



LEE COLLEGE

The Economic Value of Lee College

EXECUTIVE SUMMARY



THE LEE COLLEGE SERVICE AREA

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

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

This study measures the economic impacts created by Lee 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) 2018-19. Impacts on the Lee College 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 Texas are reported under the investment analysis.

* For the purposes of this analysis, the Lee College Service Area is comprised of Chambers, Harris, and Liberty Counties.

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Economic impact analysis

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

Operations spending impact



Lee adds economic value to the Lee College Service Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2018-19, the college employed 748 full-time and part-time faculty and staff, 63% of whom lived in the Lee College Service Area. Total payroll at Lee was \$41.5 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 \$14.3 million on day-to-day expenses related to facilities, supplies, and professional services.

Lee's day-to-day operations spending added \$41.3 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 \$41.3 million in added income is equivalent to supporting 733 jobs in the region.

Construction spending impact



Lee invests in construction 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 2018-19, Lee's construction spending generated \$2.6 million in added income, which is equivalent to supporting 33 jobs.

Student spending impact



Around 11% of students attending Lee originated from outside the region in FY 2018-19, and some of these students relocated to the Lee College Service Area to attend Lee. These students may not

IMPACTS CREATED
BY LEE IN FY 2018-19



\$41.3 million
Operations Spending Impact



\$2.6 million
Construction Spending Impact



\$13.6 million
Student Spending Impact



\$435.2 million
Alumni Impact



\$492.7 million
TOTAL IMPACT

- OR -

4,404
JOBS SUPPORTED

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 Lee College Service Area if not for the existence of Lee. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$13.6 million in added income for the regional economy in FY 2018-19, which supported 265 jobs in the Lee College Service Area.

Alumni impact



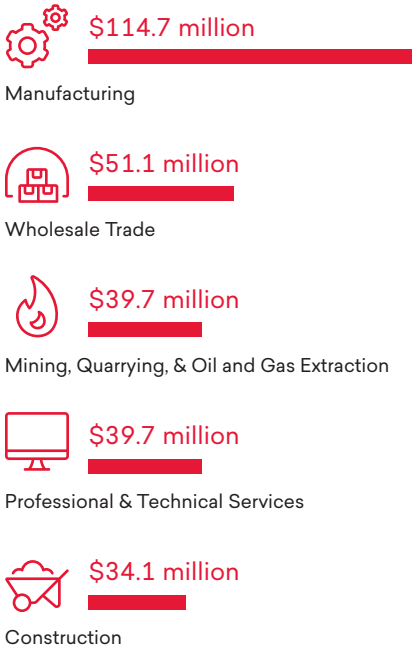
The education and training Lee provides for regional residents has the greatest impact. Since its establishment, students have studied at Lee and entered the regional workforce with greater knowledge and new skills. Today, thousands of former Lee students are employed in the Lee College Service Area. As a result of their Lee educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, Lee alumni generated \$435.2 million in added income for the regional economy, which is equivalent to supporting 3,373 jobs.

Total impact

Lee added \$492.7 million in income to the Lee College 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. Lee’s total impact can also be expressed in terms of jobs supported. The \$492.7 million impact supported 4,404 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. In addition, the \$492.7 million, or 4,404 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, Lee’s spending and alumni in the Manufacturing industry sector added \$114.7 million in income to the region in FY 2018-19. These are impacts that would not have been generated without the college’s presence in the Lee College Service Area.



LEE IMPACTS BY INDUSTRY (ADDED INCOME)





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 Lee as an investment from the perspectives of students, taxpayers, and society in Texas.

Student perspective



In FY 2018-19, Lee served 10,458 credit and 524 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 Lee's students in FY 2018-19 amounted to a present value of \$98.5 million, equal to \$17.7 million in out-of-pocket expenses (including future principal and interest on student loans) and \$80.8 million in forgone time and money.

In return for their investment, Lee's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Lee associate degree graduate from FY 2018-19 will see annual earnings that are \$12,600 higher than a person with a high school diploma or equivalent working in Texas. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$529.2 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that Lee's FY 2018-19 students will receive over their working careers is \$332.4 million.

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



14.7%

Average annual return for Lee students



9.9%

Stock market 30-year average annual return

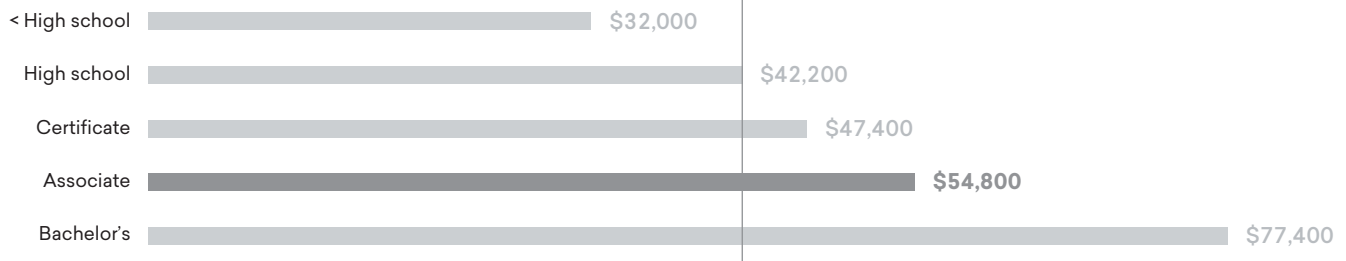


0.8%

Interest earned on savings account (National Rate Cap)

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

The average associate degree graduate from Lee will see an increase in earnings of **\$12,600** each year compared to a person with a high school diploma or equivalent working in Texas.



Source: Emsi employment data.

The students' benefit-cost ratio is 3.4. In other words, for every dollar students invest in Lee, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$3.40 in higher future earnings. Annually, the students' investment in Lee has an average annual internal rate of return of 14.7%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



Lee 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 Lee 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 2018-19 students' working lives, the state and local government will have collected a present value of \$118.5 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Lee students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' Lee 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. Lee 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 Lee education will generate \$7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$125.5 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$45.8 million, equal to the amount of state and local government funding Lee received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of 2.7. This means that for every dollar of public money invested in Lee in FY 2018-19, taxpayers will receive a cumulative value of \$2.70 over the course of the students' working lives. The

*For every dollar of public money invested in Lee, taxpayers will receive a cumulative value of **\$2.70** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$332.4 million
Present value benefits

\$98.5 million
Present value costs

\$233.9 million
Net present value

Benefit-cost ratio	Rate of return
3.4	14.7%



TAXPAYER PERSPECTIVE

\$125.5 million
Present value benefits

\$45.8 million
Present value costs

\$79.7 million
Net present value

Benefit-cost ratio	Rate of return
2.7	7.9%



SOCIAL PERSPECTIVE

\$1.9 billion
Present value benefits

\$0.1 billion
Present value costs

\$1.7 billion
Net present value

Benefit-cost ratio	Rate of return
12.8	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.

average annual internal rate of return for taxpayers is 7.9%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



Society as a whole in Texas benefits from the presence of Lee 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 Texas.

Benefits to society also consist of the savings generated by the improved lifestyles of Lee 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.

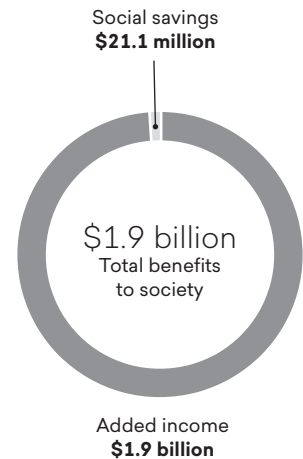
Altogether, the social benefits of Lee equal a present value of \$1.9 billion. These benefits include \$1.9 billion in added income through students' increased lifetime earnings and increased business output, as well as \$21.1 million in social savings related to health, crime, and income assistance in Texas. People in Texas invested a present value total of \$148.8 million in Lee in FY 2018-19. The cost includes all the college and student costs.

The benefit-cost ratio for society is 12.8, equal to the \$1.9 billion in benefits divided by the \$148.8 million in costs. In other words, for every dollar invested in Lee, people in Texas will receive a cumulative value of \$12.80 in benefits. The benefits of this investment will occur for as long as Lee's FY 2018-19 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN TEXAS FROM LEE



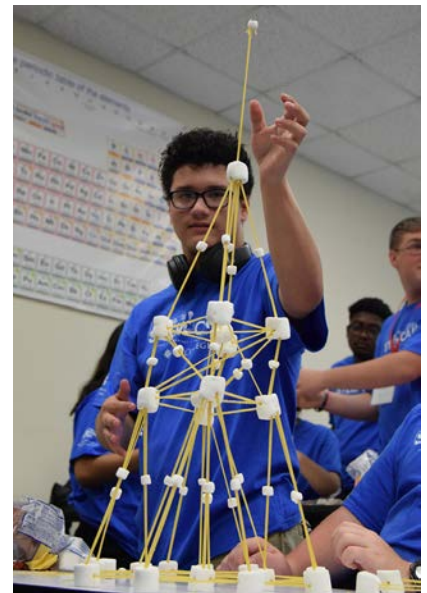
Conclusion

The results of this study demonstrate that Lee 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. Lee 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, Lee benefits society as a whole in Texas 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 2018-19 academic and financial reports from Lee, 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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