### College advising provided by counselors (for high school students) Higher Education

Benefit-cost estimates updated December 2023. Literature review updated January 2018.

#### Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For

more detail on our methods, see our Technical Documentation.

Program Description: Students in the 10th-12th grade meet in person with advisors at the high school for college-focused advising sessions. A typical session with an advisor addresses the application and enrollment process, career path readiness, and post-secondary education plans. The number of advising sessions varies by program, some sessions are held only during the time when students are applying to college, other programs require visits in multiple grades. The length and frequency of interaction with an advisor ranges from one-hour meetings once or twice a year to one-hour meetings every two to three weeks during the application season.

Benefit-Cost Summary Statistics Per Participant						
Benefits to:						
Taxpayers	\$7,522	Benefit to cost ratio	\$39.08			
Participants	\$18,664	Benefits minus costs	\$35,070			
Others	\$11,124	Chance the program will produce				
Indirect	(\$1,318)	benefits greater than the costs	98%			
Total benefits	\$35,991					
Net program cost	(\$921)					
Benefits minus cost	\$35,070					

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2022). The chance the benefits exceed the costs are derived from a Monte Carlo risk analysis. The details on this, as well as the economic discount rates and other relevant parameters are described in our Technical Documentation.

Meta-Analysis of Program Effects											
Outcomes measured	Treatment age	No. of effect sizes	Treatment N	Adjusted effect sizes and standard errors used in the benefit-cost analysis					Unadjusted effect size (random effects		
				First time ES is estimated			Second time ES is estimated			model)	
				ES	SE	Age	ES	SE	Age	ES	p-value
Enroll in 4-year college	17	4	11952	0.194	0.063	18	0.194	0.063	18	0.194	0.002
Enroll in 2-year college	17	3	9207	-0.019	0.060	18	-0.019	0.060	18	-0.019	0.744
Persistence into 2nd year ^ ^	17	1	1687	0.349	0.070	19	n/a	n/a	n/a	0.349	0.001

<sup>^^</sup>WSIPP does not include this outcome when conducting benefit-cost analysis for this program.

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our Technical Documentation.

Detailed Monetary Benefit Estimates Per Participant								
Affected outcome:	Resulting benefits: <sup>1</sup>	Benefits accrue to:						
		Taxpayers	Participants	Others <sup>2</sup>	Indirect <sup>3</sup>	Total		
Enroll in 2-year college	Labor market earnings associated with higher education	\$9,238	\$21,761	\$12,089	\$0	\$43,087		
Enroll in 2-year college	Costs of higher education	(\$1,716)	(\$3,097)	(\$965)	(\$858)	(\$6,636)		
Program cost	Adjustment for deadweight cost of program	\$0	\$0	\$0	(\$460)	(\$460)		
Totals		\$7,522	\$18,664	\$11,124	(\$1,318)	\$35,991		

<sup>1</sup>In addition to the outcomes measured in the meta-analysis table, WSIPP measures benefits and costs estimated from other outcomes associated with those reported in the evaluation literature. For example, empirical research demonstrates that high school graduation leads to reduced crime. These associated measures provide a more complete picture of the detailed costs and benefits of the program.

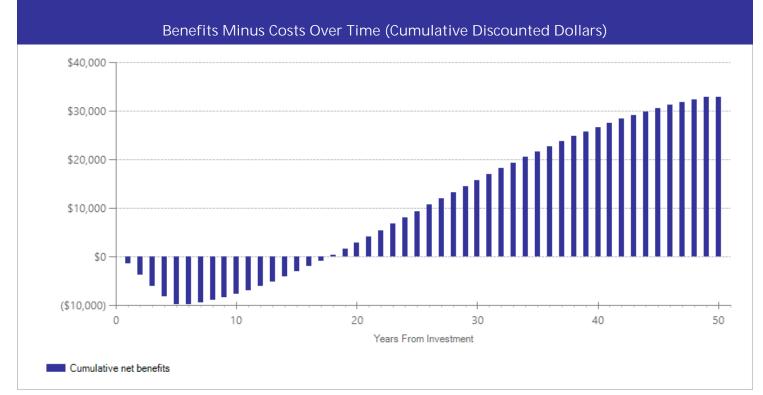
<sup>2</sup>"Others" includes benefits to people other than taxpayers and participants. Depending on the program, it could include reductions in crime victimization, the economic benefits from a more educated workforce, and the benefits from employer-paid health insurance.

<sup>3</sup>"Indirect benefits" includes estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

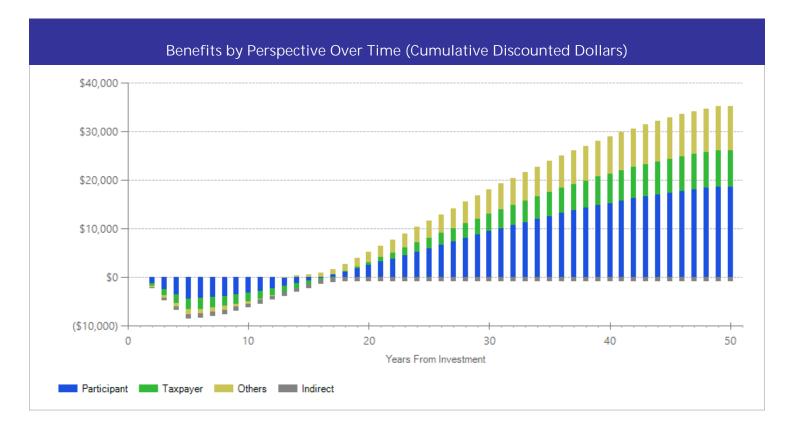
Detailed Annual Cost Estimates Per Participant								
	Annual cost	Year dollars	Summary					
Program costs Comparison costs	\$705 \$0	2009 2009	Present value of net program costs (in 2022 dollars) Cost range (+ or -)	(\$921) 40%				

The per-participant cost of treatment is the weighted average estimate for studies included in the analysis. We calculate the total cost per study using Washington State compensation costs (including benefits) of counselor and staff time as reported by the Office of the Superintendent of Public Instruction. Additional program cost estimates provided by Castleman & Goodman (2015) and Barr & Castleman (2017).

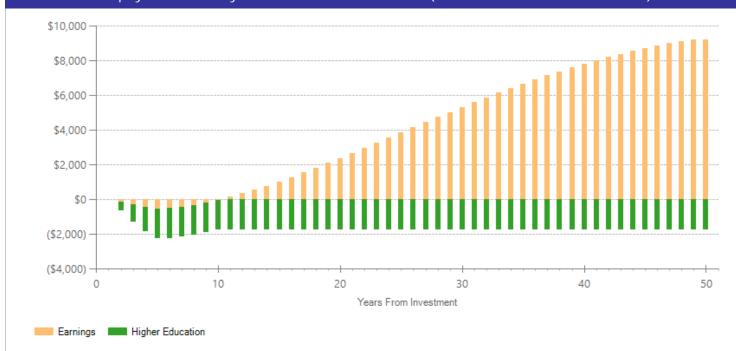
The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The cost range reported above reflects potential variation or uncertainty in the cost estimate; more detail can be found in our Technical Documentation.



The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in discounted dollars. If the dollars are negative (bars below \$0 line), the cumulative benefits do not outweigh the cost of the program up to that point in time. The program breaks even when the dollars reach \$0. At this point, the total benefits to participants, taxpayers, and others, are equal to the cost of the program. If the dollars are above \$0, the benefits of the program exceed the initial investment.



The graph above illustrates the breakdown of the estimated cumulative benefits (not including program costs) per-participant for the first fifty years beyond the initial investment in the program. These cash flows provide a breakdown of the classification of dollars over time into four perspectives: taxpayer, participant, others, and indirect. "Taxpayers" includes expected savings to government and expected increases in tax revenue. "Participants" includes expected increases in earnings and expenditures for items such as health care and college tuition. "Others" includes benefits to people other than taxpayers and participants. Depending on the program, it could include reductions in crime victimization, the economic benefits from a more educated workforce, and the benefits from employer-paid health insurance. "Indirect benefits" includes estimates of the changes in the value of a statistical life and changes in the deadweight costs of taxation. If a section of the bar is below the \$0 line, the program is creating a negative benefit, meaning a loss of value from that perspective.



#### Taxpayer Benefits by Source of Value Over Time (Cumulative Discounted Dollars)

The graph above focuses on the subset of estimated cumulative benefits that accrue to taxpayers. The cash flows are divided into the source of the value.

## Citations Used in the Meta-Analysis

Barr, A., & Castleman, B. (2017). The Bottom Line on college counseling. Working paper.

Belasco, A.S. (2013). Creating college opportunity: School counselors and their influence on postsecondary enrollment. *Research in Higher Education*, 54(7), 781-804.

Castleman, B., & Goodman, J. (2015). Intensive college counseling and the enrollment and persistence of low income students. HKS working paper.

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