



## EXECUTIVE SUMMARY

# The Economic Contribution of

Tompkins Cortland Community College

*State of New York*

*M. Henry Robison  
and  
Kjell A. Christophersen*



Economic Growth Analysis  
Investment Analysis



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## SOCIOECONOMIC IMPACT (SEIM) STUDY

### Study Highlights

- Students enjoy an attractive **19%** annual return on their investment of time and money.
- For every \$1 students invest in TC3, they receive a cumulative **\$6.60** in higher future income over the course of their working careers.
- Taxpayers see a real money return of **6%** on their annual investments in TC3.
- The State of New York benefits from improved health and reduced welfare, unemployment, and crime, saving the public some **\$955,400** per year each year that students are in the workforce.
- The TC3 Service Area economy receives roughly **\$155.0 million** in regional income each year due to TC3 and its students. This figure amounts to roughly 3.2% of the area's total annual income.

### TC3 Service Area Map



# EXECUTIVE SUMMARY

## Introduction

*How do the TC3 Service Area economy and the State of New York benefit from the presence of Tompkins Cortland Community College (TC3)?*

In this study, EMSI applies a comprehensive economic 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. **Regional Economic Growth Analysis:** Measures added regional income due to the daily activities of the college, student spending, and the cumulative effects of the college's past students 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 subjected to peer review and field-tested to generate more than 800 studies for community and technical colleges in the United States, Canada, and the United Kingdom. Model results are based on solid economic theory, carefully drawn functional relationships, and a wealth of national and local education-related data.

## The Results

For an in-depth discussion of the results, the reader is encouraged to consult the main report, "The Economic Contribution of Tompkins Cortland Community College."

### Economic Growth Analysis

TC3 affects the local economy in three ways: 1) through its local purchases, including wages paid to faculty and staff, 2) through the spending of students who come from outside the region, and 3) through a human capital effect stemming from an increase in the skill base of the local workforce. These effects break down as follows:

#### TC3 Operations Spending

TC3 creates regional 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 TC3, it is estimated that the present-day TC3 Service Area economy receives roughly \$19.5 million in labor and non-labor income each year due to TC3 operations and capital spending.

#### Student Spending

About 34% of TC3's students come from outside the TC3 Service Area (net of long distance stu-

## Economic Growth Results at a Glance

### Added Regional Income

<b>College Operations Effect</b>	\$19,512,500
<b>Student Spending Effect</b>	\$2,671,500
<b>Past Student Productivity Effect</b>	\$132,850,700
<b>TOTAL INCOME</b>	<b>\$155,034,700</b>

### Total Regional Income Due to TC3



Source: See "Volume 1: Main Report" and "Volume 2: Detailed Results."

dents who are not physically present in the region while attending). Out-of-region students spend money to buy books and supplies, while those who move to the area rent apartments, purchase food, pay for transportation, attend sports events, and so on. These expenditures create jobs and incomes for local businesses. It is estimated that the spending of TC3's out-of-region students generates around \$2.7 million each year in regional income in the TC3 Service Area.

### Past Student Productivity

Each year students leave TC3 and join or rejoin the local workforce. Their added skills translate to higher income and a more robust TC3 Service Area economy. Based on current enrollment, turnover, and the growth of instruction over time, the regional workforce embodies an estimated 465,700 credits of past and present instruction. The accumulated contribution of TC3 instruction adds some \$132.9 million in regional income to the current economy of the TC3 Service Area.

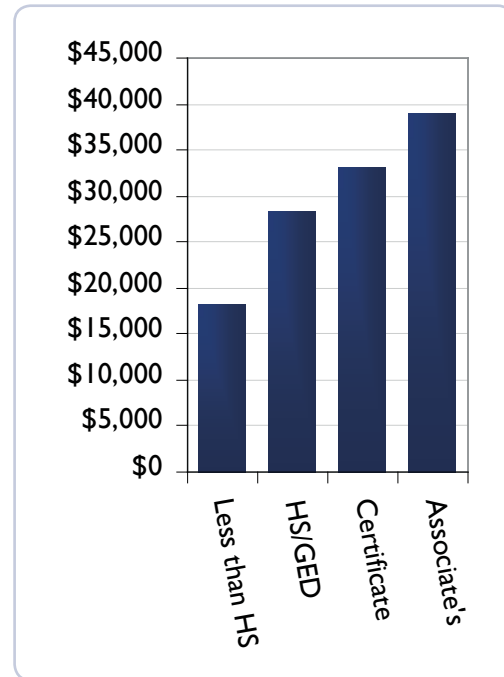
*In sum, TC3 contributes a total of \$155.0 million in regional labor and non-labor income to the TC3 Service Area economy each year.*

## 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.

For every credit completed, TC3 students earn, on average, \$184 more per year each year they are in the workforce. Compared to someone with a high school diploma, Associate Degree graduates will see an increase in income of around \$424,000 over the course of a working lifetime. Aggregate higher income for exiting students amount to some \$10.7 million per year for each year they remain in the workforce.



From an investment standpoint, TC3 students enjoy a 19% rate of return on their investments of time and money. This compares favorably with returns on other investments, e.g., long-term return on U.S. stocks and bonds. The corresponding benefit/cost ratio is 6.6, i.e., for every \$1 students

invest in TC3 education, they receive a cumulative of \$6.60 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 years.

### Social Perspective

From the perspective of society as a whole, the benefits of education accrue to different publics, whether students, homeowners, businesses, or taxpayers. For example, students benefit from higher earnings, while the public at large enjoys benefits associated with an expanded economic base. In addition, the public benefits from a variety of external social benefits such as reduced substance abuse, lower welfare and unemployment, and reduced crime.

In terms of added income, students expand the economic base of the state economy through their added skills, which serve to make them and the businesses that employ them more productive. *It is estimated that the activities of TC3's current students contribute a sum total of \$8.4 million in taxable income to the New York economy each year (in the aggregate).*

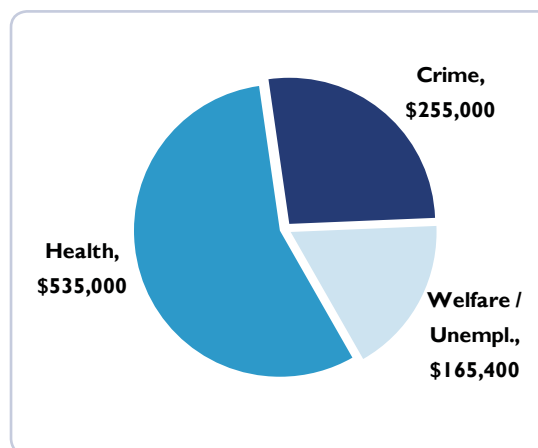
Persons with higher education are also less likely to smoke or abuse alcohol, draw welfare or unemployment benefits, or commit crimes. This translates into associated dollar savings (avoided costs) amounting to some \$16 per credit per year, counted as an indirect benefit of TC3 education. *When aggregated across all exiting students, the State of New York benefits from \$955,400 worth of avoided costs per year, each year that students are in the workforce.* Social savings break down as follows.

**Improved Health:** Employers in the State of New York see health-related absenteeism decline by 1,600 days per year, with a corresponding annual dollar savings of approximately \$166,800. The state benefits from health-related savings of roughly 80 fewer smokers and 18 fewer alcohol abusers. Corresponding dollar savings are \$239,300 and \$128,900 per year, now and into the future (these

savings include insurance premiums, co-payments and deductibles, and withholding for Medicare and Medicaid).

**Reduced Crime:** Incarceration drops with each year of higher education. In the State of New York, about 20 fewer individuals will be incarcerated, resulting in annual savings of \$135,700 (combined savings from reduced arrest, prosecution, jail, and reform costs). Reductions in victim costs (e.g., property damage, legal expenses, lost workdays, etc.) result in savings of \$43,500 per year. Finally, that people are employed rather than incarcerated adds \$75,800 of earnings per year to the economy.

**Reduced Welfare/Unemployment:** There will be about 80 fewer people on welfare and 20 fewer drawing unemployment benefits per year, saving \$136,700 and \$28,700 per year, respectively.



All of these benefits accrue for years out into the future, as long as students remain in the workforce and contribute to the growth and development of the state economy. The return on a year's worth of government funding in TC3 is obtained by projecting the associated educational benefits into the future, discounting them back to the present, and weighing these against the \$21.6 million state and local taxpayers spent during the analysis year to support the college.

Following this procedure, it is estimated that TC3 provides a benefit/cost ratio of 7.8, i.e., every dollar of state and local tax money invested in TC3 today returns a cumulative of \$7.80 over the

course of the students' working careers, in terms of added income and avoided social costs. This is a "real" return, meaning that results reflect current year dollars. The unadjusted, or "nominal," return would be significantly higher.

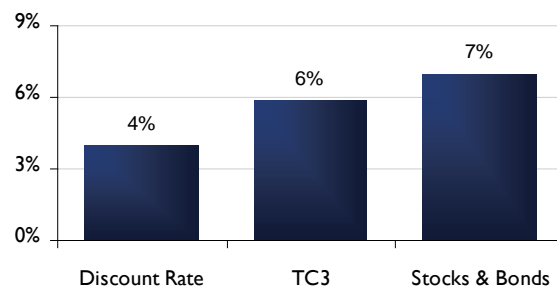
### Taxpayer Perspective

Under the taxpayer perspective, only benefits that accrue to state and local government are counted, namely, increased tax collections and reduced government expenditures. For example, in place of increased income, the narrow 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 narrow 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 narrow 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 4% discount rate used in this analysis) would be a favorable outcome. For TC3, the narrow perspective results exceed the minimum expectations.

*The results indicate positive returns: a rate of return of 6% and a benefit/cost ratio of 1.4 (every dollar of state or local tax money invested in TC3 today returns \$1.40).*



## Investment Analysis at a Glance

### Annual Benefits

Benefit Type	Annual Amount
<b>Higher Earnings</b>	
Aggregate (all students)	\$10,736,600
Per credit-hour equivalent (CHE)	\$184
Per full-time equivalent (FTE) student	\$5,530
<b>Social Savings</b>	
Aggregate (all students)	\$955,400
Per credit-hour equivalent (CHE)	\$16
Per full-time equivalent (FTE) student	\$492

### Investment Summary

Stakeholder	Rate of Return	Benefit/Cost	Payback (Years)
Students	18.8%	6.6	8.0
Social (Broad) Perspective	NA	7.8	NA
Taxpayer (Narrow) Perspective	5.8%	1.4	18.8

Source: See "Volume 1: Main Report" and "Volume 2: Detailed Results"

## Conclusion

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The results of this study demonstrate that TC3 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 Full Study

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This short summary is one of ten documents that comprise the full impact study. The long report (“Volume 1: Main Report”), intended for economists and college institutional researchers, lays out the detailed assumptions and analysis. Another report (“Volume 2: Detailed Results”) provides detailed tabular results by gender, ethnicity, and entry levels of education. Several fact sheets highlight the results from key perspectives: General Overview, Business Perspective, Social Perspective, Taxpayer Perspective, Broad vs. Narrow Taxpayer Perspective, and Student Perspective. Lastly, a PowerPoint presentation shows the main results in a brief, conference-friendly format.

## About EMSI

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EMSI is a leading provider of socioeconomic impact and strategic planning tools to community and technical colleges in the United States and Canada. Visit us at [www.economicmodeling.com](http://www.economicmodeling.com) for more information. To see full documentation of the study, please contact the college.



## **Socioeconomic Impact (SEIM) Study**

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**What are the measurable benefits of higher education?**

**Is education a worthwhile public investment?**

**Can students increase their earning potential by taking college courses?**

**Who benefits more from higher education: students or the general public?**

This report summarizes the results from “The Economic Contributions of Tompkins Cortland 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, 2006-07 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.

### *Contact Us:*

EMSI  
1187 Alturas Dr.  
Moscow, ID 83843  
(866) 999-3674  
[www.economicmodeling.com](http://www.economicmodeling.com)

