



Executive Summary

The **Economic Contribution** *of*

Tacoma Community College
State of Washington



Economic Growth Analysis
Investment Analysis

emsi

March 2011



Economic Impact Study

STUDY HIGHLIGHTS

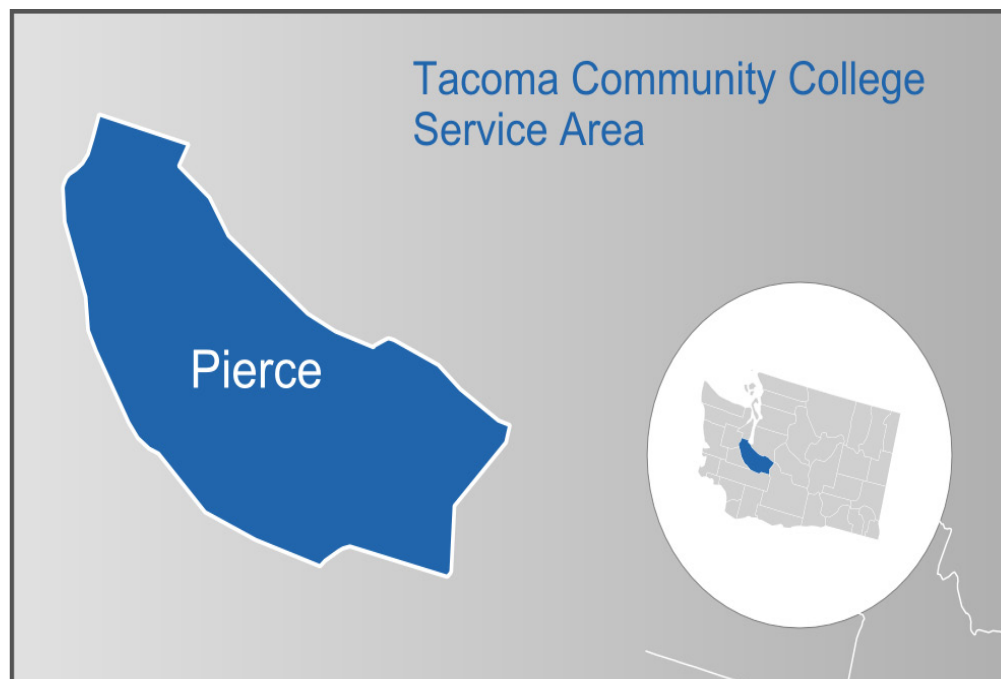
ECONOMIC GROWTH ANALYSIS

- The net added income generated by TCC operations (**\$36 million**) and the spending of international students (**\$2.3 million**) contributes a total of **\$38.3 million** in income to the Pierce County economy each year.
- The accumulated credits achieved by former TCC students over the past 30 years translate to **\$150.2 million** in added regional income each year due to the higher earnings of students and increased output of businesses.
- Altogether, the average annual added income due to the activities of TCC and its students equals **\$188.5 million**. This represents approximately 0.7% of the total Pierce County economy.

INVESTMENT ANALYSIS

- For every dollar students invest in TCC, they receive a cumulative \$5.50 in higher future income (discounted) over the course of their working careers.
- Washington benefits from improved health and reduced welfare, unemployment, and crime, saving the public some **\$1.6 million** per year.
- Taxpayers see a rate of return of **7.0%** on their investment in TCC.

PIERCE COUNTY MAP



Executive Summary

INTRODUCTION

How do the Pierce County economy and the state of Washington benefit from the presence of Tacoma Community College (TCC)?

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

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

A note of importance: To ensure that the results are accurate and that the methodology conforms to best practices, the impact model is continuously updated. Variances in the results from the previous study that EMSI conducted for TCC reflect a combination of changes to TCC's data, updates and methodological improvements to the model, and economic shifts in the state. For more information, please see the Preface in the Main Report.

THE RESULTS

Economic Growth Analysis

TCC affects the local economy in three ways: (1) through its local purchases, including wages paid to faculty and staff; (2) through the spending of international students; and (3) through the increase in the skill base of the local workforce. These effects break down as follows:

College Operations Effect

TCC 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 TCC, it is estimated that the Pierce County economy receives a net of \$36 million in added labor and non-labor income due to TCC operations each year.

Student Spending Effect

International students spend money for room and board, transportation, entertainment, and other miscellaneous personal expenses while attending college. These expenditures create jobs and incomes for local businesses. The spending of TCC's international students generates approximately \$2.3 million in added income in the Pierce County economy each year.

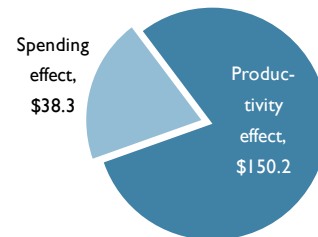
Student Productivity Effect

Every year students leave TCC and join or rejoin the regional workforce. Their added skills translate to higher income and a more robust Pierce County economy. Based on TCC's historical enrollment and credit production over the past 30-year period, it is estimated that the accumulated contribution of TCC instruction

TCC ECONOMIC IMPACT ANALYSIS AT A GLANCE

Added Income	
College operations effect	\$35,977,000
Student spending effect	\$2,344,000
Total spending effect	\$38,320,000
Student productivity effect	\$150,153,000
GRAND TOTAL	\$188,473,000

Total Added Income in Pierce County Due to TCC (\$ Millions)



received by former students (both completers and non-completers) annually adds some \$150.2 million in income to Pierce County.

Total Effect

Altogether, the average annual added income due to the activities of TCC and its former students equals \$188.5 million. This is approximately equal to 0.7% of the total Pierce County economy.

Investment Analysis

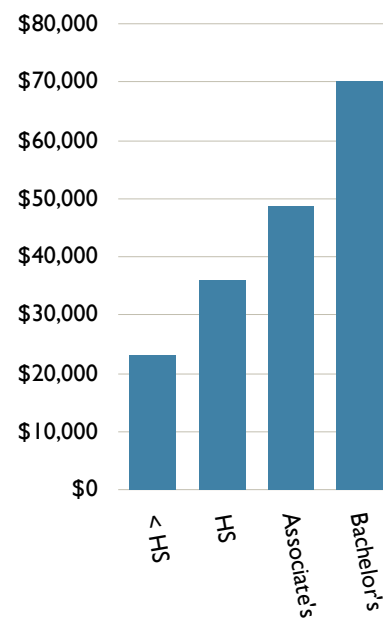
Student Perspective

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 \$12,800 more per year, on average, over the course of a working lifetime (undiscounted).

From an investment standpoint, TCC students enjoy a 18.5% 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 5.5, i.e., for every dollar students invest in TCC education, they receive a cumulative of \$5.50 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 7.9 years.

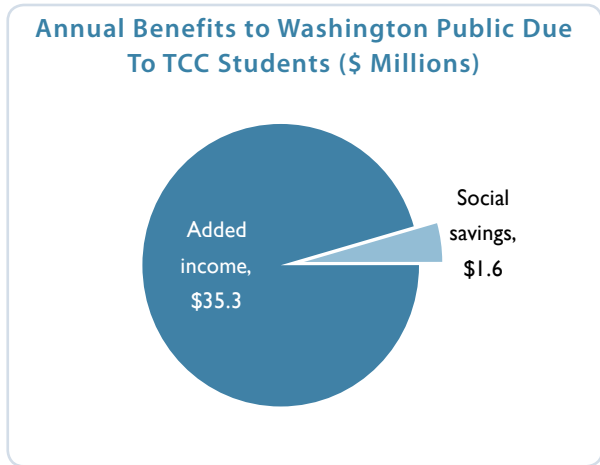
Average Earnings by Education Level in Pierce County



Social Perspective

From the perspective of society as a whole, the benefits of education accrue to different publics. For example, TCC 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 \$35.3 million in taxable income to the Washington economy each year.

As they achieve higher levels of education, TCC 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 \$1.6 million annually. These are benefits that are incidental to the operations of TCC and accrue for years into the future, for as long as students remain active in the workforce.



yields a cumulative of \$20.80 in benefits that accrue to all Washington 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.

To compare benefits to costs, we project benefits into the future, discount them back to the present, and weigh them against the \$30.6 million that state taxpayers spent in FY 2009-10 to support the college. Following this procedure, it is estimated that TCC provides a benefit/cost ratio of 20.8, i.e. every dollar of state tax money invested in the college today

For TCC, the results indicate positive returns: a rate of return of 7.0% and a benefit/cost ratio of 1.9 (every dollar of state tax money invested in TCC today returns \$1.90).

TCC INVESTMENT ANALYSIS AT A GLANCE			
Stakeholder	Rate of Return	Benefit/Cost	Payback (Years)
Student perspective	18.5%	5.5	7.9
Social perspective	NA	20.8	NA
Taxpayer perspective	7.0%	1.9	15.8

CONCLUSION

The results of this study demonstrate that TCC 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 Tacoma Community 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, 2009-10 academic and financial reports from the college and from the Washington State Board for Community and Technical Colleges (SBCTC), 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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