



Executive Summary

The **Economic Contribution** *of*

Brookhaven College
State of Texas



Economic Growth Analysis
Investment Analysis

emsi

October 29, 2010



Socioeconomic Impact Study

STUDY HIGHLIGHTS

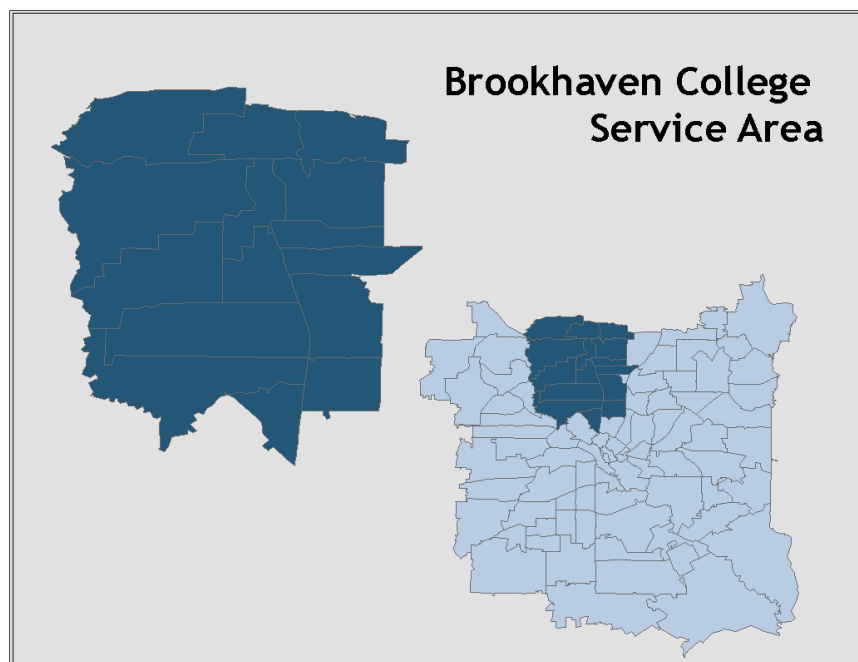
INVESTMENT ANALYSIS

- For every dollar students invest in BHC, they receive a cumulative **\$5.40** in higher future income (discounted) over the course of their working careers.
- Texas benefits from improved health and reduced welfare, unemployment, and crime, saving the public some **\$3.9 million** per year.
- Taxpayers see a rate of return of **9.6%** on their investment in BHC.

ECONOMIC GROWTH ANALYSIS

- The BHC Service Area economy receives approximately **\$29.5 million** in net added income each year due to BHC payroll and operations spending.
- The accumulated credits achieved by former BHC students over the past 30 years translated to **\$488.6 million** in added regional income in 2008-09 due to the higher earnings of students and increased output of businesses.

BHC SERVICE AREA MAP



Executive Summary

INTRODUCTION

How do the BHC Service Area economy and the state of Texas benefit from the presence of Brookhaven College (BHC)?

In this study, EMSI applies a comprehensive model designed to quantify the economic benefits of community and technical colleges and translate these into common sense benefit/cost and investment terms. The study includes two major analyses:

1. **Investment Analysis:** Treats education funding as an investment, calculating all measurable returns and comparing them to costs, from the perspec-

tives of students, taxpayers, and society as a whole.

2. **Economic Growth Analysis:** Measures added income in the region due to college operations and the accumulated skills of past and present students still in the workforce.

The economic impact model has been field-tested to generate more than 900 studies for community, technical, and further education colleges in the US, Canada, the UK, and Australia. To see the full documentation of the study, please contact the college.

THE RESULTS

Investment Analysis

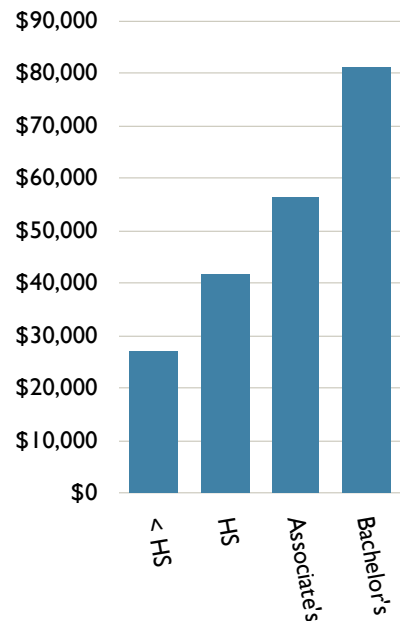
Student Perspective

Benefits of higher education are most obvious from the student perspective: students sacrifice current earnings (as well as money to pay for tuition) in return for a lifetime of higher income. Compared to someone with a high school diploma, associate's degree graduates earn \$14,700 more per year, on average, over the course of a working lifetime (undiscounted).

From an investment standpoint, BHC students enjoy a 17.1% rate of return on their investments of time and money. This compares favorably with returns on other investments, e.g., long-term return on stocks and bonds.

The corresponding benefit/cost ratio is 5.4, i.e., for every dollar students invest in BHC education, they receive a cumulative of \$5.40 in higher future income over their working careers. This is a real return that accounts for any discounting that occurs during the entire period. The payback period is 8.6 years.

Earnings by Education Level in BHC Service Area



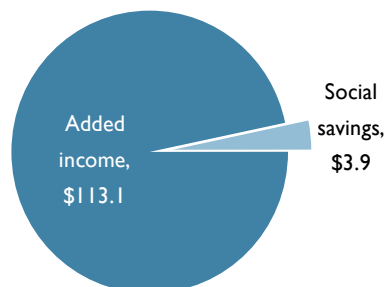
BHC INVESTMENT ANALYSIS AT A GLANCE

Stakeholder	Rate of Return	Benefit/Cost	Payback (Years)
Student perspective	17.1%	5.4	8.6
Social perspective	NA	38.8	NA
Taxpayer perspective	9.6%	2.8	13.0

Social Perspective

From the perspective of society as a whole, the benefits of education accrue to different publics. For example, BHC students expand the state's economic base through their higher incomes, while the businesses that employ them also become more productive through the students' added skills. These benefits, together with the associated ripple effects, contribute an estimated \$113.1 million in taxable income to the Texas economy each year.

As they achieve higher levels of education, BHC students are also less likely to smoke or abuse alcohol, draw welfare or unemployment benefits, or commit crimes. This translates into associated dollar savings (i.e., avoided costs) to the public equal to approximately \$3.9 million annually. These are benefits that are incidental to the operations of BHC and accrue for years into the future, for as long as students remain active in the workforce.

Total Annual Benefits to the Texas Public Due to BHC (\$ Millions)

To compare benefits to costs, we project benefits into the future, discount them back to the present, and weigh them against the \$36.3 million that state and

local taxpayers spent in FY 2008-09 to support the college. Following this procedure, it is estimated that BHC provides a benefit/cost ratio of 38.8, i.e. every dollar of state and local tax money invested in the college today yields a cumulative of \$38.80 in benefits that accrue to all Texas residents, in terms of added taxable income and avoided social costs.

Taxpayer Perspective

Under the taxpayer perspective, only benefits that accrue to state and local governments are counted, namely, increased tax collections and reduced government expenditures. For example, in place of increased income, the taxpayer perspective includes only the increased state and local tax receipts from those higher incomes. Similarly, in place of overall crime, welfare, unemployment and health savings, the taxpayer perspective includes only those that translate to actual reductions in state and local government expenditures.

Note here that government often undertakes activities wanted by the public, but which may be unprofitable in the marketplace. This means that positive economic returns are generally not expected from government investments. From the taxpayer perspective, therefore, even a small positive return (a benefit/cost ratio equal to or greater than 1, or a rate of return equal to or greater than the 3% discount rate used in the taxpayer investment analysis) would be a favorable outcome.

For BHC, the results indicate positive returns: a rate of return of 9.6% and a benefit/cost ratio of 2.8 (every dollar of state or local tax money invested in BHC today returns \$2.80).

Economic Growth Analysis

The regional backdrop used in this analysis is defined by the following counties in Texas: Collin, Dallas, Denton. BHC affects the local economy in two ways: (1) through its local purchases, including wages paid to faculty and staff; and (2) through the increase in the skill base of the local workforce. These effects break down as follows:

College Operations Effect

BHC creates income through the earnings of its faculty and staff, as well as through its own operating and capital expenditures. Adjusting for taxes and other monies withdrawn from the local economy in support of BHC, it is estimated that the BHC Service Area economy receives a net of \$29.5 million in added labor and non-labor income due to BHC operations each year.

Student Productivity Effect

Every year students leave BHC and join or rejoin the regional workforce. Their added skills translate to higher income and a more robust BHC Service Area economy. Based on BHC’s historical enrollment and credit production over the past 30-year period, it is estimated that the accumulated contribution of BHC instruction received by former students (both completers and non-completers) annually adds some \$488.6 million in income to the BHC Service Area.

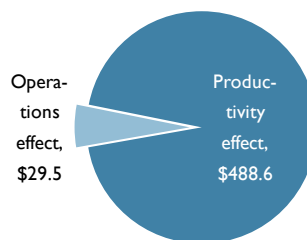
Total Effect

Altogether, the average annual added income due to the activities of BHC and its former students equals \$518.1 million. This is approximately equal to 1.1% of the total BHC Service Area economy.

BHC ECONOMIC GROWTH RESULTS AT A GLANCE

Added Income	
College operations effect	\$29,506,000
Student productivity effect	\$488,628,000
GRAND TOTAL	\$518,134,000

Total Added Income in BHC Service Area Due to BHC (\$ Millions)



CONCLUSION

The results of this study demonstrate that BHC is a sound investment from multiple perspectives. The college enriches the lives of students and increases their lifetime incomes. It benefits taxpayers by generating

increased tax revenues from an enlarged economy and reducing the demand for taxpayer-supported social services. Finally, it contributes to the vitality of both the local and state economies.



ABOUT THE STUDY

This report summarizes the results from “The Economic Contributions of Brookhaven College” detailing the role that the college plays in promoting economic development, enhancing students’ careers, and improving quality of life. Data sources include, but are not limited to, 2008-09 academic and financial reports from the college, industry and employment data from the U.S. Bureau of Labor Statistics, earnings and demographic data from the U.S. Census Bureau, and a variety of studies and surveys relating education to social behavior.

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