



## Executive Summary

# Moving Texas Forward:

*The*

# Economic Contribution

*of*

**Texas Community Colleges**

*State of Texas*



**Economic Growth Analysis**

**Investment Analysis**

**emsi**

November 5, 2010



# Socioeconomic Impact Study

## STUDY HIGHLIGHTS

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### INVESTMENT ANALYSIS

- For every dollar students invest in Texas Community Colleges, they receive a cumulative **\$5.20** 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 **\$190.9 million** per year.
- Taxpayers see a rate of return of **6.9%** on their investment in Texas Community Colleges.

### ECONOMIC GROWTH ANALYSIS

- The net added income generated by the operations of Texas Community Colleges (**\$1.3 billion**) and the spending of out-of-state students (**\$391.2 million**) contributes a total of **\$1.6 billion** in income to the Texas economy each year.
- The accumulated credits achieved by former students of Texas Community Colleges over the past 30 years translated to **\$28.7 billion** in added state income in 2008-09 due to the higher earnings of students and increased output of businesses.

# Executive Summary

## INTRODUCTION

How does the economy of the state of Texas benefit from the presence of Texas Community Colleges?

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

2. **Economic Growth Analysis:** Measures added income in the state due to college operations, student spending, 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 full documentation of the study, please visit [www.tacc.org/ecoimpact2010.htm](http://www.tacc.org/ecoimpact2010.htm).

## THE RESULTS

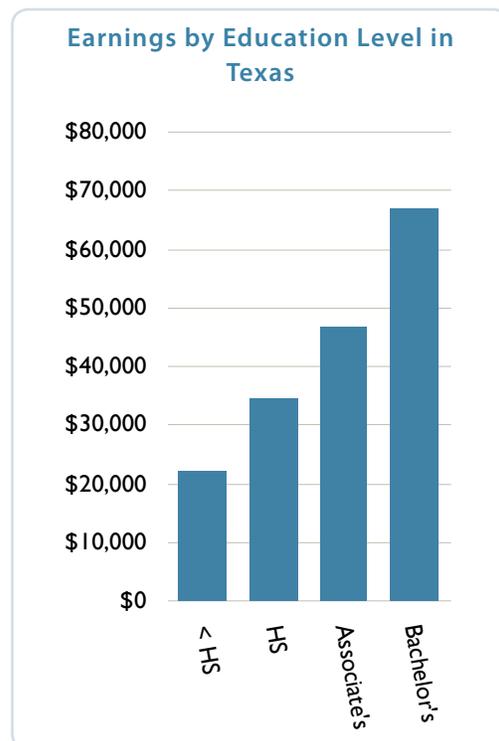
### Investment Analysis

#### 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 \$12,200 more per year, on average, over the course of a working lifetime (undiscounted).

From an investment standpoint, students enjoy a 15.4% 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 5.2, i.e., for every dollar students invest in education, they receive a cumulative of \$5.20 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 9.6 years.



## INVESTMENT ANALYSIS AT A GLANCE

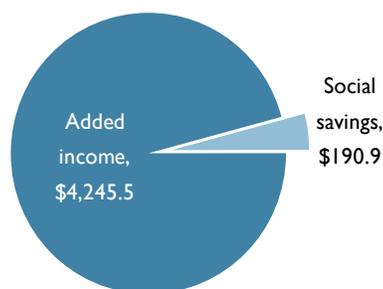
Stakeholder	Rate of Return	Benefit/Cost	Payback (Years)
Student perspective	15.4%	5.2	9.6
Social perspective	NA	28.0	NA
Taxpayer perspective	6.9%	2.0	17.0

**Social Perspective**

From the perspective of society as a whole, the benefits of education accrue to different publics. For example, students from Texas Community Colleges 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 \$4245.5 million in taxable income to the Texas economy each year.

As they achieve higher levels of education, students of Texas Community Colleges 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 \$190.9 million annually. These are benefits that are incidental to the operations of Texas Community Colleges 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 Texas Community Colleges (\$ Millions)**



To compare benefits to costs, we project benefits into the future, discount them back to the present, and

weigh them against the \$2.2 billion that state and local taxpayers spent in FY 2008-09 to support the colleges. Following this procedure, it is estimated that Texas Community Colleges provide a benefit/cost ratio of 28.0, i.e. every dollar of state and local tax money invested in the colleges today yields a cumulative of \$28.00 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 Texas Community Colleges, the results indicate positive returns: a rate of return of 6.9% and a benefit/cost ratio of 2.0 (every dollar of state or local tax money invested in Texas Community Colleges today returns \$2.00).

## Economic Growth Analysis

Texas Community Colleges affect the state economy in three ways: (1) through their in-state purchases, including wages paid to faculty and staff; (2) through the spending of students who come from outside the state; and (3) through the increase in the skill base of the state workforce. These effects break down as follows:

### College Operations Effect

Texas Community Colleges create income through the earnings of their faculty and staff, as well as through their own operating and capital expenditures. Adjusting for taxes and other monies withdrawn from the state economy in support of Texas Community Colleges, it is estimated that the state economy receives a net of \$1.3 billion in added labor and non-labor income due to the operations of Texas Community Colleges each year.

### Student Spending Effect

Students from outside the state spend money for room and board, transportation, entertainment, and other

miscellaneous personal expenses. These expenditures create jobs and incomes for businesses. The spending of out-of-state students attending Texas Community Colleges generates approximately \$391.2 million in added income in the Texas economy each year.

### Student Productivity Effect

Every year students leave Texas Community Colleges and join or rejoin the state workforce. Their added skills translate to higher income and a more robust state economy. Based on historical enrollment and credit production at Texas Community Colleges over the past 30-year period, it is estimated that the accumulated contribution of instruction received by former students at Texas Community Colleges (both completers and non-completers) annually adds some \$28.7 billion in income to Texas.

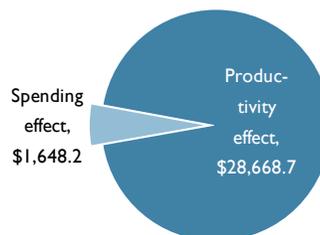
### Total Effect

Altogether, the average annual added income due to the activities of Texas Community Colleges and its former students equals \$30.3 billion. This is approximately equal to 2.6% of the total Texas economy.

## ECONOMIC IMPACT ANALYSIS AT A GLANCE

Added Income	
<i>College operations effect</i>	\$1,257,015,000
<i>Student spending effect</i>	\$391,176,000
Total spending effect	\$1,648,191,000
Student productivity effect	\$28,668,650,000
<b>GRAND TOTAL</b>	<b>\$30,316,841,000</b>

Total Added Income in Texas (\$ Millions)



## CONCLUSION

The results of this study demonstrate that Texas Community Colleges are a sound investment from multiple perspectives. The colleges enrich the lives of students and increase their lifetime incomes. They benefit

taxpayers by generating increased tax revenues from an enlarged economy and reducing the demand for taxpayer-supported social services. Finally, they contribute to the vitality of both the local and state economies.



## ABOUT THE STUDY

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This report summarizes the results from “The Economic Contributions of Texas Community Colleges” detailing the role that the colleges play 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 Texas Community Colleges, 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. To see full documentation of the study, please visit [www.tacc.org/ecoimpact2010.htm](http://www.tacc.org/ecoimpact2010.htm).

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# Overview Fact Sheet

*Texas Community Colleges play a significant role in the state economy and are a sound investment from multiple perspectives. Students benefit from improved lifestyles and increased earnings. Taxpayers benefit from a larger economy and lower social costs. Finally, the community as a whole benefits from increased job and investment opportunities, higher business revenues, greater availability of public funds, and an eased tax burden.*

## INVESTMENT ANALYSIS

### Student Perspective

- Texas Community Colleges served **930,943** credit and **375,491** non-credit students in the 2008-09 reporting year.
- Education increases lifetime income. The average income at the career midpoint of someone with an associate's degree in Texas is **\$46,600**, 35% more than a student with a high school diploma.

**Students enjoy a 15.4% rate of return on their investment in Texas Community Colleges.**

- Throughout his or her working career, the average student's discounted lifetime income increases by **\$5.20** for every dollar invested in Texas Community Colleges.
- Students enjoy an attractive **15.4%** average rate of return on their investment in Texas Community Colleges, recovering all costs (including tuition, fees, and forgone wages) in 9.6 years.

### Social Perspective

- Higher earnings that accrue to students of Texas Community Colleges and associated increases in state income expand the tax base in Texas by about **\$4245.5 million** each year.
- Texas will see avoided social costs amounting to **\$190.9 million** per year due to students of Texas Community Colleges, including savings associated with improved health, reduced crime, and reduced welfare and unemployment.

### Taxpayer Perspective

- State and local governments allocated **\$2.2 billion** in support of Texas Community Colleges in FY 2008-09.
- For every dollar of this support, taxpayers see a cumulative return of **\$2.00** over the course of students' working careers (in the form of higher tax receipts and

avoided costs).

- State and local governments see a rate of return of **6.9%** on their support for Texas Community Colleges. This return compares very favorably with private sector rates of return on similar long-term investments.

## ECONOMIC GROWTH ANALYSIS

### College Operations Effect

- The Texas economy annually receives roughly **\$1.3 billion** in income due to college operations. This is a conservative figure adjusted to account for monies that leave the state economy or are withdrawn from the economy in support of the colleges.

**Added income attributable to the accumulation of credits attained by former students at Texas Community Colleges amounts to \$28.7 billion each year.**

### Student Spending Effect

- An estimated **4%** of students attending Texas Community Colleges come from outside the state, bringing with them monies that would not have otherwise entered the state economy.
- The expenditures of out-of-state students attending Texas Community Colleges generate roughly **\$391.2 million** in added income in Texas each year.

### Productivity Effect

- The current Texas economy embodies an estimated **156.4 million** credits that have accumulated over the past 30-year period as thousands of former students from Texas Community Colleges enter the workforce year after year.
- College skills translate to higher earnings for students and increased output of businesses. The added income attributable to the accumulation of credits from Texas Community Colleges in the workforce amounts to around **\$28.7 billion** each year.