Intensive supervision for court-involved youth (vs. traditional probation)
Juvenile Justice
Benefit-cost estimates updated December 2023. Literature review updated July 2019.

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: Intensive supervision is a model of supervision that emphasizes a higher degree of surveillance than traditional supervision in the community. Intensive supervision often involves case management with smaller caseloads of an average of 30 youth. The conditions of supervision vary but may include urinalysis testing, increased face-to-face or collateral contacts, and required participation in programming. Programming may include mentoring, tutoring, counseling, job training, or other community-based services. Youth may have 4-20 monthly contacts with their juvenile probation counselor.

This analysis compares adjudicated youth on intensive supervision to adjudicated youth on traditional probation supervision. In the included studies, participants were at high risk of recidivism per a validated risk assessment tool. The length of intensive supervision ranged from 3-14 months, with most youth receiving supervision for nine months. In the studies in our analysis that reported demographic information, 60% of participants were youth of color and 12% were female.

Evaluations of intensive supervision for youth placed directly on supervision compared to confined youth and intensive supervision for youth released from confinement compared to youth released from confinement and placed on traditional supervision are excluded from this analysis and analyzed separately.

Benefit-Cost Summary Statistics Per Participant

Benefits to:

Taxpayers	($781)	Benefit to cost ratio	($5.47)
Participants	($785)	Benefits minus costs	($3,839)
Others	($1,151)	Chance the program will produce	
Indirect	($528)	benefits greater than the costs	29%
Total benefits	($3,245)		
Net program cost	($593)		
Benefits minus cost	($3,839)		

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 model)	
				First time ES is estimated			Second time ES is estimated				
				ES	SE	Age	ES	SE	Age	ES	p-value
Crime	16	18	5210	0.018	0.034	17	0.018	0.034	25	0.018	0.594
Technical violations^^	16	2	463	0.492	0.091	17	n/a	n/a	n/a	0.492	0.001
Alcohol use before end of high school	16	1	226	0.037	0.114	16	0.037	0.114	18	0.037	0.746
Status offense^	16	1	226	0.081	0.181	16	n/a	n/a	n/a	0.081	0.654
Illicit drug use^	16	1	226	0.143	0.113	16	n/a	n/a	n/a	0.143	0.205

^WSIPP's benefit-cost model does not monetize this outcome.
^^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:[1]	Benefits accrue to:				
		Taxpayers	Participants	Others[2]	Indirect[3]	Total
Crime	Criminal justice system	($440)	$0	($1,139)	($220)	($1,799)
Alcohol use before end of high school	Labor market earnings associated with alcohol abuse or dependence	($331)	($781)	$0	$0	($1,112)
Alcohol use before end of high school	Health care associated with alcohol abuse or dependence	($10)	($2)	($11)	($5)	($27)
Alcohol use before end of high school	Property loss associated with alcohol abuse or dependence	$0	($1)	($2)	$0	($3)
Alcohol use before end of high school	Mortality associated with alcohol	$0	($1)	$0	($6)	($8)
Program cost	Adjustment for deadweight cost of program	$0	$0	$0	($297)	($297)
Totals		($781)	($785)	($1,151)	($528)	($3,245)

[1]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.

[2]"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.

[3]"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	$2,145	2015	Present value of net program costs (in 2022 dollars)	($593)
Comparison costs	$1,647	2015	Cost range (+ or -)	50%

We estimate the per-participant program cost using WSIPP's annual marginal cost estimate for juvenile local supervision (as reported in Washington State Institute for Public Policy. (December 2018). Benefit-cost technical documentation. Olympia, WA: Author) to compute a monthly cost estimate. We apply the ratio of the intensive supervision caseload (33), as reported in the included studies, to the traditional probation caseload (43)—as reported in Burley, M. & Barnoski, R. (1997). Washington State Juvenile Courts: Workloads and Costs. Olympia: Washington State Institute for Public Policy—to the monthly marginal average cost estimate for juvenile supervision. We multiply this monthly cost by the weighted average time on supervision reported by the studies included in this meta-analysis (8.7 months). The comparison cost uses the annual marginal cost estimate for juvenile local supervision multiplied by the weighted average time on supervision, 8.7 months.

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.

Benefits Minus Costs Over Time (Cumulative Discounted Dollars)
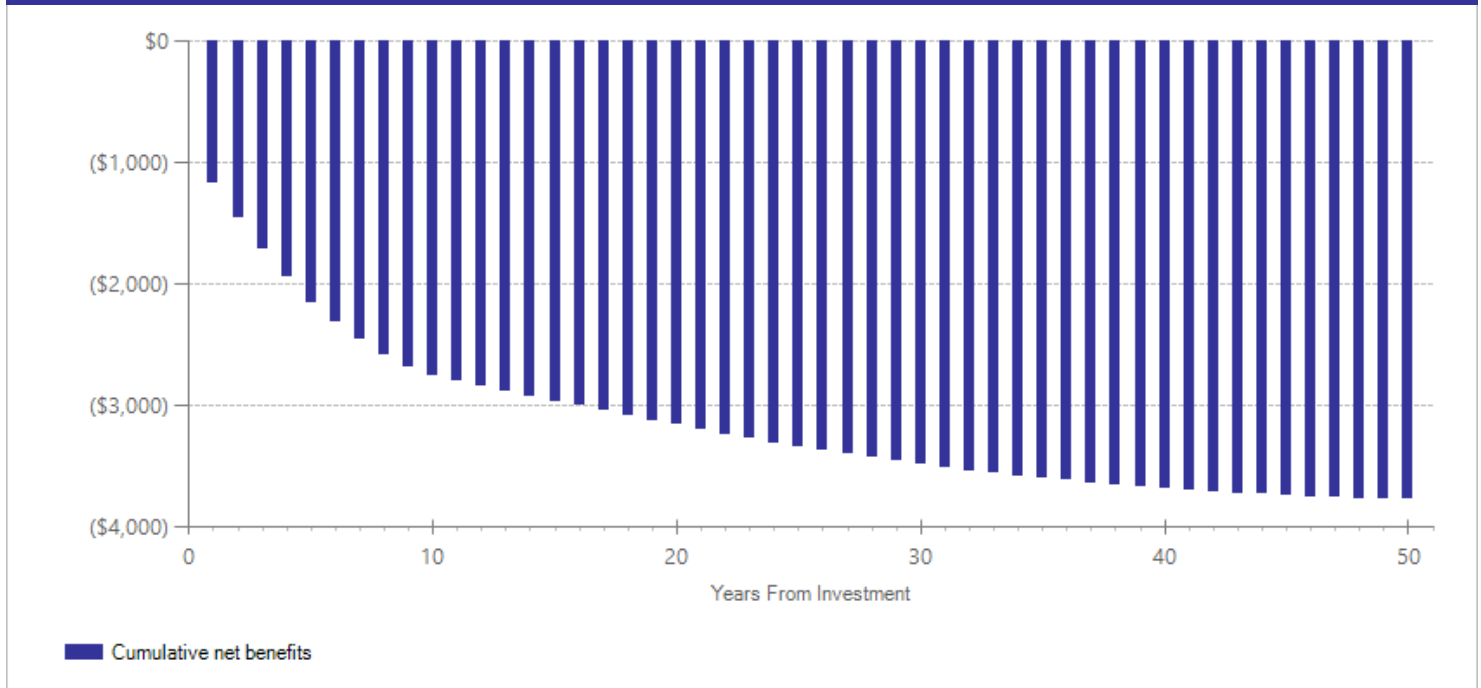

The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in discounted dollars. If the dollars are negative (bars below $0 line), the cumulative benefits do not outweigh the cost 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.

Benefits by Perspective Over Time (Cumulative Discounted Dollars)

Legend: Participant, Taxpayer, Others, Indirect
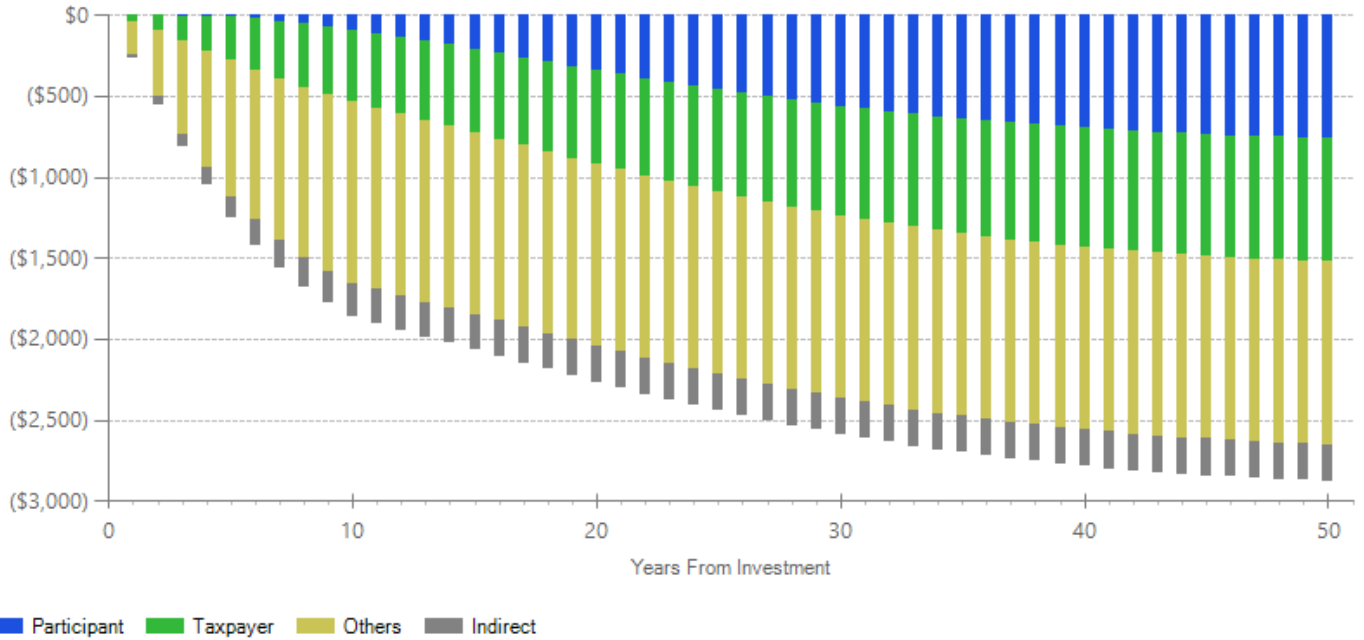
The graph above illustrates the breakdown of the estimated cumulative benefits (not including program costs) per-participant for the first fifty years beyond the initial investment in the program. These cash flows provide a breakdown of the classification of dollars over time into four perspectives: 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)

Legend: Crime, Health Care, Earnings
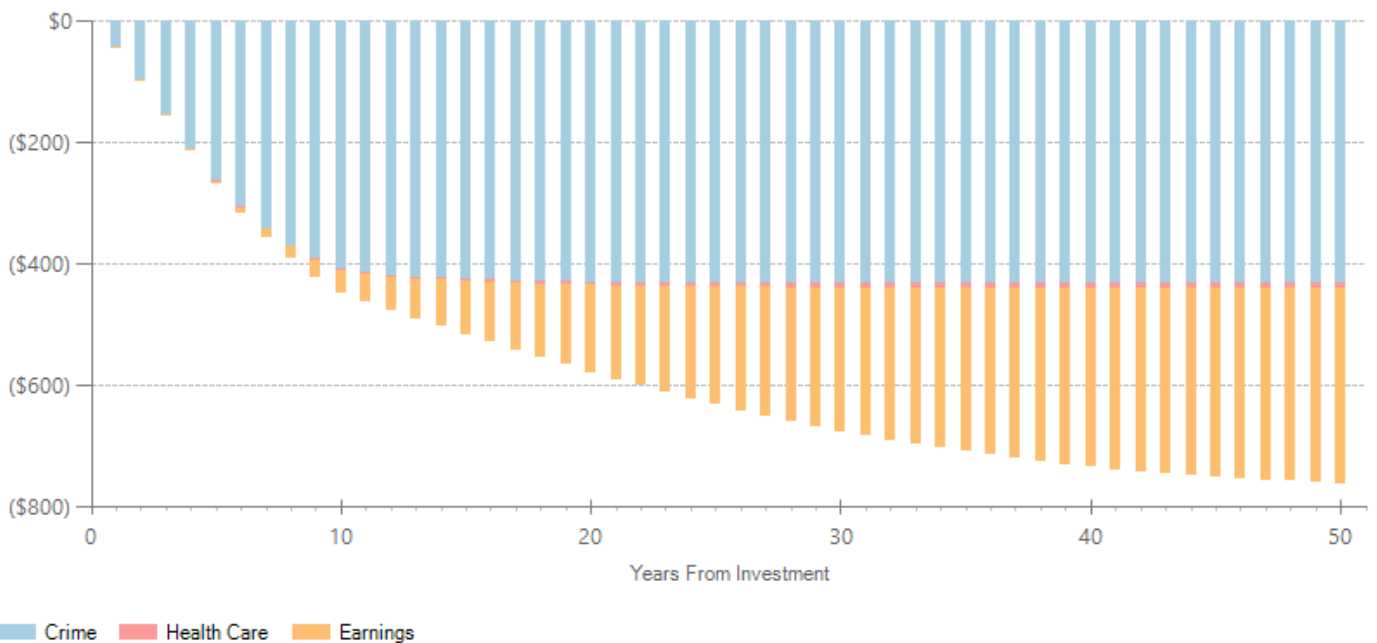
The graph above focuses on the subset of estimated cumulative benefits that accrue to taxpayers. The cash flows are divided into the source of the value.

Citations Used in the Meta-Analysis

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