Coping Power Program
Public Health & Prevention: School-based
Benefit-cost estimates updated December 2023. Literature review updated February 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: The Coping Power Program (CPP) is a targeted school-based prevention program for students identified by teachers as aggressive or disruptive and typically serves students in late elementary school (e.g. 5th and 6th grades). The standard program consists of 34 group sessions for children and 16 group sessions for parents delivered over 16 months, plus approximately six brief individual sessions per student, all typically implemented in the school setting by therapists and school personnel. Child sessions target risk factors for substance abuse, delinquency, and conduct problems and use cognitive-behavioral techniques to teach self-regulation, conflict resolution, and social skills. The parent component focuses on stress management, communication, and behavior management. Abbreviated and internet-enhanced versions of CPP are also included in this analysis; both include fewer child and parent group sessions than standard CPP. Coping Power Program implementations in this analysis provided between 23 and 61 total contact hours, with a weighted average of 43 hours to students and parents delivered over one or two school years (weighted average program duration was 12.88 months).

Benefit-Cost Summary Statistics Per Participant

Benefits to:			
Taxpayers	$534	Benefit to cost ratio	$1.30
Participants	$265	Benefits minus costs	$251
Others	$473	Chance the program will produce	
Indirect	($192)	benefits greater than the costs	57%
Total benefits	$1,080		
Net program cost	($829)		
Benefits minus cost	$251		

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
Grade point average^	10	2	351	0.047	0.104	13	n/a	n/a	n/a	0.123	0.239
Substance use^	10	3	141	-0.076	0.144	12	n/a	n/a	n/a	-0.198	0.173
Externalizing behavior symptoms	10	10	694	-0.133	0.069	11	-0.073	0.052	14	-0.310	0.022
Internalizing symptoms	10	2	73	-0.464	0.178	10	-0.464	0.178	12	-0.918	0.104
Delinquent behavior^	10	3	141	-0.072	0.144	12	n/a	n/a	n/a	-0.189	0.191

^WSIPP's benefit-cost model does not monetize this outcome.

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
Externalizing behavior symptoms	Criminal justice system	$35	$0	$85	$18	$137
Externalizing behavior symptoms	Labor market earnings associated with high school graduation	$89	$210	$114	$0	$413
Internalizing symptoms	K-12 grade repetition	$10	$0	$0	$5	$15
Externalizing behavior symptoms	K-12 special education	$142	$0	$0	$71	$213
Externalizing behavior symptoms	Health care associated with externalizing behavior symptoms	$272	$77	$281	$136	$766
Externalizing behavior symptoms	Costs of higher education	($14)	($21)	($6)	($7)	($49)
Program cost	Adjustment for deadweight cost of program	$0	$0	$0	($415)	($415)
Totals		$534	$265	$473	($192)	$1,080

[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	$716	2017	Present value of net program costs (in 2022 dollars)	($829)
Comparison costs	$0	2017	Cost range (+ or -)	40%

The per-student cost estimate to implement the Coping Power Program includes costs of training and materials for school counselors, the cost of school counselor time to facilitate parent groups outside of regular school hours, and the cost of participant materials. Training and program material costs are reported by Coping Power (http://www.copingpower.com/products.html). We estimate the cost of counselor time using average Washington State compensation costs (including benefits) as reported by the Office of the Superintendent of Public Instruction (https://www.k12.wa.us/sites/default/files/public/safs/pub/per/1718/tbl07.pdf). Implementations in this analysis provided a weighted average of 15 hours over one year delivered outside of school time to parent groups. Consistent with implementations in this analysis, we assume that two school counselors jointly led sessions with student or parent groups of six (the typical group size). We also assumed that trained counselors delivered the program over three successive cohorts.

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)
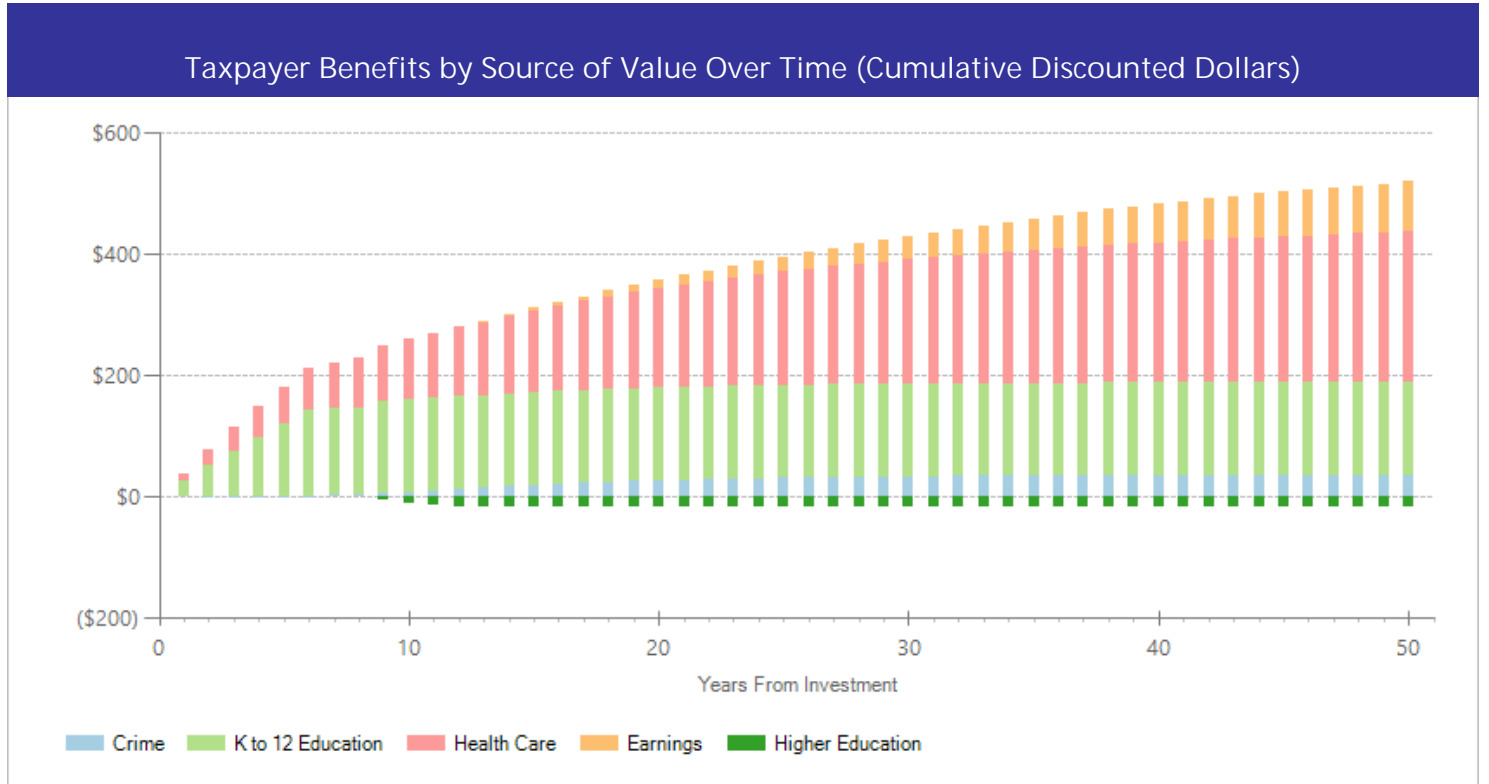

Cumulative net benefits
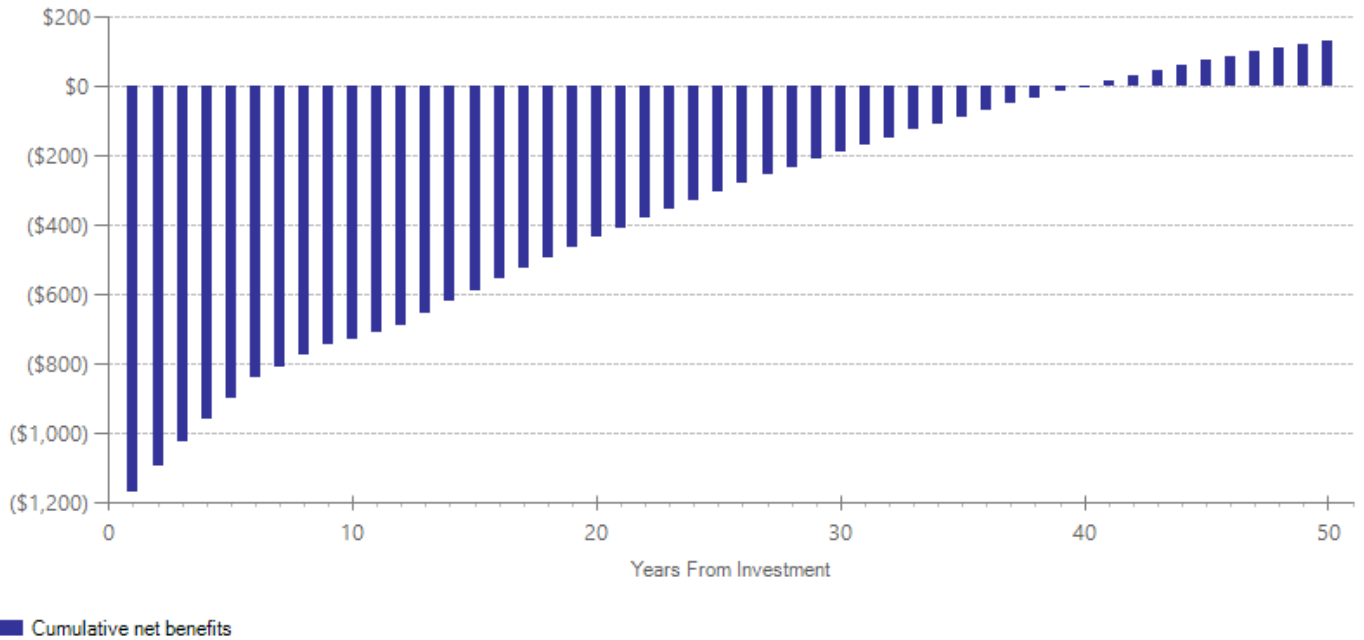
The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in discounted dollars. If the dollars are negative (bars below $0 line), the cumulative benefits do not outweigh the cost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

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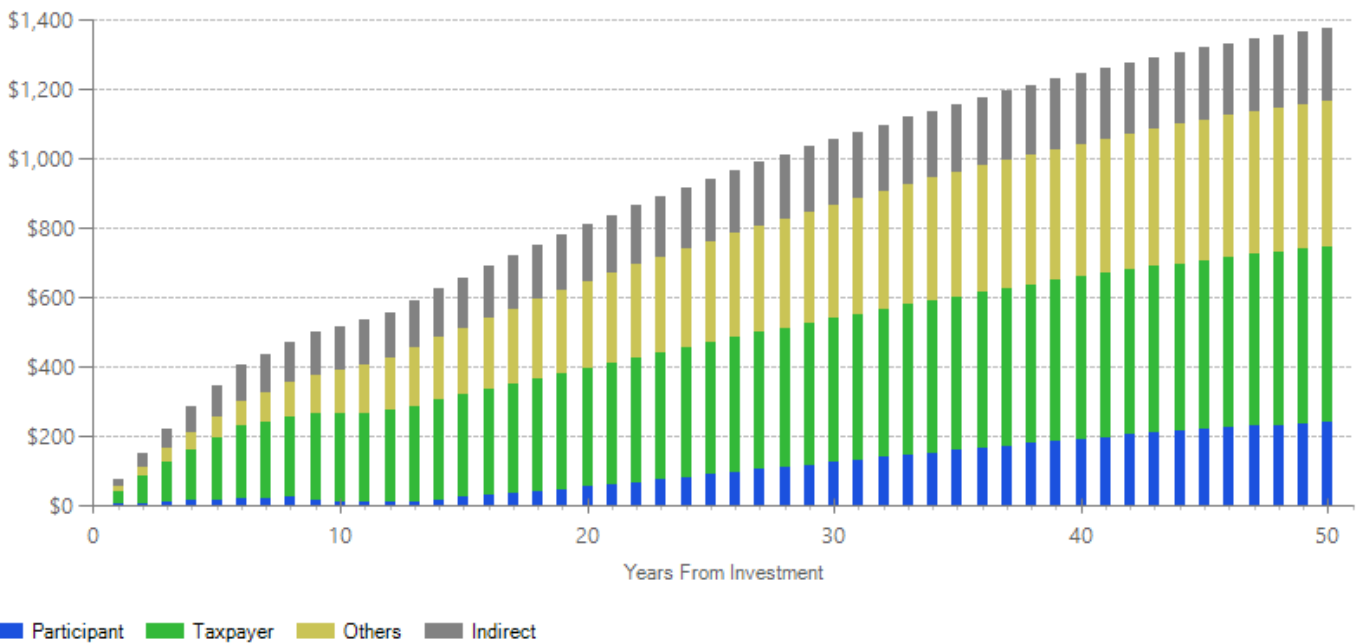
The graph above illustrates the breakdown of the estimated cumulative benefits (not including program costs) per-participant for the first fifty years beyond the initial investment in the program. These cash flows provide a breakdown of the classification of dollars over time into four perspectives: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

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

Lochman, J.E., & Wells, K.C. (2002). The Coping Power Program at the middle school transition: Universal and indicated prevention effects. *Psychology of Addictive Behaviors, 16*(4 Suppl), S40-S54.

Lochman, J.E., & Wells, K.C. (2003). Effectiveness of the Coping Power program and of classroom intervention with aggressive children: Outcomes at a 1-year follow-up. *Behavior Therapy, 34*(4), 493-515.

Lochman, J.E., & Wells, K.C. (2004). The Coping Power Program for preadolescent aggressive boys and their parents: Outcome effects at the 1-year follow-up. *Journal of Consulting and Clinical Psychology, 72*(4), 571-578.

Lochman, J.E., Boxmeyer, C.L., Powell, N.P., Qu, L., Wells, K., & Windle, M. (2012). Coping Power dissimination study: Intervention and special education effects on acadimic outcomes. *Behavioral Disorders, 37*, 192-205.

Lochman, J.E., Boxmeyer, C., Powell, N., Qu, L., Wells, K., & Windle, M. (2009). Dissemination of the Coping Power program: importance of intensity of counselor training. *Journal of Consulting and Clinical Psychology, 77*(3), 397-409.

Lochman, J.E., Baden, R.E., Boxmeyer, C.L., Powell, N.P., Qu, L., Salekin, K.L., & Windle, M. (2014). Does a booster intervention augment the preventive effects of an abbreviated version of the Coping Power Program for aggressive children? *Journal of Abnormal Child Psychology, 42*(3), 367-381.

Lochman, J.E., Boxmeyer, C.L., Jones, S., Qu, L., Ewoldsen, D., & Nelson, W.M. (2017). Testing the feasibility of a briefer school-based preventive intervention with aggressive children: A hybrid intervention with face-to-face and internet components. *Journal of School Psychology, 62*, 33-50.

McDaniel, S.C., Lochman, J.E., Tomek, S., Powell, N., Irwin, A., & Kerr, S. (2018). Reducing risk for emotional and behavioral disorders in late elementary school: A comparison of two targeted interventions. *Behavioral Disorders, 43,* 370-382.

Mushtaq, A., Lochman, J.E., Tariq, P.N., & Sabih, F. (2017). Preliminary effectiveness study of Coping Power Program for aggressive children in Pakistan. *Prevention Science, 18,* 762-771.

Peterson, M. A., Hamilton, E. B., & Russell, A. D. (2009). Starting well: Facilitating the middle school transition. *Journal of Applied School Psychology, 25,* 286-304.