Program Benefit-Cost Calculator

Instructions

This benefit-cost model is designed to estimate the benefits to taxpayers, participants and their families of the *Program*. Estimated impacts of the program are displayed on the left side of the screen. The model allows the user to estimate the impacts of the *Program* on six different outcomes. The inputs for each of these outcomes can be entered by first clicking on the impact area of the benefits table on the left side of the screen.

Data estimates and assumptions may need to be updated over time from the County and the *Program* client data. The methodology section provides detail about the source of the model's data, as well as more technical information.

1. Client Wages – The user of the model enters data on the average age of the program participant as well the age that benefits are expected to last, with a maximum allowable value of 65. These values can be entered by double clicking on the green text and entering the new value. The user must also enter wage data of the *Program* clients and similar clients not in the program. The user can also make assumptions of the causal impact of the program and whether or not those impacts will fade out over time. Both of these assumptions can be changed using the slider bar on the upper right side of the screen. For a more detailed description of the calculations click on the Methodology tab on the top left.

2. General Tutoring – The model allows the user to enter data and assumptions on tutoring. Again the user must enter data on the average age of the clients' children who receive these services. The user must also enter the maximum age for which the children are expected to have increased wages because of the tutoring programs. The user must also enter the number of school aged children who receive tutoring per program participant. The model uses an effect size for tutoring and an impact of test scores on future wages to monetize the impacts of tutoring. Both of these values can be changes by the user but are based on national research from the Washington State Institute for Public Policy (WSIPP) and it is unlikely the user will need to make any adjustments.

3. GED Completion – The model allows the user to estimate the impact of the *Program* on clients receiving their GED. Again the user of the model will need to input the average age of the program participant as well as the age that benefits are expected to last, with a maximum allowable value of 65. The user can also adjust the assumptions of the fadeout of the program and the estimated causal impact of the program. Finally, the user can also adjust the estimated percentage of clients who will receive their GED as a result of the program.

4. Pre-K Education – The model allows the user to estimate the impact of Pre-K programs received by clients' children. The user of the model will need to enter the average age of the children who receive Pre-K education, the expected age of when the impacts will stop, and the number of children who receive Pre-K services per *Program* client. The effect size of Pre-K programs has

been estimated by WSIPP and will not need to be adjusted by the user. The user can also adjust the assumptions about how quickly the program will fadeout. For the Pre-K impact the user will also need to enter the County high school graduation rate by using the slider on the upper right.

5. Crime – Employment training programs have been shown to reduce recidivism for criminal justice clients. The benefit-cost model can estimate these impacts using the effect-size estimated by WSIPP. The user will need to adjust the slider to match the percent of *Program* clients who have been involved in the criminal justice system. The user will also need to move the slider to reflect the County's three year recidivism rates and the percent of recidivists who commit new crimes.

6. Other – The user can also adjust the sliders on the bottom left to change the discount rate and the overall tax rate. The user can choose a discount rate between 0 and 7% but it is recommended that a discount rate of at least 3% is used, as most economic analyses use a discount rate between 3% and 7%. The discount rate and tax rate are both used in calculating the benefits that are displayed on the left side. There is also a button on the bottom left that will allow the user to enter updated arrest data that is used for the crime portions of the model.

The model also allows the user to save different sets of assumptions by clicking the Scenario tab near the bottom left. If the user saves the scenario it can easily be pulled up and compared to a different scenario using other assumptions. The user can also print results of a page by clicking the print button or download the underlying data for the whole model by each impact area by clicking the CV icon on the bottom left of the page.

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