The Economic Contribution of Washburn Tech

State of Kansas

November 2011
SOcioeconomic Impact Study

Investment Analysis

- For every dollar students invest in WU Tech, they receive a cumulative $3.90 in higher future income (discounted) over the course of their working careers.

- Kansas benefits from improved health and reduced welfare, unemployment, and crime, saving the public some $184,600 per year.

- Taxpayers see a rate of return of 7.8% on their investment in WU Tech.

Economic Growth Analysis

- The Northeast Kansas economy receives approximately $3.4 million in net added income each year due to WU Tech payroll and operations spending.

- The accumulated credits achieved by former WU Tech students over the past 30 years translated to $12.5 million in added regional income in 2009–10 due to the higher earnings of students and increased output of businesses.
INTRODUCTION

How do the Northeast Kansas economy and the state of Kansas benefit from the presence of Washburn Institute of Technology (WU Tech)?

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. **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.

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

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

THE RESULTS

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 $31,700 more per year, on average, over the course of a working lifetime (undiscounted).

From an investment standpoint, WU Tech students enjoy a 12.6% 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 3.9, i.e., for every dollar students invest in WU Tech education, they receive a cumulative of $3.90 in higher future income over their lifetime.
The Economic Contribution of Washburn Institute of Technology

working careers. This is a real return that accounts for any discounting that occurs during the entire period. The payback period is 11.7 years.

Social Perspective

From the perspective of society as a whole, the benefits of education accrue to different publics. For example, WU Tech 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 $4 million in taxable income to the Kansas economy each year.

As they achieve higher levels of education, WU Tech 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 $184,600 annually. These are benefits that are incidental to the operations of WU Tech and accrue for years into the future, for as long as students remain active in the workforce.

To compare benefits to costs, we project benefits into the future, discount them back to the present, and weigh them against the $2.7 million that state and local taxpayers spent in FY 2009-10 to support WU Tech. Following this procedure, it is estimated that WU Tech provides a benefit/cost ratio of 23.7, i.e. every dollar of state and local tax money invested in WU Tech today yields a cumulative of $23.70 in benefits that accrue to all Kansas 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.

For WU Tech, the results indicate positive returns: a rate of return of 7.8% and a benefit/cost ratio of 2.3 (every dollar of state or local tax money invested in WU Tech today returns $2.30).

**ECONOMIC GROWTH ANALYSIS**

WU Tech affects the local economy in two ways: (1) through its local purchases, including wages paid to faculty and staff; and (2) through the increase in the skill base of the local workforce. These effects break down as follows:

**College Operations Effect**

WU Tech 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 WU Tech, it is estimated that the Northeast Kansas economy receives a net of $3.4 million in added labor and non-labor income due to WU Tech operations each year.

**Student Productivity Effect**

Every year students leave WU Tech and join or rejoin the regional workforce. Their added skills translate to higher income and a more robust Northeast Kansas economy. Based on WU Tech’s historical enrollment and credit production over the past 30-year period, it is estimated that the accumulated contribution of WU Tech instruction received by former students (both completers and non-completers) annually adds some $12.5 million in income to Northeast Kansas.

**Total Effect**

Altogether, the average annual added income due to the activities of WU Tech and its former students equals $15.9 million. This is approximately equal to <0.1% of the total Northeast Kansas economy.

**CONCLUSION**

The results of this study demonstrate that WU Tech is a sound investment from multiple perspectives. The institute 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.

**TOTAL ADDED INCOME IN NORTHEAST KANSAS DUE TO WU TECH ($ MILLIONS)**

- **Operations effect:** $3.4
- **Productivity effect:** $12.5

**WASHBURN ECONOMIC IMPACT ANALYSIS AT A GLANCE**

<table>
<thead>
<tr>
<th>ADDED INCOME</th>
<th>Amount</th>
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<tbody>
<tr>
<td>College operations effect</td>
<td>$3,422,100</td>
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<tr>
<td>Student productivity effect</td>
<td>$12,460,700</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$15,882,700</strong></td>
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ABOUT THE STUDY

This report summarizes the results from “The Economic Contributions of Washburn Institute of Technology” detailing the role that WU Tech 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 WU Tech, 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.