



UNIVERSITY OF
CENTRAL
ARKANSAS™

The Economic Value of the
University of Central Arkansas

EXECUTIVE SUMMARY



STATE OF ARKANSAS

THE University of Central Arkansas (UCA) creates value in many ways. The university plays a key role in helping students increase their employability and achieve their individual potential. The university facilitates new research developments and draws visitors and students to the state, generating new dollars and opportunities for Arkansas. UCA provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, UCA is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by UCA on the business community and the benefits the university 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 university, for fiscal year (FY) 2018-19. Impacts on the Arkansas 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 Arkansas are reported under the investment analysis.

UCA influences both the lives of its students and the state economy.



Economic impact analysis



IMPACTS CREATED
BY UCA IN FY 2018-19



\$110.5 million
Operations Spending Impact



\$2.9 million
Research Spending Impact



\$4.1 million
Construction Spending Impact



\$299.9 thousand
Visitor Spending Impact



\$18.2 million
Student Spending Impact



\$878.4 million
Alumni Impact



\$1.01 billion
TOTAL IMPACT

- OR -

19,506
JOBS SUPPORTED

UCA promotes economic growth in Arkansas through its direct expenditures and the resulting expenditures of visitors, students, and state businesses. The university serves as an employer and buyer of goods and services for its day-to-day, research, and construction operations. The university's reputation and activities attract visitors and students from outside Arkansas, whose expenditures benefit state vendors. In addition, UCA is a primary source of higher education to Arkansas residents and a supplier of trained workers to state industries, enhancing overall productivity in the state workforce. UCA added a net total impact of \$1.01 billion in added income to the Arkansas economy, equivalent to supporting 19,506 jobs in FY 2018-19.

Operations spending impact



UCA adds economic value to Arkansas as an employer of state residents and a large-scale buyer of goods and services. In FY 2018-19, the university employed 2,014 full-time and part-time faculty and staff, 99.9% of whom lived in Arkansas. Total payroll at UCA was \$106.6 million (excluding payroll from research employees), much of which was spent in the state for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the university spent \$76.3 million on day-to-day expenses related to facilities, supplies, and professional services (excluding research expenditures).

UCA's day-to-day operations spending added \$110.5 million in income to the state during the analysis year. This figure represents the university's payroll,

the multiplier effects generated by the in-state spending of the university and its employees, and a downward adjustment to account for funding that the university received from state sources. The \$110.5 million in added income is equivalent to supporting 2,024 jobs in the state.

Research spending impact



Research activities impact the economy by employing people and requiring the purchase of equipment and other supplies and services.

In FY 2018-19, UCA spent \$1.8 million on payroll to support research activities. This, along with \$1.7 million in other research spending, created a net total of \$2.9 million in added income for the state economy. This added income is equivalent to supporting 52 jobs.

Construction spending impact



UCA 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 state economy. In FY 2018-19, UCA's construction spending generated an annual net impact of \$4.1 million, which is equivalent to supporting 82 jobs. Projected construction expenditures for FY 2019-20 will create an additional undiscounted net added income of \$4.9 million.¹

Visitor spending impact



Thousands of visitors from outside the state were attracted to UCA during the analysis year to attend commencement, sports events, and other activities sponsored by the university. While in the state,

visitors spent money for lodging, food, transportation, and other personal expenses. The off-campus expenditures of the university's out-of-state visitors generated a net impact of \$299.9 thousand in added income for the state economy in FY 2018-19. This \$299.9 thousand in added income is equivalent to supporting eight jobs.

Student spending impact



Around 14% of credit students attending UCA originated from outside the state in FY 2018-19, and some of these students relocated to Arkansas to attend UCA. These students may not have come to the

state if the university did not exist. In addition, some in-state students, referred to as retained students, would have left Arkansas if not for the existence of UCA.

¹ The FY 2019-20 construction spending impact should not be summed with the FY 2018-19 impacts.

While attending the university, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$18.2 million in added income for the state economy in FY 2018-19, which supported 419 jobs in Arkansas.

Alumni impact



The education and training UCA provides for state residents has the greatest impact. Since its establishment, students have studied at UCA and entered the state workforce with greater knowledge and new skills. Using Emsi’s Alumni Outcomes data, many of UCA’s alumni are employed in the state workforce in industry sectors such as Health Care & Social Assistance, Educational Services, and Professional & Technical Services, with their top occupations being teachers & instructors, managers, chief executives, registered nurses, and accountants & auditors. Today, thousands of former UCA students are employed in Arkansas. As a result of their UCA educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, UCA alumni generated \$878.4 million in added income for the state economy, which is equivalent to supporting 16,920 jobs.

Total impact

UCA added \$1.01 billion in income to the Arkansas economy during the analysis year, equal to the sum of the operations, research, and construction spending impacts; the visitor and student spending impacts; and the alumni impact. For context, the \$1.01 billion impact was equal to approximately 0.8% of the total gross state product (GSP) of Arkansas.

UCA’s total impact can also be expressed in terms of jobs supported. The \$1.01 billion impact supported 19,506 state jobs, using the jobs-to-sales ratios specific to each industry in the state. This means that one out of every 85 jobs in Arkansas is supported by the activities of UCA and its students. In addition, the \$1.01 billion, or 19,506 supported jobs, stemmed from different industry sectors. UCA’s spending and alumni in the Educational Services industry sector supported 2,980 jobs in FY 2018-19. These are impacts that would not have been generated without the university’s presence in Arkansas.

UCA IMPACTS BY INDUSTRY (JOBS SUPPORTED)



One out of every 85 jobs in Arkansas is supported by the activities of UCA 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 UCA as an investment from the perspectives of students, taxpayers, and society in Arkansas.

Student perspective



In FY 2018-19, UCA served 12,741 credit and 1,358 non-credit students. In order to attend the university, 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 UCA's students in FY 2018-19 amounted to a present value of \$155.7 million, equal to \$64.2 million in out-of-pocket expenses (including future principal and interest on student loans) and \$91.5 million in forgone time and money.

In return for their investment, UCA's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average UCA bachelor's degree graduate from FY 2018-19 will see annual earnings that are \$31,100 higher than a person with a high school diploma or equivalent working in Arkansas.² Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$1.4 million in higher earnings per graduate. The present value of the cumulative higher future earnings that UCA's FY 2018-19 students will receive over their working careers is \$807.3 million.

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



19.1%

Average annual return for UCA students



9.9%

Stock market 30-year average annual return

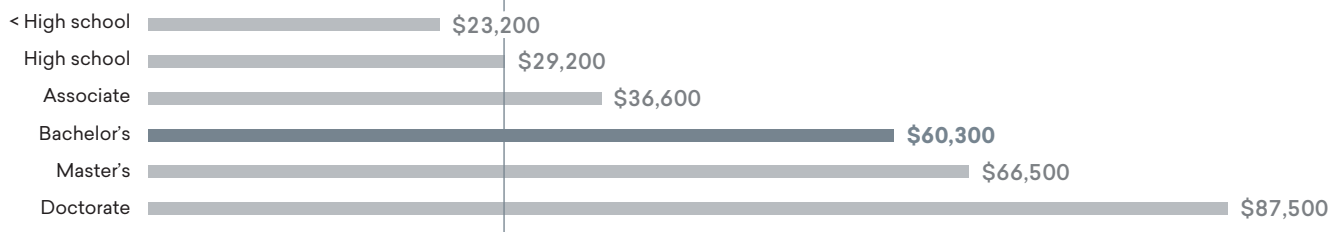


0.8%

Interest earned on savings account (National Rate Cap)

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

The average bachelor's degree graduate from UCA will see an increase in earnings of **\$31,100** each year compared to a person with a high school diploma or equivalent working in Arkansas.



Source: Emsi employment data.

² Earnings data was calculated using complete Emsi earnings data supported by UCA Alumni Outcomes data.

The students' benefit-cost ratio is 5.2. In other words, for every dollar students invest in UCA, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$5.20 in higher future earnings. Annually, the students' investment in UCA has an average annual internal rate of return of 19.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



UCA 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 UCA 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 \$148 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of UCA students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' UCA 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. UCA 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 university for a copy of the main report. Altogether, the present value of the benefits associated with a UCA education will generate \$28.8 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$176.8 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$81.3 million, equal to the amount of state and local government funding UCA received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of 2.2. This means that for every dollar of public money invested in UCA in FY 2018-19, taxpayers will receive a cumulative value of \$2.20 over the course of the students'

*For every dollar of public money invested in UCA, taxpayers will receive a cumulative value of **\$2.20** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$807.3 million
Present value benefits

\$155.7 million
Present value costs

\$651.6 million
Net present value

Benefit-cost Ratio	Rate of Return
5.2	19.1%



TAXPAYER PERSPECTIVE

\$176.8 million
Present value benefits

\$81.3 million
Present value costs

\$95.5 million
Net present value

Benefit-cost Ratio	Rate of Return
2.2	5.7%



SOCIAL PERSPECTIVE

\$2.7 billion
Present value benefits

\$312.9 million
Present value costs

\$2.4 billion
Net present value

Benefit-cost Ratio	Rate of Return
8.6	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.

working lives. The average annual internal rate of return for taxpayers is 5.7%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



Society as a whole in Arkansas benefits from the presence of UCA 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 Arkansas.

Benefits to society also consist of the savings generated by the improved lifestyles of UCA 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 university for a copy of the main report.

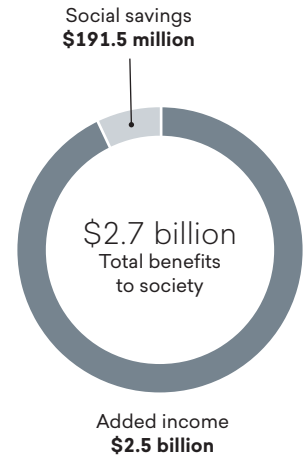
Altogether, the social benefits of UCA equal a present value of \$2.7 billion. These benefits include \$2.5 billion in added income through students' increased lifetime earnings and increased business output, as well as \$191.5 million in social savings related to health, crime, and income assistance in Arkansas. People in Arkansas invested a present value total of \$312.9 million in UCA in FY 2018-19. The cost includes all the university and student costs.

The benefit-cost ratio for society is 8.6, equal to the \$2.7 billion in benefits divided by the \$312.9 million in costs. In other words, for every dollar invested in UCA, people in Arkansas will receive a cumulative value of \$8.60 in benefits. The benefits of this investment will occur for as long as UCA's FY 2018-19 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN ARKANSAS FROM UCA



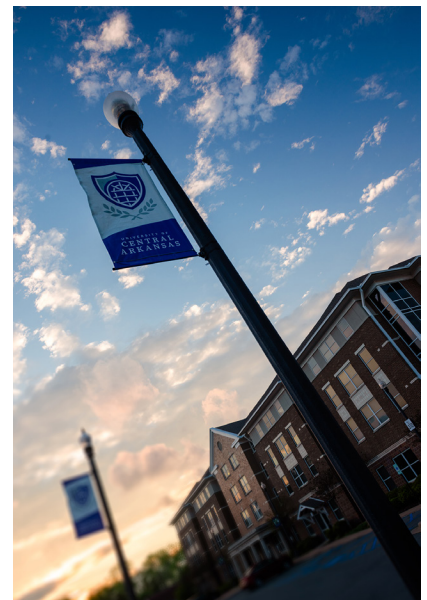
Conclusion

The results of this study demonstrate that UCA creates value from multiple perspectives. The university benefits state businesses by increasing consumer spending in the state and supplying a steady flow of qualified, trained workers to the workforce. UCA enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The university benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, UCA benefits society as a whole in Arkansas 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 UCA, the university's alumni records matched to Emsi's Alumni Outcomes database, 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 university for a copy of the main report.

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



Emsi is a labor market analytics firm that integrates data from a wide variety of sources to serve professionals in higher education, economic development, workforce development, talent acquisition, and site selection. Emsi is a leading provider of economic impact studies and labor market data to educational institutions in the U.S. and internationally. Since 2000, Emsi has completed over 2,000 economic impact studies for institutions across three countries. For more information about Emsi's products and services, visit www.economicmodeling.com.