

# **Explanatory Comments for the CCbenefits PowerPoint Presentation**

**June 22, 2006**

## **Purpose:**

The purpose of the document is to provide explanatory text for the results shown in the CCbenefits PowerPoint presentation. The text may also be used as a guide when making presentations before board members, chambers of commerce, local newspapers, and the like.

Source tables from the Main Report of the study are also provided where applicable.

**Slide 1**

“We all know intuitively that a college education is a positive investment in our future. It translates into knowledge and skills that can increase our earnings, make us more informed and productive citizens, and provide a foundation for future growth and success. But being able to actually quantify this phenomenon is another story.”

“Now, with the results of a comprehensive economic impact study produced by CCbenefits, we can capture and quantify the significant positive role that Southwestern plays in the region and in the state. CCbenefits is an economics firm located in Moscow, Idaho that specializes in the production of socioeconomic impact studies and strategic planning tools for community and technical colleges. The company makes use of a powerful economic model developed with funding from the Association of Community College Trustees (ACCT), and has successfully served more than 500 colleges in the U.S. and Canada to date.”

“This presentation highlights the main results from the recently completed impact study for Southwestern.”



**Slide 2**

“The CCbenefits study is fairly complex, but essentially it addresses two primary areas of socioeconomic impact: 1) the impact on the growth of the regional economy, and 2) the return-on-investment for students and taxpayers.”

“The backdrop for the regional analysis is Coos and Curry Counties, whereas the backdrop for the investment analysis is the entire State of Oregon.”



**Slide 3**

“So, let’s begin with the regional analysis.”



**Slide 4**

“As shown in the map, the economic backdrop for the regional analysis of Southwestern is Coos and Curry Counties.”



**Slide 5**

“How does the CCbenefits regional impact analysis work?”

“As with most impact studies, CCbenefits measures the direct effect of Southwestern salaries and wages, then applies the standard multiplier impacts to determine the indirect effect. CCbenefits further adjusts the impacts of college spending to take into account local monies

withdrawn from the economy to support the college. This adjustment is unique to the analysis and serves to increase the conservative nature of the results.”

“Next, CCbenefits adds the impacts associated with the past students who have left the college and entered the regional workforce. This effect, otherwise known as the ‘human capital’ effect, is often left out altogether from impact studies, even though it is by far the greatest and most important impact generated by college education.”

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### Slide 6

“As mentioned earlier, the impact of college operations spending is calculated using the standard procedure, first by summing total college salaries and wages to determine the direct effect, and then by applying multiplier impacts to determine the indirect effect.”

“Also, remember that CCbenefits applies a reduction factor to account for monies withdrawn from the economy to support the college.”

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### Slide 7

“As shown here, the total impact of college operations is \$13.0 million, net of all adjustments used to account for local funding received by the college.”

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### Slide 8

“Next, we turn to past student productivity effects, otherwise known as the ‘human capital’ effect. As mentioned earlier, this is by far the greatest impact of college education in the regional economy, though it is rarely measured by other impact studies.”

“The key to this portion of the analysis is the higher earnings achieved by the students due to their college education, as well as the added income and associated multiplier effects resulting from those higher earnings.”

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### Slide 9

“As shown here, the total impact of past student productivity is an impressive \$199.1 million in added regional income *each year*.”

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Slide 10

“All in all, the regional economy is \$212.1 million stronger due to the actions of Southwestern. This is an annual figure, meaning that, without the actions of Southwestern, the regional economy would be that much smaller.”

Source for Slides 6 through 10: Table 4.1 in Volume 1: Main Report

Table 4.1. Impact of Southwestern on Labor and Non-Labor Income in the Regional Economy

|   | Labor<br>Income<br>(\$ Thousands) | % of<br>Total | Non-Labor<br>Income*<br>(\$ Thousands) | % of<br>Total | TOTAL<br>INCOME<br>(\$ Thousands) | % of<br>Total | Multi-<br>pliers |
|---|-----------------------------------|---------------|--|---------------|-----------------------------------|---------------|------------------|
| Total Income in Southwestern Service Area                               | \$1,223,074                       | 100%          | \$457,519                              | 100%          | \$1,680,593                       | 100%          |                  |
| <b>Income Attributable to College Operations</b>                        |                                   |               |  |               |                                   |               |                  |
| Direct Effect of Faculty and Staff                                      | \$14,000                          | 1.1%          | \$0                                    | 0.0%          | \$14,000                          | 0.8%          |                  |
| Indirect Effect   | \$1,444                           | 0.1%          | \$567                                  | 0.1%          | \$2,011                           | 0.1%          |                  |
| Gross Total   | \$15,444                          |               | \$567                                  |               | \$16,011                          | 1.0%          | 1.14             |
| Adjustment for alternative use of funds                                 | (\$2,128)                         | -0.2%         | (\$841)                                | -0.2%         | (\$2,969)                         | -0.2%         |                  |
| TOTAL**   | \$13,316                          | 1.1%          | (\$274)                                | -0.1%         | \$13,042                          | 0.8%          |                  |
| <b>Income Attributable to Past Student Economic Development Effects</b> |                                   |               |  |               |                                   |               |                  |
| Direct Effect   | \$169,455                         | 10.1%         |  |               | \$169,455                         | 10.1%         |                  |
| Indirect Effect   | \$29,640                          | 1.8%          |  |               | \$29,640                          | 1.8%          |                  |
| TOTAL   | \$199,095                         | 11.8%         |  |               | \$199,095                         | 11.8%         | 1.17             |
| GRAND TOTAL   | \$212,137                         | 12.6%         |  |               | \$212,137                         | 12.6%         |                  |

**TOTAL EFFECT**

Slide 11

“Now let’s turn to the investment analysis, the second major component of the CCbenefits impact study.”

Slide 12

“The investment analysis focuses on the benefits received by the students, by society and by the taxpayers.”

“On the student side, CCbenefits examines the returns (or higher earnings) achieved by the students throughout the course of their working career.”

“On the social side, CCbenefits analyzes a broad collection of external benefits that accrue to the public as students achieve higher levels of education.”

“On the taxpayer side, CCbenefits measures the cost of funding the college against the significant positive returns generated by the college’s educational activities.”

Slide 13

“As shown in this slide, the aggregate student body will receive a present value of \$231.7 million in higher earnings over the course of the next thirty years or so. Note that this is a present value, meaning that the returns have been discounted to current-year dollars.”

“In contrast, student costs come to only \$55.6 million, equal to the sum total of student tuition and fees and the opportunity cost of time.”

Source for Slide 13: Table 3.4 in Volume 1: Main Report

Table 3.4. Summary of Investment Analysis Results - Present Values

|   | Aggregate             | Per CHE         |
|---|-----------------------|-----------------|
| <b>PRIVATE BENEFITS</b>                                       |                       |                 |
| PV of student benefits, increased earnings                    | \$ 231,673,000        | \$ 1,600        |
| <b>Sum of all private benefits, present value</b>             | <b>\$ 231,673,000</b> | <b>\$1,600</b>  |
| <b>PUBLIC BENEFITS</b>  |                       |                 |
| PV of increased GSP   | \$ 310,163,000        | \$2,080         |
| Health benefits, captured by society                          |                       |                 |
| PV of absenteeism savings                                     | \$ 2,255,000          | \$20            |
| PV of tobacco and alcohol abuse medical savings               | \$ 8,131,000          | \$50            |
| Crime   |                       |                 |
| PV of reduced incarceration                                   | \$ 1,781,000          | \$10            |
| PV of reduced victim costs                                    | \$ 571,000            | \$0             |
| PV of earnings (added productivity)                           | \$ 907,000            | \$10            |
| Unemployment and welfare                                      |                       |                 |
| PV of reduced welfare rolls                                   | \$ 1,607,000          | \$10            |
| PV of reduced unemployment                                    | \$ 545,000            | \$0             |
| <b>Sum of all public benefits, present value</b>              | <b>\$ 325,960,000</b> | <b>\$ 2,180</b> |
| <b>COSTS, PRIVATE AND PUBLIC</b>                              |                       |                 |
| PV of opportunity cost of education plus tuition (private)    | \$ 55,571,000         | \$ 370          |
| PV of state and local contribution to college budget (public) | \$ 10,995,000         | \$ 70           |

Student Benefits

Student Costs

Slide 14

“The internal rate of return is simply the earning power of the money used over the life of the investment. The threshold value used by CCbenefits is 4.0% - any number greater than that indicates a strong investment. In the case of the students, the rate of return is 18.0%, far exceeding the threshold value of 4.0%.”

Slide 15

“Now we turn to a different way of measuring student benefits, namely, the benefit/cost ratio. The benefit/cost ratio is a simple division of total benefits by total costs, giving us a ratio of roughly 4 to 1. This means that for every dollar that a student pays for his education, he receives

a cumulative return of \$4.20. This is a very favorable return, especially given the fact that an investment need only exceed a benefit/cost ratio of 1 to be considered profitable.”

Source for Slides 14 and 15: Table 3.6 in Volume 1: Main Report

Table 3.6. Summary of Investment Analysis Results

|  |       |
|--|-------|
| RR, Student Perspective                              | 18.0% |
| B/C Ratio, Student Perspective                       | 4.2   |
| Payback Period, Student Perspective (years)          | 7.6   |
| B/C Ratio, Taxpayer Perspective: Broad               | 29.6  |
| RR, Taxpayer Perspective: Narrow                     | 19.3% |
| B/C Ratio, Taxpayer Perspective: Narrow              | 4.3   |
| Payback Period, Taxpayer Perspective: Narrow (years) | 7.1   |

Slide 16

“Here are still more reasons for students to invest in college education. An Associate Degree graduate will earn on average 37% more than his or her counterpart with a high school diploma. The Associate Degree graduate will earn \$276,700 more than the high school graduate over his or her working lifetime.”

Source for Slide 16: Table 2.5 in Volume 1: Main Report

Table 2.5. Weighted Average Earnings

| Entry Level                    | Average Earnings* | Difference |
|--------------------------------|-------------------|------------|
| One year short of HS/GED       | \$14,458          | NA         |
| HS/GED equivalent              | \$22,891          | \$8,433    |
| One-year Certificate           | \$26,633          | \$3,742    |
| Two-year Associate Degree      | \$31,429          | \$4,795    |
| One year post Associate Degree | \$36,108          | \$4,680    |

$$1 - (\$31,429 / \$22,891) = 37\%$$

$$(\$31,429 - \$22,891) * 32 \text{ years (estimated length of students' working career)} = \$276,700$$

Slide 17

“Now we turn to the social benefits that accrue to the public in general. As students achieve higher levels of education they are statistically less likely to incur medical costs, commit crimes or go on welfare, all of which translates into savings to the taxpaying public.”

## Slide 18

“Altogether, the college accounts for \$1.1 million in savings to the State of Oregon. Note that this is an annual figure.”

Source for Slide 18: Table 3.1 in Volume 1: Main Report

Table 3.1. Summary of Annual Benefits

|  | Units | Total               |
|--|-------|---------------------|
| <b>STUDENT BENEFITS, ANNUAL</b>            |       |                     |
| Higher student earnings                    | NA    | \$9,941,000         |
| <b>TOTAL STUDENT BENEFITS</b>              |       | <b>\$9,941,000</b>  |
| <b>ECONOMIC GROWTH BENEFITS, ANNUAL*</b>   |       |                     |
| Labor income                               | NA    | \$9,048,000         |
| Non-labor income                           | NA    | \$4,457,000         |
| <b>TOTAL INCOME GROWTH</b>                 |       | <b>\$13,505,000</b> |
| <b>SOCIAL BENEFITS, ANNUAL</b>             |       |                     |
| <b>Health Benefits</b>                     |       |                     |
| Absenteeism savings (days)                 | 1,700 | \$150,000           |
| Fewer smokers, medical savings (# persons) | 120   | \$361,000           |
| Fewer alcohol abusers (# persons)          | 30    | \$199,000           |
| <b>Crime Benefits</b>                      |       |                     |
| Incarceration savings (# persons)          | 15    | \$123,000           |
| Crime victim savings                       | NA    | \$39,000            |
| Added productivity (fewer incarcerated)    | NA    | \$60,000            |
| <b>Welfare/Unemployment Benefits</b>       |       |                     |
| Welfare savings (# persons)                | 70    | \$111,000           |
| Unemployment savings (# persons)           | 30    | \$38,000            |
| <b>TOTAL SOCIAL BENEFITS</b>               |       | <b>\$1,081,000</b>  |

## Slide 19

“Now we turn to the returns to the state and local taxpayers for their financial support. As shown in this slide, taxpayer benefits have a present value of \$47.6 million, equal to the sum of added taxes and avoided costs to the government.”

“Taxpayer costs consist of state and local taxes and appropriations received by the college during the analysis year. These come to about \$11.0 million.”

Source for Slide 19: Table 3.5 in Volume 1: Main Report

Table 3.5. Present Value of Net Benefits and Costs, Narrow Taxpayer Perspective

|  | Aggregate            | Per CHE       |
|--|----------------------|---------------|
| PV of increased state and local govt. tax receipts                         | \$ 44,794,000        | \$300         |
| PV of state and local govt. savings from improved health                   |                      |               |
| PV of absenteeism savings  | \$ 538,000           | \$0           |
| PV of tobacco and alcohol abuse medical savings                            | \$ 488,000           | \$0           |
| PV of state and local govt. savings from reduced welfare rolls             | \$ 1,556,000         | \$10          |
| PV of reduced welfare rolls  | \$ 257,000           | \$0           |
| <b>PV of state and local government benefits</b>                           | <b>\$ 47,633,000</b> | <b>\$ 320</b> |
| <b>PV of state and local contribution to college budget (public costs)</b> | <b>\$ 10,995,000</b> | <b>\$ 70</b>  |

Taxpayer Benefits (points to Taxpayer Benefits row)  
Taxpayer Costs (points to Taxpayer Costs row)

Slide 20

“The rate of return to the taxpayer is 19.3%, a favorable return relative to similar long-term government investments.”

Slide 21

“Dividing total benefits by total costs gives us a benefit/cost ratio of 4.3 for the state and local taxpayers.”

Source for Slides 20 and 21: Table 3.6 in Volume 1: Main Report

Table 3.6. Summary of Investment Analysis Results

|  |       |
|--|-------|
| RR, Student Perspective                              | 18.0% |
| B/C Ratio, Student Perspective                       | 4.2   |
| Payback Period, Student Perspective (years)          | 7.6   |
| B/C Ratio, Taxpayer Perspective: Broad               | 29.6  |
| RR, Taxpayer Perspective: Narrow                     | 19.3% |
| B/C Ratio, Taxpayer Perspective: Narrow              | 4.3   |
| Payback Period, Taxpayer Perspective: Narrow (years) | 7.1   |

Slide 22

“What does all this mean?”

**Slide 23**

“The results of the CCbenefits study demonstrate that Southwestern 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.”