



The Socioeconomic Benefits Generated by the Wisconsin Technical College System

State of Wisconsin

Executive Summary

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Executive Summary

HIGHLIGHTS

- The Wisconsin Technical College System accounts for \$3.851 billion worth of annual earnings in the state.
- Students enjoy a return of 20% on their investment of time and money, higher than the long-term return on US stocks and bonds.
- The State of Wisconsin benefits from improved health and reduced welfare, unemployment, and crime, saving the public some \$45.5 million per year.
- Taxpayers see a return on investment from the Wisconsin Technical College System of more than 100% and recover all investments in 2.2 years.

INTRODUCTION

How does the State of Wisconsin benefit from the presence of the Wisconsin Technical College System (WTCS)? An obvious question often asked, but rarely answered with more than anecdotes. The Association for Community College Trustees has teamed with CCbenefits, Inc. to develop a model to capture the economic and social benefits of technical colleges. The model took over a year to develop, relies on data collected from technical colleges, and translates these into common sense benefit-cost and investment terms. It has been subjected to peer review, field tested on over 40 technical colleges throughout the nation, and is now applied to the WTCS. Model results are based on solid economic theory, carefully drawn functional relationships, and a wealth of national and local education-related data. The model provides relief from the all-too-

common “advocacy analyses” that inflate benefits, understate costs, and thus discredit the process of higher education impact assessment.

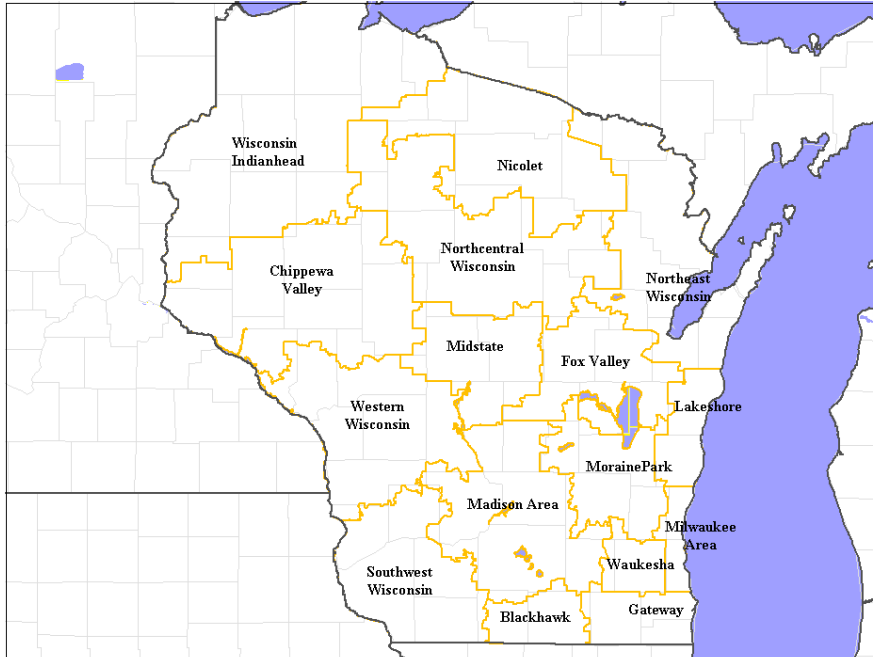


Four types of benefits are tracked: (1) contributions to job and income formation; (2) higher earnings captured by exiting students; (3) a broad collection of social benefits (improved health, reduced crime, and lower welfare and unemployment); and (4) the return to taxpayers for technical college support.

THE RESULTS

This executive summary does not include explanations of how the results were derived. The reader is encouraged to consult the main report “The Socioeconomic Benefits Generated by Wisconsin Technical College System” containing the detailed assumptions, their context, and the computation procedures.

- **The State of Wisconsin Perspective**
The existence of the WTCS explains \$3.851 billion of all annual earnings in the State of Wisconsin economy (see map). The earnings explained by the WTCS are equal to that of roughly 124,810 jobs.



The accumulated contribution of past WTCS instruction adds some \$2.899 billion in annual earnings to the State of Wisconsin economy (equal to that of 93,960 jobs).

➤ **Student Perspective**

The student's perspective on the benefits of higher education is the most obvious: he or she sacrifices tuition and current earnings for a lifetime of higher earnings. For every credit

The earnings and job effects break down as follows:

- *WTCS Operations and Capital Spending*

The Wisconsin Technical College System pays wages and salaries, which generate additional incomes as they are spent. Likewise, WTCS operating and capital expenditures generate still further earnings. Altogether, these earnings account for \$952 million annually in the State of Wisconsin economy (equal to that of 30,850 jobs).

- *Higher Earnings due to Past Instruction*

Each year students leave the WTCS and join or rejoin the workforce. Their added skills translate to higher earnings and a more robust economy. Based on current enrollment, turnover, and the growth of instruction over time, the State of Wisconsin workforce embodies an estimated 37.4 million credits of past instruction (credit and non-credit hours).

completed, WTCS students will, on average, earn \$131 more per year, every year they are in the workforce.

Alternatively, for every full-time year they attend they will earn an additional \$3,940 per year. In the aggregate (all exiting students), the higher earnings amount to some \$228.9 million per year, every year they remain in the workforce.

From an investment standpoint, WTCS students will enjoy a 20% return, which compares most favorably with the returns on other investments, e.g., the long-term return on US stocks and bonds. The corresponding benefit/cost ratio (the sum of the discounted future benefits divided by the sum of the discounted costs) is 3.1, i.e., for every \$1 the student invests in WTCS education, he or she will receive \$3.09 in higher future earnings. The payback period (the time needed to recover all of the investments) is 6.4 years.

➤ **Taxpayer Perspectives**

State and local government spent \$570,314,661 in support of the WTCS during the analysis year. Is this a good use of taxpayer money? Our analysis indicates that the answer is a resounding yes: returns far outweigh the costs, particularly when a collection of social savings is included in the assessment. For example, persons with higher education are 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 \$41 per credit per year that can be counted as an indirect benefit of WTCS education. When aggregated across all exiting students, the State of Wisconsin will benefit from \$45.5 million worth of avoided costs per year, broken down as follows:

- *Improved Health*

State of Wisconsin area employers will see health-related absenteeism decline by 139,308 days per year, with a corresponding annual dollar savings of \$13.9 million. The state will benefit from the health-related savings of 6,471 fewer smokers and 1,472 fewer alcohol abusers. The corresponding dollar savings are \$9,465,200 and \$5,200,600 per year, now and into the future (these savings include insurance premiums, co-payments and deductibles, and withholding for Medicare and Medicaid).

- *Reduced Crime*

Studies show that incarceration drops with each year of higher education. In the State of Wisconsin, 759 fewer individuals will be incarcerated per year, resulting in annual savings of \$4,652,000 (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 \$1,506,000 per year. Finally, people employed rather than incarcerated add \$2,518,000 of earnings per year to the economy.

- *Reduced Welfare/Unemployment*

There will be 1,853 fewer people on welfare, and 772 fewer drawing unemployment benefits per year, respectively saving some \$5,282,000 and \$3,064,000 per year in the state.

➤ **Taxpayer Return on Investment**

The return on state and local government investments in the WTCS is obtained by projecting educational benefits into the future, discounting them back to present, and weighing these against the \$570,314,661 state and local taxpayers annually spend in support of the college. Two perspectives are possible, one broad and one narrow.

- *Broad Perspective*

The public expects their investment in WTCS to result in higher lifetime earnings for students, and social savings from lifestyle changes (including reduced crime, welfare and unemployment, and improvements in health). From a broad investment perspective, the value of all future earnings and associated social savings are compared against one year of state and local taxpayer support. Following this procedure, the WTCS provides a state and local taxpayer return on investment of more than 100% per year. The benefit/cost ratio is 10.7 so for every dollar of state or local tax money invested in WTCS today returns \$10.65.

Finally, the payback period is 2.2 years – the one-year of state and local government support is recovered in increased earnings and social savings within 2.2 years. Absent state and local government support, WTCS would have to shut its doors and none of the benefits measured here would occur. For this reason, it is legitimate to count total benefits against state and local government support, as is done under the broad perspective.

- *Narrow Perspective*

The narrow perspective limits the benefit stream to actual state and local government increased tax collections and budget savings. For example, in place of total increased student earnings, the narrow perspective includes only the increased state and local tax receipts from those higher earnings. Similarly, in place of overall crime, welfare, unemployment and health savings, the narrow perspective includes only those portions that translate to actual savings of state and local government expenditures. Note here that governments often undertake tasks that the marketplace would not find sufficiently appealing and, more often than not, expect to lose money in the process. From the narrow taxpayer perspective, therefore, even a small positive return (a benefit/cost ratio equal to just greater than 1, and/or a rate of

return equal to or just greater than the 4.0% discount rate used in this analysis) would be a most favorable return, certainly one that justifies continued taxpayer support of the WTCS. The results indicate just that—a state and local taxpayer return on investment of 13.4% per year. The benefit/cost ratio is 2.05—every dollar of state or local tax money invested in WTCS today returns \$2.05. Finally, the payback period is 8.4 years – the one-year of state and local government support is returned to state and local coffers within 8.4 years.

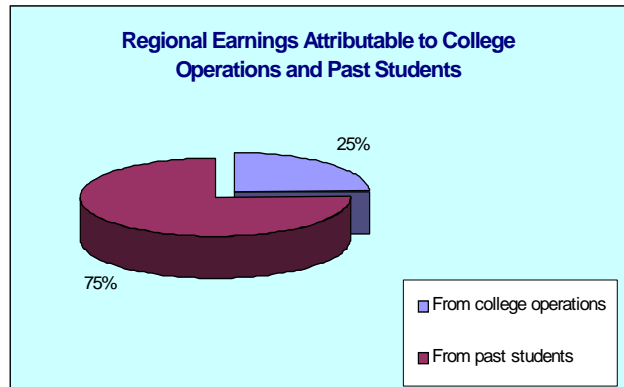
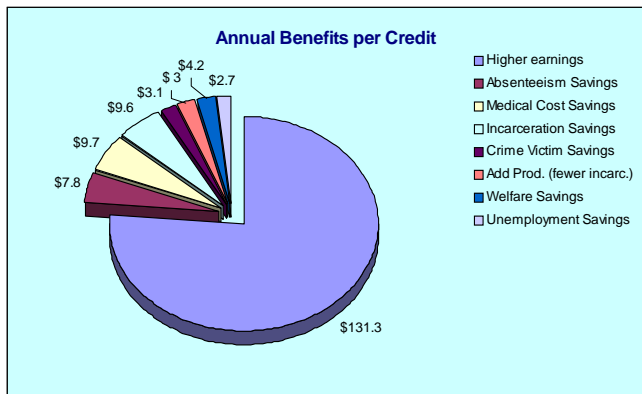


CONCLUSION

The results of this study demonstrate that the WTCS is a sound investment from a number of perspectives. It enriches the lives of students while reducing the demand for taxpayer-supported social services. Finally, it contributes to the vitality of both the local and state economies.

Benefits at a Glance

Statewide Analysis		State Impact	
Statewide Economic Development			
Increment from college operations		\$951,861,000	
Increment from past student productivity		\$2,898,706,000	
Total		\$3,850,567,000	
Job equivalent		124,809	
Annual Benefits			
<i>Higher earnings</i>			
Aggregate (all students)		\$228,903,100	
Per Credit		\$131	
Per year per full time student		\$3,940	
<i>Social savings</i>			
Aggregate (all students)		\$45,547,000	
Per Credit		\$41	
Per year per full time student		\$1,224	
Investment Analysis	Rate of Return	Benefit/Cost	Payback
Students	20%	3.1	6.4
Taxpayers: Broad Perspective	>100%	10.7	2.2
Taxpayers: Narrow Perspective	13%	2.0	8.4



This short summary report is one of three products generated for this impact study. In addition, one long report intended for economists and institutional researchers (55 pp) lays out the detailed assumptions and analysis. Another report (10 pp) provides detailed tabular results by gender, ethnicity, and entry levels of education.