Washington State Institute for Public Policy
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Updated Inventory of Evidence-based, Research-based, and Promising Practices

For Prevention and Intervention Services for Children and Juveniles in the Child Welfare, Juvenile Justice, and Mental Health Systems

Benefit-Cost & Meta-Analysis Results

July 2015

WSIPP &
EBPI

The benefit-cost results in this document are current as of July 2015.
For the most up-to-date benefit-cost results, please visit our website.
http://www.wsipp.wa.gov/BenefitCost

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Fostering Healthy Futures

Literature review updated June 2013.

Program Description: Fostering Healthy Futures is an intensive mentoring program for children, ages 9 to 11, who had were placed in foster care because of maltreatment within the previous year. Children are paired with mentors who meet with them 2 to 4 hours per week for 30 weeks. Children also attend weekly group meetings that focus on emotion recognition, perspective taking, problem solving, anger management, cultural identity, change & loss, healthy relationships, peer pressure, abuse prevention, and future orientation.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Permanent placement	Primary	1	56	0.358	0.130	0.259	0.237	11	0.259	0.237	17
Placement stability	Primary	1	52	0.262	0.172	0.094	0.192	11	0.094	0.192	17
Internalizing symptoms	Primary	1	69	-0.193	0.257	-0.069	0.170	11	-0.050	0.134	12
Post-traumatic stress	Primary	1	74	-0.314	0.063	-0.113	0.169	11	-0.113	0.169	12
Permanent placement	Primary	1	56	0.358	0.130	0.129	0.237	11	0.129	0.237	17
Placement stability	Primary	1	56	0.262	0.192	0.094	0.192	11	0.094	0.192	17

Citations Used in the Meta-Analysis

Taussig, H. N., Culhane, S. E., Garrido, E., & Knudtson, M. D. (2012). RCT of a mentoring and skills group program: placement and permanency outcomes for foster youth. *Pediatrics, 130*(1), 33-9.

Taussig, H. N., & Culhane, S. E. (2010). Impact of a mentoring and skills group program on mental health outcomes for maltreated children in foster care. *Archives of Pediatrics & Adolescent Medicine, 164*(8),739-46.

Intensive family preservation services (Homebuilders(c))

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Intensive Family Preservation Services are short-term, home-based crisis intervention services that emphasize placement prevention. The original program, Homebuilders®, was developed in 1974 in Federal Way, Washington. The program emphasizes contact with the family within 24 hours of the crisis, staff accessibility round the clock, small caseload sizes, service duration of four to six weeks, and provision of intensive, concrete services and counseling. These programs are intended to prevent removal of a child from his or her biological home (or to promote his or her return to that home) by improving family functioning. For this analysis, we have presented the effects of all such programs together.

Benefit-Cost Summary

Program benefits	
Participants	$8,924
Taxpayers	$14,258
Other (1)	$1,213
Other (2)	$3,995
Total	$28,390
Costs	($3,429)
Benefits minus cost	$24,961

Summary statistics	
Benefit to cost ratio	$8.28
Benefits minus costs	$24,961
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$257	$748	$129	$1,134
Child abuse and neglect	$2,187	$102	$0	$51	$2,339
Out-of-home placement	$0	$10,363	$0	$5,179	$15,542
K-12 grade repetition	$0	$39	$0	$20	$59
K-12 special education	$0	$131	$0	$66	$197
Health care (smoking)	$83	$527	$463	$263	$1,337
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$3
Labor market earnings (child abuse & neglect)	$6,650	$2,837	$0	$0	$9,487
Adjustment for deadweight cost of program	$2	$1	$0	($1,712)	($1,708)
Totals	$8,924	$14,258	$1,213	$3,995	$28,390

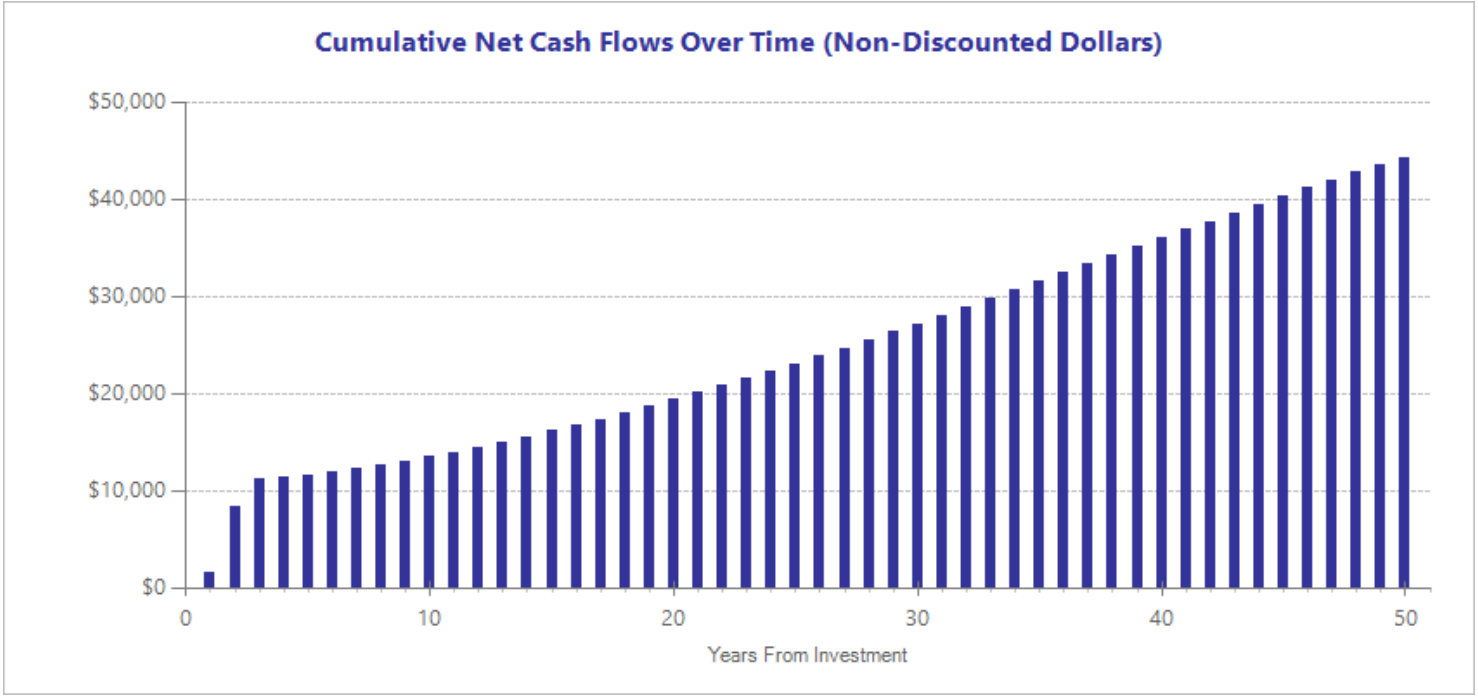
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$3,547	1	2008	Present value of net program costs (in 2014 dollars)	($3,429)
Comparison costs	$392	1	2008	Uncertainty (+ or - %)	10 %

Program costs per family provided by DSHS Children's Administration, 2008. The Institute adjusted for multiple children per family. Comparison group costs calculated based on social worker time.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Primary	2	180	0.231	0.044	-0.231	0.114	11	-0.231	0.114	17
Out-of-home placement	Primary	4	337	-0.553	0.001	-0.553	0.148	11	-0.553	0.148	17

Citations Used in the Meta-Analysis

Blythe, B., & Jayaratne, S. (2002). *Michigan families first effectiveness study.* Retrieved December 5, 2003, from http://www.michigan.gov/printerFriendly/0,1687,7-124--21887--,00.html

Feldman, L.H. (1991). *Assessing the effectiveness of family preservation services in New Jersey within an ecological context.* Trenton, NJ: New Jersey Division of Youth and Family Services; Bureau of Research, Evaluation, and Quality Assurance.

Fraser, M.W., Walton, E., Lewis, R.E., Pecora, P.J., & Walton, W.K. (1996). An experiment in family reunification: Correlates of outcomes at one-year follow-up. *Children and Youth Services Review, 18*(4-5), 335-361.

Mitchell, C., Tovar, P., & Knitzer, J. (1989). *The Bronx Homebuilders program: An evaluation of the first 45 families.* New York: Bank Street College of Education.

Walton, E. (1998). In-home family-focused reunification: A six-year follow-up of a successful experiment. *Social Work Research, 22*(4), 205-214.

Other family preservation services (non-Homebuilders®)

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: "Other" Family Preservation Services Programs have the same goals as "intensive" family preservation services: to prevent removal of a child from his or her biological home (or to promote his or her return to that home) by improving family functioning. However, "other" FPS programs lack the rigorous criteria for implementation as defined by the Homebuilders® model.

Benefit-Cost Summary

Program benefits	
Participants	($3,355)
Taxpayers	($860)
Other (1)	$63
Other (2)	($1,452)
Total	($5,603)
Costs	($3,150)
Benefits minus cost	($8,753)

Summary statistics	
Benefit to cost ratio	($1.78)
Benefits minus costs	($8,753)
Probability of a positive net present value	1 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	($93)	($271)	($46)	($410)
Child abuse and neglect	($842)	($39)	$0	($20)	($901)
Out-of-home placement	$0	$7	$0	$4	$11
K-12 grade repetition	$0	($14)	$0	($7)	($21)
K-12 special education	$0	($52)	$0	($26)	($79)
Health care (smoking)	$84	$530	$466	$264	$1,344
Property loss (alcohol abuse/dependence)	$0	$0	($1)	$0	($1)
Health care (PTSD)	($34)	($106)	($131)	($53)	($323)
Labor market earnings (child abuse & neglect)	($2,562)	($1,093)	$0	$0	($3,655)
Adjustment for deadweight cost of program	$0	$0	$0	($1,568)	($1,567)
Totals	($3,355)	($860)	$63	($1,452)	($5,603)

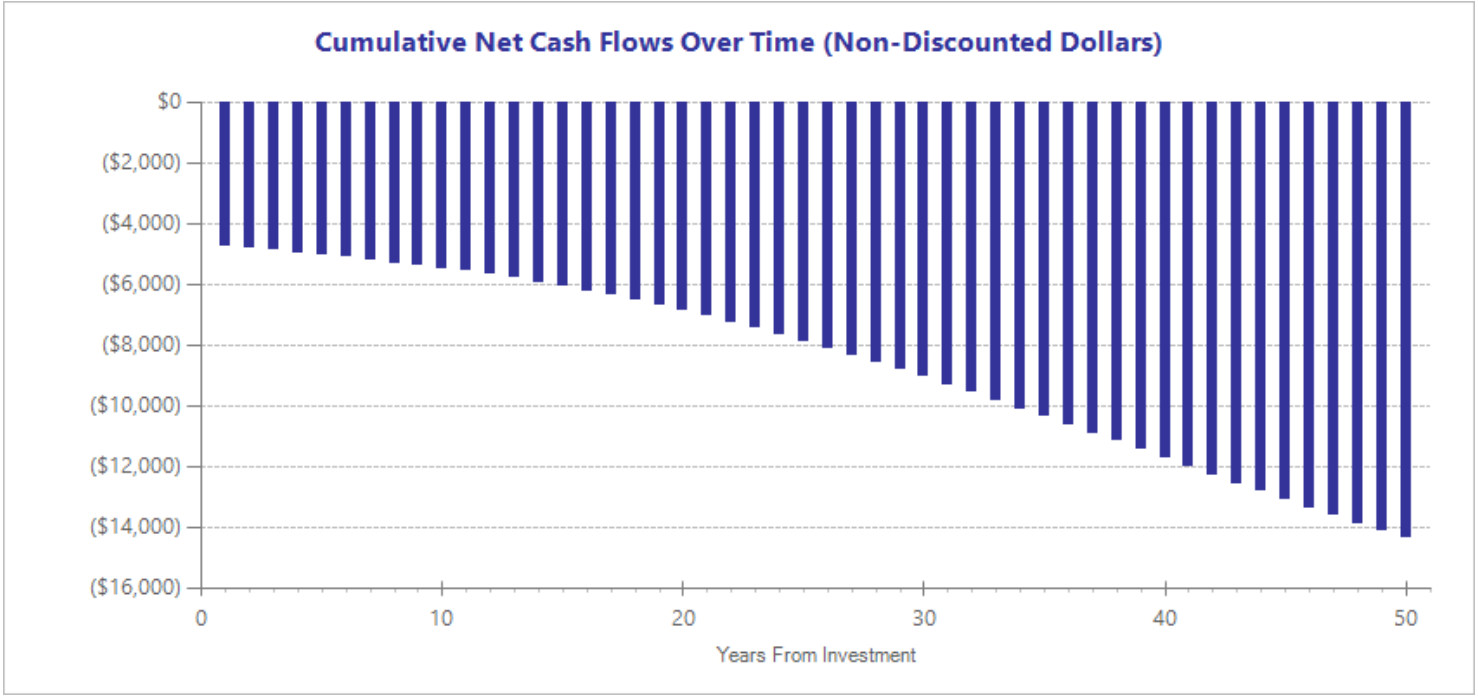
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,846	1	2003	Present value of net program costs (in 2014 dollars)	($3,150)
Comparison costs	$314	1	2003	Uncertainty (+ or - %)	10 %

Program costs per family provided by DSHS Children's Administration, 2008. WSIPP adjusted for multiple children per family. Comparison group costs calculated based on social worker time.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Primary	7	2031	0.085	0.107	0.085	0.053	11	0.085	0.053	17
Out-of-home placement	Primary	11	2760	-0.002	0.978	-0.002	0.081	11	-0.002	0.081	17

Citations Used in the Meta-Analysis

Halper, G., & Jones, M. A. (1981). *Serving families at risk of dissolution: Public preventive services in New York City.* New York: Human Resources Administration, Special Services for Children.

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Lewandowski, C. A., & Pierce, L. (2002). Assessing the effect of family-centered out-of-home care on reunification outcomes. *Research on Social Work Practice, 12*(2), 205-221.

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Szykula, S. A., & Fleischman, M. J. (1985). Reducing out-of-home placements of abuse children: Two controlled field studies. *Child Abuse & Neglect, 9*(2), 277-283.

Walker, J. L. (2009). *An evaluation of the Family Well-Being program at the Windsor-Essex Children's Aid Society.* Dissertation Abstracts International, 47(02), A.

Westat, Chapin Hall Center for Children, & James Bell Associates. (2001). *Evaluation of family preservation and reunification programs: Interim report.* Retrieved June 29, 2011 from http://aspe.hhs.gov/hsp/fampres94/index.htm

Yuan, Y.-Y., McDonald, W. R., Wheeler, C. E., Struckman-Johnson, D., & Rivest, M. (1990). *Evaluation of AB 1562 in-home care demonstration projects: Final report.* Sacramento, CA: Walter R. McDonald & Associates.

Parent Child Interaction Therapy (PCIT) for families in the child welfare system

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: PCIT in child welfare populations has been successfully tested with addition of a group motivational component to increase engagement and success of the parent. As in standard PCIT, a therapist directly observes a parent and child through a one-way mirror, and provides direct coaching to the parent through a radio earphone. The focus is building the skills of the parent to more positively interact with the child and manage his or her behavior.

Benefit-Cost Summary

Program benefits	
Participants	$23,598
Taxpayers	$11,312
Other (1)	$3,127
Other (2)	$1,129
Total	$39,166
Costs	($1,613)
Benefits minus cost	$37,552

Summary statistics	
Benefit to cost ratio	$24.28
Benefits minus costs	$37,552
Probability of a positive net present value	100 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$739	$2,077	$367	$3,184
Child abuse and neglect	$5,920	$1,866	$0	$927	$8,713
K-12 grade repetition	$0	$109	$0	$54	$163
K-12 special education	$0	$331	$0	$164	$496
Property loss (alcohol abuse/dependence)	$3	$0	$5	$0	$8
Health care (PTSD)	$275	$843	$1,044	$418	$2,580
Labor market earnings (child abuse & neglect)	$17,401	$7,422	$0	$0	$24,824
Adjustment for deadweight cost of program	$0	$0	$0	($803)	($802)
Totals	$23,598	$11,312	$3,127	$1,129	$39,166

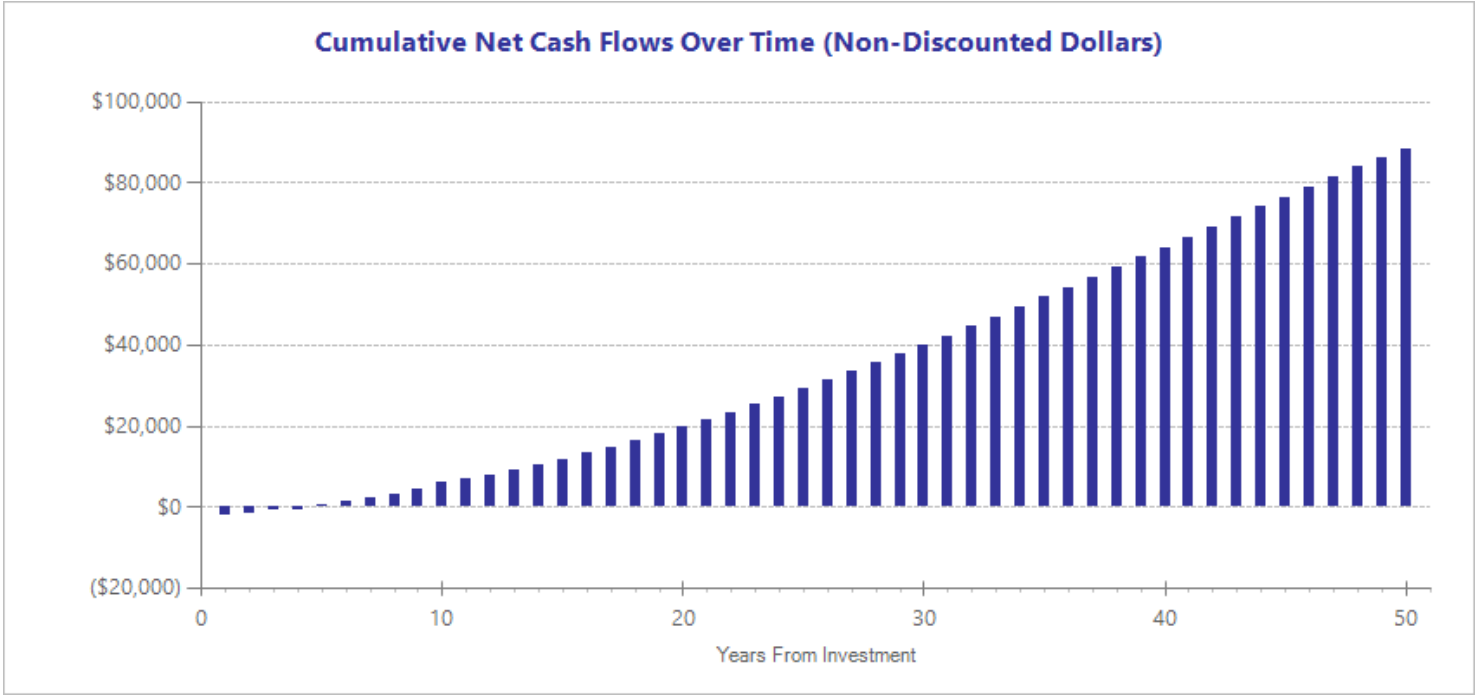
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,440	1	2007	Present value of net program costs (in 2014 dollars)	($1,613)
Comparison costs	$1,000	1	2007	Uncertainty (+ or - %)	10 %

Standard PCIT expenditures provided by Children's Administration (average reimbursement rate for families receiving PCIT in Washington in 2007). WSIPP estimate of additional motivational component costs calculated on extra therapist time required.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Primary	2	78	-0.718	0.001	-0.718	0.237	10	-0.718	0.237	17

Citations Used in the Meta-Analysis

Chaffin, M., Silovsky, J.F., Funderburk, B., Valle, L.A., Brestan, E.V., Balachova, T., . . . Bonner, B.L. (2004). Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology, 72*(3), 500-510.

Chaffin, M., Funderburk, B., Bard, D., Valle, L.A., & Gurwitch, R. (2011). A combined motivation and parent-child interaction therapy package reduces child welfare recidivism in a randomized dismantling field trial. *Journal of Consulting and Clinical Psychology, 79* (1),84-95.

SafeCare

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Formerly known as Project 12-Ways, SafeCare (http://publichealth.gsu.edu/968.html) is a manualized parent-training curriculum for parents who are at-risk or have been reported for child maltreatment. Trained professionals work with at-risk families in their home environments to improve parents' skills in several domains, such as planning and implementing activities with their children, responding appropriately to child behaviors, improving home safety, and addressing health and safety issues. SafeCare is generally provided in weekly home visits lasting from 1-2 hours. The program typically lasts 18-20 weeks for each family.

Benefit-Cost Summary

Program benefits	
Participants	$4,015
Taxpayers	$2,200
Other (1)	$676
Other (2)	($564)
Total	$6,326
Costs	($2,088)
Benefits minus cost	$4,238

Summary statistics	
Benefit to cost ratio	$3.03
Benefits minus costs	$4,238
Probability of a positive net present value	88 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$110	$295	$55	$460
Child abuse and neglect	$1,038	$327	$0	$163	$1,528
K-12 grade repetition	$0	$15	$0	$8	$23
K-12 special education	$0	$75	$0	$37	$112
Health care (smoking)	$69	$433	$380	$216	$1,098
Property loss (alcohol abuse/dependence)	$0	$0	$1	$0	$1
Labor market earnings (child abuse & neglect)	$2,907	$1,240	$0	$0	$4,147
Adjustment for deadweight cost of program	$0	$0	$0	($1,044)	($1,044)
Totals	$4,015	$2,200	$676	($564)	$6,326

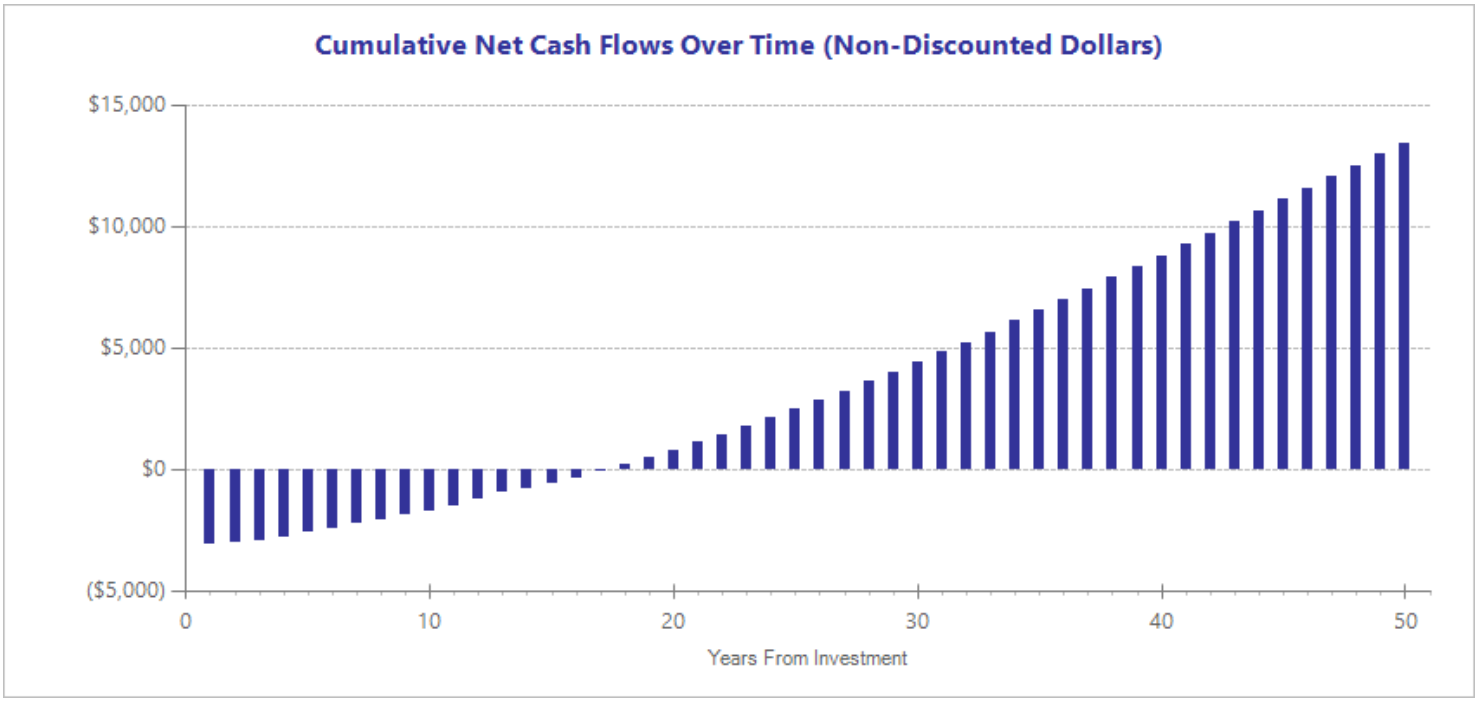
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,950	1	2010	Present value of net program costs (in 2014 dollars)	($2,088)
Comparison costs	$1,780	0	2010	Uncertainty (+ or - %)	25 %

Costs for SafeCare provided by Washington Department of Social and Health Services, March 2012. Based on costs for eighteen home visits per family, including supervision, coaching, and travel time, plus a $60 per-family cost for concrete services. In the evaluation of SafeCare described here, the results achieved by the intervention were achieved against a comparison group who received an equal number of home visits. However, the comparison group did not receive the manualized SafeCare curriculum, SafeCare health kits and handouts, or fidelity monitoring for the home visitors. Costs for the comparison group were computed by estimating a cost of $100 for each family for these three components and subtracting that from the SafeCare cost.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Primary	1	1079	-0.113	0.051	-0.113	0.058	7	-0.113	0.058	17

Citations Used in the Meta-Analysis

Chaffin, M., Hecht, D., Bard, D., Silovsky, J. F., & Beasley, W. H. (2012). A statewide trial of the safecare home-based services model with parents in child protective services. *Pediatrics, 129*(3) 509-515.

Healthy Families America

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Healthy Families America (http://www.healthyfamiliesamerica.org) is a network of programs that grew out of the Hawaii Healthy Start program. At-risk mothers are identified and enrolled either during pregnancy or shortly after the birth of a child. The intervention involves home visits by trained paraprofessionals who provide information on parenting and child development, parenting classes, and case management.

Benefit-Cost Summary

Program benefits	
Participants	$3,642
Taxpayers	$2,878
Other (1)	$434
Other (2)	($1,916)
Total	$5,038
Costs	($4,767)
Benefits minus cost	$271

Summary statistics	
Benefit to cost ratio	$1.06
Benefits minus costs	$271
Probability of a positive net present value	51 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$27	$86	$13	$126
Labor market earnings (illicit drug abuse/dependence)	($30)	($13)	$0	($1)	($44)
Health care (illicit drug abuse/dependence)	($3)	($18)	($16)	($10)	($48)
Health care (major depression)	$34	$103	$128	$51	$315
Public assistance	($188)	$595	$0	$0	$407
Labor market earnings (problem alcohol use)	$1,753	$748	$0	$19	$2,520
Property loss (problem alcohol use)	$3	$0	$6	$0	$10
Subtotals	$1,570	$1,442	$204	$72	$3,287
From secondary participant					
Crime	$0	$86	$219	$43	$348
Child abuse and neglect	$570	$179	$0	$90	$838
K-12 grade repetition	$0	$8	$0	$4	$12
K-12 special education	$0	$514	$0	$258	$772
Property loss (alcohol abuse/dependence)	$0	$0	$1	$0	$1
Health care (major depression)	$4	$11	$14	$6	$35
Labor market earnings (child abuse & neglect)	$1,498	$639	$0	$0	$2,137
Subtotals	$2,072	$1,437	$234	$401	$4,144
Adjustment for deadweight cost of program	$0	($1)	($4)	($2,389)	($2,393)
Totals	$3,642	$2,878	$434	($1,916)	$5,038

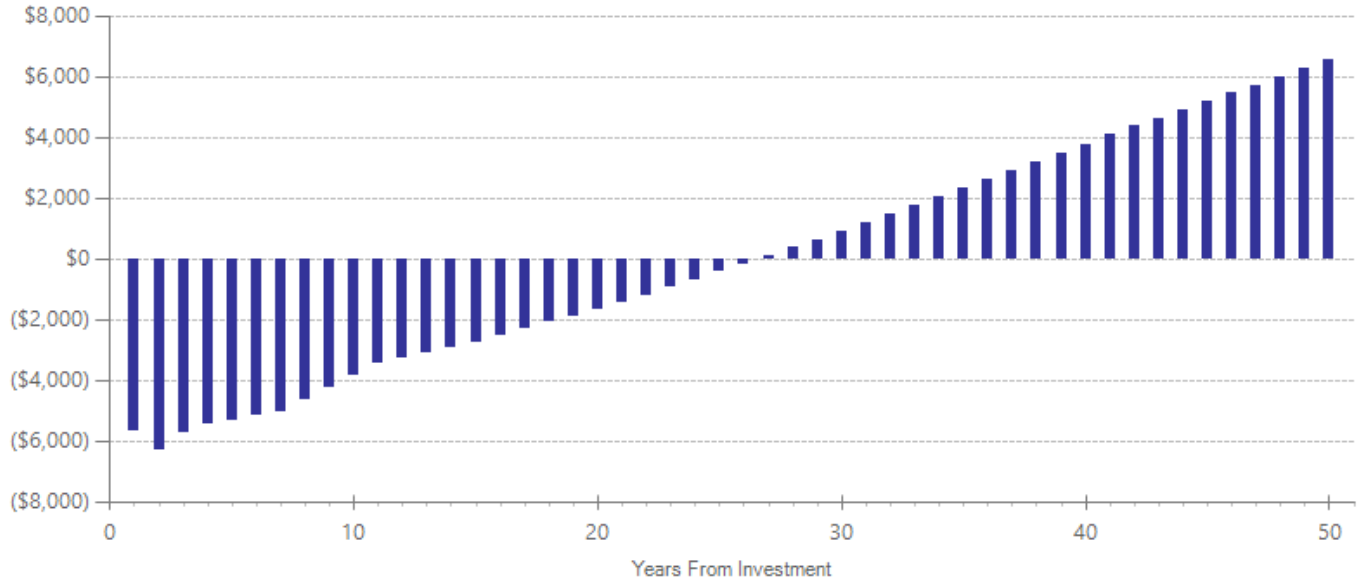
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$3,348	1.18	2004	Present value of net program costs (in 2014 dollars)	($4,767)
Comparison costs	$0	1	2004	Uncertainty (+ or - %)	10 %

Average annual cost per family from HFA survey of sites, FY2004 (available from: http://www.healthyfamiliesamerica.org/network_resources/hfa_state_of_state_systems.pdf). Average length of service provided by Prevent Child Abuse America, conversation in September, 2004.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Secondary	4	770	0.013	0.898	0.013	0.098	4	0.003	0.108	17
Child abuse and neglect	Secondary	7	3143	-0.135	0.313	-0.135	0.133	2	-0.135	0.133	12
K-12 grade repetition	Secondary	1	452	-0.015	0.903	-0.015	0.122	7	-0.015	0.122	17
K-12 special education	Secondary	1	452	-0.216	0.062	-0.216	0.116	7	-0.216	0.116	17
Public assistance	Primary	3	998	-0.016	0.864	-0.016	0.047	25	-0.016	0.047	35
Major depressive disorder	Primary	3	817	-0.069	0.253	-0.069	0.061	25	-0.036	0.075	27
Illicit drug abuse or dependence	Primary	1	373	0.021	0.895	0.021	0.163	25	0.021	0.163	35
Externalizing behavior symptoms	Secondary	2	578	-0.065	0.607	-0.065	0.125	5	-0.031	0.066	8
Problem alcohol use	Primary	1	373	-0.166	0.335	-0.166	0.172	25	-0.023	0.258	27
Internalizing symptoms	Secondary	2	720	-0.160	0.271	-0.160	0.145	3	-0.117	0.122	5
Low birthweight births	Primary	1	236	-0.511	0.025	-0.511	0.228	1	-0.511	0.228	1

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Nurse Family Partnership for low-income families

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The Nurse Family Partnership program provides intensive visitation by nurses during a woman's pregnancy and the first two years after birth; the program was developed by Dr. David Olds. The goal is to promote the child's development and provide support and instructive parenting skills to the parents. The program is designed to serve low-income, at-risk pregnant women bearing their first child.

Benefit-Cost Summary

Program benefits	
Participants	$12,775
Taxpayers	$11,271
Other (1)	$8,417
Other (2)	($3,585)
Total	$28,878
Costs	($9,993)
Benefits minus cost	$18,885

Summary statistics	
Benefit to cost ratio	$2.89
Benefits minus costs	$18,885
Probability of a positive net present value	75 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$1,235	$3,617	$621	$5,472
Child abuse and neglect	$1,155	$363	$0	$182	$1,700
K-12 grade repetition	$0	($35)	$0	($18)	($53)
K-12 special education	$0	($343)	$0	($171)	($515)
Property loss (alcohol abuse/dependence)	$1	$0	$1	$0	$2
Health care (disruptive behavior disorder)	$5	$16	$19	$8	$48
Labor market earnings (child abuse & neglect)	$3,011	$1,284	$0	$0	$4,296
Subtotals	$4,172	$2,520	$3,637	$622	$10,950
From secondary participant					
Crime	$0	$272	$939	$135	$1,346
Labor market earnings (hs grad)	$9,718	$4,145	$4,809	$0	$18,672
Public assistance	($947)	$3,001	$0	$0	$2,055
Health care (educational attainment)	($168)	$1,332	($968)	$668	$864
Subtotals	$8,603	$8,751	$4,780	$803	$22,937
Adjustment for deadweight cost of program	$0	$0	$0	($5,009)	($5,009)
Totals	$12,775	$11,271	$8,417	($3,585)	$28,878

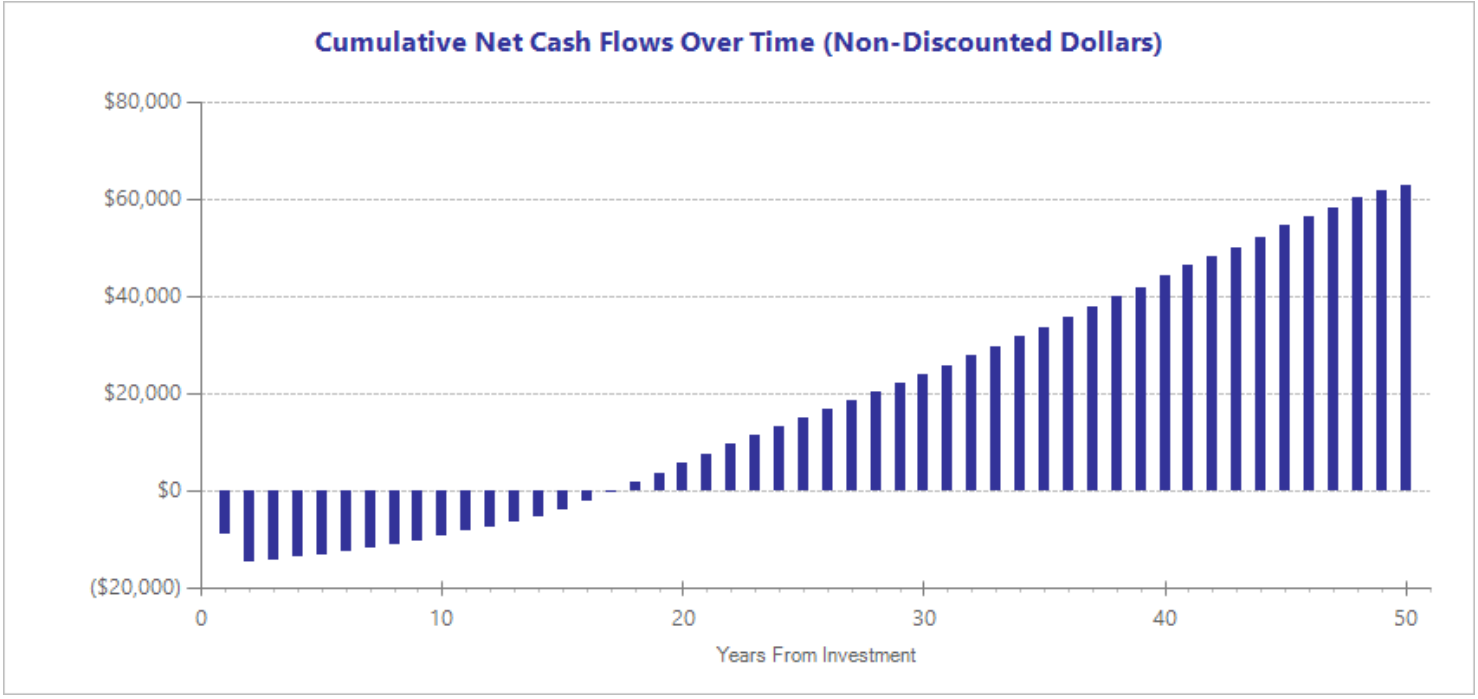
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$5,383	1.68	2007	Present value of net program costs (in 2014 dollars)	($9,993)
Comparison costs	$0	1	2007	Uncertainty (+ or - %)	10 %

Average annual expenditures per family and average length of service provided by Kristen Rogers at Nurse Family Partnership, Northwest Regional Office July, 08.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Secondary	2	266	-0.265	0.472	-0.044	0.119	31	-0.044	0.119	41
Crime	Primary	1	37	-0.700	0.001	-0.252	0.214	15	-0.252	0.214	25
High school graduation	Secondary	2	401	0.096	0.271	0.096	0.088	23	0.096	0.088	23
Test scores	Primary	2	394	0.132	0.043	0.047	0.065	5	0.015	0.072	17
Child abuse and neglect	Primary	1	38	-0.883	0.001	-0.318	0.215	15	-0.318	0.217	17
K-12 grade repetition	Primary	1	191	0.140	0.262	0.050	0.125	12	0.050	0.125	17
K-12 special education	Primary	1	191	0.288	0.068	0.104	0.158	12	0.104	0.158	17
Disruptive behavior disorder symptoms	Primary	1	191	-0.218	0.013	-0.078	0.087	12	-0.037	0.048	15
Public assistance	Secondary	3	470	-0.165	0.109	-0.095	0.059	28	-0.095	0.059	38
Substance abuse	Secondary	3	470	-0.274	0.377	-0.088	0.228	28	-0.088	0.228	38
Employment	Secondary	3	423	0.120	0.176	0.086	0.070	26	0.086	0.070	36
Internalizing symptoms	Primary	1	191	-0.280	0.024	-0.101	0.124	12	-0.074	0.101	14

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Other home visiting programs for at-risk mothers and children

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: This broad grouping of programs focuses on mothers considered to be at risk for parenting problems, based on factors such as maternal age, marital status and education, low household income, lack of social supports, or in some programs, mothers testing positive for drugs at the child's birth. Depending on the program, the content of the home visits consists of instruction in child development and health, referrals for service, or social and emotional support. Some programs provide additional services, such as preschool. This group of programs also includes a subset that is specifically targeted toward preventing repeat pregnancy and birth in the adolescent years.

Benefit-Cost Summary

Program benefits	
Participants	$3,831
Taxpayers	$3,508
Other (1)	$2,101
Other (2)	($2,588)
Total	$6,852
Costs	($5,836)
Benefits minus cost	$1,016

Summary statistics	
Benefit to cost ratio	$1.17
Benefits minus costs	$1,016
Probability of a positive net present value	51 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$20	$63	$10	$93
Labor market earnings (major depression)	$547	$233	$0	$7	$787
Health care (major depression)	$31	$96	$119	$48	$294
Public assistance	($464)	$1,471	$0	$0	$1,007
Subtotals	$114	$1,820	$182	$66	$2,181
From secondary participant					
Crime	$0	$145	$370	$73	$587
Labor market earnings (test scores)	$2,696	$1,150	$1,337	$0	$5,184
Child abuse and neglect	$964	$45	$0	$22	$1,030
Out-of-home placement	$0	$74	$0	$37	$111
K-12 grade repetition	$0	$26	$0	$13	$39
K-12 special education	$0	$76	$0	$38	$114
Property loss (alcohol abuse/dependence)	$1	$0	$1	$0	$1
Health care (PTSD)	$55	$170	$211	$85	$522
Subtotals	$3,716	$1,686	$1,919	$268	$7,589
Adjustment for deadweight cost of program	$1	$1	$1	($2,921)	($2,918)
Totals	$3,831	$3,508	$2,101	($2,588)	$6,852

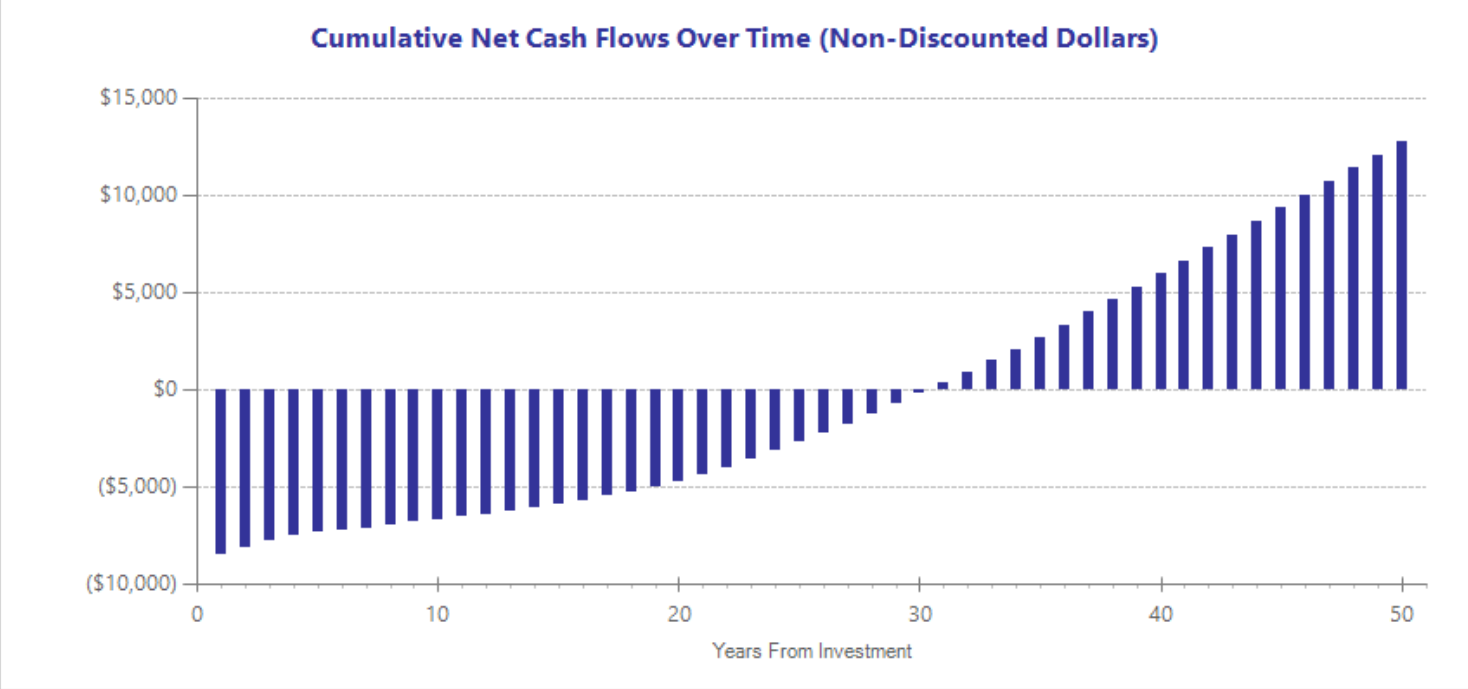
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$5,368	1	2008	Present value of net program costs (in 2014 dollars)	($5,836)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

WSIPP analysis, based on costs published in Black, M.M., H. Dubowitz, J. Hutcheson, J. Berenson-Howard, and R.H. Starr Jr. (1995) "A randomized clinical trial of home intervention for children with failure to thrive." Pediatrics 95(6): 807-814; Dawson, P., Van Doorninck, W.J., Robinson, J.L. (1989) Effects of home-based, informal social support on child health. Developmental and Behavioral Pediatrics 10(2):63-67; Ernst, C.C., T.M. Grant, A.P. Streissguth, and P.D alcohol and drug-abusing mothers: II. Three-year findings from the. Sampson. (1999) "Intervention with high risk Seattle model of paraprofessional advocacy." Journal of Community Psychology 27(1): 19-38; and Hardy, J.B. and Streett, R. (1989) "Family support and parenting education in the home: An effective extension of clinic-based preventive health care Institute analysis, based on costs published in Black, M.M., H. Dubowitz, J. Hutcheson, J. Berenson-Howard, and R.H. Starr Jr. (1995) "A randomized clinical trial of home intervention for children with failure to thrive." Pediatrics 95(6): 807-814; Dawson, P., Van Doorninck, W.J., Robinson, J.L. (1989) Effects of home-based, informal social support on child health. Developmental and Behavioral Pediatrics 10(2):63-67; Ernst, C.C., T.M. Grant, A.P. Streissguth, and P.D alcohol and drug-abusing mothers: II. Three-year findings from the. Sampson. (1999) "Intervention with high risk Seattle model of paraprofessional advocacy." Journal of Community Psychology 27(1): 19-38; and Hardy, J.B. and Streett, R. (1989) "Family support and parenting education in the home: An effective extension of clinic-based preventive health care services for poor children." Journal of Pediatrics 115: 927-931.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
High school graduation	Primary	1	392	0.062	0.504	0.062	0.093	22	0.062	0.093	22
Test scores	Secondary	6	153	0.325	0.009	0.253	0.122	4	0.053	0.134	17
Child abuse and neglect	Secondary	11	667	-0.448	0.041	-0.253	0.135	10	-0.253	0.135	17
Out-of-home placement	Secondary	6	330	-0.107	0.636	-0.107	0.154	10	-0.107	0.154	17
Public assistance	Primary	1	184	-0.041	0.761	-0.041	0.135	22	-0.041	0.135	22
Major depressive disorder	Primary	4	249	-0.062	0.508	-0.062	0.094	24	-0.032	0.115	29
Repeat teen pregnancy	Primary	6	576	0.071	0.371	0.079	0.080	19	0.079	0.080	19
Repeat teen birth	Primary	6	650	-0.111	0.434	-0.109	0.141	19	-0.109	0.141	19

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Parent Child Home Program

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The Parent-Child Home Program (http://www.parent-child.org/) is targeted at two- and three- year olds whose parents have a limited education or who have other obstacles to educational success. The program involves twice weekly, half-hour visits from trained paraprofessionals over a period of two years. Each week, the visitor brings a new toy or book which she uses to demonstrate verbal interaction techniques and encourage learning through play.

Benefit-Cost Summary

Program benefits	
Participants	$1,468
Taxpayers	$1,454
Other (1)	$668
Other (2)	($2,465)
Total	$1,126
Costs	($5,751)
Benefits minus cost	($4,625)

Summary statistics	
Benefit to cost ratio	$0.20
Benefits minus costs	($4,625)
Probability of a positive net present value	35 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (test scores)	$1,481	$632	$739	$0	$2,851
K-12 grade repetition	$0	$70	$0	$35	$105
K-12 special education	$0	$654	$0	$327	$981
Health care (educational attainment)	($12)	$98	($71)	$49	$63
Adjustment for deadweight cost of program	$0	$0	$0	($2,876)	($2,876)
Totals	$1,468	$1,454	$668	($2,465)	$1,126

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

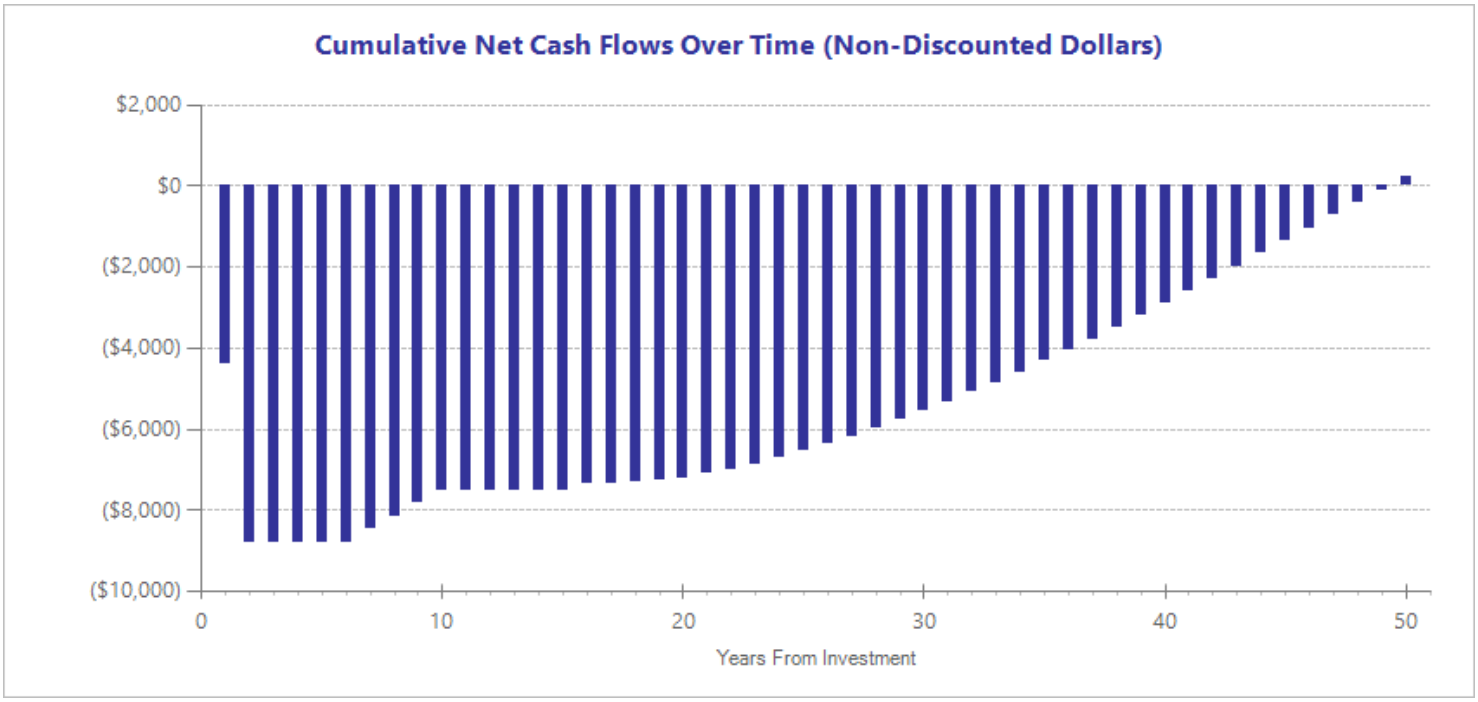
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$2,800	2	2011
Comparison costs	$0	1	2011

Summary statistics	
Present value of net program costs (in 2014 dollars)	($5,751)
Uncertainty (+ or - %)	10 %

Average annual cost per family provided by The Parent-Child Home Program's National Center, June, 2011.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	4	211	0.224	0.162	0.138	0.121	4	0.029	0.133	17
K-12 grade repetition	Primary	1	74	-0.285	0.421	-0.103	0.354	8	-0.103	0.354	17
K-12 special education	Primary	1	85	-0.626	0.021	-0.225	0.272	8	-0.225	0.272	17

Citations Used in the Meta-Analysis

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Parents as Teachers

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Parents as Teachers (http://www.parentsasteachers.org/) is a home visiting program for parents and children with a main goal of having children ready to learn by the time they go to school. Parents are visited monthly by parent educators with some college education. Visits typically begin during the mother's pregnancy and may continue until the child enters kindergarten.

Benefit-Cost Summary

Program benefits	
Participants	$4,407
Taxpayers	$2,509
Other (1)	$1,008
Other (2)	($749)
Total	$7,175
Costs	($2,671)
Benefits minus cost	$4,505

Summary statistics	
Benefit to cost ratio	$2.69
Benefits minus costs	$4,505
Probability of a positive net present value	67 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$211	$606	$107	$924
Child abuse and neglect	$1,193	$375	$0	$190	$1,757
K-12 grade repetition	$0	$33	$0	$17	$50
K-12 special education	$0	$93	$0	$47	$140
Health care (smoking)	$72	$457	$401	$229	$1,160
Property loss (alcohol abuse/dependence)	$1	$0	$1	$0	$2
Labor market earnings (child abuse & neglect)	$3,140	$1,340	$0	$0	$4,480
Adjustment for deadweight cost of program	$0	$0	$0	($1,338)	($1,338)
Totals	$4,407	$2,509	$1,008	($749)	$7,175

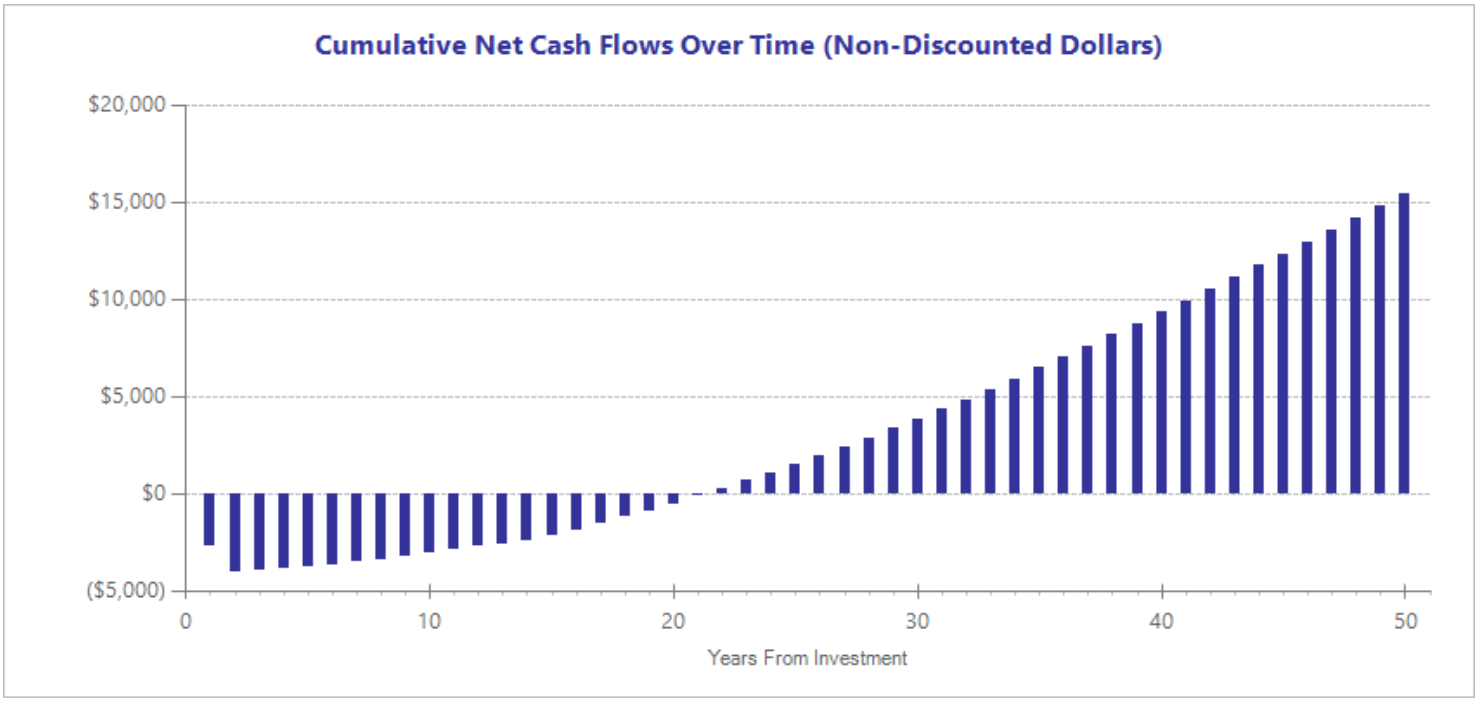
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,450	1.5	2003	Present value of net program costs (in 2014 dollars)	($2,671)
Comparison costs	$0	1.5	2003	Uncertainty (+ or - %)	10 %

Average annual cost provided by Parents as Teachers National Center in 2003. Average length of program estimated by WSIPP, based on weighted average of treatment length reported in the original research studies. WSIPP also communicated with Nicole Thomson at the National Center (July 2014), who provided assistance in gathering some details not reported in the original studies.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
High school graduation	Primary	1	79	-0.018	0.926	-0.018	0.189	22	-0.018	0.189	22
Test scores	Secondary	5	625	0.086	0.271	0.086	0.084	4	0.018	0.092	17
Child abuse and neglect	Secondary	1	149	-0.378	0.482	-0.378	0.537	3	-0.378	0.537	13
Repeat teen birth	Primary	1	77	0.089	0.678	0.089	0.215	22	0.089	0.215	22

Citations Used in the Meta-Analysis

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Wagner, M. M., & Clayton, S. L. (1999). The Parents as Teachers program: Results from two demonstrations. *The Future of Children, 9*(1), 91-115.

Wagner, M., Cameto, R., & Gerlach-Downie, S. (1996). *Intervention in support of adolescent parents and their children: A final report on the Teen Parents as Teachers Demonstration.* Menlo Park, CA. SRI International.

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Triple P Positive Parenting Program (System)

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Triple P – Positive Parenting Program (all levels) is a universal prevention program that aims to increase the skills and confidence of parents in order to prevent the development of serious behavioral and emotional problems in their children. Triple P has five levels of intensity. The base level is a media campaign that aims to increase awareness of parenting resources and inform parents about solutions to common behavioral problems. Levels two and three are primary health care interventions for children with mild behavioral difficulties, whereas levels four and five are more intensive individual- or class-based parenting programs for families of children with more challenging behavior problems. The evaluation in this study was a population-based trial that provided all levels of the program.

Benefit-Cost Summary

Program benefits	
Participants	$190
Taxpayers	$599
Other (1)	$429
Other (2)	$208
Total	$1,427
Costs	($149)
Benefits minus cost	$1,278

Summary statistics	
Benefit to cost ratio	$9.58
Benefits minus costs	$1,278
Probability of a positive net present value	58 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$5	$13	$3	$20
Child abuse and neglect	$31	$1	$0	$1	$33
Out-of-home placement	$0	$80	$0	$40	$121
K-12 grade repetition	$0	$1	$0	$0	$1
K-12 special education	$0	$2	$0	$1	$3
Health care (smoking)	$75	$474	$416	$237	$1,203
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$0
Labor market earnings (child abuse & neglect)	$84	$36	$0	$0	$120
Adjustment for deadweight cost of program	$0	$0	$0	($75)	($75)
Totals	$190	$599	$429	$208	$1,427

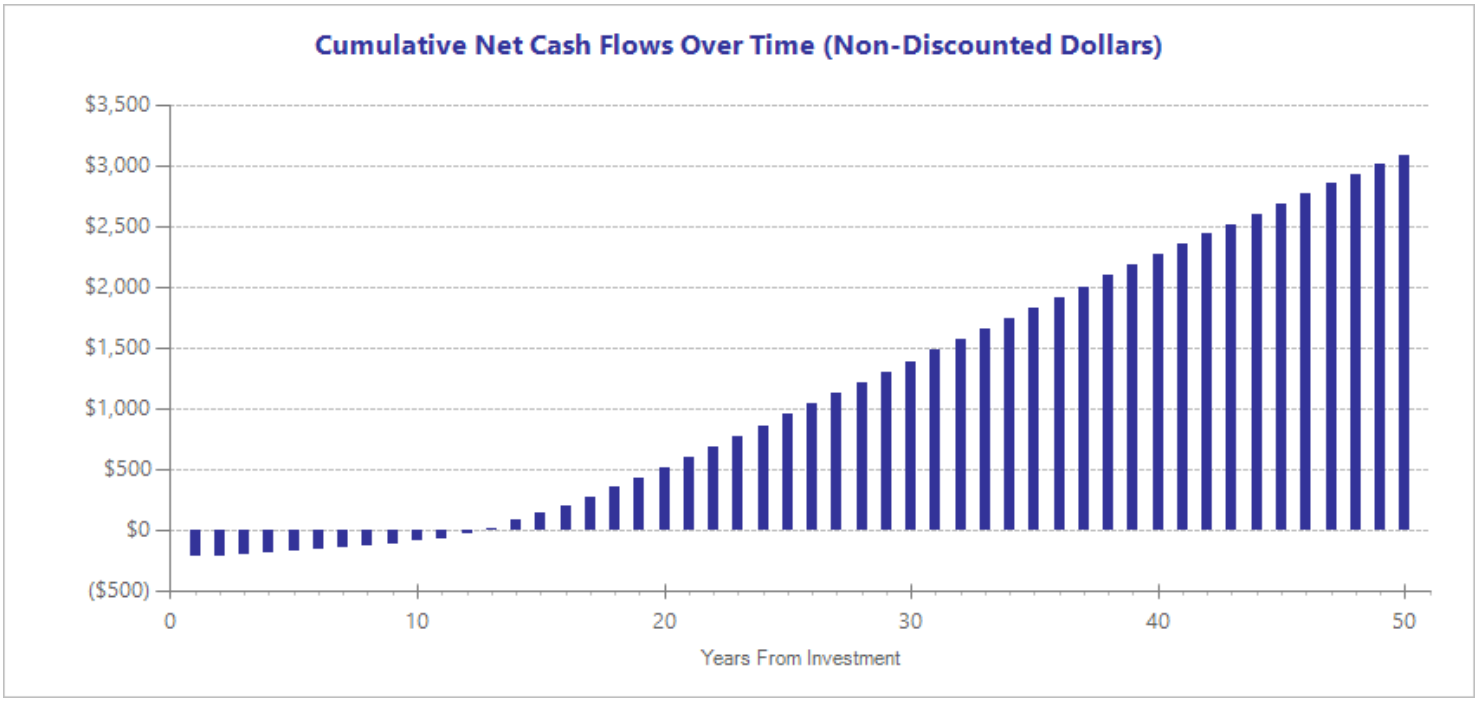
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$137	1	2008	Present value of net program costs (in 2014 dollars)	($149)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	20 %

Training costs estimated from Foster, E. M., Prinz, R. J., Sanders, M. R., & Shapiro, C. J. (2008). The costs of a public health infrastructure for delivering parenting and family support. Children and Youth Services Review, 30(5), 493-501; parenting program costs estimated by multiplying average Washington cost per family by 10 percent of the population assumed to receive the parenting program, distributed over 100 percent of the population.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Primary	1	96650	-0.138	0.808	-0.050	0.571	6	-0.050	0.571	17
Out-of-home placement	Primary	1	85000	-0.311	0.346	-0.112	0.330	6	-0.112	0.330	17

Citations Used in the Meta-Analysis

Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., & Lutzker, J. R. (2009). Population-based prevention of child maltreatment: The U.S. Triple P system population trial. *Prevention Science, 10*(1), 1-12.

Communities That Care

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Communities that Care (CTC) is a coalition-based community prevention program that aims to prevent youth problem behaviors including underage drinking, tobacco use, violence, delinquency, school dropout, and substance abuse. CTC works through a community board to assess risk and protective factors among the youth in their community. The board works to implement tested and effective programs to address the issues and needs that are identified.

Benefit-Cost Summary

Program benefits	
Participants	$691
Taxpayers	$547
Other (1)	$689
Other (2)	($158)
Total	$1,769
Costs	($581)
Benefits minus cost	$1,188

Summary statistics	
Benefit to cost ratio	$3.04
Benefits minus costs	$1,188
Probability of a positive net present value	59 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$212	$649	$105	$967
Health care (smoking)	$7	$43	$38	$21	$109
Labor market earnings (alcohol abuse/dependence)	$684	$292	$0	$5	$981
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$4
Adjustment for deadweight cost of program	$0	$0	($1)	($290)	($291)
Totals	$691	$547	$689	($158)	$1,769

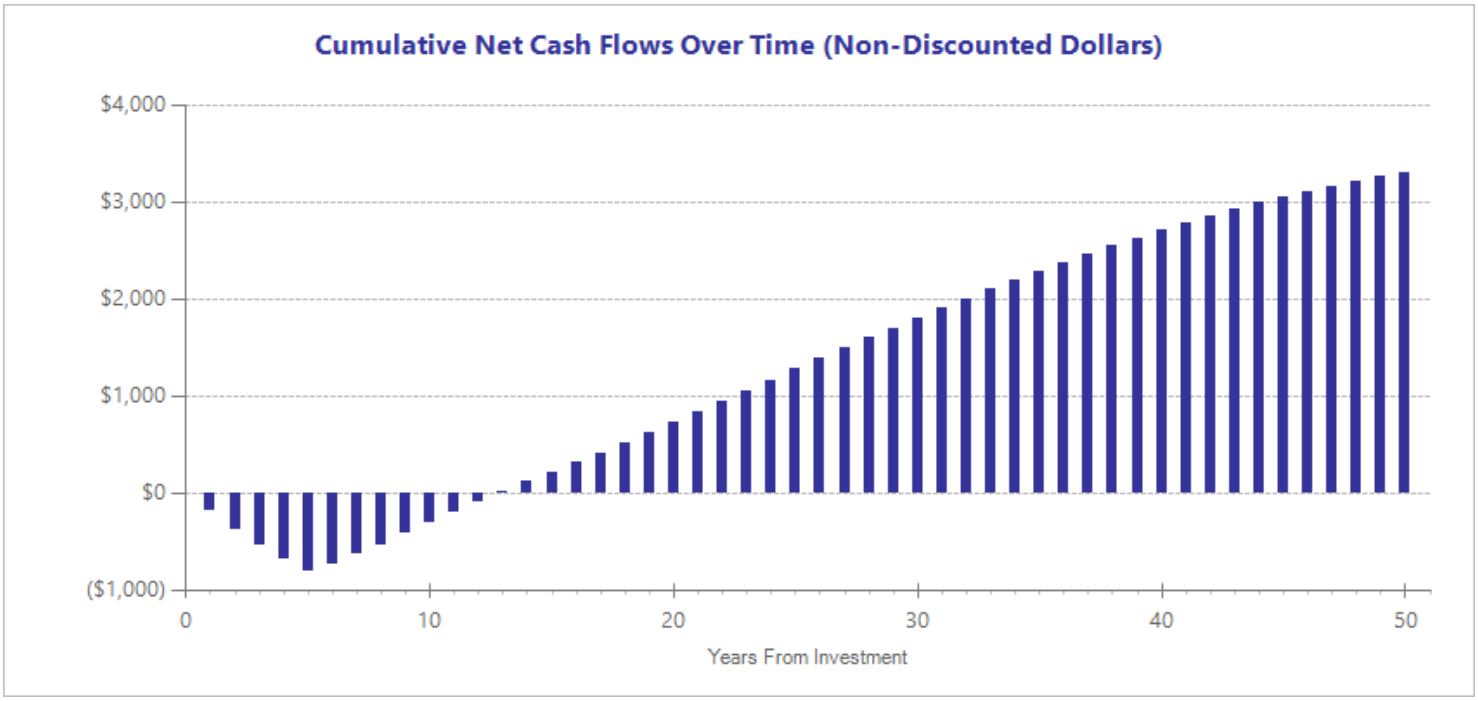
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$103	5	2004	Present value of net program costs (in 2014 dollars)	($581)
Comparison costs	$0	1	2004	Uncertainty (+ or - %)	35 %

Weighted average of per-child costs across twelve CtC demonstration communities. Provided by M. Kuklinski, Social Development Research Group, January 2013.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	1926	-0.135	0.298	-0.051	0.129	16	-0.051	0.127	26
Alcohol use in high school	Primary	1	1917	-0.150	0.275	-0.057	0.137	16	-0.057	0.126	26
Smoking in high school	Primary	1	2227	-0.092	0.464	-0.035	0.039	16	-0.035	0.039	26
Cannabis use in high school	Primary	1	2395	-0.041	0.753	-0.015	0.130	16	-0.015	0.130	26
Illicit drug use in high school	Primary	1	2372	-0.039	0.764	-0.015	0.131	16	-0.015	0.131	26

Citations Used in the Meta-Analysis

Kuklinski, M.R., Briney, J.S., Hawkins, J.D., & Catalano, R.F. (2012). Cost-benefit analysis of communities that care outcomes at eighth grade. *Prevention Science, 13*(2), 150-61.

Fast Track prevention program

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Fast Track is a comprehensive prevention program, delivered over the course of 10 years, that seeks to reduce multiple risk factors in children's lives. The program consists of various developmentally appropriate interventions at different ages, with the most intensive intervention taking place at younger ages.

Benefit-Cost Summary

Program benefits	
Participants	$1,265
Taxpayers	$2,123
Other (1)	$3,830
Other (2)	($29,652)
Total	($22,434)
Costs	($60,877)
Benefits minus cost	($83,312)

Summary statistics	
Benefit to cost ratio	($0.37)
Benefits minus costs	($83,312)
Probability of a positive net present value	0 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$660	$2,130	$329	$3,120
Labor market earnings (hs grad)	$1,067	$455	$528	$0	$2,049
Health care (ADHD)	$15	$47	$58	$24	$145
Health care (emergency department visits)	$183	$960	$1,114	$479	$2,736
Adjustment for deadweight cost of program	$0	$0	$0	($30,485)	($30,484)
Totals	$1,265	$2,123	$3,830	($29,652)	($22,434)

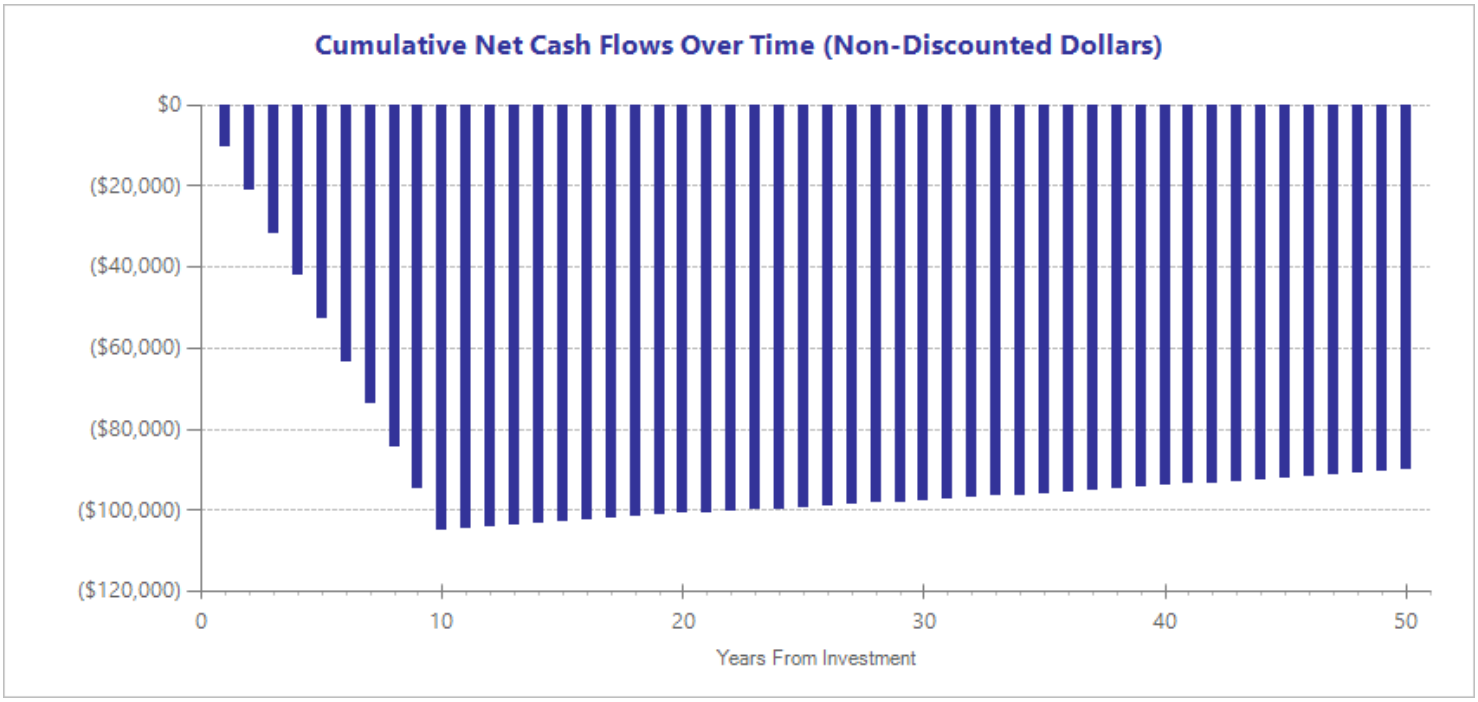
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$5,828	10	2004	Present value of net program costs (in 2014 dollars)	($60,877)
Comparison costs	$0	10	2004	Uncertainty (+ or - %)	10 %

Costs derived from estimate reported in Foster, E.M., Jones, D.E., & the Conduct Problems Prevention Research Group (2006). Can a costly intervention be cost-effective? An analysis of violence prevention. Archives of General Psychiatry, 63(11), 1284-1291.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	445	-0.173	0.010	-0.173	0.067	15	-0.099	0.089	18
Disruptive behavior disorder symptoms	Primary	1	445	-0.198	0.191	-0.198	0.151	15	-0.028	0.098	17
Attention deficit hyperactivity disorder symptoms	Primary	1	445	-0.151	0.199	-0.151	0.117	15	-0.018	0.082	17
Emergency department visits	Primary	1	445	-0.177	0.048	-0.177	0.089	19	-0.177	0.089	29
Hospitalization (psychiatric)	Primary	1	445	0.006	0.972	0.006	0.171	19	0.006	0.171	29

Citations Used in the Meta-Analysis

Conduct Problems Prevention Research Group. (2007). Fast track randomized controlled trial to prevent externalizing psychiatric disorders: Findings from grades 3 to 9. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(10), 1250-1262.

Conduct Problems Prevention Research Group. (2010). Fast Track intervention effects on youth arrests and delinquency. *Journal of Experimental Criminology, 6*(2), 131-157.

Conduct Problems Prevention Research Group. (2011). The effects of the Fast Track preventive intervention on the development of conduct disorder across childhood. *Child Development, 82*(1), 331-345.

Jones, D., Godwin, J., Dodge, K. A., Bierman, K. L., Coie, J. D., Greenberg, M. T., . . . Pinderhughes, E. E. (2010). Impact of the fast track prevention program on health services use by conduct-problem youth. *Pediatrics, 125*(1), e130-e136.

Good Behavior Game

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The Good Behavior Game is a two-year classroom management strategy designed to improve aggressive/disruptive classroom behavior and prevent later criminality. The program is universal and can be applied to general populations of early elementary school children (grades 1 and 2).

Benefit-Cost Summary

Program benefits	
Participants	$5,468
Taxpayers	$2,870
Other (1)	$803
Other (2)	$248
Total	$9,389
Costs	($160)
Benefits minus cost	$9,229

Summary statistics	
Benefit to cost ratio	$58.56
Benefits minus costs	$9,229
Probability of a positive net present value	85 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$154	$420	$78	$651
Health care (smoking)	$66	$416	$365	$209	$1,057
Labor market earnings (alcohol abuse/dependence)	$5,392	$2,300	$0	$42	$7,734
Property loss (alcohol abuse/dependence)	$10	$0	$19	$0	$28
Adjustment for deadweight cost of program	$0	$0	$0	($81)	($81)
Totals	$5,468	$2,870	$803	$248	$9,389

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

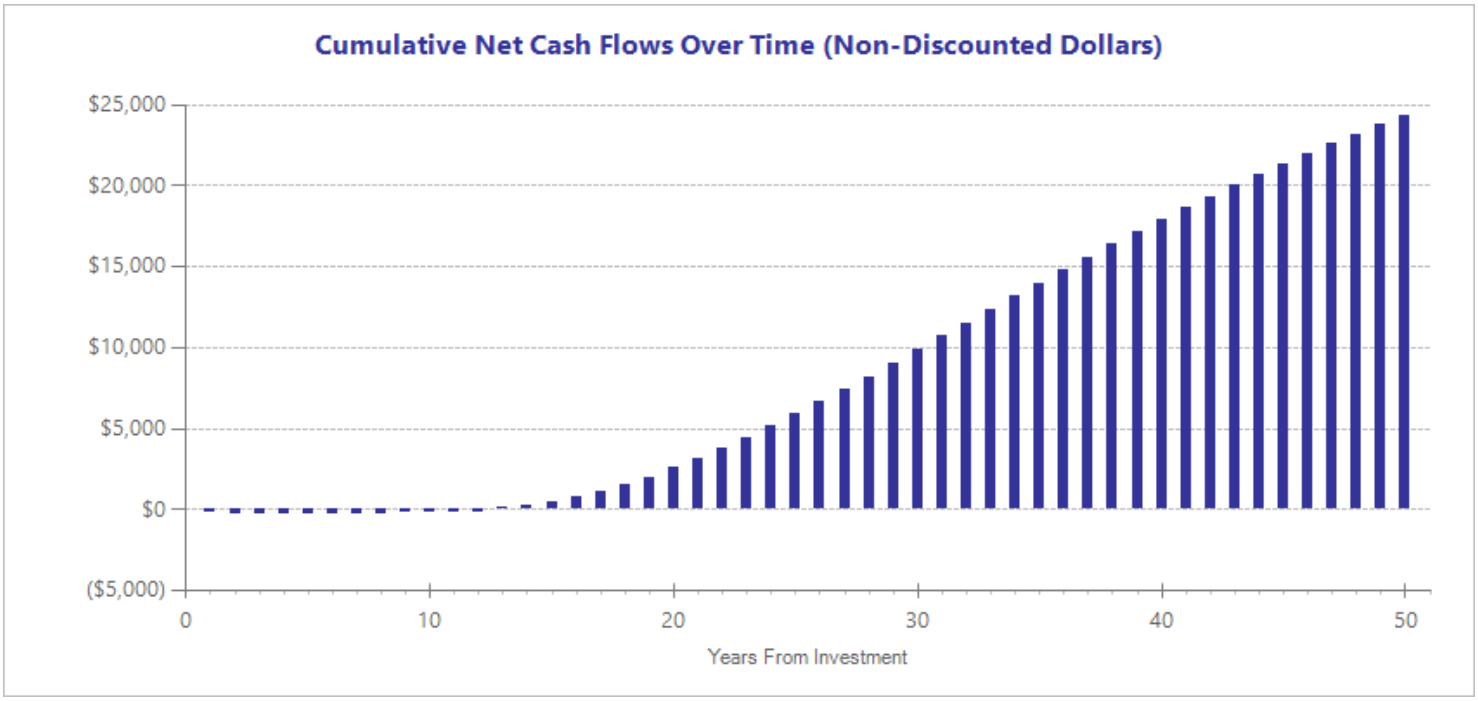
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$78	2	2011
Comparison costs	$0	1	2011

Summary statistics	
Present value of net program costs (in 2014 dollars)	($160)
Uncertainty (+ or - %)	10 %

Costs include teacher training, classroom supplies, district GBG coach training, subcontractor support, and travel costs. The estimate is based on training for 30 teachers and one coach over two years and a cumulative 3,375 students served in GBG classrooms over five years. Information for this costs estimate was provided by Jeanne Poduska, Sc D, American Institutes for Research.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	239	-0.108	0.582	-0.041	0.197	20	-0.041	0.197	30
High school graduation	Primary	1	175	0.162	0.174	0.062	0.119	20	0.062	0.119	20
Smoking before end of middle school	Primary	2	540	-0.231	0.002	-0.088	0.073	12	-0.088	0.073	22
Regular smoking	Primary	1	175	-0.593	0.001	-0.225	0.091	20	-0.225	0.091	30
Alcohol abuse or dependence	Primary	1	176	-0.609	0.001	-0.231	0.150	20	-0.231	0.150	30
Major depressive disorder	Primary	2	399	-0.178	0.160	-0.138	0.127	20	-0.072	0.156	22
Illicit drug abuse or dependence	Primary	1	175	-0.304	0.001	-0.115	0.090	20	-0.115	0.090	30
Anxiety disorder	Primary	2	399	-0.192	0.242	-0.192	0.165	20	-0.100	0.202	22
Externalizing behavior symptoms	Primary	1	425	-0.437	0.001	-0.437	0.084	12	-0.208	0.098	15
Suicide attempts	Primary	1	178	-0.195	0.279	-0.074	0.180	20	-0.074	0.180	25
Antisocial personality disorder	Primary	1	179	-0.295	0.032	-0.112	0.137	20	-0.112	0.137	25

Citations Used in the Meta-Analysis

Kellam, S.G., & Anthony, J.C. (1998). Targeting early antecedents to prevent tobacco smoking: Findings from an epidemiologically based randomized field trial. *American Journal of Public Health, 88*(10), 1488-1495.

Kellam, S.G., Reid, J., & Balster, R.L. (2008). Effects of a universal classroom behavior program in first and second grades on young adult problem outcomes. *Drug and Alcohol Dependence, 95*(Suppl. 1), S1-S4.

Petras, H., Kellam, S.G., Poduska, J.M., Brown, C.H., Muthen, B.O., & Ialongo, N.S. (2008). Developmental epidemiological courses leading to antisocial personality disorder and violent and criminal behavior: Effects by young adulthood of a universal preventive intervention in first- and second-grade classrooms. *Drug and Alcohol Dependence, 95*(Suppl. 1), S45-S59.

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Vuijk, P., van Lier, P.A.C., Crijnen, A.A.M., & Huizink, A.C. (2007). Testing sex-specific pathways from peer victimization to anxiety and depression in early adolescents through a randomized intervention trial. *Journal of Affective Disorders, 100*(1-3), 221-226.

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Guiding Good Choices (formerly Preparing for the Drug Free Years)

Benefit-cost estimates updated July 2015. Literature review updated June 2014.

Program Description: Guiding Good Choices, formerly known as Preparing for the Drug-Free Years, is a skills-training program for middle school students and their parents typically implemented outside normal school hours. The five-session drug resistance and education program, implemented one night per week for five weeks, aims to improve parent-child interactions that reduce the risk for substance use initiation. Sessions typically last two hours each and include a mix of group discussions, workbook activities, role plays, and multimedia presentations. Program content includes education about the prevalence of substance use and risk and protective factors associated with use, and the development of strategies in the home to prevent use (Session 1), establishing expectations and guidelines within the home regarding substance use (Session 2), education and opportunities to practice refusal skills (Session 3), managing family conflict and constructively handling disputes between family members (Session 4), and strategies for engaging the adolescent in family activities and ways to create supportive networks among parents (Session 5). Parents are required to attend all five sessions while the adolescents is required to attend Session 3.

Benefit-Cost Summary

Program benefits	
Participants	$809
Taxpayers	$472
Other (1)	$628
Other (2)	($264)
Total	$1,645
Costs	($664)
Benefits minus cost	$981

Summary statistics	
Benefit to cost ratio	$2.48
Benefits minus costs	$981
Probability of a positive net present value	54 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$54	$160	$27	$241
Labor market earnings (hs grad)	$794	$339	$395	$0	$1,527
Health care (smoking)	$13	$80	$70	$39	$201
Property loss (alcohol abuse/dependence)	$2	$0	$4	$0	$5
Adjustment for deadweight cost of program	$0	$0	$0	($331)	($330)
Totals	$809	$472	$628	($264)	$1,645

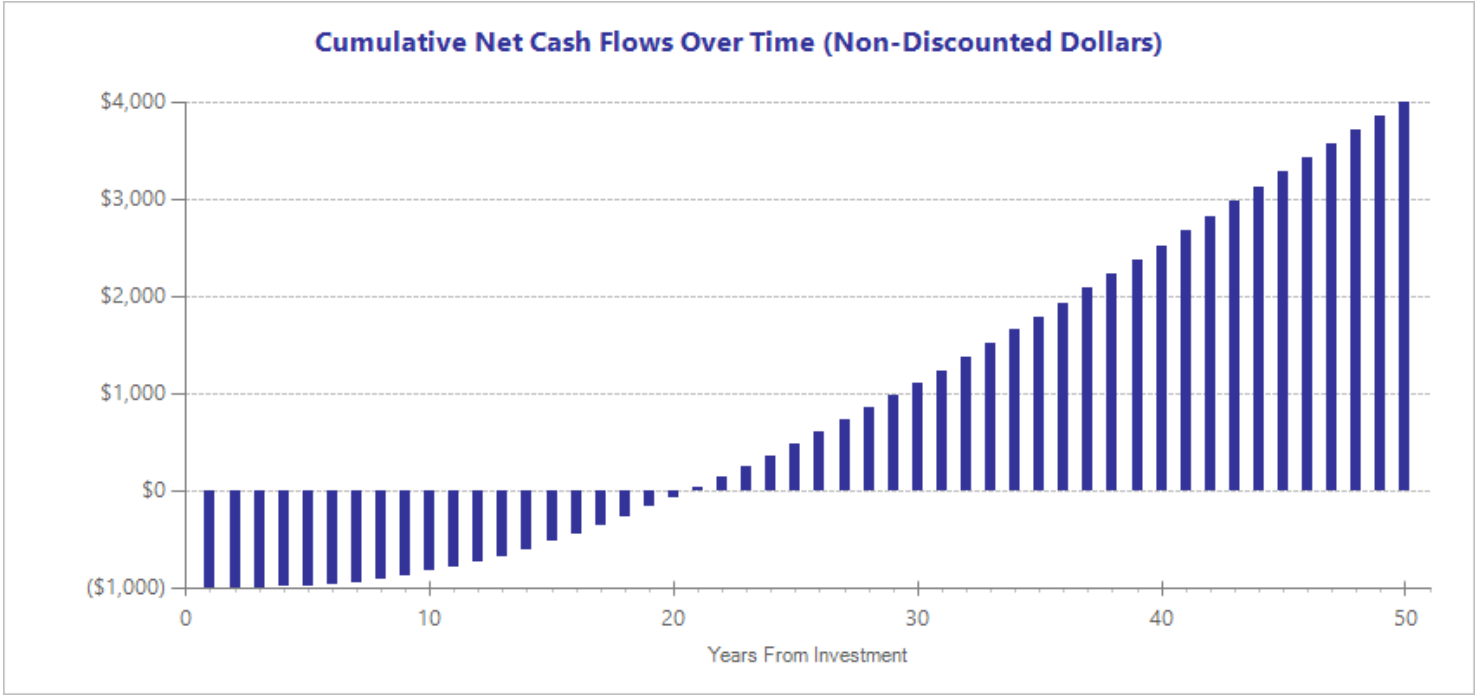
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$655	1	2013	Present value of net program costs (in 2014 dollars)	($664)
Comparison costs	$0	1	2012	Uncertainty (+ or - %)	10 %

Cost data come from Spoth, R.L., Guyll, M., & Day, S.X. (2002). Universal family-focused interventions in alcohol-use disorder prevention: Cost-effectiveness and cost-benefit analyses of two interventions. Journal of Studies on Alcohol and Drugs, 63(2), 219.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Internalizing symptoms	Primary	1	149	-0.237	0.189	-0.078	0.180	18	-0.057	0.142	20
Alcohol use in high school	Primary	1	146	-0.256	0.030	-0.085	0.118	16	-0.085	0.118	18
Smoking in high school	Primary	1	144	-0.187	0.175	-0.062	0.138	16	-0.062	0.138	18
Cannabis use in high school	Primary	1	143	-0.305	0.345	-0.101	0.324	16	-0.101	0.324	18
Illicit drug use in high school	Primary	2	261	-0.082	0.619	-0.027	0.164	16	-0.027	0.164	18

Citations Used in the Meta-Analysis

Mason, W.A., Kosterman, R., Hawkins, J.D., Haggerty, K.P., & Spoth, R.L. (2003). Reducing adolescents' growth in substance use and delinquency: Randomized trial effects of a parent-training prevention intervention. *Prevention Science, 4*(3), 203-212.

Spoth, R.L., Clair, S., Shin, C., & Redmond, C. (2006). Long-term effects of universal preventive interventions on methamphetamine use among adolescents. *Archives of Pediatrics & Adolescent Medicine, 160*(9), 876-882.

Spoth, R.L., Redmond, C., & Shin, C. (2001). Randomized trial of brief family interventions for general populations: Adolescent substance use outcomes 4 years following baseline. *Journal of Consulting and Clinical Psychology, 69*(4), 627-642.

Spoth, R., Trudeau, L., Guyll, M., Shin, C., & Redmond, C. (2009). Universal intervention effects on substance use among young adults mediated by delayed adolescent substance initiation. *Journal of Consulting and Clinical Psychology, 77*(4), 620-32.

Quantum Opportunities Program

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The Quantum Opportunities Program provides disadvantaged high school students education, service, and development activities, as well as financial incentives (stipends) for youths' continuing participation. Mentoring is one component of the services provided. The program begins in ninth grade and continues through students' high school graduation.

Benefit-Cost Summary

Program benefits	
Participants	$24,120
Taxpayers	$19,993
Other (1)	$16,159
Other (2)	($10,644)
Total	$49,629
Costs	$26,821
Benefits minus cost	$22,808

Summary statistics	
Benefit to cost ratio	$1.85
Benefits minus costs	$22,808
Probability of a positive net present value	61 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$1,362	$4,821	$672	$6,855
Labor market earnings (hs grad)	$29,119	$12,420	$14,367	$0	$55,906
Labor market earnings (alcohol abuse/dependence)	($3,493)	($1,490)	$0	($28)	($5,011)
Health care (alcohol abuse/dependence)	($24)	($144)	($135)	($72)	($374)
Property loss (alcohol abuse/dependence)	($7)	$0	($12)	$0	($19)
Public assistance	($1,120)	$3,551	$0	$0	$2,431
Health care (educational attainment)	($527)	$4,175	($3,028)	$2,066	$2,687
Subtotals	$23,948	$19,874	$16,014	$2,639	$62,475
From secondary participant					
Crime	$0	$13	$37	$6	$57
Labor market earnings (hs grad)	$167	$71	$83	$0	$322
Child abuse and neglect	$8	$2	$0	$1	$11
Out-of-home placement	$0	$1	$0	$0	$1
K-12 grade repetition	$0	$3	$0	$2	$5
Health care (educational attainment)	($4)	$28	$25	$14	$64
Subtotals	$172	$119	$146	$24	$460
Adjustment for deadweight cost of program	$0	$0	$0	($13,306)	($13,306)
Totals	$24,120	$19,993	$16,159	($10,644)	$49,629

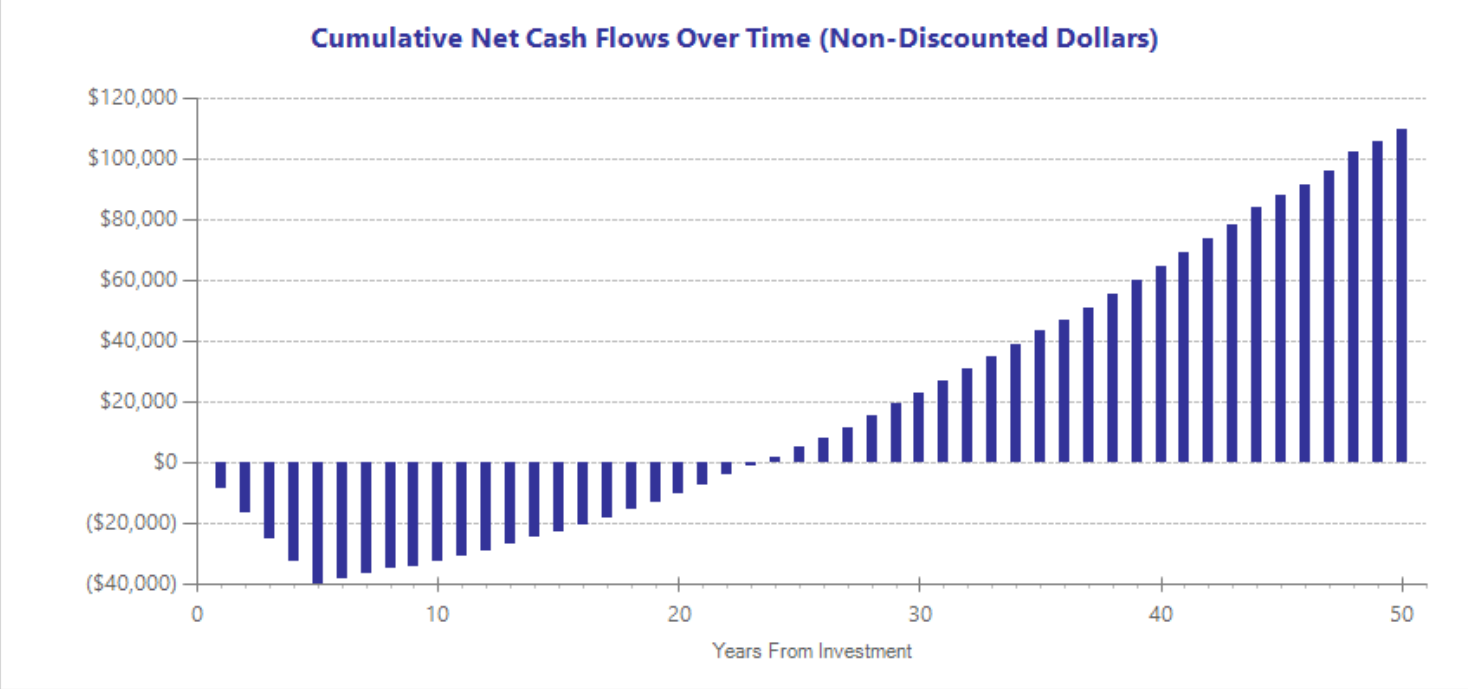
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$5,000	5	2006	Present value of net program costs (in 2014 dollars)	$26,821
Comparison costs	$0	1	2006	Uncertainty (+ or - %)	30 %

Average cost per youth is $25,000 for five years. We put a 30% uncertainty estimate around this figure because the average costs vary widely by site. Maxfield, M., Schirm, A., & Rodriguez-Planas, N. (2003). The Quantum Opportunity Program demonstration: Implementation and short-term impacts (Document No. PR03-18). Princeton, NJ: Mathematica Policy Research, p. 12.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	636	-0.231	0.548	-0.230	0.384	19	-0.230	0.384	29
High school graduation	Primary	3	724	0.340	0.056	0.340	0.178	19	0.340	0.178	19
Public assistance	Primary	3	724	-0.112	0.539	-0.112	0.182	21	-0.112	0.182	21
Teen births under age 18	Primary	2	668	-0.138	0.569	-0.138	0.242	19	-0.138	0.242	19
Teen births (second generation)	Secondary	2	668	-0.138	0.569	-0.138	0.242	19	-0.138	0.242	19
Suspensions/expulsions	Primary	1	580	-0.100	0.688	-0.100	0.249	16	-0.100	0.249	18
Alcohol abuse or dependence	Primary	1	580	0.093	0.638	0.093	0.197	22	0.093	0.197	32
Employment	Primary	2	636	0.188	0.397	0.188	0.222	22	0.188	0.222	34

Citations Used in the Meta-Analysis

Hahn, A., Leavitt, T., & Aaron, P. (1994). *Evaluation of the Quantum Opportunities Program (QOP): Did the program work? A report on the post secondary outcomes and cost effectiveness of the QOP program (1989-1993).* Waltham, MA: Brandeis University, Center for Human Resources.

Lattimore, C.B., Mihalic, S.F., Grotpeter, J.K., & Taggart, R. (1998). *Blueprints for violence prevention, book four: The Quantum Opportunities Program* (Document No. NCJ 174197). Boulder: University of Colorado, Boulder; Center for the Study and Prevention of Violence.

Maxfield, M., Schirm, A., & Rodriguez-Planas, N. (2003). *The Quantum Opportunity Program demonstration: Implementation and short-term impacts* (Document No. PR03-18). Princeton, NJ: Mathematica Policy Research.

Schirm, A., Stuart, E., & McKie, A. (2006). *The Quantum Opportunity Program Demonstration: Final impacts* (Document No. PR06- 70). Princeton, NJ: Mathematica Policy Research.

Seattle Social Development Project

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The Seattle Social Development Project (SSDP) targets youth in grades 1 to 6 to increase bonding to school and family as a protective measure against school failure, delinquency, drug abuse, teen pregnancy, and violence. The SSDP is a school-based program with annual teacher training in communication, effective classroom management, and cooperative learning. The program also includes child skill development in communication, negotiation, conflict resolution, and refusal skills. Parents are trained in behavior management, academic support, and skills to reduce risks for drug use.

Benefit-Cost Summary

Program benefits	
Participants	$7,574
Taxpayers	$4,970
Other (1)	$3,903
Other (2)	($730)
Total	$15,717
Costs	($3,130)
Benefits minus cost	$12,587

Summary statistics	
Benefit to cost ratio	$5.02
Benefits minus costs	$12,587
Probability of a positive net present value	65 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$306	$867	$152	$1,325
Labor market earnings (hs grad)	$7,624	$3,252	$3,783	$0	$14,660
K-12 grade repetition	$0	$116	$0	$57	$173
Public assistance	($21)	$45	$0	$23	$47
Health care (educational attainment)	($147)	$1,168	($844)	$578	$755
Subtotals	$7,456	$4,888	$3,806	$810	$16,961
From secondary participant					
Crime	$0	$9	$22	$4	$35
Labor market earnings (hs grad)	$116	$49	$57	$0	$223
Child abuse and neglect	$4	$1	$0	$1	$5
Out-of-home placement	$0	$1	$0	$0	$1
K-12 grade repetition	$0	$2	$0	$1	$3
Health care (educational attainment)	($2)	$20	$18	$10	$45
Subtotals	$117	$82	$97	$16	$312
Adjustment for deadweight cost of program	$1	$0	$0	($1,557)	($1,555)
Totals	$7,574	$4,970	$3,903	($730)	$15,717

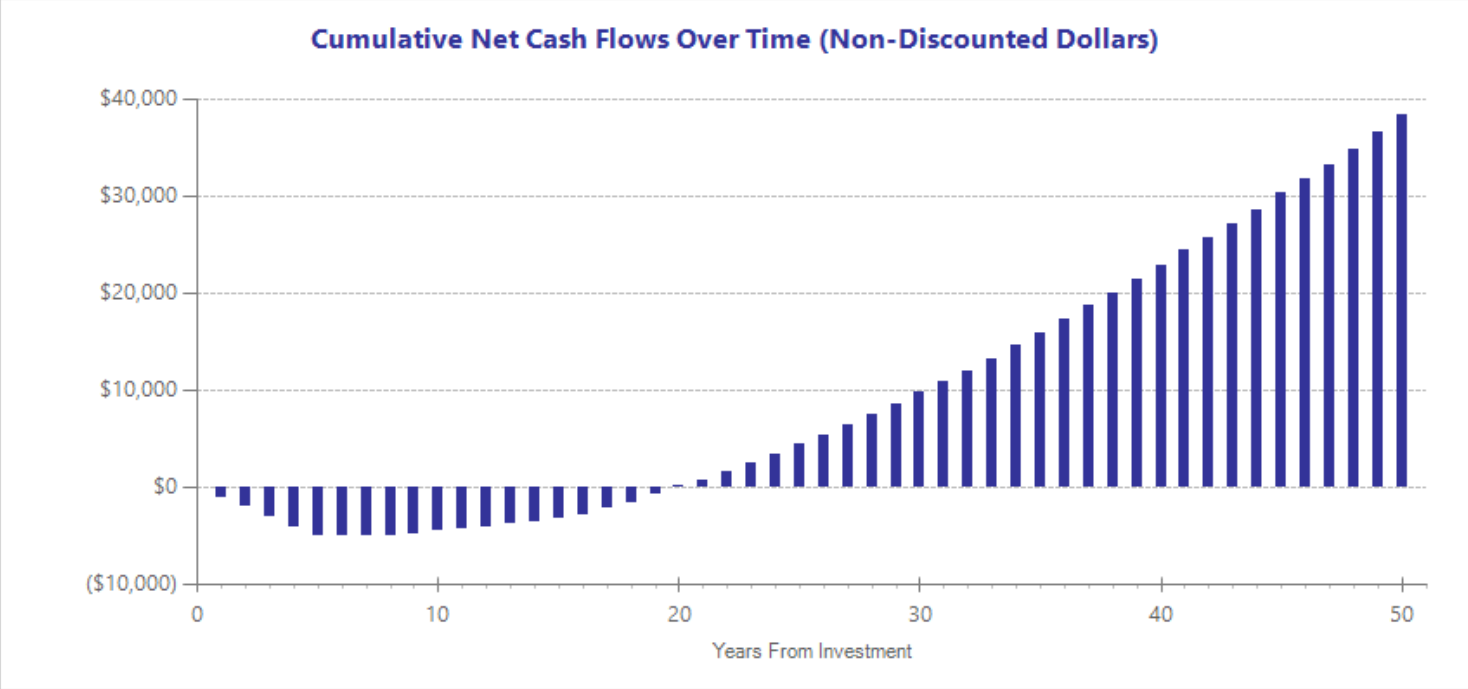
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$499	5	1999	Present value of net program costs (in 2014 dollars)	($3,130)
Comparison costs	$0	1	1999	Uncertainty (+ or - %)	10 %

Hawkins JD, Catalano RF et al. 1999, Prevention of Adolescent Health-Risk Behaviors, p. 234.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	149	-0.214	0.182	-0.081	0.160	19	-0.081	0.160	29
High school graduation	Primary	1	149	0.255	0.109	0.097	0.159	19	0.097	0.159	19
K-12 grade repetition	Primary	1	149	-0.355	0.042	-0.135	0.175	16	-0.135	0.175	17
Teen pregnancy (under age 18)	Primary	1	149	-0.335	0.040	-0.127	0.163	19	-0.127	0.163	29
Initiation of sexual activity	Primary	1	149	-0.385	0.015	-0.146	0.158	19	-0.146	0.158	29
Teen births under age 18	Primary	1	149	-0.300	0.148	-0.114	0.207	19	-0.114	0.207	29
Teen births (second generation)	Secondary	1	149	-0.300	0.148	-0.114	0.207	19	-0.114	0.207	29
Alcohol use in high school	Primary	1	149	-0.030	0.836	-0.011	0.146	19	-0.011	0.146	29

Citations Used in the Meta-Analysis

Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., & Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives of Pediatrics & Adolescent Medicine, 153*(3), 226-234.

Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2005). Promoting positive adult functioning through social development intervention in childhood: Long-term effects from the Seattle Social Development Project. *Archives of Pediatrics & Adolescent Medicine, 159*(1), 25-31.

Strengthening Families for Parents and Youth 10-14

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Strengthening Families for Parents and Youth 10-14 (also known as the Iowa Strengthening Families Program) is a family-based program that attempts to reduce behavior problems and substance use by enhancing parenting skills, parent-child relationships, and family communication. The seven-week intervention is designed for 6th-grade students and their families.

Benefit-Cost Summary

Program benefits	
Participants	$2,020
Taxpayers	$1,018
Other (1)	$1,447
Other (2)	($478)
Total	$4,008
Costs	($1,115)
Benefits minus cost	$2,893

Summary statistics	
Benefit to cost ratio	$3.59
Benefits minus costs	$2,893
Probability of a positive net present value	65 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$144	$426	$72	$643
Labor market earnings (hs grad)	$2,013	$859	$998	$0	$3,870
Property loss (alcohol abuse/dependence)	$2	$0	$3	$0	$5
Health care (disruptive behavior disorder)	$5	$16	$19	$8	$48
Adjustment for deadweight cost of program	$0	$0	$0	($557)	($558)
Totals	$2,020	$1,018	$1,447	($478)	$4,008

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

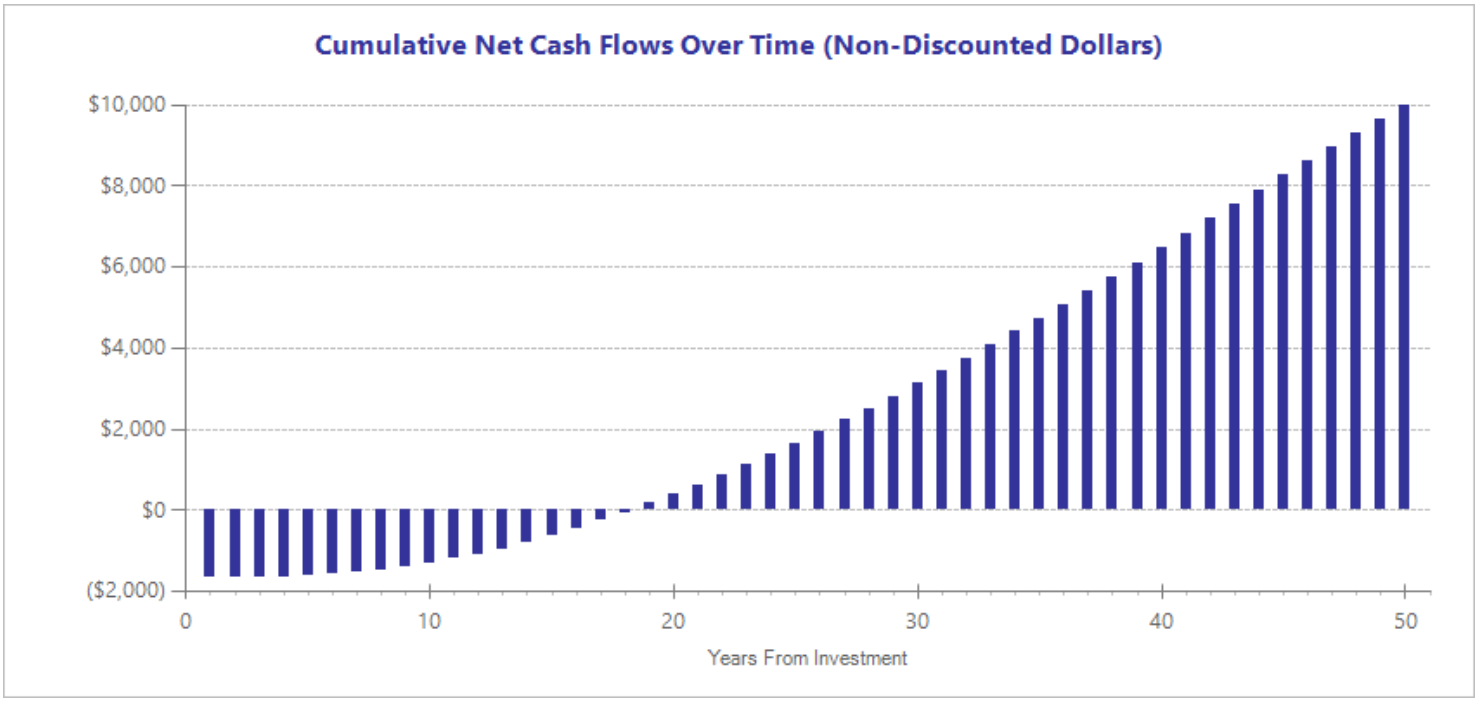
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$880	1	2002
Comparison costs	$0	1	2002

Summary statistics	
Present value of net program costs (in 2014 dollars)	($1,115)
Uncertainty (+ or - %)	10 %

$880 per family; See Miller, T.R., & Hendrie, D. (2005). How should governments spend the drug prevention dollar?: A buyer's guide. In T. Stockwell, P. Gruenewald, J. Toumbourou, & W. Loxley (Eds.), Preventing harmful substance use (pp. 415-431). England: John Wiley & Sons Ltd.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Alcohol use before end of middle school	Primary	1	153	-0.387	0.036	-0.128	0.184	13	-0.128	0.184	18
Disruptive behavior disorder symptoms	Primary	1	152	-0.246	0.172	-0.081	0.181	13	-0.039	0.095	16
Alcohol use in high school	Primary	1	152	-0.210	0.359	-0.069	0.228	15	-0.069	0.228	18
Smoking in high school	Primary	1	152	-0.523	0.222	-0.172	0.222	15	-0.172	0.222	18
Cannabis use in high school	Primary	1	152	-0.874	0.011	-0.288	0.345	15	-0.288	0.345	18
Illicit drug use in high school	Primary	1	151	-0.317	0.038	-0.105	0.153	15	-0.105	0.153	18

Citations Used in the Meta-Analysis

Gottfredson, D., Kumpfer, K., Polizzi-Fox, D., Wilson, D., Puryear, V., Beatty, P., & Vilmenay, M. (2006). The Strengthening Washington D.C. Families Project: A randomized effectiveness trial of family-based prevention. *Prevention Science, 7*(1), 57-74.

Spoth, R., Redmond, C., & Lepper, H. (1999). Alcohol initiation outcomes of universal family-focused preventive interventions: One- and two-year follow-ups of a controlled study. *Journal of Studies on Alcohol, 13,* 103-111.

Spoth, R., Reyes, M.L., Redmond, C., & Shin, C. (1999). Assessing a public health approach to delay onset and progression of adolescent substance use: Latent transition and loglinear analyses of longitudinal family preventive intervention outcomes. *Journal of Consulting and Clinical Psychology, 67*(5), 619-630.

Spoth, R.L., Redmond, C., & Shin, C. (2000). Reducing adolescents' aggressive and hostile behaviors: Randomized trial effects of a brief family intervention 4 years past baseline. *Archives of Pediatrics & Adolescent Medicine, 154*(12), 1248-1258.

Spoth, R.L., Redmond, C., & Shin, C. (2001). Randomized trial of brief family interventions for general populations: Adolescent substance use outcomes 4 years following baseline. *Journal of Consulting and Clinical Psychology, 69*(4), 627-642.

Spoth, R.L., Clair, S., Shin, C., & Redmond, C. (2006). Long-term effects of universal preventive interventions on methamphetamine use among adolescents. *Archives of Pediatrics & Adolescent Medicine, 160*(9), 876-882.

Trudeau, L., Spoth, R., Randall, G., & Azevedo, K. (2007). Longitudinal effects of a universal family-focused intervention on growth patterns of adolescent internalizing symptoms and polysubstance use: Gender comparisons. *Journal of Youth and Adolescence, 36*(6), 725-740.

Mentoring for students: community-based (taxpayer costs only)

Benefit-cost estimates updated July 2015. Literature review updated June 2014.

Program Description: In community-based mentoring programs, volunteer adults are paired with at-risk middle- and high-school students to meet weekly at locations of their choosing for relationship building and guidance. Community-based organizations provide the adult mentors with training and oversight. Mentors are expected to build relationships with mentees with the aim of improving a variety of outcomes including crime rates, academic achievement, and substance abuse. This analysis includes evaluation findings for (in no particular order) the Washington State Mentors program, Big Brothers Big Sisters, Across Ages, Sponsor-a-Scholar, Career Beginnings, the Buddy System, and other locally developed programs.

Benefit-Cost Summary

Program benefits	
Participants	$7,055
Taxpayers	$3,713
Other (1)	$1,598
Other (2)	($317)
Total	$12,048
Costs	($1,283)
Benefits minus cost	$10,764

Summary statistics	
Benefit to cost ratio	$9.39
Benefits minus costs	$10,764
Probability of a positive net present value	66 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	($387)	($1,213)	($194)	($1,794)
Labor market earnings (hs grad)	$7,184	$3,064	$3,559	$0	$13,807
Property loss (alcohol abuse/dependence)	$1	$0	$1	$0	$2
Health care (educational attainment)	($130)	$1,036	($750)	$518	$674
Adjustment for deadweight cost of program	$1	$0	$0	($642)	($641)
Totals	$7,055	$3,713	$1,598	($317)	$12,048

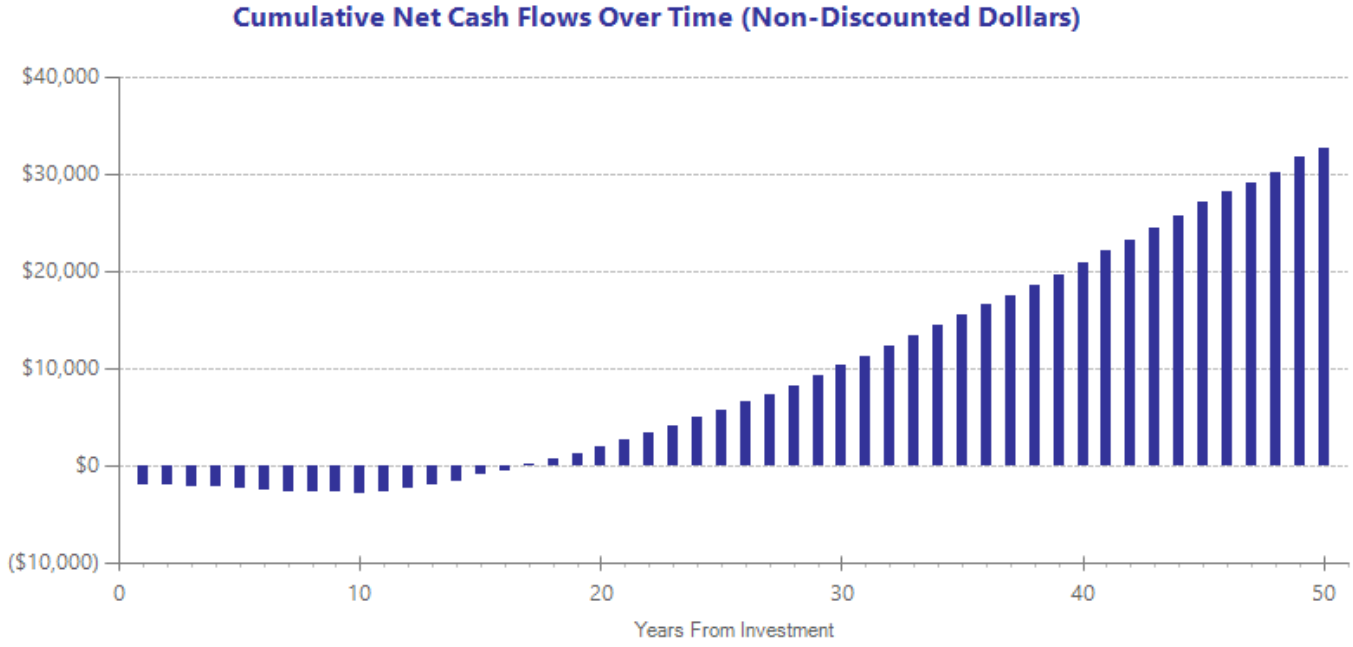
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,088	1	2005	Present value of net program costs (in 2014 dollars)	($1,283)
Comparison costs	$0	1	2005	Uncertainty (+ or - %)	10 %

Cost estimates are based on the Big Brothers/Big Sisters program as described in Herrera, C., Grossman, J.B., Kauh, T.J., Feldman, A.F., & McMaken, J. (2007). *Making a difference in schools: The Big Brothers Big Sisters school-based mentoring impact study.* Philadelphia, PA: Public/Private Ventures. Cost estimates exclude volunteer time and donated space.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	6	1877	0.093	0.025	0.082	0.041	14	0.082	0.041	24
High school graduation	Primary	2	758	0.293	0.040	0.101	0.143	18	0.101	0.143	18
Cannabis use before end of middle school	Primary	1	85	-0.179	0.412	-0.056	0.218	14	-0.081	0.225	15
Alcohol use before end of middle school	Primary	1	85	-0.295	0.178	-0.091	0.219	14	-0.037	0.224	15
Grade point average	Primary	5	1157	0.095	0.027	0.077	0.043	14	0.077	0.043	14
Smoking in high school	Primary	1	43	0.212	0.343	-0.212	0.223	17	-0.212	0.223	17
Illicit drug use in high school	Primary	1	43	-0.352	0.117	-0.352	0.224	14	-0.352	0.224	24
School attendance	Primary	4	920	0.022	0.879	-0.015	0.135	14	-0.015	0.135	14
Major depressive disorder	Primary	1	348	-0.140	0.066	-0.140	0.076	14	0.000	0.013	15
Illicit drug use before end of middle school	Primary	2	722	-0.390	0.004	-0.379	0.137	14	-0.379	0.137	24

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Aggression Replacement Training (youth in state institutions)

Benefit-cost estimates updated July 2015. Literature review updated December 2014.

Program Description: Aggression Replacement Training® (ART®) is a cognitive behavioral intervention program that specifically targets chronically aggressive children and adolescents. ART aims to help adolescents improve social skill competence and moral reasoning, better manage anger, and reduce aggressive behavior. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$2,710
Taxpayers	$6,137
Other (1)	$18,851
Other (2)	$1,705
Total	$29,403
Costs	($1,575)
Benefits minus cost	$27,827

Summary statistics	
Benefit to cost ratio	$18.66
Benefits minus costs	$27,827
Probability of a positive net present value	94 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$4,578	$17,764	$2,304	$24,646
Labor market earnings (hs grad)	$2,758	$1,176	$1,365	$0	$5,299
Health care (educational attainment)	($48)	$382	($277)	$193	$249
Adjustment for deadweight cost of program	$0	$0	$0	($791)	($791)
Totals	$2,710	$6,137	$18,851	$1,705	$29,403

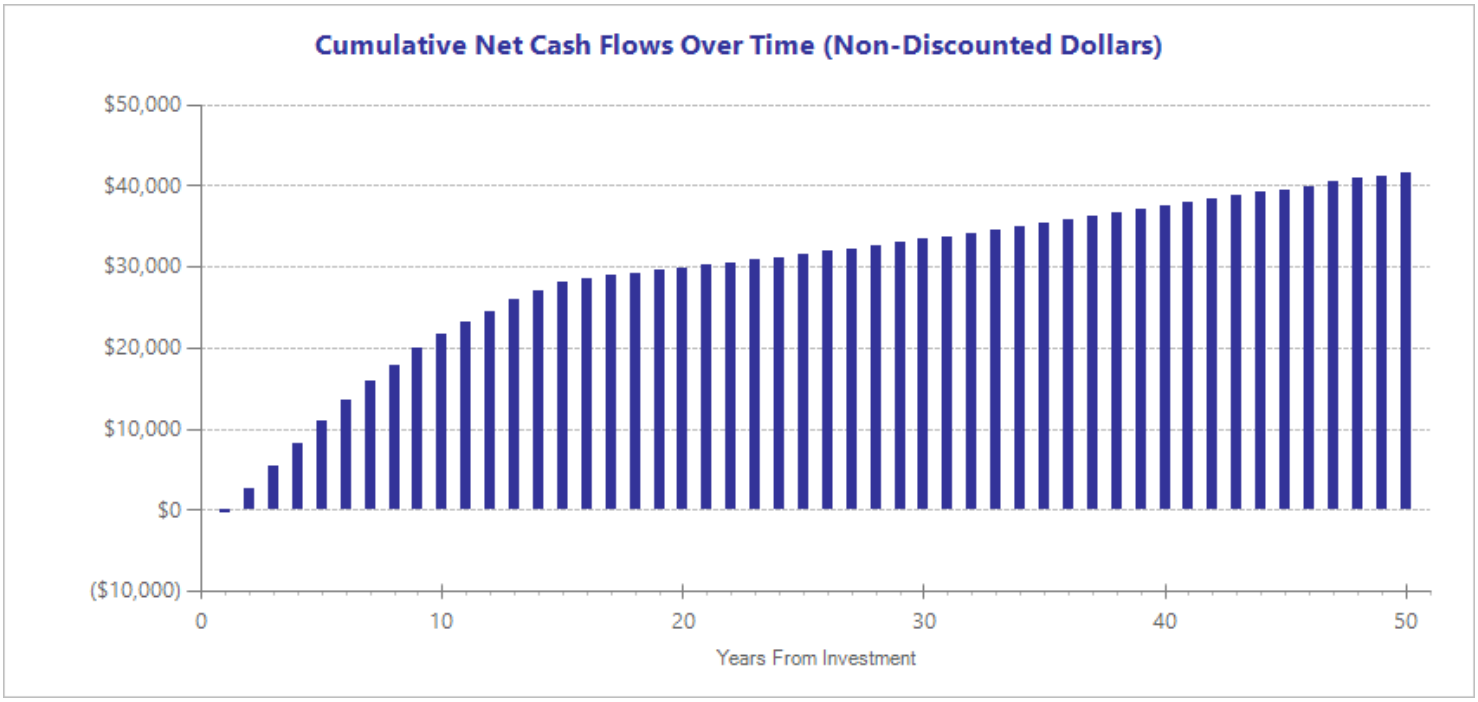
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,449	1	2008	Present value of net program costs (in 2014 dollars)	($1,575)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	4	579	-0.513	0.059	-0.122	0.072	15	-0.122	0.072	25

Citations Used in the Meta-Analysis

Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders* (Document No. 04-01-1201). Olympia: Washington State Institute for Public Policy.

Gibbs, J.C. (1995). EQUIP: A peer-group treatment program for delinquents. In R. R. Ross, D. H. Antonowicz, & G. K. Dhaliwal (Eds.), *Going straight: Effective delinquency prevention & offender rehabilitation* (pp. 179-192). Ottawa, Ontario, Canada: AIR Training Publications.

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Aggression Replacement Training (youth on probation)

Benefit-cost estimates updated July 2015. Literature review updated December 2014.

Program Description: Aggression Replacement Training® (ART®) is a cognitive behavioral intervention program that specifically targets chronically aggressive children and adolescents. ART aims to help adolescents improve social skill competence and moral reasoning, better manage anger, and reduce aggressive behavior. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$2,264
Taxpayers	$4,123
Other (1)	$8,967
Other (2)	$782
Total	$16,137
Costs	($1,575)
Benefits minus cost	$14,562

Summary statistics	
Benefit to cost ratio	$10.25
Benefits minus costs	$14,562
Probability of a positive net present value	93 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$2,819	$8,061	$1,410	$12,290
Labor market earnings (hs grad)	$2,305	$983	$1,138	$0	$4,425
Health care (educational attainment)	($41)	$321	($233)	$160	$207
Adjustment for deadweight cost of program	$0	$1	$2	($788)	($785)
Totals	$2,264	$4,123	$8,967	$782	$16,137

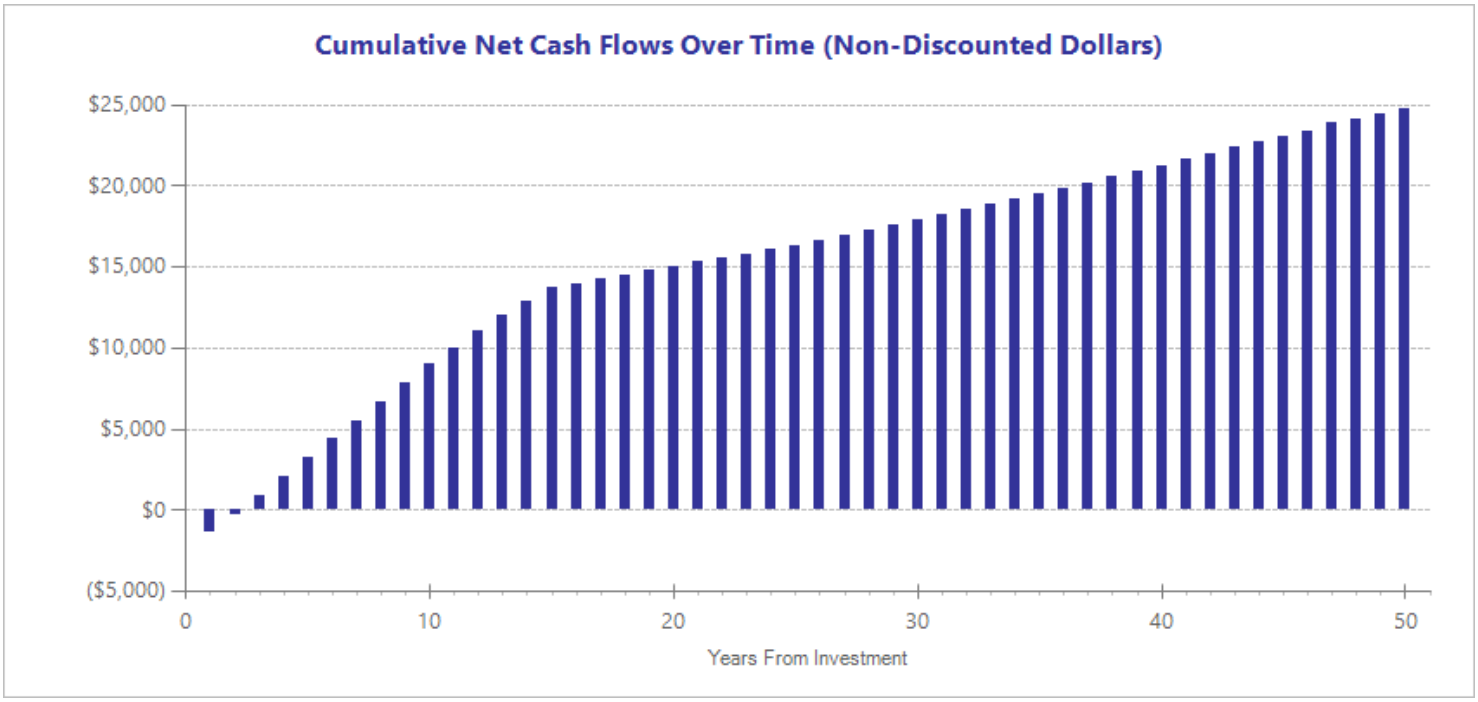
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,449	1	2008	Present value of net program costs (in 2014 dollars)	($1,575)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	4	579	-0.513	0.059	-0.122	0.072	15	-0.122	0.072	25

Citations Used in the Meta-Analysis

Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders* (Document No. 04-01-1201). Olympia: Washington State Institute for Public Policy.

Gibbs, J.C. (1995). EQUIP: A peer-group treatment program for delinquents. In R. R. Ross, D. H. Antonowicz, & G. K. Dhaliwal (Eds.), *Going straight: Effective delinquency prevention & offender rehabilitation* (pp. 179-192). Ottawa, Ontario, Canada: AIR Training Publications.

Goldstein, A.P., & Glick, B. (1995). Aggression Replacement Training for delinquents. In R. R. Ross, D. H. Antonowicz, & G. K. Dhaliwal (Eds.), *Going straight: Effective delinquency prevention & offender rehabilitation* (pp. 135-161). Ottawa, Ontario, Canada: AIR Training Publications.

Coordination of Services

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Coordination of Services (COS) provides an educational program to low-risk juvenile offenders and their parents. The goals of COS are to describe the consequences of continued delinquent behavior, stimulate goal setting, review the strengths of the youth and family, and explain what resources are available for helping to achieve a positive pro-social future for the youth.

Benefit-Cost Summary

Program benefits	
Participants	$1,454
Taxpayers	$1,699
Other (1)	$2,940
Other (2)	$324
Total	$6,416
Costs	($413)
Benefits minus cost	$6,003

Summary statistics	
Benefit to cost ratio	$15.53
Benefits minus costs	$6,003
Probability of a positive net present value	70 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$857	$2,360	$427	$3,644
Labor market earnings (hs grad)	$1,480	$631	$730	$0	$2,842
Health care (educational attainment)	($27)	$210	($153)	$104	$135
Adjustment for deadweight cost of program	$0	$1	$2	($207)	($204)
Totals	$1,454	$1,699	$2,940	$324	$6,416

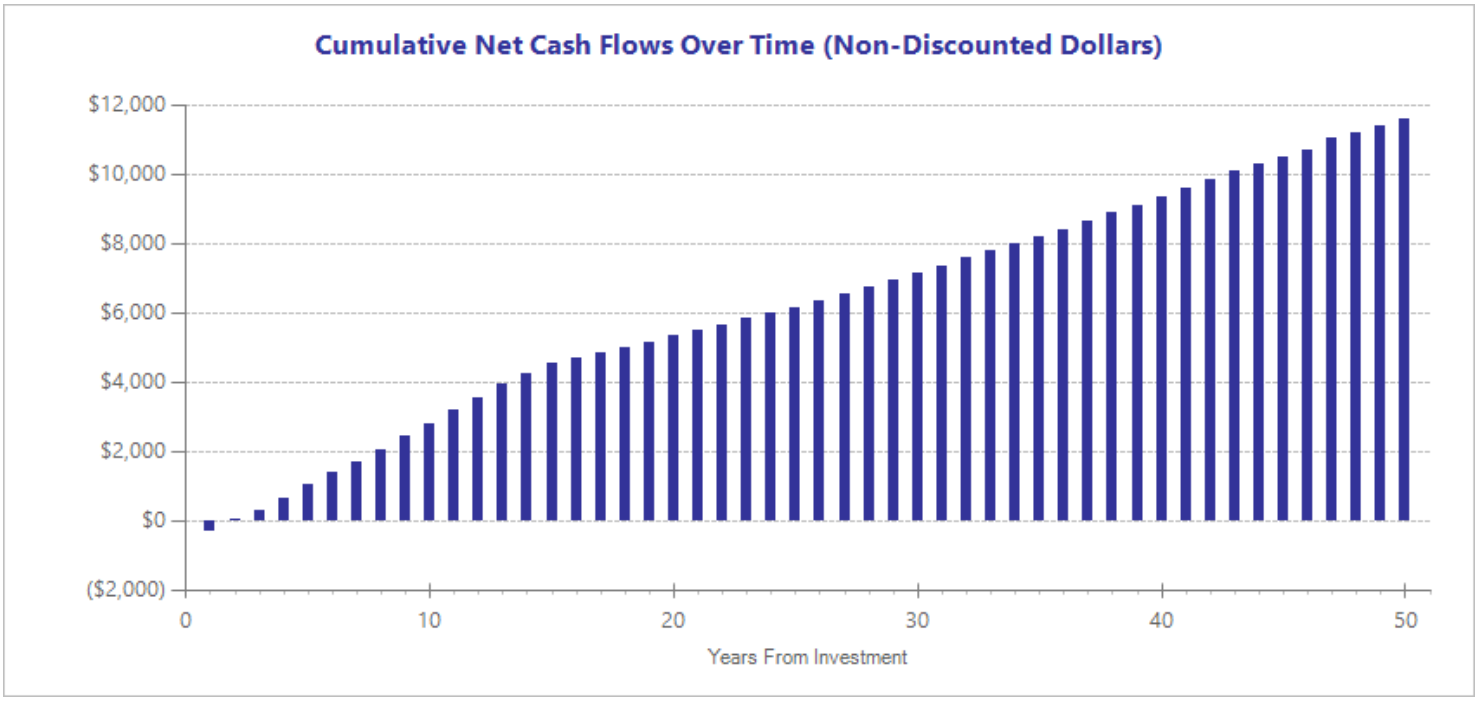
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$379	1	2008	Present value of net program costs (in 2014 dollars)	($413)
Comparison costs	$0	0	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	171	-0.096	0.573	-0.096	0.171	17	-0.096	0.171	27

Citations Used in the Meta-Analysis

Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders* (Document No. 04-01-1201). Olympia: Washington State Institute for Public Policy.

Dialectical Behavior Therapy

Literature review updated June 2013.

Program Description: Dialectical Behavior Therapy is a cognitive behavioral treatment for individuals with complex and difficult to treat mental disorders. DBT was originally developed by Marsha Linehan at the University of Washington to treat chronically suicidal individuals, but has been adapted for clients who have difficulty regulating their emotions. DBT focuses on the following four objectives: (1) enhancing youth behavioral skills in dealing with difficult situations, (2) motivating youth to change dysfunctional behaviors, (3) ensuring the new skills are used in daily institutional life, and (4) training and consultation to improve the counselor's skills. For this particular study, DBT was delivered to youth who were convicted of crimes and serving sentences at a state juvenile institution.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	62	-0.347	0.122	-0.347	0.225	15	-0.347	0.225	25

Citations Used in the Meta-Analysis

See WSIPP report: *Recidivism Findings for the Juvenile Rehabilitation Administration's Dialectical Behavior Therapy Program: Final Report*

Drug court

Benefit-cost estimates updated July 2015. Literature review updated July 2014.

Program Description: In therapeutic drug courts, youth with substance-abuse issues typically enter into a contract with the court and agree to comply with treatment and supervision requirements. While each drug court is unique, these therapeutic courts share similar characteristics. Drug courts typically involve a team of stakeholders (e.g., youth, guardian, judge, treatment provider, case manager, and probation officer). Components of the drug court model include treatment; judicial monitoring; random drug testing; incentives, rewards, and sanctions; and progressive stages (less monitoring with compliance). Drug courts can be pre- or post-adjudication models and the length of the program may vary.

Benefit-Cost Summary

Program benefits	
Participants	$1,055
Taxpayers	$2,145
Other (1)	$5,066
Other (2)	($754)
Total	$7,512
Costs	($3,209)
Benefits minus cost	$4,303

Summary statistics	
Benefit to cost ratio	$2.34
Benefits minus costs	$4,303
Probability of a positive net present value	62 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$1,534	$4,647	$762	$6,944
Labor market earnings (hs grad)	$1,075	$458	$529	$0	$2,062
Health care (educational attainment)	($19)	$152	($110)	$75	$98
Adjustment for deadweight cost of program	$0	$0	$0	($1,592)	($1,591)
Totals	$1,055	$2,145	$5,066	($754)	$7,512

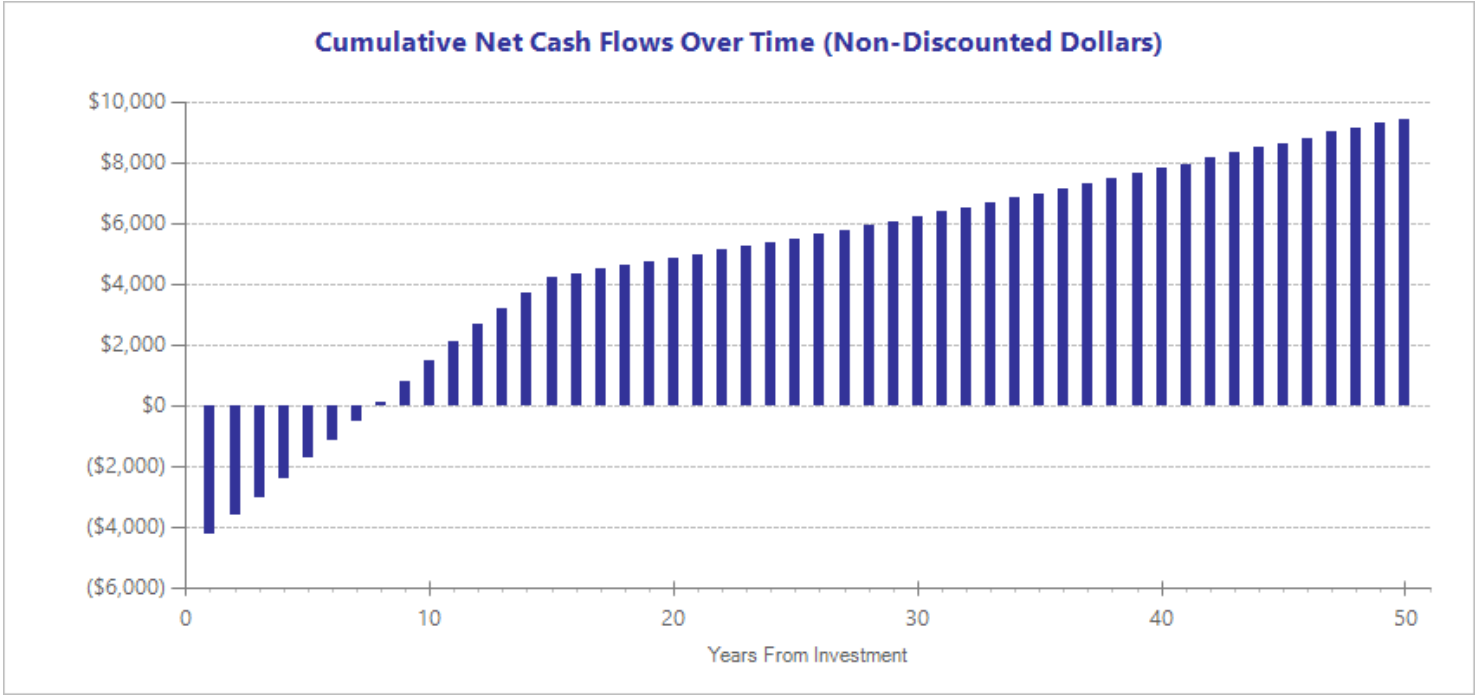
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,645	1	2004	Present value of net program costs (in 2014 dollars)	($3,209)
Comparison costs	$0	1	2004	Uncertainty (+ or - %)	10 %

Anspach, D. F., Ferguson, A. S., & Phillips, L. L. (2003). Evaluation of Maine's statewide juvenile drug treatment court program. Augusta, ME: University of Southern Maine.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	12	2896	-0.061	0.634	-0.062	0.096	16	-0.062	0.096	26

Citations Used in the Meta-Analysis

Anspach, D.F., & Ferguson, A.S., (2005). *Part II: Outcome Evaluation of Maine's Statewide Juvenile Drug Treatment Court Progra*m. Main State Office of Substance Abuse, Augusta, Maine.

Byrnes, E.C., & Hickert, A.O. (2004). *Process and outcome evaluation of the third district juvenile drug court in Dona Ana County, New Mexic*o. Annapolis, MD: Glacier Consulting.

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O'Connell, J.P., Nestlerode, E., & Miller, M.L. (1999). *Evaluation of the Delaware juvenile drug court diversion progra*m. Dover: State of Delaware Executive Department, Statistical Analysis Center.

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Sullivan, C.J., Blair, L., Latessa, E., & Sullivan, C.C. (2014). Juvenile drug courts and recidivism: Results from a multisite outcome study. *Justice Quarterly*, online publication doi: 10.1080/07418825.2014.908937.

Family Integrated Transitions

Benefit-cost estimates updated July 2015. Literature review updated December 2014.

Program Description: Family Integrated Transitions (FIT) is designed for juvenile offenders with the co-occurring disorders of mental illness and chemical dependency who are entering the community after being detained. Youth receive intensive family and community-based treatment targeted at the multiple determinants of serious antisocial behavior. The program strives to promote behavioral change in the youth's home environment, emphasizing the systemic strengths of family, peers, school, and neighborhoods to facilitate the change. FIT incorporates many of the therapeutic principles of Multisystemic Therapy.

Benefit-Cost Summary

Program benefits	
Participants	$2,710
Taxpayers	$6,532
Other (1)	$20,183
Other (2)	($3,184)
Total	$26,241
Costs	($11,734)
Benefits minus cost	$14,508

Summary statistics	
Benefit to cost ratio	$2.24
Benefits minus costs	$14,508
Probability of a positive net present value	74 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$4,969	$19,098	$2,502	$26,569
Labor market earnings (hs grad)	$2,759	$1,177	$1,365	$0	$5,300
Health care (educational attainment)	($49)	$386	($281)	$194	$250
Adjustment for deadweight cost of program	$0	$0	$1	($5,880)	($5,878)
Totals	$2,710	$6,532	$20,183	($3,184)	$26,241

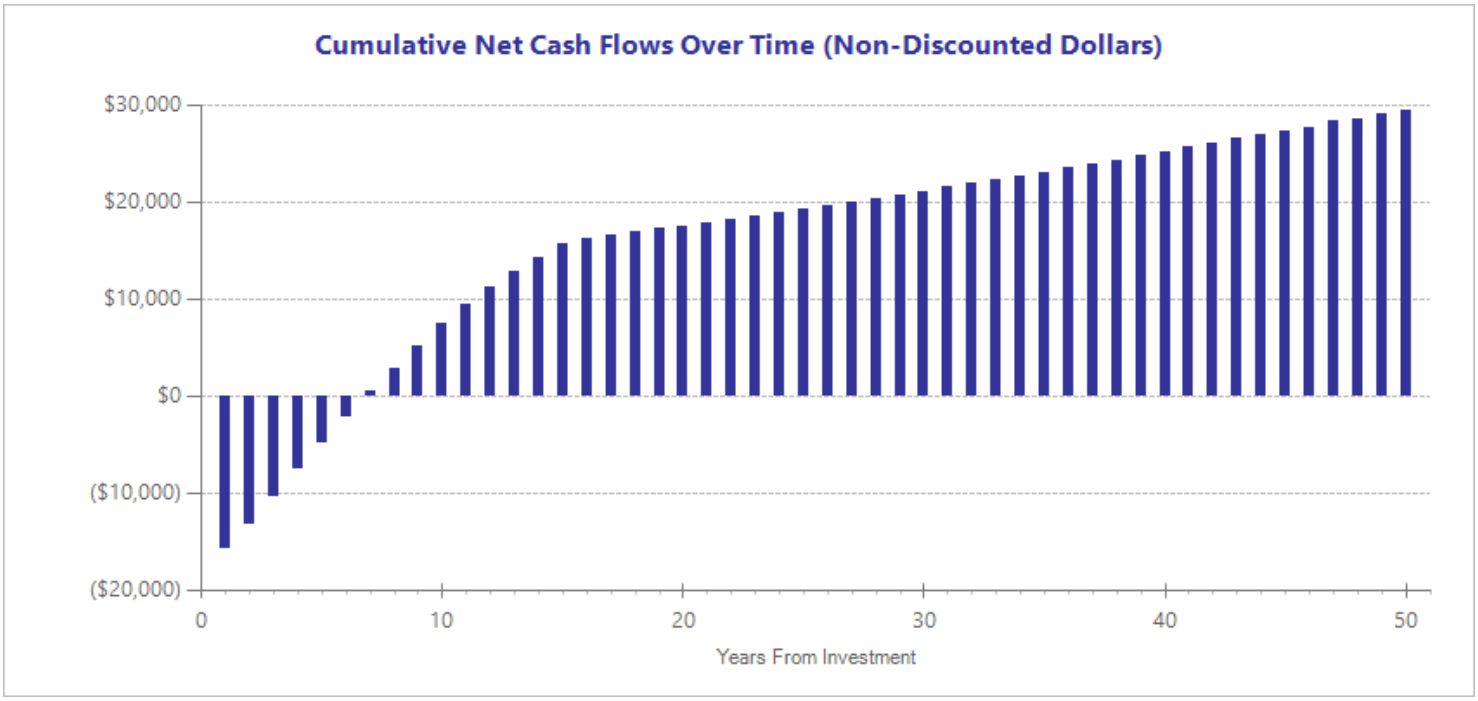
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$10,795	1	2008	Present value of net program costs (in 2014 dollars)	($11,734)
Comparison costs	$0	0	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	105	-0.207	0.174	-0.207	0.152	17	-0.207	0.152	27

Citations Used in the Meta-Analysis

Trupin, E.J., Kerns, S.E.U., & Walker, S.C. (in press). Family Integrated Transitions: A promising program for juvenile offenders with co-occurring disorders. *Journal of Substance Abuse Treatment*.

Functional Family Parole (with quality assurance)

Benefit-cost estimates updated July 2015. Literature review updated January 2013.

Program Description: Functional Family Parole (FFP) is a case management model for youth who are supervised in the community. FFP is based on Functional Family Therapy (FFT), a structured family-based intervention that uses a multi-step approach to enhance protective factors and reduce risk factors in the family. FFT is a Blueprint program identified by the University of Colorado's Center for the Study and Prevention of Violence. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$1,468
Taxpayers	$3,539
Other (1)	$10,513
Other (2)	($814)
Total	$14,706
Costs	($4,538)
Benefits minus cost	$10,168

Summary statistics	
Benefit to cost ratio	$3.24
Benefits minus costs	$10,168
Probability of a positive net present value	75 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$2,696	$9,922	$1,352	$13,970
Labor market earnings (hs grad)	$1,494	$637	$739	$0	$2,870
Health care (educational attainment)	($26)	$205	($149)	$103	$132
Adjustment for deadweight cost of program	$0	$1	$1	($2,268)	($2,266)
Totals	$1,468	$3,539	$10,513	($814)	$14,706

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

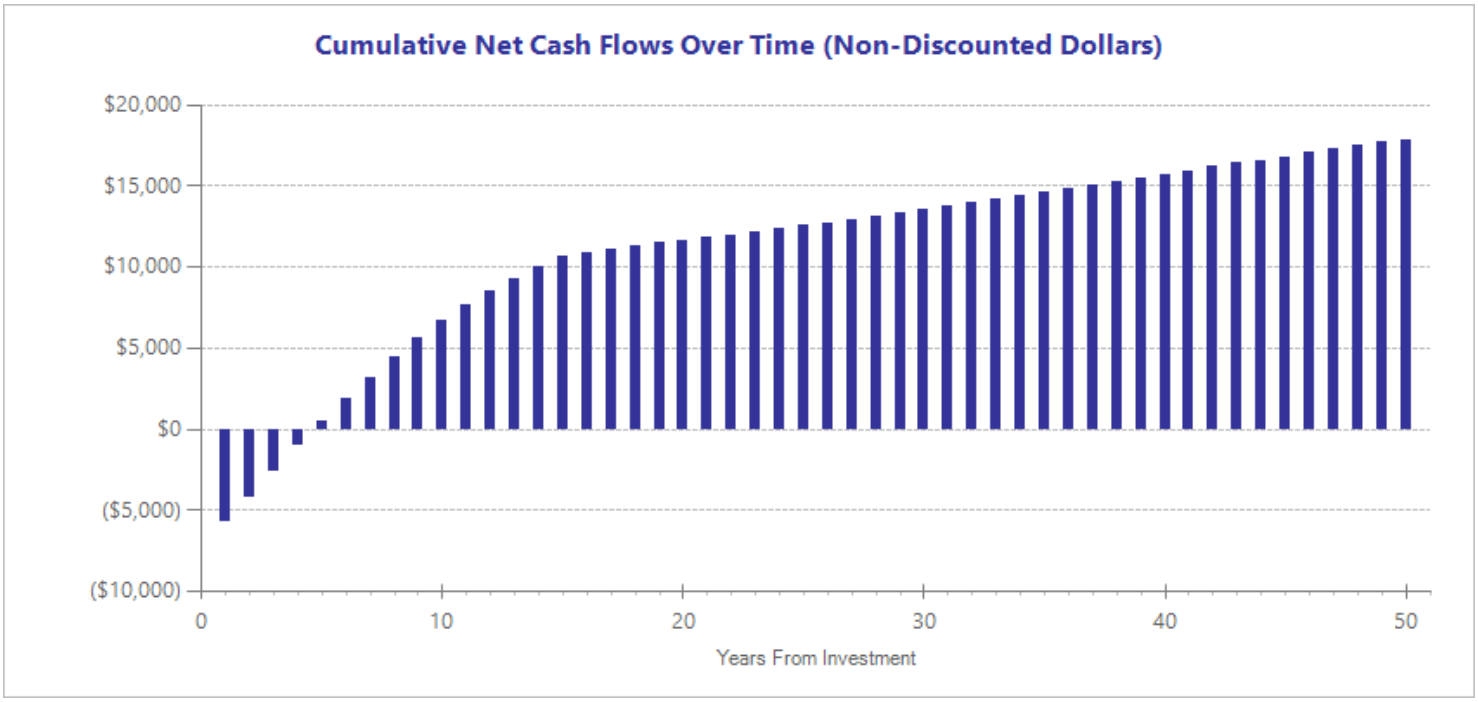
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$4,426	1	2012
Comparison costs	$0	1	2012

Summary statistics	
Present value of net program costs (in 2014 dollars)	($4,538)
Uncertainty (+ or - %)	10 %

WSIPP estimate based on implementation costs of FFT and additional supervision costs.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	4	465	-0.108	0.194	-0.087	0.077	17	-0.087	0.077	27

Citations Used in the Meta-Analysis

B. A. Lucenko, L. He, D. Mancuso, and B. Felver (2011). *Effects of Functional Family Parole on Re-Arrest and Employment for Youth in Washington State.* Research Data Analysis Division: Olympia, Washington.

Sexton, T., Rowland, M., & McEnery, A., (2009). *Interim Outcome Evaluation of the Washington State Functional Family Parole Project.* Center for Adolescent and Family Studies. Bloomington, Indiana.

Functional Family Therapy (youth in state institutions)

Benefit-cost estimates updated July 2015. Literature review updated December 2014.

Program Description: Functional Family Therapy (FFT) is a structured family-based intervention that uses a multi-step approach to enhance protective factors and reduce risk factors in the family. Functional Family Therapy is a Blueprint program identified by the University of Colorado's Center for the Study and Prevention of Violence. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$3,368
Taxpayers	$8,108
Other (1)	$25,009
Other (2)	$1,620
Total	$38,104
Costs	($3,405)
Benefits minus cost	$34,699

Summary statistics	
Benefit to cost ratio	$11.19
Benefits minus costs	$34,699
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$6,160	$23,666	$3,078	$32,904
Labor market earnings (hs grad)	$3,429	$1,462	$1,693	$0	$6,584
Health care (educational attainment)	($61)	$484	($351)	$242	$314
Adjustment for deadweight cost of program	$0	$1	$2	($1,701)	($1,698)
Totals	$3,368	$8,108	$25,009	$1,620	$38,104

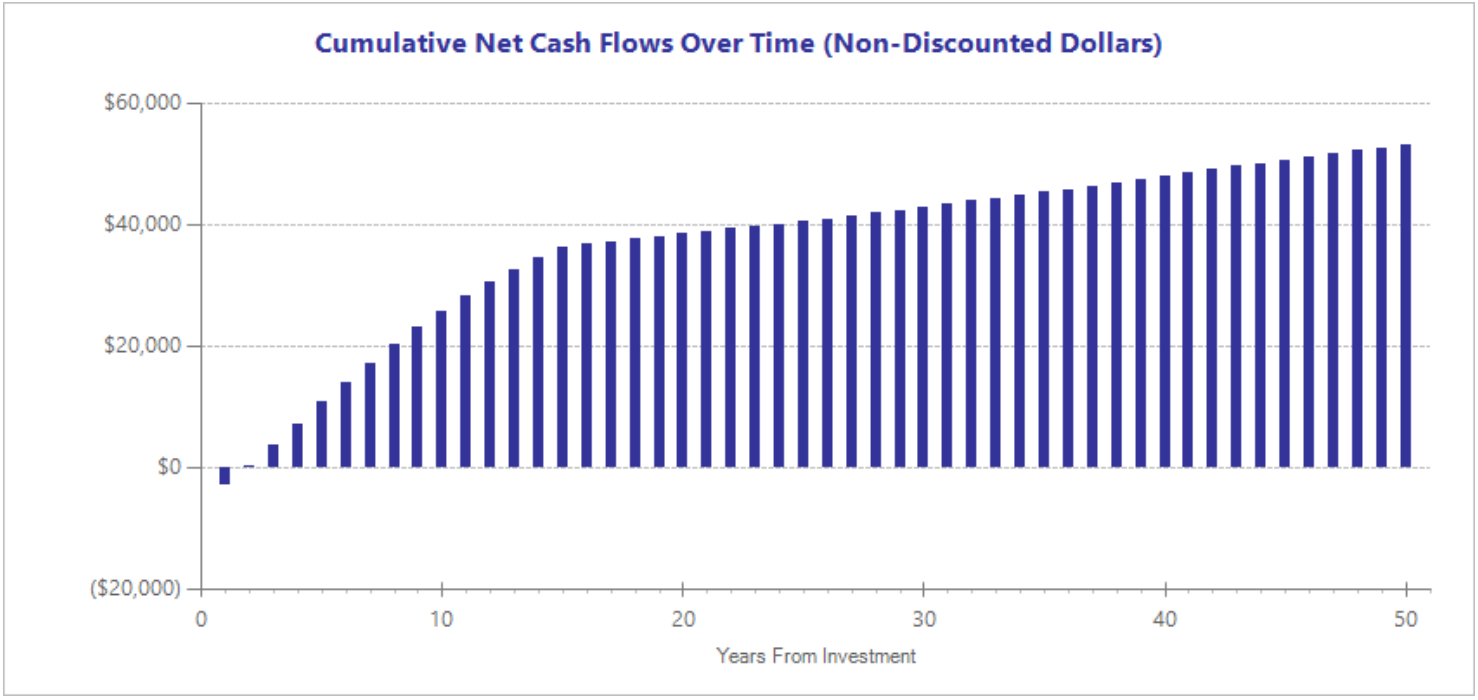
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$3,134	1	2008	Present value of net program costs (in 2014 dollars)	($3,405)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	8	681	-0.585	0.001	-0.253	0.096	17	-0.253	0.096	27

Citations Used in the Meta-Analysis

Alexander, J.F., & Parsons, B.V. (1973). Short-term behavioral intervention with delinquent families: Impact on family process and recidivism. *Journal of Abnormal Psychology, 81*(3), 219-225.

Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders* (Document No. 04-01-1201). Olympia: Washington State Institute for Public Policy.

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Klein, N.C., Alexander, J.F., & Parsons, B.V. (1977). Impact of family systems intervention on recidivism and sibling delinquency: A model of primary prevention and program evaluation. *Journal of Consulting and Clinical Psychology, 45*(3), 469-474.

Sexton, T., & Turner, C.W. (2010). The effectiveness of Functional Family Therapy for youth with behavioral problems in a community practice setting. *Journal of Family Psychology, 24*(3), 339-348.

Functional Family Therapy (youth on probation)

Benefit-cost estimates updated July 2015. Literature review updated December 2014.

Program Description: Functional Family Therapy (FFT) is a structured family-based intervention that uses a multi-step approach to enhance protective factors and reduce risk factors in the family. Functional Family Therapy is a Blueprint program identified by the University of Colorado's Center for the Study and Prevention of Violence. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$4,218
Taxpayers	$7,808
Other (1)	$17,060
Other (2)	$1,293
Total	$30,378
Costs	($3,405)
Benefits minus cost	$26,973

Summary statistics	
Benefit to cost ratio	$8.92
Benefits minus costs	$26,973
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$5,378	$15,370	$2,700	$23,448
Labor market earnings (hs grad)	$4,293	$1,831	$2,124	$0	$8,249
Health care (educational attainment)	($76)	$598	($435)	$300	$388
Adjustment for deadweight cost of program	$0	$0	$0	($1,707)	($1,707)
Totals	$4,218	$7,808	$17,060	$1,293	$30,378

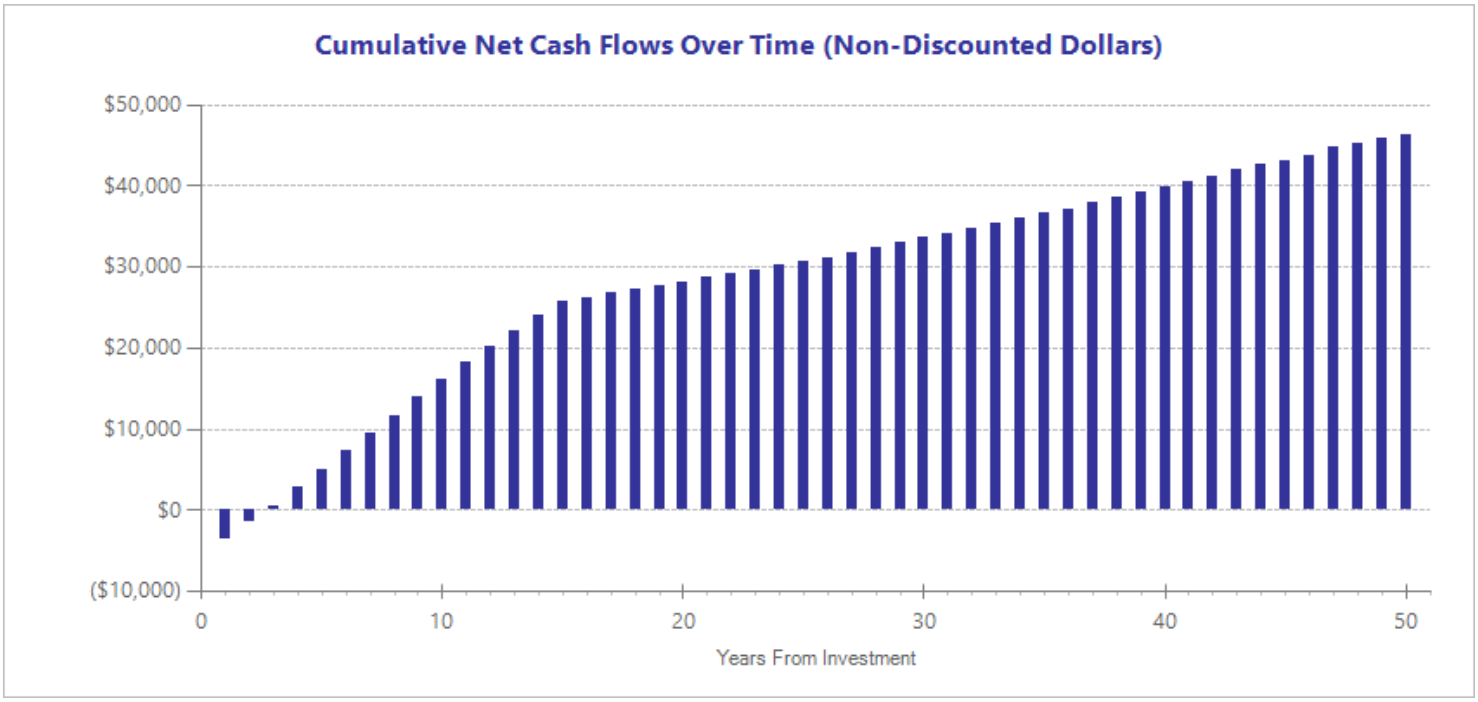
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$3,134	1	2008	Present value of net program costs (in 2014 dollars)	($3,405)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	8	681	-0.585	0.001	-0.253	0.096	16	-0.253	0.096	26

Citations Used in the Meta-Analysis

Alexander, J.F., & Parsons, B.V. (1973). Short-term behavioral intervention with delinquent families: Impact on family process and recidivism. *Journal of Abnormal Psychology, 81*(3), 219-225.

Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders* (Document No. 04-01-1201). Olympia: Washington State Institute for Public Policy.

Barton, C., Alexander, J.F., Waldron, H., Turner, C W., & Warburton, J. (1985). Generalizing treatment effects of functional family therapy: Three replications. *American Journal of Family Therapy, 13*(3), 16-26.

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Gordon, D.A. (1995). Functional Family Therapy for delinquents. In R. R. Ross, D. H. Antonowicz, & G. K. Dhaliwal (Eds.), *Going straight: Effective delinquency prevention & offender rehabilitation* (pp. 163-178). Ottawa, Ontario, Canada: AIR Training Publications.

Hannson, K. (1998). *Functional Family Therapy Replication in Sweden: Treatment Outcome with Juvenile Delinquents.* Paper presented to the Eighth International Conference on treating addictive behaviors. Santa Fe, NM, February 1998, as reported in: Alexander, J., Barton, C., Gordon, D., Grotpeter, J., Hansson, K., Harrison, R., Mears, S., Mihalic, S., Parsons, B., Pugh, C., Schulman, S., Waldron, H., and Sexton, T. (1998). Blueprints for Violence Prevention, Book Three: Functional Family Therapy. Boulder, CO: Center for the Study and Prevention of Violence.

Klein, N.C., Alexander, J.F., & Parsons, B.V. (1977). Impact of family systems intervention on recidivism and sibling delinquency: A model of primary prevention and program evaluation. *Journal of Consulting and Clinical Psychology, 45*(3), 469-474.

Sexton, T., & Turner, C.W. (2010). The effectiveness of Functional Family Therapy for youth with behavioral problems in a community practice setting. *Journal of Family Psychology, 24*(3), 339-348.

Mentoring

Literature review updated June 2014.

Program Description: Youth in the juvenile justice system are assigned to a mentor, typically a non-professional volunteer, who meets with the youth approximately once a week. The goal of mentoring is for youth to build social capital by engaging in pro-social relationships. Mentors help youth access community resources necessary for reentry (e.g., Alcoholics Anonymous), attend social functions together (e.g., movies or sporting events), and help youth engage in positive decision-making and problem-solving. Mentors typically maintain a minimum one-year commitment to the youth/program. Studies examining the effectiveness of mentoring for youth who were not in the juvenile justice system were excluded.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	7	539	-0.327	0.044	-0.217	0.149	18	-0.217	0.149	28

Citations Used in the Meta-Analysis

Blakely, C.H., Menon, R., & Jones, D.J. (1995). *Project BELONG: Final report*. College Station, TX: Texas A&M University, Public Policy Research Institute.

Bouffard, J., & Bergseth, K. (2008). The impact of reentry services on juvenile offenders' recidivism. *Youth Violence and Juvenile Justice, 6*(3), 295-318.

Drake, E., & Barnoski, R. (2006). *Recidivism findings for the Juvenile Rehabilitation Administration's mentoring program: Final report.* Olympia, WA. Washington State Institute for Public Policy.

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Moore, R.H. (1987). Effectiveness of citizen volunteers functioning as counselors for high-risk young male offenders. *Psychological Reports,* 61, 823-830.

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Slate, J.R., & Jones, C.H. (2003). Helping behaviorally at-risk middle school students with the No Bad Actions Program: Winning with the N.B.A. *Journal of Education for Students Placed at Risk, 8*(3), 351-62.

Multidimensional Family Therapy (MDFT) for substance abusers

Benefit-cost estimates updated July 2015. Literature review updated May 2015.

Program Description: Multidimensional Family Therapy (MDFT) is an integrative, family-based, multiple systems treatment for youth with drug abuse and related behavior problems. The therapy consists of four domains: 1) Engage adolescent in treatment, 2) Increase parental involvement with youth and improve limit-setting, 3) Decrease family-interaction conflict, and 4) Collaborate with extra-familial social systems. Youth are generally aged 11 to 16 and have been clinically referred to outpatient treatment. For this meta-analysis, only two studies measured the effects of MDFT on delinquency and ten measured the effects on subsequent substance use. All twelve studies included youth who were referred from the juvenile justice system as well as other avenues. In a meta-regression analysis of the studies reporting substance abuse outcomes, we found that neither referral from the juvenile justice system nor percentage of female participants caused any statistically significant reduction in marijuana use (p ? 0.1).

Benefit-Cost Summary

Program benefits	
Participants	$5
Taxpayers	$969
Other (1)	$2,974
Other (2)	($3,492)
Total	$456
Costs	$7,923
Benefits minus cost	($7,467)

Summary statistics	
Benefit to cost ratio	$0.06
Benefits minus costs	($7,467)
Probability of a positive net present value	12 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$930	$2,923	$467	$4,321
Labor market earnings (cannabis abuse/dependence)	($6)	($3)	$0	$0	($9)
Health care (cannabis abuse/dependence)	$12	$42	$51	$21	$125
Adjustment for deadweight cost of program	$0	$0	$0	($3,980)	($3,980)
Totals	$5	$969	$2,974	($3,492)	$456

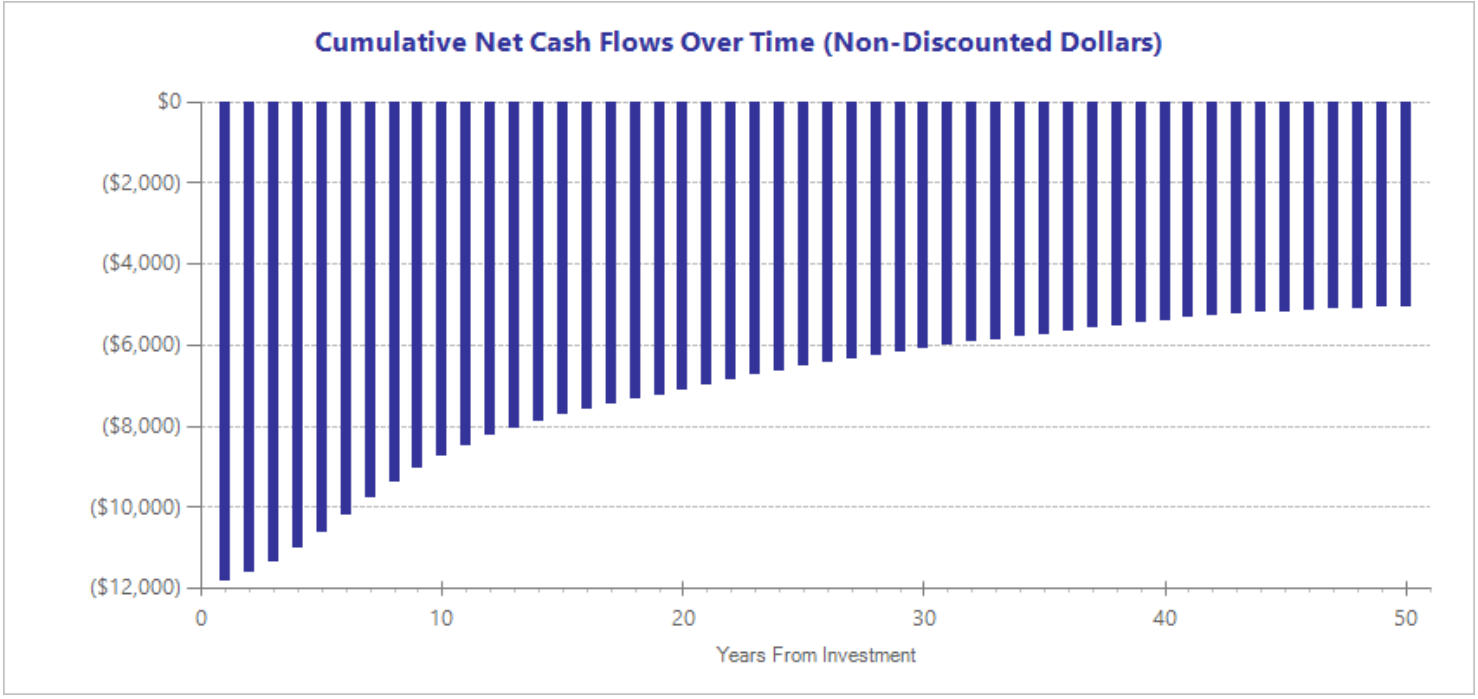
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$6,168	1	2001	Present value of net program costs (in 2014 dollars)	$7,923
Comparison costs	$0	1	2001	Uncertainty (+ or - %)	10 %

Zavala, S. K., French, M. T., Henderson, C. E., Alberga, L., Rowe, C., & Liddle, H. A. (2005). Guidelines and challenges for estimating the economic costs and benefits of adolescent substance abuse treatments. Journal of Substance Abuse Treatment, 29, 3, 191-205.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	3	151	-0.215	0.169	-0.215	0.157	17	-0.215	0.157	27
Substance abuse	Primary	4	223	-0.472	0.001	-0.472	0.127	17	0.000	0.187	20
Cannabis abuse or dependence	Primary	6	253	-0.308	0.016	-0.308	0.128	17	0.000	0.187	20
Grade point average	Primary	1	40	0.168	0.577	0.168	0.301	17	0.168	0.301	17
Externalizing behavior symptoms	Primary	4	346	-0.145	0.085	-0.145	0.084	17	-0.069	0.052	20

Citations Used in the Meta-Analysis

Dakof, G.A., Henderson, C.E., Rowe, C.L., Boustani, M., Greenbaum, P.E., Wang, W., Hawes, S., ... Liddle, H.A. (2015). A randomized clinical trial of family therapy in juvenile drug court. *Journal of Family Psychology, 29*(2), 232-241.

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Hendriks, V., van, . S.E., & Blanken, P. (2011). Treatment of adolescents with a cannabis use disorder: Main findings of a randomized controlled trial comparing multidimensional family therapy and cognitive behavioral therapy in The Netherlands. *Drug and Alcohol Dependence,* 119, 64-71.

Liddle, H.A., Dakof, G.A., Parker, K., Diamond, G.S., Barrett, K., & Tejeda, M. (2001) Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. *American Journal of Drug Abuse, 27*(4), 651-688.

Liddle, H.A., Rowe, C.L., Dakof, G.A., Ungaro, R.A. & Henderson, C.E. (2004). Early intervention for adolescent substance abuse: Pretreatment to posttreatment outcomes of a randomized clinical trial comparing multidimensional family therapy and peer group treatment. *Journal of Pscyhoactive Drugs, 36*(1), 49-63.

Liddle, H.A., Rowe, C.L., Gonzalez, A., Henderson, C.E., Dakof, G.A., & Greenbaum, P.E. (2006). Changing provider practices, program environment, and improving outcomes by transporting multidimensional family therapy to an adolescent drug treatment setting. *The American Journal on Addictions/American Academy of Psychiatrists in Alcoholism and Addictions*, 15, 102-12.

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Rigter, H., Henderson, C.E., Pelc, I., Tossmann, P., Phan, O., Hendriks, V., Schaub, M., ... Rowe, C.L. (2013). Multidimensional family therapy lowers the rate of cannabis dependence in adolescents: a randomised controlled trial in Western European outpatient settings. *Drug and Alcohol Dependence,* 130, 1-3.

Schaub, M., Henderson, C.E., Pelc, I., Tossmann, P., Phan, O., Hendriks, V., Rowe, C.L., ... Rigter, H. (2014). Multidimensional family therapy decreases the rate of externalising behavioural disorder symptoms in cannabis abusing adolescents: Outcomes of the INCANT trial.

Multidimensional Treatment Foster Care

Benefit-cost estimates updated July 2015. Literature review updated June 2014.

Program Description: Multidimensional Treatment Foster Care (MTFC) is an intensive therapeutic foster care alternative to institutional placement for adolescents who have problems with chronic antisocial behavior, emotional disturbance, and delinquency. MTFC activities include skills training and therapy for youth as well as behavioral parent training and support for foster parents and biological parents. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits	
Participants	$1,899
Taxpayers	$4,279
Other (1)	$13,561
Other (2)	($2,383)
Total	$17,356
Costs	($8,230)
Benefits minus cost	$9,126

Summary statistics	
Benefit to cost ratio	$2.11
Benefits minus costs	$9,126
Probability of a positive net present value	65 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$3,404	$12,534	$1,700	$17,638
Labor market earnings (hs grad)	$1,873	$799	$930	$0	$3,602
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$3
Health care (disruptive behavior disorder)	$25	$76	$95	$38	$234
Adjustment for deadweight cost of program	$0	$0	$0	($4,122)	($4,121)
Totals	$1,899	$4,279	$13,561	($2,383)	$17,356

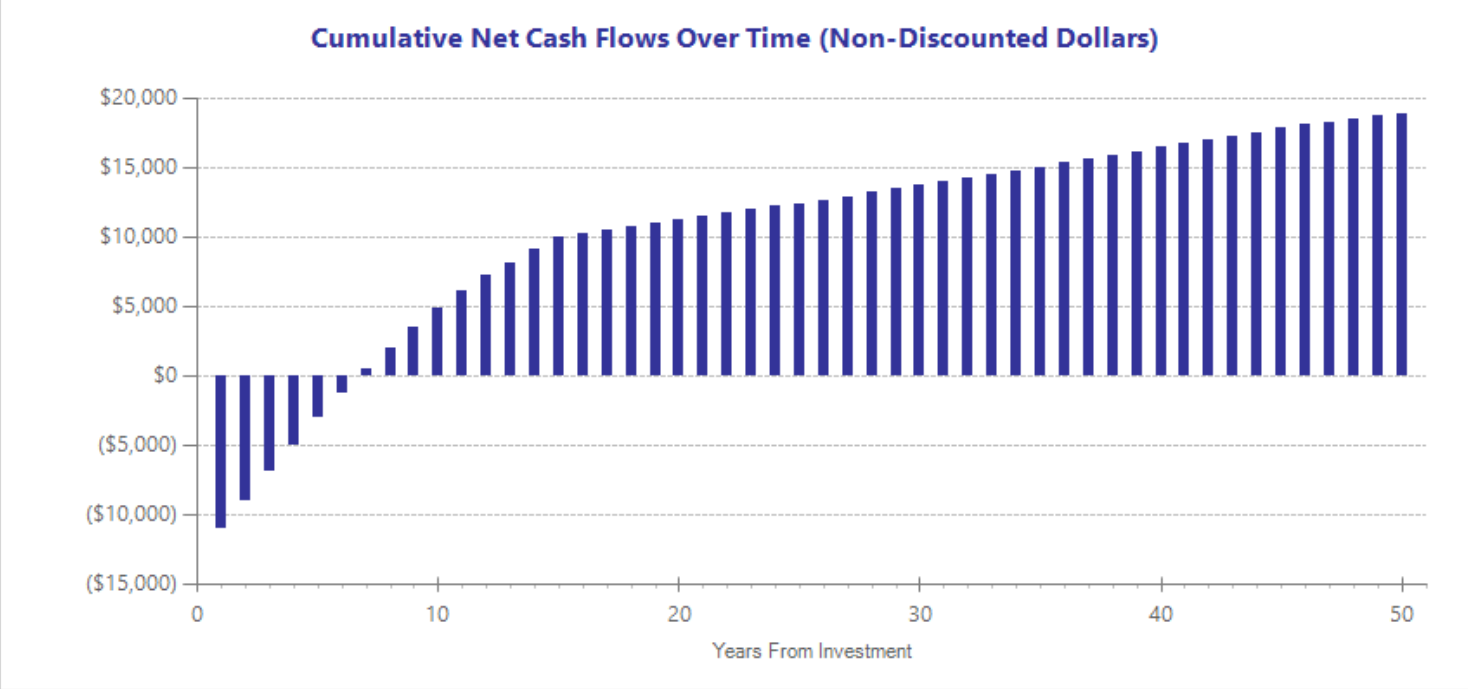
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$31,883	1	2007	Present value of net program costs (in 2014 dollars)	($8,230)
Comparison costs	$24,536	1	2007	Uncertainty (+ or - %)	10 %

Estimate provided by the Juvenile Rehabilitation Administration is based on an average length in the program during 2010 and includes oversight, coordination, and administration of the program. Aftercare programming for MTFC is discretionary and the additional associated cost calculation formulas are currently in development. The MTFC cost estimate is compared with alternative cost for youth in group homes.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	3	134	-0.544	0.015	-0.111	0.127	17	-0.111	0.127	27
Teen pregnancy (under age 18)	Primary	1	159	-0.469	0.001	-0.352	0.028	17	-0.352	0.028	19
Externalizing behavior symptoms	Primary	1	20	-0.627	0.073	-0.627	0.350	17	-0.299	0.221	20
Internalizing symptoms	Primary	1	20	-0.428	0.216	-0.428	0.346	17	-0.312	0.296	19
Alcohol use in high school	Primary	1	32	-0.126	0.601	-0.045	0.240	17	-0.045	0.240	18
Smoking in high school	Primary	1	32	-0.190	0.429	-0.068	0.240	17	-0.068	0.240	18
Cannabis use in high school	Primary	1	32	-0.230	0.015	-0.083	0.240	17	-0.083	0.240	18
Illicit drug use in high school	Primary	1	32	-0.261	0.279	-0.094	0.240	17	-0.094	0.240	18

Citations Used in the Meta-Analysis

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Multisystemic Therapy for juvenile sex offenders

Literature review updated June 2013.

Program Description: Multisystemic Therapy for Youth with Problem Sexual Behaviors (MST–PSB) is an adaptation of MST for youth who have committed sexual offenses. MST–PSB addresses a youth's socialization processes and interpersonal transactions. Program staff work with the youth's family and others in the youth's community, such as peers, teachers, or probation officers.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	3	99	-0.711	0.001	-0.256	0.191	16	-0.256	0.191	26

Citations Used in the Meta-Analysis

Borduin, C. M., Henggeler, S. W., Blaske, D. M., & Stein, R. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology, 35*(2), 105-113.

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Letourneau, E. J., Henggeler, S. W., Borduin, C. M., Schewe, P. A., McCart, M. R., Chapman, J. E., et al. (2009). Multisystemic therapy for juvenile sexual offenders: 1-year results from a randomized effectiveness trial. *Journal of Family Psychology, 23*(1), 89-102.

Scared Straight

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: The underlying goal of the Scared Straight program is to deter juvenile offenders, or children at-risk of becoming delinquent, through organized visits to adult prisons. These meta-analytic results were last updated in 2006.

Benefit-Cost Summary

Program benefits	
Participants	($2,118)
Taxpayers	($3,425)
Other (1)	($6,685)
Other (2)	($1,276)
Total	($13,504)
Costs	($67)
Benefits minus cost	($13,571)

Summary statistics	
Benefit to cost ratio	($200.84)
Benefits minus costs	($13,571)
Probability of a positive net present value	4 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	($2,205)	($5,839)	($1,094)	($9,137)
Labor market earnings (hs grad)	($2,156)	($919)	($1,066)	$0	($4,141)
Health care (educational attainment)	$38	($301)	$219	($149)	($193)
Adjustment for deadweight cost of program	$0	$0	$1	($33)	($32)
Totals	($2,118)	($3,425)	($6,685)	($1,276)	($13,504)

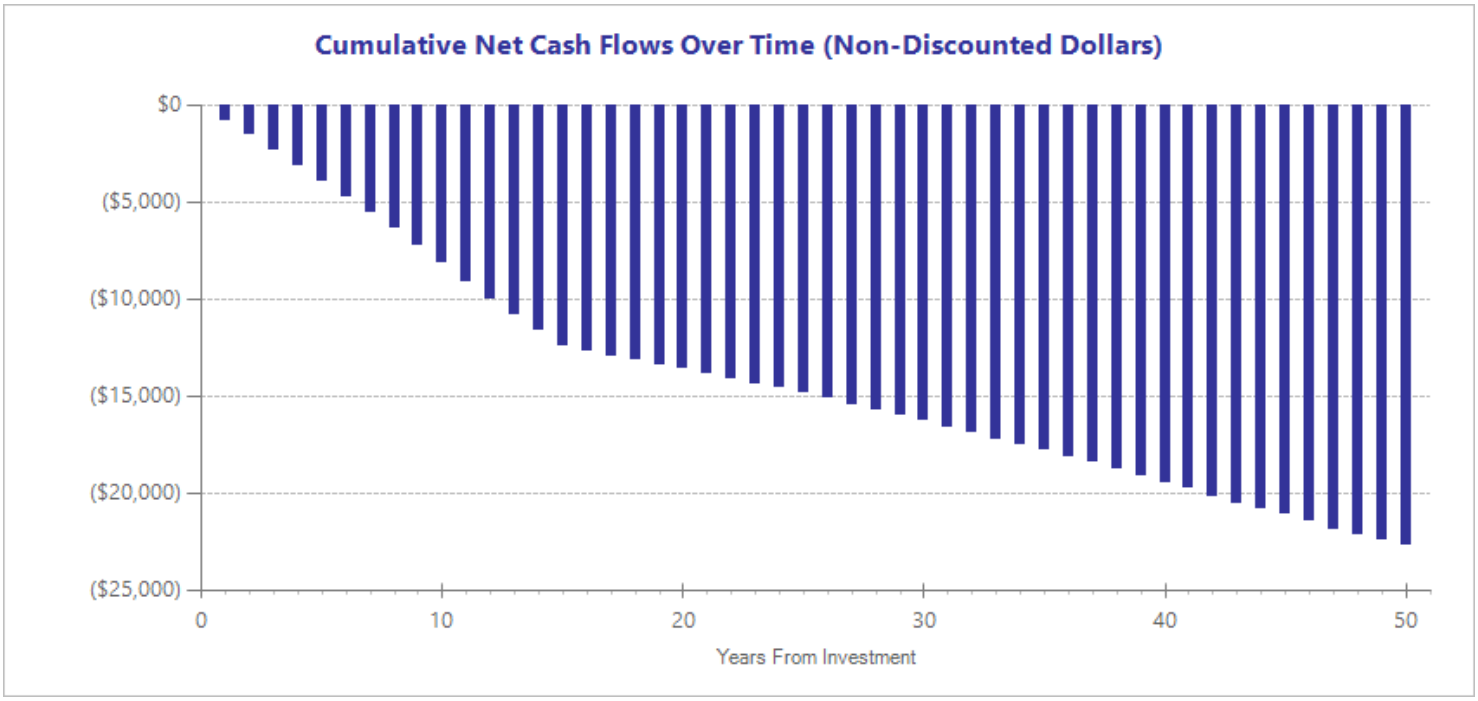
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$50	1	1999	Present value of net program costs (in 2014 dollars)	($67)
Comparison costs	$0	1	1999	Uncertainty (+ or - %)	10 %

Estimated by the Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	10	752	0.145	0.044	0.129	0.072	16	0.129	0.072	26

Citations Used in the Meta-Analysis

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Other treatment for juvenile sex offenders

Literature review updated June 2013.

Program Description: Sex offender treatment for juvenile offenders includes individual or family therapies that follow cognitive behavioral strategies. Program components can also include relapse prevention, victim empathy, and education on human sexuality, healthy attitudes toward sex, and appropriate sexual roles.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	131	-0.118	0.760	-0.118	0.386	15	-0.118	0.386	25

Citations Used in the Meta-Analysis

Lab, S. P., Shields, G., & Schondel, C. (1993). Research note: An evaluation of juvenile sexual offender treatment. *Crime & Delinquency, 39*(4), 543-553.

Worling, J. R., & Curwen, T. (2000). Adolescent sexual offender recidivism: Success of specialized treatment and implications for risk prediction. *Child Abuse & Neglect, 24*(7), 965-982.

Therapeutic communities for substance abusers

Benefit-cost estimates updated July 2015. Literature review updated December 2012.

Program Description: Therapeutic communities are the most intensive form of substance abuse treatment. These residential living units are highly structured using a hierarchical model among peers within the community. Youth gain responsibility as they progress through the stages of treatment. Depending on the level of dependency and the program, therapeutic communities can range from 5 to 10 months.

Benefit-Cost Summary

Program benefits	
Participants	$1,104
Taxpayers	$2,660
Other (1)	$7,901
Other (2)	($1,220)
Total	$10,446
Costs	($4,641)
Benefits minus cost	$5,805

Summary statistics	
Benefit to cost ratio	$2.25
Benefits minus costs	$5,805
Probability of a positive net present value	73 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$2,027	$7,458	$1,005	$10,490
Labor market earnings (hs grad)	$1,124	$479	$555	$0	$2,158
Health care (educational attainment)	($20)	$154	($112)	$77	$99
Adjustment for deadweight cost of program	$0	$0	$1	($2,302)	($2,301)
Totals	$1,104	$2,660	$7,901	($1,220)	$10,446

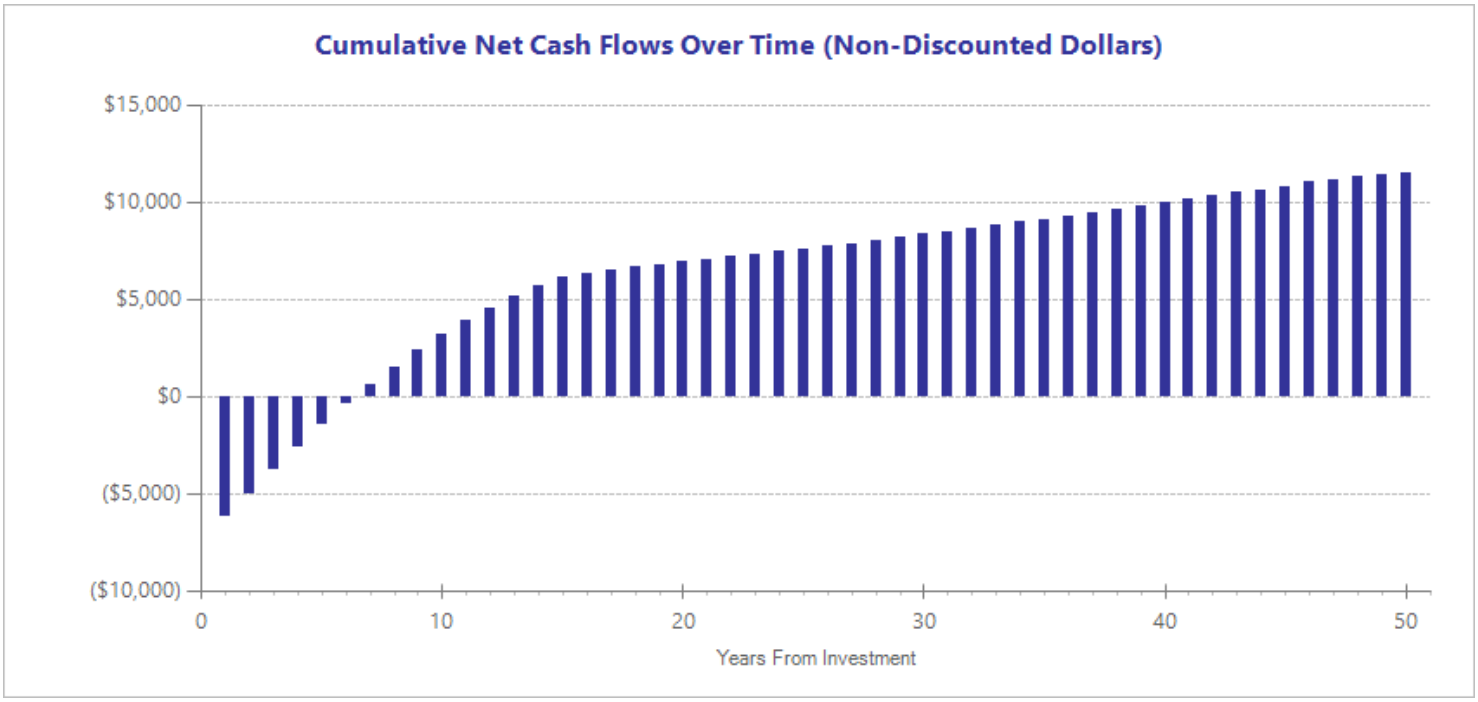
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$4,522	1	2012	Present value of net program costs (in 2014 dollars)	($4,641)
Comparison costs	$0	1	2012	Uncertainty (+ or - %)	10 %

Estimate provided by the Washington State Juvenile Rehabilitation Administration.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	4	1158	-0.113	0.131	-0.066	0.049	17	-0.066	0.049	27

Citations Used in the Meta-Analysis

Gordon, J. A. (2002). *Barrett Juvenile Correctional Center: Is it effective?: A comparison of youth released from a residential substance abuse treatment center to youth at a traditional juvenile correctional center*. Richmond, VA: Virginia Commonwealth University.

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Pealer, J. A. (2004). *A community of peers—promoting behavior change: The effectiveness of a therapeutic community for juvenile male offenders in reducing recidivism*. Unpublished doctoral dissertation, University of Cincinnati, Ohio.

Victim offender mediation

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: In this broad grouping of programs, the underlying characteristic is that the victim and the offender sit down together with a trained mediator in order to determine appropriate restitution for the harm done. The types of offenders, criminal justice setting, and degree of support to the victim and/or offender vary.

Benefit-Cost Summary

Program benefits	
Participants	$925
Taxpayers	$1,071
Other (1)	$1,848
Other (2)	$32
Total	$3,876
Costs	$605
Benefits minus cost	$3,271

Summary statistics	
Benefit to cost ratio	$6.41
Benefits minus costs	$3,271
Probability of a positive net present value	78 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$537	$1,479	$269	$2,285
Labor market earnings (hs grad)	$942	$402	$465	$0	$1,809
Health care (educational attainment)	($17)	$132	($96)	$67	$86
Adjustment for deadweight cost of program	$0	$0	$0	($304)	($304)
Totals	$925	$1,071	$1,848	$32	$3,876

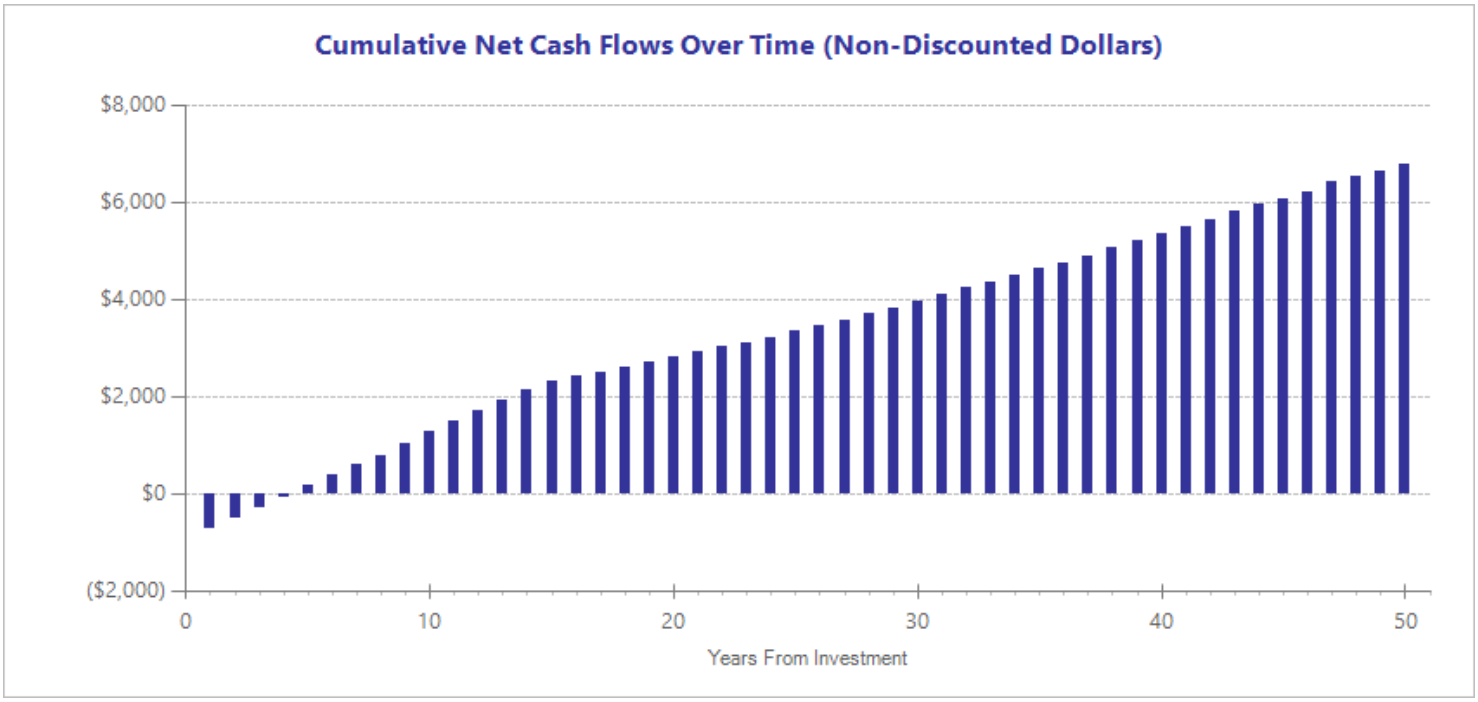
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$565	1	2010	Present value of net program costs (in 2014 dollars)	$605
Comparison costs	$0	1	2010	Uncertainty (+ or - %)	10 %

The Washington State Institute for Public Policy estimated the costs of victim offender mediation based on the literature reviewed. We also received a cost estimate from the victim offender mediation program in Clark County Washington. Our final cost estimate is the average of these two costs. The cost includes staff time, benefits, and volunteer time.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	6	1639	-0.080	0.153	-0.055	0.055	16	-0.055	0.055	26

Citations Used in the Meta-Analysis

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Group Cognitive Behavioral Therapy (CBT) for anxious children

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Treatments usually include multiple components, such as somatic management, cognitive restructuring and self-talk, exposure to feared stimuli, and positive reinforcement. This brief therapy can be administered in individual, group, or family format; well-known examples include the Coping Cat and Coping Koala programs. The results below are those from group formats.

Benefit-Cost Summary

Program benefits	
Participants	$4,549
Taxpayers	$2,167
Other (1)	$326
Other (2)	$338
Total	$7,380
Costs	$411
Benefits minus cost	$7,792

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$7,792
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (anxiety disorder)	$4,463	$1,904	$0	$0	$6,367
Health care (anxiety disorder)	$86	$263	$326	$132	$807
Adjustment for deadweight cost of program	$0	$0	$0	$206	$206
Totals	$4,549	$2,167	$326	$338	$7,380

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

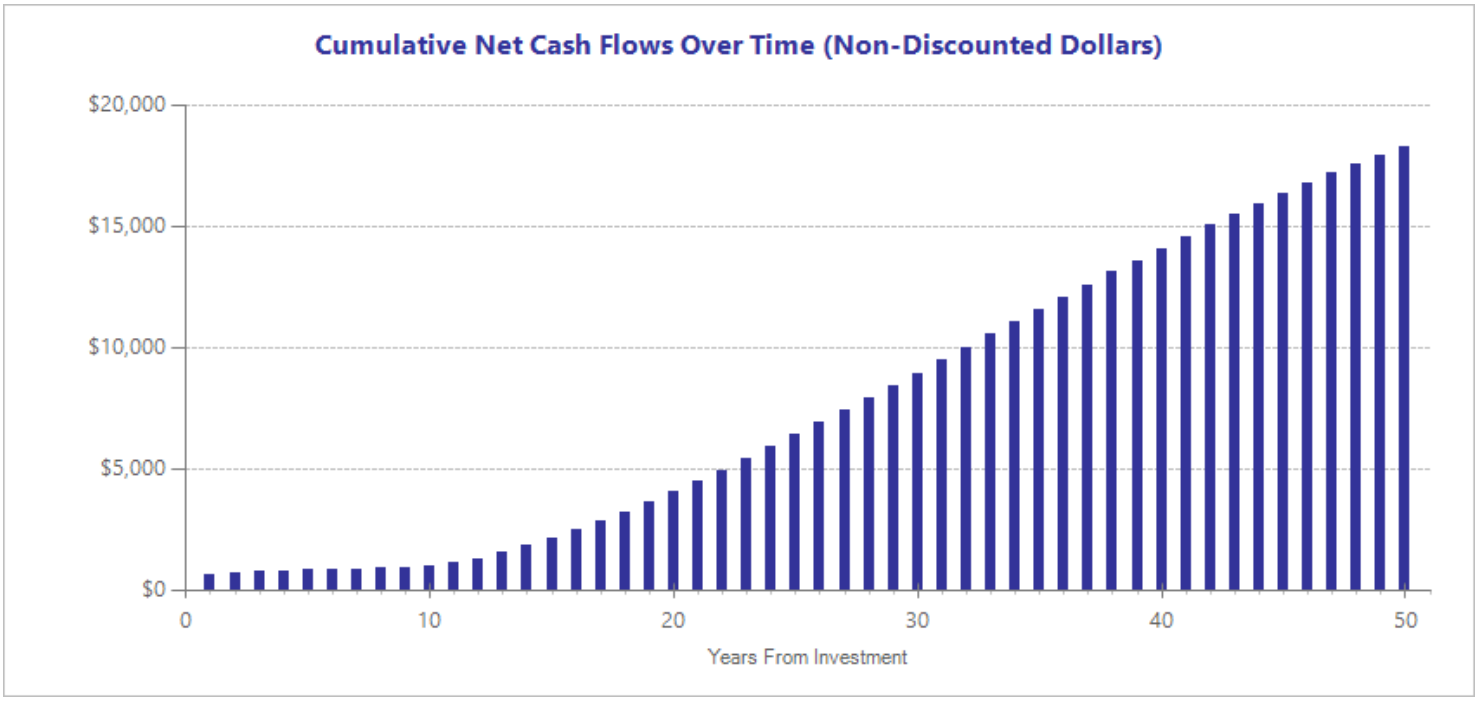
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$559	1	2010
Comparison costs	$943	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	$411
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost is based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Anxiety disorder	Primary	13	469	-0.950	0.001	-0.447	0.108	11	-0.206	0.068	12

Citations Used in the Meta-Analysis

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Spence, S. H., Holmes, J. M., March, S., & Lipp, O. V. (2006). The feasibility and outcome of clinic plus internet delivery of cognitive- behavior therapy for childhood anxiety. *Journal of Consulting and Clinical Psychology, 74*(3), 614-621.

Individual Cognitive Behavioral Therapy (CBT) for anxious children

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Treatments usually include multiple components, such as somatic management, cognitive restructuring and self-talk, exposure to feared stimuli, and positive reinforcement. This brief therapy can be administered in individual, group, or family format; well-known examples include the Coping Cat and Coping Koala programs. The results below are those from individual formats.

Benefit-Cost Summary

Program benefits	
Participants	$3,593
Taxpayers	$1,693
Other (1)	$230
Other (2)	($293)
Total	$5,224
Costs	($769)
Benefits minus cost	$4,455

Summary statistics	
Benefit to cost ratio	$6.79
Benefits minus costs	$4,455
Probability of a positive net present value	94 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (anxiety disorder)	$3,531	$1,506	$0	$0	$5,038
Health care (anxiety disorder)	$61	$186	$230	$93	$570
Adjustment for deadweight cost of program	$1	$1	$0	($385)	($383)
Totals	$3,593	$1,693	$230	($293)	$5,224

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

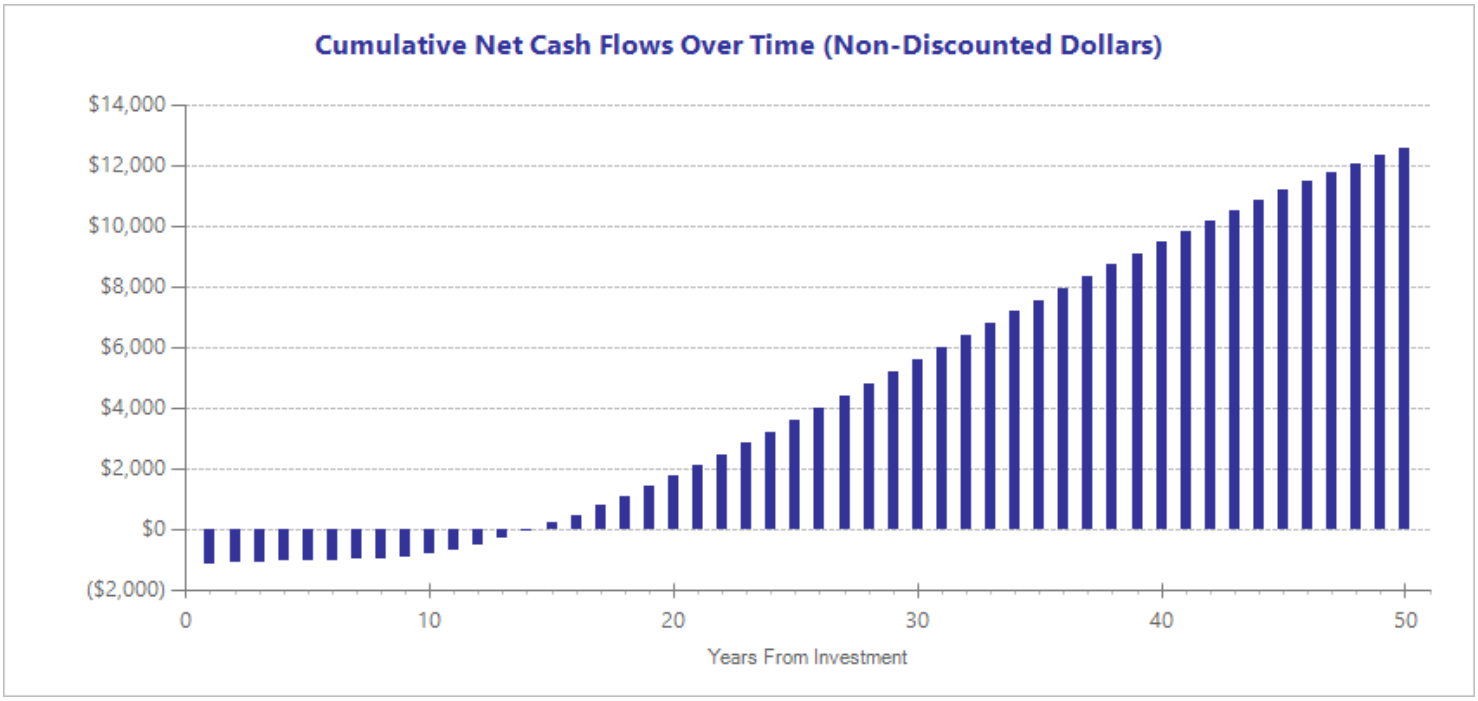
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$1,661	1	2010
Comparison costs	$943	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($769)
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost is based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	1	41	-0.482	0.036	-0.202	0.230	11	0.000	0.025	12
Anxiety disorder	Primary	9	523	-0.735	0.001	-0.367	0.097	11	-0.170	0.059	12
Global functioning	Primary	2	279	0.222	0.068	0.222	0.122	11	0.102	0.062	12
Suicidal ideation	Primary	2	279	0.285	0.021	0.285	0.124	11	0.132	0.065	12

Citations Used in the Meta-Analysis

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Remote Cognitive Behavioral Therapy (CBT) for anxious children

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: These treatments utilize the same principles and techniques as those of other CBT treatments for anxiety; however, they are unique insofar as clients have reduced (if any) face-to-face time with therapists. Clients are supported remotely via email or phone contact. A manual or online program helps to guide progress of the intervention.

Benefit-Cost Summary

Program benefits	
Participants	$14,110
Taxpayers	$6,746
Other (1)	$1,047
Other (2)	$816
Total	$22,720
Costs	$777
Benefits minus cost	$23,497

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$23,497
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (anxiety disorder)	$13,835	$5,901	$0	$0	$19,736
Health care (anxiety disorder)	$275	$845	$1,046	$426	$2,592
Adjustment for deadweight cost of program	$0	$0	$1	$391	$392
Totals	$14,110	$6,746	$1,047	$816	$22,720

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

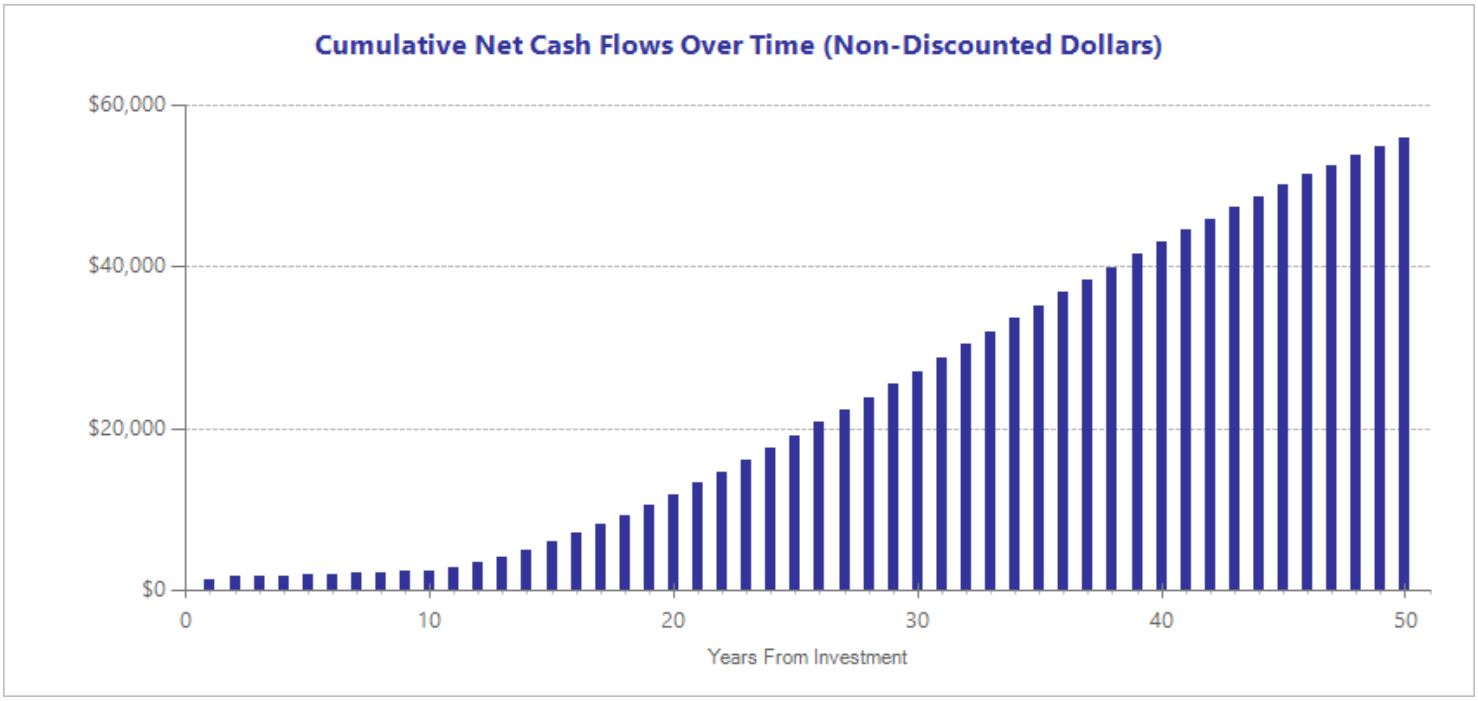
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$217	1	2010
Comparison costs	$943	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	$777
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost is based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	1	30	0.000	1.000	0.000	0.260	11	0.000	0.021	12
Anxiety disorder	Primary	5	210	-1.140	0.001	-1.140	0.259	11	-0.527	0.167	12
Global functioning	Primary	2	46	1.074	0.001	1.074	0.224	11	0.497	0.152	12

Citations Used in the Meta-Analysis

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Lyneham, H. J., & Rapee, R. M. (2006). Evaluation of therapist-supported parent-implemented CBT for anxiety disorders in rural children. *Behaviour Research and Therapy, 44*(9), 1287-1300.

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Parent Cognitive Behavioral Therapy (CBT) for anxious children

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Treatments usually include multiple components, such as somatic management, cognitive restructuring and self-talk, exposure to feared stimuli, and positive reinforcement. This brief therapy can be administered in individual, group, or family format. Well-known examples include the Coping Cat and Coping Koala programs.

Benefit-Cost Summary

Program benefits	
Participants	$953
Taxpayers	$461
Other (1)	$78
Other (2)	$353
Total	$1,845
Costs	$637
Benefits minus cost	$2,483

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$2,483
Probability of a positive net present value	99 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (anxiety disorder)	$932	$398	$0	$0	$1,330
Health care (anxiety disorder)	$21	$63	$78	$32	$194
Adjustment for deadweight cost of program	$0	$0	$0	$321	$322
Totals	$953	$461	$78	$353	$1,845

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

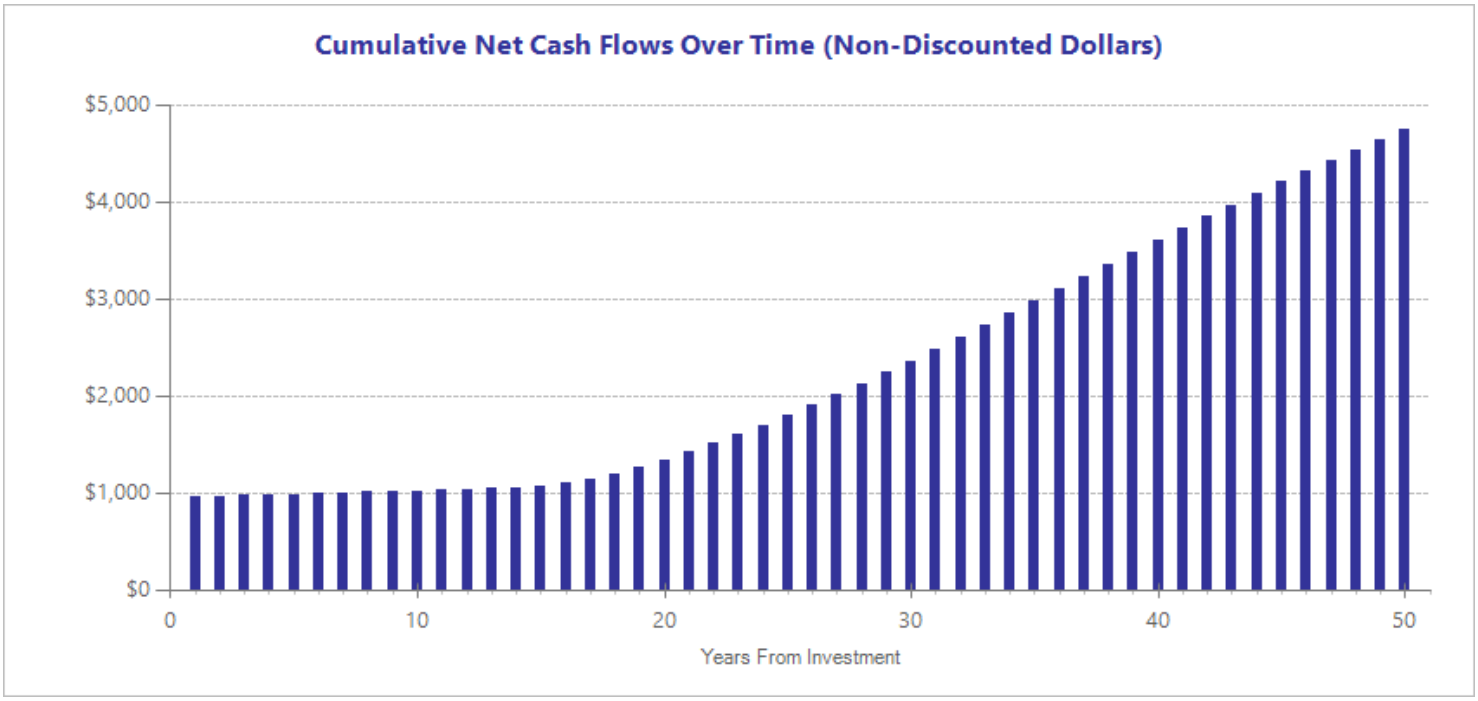
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$348	1	2010
Comparison costs	$943	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	$637
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost is based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Anxiety disorder	Primary	3	135	-0.842	0.019	-0.260	0.157	6	-0.120	0.079	7

Citations Used in the Meta-Analysis

Kennedy, S. J., Rapee, R. M., & Edwards, S. L. (2009). A selective intervention program for inhibited preschool-aged children of parents with an anxiety disorder: Effects on current anxiety disorders and temperament. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 602-609.

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Behavioral Parent Training (BPT) for children with ADHD

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: This is a brief intervention (spanning a couple of months) that involves psychoeducation and teaching parents behavior management techniques, such as reinforcement and teacher correspondence. Many studies utilize or build on Barkley's Defiant Children program.

Benefit-Cost Summary

Program benefits	
Participants	$119
Taxpayers	$72
Other (1)	$89
Other (2)	$67
Total	$347
Costs	$111
Benefits minus cost	$458

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$458
Probability of a positive net present value	90 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$3	$8	$1	$12
Labor market earnings (hs grad)	$111	$47	$55	$0	$213
Health care (disruptive behavior disorder)	$7	$21	$26	$10	$64
Adjustment for deadweight cost of program	$2	$1	$0	$55	$58
Totals	$119	$72	$89	$67	$347

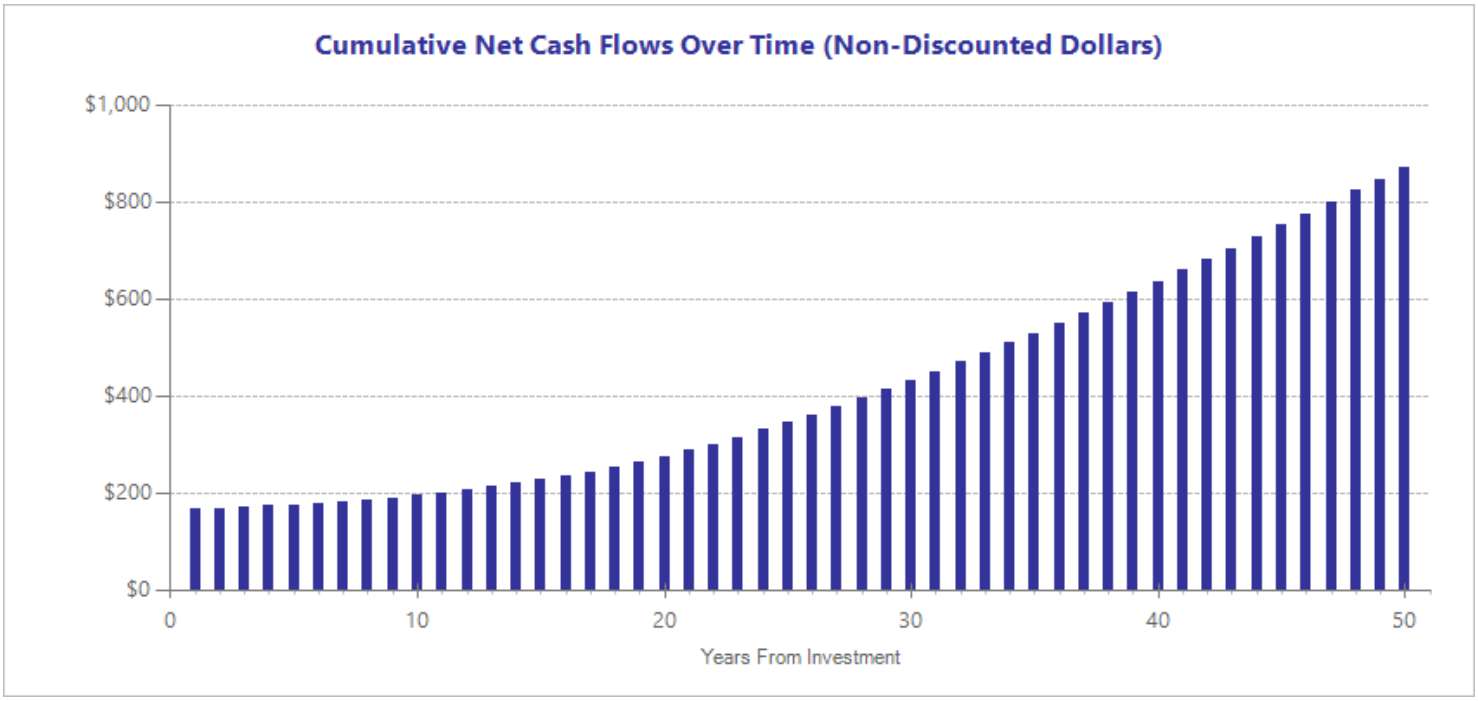
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$846	1	2010	Present value of net program costs (in 2014 dollars)	$111
Comparison costs	$950	1	2010	Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	4	184	-0.235	0.305	-0.119	0.119	7	-0.057	0.066	10
Attention deficit hyperactivity disorder symptoms	Primary	7	277	-0.465	0.001	-0.235	0.100	7	-0.001	0.012	8
Internalizing symptoms	Primary	1	47	-0.422	0.043	-0.156	0.209	7	-0.114	0.169	9

Citations Used in the Meta-Analysis

Abikoff, H.B., Thompson, M., Laver-Bradbury, C., Long, N., Forehand, R.L., Miller, B.L., Klein, R.G., ... Sonuga-Barke, E. (2015). Parent training for preschool ADHD: a randomized controlled trial of specialized and generic programs. *Journal of Child Psychology and Psychiatry,* 56(6), 618-631.

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Cognitive Behavioral Therapy (CBT) for children with ADHD

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Cognitive training and cognitive-behavioral therapies are included in this program grouping. Both target problem-solving in order to reduce impulsive behavior; specific strategies include self-monitoring, modeling/role playing, self-instruction, generation of alternatives, and reinforcement.

Benefit-Cost Summary

Program benefits	
Participants	($96)
Taxpayers	($70)
Other (1)	($91)
Other (2)	($535)
Total	($792)
Costs	($1,031)
Benefits minus cost	($1,823)

Summary statistics	
Benefit to cost ratio	($0.77)
Benefits minus costs	($1,823)
Probability of a positive net present value	2 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	($4)	($12)	($2)	($18)
Labor market earnings (hs grad)	($86)	($37)	($43)	$0	($165)
Health care (disruptive behavior disorder)	($10)	($30)	($37)	($15)	($91)
Adjustment for deadweight cost of program	$0	$0	$0	($518)	($518)
Totals	($96)	($70)	($91)	($535)	($792)

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

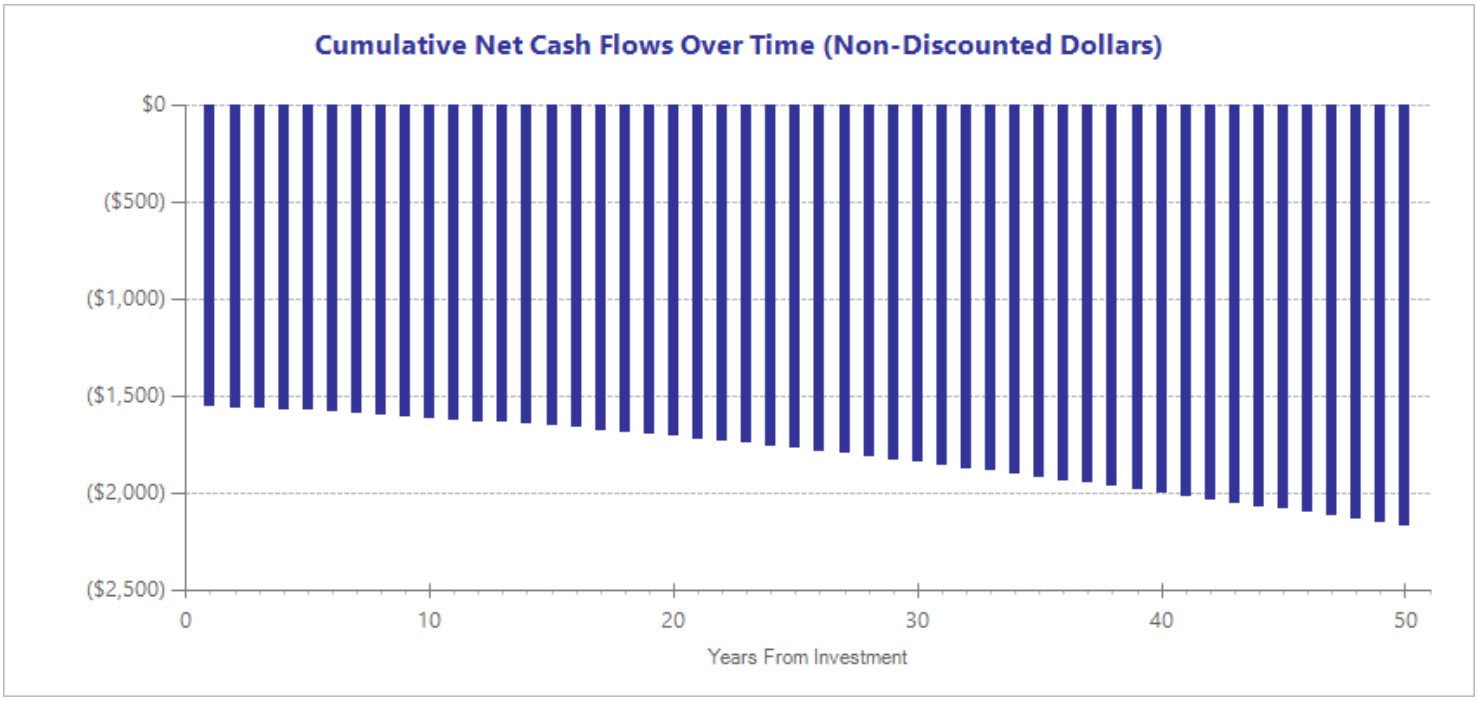
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$1,913	1	2010
Comparison costs	$950	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($1,031)
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	2	42	0.148	0.682	0.148	0.362	10	0.071	0.189	12
Attention deficit hyperactivity disorder symptoms	Primary	7	96	0.040	0.791	0.015	0.152	10	0.000	0.008	11

Citations Used in the Meta-Analysis

Abikoff, H. & Gittelman, R. (1985). Hyperactive children treated with stimulants: Is cognitive training a useful adjunct? *Archives of General Psychiatry, 42(10), 953-961.*

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Multimodal Therapy (MMT) for children with ADHD

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: These treatments target more than one setting with psychosocial interventions. For instance, many therapies intervene with both parents and teachers or children. In this analysis, all studies utilized either behavioral or cognitive-behavioral orientations.

Benefit-Cost Summary

Program benefits	
Participants	$4,233
Taxpayers	$3,401
Other (1)	$4,276
Other (2)	($3,531)
Total	$8,378
Costs	($8,747)
Benefits minus cost	($369)

Summary statistics	
Benefit to cost ratio	$0.96
Benefits minus costs	($369)
Probability of a positive net present value	44 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$1,419	$4,023	$704	$6,146
Labor market earnings (anxiety disorder)	$4,166	$1,777	$0	$0	$5,943
Health care (anxiety disorder)	$67	$205	$253	$101	$626
Adjustment for deadweight cost of program	$0	$0	$0	($4,337)	($4,337)
Totals	$4,233	$3,401	$4,276	($3,531)	$8,378

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

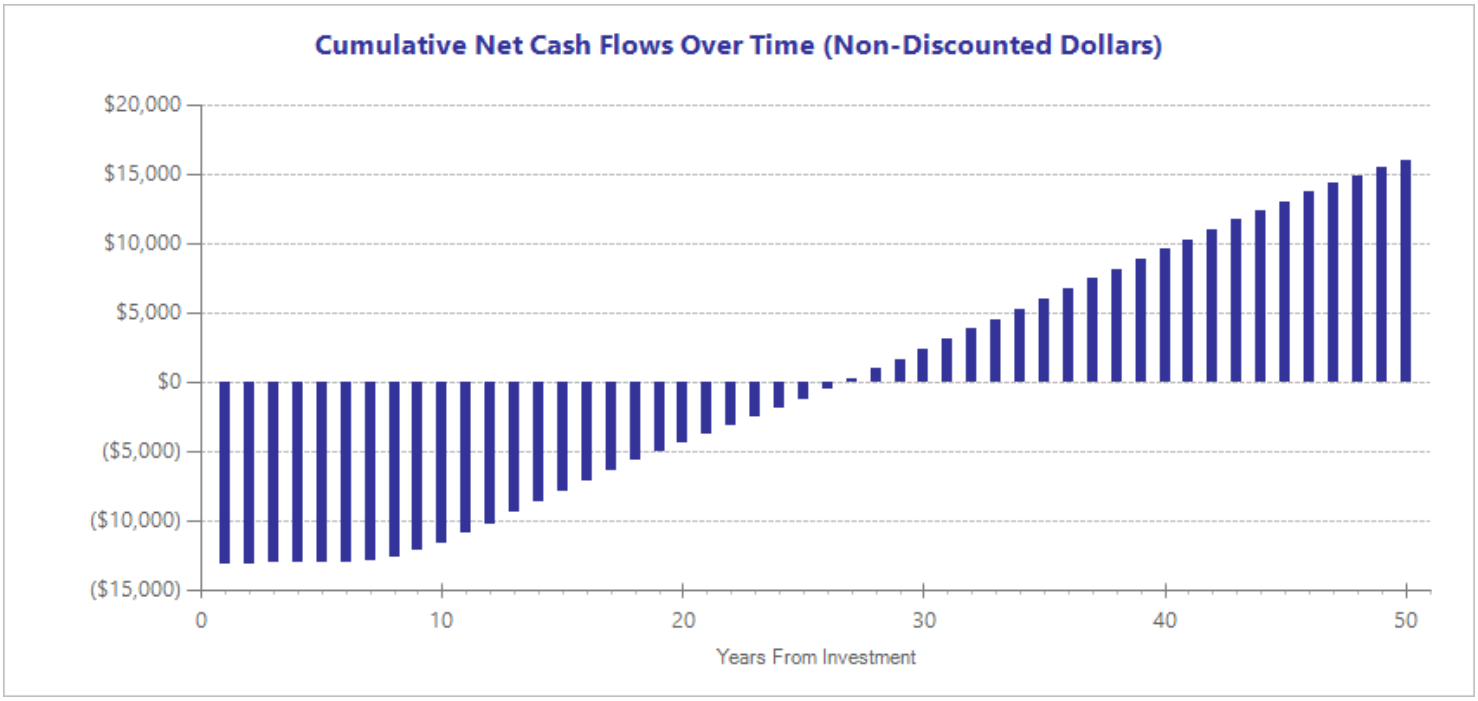
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$9,120	1	2010
Comparison costs	$950	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($8,747)
Uncertainty (+ or - %)	20 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	81	-0.429	0.062	-0.429	0.230	17	-0.429	0.230	27
Disruptive behavior disorder symptoms	Primary	7	362	-0.341	0.007	-0.253	0.102	9	-0.121	0.073	11
Anxiety disorder	Primary	2	264	-0.190	0.227	-0.190	0.157	9	-0.088	0.077	10
Attention deficit hyperactivity disorder symptoms	Primary	9	453	-0.186	0.125	-0.084	0.082	9	0.000	0.006	10
Global functioning	Primary	1	30	0.141	0.582	0.141	0.256	9	-0.008	0.021	10

Citations Used in the Meta-Analysis

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Cognitive Behavioral Therapy (CBT) for depressed adolescents

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Treatments include various components, such as cognitive restructuring, behavioral activation, emotion regulation, communication skills, and problem-solving. Most commonly, studies offering this treatment provided 10-20 therapeutic hours per client in individual or group modality. One well-known example is the Adolescent Coping With Depression (CWD-A) program.

Benefit-Cost Summary

Program benefits	
Participants	$75
Taxpayers	$86
Other (1)	$80
Other (2)	$321
Total	$562
Costs	($508)
Benefits minus cost	$54

Summary statistics	
Benefit to cost ratio	$1.11
Benefits minus costs	$54
Probability of a positive net present value	51 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$1	$4	$1	$6
Labor market earnings (major depression)	$54	$23	$0	$545	$623
Health care (major depression)	$20	$61	$76	$31	$188
Adjustment for deadweight cost of program	$0	$0	$0	($255)	($254)
Totals	$75	$86	$80	$321	$562

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

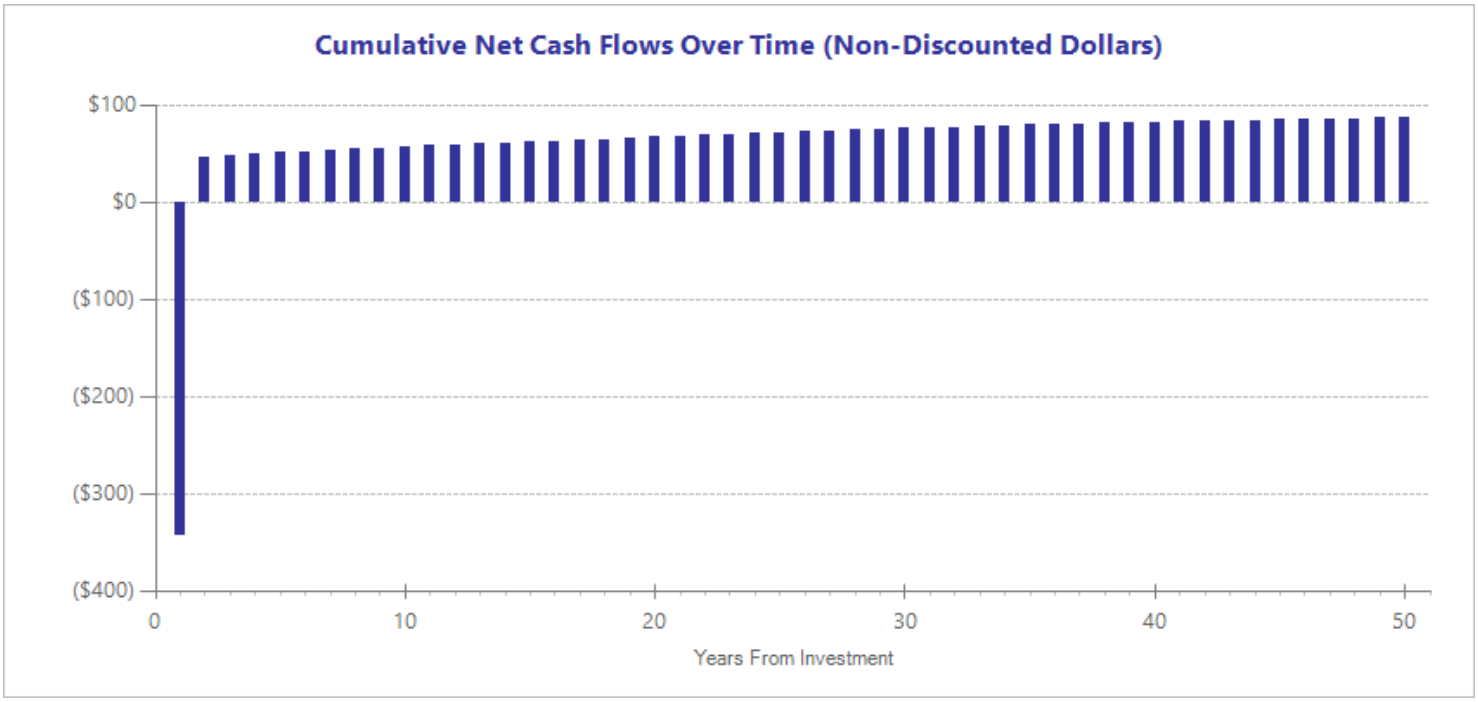
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$1,207	1	2010
Comparison costs	$733	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($508)
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost is based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	11	426	-0.595	0.001	-0.277	0.088	16	0.000	0.024	17
Externalizing behavior symptoms	Primary	5	518	-0.039	0.698	-0.029	0.099	16	-0.014	0.052	19
Suicide attempts	Primary	1	41	0.000	1.000	0.000	0.215	16	0.000	0.019	17
Hospitalization (psychiatric)	Primary	1	41	-0.143	0.504	-0.091	0.214	16	0.000	0.019	17
Primary care visits	Primary	1	41	-0.135	0.529	-0.086	0.214	16	0.000	0.019	17
Suicidal ideation	Primary	2	146	-0.329	0.011	-0.329	0.130	16	0.000	0.029	17
Global functioning	Primary	5	390	0.230	0.040	0.178	0.097	16	0.000	0.016	19

Citations Used in the Meta-Analysis

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Helping the Noncompliant Child

Benefit-cost estimates updated July 2015. Literature review updated June 2015.

Program Description: In this program, a therapist directly observes a parent and child through a one-way mirror, and provides direct coaching to the parent through a radio earphone. The program is delivered in two phases. The first phase focuses on "differential attention", when parents are taught to describe the child's appropriate behavior to the child rather than giving commands and to give rewards through positive physical attention and verbal praise. In the second phase, parents learn the importance of clear, simple instructions and to provide positive rewards for compliance and negative consequences for noncompliance.

Benefit-Cost Summary

Program benefits	
Participants	$603
Taxpayers	$601
Other (1)	$766
Other (2)	($146)
Total	$1,824
Costs	$685
Benefits minus cost	$1,139

Summary statistics	
Benefit to cost ratio	$2.66
Benefits minus costs	$1,139
Probability of a positive net present value	70 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$25	$70	$13	$107
Labor market earnings (hs grad)	$483	$206	$239	$0	$927
Health care (disruptive behavior disorder)	$120	$370	$458	$186	$1,134
Adjustment for deadweight cost of program	$0	$0	$0	($344)	($344)
Totals	$603	$601	$766	($146)	$1,824

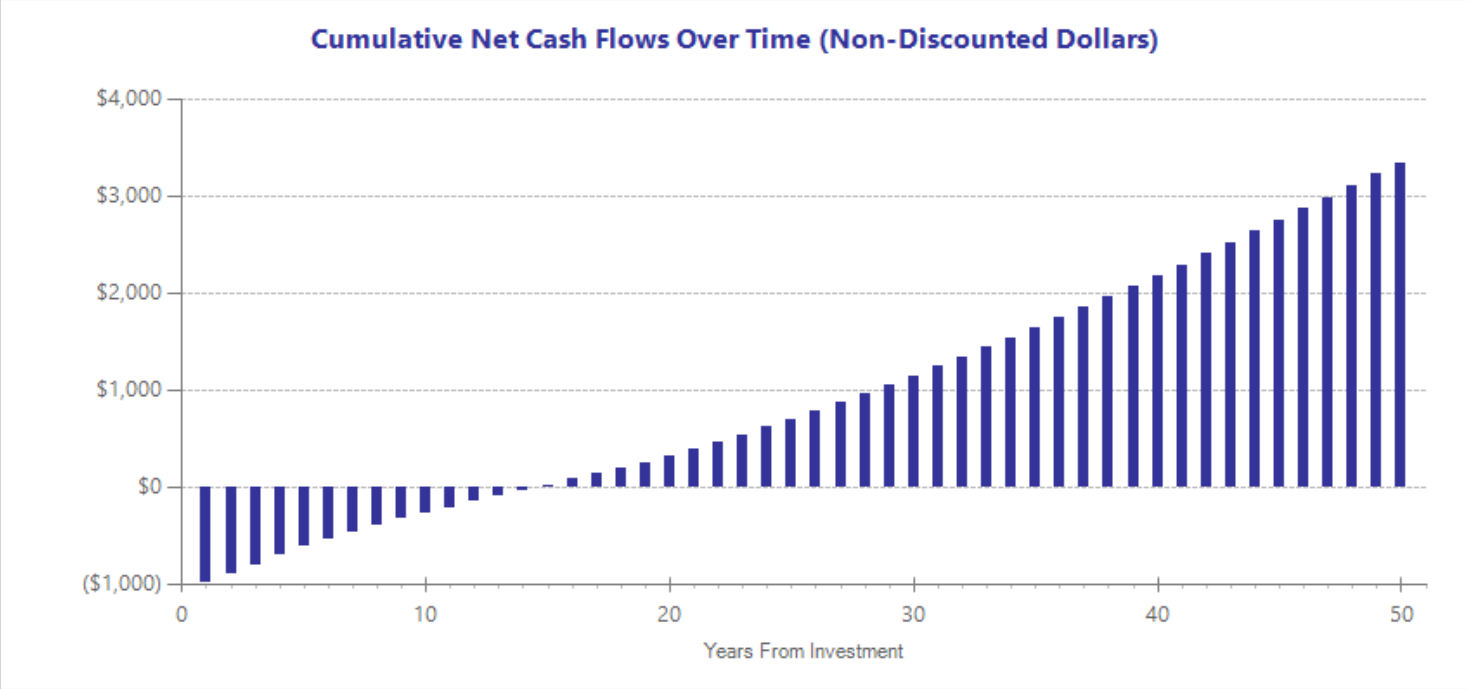
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,612	1	2007	Present value of net program costs (in 2014 dollars)	$685
Comparison costs	$1,000	1	2007	Uncertainty (+ or - %)	10 %

This program is very similar to Parent-Child Interaction Therapy (PCIT), requiring similar equipment and therapist qualifications. In 2007, the standard PCIT expenditures provided by Children's Administration (average reimbursement rate for families receiving PCIT in Washington) was $2,240 Helping the Noncompliant Child requires 10 sessions, compared to an average of 13.9 sessions in the studies we reviewed for PCIT, so we estimate the cost for HNC to be 10/13.9 times $2240.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	3	79	-0.811	0.030	-0.539	0.388	4	-0.257	0.228	7
Attention deficit hyperactivity disorder symptoms	Primary	1	63	-1.039	0.001	-0.590	0.243	4	-0.002	0.031	5
Parental stress	Secondary	1	63	-0.669	0.014	-0.375	0.272	26	-0.669	0.272	28

Citations Used in the Meta-Analysis

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Incredible Years: Parent training

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Incredible Years Parent Training (www.incredibleyears.com) is a group, skills-based behavioral intervention for parents of children with behavior problems. The curriculum focuses on strengthening parenting skills (monitoring, positive discipline, confidence) and fostering parents' involvement in children's school experiences in order to promote children's academic, social, and emotional competencies and reduce conduct problems. Training classes include child care, a family meal, and transportation.

Benefit-Cost Summary

Program benefits	
Participants	$1,094
Taxpayers	$679
Other (1)	$388
Other (2)	($522)
Total	$1,639
Costs	($1,304)
Benefits minus cost	$335

Summary statistics	
Benefit to cost ratio	$1.26
Benefits minus costs	$335
Probability of a positive net present value	52 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$7	$21	$4	$32
Labor market earnings (hs grad)	$144	$62	$72	$0	$278
Health care (disruptive behavior disorder)	$36	$110	$136	$55	$337
Subtotals	$180	$179	$229	$58	$646
From secondary participant					
Labor market earnings (major depression)	$873	$372	$0	$8	$1,253
Health care (major depression)	$41	$127	$158	$63	$389
Subtotals	$914	$499	$158	$71	$1,642
Adjustment for deadweight cost of program	$0	$1	$1	($652)	($650)
Totals	$1,094	$679	$388	($522)	$1,639

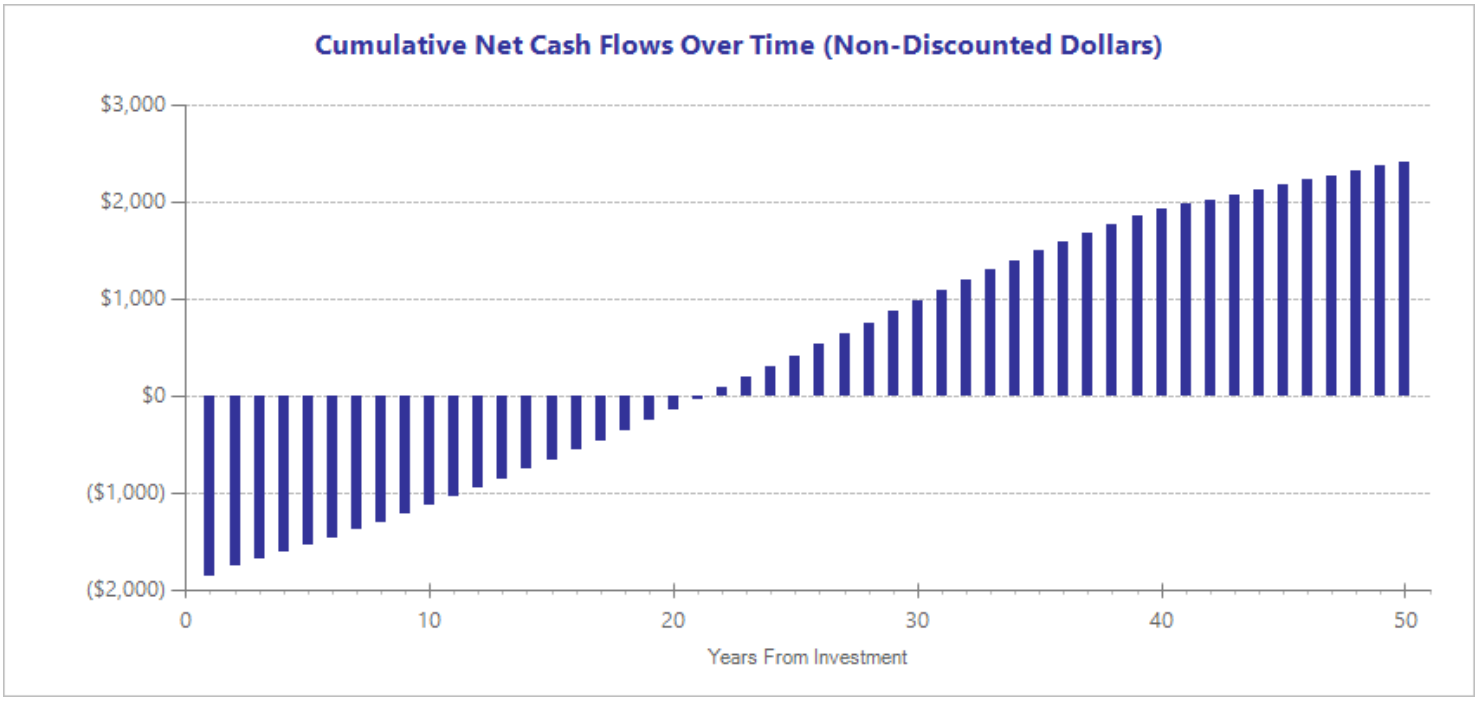
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,215	1	2013	Present value of net program costs (in 2014 dollars)	($1,304)
Comparison costs	$881	1	2010	Uncertainty (+ or - %)	10 %

Cost of parent training class per family provided by Washington State DSHS Children's Administration, 2012. WSIPP also added costs of practitioner training and curriculum for the parent classes, based on the findings of Foster et al., 2007 (training and curricula costs are low on a per-family basis, as curricula are shared between practitioners and distributed across many families who receive the intervention). Based on conversations with Lisa St. George from Incredible Years, we assumed that a practitioner team might use their purchased training and curricula to serve 24 families per year on average, for about five years (120 families served per team).
Foster, E. .M., Olchowski, A. E., & Webster-Stratton, C.H. (2007). Is stacking intervention components cost-effective? An analysis of the Incredible Years program. Journal of the American Academy of Child and Adolescent Psychiatry, 46(11).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	18	1300	-0.443	0.009	-0.123	0.047	6	-0.059	0.035	9
Major depressive disorder	Secondary	4	210	-0.094	0.557	-0.094	0.160	26	-0.046	0.173	28
Attention deficit hyperactivity disorder symptoms	Primary	1	50	-0.595	0.013	-0.220	0.238	6	0.000	0.016	7
Internalizing symptoms	Primary	3	187	-0.348	0.380	-0.103	0.117	6	-0.048	0.085	8
Parental stress	Secondary	4	210	-0.402	0.016	-0.402	0.169	26	-0.191	0.119	28

Citations Used in the Meta-Analysis

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Incredible Years: Parent training and child training

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Incredible Years Parent Training (www.incredibleyears.com) is a group, skills-based behavioral intervention for parents of children with behavior problems. The curriculum focuses on strengthening parenting skills (monitoring, positive discipline, confidence) and fostering parents' involvement in children's school experiences in order to promote children's academic, social, and emotional competencies and reduce conduct problems. Training classes include child care, a family meal, and transportation. Studies in this category included a child skills training component as well as parent training. Children with behavioral problems are taught social, emotional and academic skills, such as understanding and communicating feelings, using effective problem solving strategies, managing anger, practicing friendship and conversational skills, as well as appropriate classroom behaviors.

Benefit-Cost Summary

Program benefits	
Participants	$486
Taxpayers	$506
Other (1)	$643
Other (2)	($680)
Total	$955
Costs	($1,704)
Benefits minus cost	($749)

Summary statistics	
Benefit to cost ratio	$0.56
Benefits minus costs	($749)
Probability of a positive net present value	24 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$19	$55	$10	$84
Labor market earnings (hs grad)	$381	$162	$188	$0	$731
Health care (disruptive behavior disorder)	$105	$324	$401	$161	$991
Adjustment for deadweight cost of program	$0	$0	$0	($851)	($851)
Totals	$486	$506	$643	($680)	$955

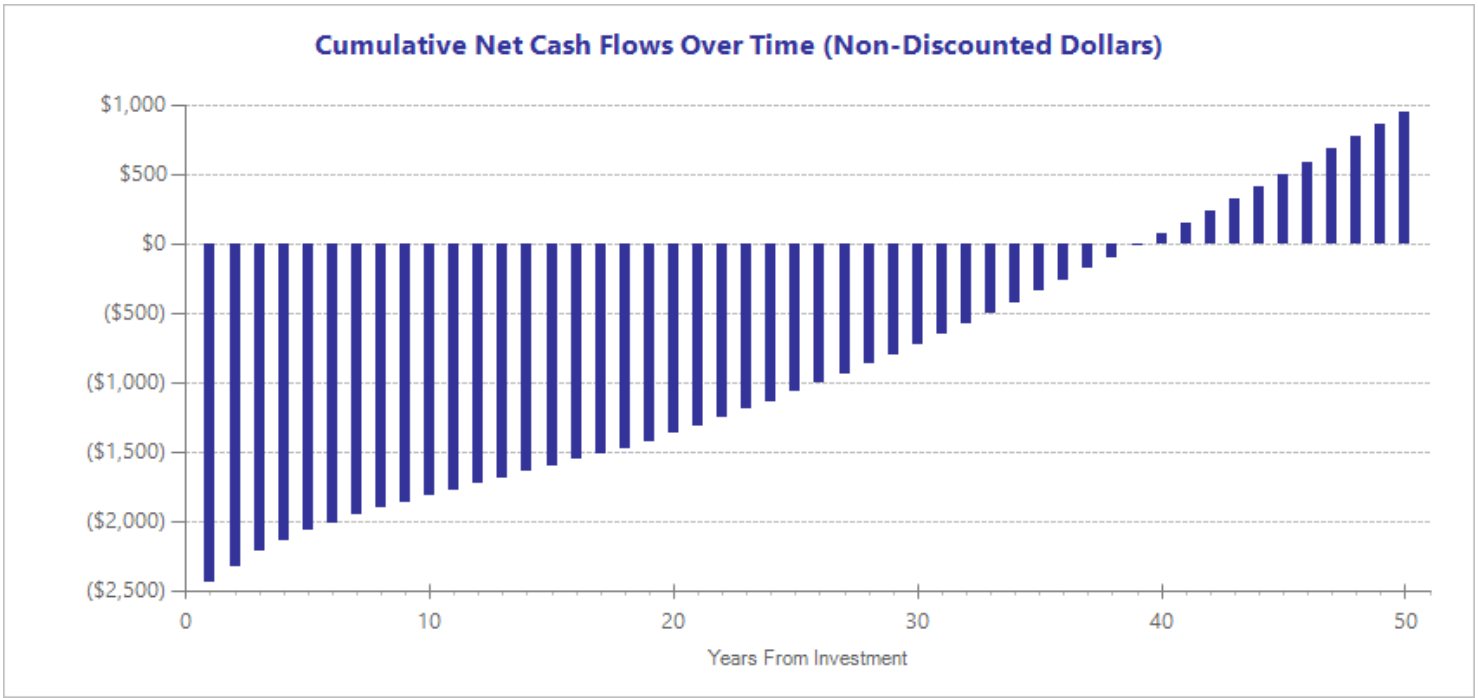
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,610	1	2013	Present value of net program costs (in 2014 dollars)	($1,704)
Comparison costs	$881	1	2010	Uncertainty (+ or - %)	10 %

Cost of parent training class per family provided by Washington State DSHS Children's Administration, 2012. WSIPP also added costs of practitioner training and curriculum for the parent classes and child classes, based on the findings of Foster et al., 2007 (training and curricula costs are low on a per-family basis, as curricula are shared between practitioners and distributed across many families who receive the intervention). Based on conversations with Lisa St. George from Incredible Years, we assumed that a practitioner team might use their purchased training and curricula to serve 24 families per year on average, for about five years (120 families served per team). In addition, we estimated an implementation cost (per child) for the child training component, based on the staff time and cost reported in Foster et al. (2007), and assuming each practitioner serves 120 children over five years.
Foster, E. .M., Olchowski, A. E., & Webster-Stratton, C.H. (2007). Is stacking intervention components cost-effective? An analysis of the Incredible Years program. Journal of the American Academy of Child and Adolescent Psychiatry, 46(11).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	5	319	-0.584	0.007	-0.280	0.108	7	-0.133	0.079	10
Attention deficit hyperactivity disorder symptoms	Primary	2	106	-0.566	0.001	-0.170	0.143	7	0.000	0.011	8
Internalizing symptoms	Primary	2	193	-0.245	0.200	-0.066	0.106	7	-0.048	0.085	9
Parental stress	Primary	1	20	-0.737	0.021	-0.412	0.319	26	-0.196	0.185	28

Citations Used in the Meta-Analysis

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Parent Child Interaction Therapy (PCIT) for children with disruptive behavior

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: In this program, a therapist directly observes a parent and child through a one-way mirror, and provides direct coaching to the parent through a radio earphone. The focus is building the skills of the parent to more positively interact with the child and manage his or her behavior. Therapists aim to ultimately restructure the parent-child relationship and provide the child with a more secure attachment to the parent.

Benefit-Cost Summary

Program benefits	
Participants	$574
Taxpayers	$574
Other (1)	$730
Other (2)	($506)
Total	$1,372
Costs	($1,390)
Benefits minus cost	($18)

Summary statistics	
Benefit to cost ratio	$0.99
Benefits minus costs	($18)
Probability of a positive net present value	44 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$23	$65	$12	$100
Labor market earnings (hs grad)	$456	$194	$225	$0	$875
Health care (disruptive behavior disorder)	$116	$355	$439	$177	$1,087
Adjustment for deadweight cost of program	$3	$1	$0	($694)	($691)
Totals	$574	$574	$730	($506)	$1,372

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

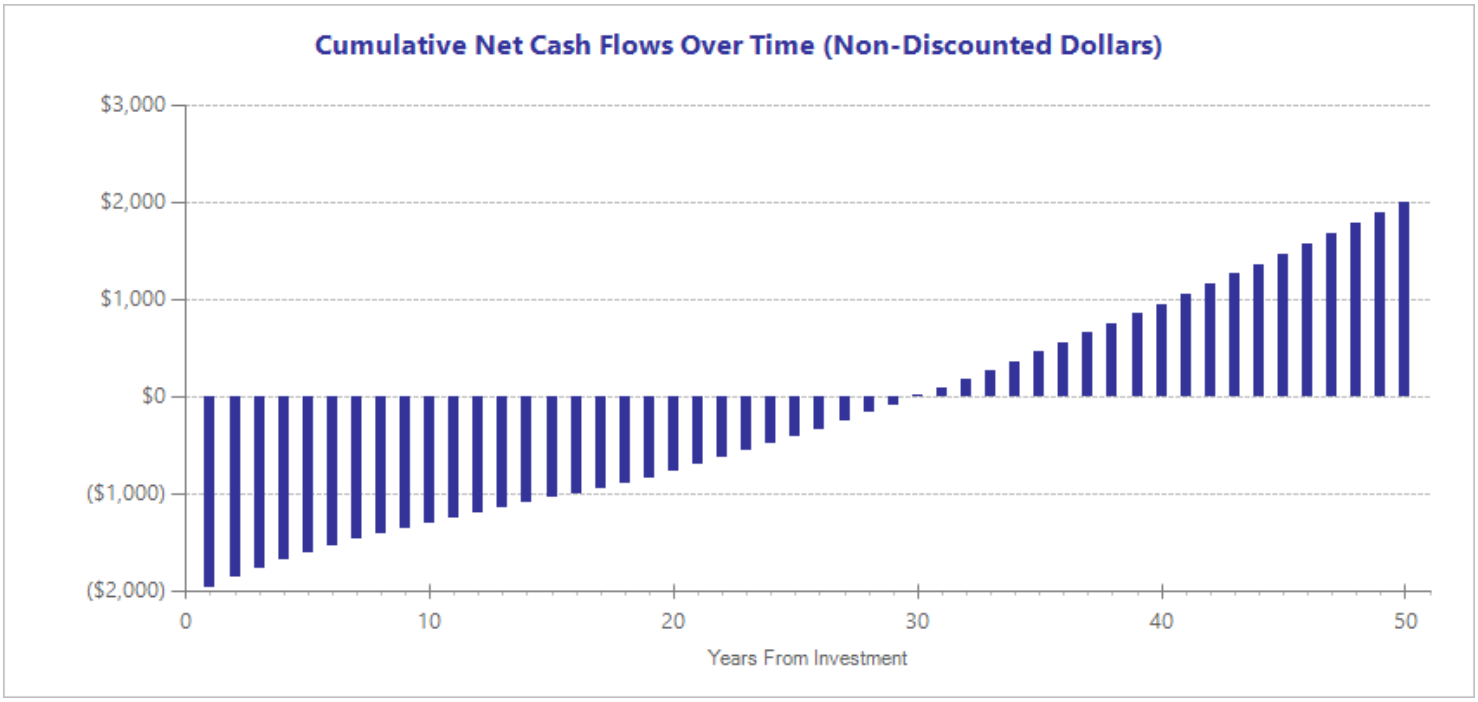
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$2,240	1	2007
Comparison costs	$1,000	1	2007

Summary statistics	
Present value of net program costs (in 2014 dollars)	($1,390)
Uncertainty (+ or - %)	10 %

Standard PCIT expenditures provided by Children's Administration (average reimbursement rate for families receiving PCIT in Washington in 2007).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	10	213	-1.045	0.001	-0.376	0.109	6	-0.179	0.094	9
Attention deficit hyperactivity disorder symptoms	Primary	4	87	-0.792	0.001	-0.264	0.108	6	0.000	0.014	7
Parental stress	Primary	5	145	-0.860	0.001	-0.860	0.129	31	-0.410	0.185	34

Citations Used in the Meta-Analysis

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Triple P Positive Parenting Program: Level 4, group

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Triple P – Positive Parenting Program (Level 4 group) is an intensive class-based parenting program for families of children with more challenging behavior problems. The focus is learning skills and role-playing strategies to cope with and correct behavior problems.

Benefit-Cost Summary

Program benefits	
Participants	$211
Taxpayers	$203
Other (1)	$260
Other (2)	$340
Total	$1,015
Costs	$550
Benefits minus cost	$1,565

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$1,565
Probability of a positive net present value	100 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$9	$25	$4	$38
Labor market earnings (hs grad)	$172	$73	$85	$0	$329
Health care (disruptive behavior disorder)	$40	$121	$150	$61	$372
Adjustment for deadweight cost of program	$0	$0	$0	$275	$275
Totals	$211	$203	$260	$340	$1,015

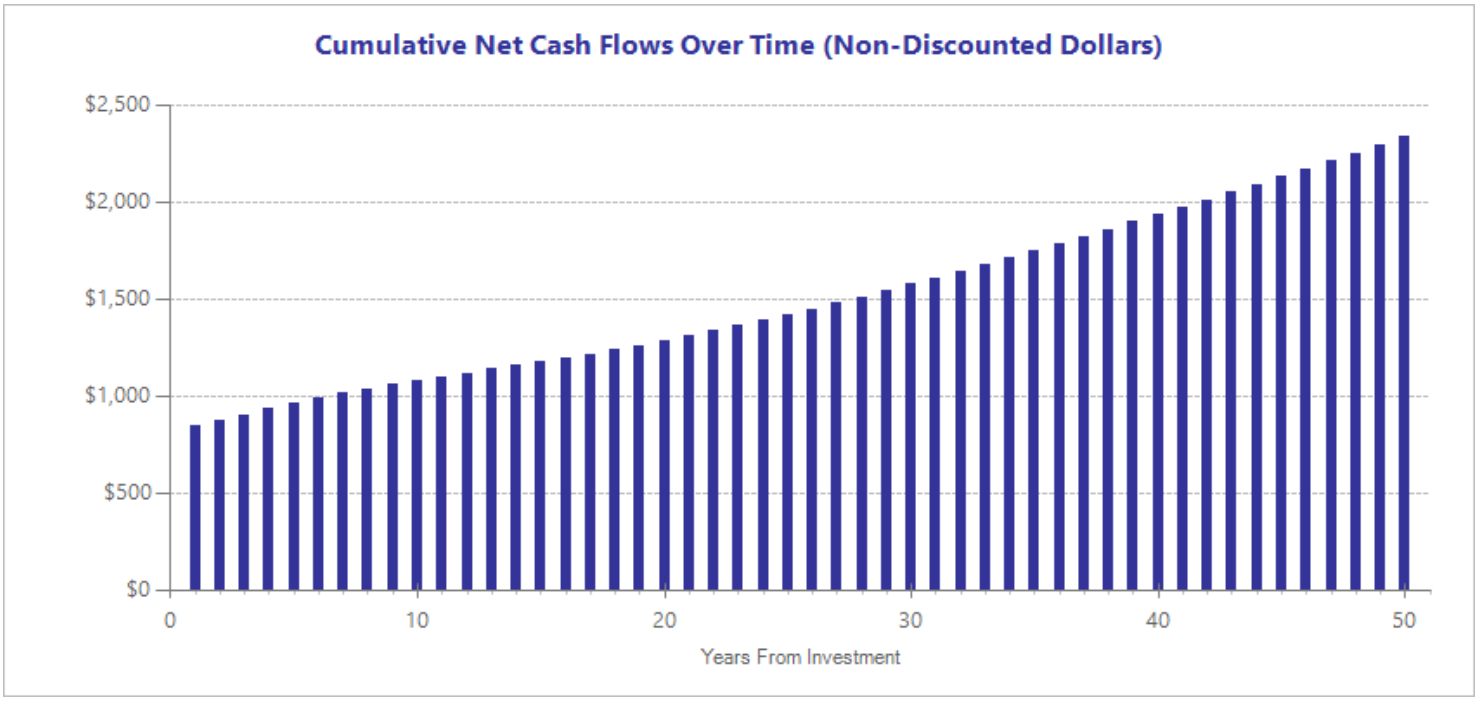
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$367	1	2010	Present value of net program costs (in 2014 dollars)	$550
Comparison costs	$881	1	2010	Uncertainty (+ or - %)	20 %

Based on current Washington expenditures per family for individual behavioral treatment with Triple P, under the assumption that with group training, eight families could receive training at the same time from the same therapist. We also added an estimated cost for venue rental (a cost that is unnecessary when conducting the program with individual families).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	7	1154	-0.491	0.001	-0.169	0.043	5	-0.081	0.041	8
Internalizing symptoms	Primary	1	186	-0.066	0.601	-0.024	0.127	5	-0.017	0.099	7

Citations Used in the Meta-Analysis

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Triple P Positive Parenting Program: Level 4, individual

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Triple P – Positive Parenting Program (Level 4, self directed) is an intensive individual-based parenting program for families of children with challenging behavior problems. In the self-directed modality, parents receive a full Level 4 curriculum with a workbook and exercises to complete at their own pace. They are also offered support from a therapist by telephone on a regular basis.

Benefit-Cost Summary

Program benefits	
Participants	$559
Taxpayers	$587
Other (1)	$745
Other (2)	($286)
Total	$1,604
Costs	($976)
Benefits minus cost	$629

Summary statistics	
Benefit to cost ratio	$1.64
Benefits minus costs	$629
Probability of a positive net present value	64 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$23	$63	$11	$97
Labor market earnings (hs grad)	$435	$186	$215	$0	$836
Health care (disruptive behavior disorder)	$123	$377	$467	$188	$1,154
Adjustment for deadweight cost of program	$1	$1	$0	($485)	($483)
Totals	$559	$587	$745	($286)	$1,604

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

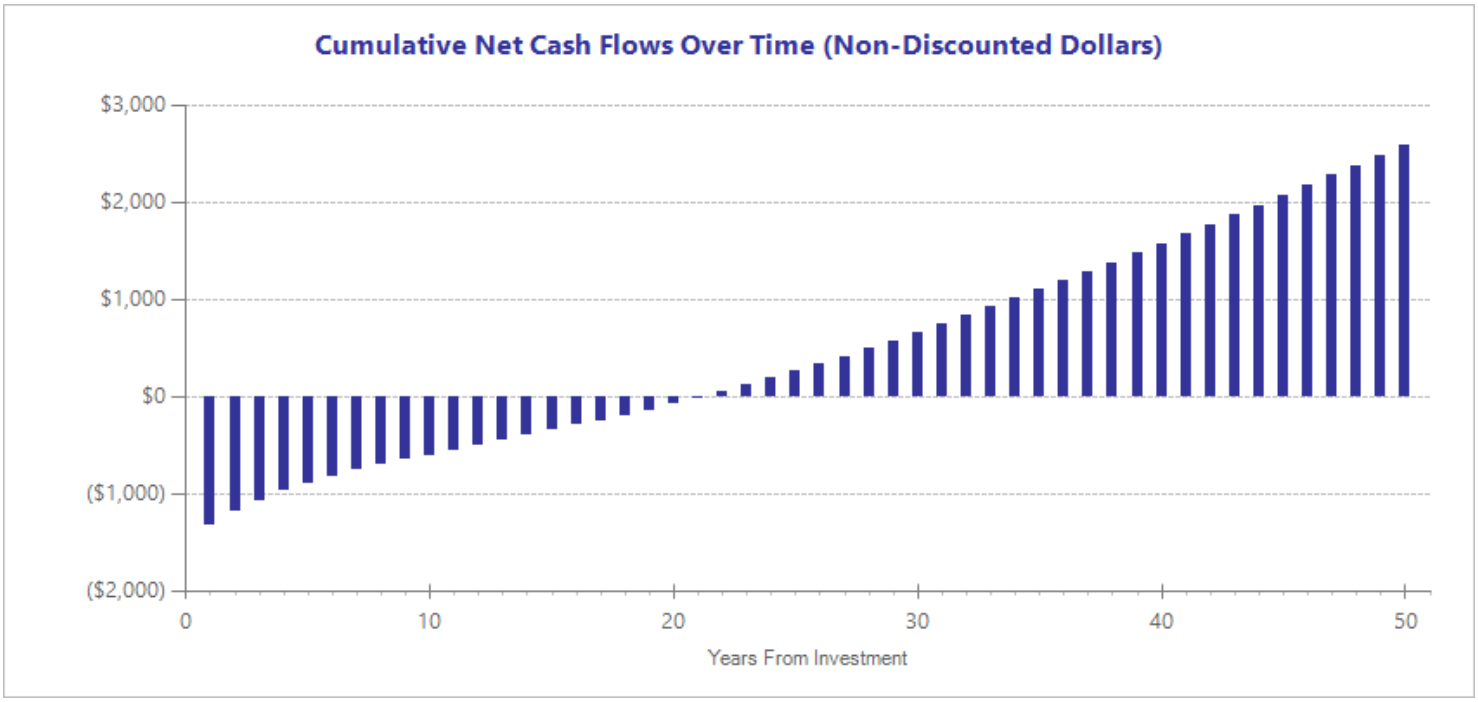
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$1,792	1	2010
Comparison costs	$881	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($976)
Uncertainty (+ or - %)	10 %

Expenditures per family provided by Washington State DSHS Children's Administration, June 2011; based on 10-16 sessions of individual family behavioral training.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	5	150	-0.866	0.001	-0.326	0.126	7	-0.155	0.093	10

Citations Used in the Meta-Analysis

Connell, S., Sanders, M. R., Markie-Dadds, C. (1997). Self-directed behavioral family intervention for parents of oppositional children in rural and remote areas. *Behavior Modification, 21*(4), 379-408.

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Other Behavioral Parent Training (BPT) for children with disruptive behavior disorders

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: In addition to several "brand name" parenting programs, we have grouped other brief treatments in which parents are taught behavior management skills and communication either alone or with their children (in a family format).

Benefit-Cost Summary

Program benefits	
Participants	$328
Taxpayers	$302
Other (1)	$388
Other (2)	$147
Total	$1,166
Costs	$110
Benefits minus cost	$1,276

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$1,276
Probability of a positive net present value	89 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$13	$39	$7	$59
Labor market earnings (hs grad)	$271	$116	$135	$0	$522
Health care (disruptive behavior disorder)	$56	$173	$215	$85	$530
Adjustment for deadweight cost of program	$0	$0	$0	$55	$55
Totals	$328	$302	$388	$147	$1,166

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

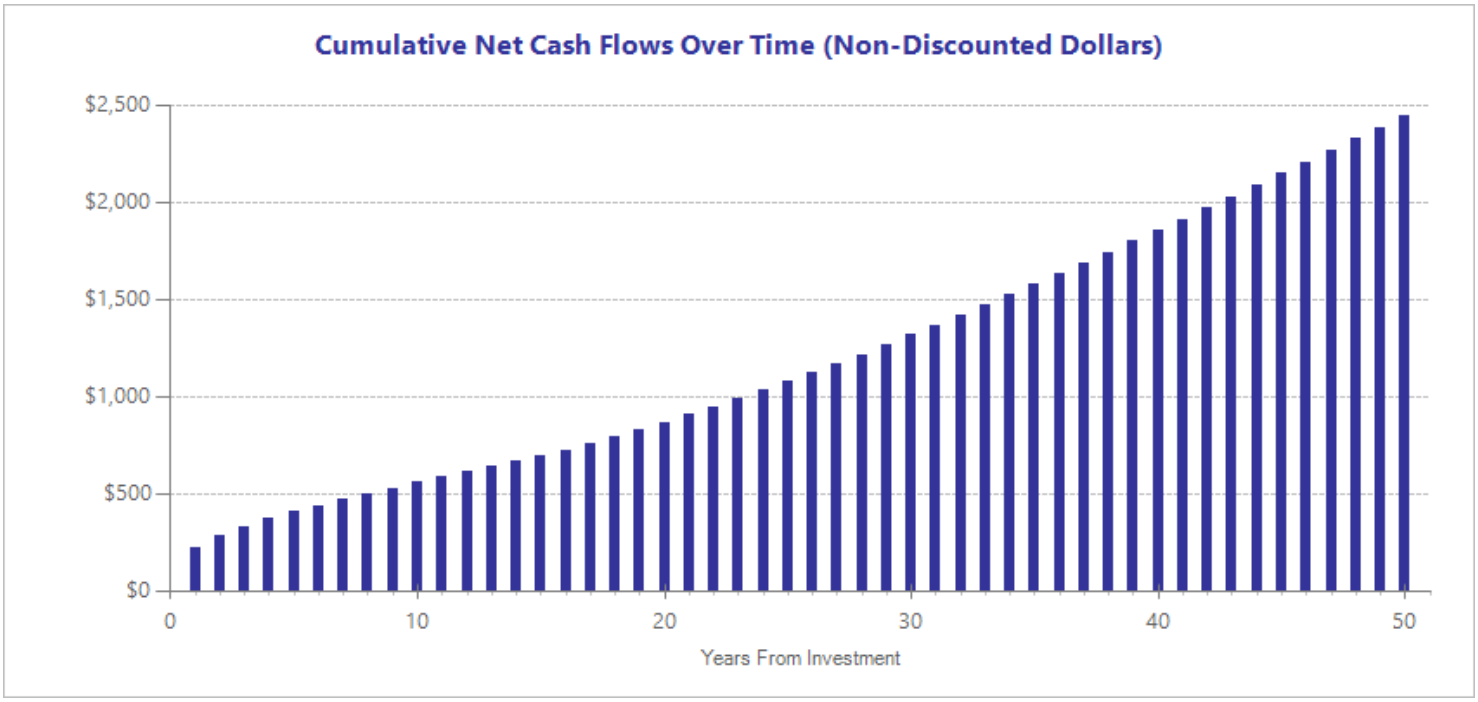
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$778	1	2010
Comparison costs	$881	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	$110
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	7	136	-0.746	0.001	-0.180	0.143	8	-0.086	0.082	11
Internalizing symptoms	Primary	2	62	-0.442	0.033	-0.122	0.143	8	-0.089	0.117	10

Citations Used in the Meta-Analysis

Behan, J., Fitzpatrick, C., Sharry, J., Carr, A., & Waldron, B. (2001). Evaluation of the Parenting Plus Programme. *The Irish Journal of Psychology, 22*(3-4), 238-256.

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Brief Strategic Family Therapy (BSFT)

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: This intervention is aimed at youth who are at risk of developing serious behavior problems, including delinquency and substance abuse. Because such risk can be defined in various ways, the studies in this analysis included participants with different types and severity of problems. This treatment has been extensively tested on ethnic minorities.

Benefit-Cost Summary

Program benefits	
Participants	$177
Taxpayers	$565
Other (1)	$737
Other (2)	$15
Total	$1,495
Costs	($536)
Benefits minus cost	$959

Summary statistics	
Benefit to cost ratio	$2.79
Benefits minus costs	$959
Probability of a positive net present value	68 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$24	$67	$12	$103
Labor market earnings (illicit drug abuse/dependence)	$0	$0	$0	$0	$1
Health care (disruptive behavior disorder)	$176	$541	$669	$271	$1,657
Adjustment for deadweight cost of program	$0	$0	$0	($268)	($266)
Totals	$177	$565	$737	$15	$1,495

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

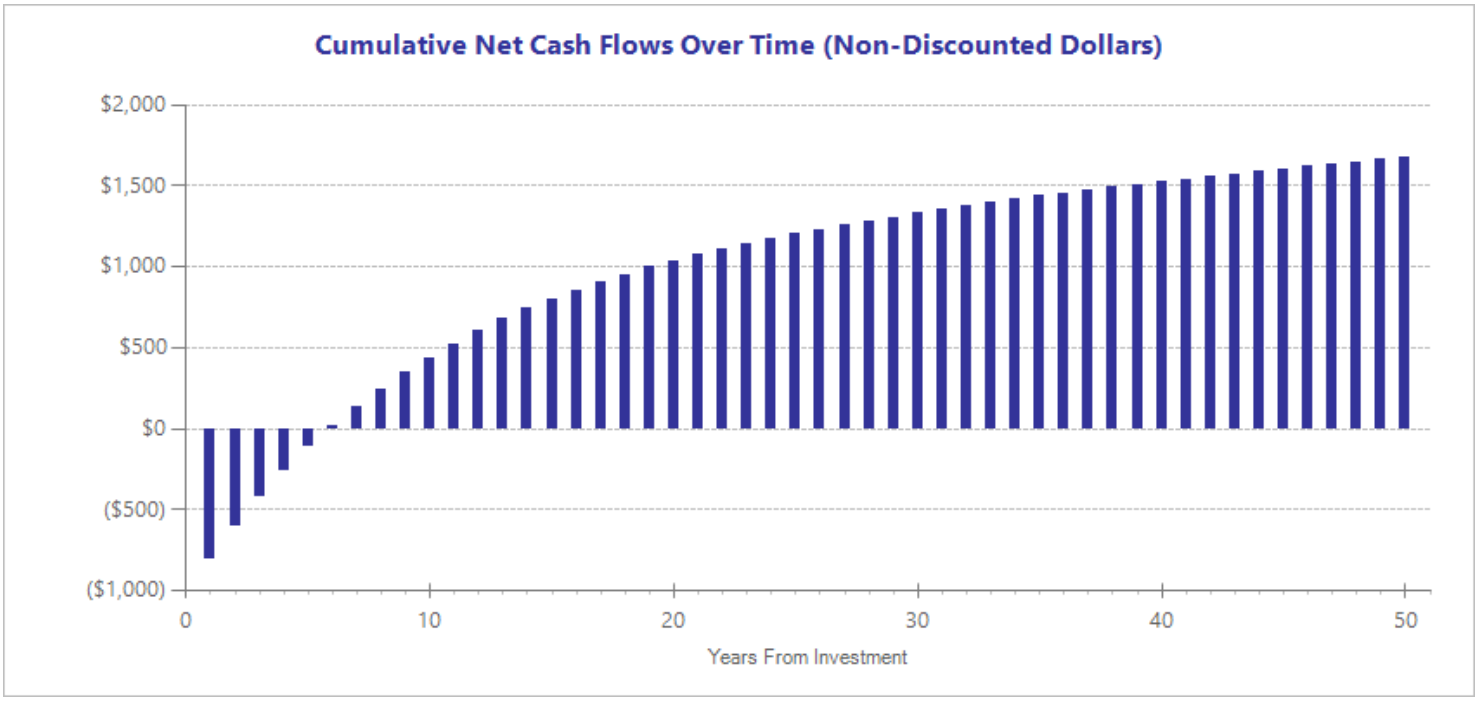
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$1,350	1	2010
Comparison costs	$850	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($536)
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	3	124	-0.500	0.002	-0.205	0.148	14	-0.119	0.092	17
Illicit drug abuse or dependence	Primary	2	301	-0.086	0.404	-0.087	0.013	13	0.000	0.187	16

Citations Used in the Meta-Analysis

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Families and Schools Together (FAST)

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Families and Schools Together is a multi-family after-school program. Originally developed to serve young school-age children at risk of school failure, the program is now also offered in schools with high rates of poverty and other risk factors. The goals of the program are to increase parent involvement in schools, strengthen the parent-child relationship, reduce stress by developing parent support groups, and prevent substance abuse by the child and family. Groups of 8 to 12 families meet for 8 consecutive weeks for two and one-half hours after school or early in the evenings. Teams of trained facilitators conduct meetings that involve experiential learning, parent-child play, and a shared meal.

Benefit-Cost Summary

Program benefits	
Participants	$917
Taxpayers	$331
Other (1)	$697
Other (2)	($937)
Total	$1,009
Costs	($1,843)
Benefits minus cost	($834)

Summary statistics	
Benefit to cost ratio	$0.55
Benefits minus costs	($834)
Probability of a positive net present value	47 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$16	$47	$8	$70
Labor market earnings (test scores)	$860	$367	$433	$0	$1,660
K-12 grade repetition	$0	($226)	$0	($113)	($340)
Health care (disruptive behavior disorder)	$57	$176	$217	$87	$537
Adjustment for deadweight cost of program	$0	$0	$0	($919)	($919)
Totals	$917	$331	$697	($937)	$1,009

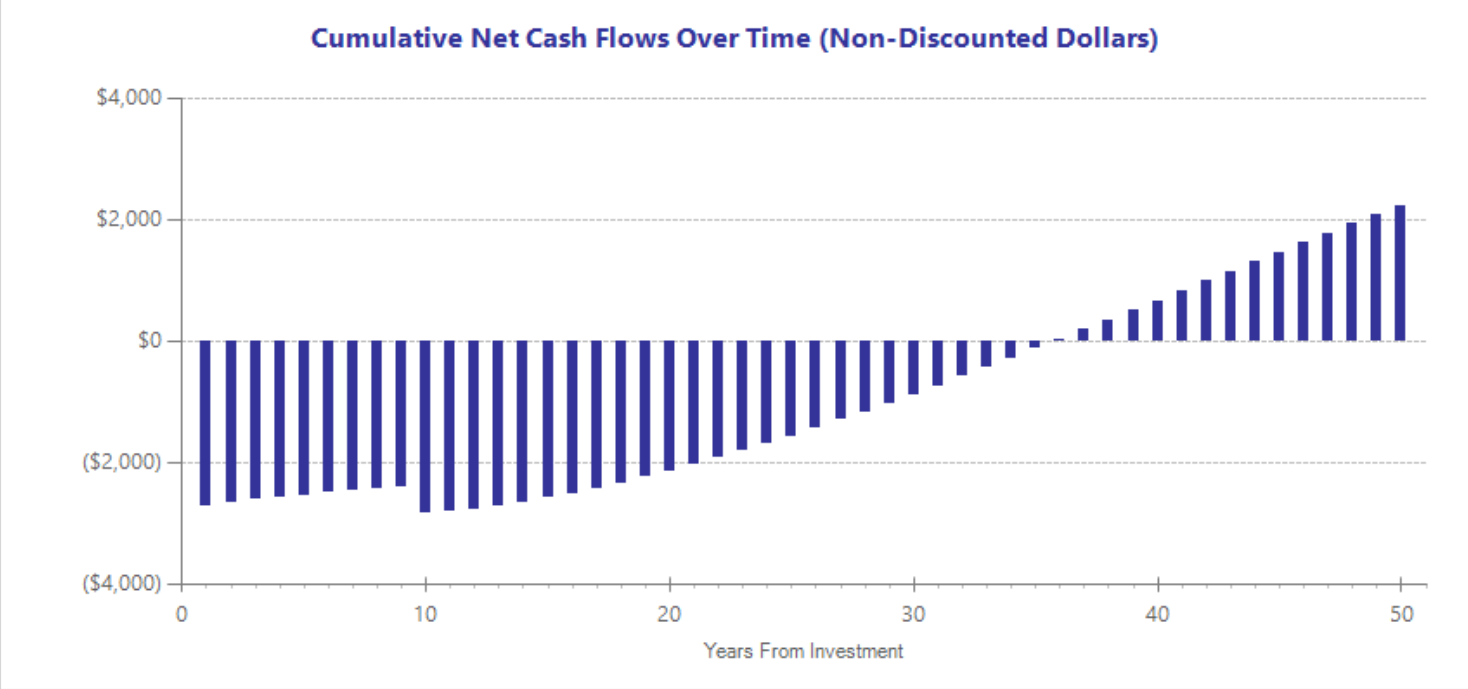
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,694	1	2009	Present value of net program costs (in 2014 dollars)	($1,843)
Comparison costs	$0	0	2009	Uncertainty (+ or - %)	10 %

Kratochwill (2009) provided costs for the program evaluated in Madison WI. Implementation (actual presentation of the program) cost $1194 per child, plus an average cost of $500 per child to train the program facilitators. See Kratochwill, T. R., McDonald, L., Levin, J. R., Scalia, P. A., & Coover, G. (2009). Families and Schools Together: An experimental study of multi-family support groups for children at risk. Journal of School Psychology, 47(4), 245-265.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	3	179	0.104	0.487	0.027	0.122	8	0.015	0.134	17
K-12 grade repetition	Primary	1	140	0.288	0.176	0.288	0.212	9	0.288	0.212	17
Externalizing behavior symptoms	Primary	5	391	-0.284	0.007	-0.210	0.081	8	-0.100	0.059	11
Internalizing symptoms	Primary	5	391	-0.011	0.890	-0.017	0.079	8	-0.012	0.062	10
Grade point average	Primary	1	140	-0.086	0.485	-0.086	0.123	8	-0.086	0.123	17

Citations Used in the Meta-Analysis

Kratochwill, T. R., McDonald, L., Levin, J. R., Scalia, P. A., & Coover, G. (2009). Families and Schools Together: An experimental study of multi-family support groups for children at risk. *Journal of School Psychology, 47*(4), 245-265.

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McDonald, L. (2003). *The Asian American FAST Project: Among Adaptation of Families and Schools Together.* Madison, WIS: WCER.

McDonald, L., Moberg, D.P., Brown, R., Rodriguez-Espiricueta, I., Flores, N.I., Burke, M.P., & Coover, G. (2006). After-school multifamily groups: A randomized controlled trial involving low-income, urban, Latino children. *Children and Schools, 28*(1), 25-34.

Multimodal Therapy (MMT) for children with disruptive behavior

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: These treatments target more than one setting with psychosocial interventions. For instance, many therapies intervene with both parents and teachers or children. In this analysis, all studies utilized either behavioral or cognitive-behavioral orientations.

Benefit-Cost Summary

Program benefits	
Participants	$1,272
Taxpayers	$592
Other (1)	$702
Other (2)	($645)
Total	$1,922
Costs	($1,335)
Benefits minus cost	$587

Summary statistics	
Benefit to cost ratio	$1.44
Benefits minus costs	$587
Probability of a positive net present value	50 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$4	$10	$2	$15
Labor market earnings (test scores)	$1,255	$535	$626	$0	$2,416
Health care (disruptive behavior disorder)	$17	$53	$66	$27	$163
Adjustment for deadweight cost of program	$0	$0	$0	($673)	($673)
Totals	$1,272	$592	$702	($645)	$1,922

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

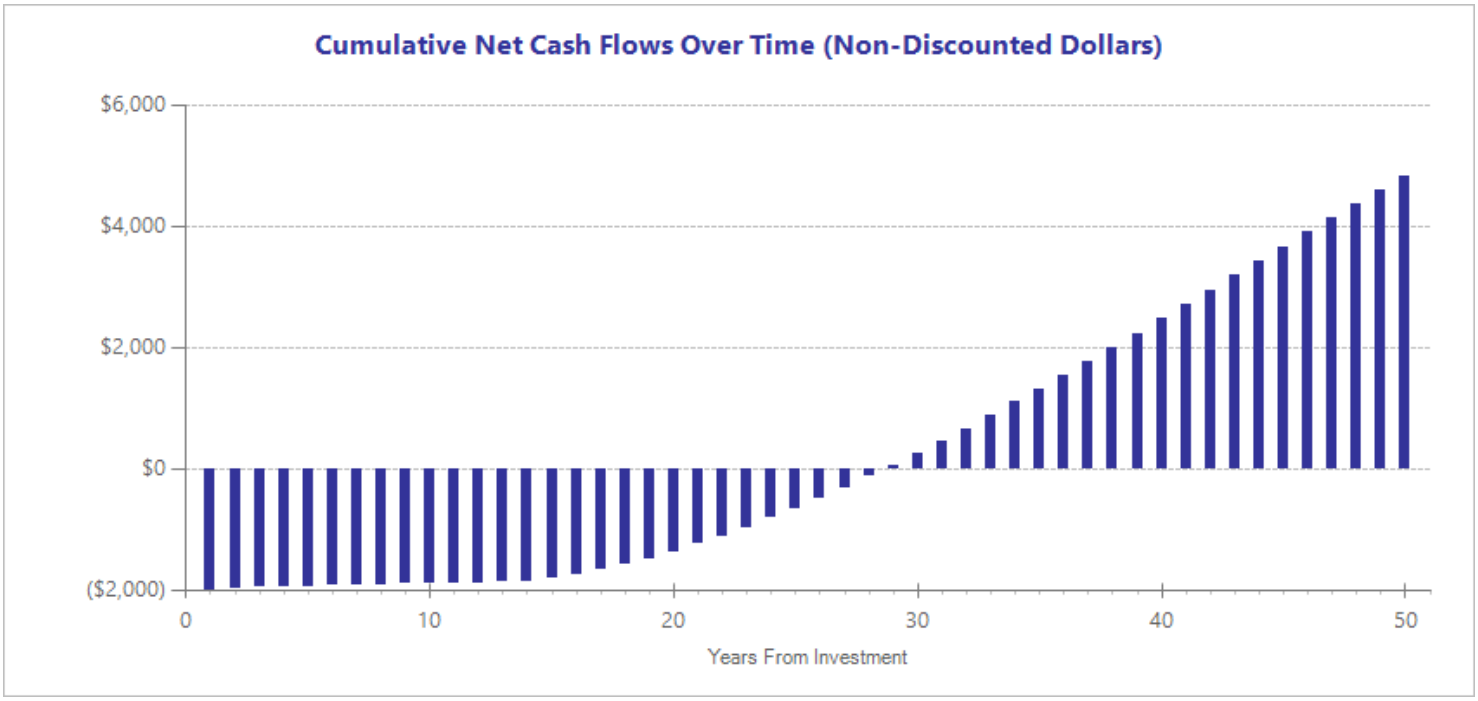
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$2,128	1	2010
Comparison costs	$881	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($1,335)
Uncertainty (+ or - %)	10 %

Based on therapist time, as reported in the treatment studies, as well as training costs and a flat fee for materials (e.g., manuals). Hourly therapist cost was based on the latest actuarial estimates of reimbursement by modality in WA State (DSHS).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	1	40	0.073	0.742	0.047	0.221	6	0.019	0.243	17
Disruptive behavior disorder symptoms	Primary	3	101	-0.274	0.524	-0.044	0.176	8	-0.021	0.093	11
Attention deficit hyperactivity disorder symptoms	Primary	1	40	-0.083	0.706	-0.027	0.222	6	0.000	0.011	7

Citations Used in the Meta-Analysis

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Multisystemic Therapy (MST) for youth with serious emotional disturbance (SED)

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: This is an intensive family-focused treatment, which combines aspects of cognitive, behavioral, and family therapies. Therapists work in the child's home, school, and community to modify his/her environment. Although MST is often conducted with juvenile offenders, the studies included here focused on children with externalizing problems who were not involved with the juvenile justice system at the time of intervention.

Benefit-Cost Summary

Program benefits	
Participants	$2,417
Taxpayers	$2,619
Other (1)	$2,478
Other (2)	($2,240)
Total	$5,273
Costs	($6,777)
Benefits minus cost	($1,504)

Summary statistics	
Benefit to cost ratio	$0.78
Benefits minus costs	($1,504)
Probability of a positive net present value	41 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$506	$1,777	$254	$2,536
Labor market earnings (hs grad)	$822	$351	$407	$0	$1,579
Child abuse and neglect	$1,517	$0	$0	$0	$1,517
Out-of-home placement	$0	$1,525	$0	$761	$2,286
Health care (disruptive behavior disorder)	$77	$237	$294	$119	$727
Adjustment for deadweight cost of program	$1	$0	$0	($3,373)	($3,372)
Totals	$2,417	$2,619	$2,478	($2,240)	$5,273

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

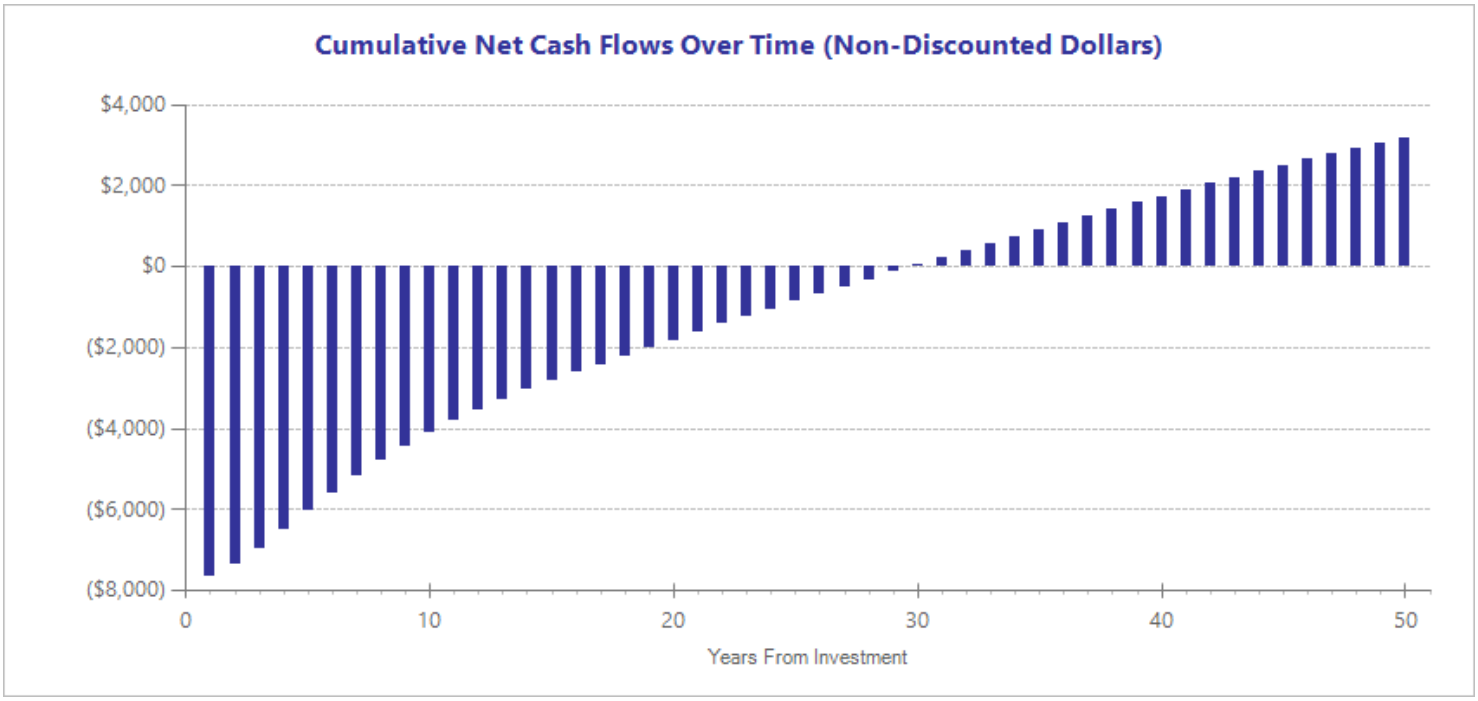
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$7,076	1	2008
Comparison costs	$850	1	2010

Summary statistics	
Present value of net program costs (in 2014 dollars)	($6,777)
Uncertainty (+ or - %)	10 %

For estimation of MST, see: R. Barnoski (2009). Providing evidence-based programs with fidelity in Washington state juvenile courts: Cost analysis, Olympia: Washington State Institute for Public Policy, http://www.wsipp.wa.gov/rptfiles/09-12-1201.pdf.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	5	341	-0.060	0.502	-0.062	0.081	15	-0.062	0.081	17
Out-of-home placement	Primary	5	508	-0.708	0.003	-0.479	0.165	15	-0.479	0.165	17
Disruptive behavior disorder symptoms	Primary	6	443	-0.256	0.001	-0.227	0.079	15	-0.108	0.061	18
Substance abuse	Primary	3	151	-0.018	0.878	-0.015	0.116	15	0.000	0.187	18
Internalizing symptoms	Primary	2	72	-0.046	0.783	-0.029	0.167	15	-0.021	0.131	16
Suicidal ideation	Primary	1	78	-0.031	0.877	-0.020	0.216	15	-0.010	0.112	18
Hospitalization (psychiatric)	Primary	2	136	0.719	0.265	-0.411	0.344	15	-0.196	0.196	18

Citations Used in the Meta-Analysis

Asscher, J.J., Dekovi, M., Manders, W.A., Laan, P.H., & Prins, P.J.M. (2013). A randomized controlled trial of the effectiveness of multisystemic therapy in the Netherlands: post-treatment changes and moderator effects. *Journal of Experimental Criminology,* 9, 169-187

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Ogden, T., & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. *Child and Adolescent Mental Health, 9*(2), 77-83.

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Weiss, B., Han, S., Harris, V., Castron, T., Ngo, V. K., & Caron, A. (n.d.). *An independent evaluation of the MST treatment program*. Unpublished manuscript emailed to M. Miller by S. Henggeler on May 4, 2010.

Full fidelity wraparound for youth with serious emotional disturbance (SED)

Literature review updated January 2012.

Program Description: Wraparound is an intensive, individualized care planning and management process for children with complex emotional and behavioral needs. During the wraparound process, a team of people who are relevant to the life of the child or youth collaboratively develop an individualized plan of care, implement this plan, monitor the efficacy of the plan, and work towards success over time. The wraparound plan typically includes formal services and interventions, together with community services and interpersonal support and assistance provided by friends, kin, and other people drawn from the family's social networks. After the initial plan is developed, the team continues to meet to monitor progress and revise interventions and strategies when needed.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Disruptive behavior disorder symptoms	Primary	4	199	-0.288	0.154	-0.130	0.124	12	-0.062	0.069	15
Externalizing behavior symptoms	Primary	4	199	-0.522	0.006	-0.321	0.142	12	-0.153	0.098	15
Internalizing symptoms	Primary	4	199	-0.222	0.075	-0.122	0.125	12	-0.089	0.103	14

Citations Used in the Meta-Analysis

Clark, H. B., Prange, M. E., Lee, B., Stewart, E. S., McDonald, B. A., & Boyd, L. A. (1998) An individualized wraparound process for children in foster care with emotional/behavioral disturbances: follow-up findings and implications from a controlled study. In M. H. Epstein, K. Kutash, & A. Duchnowski (Eds.), *Outcomes for children and youth with emotional and behavioral disorders and their families: Programs and evaluation best practices* (pp. 513-542). Austin, TX: Pro-Ed.

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Rast, J., Bruns, E.J., Brown, E.C., & Peterson, C.R. (2007). *Wraparound for youth in child welfare custody: Results of a matched comparison study.* Unpublished program evaluation.

Child-Parent Psychotherapy

Literature review updated June 2013.

Program Description: This intervention is designed for parents (most frequently mothers) whose children are insecurely attached to the parents. In one of the two studies in the review, children had witnessed domestic violence. In the other, mothers had diagnoses of depression. The intervention consists of weekly psychotherapy sessions where both child and parent are present. The goal is to strengthen the relationship between parent and child, thereby increasing the child's sense of safety and attachment. The program is designed to consist of 50 weekly sessions.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	1	43	0.282	0.170	0.282	0.206	5	0.087	0.227	17
Post-traumatic stress	Primary	1	36	-0.861	0.001	-0.551	0.261	5	-0.551	0.261	6
Post-traumatic stress	Secondary	1	36	-0.483	0.056	-0.309	0.253	28	-0.309	0.253	29

Citations Used in the Meta-Analysis

Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2000). The Efficacy of Toddler-Parent Psychotherapy for Fostering Cognitive Development in Offspring of Depressed Mothers. *Journal of Abnormal Child Psychology, 28*(2), 135-148.

Lieberman, A. F., Van Horn, P., & Ippen, C. G. (2005). Toward evidence-based treatment: Child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child & Adolescent Psychiatry, 44*(12), 1241- 1247.

Cognitive Behavioral Therapy (CBT)-based models for child trauma

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: Treatments include several components, such psycho-education about PTSD, relaxation and other techniques for managing physiological and emotional stress, exposure – the gradual desensitization to memories of the traumatic event and, cognitive restructuring of inaccurate or unhelpful thoughts. In the studies in this review, treatments provided 9 to 15 therapeutic hours per client in individual or group settings. This review includes studies of Trauma-Focused CBT, Cognitive Behavioral Intervention for Trauma in Schools (CBITS), Narrative Exposure Therapy for traumatized children (Kid-NET), Enhancing Resiliency Among Students Experiencing Stress (ERASE), and Trauma and Grief Component Therapy.

Benefit-Cost Summary

Program benefits	
Participants	$3,248
Taxpayers	$1,837
Other (1)	$654
Other (2)	$431
Total	$6,169
Costs	$332
Benefits minus cost	$6,501

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$6,501
Probability of a positive net present value	98 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$3	$8	$1	$12
Labor market earnings (anxiety disorder)	$3,078	$1,313	$0	$0	$4,391
Health care (PTSD)	$170	$521	$645	$263	$1,599
Adjustment for deadweight cost of program	$0	$0	$0	$167	$167
Totals	$3,248	$1,837	$654	$431	$6,169

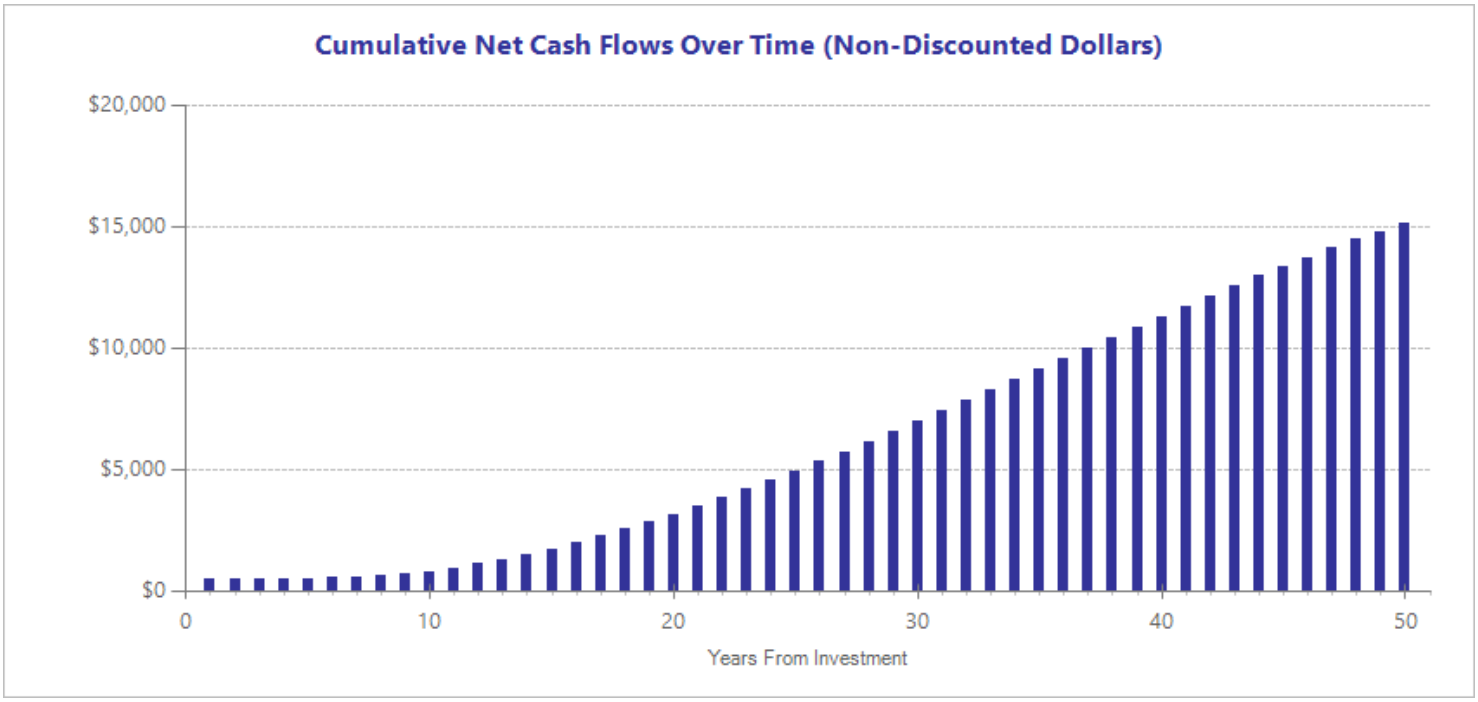
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$730	1	2009	Present value of net program costs (in 2014 dollars)	$332
Comparison costs	$1,035	1	2009	Uncertainty (+ or - %)	10 %

Weighted average cost for this sample of studies, (average hours of group and individual therapy reported in the studies), times average the RSN costs (for 2009) for group and individual therapy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	14	846	-0.375	0.001	-0.238	0.052	12	0.000	0.020	13
Anxiety disorder	Primary	8	493	-0.141	0.043	-0.124	0.069	12	-0.057	0.035	13
Global functioning	Primary	3	81	-0.581	0.001	-0.249	0.156	12	-0.249	0.156	13
Internalizing symptoms	Primary	5	118	-0.199	0.454	-0.150	0.268	12	-0.109	0.213	14
Post-traumatic stress	Primary	21	1311	-0.732	0.001	-0.363	0.059	12	-0.363	0.059	13
Suicidal ideation	Primary	1	26	-0.294	0.301	-0.106	0.285	12	-0.106	0.285	13
Externalizing behavior symptoms	Primary	6	172	-0.125	0.409	-0.104	0.132	12	-0.049	0.071	14

Citations Used in the Meta-Analysis

Berger, R., & Gelkopf, M. (2009). School-Based Intervention for the Treatment of Tsunami-Related Distress in Children: A Quasi-Randomized Controlled Trial. *Psychotherapy and Psychosomatics, 78*(6), 364-371.

Berger, R., Pat-Horenczyk, R., & Gelkopf, M. (2007). School-based intervention for prevention and treatment of elementary-students' terror-related distress in Israel: A quasi-randomized controlled trial. *Journal of Traumatic Stress, 20*(4), 541-551.

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Eye Movement Desensitization and Reprocessing (EMDR) for child trauma

Benefit-cost estimates updated July 2015. Literature review updated April 2012.

Program Description: During treatment, clients focus on the traumatic memory for 30 seconds at a time while the therapist provides a stimulus. For most clients, the therapist moves his hand slowly back and forth in front of the client (eye movement); for younger children, the therapist may, instead, tap the child's hand. The client reports on what comes up and clients are guided to refocus on that in the next stimulus session. During therapy visits, clients report on the level of distress they feel. In later phases, a positive thought is emphasized during the stimulus sessions. Afterward, clients are asked to focus on residual physical tensions they may feel in order to enhance relaxation. A more complete description of this therapy is available at: http://www.emdrnetwork.org/description.html

Benefit-Cost Summary

Program benefits	
Participants	$5,490
Taxpayers	$2,783
Other (1)	$651
Other (2)	$336
Total	$9,260
Costs	$162
Benefits minus cost	$9,422

Summary statistics	
Benefit to cost ratio	n/a
Benefits minus costs	$9,422
Probability of a positive net present value	82 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$11	$33	$5	$49
Labor market earnings (anxiety disorder)	$5,327	$2,272	$0	$0	$7,600
Health care (PTSD)	$163	$499	$618	$249	$1,529
Adjustment for deadweight cost of program	$0	$0	$0	$81	$82
Totals	$5,490	$2,783	$651	$336	$9,260

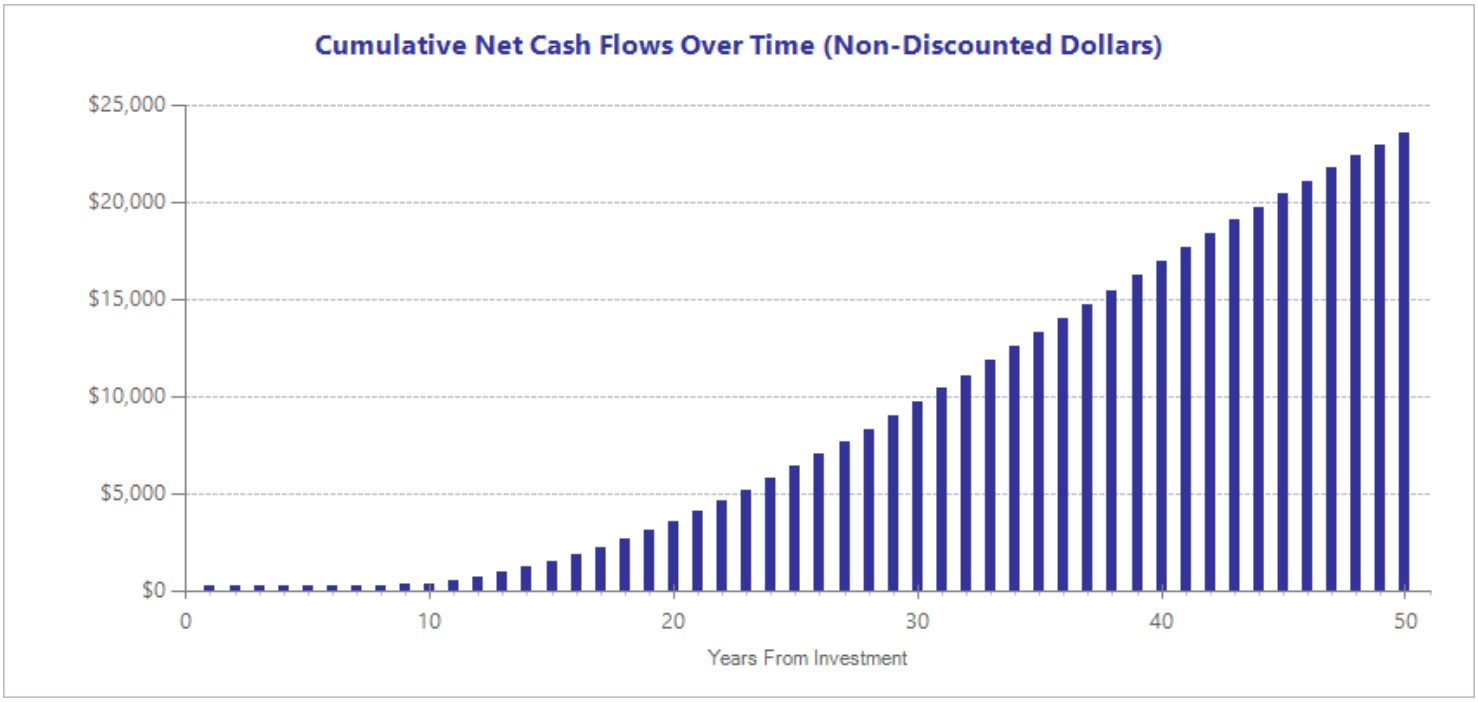
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$886	1	2009	Present value of net program costs (in 2014 dollars)	$162
Comparison costs	$1,035	1	2009	Uncertainty (+ or - %)	10 %

Weighted average cost for this sample of studies, (average hours therapy reported in the studies), times average the RSN costs (for 2009) for individual therapy for child PTSD. (EMDR is always individual therapy.)

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	2	29	-0.184	0.521	-0.228	0.270	11	0.000	0.029	12
Anxiety disorder	Primary	2	29	-0.184	0.521	-0.227	0.270	11	-0.105	0.130	12
Externalizing behavior symptoms	Primary	1	14	-0.512	0.175	-0.512	0.378	11	-0.244	0.221	14
Post-traumatic stress	Primary	4	60	-0.510	0.134	-0.356	0.282	11	-0.356	0.282	12

Citations Used in the Meta-Analysis

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Modularized Approaches to Treatment of Anxiety, Depression, and Behavior (MATCH)

Literature review updated June 2013.

Program Description: Modular treatment consists of modules from the 3 standard treatment types for child anxiety (Coping Cat), depression (Primary and Secondary Control Enhancement Training) , and disruptive behavior (Behavioral Parent Training/ Defiant Child), but therapists are free to introduce modules from more than one of the types. For example, during depression treatment, a therapist could use the module for defiant behavior if the child's behavior warranted and return to the depression treatment later.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Externalizing behavior symptoms	Primary	1	62	-0.646	0.001	-0.413	0.190	11	-0.197	0.129	13
Internalizing symptoms	Primary	1	62	-0.546	0.004	-0.350	0.189	11	-0.255	0.177	12

Citations Used in the Meta-Analysis

Weisz, J.R., Chorpita, B.F., Palinkas, L.A., Schoenwald, S.K., Miranda,J, Bearman, S.K...(2012) Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth. Archives of General Psychiatry 69(3), 274-282

Adolescent Assertive Continuing Care

Benefit-cost estimates updated July 2015. Literature review updated June 2013.

Program Description: This intervention was designed for youth returning to the community after residential substance abuse treatment. The aim of the intervention is to encourage youth to continue in outpatient treatment. Case workers make weekly home visits, advocate for needed services, and aid in job search and other pro-social activities.

Benefit-Cost Summary

Program benefits	
Participants	$39
Taxpayers	$35
Other (1)	$38
Other (2)	($1,040)
Total	($928)
Costs	($2,212)
Benefits minus cost	($3,140)

Summary statistics	
Benefit to cost ratio	($0.42)
Benefits minus costs	($3,140)
Probability of a positive net present value	37 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$5	$22	$3	$30
Labor market earnings (alcohol abuse/dependence)	$36	$15	$0	$46	$97
Health care (alcohol abuse/dependence)	$3	$15	$14	$8	$40
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$3
Adjustment for deadweight cost of program	$0	$0	($1)	($1,097)	($1,098)
Totals	$39	$35	$38	($1,040)	($928)

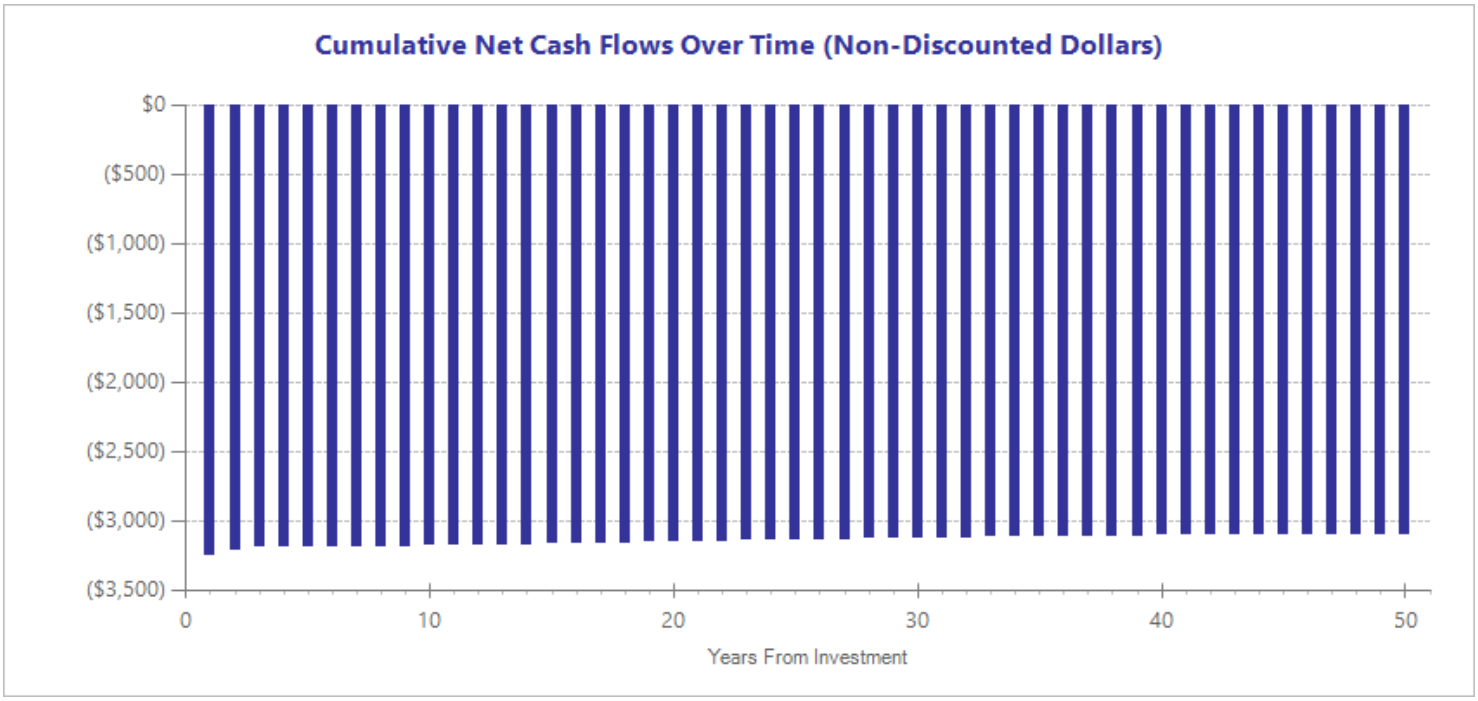
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$2,037	1	2008
Comparison costs	$0	1	2008

Summary statistics	
Present value of net program costs (in 2014 dollars)	($2,212)
Uncertainty (+ or - %)	10 %

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	71	-0.146	0.421	-0.146	0.181	16	0.000	0.187	19
Substance abuse	Primary	1	71	-0.215	0.306	-0.215	0.210	16	0.000	0.187	19
Cannabis abuse or dependence	Primary	1	71	-0.318	0.082	-0.318	0.183	16	0.000	0.187	19

Citations Used in the Meta-Analysis

Godley, M.D., Godley, S.H., Dennis, M.L., Funk, R.R., & Passetti, L L. (2007). Research report: The effect of assertive continuing care on continuing care linkage, adherence and abstinence following residential treatment for adolescents with substance use disorders. *Addiction, 102*(1), 81-93.

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Adolescent Community Reinforcement

Literature review updated June 2013.

Program Description: This outpatient program targets youth 12 to 22 years old with DSM-IV cannabis, alcohol, and/or other substance use disorders. The intervention seeks to replace environmental contingencies that have supported alcohol or drug use with prosocial activities and behaviors that support recovery.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	96	-0.274	0.137	-0.274	0.185	20	-0.274	0.185	30
Substance abuse	Primary	1	96	-0.393	0.033	-0.393	0.185	20	-0.393	0.185	30
Major depressive disorder	Primary	1	96	-0.405	0.028	-0.405	0.185	20	-0.204	0.078	25

Citations Used in the Meta-Analysis

Slesnick, N., Prestopnik, J.L., Meyers, R.J., & Glassman, M. (2007). Treatment outcome for street-living, homeless youth. *Addictive Behaviors, 32*(6), 1237-1251.

Life Skills Training

Benefit-cost estimates updated July 2015. Literature review updated June 2014.

Program Description: Life Skills Training (LST) is a school-based classroom intervention to reduce the risks of alcohol, tobacco, drug abuse, and violence by targeting social and psychological factors associated with initiation of risky behaviors. Teachers deliver the program to middle/junior high school students in 24 to 30 sessions over three years. Students in the program are taught general self-management and social skills and skills related to avoiding substance use.

Benefit-Cost Summary

Program benefits	
Participants	$468
Taxpayers	$288
Other (1)	$547
Other (2)	($6)
Total	$1,298
Costs	($99)
Benefits minus cost	$1,199

Summary statistics	
Benefit to cost ratio	$13.08
Benefits minus costs	$1,199
Probability of a positive net present value	62 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$24	$72	$12	$108
Labor market earnings (hs grad)	$869	$371	$430	$0	$1,670
Health care (smoking)	$15	$95	$83	$47	$240
Labor market earnings (alcohol abuse/dependence)	($414)	($176)	$0	($3)	($593)
Health care (alcohol abuse/dependence)	($3)	($18)	($16)	($9)	($46)
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$3
Adjustment for deadweight cost of program	($1)	($7)	($23)	($53)	($84)
Totals	$468	$288	$547	($6)	$1,298

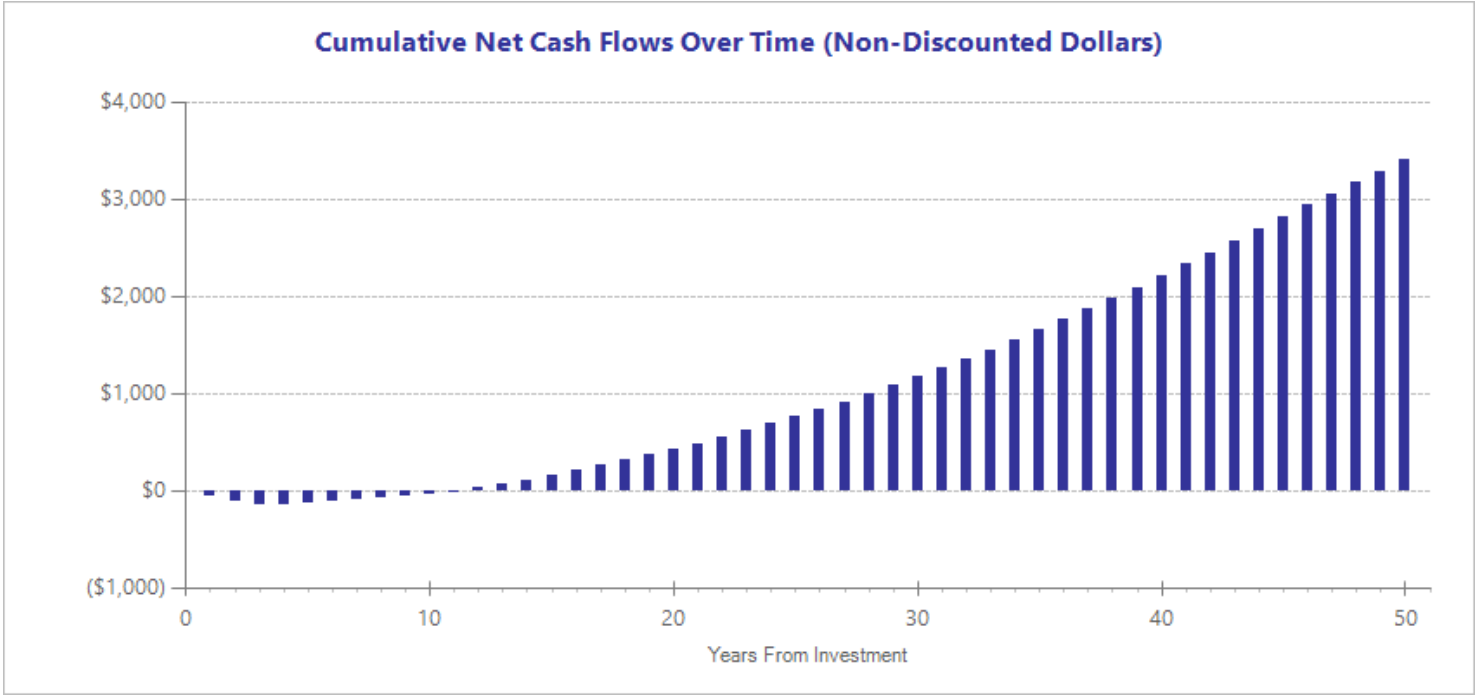
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$34	3	2013	Present value of net program costs (in 2014 dollars)	($99)
Comparison costs	$0	1	2013	Uncertainty (+ or - %)	10 %

Cost data come from Blueprints for Healthy Youth Development and developer website (http://www.blueprintsprograms.com/programCosts.php?pid=ac3478d69a3c81fa62e60f5c3696165a4e5e6ac4).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Smoking before end of middle school	Primary	8	3617	-0.083	0.012	-0.027	0.033	14	-0.027	0.033	24
Cannabis use before end of middle school	Primary	4	3056	-0.041	0.217	-0.014	0.033	14	-0.014	0.033	24
Alcohol use before end of middle school	Primary	5	3150	-0.080	0.017	-0.026	0.033	14	-0.026	0.033	24
Internalizing symptoms	Primary	4	3092	-0.054	0.549	-0.018	0.091	14	-0.013	0.071	16
Alcohol use in high school	Primary	3	280	0.028	0.702	0.034	0.074	18	0.034	0.074	28
Smoking in high school	Primary	4	359	-0.128	0.129	-0.076	0.074	18	-0.076	0.074	28
Cannabis use in high school	Primary	3	280	-0.007	0.929	0.000	0.077	18	0.000	0.077	28
Youth binge drinking	Primary	2	1947	-0.246	0.419	-0.051	0.117	15	-0.051	0.117	25

Citations Used in the Meta-Analysis

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Vicary, J., Smith, E., Swisher, J., Hopkins, A., Elek, E., Bechtel, L., & Henry, K. (2006). Results of a 3-year study of two methods of delivery of life skills training. *Health Education & Behavior, 33*(3), 325-339.

Multisystemic Therapy for substance abusing juvenile offenders

Benefit-cost estimates updated July 2015. Literature review updated September 2013.

Program Description: Multisystemic Therapy -Substance Abuse (MST-SA) is a form of MST that is targeted toward youth who are abusing drugs and alcohol. MST-SA teams develop a specific written plan for the offender enforced by the juvenile's caregiver. Random drug testing is an important aspect of the program as well as rewarding positive behavior.

Benefit-Cost Summary

Program benefits	
Participants	$2,604
Taxpayers	$6,421
Other (1)	$13,088
Other (2)	$8,533
Total	$30,646
Costs	($7,689)
Benefits minus cost	$22,958

Summary statistics	
Benefit to cost ratio	$3.99
Benefits minus costs	$22,958
Probability of a positive net present value	70 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$3,667	$11,502	$1,837	$17,006
Labor market earnings (illicit drug abuse/dependence)	$2,299	$980	$0	$9,636	$12,915
Health care (illicit drug abuse/dependence)	$306	$1,773	$1,587	$886	$4,551
Adjustment for deadweight cost of program	$0	$0	$0	($3,826)	($3,826)
Totals	$2,604	$6,421	$13,088	$8,533	$30,646

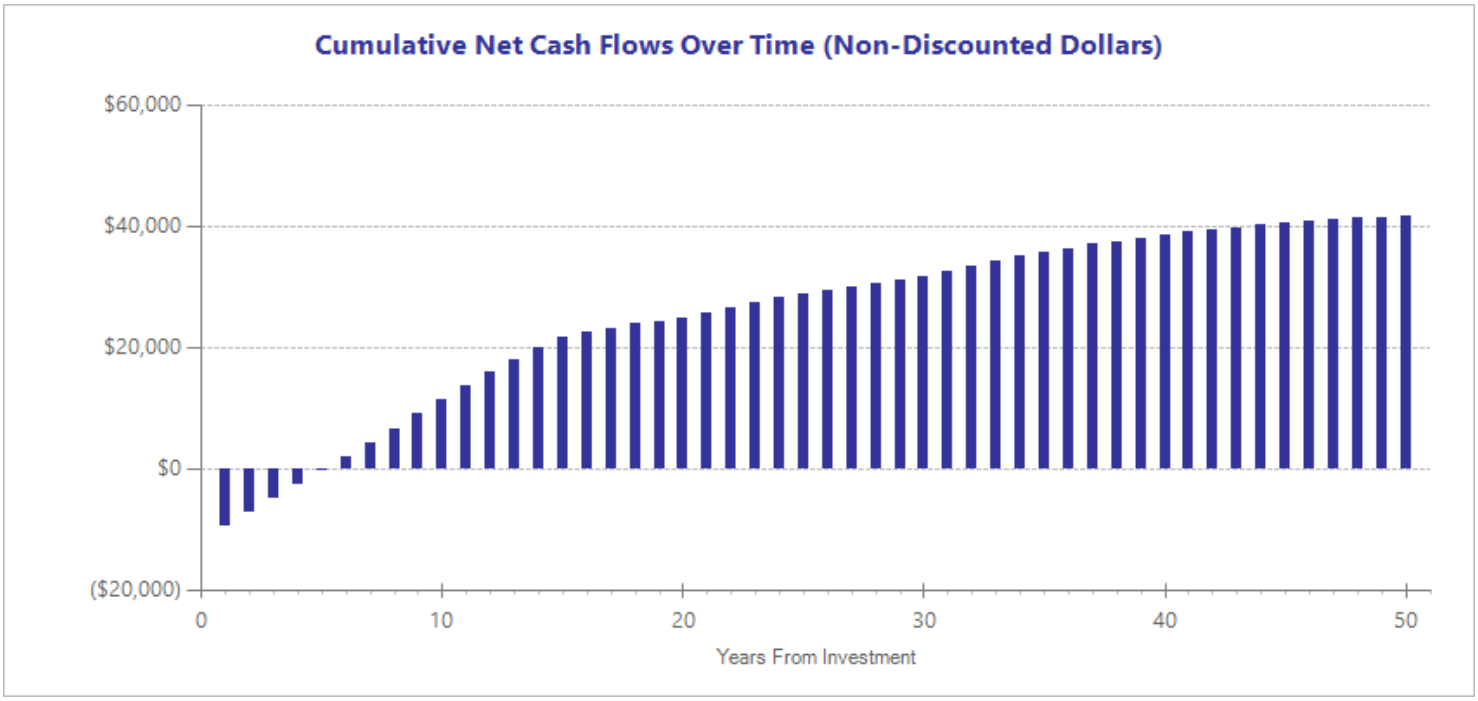
We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$7,076	1	2008	Present value of net program costs (in 2014 dollars)	($7,689)
Comparison costs	$0	1	2008	Uncertainty (+ or - %)	10 %

Barnoski, R. (2009, December). Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis (Document No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	124	-0.361	0.034	-0.112	0.170	16	-0.112	0.170	26
Illicit drug abuse or dependence	Primary	2	109	-0.434	0.004	-0.156	0.151	16	-0.156	0.151	26

Citations Used in the Meta-Analysis

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance-abusing and substance-dependent juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(7), 868-874.

Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B, & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. *Journal of Consulting and Clinical Psychology, 74*(1), 42-54.

Project ALERT

Benefit-cost estimates updated July 2015. Literature review updated July 2014.

Program Description: Project ALERT is a middle/junior high school-based program to prevent tobacco, alcohol, and marijuana use. Over 11 sessions in the 7th grade and three boosters in the 8th grade, the program helps students understand that most people do not use drugs and teaches them to identify and resist the internal and social pressures that encourage substance use.

Benefit-Cost Summary

Program benefits	
Participants	$367
Taxpayers	$183
Other (1)	$41
Other (2)	($58)
Total	$533
Costs	($149)
Benefits minus cost	$384

Summary statistics	
Benefit to cost ratio	$3.57
Benefits minus costs	$384
Probability of a positive net present value	73 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$7	$21	$3	$31
Health care (smoking)	$3	$22	$19	$11	$55
Labor market earnings (alcohol abuse/dependence)	$363	$155	$0	$3	$520
Property loss (alcohol abuse/dependence)	$1	$0	$1	$0	$2
Adjustment for deadweight cost of program	$0	$0	$0	($75)	($74)
Totals	$367	$183	$41	($58)	$533

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

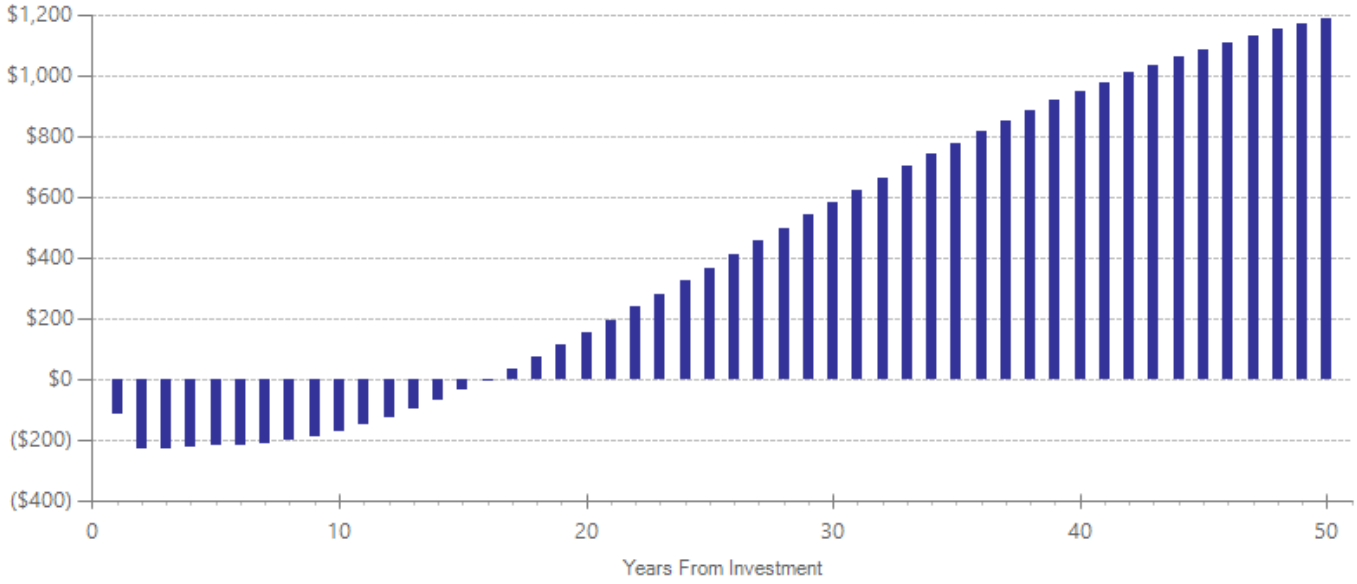
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$60	2	2002
Comparison costs	$0	2	2002

Summary statistics	
Present value of net program costs (in 2014 dollars)	($149)
Uncertainty (+ or - %)	10 %

$120 in 2002 dollars (Miller and Hendrie 2005)

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Alcohol use in high school	Primary	4	8497	-0.060	0.181	-0.029	0.024	15	-0.029	0.024	25
Smoking in high school	Primary	4	8501	-0.055	0.293	-0.017	0.025	15	-0.017	0.025	25
Cannabis use in high school	Primary	4	8517	-0.034	0.580	-0.012	0.050	15	-0.012	0.050	25

Citations Used in the Meta-Analysis

Bell, R.M., Ellickson, P.L., & Harrison, E.R. (1993). Do drug prevention effects persist into high school? How Project ALERT did with ninth graders. *Preventive Medicine, 22*(4), 463-483.

Ellickson, P.L., McCaffrey, D.F., Ghosh-Dastidar, B., & Longshore, D.L. (2003). New inroads in preventing adolescent drug use: Results from a large-scale trial of Project ALERT in middle schools. *American Journal of Public Health, 93*(11), 1830-1836.

Ringwalt, C.L., Clark, H.K., Hanley, S., Shamblen, S.R., Flewelling, R.L. (2009). Project ALERT: A cluster randomized trial. *Archives of Pediatrics and Adolescent Medicine, 163*(7), 625-632.

St Pierre, T.L., Osgood, D.W., Mincemoyer, C.C., Kaltreider, D.L., & Kauh, T.J. (2005). Results of an independent evaluation of Project ALERT delivered in schools by cooperative extension. *Prevention Science, 6*(4), 305-317.

Project STAR

Benefit-cost estimates updated July 2015. Literature review updated July 2014.

Program Description: Also known as the Midwestern Prevention Project, Project STAR is a multi-component prevention program with the goal of reducing adolescent tobacco, alcohol, and marijuana use. The program consists of a 6th- and 7th-grade intervention supported by parent, community, and mass media components that address the multiple influences of substance use.

Benefit-Cost Summary

Program benefits	
Participants	$363
Taxpayers	$219
Other (1)	$433
Other (2)	($223)
Total	$793
Costs	$509
Benefits minus cost	$283

Summary statistics	
Benefit to cost ratio	$1.56
Benefits minus costs	$283
Probability of a positive net present value	52 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$31	$93	$15	$139
Labor market earnings (hs grad)	$653	$279	$323	$0	$1,254
Health care (smoking)	$9	$54	$48	$27	$137
Labor market earnings (alcohol abuse/dependence)	($298)	($127)	$0	($2)	($428)
Health care (alcohol abuse/dependence)	($2)	($13)	($12)	($6)	($33)
Property loss (alcohol abuse/dependence)	($1)	$0	($1)	$0	($2)
Adjustment for deadweight cost of program	$2	($5)	($17)	($256)	($275)
Totals	$363	$219	$433	($223)	$793

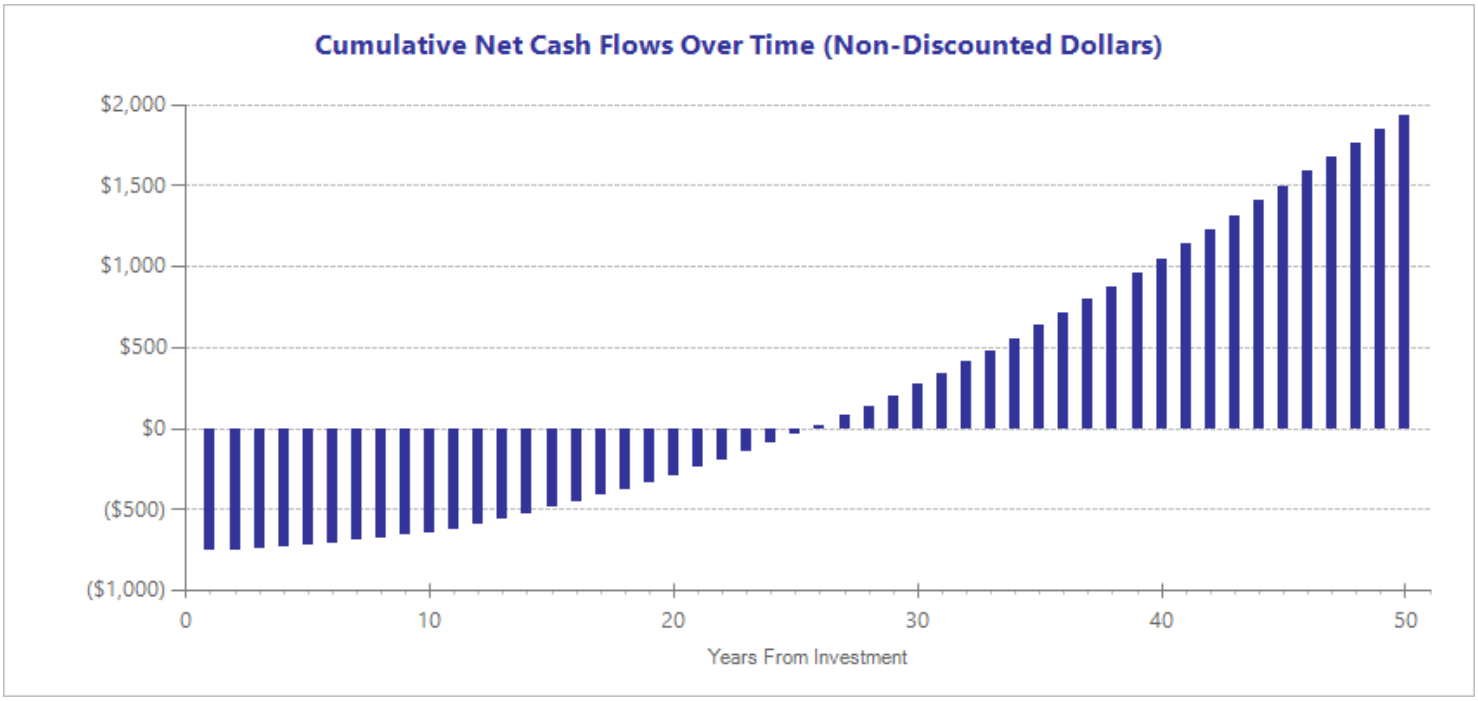
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$400	1	2002	Present value of net program costs (in 2014 dollars)	$509
Comparison costs	$0	1	2002	Uncertainty (+ or - %)	10 %

$400 per pupil; See Miller, T.R., & Hendrie, D. (2005). How should governments spend the drug prevention dollar?: A buyer's guide. In T. Stockwell, P. Gruenewald, J. Toumbourou, & W. Loxley (Eds.), Preventing harmful substance use (pp. 415-431). England: John Wlley & Sons Ltd.

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Alcohol use before end of middle school	Primary	2	4915	-0.170	0.149	-0.056	0.118	14	0.035	0.187	17
Smoking before end of middle school	Primary	2	4915	-0.326	0.006	-0.108	0.118	14	-0.108	0.118	17
Cannabis use before end of middle school	Primary	2	4915	-0.371	0.022	-0.122	0.162	14	-0.112	0.162	17

Citations Used in the Meta-Analysis

Chou, C.P., Montgomery, S., Pentz, M.A., Rohrbach, L.A., Johnson, C.A., Flay, B.R., & MacKinnon, D.P. (1998). Effects of a community-based prevention program on decreasing drug use in high-risk adolescents. *American Journal of Public Health, 88*(6), 944-948.

Pentz, M.A., Dwyer, J.H., MacKinnon, D.P., Flay, B.R., Hansen, W.B., Wang, E.Y., Johnson, C.A. (1989). A multicommunity trial for primary prevention of adolescent drug abuse: Effects on drug use prevalence. *JAMA, 261*(22), 3259

Project Towards No Drug Abuse (TND)

Benefit-cost estimates updated July 2015. Literature review updated June 2014.

Program Description: Project Towards No Drug Abuse is a substance use prevention program for youth in regular and alternative high schools. The curriculum comprises 12 45-minute lessons implemented in classroom settings by teachers or health educators. Using a variety of activities, the program aims to increase self-control, communication, decision-making, and motivation to not use substances.

Benefit-Cost Summary

Program benefits	
Participants	$155
Taxpayers	$155
Other (1)	$171
Other (2)	$15
Total	$496
Costs	($65)
Benefits minus cost	$431

Summary statistics	
Benefit to cost ratio	$7.63
Benefits minus costs	$431
Probability of a positive net present value	61 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$7	$22	$4	$33
Labor market earnings (hs grad)	$140	$60	$69	$0	$269
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$0
Health care (illicit drug abuse/dependence)	$15	$88	$78	$44	$225
Adjustment for deadweight cost of program	$0	$0	$1	($32)	($31)
Totals	$155	$155	$171	$15	$496

We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

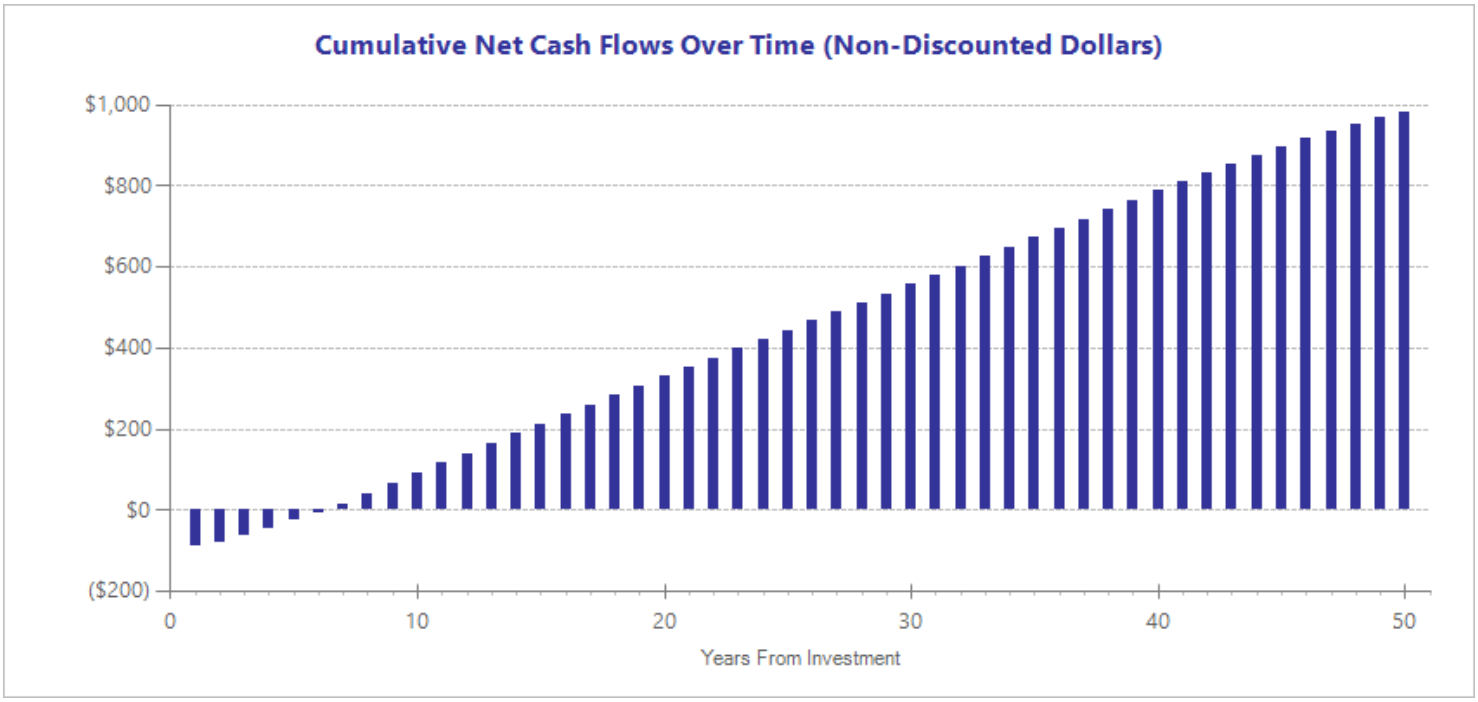
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$63	1	2012
Comparison costs	$0	1	2012

Summary statistics	
Present value of net program costs (in 2014 dollars)	($65)
Uncertainty (+ or - %)	10 %

Cost data come from program developer (http://tnd.usc.edu).

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 uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Alcohol use in high school	Primary	6	4467	-0.017	0.729	-0.006	0.038	16	-0.006	0.038	26
Smoking in high school	Primary	6	4467	-0.039	0.420	-0.011	0.040	16	-0.011	0.040	26
Cannabis use in high school	Primary	6	4467	-0.031	0.464	-0.010	0.042	16	-0.010	0.042	26
Illicit drug use in high school	Primary	6	4467	-0.098	0.058	-0.032	0.047	16	-0.032	0.047	26

Citations Used in the Meta-Analysis

Rohrbach, L.A., Sun, P., & Sussman, S. (2010). One-year follow-up evaluation of the Project Towards No Drug Abuse (TND) dissemination trial. *Preventive Medicine, 51,* 313-319.

Sun, W., Skara, S., Sun, P., Dent, C.W., & Sussman, S. (2006). Project Towards No Drug Abuse: Long-term substance use outcomes evaluation. *Preventive Medicine, 42*(3), 188-192.

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Sussman, S., Sun, P., McCuller, W.J., & Dent, C.W. (2003). Project Towards No Drug Abuse: Two-year outcomes of a trial that compares health educator delivery to self-instruction. *Preventive Medicine, 37*(2), 155-162.

Sussman, S., Sun, P., Rohrbach, L.A., & Spruijt-Metz, D. (2012). One-year outcomes of a drug abuse prevention program for older teens and emerging adults: evaluating a motivational interviewing booster component. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association, 31*(4), 476-85.

Valente, T.W., Ritt-Olson, A., Stacy, A., Unger, J.B., Okamoto, J., & Sussman, S. (2007). Peer acceleration: Effects of a social network tailored substance abuse prevention program among high-risk adolescents. *Addiction, 102*(11), 1804-1815.

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