THE ECONOMIC CONTRIBUTION OF THE COMMUNITY COLLEGES OF OREGON

State of Oregon

Executive Summary

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HIGHLIGHTS

- Students enjoy an attractive **19%** annual return on their investment of time and money.
- For every $1 the students invest in education, they will receive a cumulative **$5.10** in higher future earnings over the course of their working careers (after discounting).
- Taxpayers see a real money "book" return of **19%** on their annual college investment.
- The State of Oregon benefits from improved health and reduced welfare, unemployment, and crime, saving the public some **$39.0 million** per year each year that the students are in the workforce.
- The state economy receives roughly **$10.4 billion** in regional income due to college operations and past student productivity effects. This figure amounts to **9%** of a typical year's economic growth.

INTRODUCTION

How does the State of Oregon benefit from the presence of the Oregon community colleges?

An obvious question often asked, but rarely answered with more than anecdotes. In this study, CCbenefits, Inc. applied a comprehensive economic model they developed with funding from the Association for Community College Trustees (ACCT). The model captures and quantifies the economic benefits of community and technical colleges, and translates these into common sense benefit/cost and investment terms.

The study tracks four types of benefits:

1. **Regional Economic Benefits** – Formation of statewide labor and non-labor income;
2. **Student Perspective** – Higher earnings captured by students;
3. **Taxpayer Perspective** – A collection of social benefits and avoided costs;
4. **Investment Analysis** – The return to taxpayers for their college support.

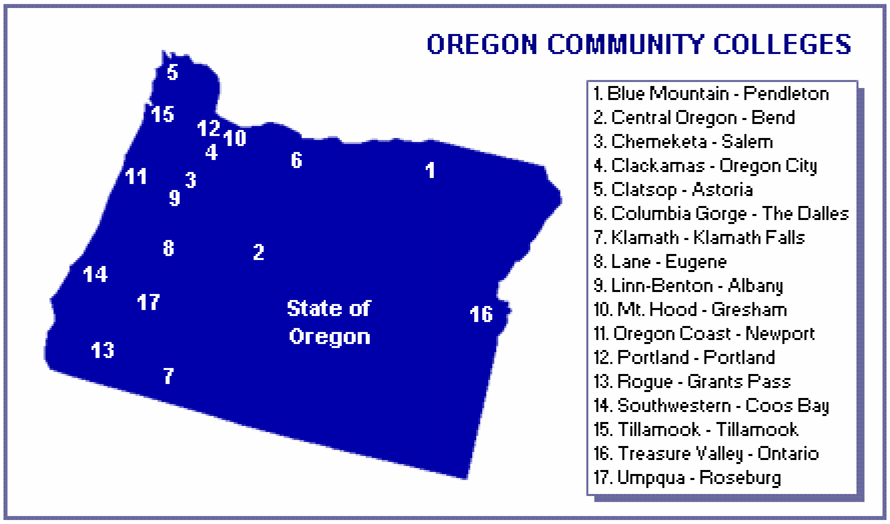
The economic impact model has been subjected to peer review and field-tested on over 500 different community and technical colleges throughout the U.S. and Canada. Model results are based on solid economic theory, carefully drawn functional relationships, and a wealth of national and local education-related data. The model also provides an analytical alternative from the all-too-common "advocacy analyses" that inflate benefits, understate costs, and thus discredit the process of higher education impact assessment.

THE RESULTS

For a more in-depth discussion of the results, the reader is encouraged to consult the Main Report, "The Economic Contribution of the Community Colleges of Oregon," containing the detailed assumptions, their context, and the computation procedures.

➢ Regional Economic Benefits

Colleges affect the state economy in two ways: 1) through their local purchases, including the wages paid to faculty and



staff, and 2) through a human capital effect stemming from an increase in the skill-base of the workforce. The effects of the Oregon community colleges break down as follows:

- *College Operations Spending*

Colleges create state 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 the colleges, it is estimated that the present-day state economy owes roughly $344.5 million in labor and non-labor income to the operations and capital spending of the Oregon community colleges.

- *Past Student Productivity*

Each year students leave the colleges and join or rejoin the local workforce. Their added skills translate to higher income and a more robust economy in the state. Based on current enrollment, turnover, and the growth of instruction over time, the state workforce embodies an estimated 88.0 million credits of past and present instruction. The accumulated contribution of past and present college instruction adds some $10.1 billion in state income to the current economy of the State of Oregon.

In sum, the Oregon community colleges contribute a total of $10.4 billion in regional labor and non-labor income to the current Oregon economy.

➢ Student Perspective

The student's perspective on the benefits of higher education is the most obvious: he or she sacrifices current earnings (as well as money to pay for tuition) in return for a lifetime of higher earnings. For every credit completed, students will, on average, earn $85 more per year each year they are in the workforce. Alternatively, for every full-time year they attend they will earn an additional $3,808 per year. In the aggregate (all exiting students), the higher earnings amount to some $382.1 million per year for each year they remain in the workforce.

From an investment standpoint, students will enjoy a 19% rate of return on their investments of time and money. This compares favorably with the returns on other investments, e.g., the long-term return on U.S. stocks and bonds. The corresponding benefit/cost ratio is 5.1, i.e., for every $1 the student invests in education, he or she will receive a cumulative of $5.10 in higher future earnings over their working careers. This is a *real* return and accounts for any discounting that may occur during the entire period. The time needed to recover all costs is 7 years.

➢ Taxpayer Perspective

State and local government spent $363.7 million in support of the Oregon community colleges 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, and the attractiveness of the taxpayer investment is even stronger when a collection of incidental 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 $9 per credit per year, counted as an indirect benefit of higher education. **When aggregated across all exiting students, the State of Oregon will benefit from $39.0 million worth of avoided costs per year, each year that the students are in the workforce**. Note that this is an annual figure and does not account for out-of-state attrition that occurs over time. Attrition is applied in the investment analysis, discussed in greater detail in the next section.

The social savings, commonly known as externalities, break down as follows:

- *Improved Health*

Employers in the State of Oregon will see health-related absenteeism decline by 60,700 days per year, with a corresponding annual dollar savings of approximately $6.7 million. The state will benefit from the health-related savings of roughly 3,900 fewer smokers and 930 fewer alcohol abusers. The corresponding dollar savings are $11.7 million and $6.5 million 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 Oregon, about 600 fewer individuals will be incarcerated per year, resulting in annual savings of $4.7 million (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 $1.5 million per year. Finally, that people are employed rather than incarcerated adds $2.8 million of earnings per year to the economy.

- *Reduced Welfare/Unemployment*

There will be around 2,700 fewer people on welfare, and 1,050 fewer drawing unemployment benefits per year, saving some $3.9 million and $1.3 million per year, respectively.

➢ Investment Analysis

The return on a year's worth of state and local government investment in the colleges is obtained by projecting the associated educational benefits into the future, discounting them back to the present, and weighing these against the $363.7 million state and local taxpayers spent during the analysis year to support the colleges. The analysis is based on the portion of college operations that is wholly dependent on state and local government support. Two investment perspectives are possible, one broad and one narrow.

- *Broad Perspective*

Taxpayers expect their annual investment in the Oregon community colleges 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 income and associated social savings is compared to the year's worth of state and local taxpayer support that made the benefits possible. Following this procedure, it is estimated that the colleges provide a benefit/cost ratio of 32, i.e., every dollar of state or local tax money invested in the colleges today returns a cumulative of $32 over the course of the students' working career. As above, this is a *real* return, accounting for any discounting that may occur during the established time horizon. The *nominal* return would be significantly higher.

- *Narrow Perspective*

The narrow perspective limits the benefit stream to state and local government budgets, namely, increased tax collections and expenditure savings. For example, in place of total 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 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 benefit/cost ratio equal to or just greater than 1, or a rate of return equal to or just greater than the 4% discount rate used in this analysis) would be a favorable outcome, certainly one that justifies continued taxpayer support of the colleges. For the Oregon community colleges, the narrow perspective results greatly exceed the minimum expectations.

The results indicate strong and positive returns: a rate of return of 19%, and a benefit/cost ratio of 4.6 (every dollar of state or local tax money invested in the colleges today returns $4.60).

CONCLUSION

The results of this study demonstrate that the Oregon 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.

Benefits at a Glance

Statewide Analysis			**State Impact**
Statewide Economic Growth			
Annual college contribution to regional income (labor and non-labor)			$344,489,000
Annual student contribution to regional income (labor and non-labor)			$10,102,559,000
TOTAL			$10,447,048,000
Annual Benefits			
Higher earnings			
Aggregate (all students)			$382,130,000
Per Credit			$85
Per full-year equivalent student			$3,808
Social savings			
Aggregate (all students)			$38,995,000
Per Credit			$9
Per full-year equivalent student			$389
Investment Analysis	**RR**	**B/C Ratio**	**Payback (Years)**
Students	19.2%	5.1	7.3
Taxpayers: Broad Perspective	NA	31.7	NA
Taxpayers: Narrow Perspective	18.7%	4.6	7.4

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

This short summary report is one of six products generated for this impact study. In addition, one long report intended for economists and college institutional researchers lays out the detailed assumptions and analysis. Another report provides detailed tabular results by gender, ethnicity, and entry levels of education, and a fact sheet contains highlights of the study results at a glance. The study also includes a write-up in layman's terms about the differences between the broad and narrow taxpayer perspectives. Lastly, a PowerPoint presentation is developed showing the main results for college presidents to adapt and use in speeches before state legislators and other education stakeholders.