



The Socioeconomic Benefits Generated by 30 Community College Districts in Washington

State of Washington

Executive Summary

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HIGHLIGHTS

- The 30 community and technical college districts in Washington pay \$636.4 million in direct faculty and staff wages and salaries, and explain an additional \$6,409 million in wages and salaries off campus.
- Taxpayers see a real money “book” return of 19.6% on their annual investments in the community and technical colleges and recover all investments in 6.8 years.
- Students enjoy an attractive 21% annual return on their investment of time and money – for every \$1 the student invests in CTC education, he or she will receive a cumulative \$5.46 in higher discounted future earnings over the next 34 years.
- The State of Washington benefits from improved health and reduced welfare, unemployment, and crime, saving the public some \$168.0 million per year.

INTRODUCTION

How does the State of Washington economy benefit from the presence of the 30 community and technical college districts in the state? An obvious question often asked, but rarely answered with more than anecdotes. The Washington Community and Technical College Districts (Washington's CTC Districts) contracted with CCBenefits, Inc. to apply a comprehensive economic model they have developed to capture and quantify the economic and social benefits of community and technical colleges (CTCs). The model, which took over a year to develop with funding from

the Association for Community College Trustees (ACCT), relies on data collected from individual CTCs, and translates these into common sense benefit-cost and investment terms. It has been subjected to peer review, field tested on over 220 different CTCs throughout the nation, and now applied to the community and technical college districts in Washington. 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 local job and income formation (regional economic benefits); (2) higher earnings captured by exiting students; (3) a broad collection of social benefits (improved health, reduced crime, lower welfare, and unemployment); and (4) the return to taxpayers for their CTC support.

THE RESULTS

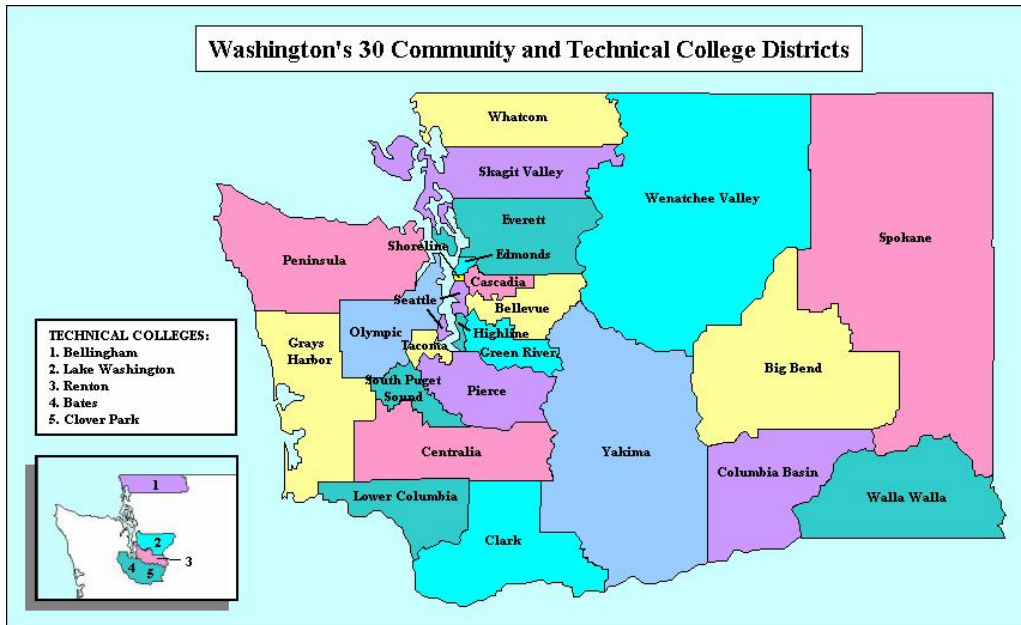
For a more in-depth exploration of the study, the reader is encouraged to consult the main report containing the detailed assumptions, their context, and the computation procedures.

➤ **Statewide Perspective**

The 30 CTC districts in the State of Washington explain \$7,045.0 million of all annual earnings in the state economy (see

map). The earnings explained by the community and technical colleges are equal to that of roughly 184,398 jobs. The earnings and job effects break down as follows:

the workforce embodies an estimated 116.0 million credits of past instruction (credit and non-credit hours). The accumulated contribution of past CTC instruction adds some \$6,000.3 million in annual earnings to the State of Washington economy (equal to that of 147,709 jobs).



➤ **Student Perspective**
The student's perspective on the benefits of higher education is the most obvious: he or she sacrifices tuition and current

- *Operations and Capital Spending*
The 30 CTC districts pay wages and salaries, which generate additional incomes as they are spent. Likewise, the aggregate CTC operating and capital expenditures generate still further earnings. Altogether, these earnings account for \$1,044.8 million annually in the State of Washington economy (equal to that of 36,690 jobs).

- *Higher Earnings due to Past Instruction*
Each year students leave the 30 community and technical college districts and join or rejoin the local 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,

earnings for a lifetime of higher earnings. For every credit completed students will, on average, earn \$100 more per year each year they are in the workforce. Alternatively, for every full-time year they attend they will earn an additional \$4,409 per year. In the aggregate (all exiting students), the higher earnings amount to some \$806.7 million per year for each year they remain in the workforce.

From an investment standpoint, the CTC students will, on average, enjoy a 21% rate of return on their investments of time and money, which compares favorably with the returns on other investments, e.g., the long-term return on US stocks and bonds. The corresponding B/C ratio (the sum of the discounted future benefits divided by the sum of the discounted

costs) is 5.5, i.e., for every \$1 the student invests in CTC education, he or she will receive a cumulative of \$5.46 in discounted higher future earnings over the next 34 years. The payback period (the time needed to recover all costs) is 6.9 years.

➤ **Taxpayer Perspectives**

The state government spent \$557,476,671 in support of the Washington community and technical college districts 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 \$36 per credit per year, counted as an indirect benefit of CTC education. When aggregated across all exiting students, the State of Washington will benefit from \$168.0 million worth of avoided costs per year, broken down as follows:

• *Improved Health*

State of Washington area employers will see health-related absenteeism decline by 270,018 days per year, with a corresponding annual dollar savings of \$28.6 million. The state will benefit from the health-related savings of 6,245 fewer smokers and 1,675 fewer alcohol abusers. The corresponding dollar savings are \$18,499,150 and \$13,306,509 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 Washington, 2,267 fewer individuals will be incarcerated per year, resulting in annual savings of \$22,585,577 (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 \$24,874,628 per year. Finally, that people are employed rather than incarcerated adds \$10,008,002 of earnings per year to the economy.

• *Reduced Welfare/Unemployment*

There will be 6,247 fewer people on welfare, and 2,652 fewer drawing unemployment benefits per year, respectively, saving some \$26,627,517 and \$23,430,842 per year in the state.

➤ **Taxpayer Return on Investment**

The return on a year's worth of state government investment in the Washington's CTC Districts is obtained by projecting the associated educational benefits into the future, discounting them back to the present, and weighing these against the \$557,476,671 state taxpayers spent during the analysis year to support the 30 CTCs in the system. The analysis is based on the portion of CTC operations that is wholly dependent on state government support. Two investment perspectives are possible, one broad and one narrow.

- *Broad Perspective*

Taxpayers expect their annual investment in the CTCs to result in higher lifetime earnings for students and social savings from lifestyle changes (reduced crime, welfare and unemployment, and improvements in health). From a broad investment perspective, the value of *all* future earnings and associated social savings is compared to the year's worth of state taxpayer support that made the benefits possible. Following this procedure, the B/C ratio generated for the whole system is 20.8, i.e., every dollar of state tax money invested in Washington's CTCs today returns a cumulative of \$21 over the next 34 years.

- *Narrow Perspective*

The narrow perspective limits the benefit stream to the state government budget, namely increased tax collections and expenditure 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 reductions in state and local government expenditures.

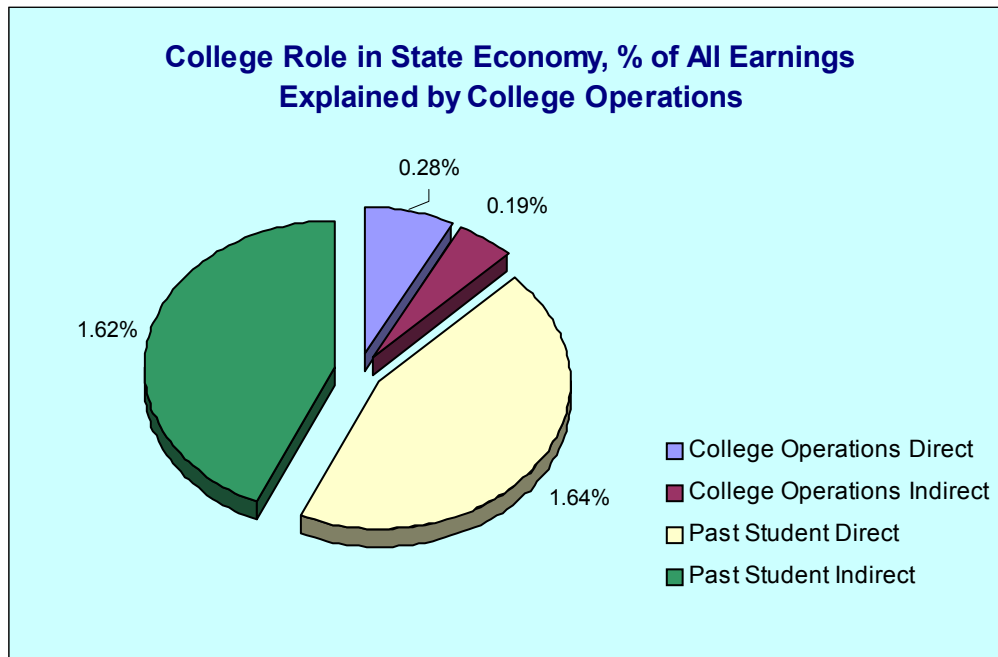
Note here that it is normal for the state government to undertake activities wanted by the public, but which are unprofitable in the marketplace. This means that positive economic returns are generally not expected from government investments. From the narrow taxpayer perspective, therefore, even a small positive return (a B/C ratio equal to or 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 outcome, certainly one that justifies continued taxpayer support of the CTC. For Washington, the narrow perspective results greatly exceed the minimum expectations. The results indicate strong and positive returns: a RR of 19.6%, a B/C ratio of 3.4 (every dollar of state tax money invested today returns a cumulative \$3.43 over the next 30 years), and a short payback period of only 6.8 years.

CONCLUSION

The results of this study demonstrate that the investment in the Washington community and technical colleges is sound from multiple perspectives. It enriches the lives of students and reduces the demand for taxpayer-supported social services. Finally, it contributes to the vitality of both the local and state economies.

Benefits at a Glance

Regional Analysis		Regional Impact	
Regional Economic Development			
Increment from Washington's CTC Districts operations		\$1,044,764,000	
Increment from past student productivity		\$6,000,268,000	
Total		\$7,045,032,000	
Job equivalent		184,398	
Annual Benefits			
<i>Higher earnings</i>			
Aggregate (all students)		\$806,699,460	
Per Credit		\$100	
Per year full time equivalent student		\$4,409	
<i>Social savings</i>			
Aggregate (all students)		\$167,962,034	
Per Credit		\$36	
Per year full time equivalent student		\$1,583	
Investment Analysis	RR	B/C Ratio	Payback (Years)
Students	20.7%	5.5	6.9
Taxpayers: Broad Perspective	NA	20.8	NA
Taxpayers: Narrow Perspective	19.6%	3.4	6.8



In sum, the graph shows that the CTCs explain a total of 4.7% of all earnings (\$148.85 billion) generated from all sources in the state.

This short summary report is one of four products generated for this impact study. In addition, one long report intended for economists and CTC institutional researchers (87 pp) lays out the detailed assumptions and analysis. Another report (10 pp) provides detailed tabular results by gender, ethnicity, and entry levels of education. Lastly, a PowerPoint presentation is developed showing the main results for CTC Presidents to adapt and use in speeches before state legislators and other education stakeholders.