



THE UNIVERSITY OF
ALABAMA IN HUNTSVILLE

Economic Impact Study
Fiscal Year 2014-2015



by

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UAH Annual Impact on the Alabama Economy



The University of Alabama in Huntsville fiscal year 2014-15 economic impacts include:

- \$475 million in total economic impact generated for the state of Alabama
- 4,834 jobs created and sustained by UAH in the State of Alabama
- \$21 million in tax revenue generated for state and local governments, including sales, property, income and business tax payments.
- \$44 million in state appropriations to UAH are leveraged to generate significant impact throughout the state. The overall \$475 million impact implies that for every dollar of state appropriations, UAH created a return of \$10.80.
- The UAH impact on the local region and the State of Alabama expands with each UAH graduate. More than three-quarters of UAH graduates reside in Alabama.

UAH Fast Facts

- The University of Alabama in Huntsville continues to be named the best return on investment among all Alabama schools for both in-state and out-of-state students most recently by PayScale, Inc. PayScale also ranks UAH in the top 200 universities nationwide with a high return on investment.
- UAH graduates earn a significantly higher starting salary (\$46,600) than national average (\$34,300) per College Scorecard (collegescorecard.ed.gov).
- UAH ranked #1 in Alabama for the Best Return on Investment by Best Colleges.
- Average Freshman ACT Score of 27.2 is among the highest in Alabama.
- UAH Fall 2015 Enrollment increased 7.1% with the freshman class increasing 45% compared to 2014.
- UAH students hail from 76 countries.
- UAH researchers conducted \$68.2 million in research and is #2 in federally financed R&D in Alabama.
- UAH offers 82 degrees and over 100 areas of study.
- State appropriations account for 21.3% of UAH budget.

Executive Summary

- **State of Alabama** – The economic impact from the UAH 2014-2015 fiscal year on the State of Alabama is estimated at \$475 million. The tax impact on the state was \$21.6 million with \$5.6 million in state income taxes generated and sales and property taxes of \$15.9 million. The overall estimated \$475 million impact suggests that for every \$1.00 of state appropriations in FY2015, UAH created an economic return in Alabama of \$10.80.
- The total employment impact in the State of Alabama is 4,834 jobs with 4,632 operations related jobs, and 202 capital improvement related jobs.
- The state of Alabama’s \$44 million appropriation to UAH will result in a return on investment of 15% over the work life of UAH graduates. The state will receive \$264.6 million (in 2015 dollars) in taxes generated from the flow of UAH graduates’ earnings during their lifetime, assuming continuation of current residence rates and tax rates.
- The real return on investment for a UAH degree, ranges from 4.3 percent to 18.2 percent for the 2014-2015 graduating class, depending on the degree obtained. The real return of pursuing a degree at UAH relative to expected earnings with only a high school diploma, range from 5.0 percent to 13.2 percent, depending on the degree achieved.
- **Huntsville MSA** - The economic impact of UAH fiscal year 2014-2015 on the Huntsville Metropolitan Statistical Area (Madison and Limestone Counties) is \$369 million, and the resulting tax impact from the region is \$17 million.
- The employment impact on the Huntsville MSA is 3,888 jobs with 3,722 operations related jobs, and 166 capital improvement related jobs.
- UAH also impacts the local, regional, and state economies by preparing a high quality labor force. Companies, especially those in the Huntsville Region area, rely heavily on UAH to provide well-educated workers, which is demonstrated through employees returning to UAH to get additional degrees.

Introduction

The University of Alabama in Huntsville is recognized as one of the nation's premier research universities, offering a challenging hands-on curriculum that ensures graduates are prepared to become tomorrow's leaders. UAH is a premier doctoral-granting, research-intensive institution located adjacent to Redstone Arsenal, which is a major Alabama economic engine generating over \$100 billion per year. Faculty, staff, and students conduct research with world-class experts from the U.S. Department of Defense, NASA, the U.S. Army, the Missile Defense Agency, Defense Intelligence Agency, the National Weather Service and a host of private technologically advanced companies in Cummings Research Park, the second largest research park in the nation.

This report provides a detailed analysis of the economic impact of UAH 2014-2015 fiscal year, on the State of Alabama, and the Huntsville Metropolitan Statistical Area (MSA). Employment and expenditure impacts as well as the private and public investment returns on investment in education at UAH are also examined. State and local tax impact from sales taxes and fees, property taxes, and state income taxes are presented. An investment in the higher education levels of a Bachelors, Masters, or Doctorate degree from UAH yields an excellent return on investment for the State of Alabama, the local region and students.

UAH remains a top 10 employer in the Huntsville/Madison County area, according to the Chamber of Commerce of Huntsville/Madison County. During the fiscal year 2014-2015, UAH employed 1,820 faculty and staff, as well as 1,400 student workers, resulting in a total employment level of 3,220 employees.

Total expenditures by UAH for the year was \$223.7 million of which payroll accounted for \$150.5 million, purchases \$55.6 million, and capital improvement \$17.7 million. Students spent another \$77.9 million in the local area on food, clothing, books, housing, transportation, etc.

Visitors come to the UAH campus for many reasons and contribute significantly to the economic impact of the university. Visitors staying at the Bevill Conference Center and Hotel attend meetings and training programs on campus. Sports fans enjoy UAH games such as hockey, basketball, softball, baseball, and soccer. UAH professional and continuing education programs attract visitors from across the region. Other events including academic conferences, student camps, and presentations for the community, along with

other special events attract visitors to UAH. The total visitor spending for FY2014-15 is estimated at \$7.9 million.

Economic impacts may be defined in various terms such as jobs, economic activity (output), payroll, and tax generation among other measures. The impacts are typically shown as direct impacts, and multiplier impacts. Impacts are spread over multiple industry sectors in the region of analysis, and are affected by the extent to which a specific industry sector exists in the region analyzed.

Spending by the subject organization (the direct impact) results in spending in other related sectors. The direct expenditures for products and services creates related economic activity (indirect impact) in suppliers and support organizations. The employees working in the primary entity will use their income to make personal purchases, which will increase spending (induced impact) in other industries not related to their employment, e.g. groceries, clothing, etc. The indirect plus induced effects comprise the multiplier effect. The capital improvement activity for construction and equipment also creates indirect and induced impacts.

This impact study was conducted using IMPLAN® software developed by MIG Inc. (now IMPLAN Group, LLC). Tax impact focuses only on sales, property, and income taxes. State income tax rates in Alabama are capped at 5 percent of taxable income. The tax rate varies by income brackets. The state sales tax rate is 4 percent. Sales tax rates differ from county to county, and city to city, ranging from a low of 2 percent to nearly 7 percent. Most local sales tax rates are 4-5 percent.



Economic Impacts on the State of Alabama

The UAH operating expenditures for FY 2014-15 were \$206.1 million, and it is estimated that \$170.8 million was spent within the State of Alabama. Capital improvement projects added \$17.7 million in spending within the State. Student spending on nonacademic living expenses is estimated at \$77.9 million. Visitor spending of \$7.9 million includes visitors to the Bevill Conference Center and Hotel and sports attendance. In total, the direct spending is \$309.5 million of which \$274.2 million was spent in Alabama. Adding the multiplier spending of \$201.1 million brings the total spending **economic impact on Alabama to \$475.3 million.**

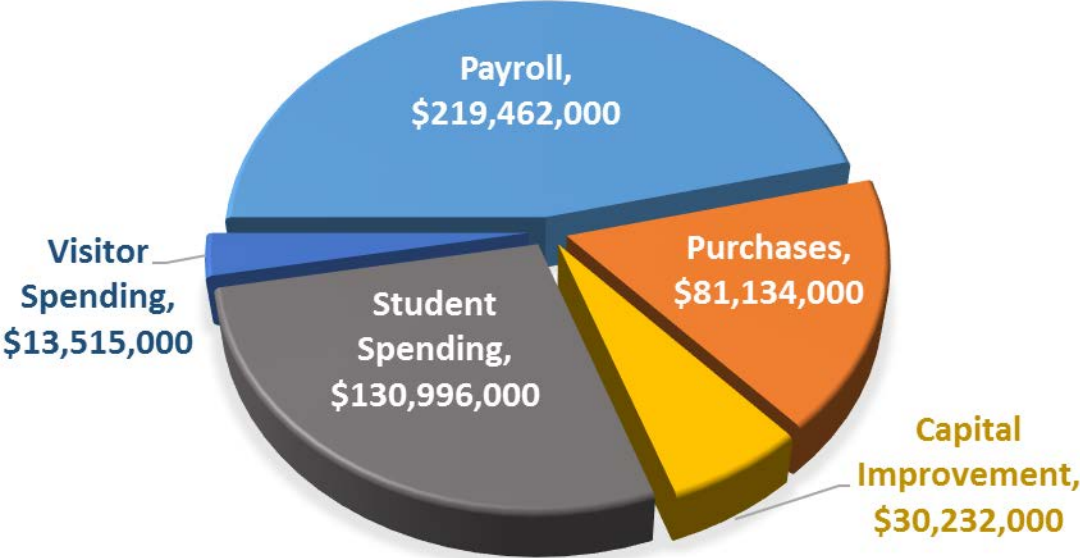
The state and local tax impact of The University of Alabama in Huntsville is approximately \$21.6 million. Sales tax revenues generated were \$12.4 million; property taxes \$3.5 million; and income taxes were \$5.6 million.

Table 1. UAH 2014-2015 Impacts on State of Alabama				
Source	Direct Spending	In Alabama	Multiplier Impact	Total Impact
University of Alabama in Huntsville				
Payroll	\$150,458,000	\$124,670,000	\$94,792,000	\$219,462,000
Purchases	\$55,624,000	\$46,090,000	\$35,044,000	\$81,134,000
Subtotal	\$206,082,000	\$170,760,000	\$129,836,000	\$300,596,000
Student Spending	\$77,901,000	\$77,901,000	\$53,095,000	\$130,996,000
Visitor Spending	\$7,886,000	\$7,886,000	\$5,629,000	\$13,515,000
Capital Improvement	\$17,656,000	\$17,656,000	\$12,576,000	\$30,232,000
Total	\$309,525,000	\$274,203,000	\$201,136,000	\$475,339,000
Employment Impact Jobs	3,220	3,190	1,442	4,632
Capital Improvement Jobs Impact		108	94	202
State Tax Impact				
Sales Tax, Licenses & Fees				\$12,417,000
Property Taxes				\$3,544,000
State Income Taxes				\$5,648,000
Total Generated in the State				\$21,609,000

Source: Economics Department and CMER at UAH. Rounding may effect totals.

Employment impact includes the faculty, staff, and student employees of UAH (direct jobs) plus employees engaged in producing goods and services related to the indirect and induced spending. During the fiscal year 2014-2015, UAH employed 1,820 faculty and staff with an additional 1,400 student workers, resulting in 3,220 employees of which 3,190 reside in Alabama. Capital Improvement engaged the equivalent of 108 full-time jobs. Multiplier impact of jobs was 1,536 bringing the total employment impact in Alabama to 4,834.

UAH ECONOMIC IMPACT ON ALABAMA FY2015



Total Impact \$475 million, 4,834 jobs

Figure 1 State of Alabama Economic Impact

UAH EMPLOYMENT IMPACTS FY2015

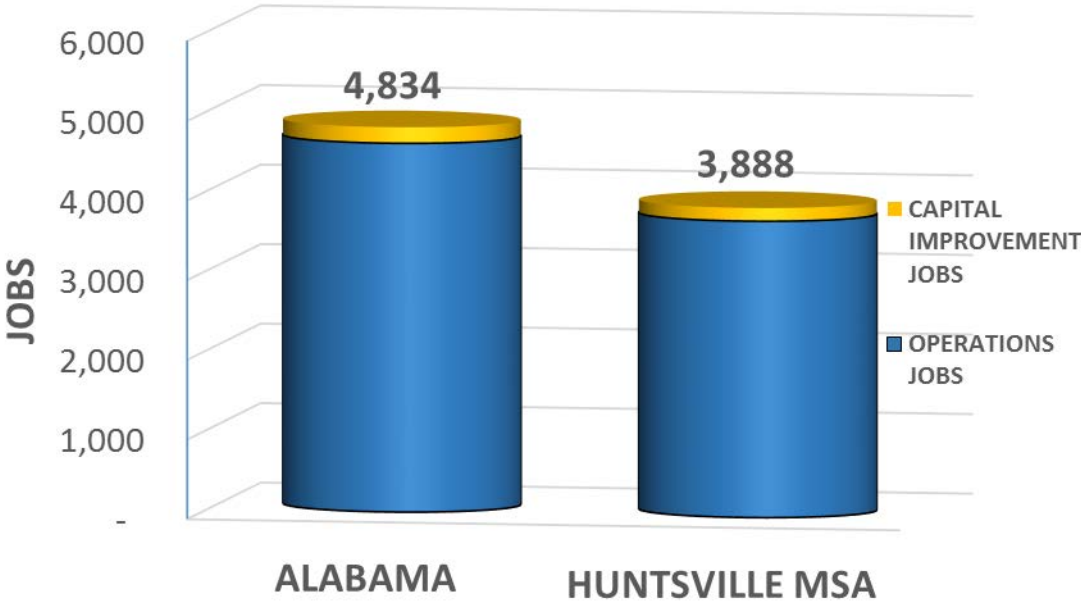


Figure 2 Employment Impacts

Economic Impacts on the Huntsville Area

The Huntsville Metropolitan Statistical Area (MSA) is defined as Madison and Limestone Counties. This two-county area encompasses the majority of the residence and commuting region for many UAH employees and students.

The UAH expenditures for FY 2014-15 were \$206.1 million, and it is estimated that \$137.9 million was spent within the Huntsville MSA. Capital improvement projects of \$17.7 million added approximately \$17.3 million in spending within the area. Student spending on nonacademic living expenses is estimated at \$77.9 million. Visitor spending of \$7.9 million includes visitors to the Bevill Conference Center and Hotel and sports attendance. In total, the UAH direct spending is \$309.5 million of which \$241 million was spent in the area. Adding the multiplier spending of \$128.1 million brings the total spending **economic impact on the Huntsville MSA Alabama to \$369.1 million.**

The state and local tax impact of The University of Alabama in Huntsville from the Huntsville MSA was approximately \$17 million. State and local sales tax revenues generated totaled \$9.7 million, property taxes \$2.8 million and state income taxes of \$4.5 million.

Table 2. UAH 2011-2012 Expenditure Impacts on Huntsville MSA				
Source	Direct Spending	In Huntsville MSA	Multiplier Impact	Total Impact
University of Alabama in Huntsville				
Payroll	\$150,458,000	\$100,671,000	\$60,425,000	\$161,096,000
Purchases	\$55,624,000	\$37,218,000	\$22,339,000	\$59,557,000
Subtotal	\$206,082,000	\$137,889,000	\$82,764,000	\$220,653,000
Student Spending	\$77,901,000	\$77,901,000	\$33,276,000	\$111,177,000
Visitor Spending	\$7,886,000	\$7,886,000	\$4,088,000	\$11,974,000
Capital Improvement	\$17,656,000	\$17,303,000	\$7,946,000	\$25,249,000
Total	\$309,525,000	\$240,979,000	\$128,074,000	\$369,053,000
Employment Impact (Jobs)	3,220	2,836	886	3,722
Capital Improvement Impact (Jobs)		106	60	166
Sales Tax, Licenses & Fees				\$9,660,000
Property Taxes				\$2,788,000
State Income Taxes				\$4,542,000
Total Tax Impact Generated in the MSA				\$16,990,000

Source: Economics Department and CMER at UAH. Rounding may effect totals.

Employment impact includes the faculty, staff, and student employees of UAH (direct jobs) plus the employees engaged in producing goods and services related to the indirect and induced spending. During the fiscal year 2014-2015, UAH employed 1,820 faculty and staff members (1,436 live within the two county area) plus an additional 1,400 student workers, resulting in 2,836 employees residing in the Huntsville MSA. Capital Improvement projects engaged the equivalent of 106 full-time jobs. Multiplier impact of jobs was 946 bringing the total employment impact in the MSA to 3,888. See Figure 2 above.

UAH ECONOMIC IMPACT ON HUNTSVILLE MSA FY2015

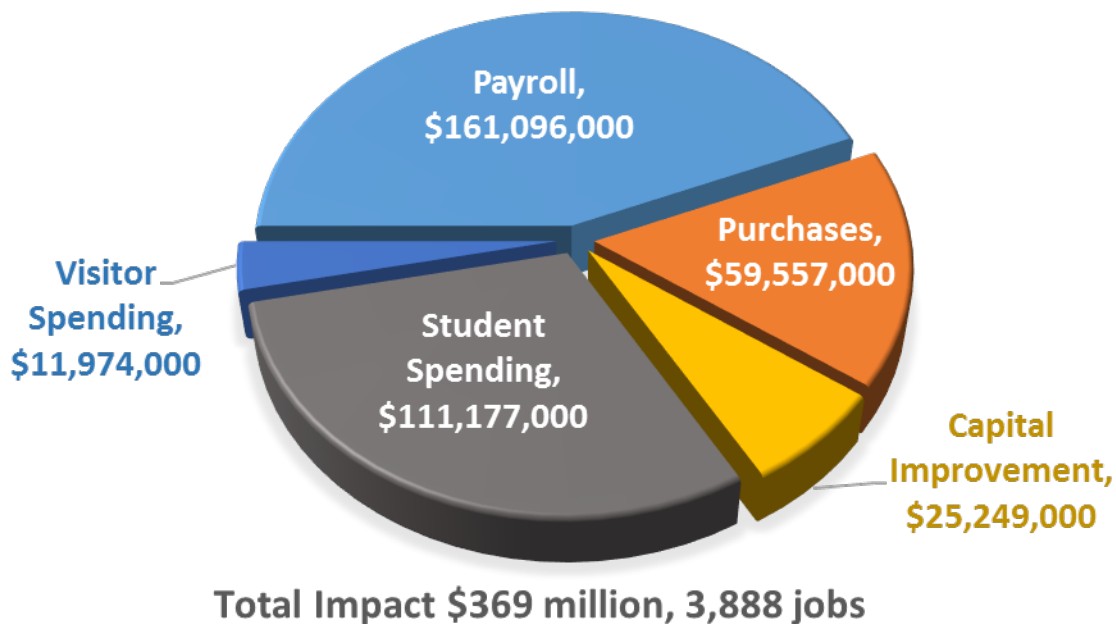


Figure 3 Huntsville MSA Economic Impact

UAH as a Public Investment

The State of Alabama and the local region derive many benefits from UAH. While the economic and tax impacts are quantifiable, other benefits are not as readily apparent. UAH not only creates jobs and educates people to get better jobs, other equally significant contributions are made. Contributing to an educated environment leads to innovation, entrepreneurship, and career advancement. Alabama companies, national organizations and international enterprises, benefit from relationships with UAH.

Additionally, UAH provides benefits to the greater Huntsville area, and the state of Alabama through extensive partnerships with government agencies, including NASA's Marshall Space Flight Center, the U.S. Army Aviation and Missile Command, the Army's Strategic Missile and Defense Command, and the Army Aviation and Missile Research Development & Engineering Center, among others. However, UAH's partnerships extend beyond the bounds of government laboratories. UAH builds competitive alliances with private scientific enterprises, and other technically focused initiatives.

Table 3. Return on Investment to State of Alabama Class of 2015	
FY2015 State appropriations to UAH	\$43,997,235
Direct tax collections from UAH expenditures	\$21,609,000
Net Investment by the State of Alabama	\$22,388,235
Working life tax investments by UAH graduates	\$264,608,000
Rate of Return on the State's investment	15.4%

The return on investment in UAH made through the state appropriation continues to be substantial even with the decline in the appropriation from \$58.1 million in 2008 to \$44 million in FY2015.

The return on investment calculation begins by acknowledging the short-term return of \$21.6 million in direct tax collections resulting in a Net Investment of \$22.4 million.

Long-term returns of taxes from the UAH 2014-2015 graduates will generate approximately \$264.6 million in their career tax payments. The working-life tax investment is comprised of sales and property of taxes (\$134.1 million), and income taxes (\$130.5 million). Thus the state investment of \$44 million in FY2015 will generate a return on investment of 15.4%, a significant return on taxpayer dollars.

Table 4. UAH Education as Private Investment (Class of 2015)					
	High School	Some college	Bachelors	Masters	Doctorate
Number of years		2	5	2	3
Average starting Salary	\$30,907	\$32,703	\$51,754	\$60,711	\$69,732
Academic Costs (2015\$)		\$38,834	\$97,085	\$44,542	\$66,813
Income Loss (2015\$)		\$30,907	\$81,758	\$51,754	\$91,067
Lifetime Earnings (Current \$)	\$3,791,467	\$4,153,291	\$6,249,037	\$6,624,471	\$6,539,230
Incremental Income (Current \$)		361,824	2,095,746	375,434	-85,241
Lifetime Earnings (2015\$)	\$1,759,658	\$1,962,382	\$3,129,951	\$3,261,630	\$3,634,356
Incremental Income (2015\$)		202,724	1,167,569	131,679	372,726
Real Annual Return on Investment			18.2%	8.8%	4.3%
Real Return Relative to High School			13.2%	12.0%	6.4%

Real Rates of Return of an UAH Education FY2015

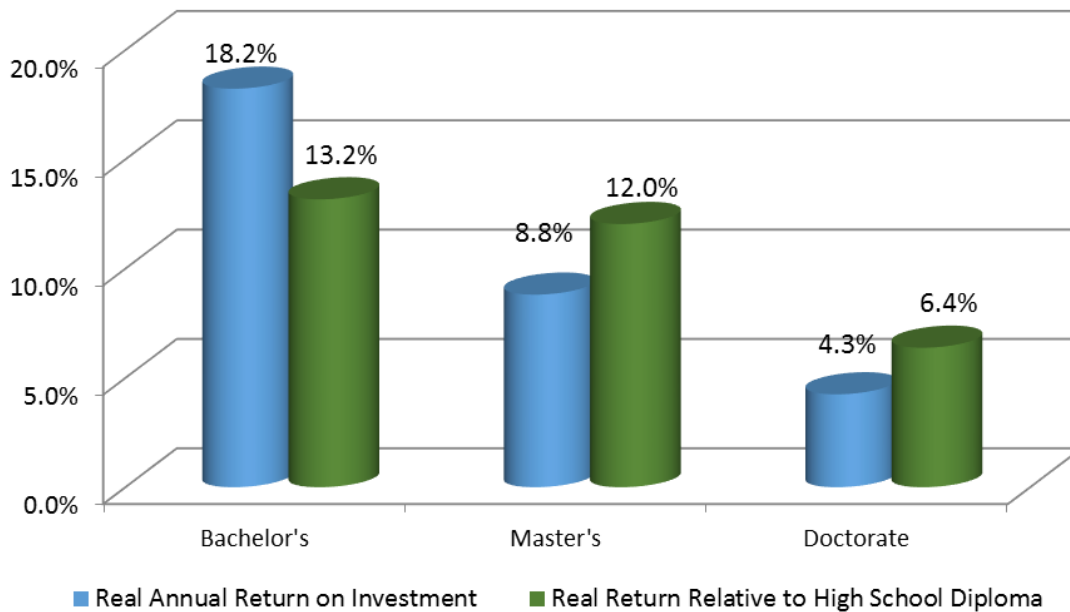


Figure 4 Rates of Return on UAH Education

The return on the investment in a UAH degree is significant for those graduates obtaining a bachelor's, master's, or doctorate degree. Considering the cost of achieving the degree, the increase in earnings over a career will produce a return on investment of 18.2% for a bachelor's degree, 8.8% for a master's degree, and 4.3% for a doctorate. When considering the additional costs of education and additional lifetime earnings relative to having only a high school diploma, the return on investment is 13.2% for a bachelor's degree, 12.0% for a master's degree, and 6.4% for a doctorate. In short, investment in an UAH education prepares graduates for higher earnings, and generates public revenues for the State of Alabama as well as the local region.

Conclusions

For the 2014-2015 fiscal year, UAH had an economic impact of \$475.3 million, and an employment impact of 4,834 jobs in the state of Alabama. The state tax impact was \$21.6 million. The return on investment in UAH by the state in terms of state appropriations was 15.4% percent, which is of great value for the region and the state.

The university also had a total economic impact of \$369.1 million, and an employment impact of 3,888 jobs in the Huntsville Metropolitan Statistical Area. The local and state tax impact was \$17 million in the Huntsville area.

Students who invest in UAH can expect good returns for their investment of costs such as tuition, fees, books, supplies and foregone earnings. A 2015 graduate with a degree can earn a real return of up to 18.2 percent. The university not only brings career rewards, but enriches the life of students while providing numerous opportunities for social and academic growth.

There are caveats to the outcomes of this study. Various changes may occur over the lifetime of an individual including earnings levels, place of residence, tax rates, and actual inflation rates. Based on the set of assumptions in this report, the return from a degree from The University of Alabama in Huntsville is a very good investment.

There are additional unquantifiable benefits of higher education for the local area, state and individual such as enhanced quality of life, lower crime rates, and better work skills. All contribute to the economic region in which graduates choose to live, learn and work.