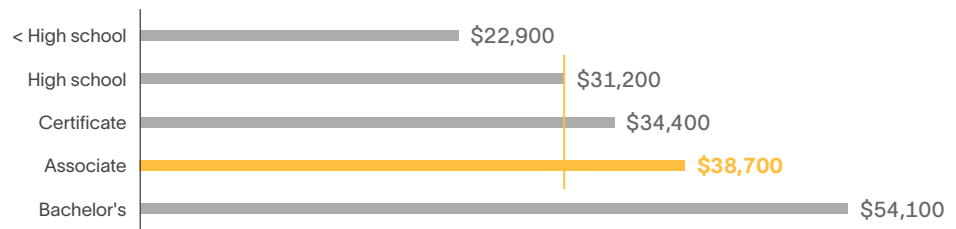


Interest earned on savings account (national deposit rate)  
0.5%

Source: Forbes' S&P 500, 1992-2022; FDIC.gov, 2-2022

### Average earnings by education level at career midpoint

The average associate degree graduate from ECC will see an increase in earnings of **\$7,500** each year compared to a person with a high school diploma or equivalent working in Missouri.



Source: Lightcast employment data

investment in ECC has an average annual internal rate of return of 17.9%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.1%.

## Taxpayer perspective



ECC 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 ECC 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 2022-23 students' working lives, the state and local government will have collected a present value of \$22.5 million in added taxes.

For every dollar of public money invested in ECC, taxpayers will receive a cumulative value of **\$1.40** over the course of the students' working lives.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of ECC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that ECC 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. ECC 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 ECC will generate \$3.1 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$25.6 million, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$18.6 million, equal to the amount of state and local government funding ECC received in FY 2022-23. These benefits and costs yield a benefit-cost ratio of 1.4. This means that for every dollar of public money invested in ECC in FY 2022-23, taxpayers will receive a cumulative present value of \$1.40 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 2.2%, which compares favorably to other long-term investments in the public sector.

## Social perspective



Society as a whole in Missouri benefits from the presence of ECC 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 Missouri.

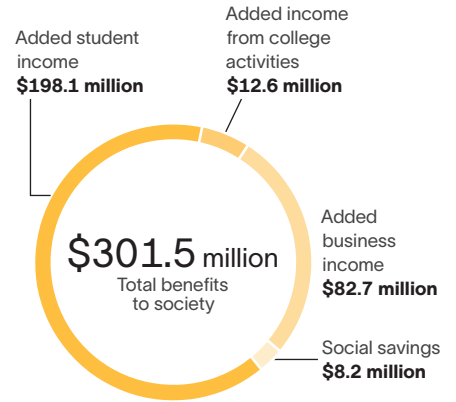
Benefits to society also consist of the savings generated by the improved lifestyles of ECC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are 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 ECC equal a present value of \$301.5 million. These benefits include \$198.1 million in added student income, \$82.7 million in added business income, \$8.2 million in added income from college activities, as well as \$12.6 million in social savings related to health, the justice system, and income assistance in Missouri. People in Missouri invested a present value total of \$35.4 million in ECC in FY 2022-23. The cost includes all the college and student costs.

The benefit-cost ratio for society is 8.5, equal to the \$301.5 million in benefits divided by the \$35.4 million in costs. In other words, for every dollar invested in ECC, people in Missouri will receive a cumulative value of \$8.50 in benefits. The benefits of this investment will occur for as long as ECC's FY 2022-23 students remain employed in the state workforce.

### Social benefits in Missouri from ECC






Source: Lightcast impact model

## Summary of investment analysis results

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

### Summary of investment analysis results

 <b>Student perspective</b>		 <b>Taxpayer perspective</b>		 <b>Social perspective</b>	
Present value benefits	<b>\$74.3 million</b>	Present value benefits	<b>\$25.6 million</b>	Present value benefits	<b>\$301.5 million</b>
Present value costs	<b>\$13.3 million</b>	Present value costs	<b>\$18.6 million</b>	Present value costs	<b>\$25.4 million</b>
Net present value	<b>\$60.9 million</b>	Net present value	<b>\$6.9 million</b>	Net present value	<b>\$266.1 million</b>
Benefit-cost ratio	<b>5.6</b>	Benefit-cost ratio	<b>1.4</b>	Benefit-cost ratio	<b>8.5</b>
Rate of return	<b>17.9%</b>	Rate of return	<b>2.2%</b>	Rate of return	<b>n/a*</b>

\* 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 ECC 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. ECC 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, ECC benefits society as a whole in Missouri 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 2022-23 academic and financial reports from ECC, 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.



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