



The Economic Value of the
University of Houston-Downtown

EXECUTIVE SUMMARY



THE University of Houston-Downtown (UHD) 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 region, generating new dollars and opportunities for the UHD Service Region.* UHD provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, UHD is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by UHD 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) 2017-18. Impacts on the UHD Service Region 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 UHD Service Region is comprised of Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, and Waller Counties.

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

In 2014, Emsi conducted an economic impact study for UHD's FY 2012-13. Since then, their impact on the regional economy has grown by over 60% and the return on investment to stakeholders has drastically increased. Note that many of these changes are due in part to regional and state data updates as well as modeling improvements.



Economic impact analysis



UHD promotes economic growth in the UHD Service Region through its direct expenditures and the resulting expenditures of visitors, students, and regional businesses. The university serves as an employer and buyer of goods and services for its day-to-day and research operations. The university's reputation and activities attract visitors and students from outside the UHD Service Region, whose expenditures benefit regional vendors. In addition, UHD is a primary source of higher education to the UHD Service Region residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations Spending Impact



UHD adds economic value to the UHD Service Region as an employer of regional residents and a large-scale buyer of goods and services. In FY 2017-18, the university employed over 1,300 full-time and part-time faculty and staff (includes student workers), 99% of whom lived in the UHD Service Region. Total payroll at UHD was \$97.1 million (excluding payroll from research employees), much of which was spent in the region for mortgage and rent payments, groceries, dining out, and other household expenses. In addition, the university spent \$65 million on day-to-day expenses related to facilities, supplies, and professional services (excluding research expenditures).

UHD's day-to-day operations spending added \$154.9 million in income to the region during the analysis year. This figure represents the university's payroll, the multiplier effects generated by the in-region spending of the university

IMPACTS CREATED BY UHD
IN FY 2017-18



\$154.9 million
Operations Spending Impact



\$2.6 million
Research Spending Impact



\$22.4 million
Construction Spending Impact



\$0.5 million
Visitor Spending Impact



\$36.7 million
Student Spending Impact



\$1.8 billion
Alumni Impact



\$2 billion
TOTAL IMPACT

- OR -

19,491
JOBS SUPPORTED

and its employees, and a downward adjustment to account for funding that the university received from regional sources. The \$154.9 million in added income is equivalent to supporting 2,042 jobs in the region.

Research Spending Impact



As university employees work on research and purchase equipment and supplies for their research activities, they are positively impacting the regional economy. In FY 2017-18, UHD spent \$664 thousand on payroll to support research activities. This, along with \$1.8 million in other research spending, created a net total of \$2.6 million in added income for the regional economy. This added income is equivalent to supporting 30 jobs.

Construction Spending Impact



UHD spends millions of dollars on 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 2017-18, the impact from the university's construction activities generated \$22.4 million in added income, equivalent to supporting 303 jobs.

Visitor Spending Impact



Thousands of visitors from outside the region were attracted to UHD during the analysis year to attend commencement, political debates, university speaker sessions, and other activities sponsored by the university. While in the region, visitors spent money for food, transportation, and other personal expenses. The off-campus expenditures of the university's out-of-region visitors generated a net impact of \$520.1 thousand in added income for the regional economy in FY 2017-18. This \$520.1 thousand in added income is equivalent to supporting 12 jobs.

Student Spending impact



Around 6% of credit students attending UHD originated from outside the region in FY 2017-18, and some of these students relocated to the UHD Service Region to attend UHD. These students may not have come to the region if the university did not exist. In addition, some in-region students, referred to as retained students, would have left the UHD Service Region if not for the existence of UHD. While attending the university, these relocated and retained students spent money on accommodation, groceries, transportation, and other household expenses. This spending generated

\$36.7 million in added income for the regional economy in FY 2017-18, which supported 729 jobs in the UHD Service Region.

Alumni Impact



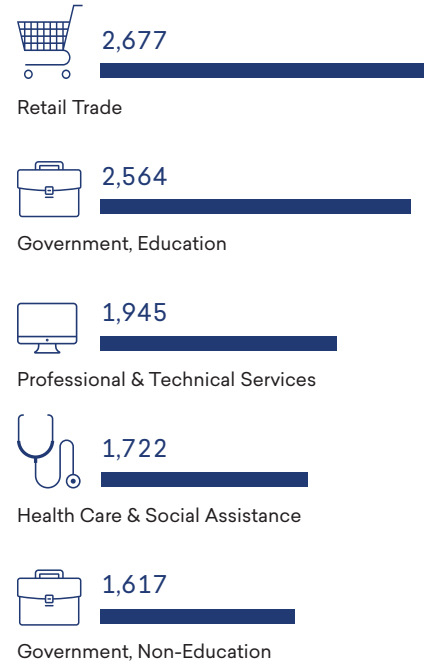
The education and training UHD provides for regional residents has the greatest impact. Since its establishment, students have studied at UHD and entered the regional workforce with greater knowledge and new skills. Today, thousands of former UHD students are employed in the UHD Service Region. As a result of their UHD educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2017-18, UHD alumni generated \$1.8 billion in added income for the regional economy, which is equivalent to supporting 16,374 jobs.

Total Impact

UHD added \$2 billion in income to the UHD Service Region 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 \$2 billion impact was equal to approximately 0.4% of the total gross regional product (GRP) of the UHD Service Region.

UHD's total impact can also be expressed in terms of jobs supported. The \$2 billion impact supported 19,491 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. In addition, the \$2 billion, or 19,491 supported jobs, impacted regional industries in different ways. Among non-education industry sectors, UHD supported the most jobs in the Retail Trade industry sector – supporting 2,677 jobs in FY 2017-18. These are impacts that would not have been generated without the university's presence in the UHD Service Region.

TOP INDUSTRIES IMPACTED BY UHD (JOBS SUPPORTED)





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

Student perspective



In FY 2017-18, UHD served 16,530 credit and 1,127 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 UHD's students in FY 2017-18 amounted to a present value of \$202.5 million, equal to \$82.1 million in out-of-pocket expenses (including future principal and interest on student loans) and \$120.4 million in forgone time and money.

In return for their investment, UHD's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average UHD bachelor's degree graduate from FY 2017-18 will see an increase in earnings of \$31,600 each year compared to a person with a high school diploma or equivalent working in Texas. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$1.2 million in higher earnings per graduate. The present value of the cumulative higher future earnings that UHD's FY 2017-18 students will receive over their working careers is \$1.3 billion.

The students' benefit-cost ratio is 6.2. In other words, for every dollar students invest in UHD, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$6.20 in higher future earnings. Annually, the students' investment in UHD has an average annual internal rate

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



23.3%

Average annual return for UHD students



9.9%

Stock market 30-year average annual return

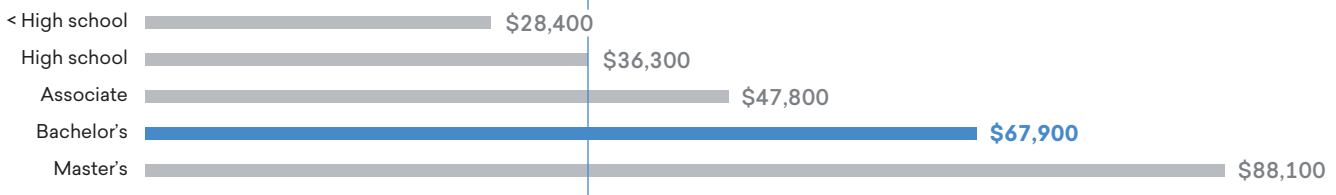


0.8%

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 UHD will see an increase in earnings of **\$31,600** each year compared to a person with a high school diploma or equivalent working in Texas.



Source: Emsi complete employment data.

of return of 23.3%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

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Taxpayer perspective



UHD 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 UHD 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 \$440.5 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of UHD students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' UHD 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. UHD 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 UHD education will generate \$64 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$504.4 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$49.6 million, equal to

*For every dollar of public money invested in UHD, taxpayers will receive a cumulative value of **\$10.20** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$1.3 billion

Present value benefits

\$202.5 million

Present value costs

\$1.1 billion

Net present value

Benefit-cost Ratio Rate of Return

6.2	23.3%
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TAXPAYER PERSPECTIVE

\$504.4 million

Present value benefits

\$49.6 million

Present value costs

\$454.8 million

Net present value

Benefit-cost Ratio Rate of Return

10.2	26.3%
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SOCIAL PERSPECTIVE

\$7.3 billion

Present value benefits

\$341.6 million

Present value costs

\$6.9 billion

Net present value

Benefit-cost Ratio Rate of Return

21.3	n/a*
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* 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.

the amount of state and local government funding UHD received in FY 2017-18. These benefits and costs yield a benefit-cost ratio of 10.2. This means that for every dollar of public money invested in UHD in FY 2017-18, taxpayers will receive a cumulative value of \$10.20 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 26.3%, 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 UHD 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 UHD 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.

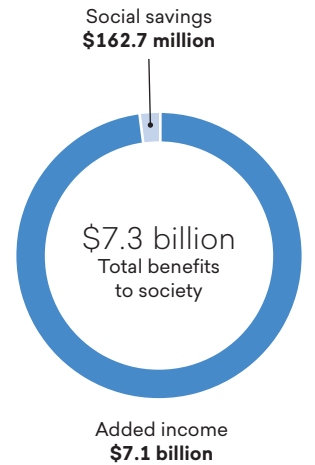
Altogether, the social benefits of UHD equal a present value of \$7.3 billion. These benefits include \$7.1 billion in added income through students' increased lifetime earnings and increased business output, as well as \$162.7 million in social savings related to health, crime, and income assistance in Texas. People in Texas invested a present value total of \$341.6 million in UHD in FY 2017-18. The cost includes all the university and student costs.

The benefit-cost ratio for society is 21.3, equal to the \$7.3 billion in benefits divided by the \$341.6 million in costs. In other words, for every dollar invested in UHD, people in Texas will receive a cumulative value of \$21.30 in benefits. The benefits of this investment will occur for as long as UHD's FY 2017-18 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN TEXAS FROM UHD



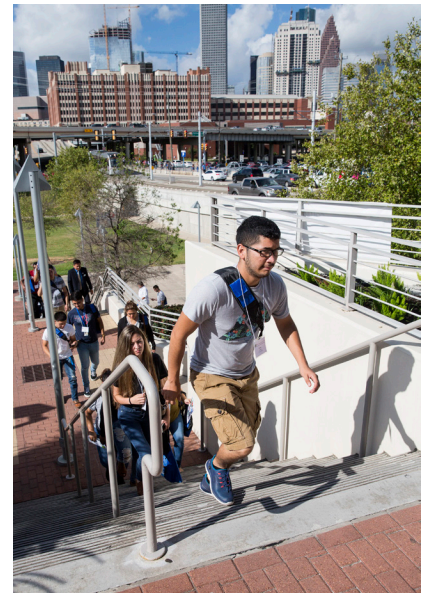
Conclusion

The results of this study demonstrate that UH D creates value from multiple perspectives. The university benefits regional businesses by increasing consumer spending in the region and supplying a steady flow of qualified, trained individuals to the workforce. UH D 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, UH D 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 2017-18 academic and financial reports from UH D, 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.

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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.