

July 2011

## **Return on Investment: Evidence-Based Options to Improve Statewide Outcomes** —July 2011 Update—

The Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to “calculate the return on investment to taxpayers from evidence-based prevention and intervention programs and policies.”<sup>1</sup>

In this update, we identify public policies that have been shown to improve the following outcomes:

- ✓ Child maltreatment
- ✓ Crime
- ✓ Education
- ✓ Labor earnings
- ✓ Mental health
- ✓ Public assistance
- ✓ Public health
- ✓ Substance abuse

This report presents our findings as of July 2011. Prior to the 2012 Washington legislative session, we will update and extend these results. The Legislature authorized the Institute to receive outside funding for this project; the MacArthur Foundation supported 80 percent of the work and the Legislature funded the other 20 percent.

The “big picture” purpose of this research is to help policy makers in Washington identify evidence-based strategies that can deliver better outcomes per dollar of taxpayer spending. In a time of fiscal constraint, this goal seems especially important.

This short report summarizes our current findings. Readers can download detailed results in two accompanying technical appendices.<sup>2</sup>

### **Background**

In the mid-1990s, the legislature began to direct the Institute to undertake comprehensive reviews of “evidence-based” policy strategies. The initial efforts were in juvenile and adult criminal justice. We identified several juvenile justice and adult corrections’ programs—not then operating in Washington—that had the potential to reduce crime and save Washington taxpayers money.<sup>3</sup>

### **Summary**

The Washington State Institute for Public Policy was created by the 1983 Washington Legislature to carry out non-partisan research assignments.

The 2009 Legislature directed the Institute to “calculate the return on investment to taxpayers from evidence-based prevention and intervention programs and policies.” The Legislature instructed the Institute to produce “a comprehensive list of programs and policies that improve . . . outcomes for children and adults in Washington and result in more cost-efficient use of public resources.”

The current project continues a long-term effort in Washington to identify evidence-based ways to deliver better outcomes per taxpayer dollar. This short report summarizes our findings as of July 2011. Readers can download detailed results in two technical appendices.

In subsequent sessions, the legislature used the information to begin a series of policy reforms.<sup>4</sup> Many “real world” lessons were learned about implementing these programs statewide.<sup>5</sup>

Today, the results of these crime-focused efforts appear to be paying off. Relative to national rates, juvenile crime has dropped in Washington, adult criminal recidivism has declined, total crime is down, and taxpayer criminal justice costs are lower than alternative strategies would have required.<sup>6</sup>

Suggested citation: Aos, S., Lee, S., Drake, E., Pennucci, A., Klima, T., Miller, M., Anderson, L., Mayfield, J., & Burley, M. (2011). *Return on investment: Evidence-based options to improve statewide outcomes* (Document No. 11-07-1201). Olympia: Washington State Institute for Public Policy.

<sup>1</sup> Laws of 2009, ch. 564, § 610 (4), ESHB 1244.

<sup>2</sup> <http://www.wsipp.wa.gov/pub.asp?docid=11-07-1201>

<sup>3</sup> Aos, S., Barnoski, R., & Lieb, R. (1998). *Watching the bottom line: cost-effective interventions for reducing crime in Washington* (Document No. 98-01-1201), Olympia: Washington State Institute for Public Policy.

<sup>4</sup> 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.

<sup>5</sup> Barnoski, R. (2009). *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.

<sup>6</sup> [http://www.wsipp.wa.gov/video\\_tv21JAN2011.asp](http://www.wsipp.wa.gov/video_tv21JAN2011.asp)

In the early 2000s, the legislature began to direct the Institute to apply the same benefit-cost approach to other public policy areas, including K–12 education, early childhood education, child welfare, adult mental health, and substance abuse.<sup>7</sup> This current project updates, refines, and extends these previous assignments.

Our ongoing goal is to provide policy makers with better “bottom-line” estimates each successive legislative session.

## General Research Approach

Over the last decade, as we have carried out these assignments, we have been improving a four-step research approach.

- 1) We systematically assess evidence on “what works” (and what does not) to improve outcomes.
- 2) We calculate costs and benefits for Washington State and produce a *Consumer Reports*-like ranking of public policy options.
- 3) We measure the riskiness of our conclusions by testing how bottom lines vary when estimates and assumptions change.
- 4) Where feasible, we provide a “portfolio” analysis of how a combination of policy options could affect statewide outcomes of interest.

For this project, we have also developed a software application to help legislative and executive staff use the information, and to respond to requests from other states.

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<sup>7</sup> Other benefit-cost studies prepared by the Washington State Institute for Public Policy for the legislature include:

- Lee, S., Aos, S., & Miller, M. (2008). *Evidence-based programs to prevent children from entering and remaining in the child welfare system: Benefits and costs for Washington* (Document No. 08-07-3901).
- Aos, S., & Pennucci, A. (2007). *Report to the Joint Task Force on Basic Education Finance: School employee compensation and student outcomes* (Document No. 07-12-2201).
- Aos, S., Miller, M., & Mayfield, J. (2007). *Benefits and costs of k–12 educational policies: Evidence-based effects of class size reductions and full-day kindergarten* (Document No. 07-03-2201).
- Aos, S., Miller, M., & Drake, E. (2006). *Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates* (Document No. 06-10-1201).
- Aos, S., Mayfield, J., Miller, M., & Yen, W. (2006). *Evidence-based treatment of alcohol, drug, and mental health disorders: Potential benefits, costs, and fiscal impacts for Washington State* (Document No. 06-06-3901).
- Aos, S., Miller, M., & Drake E. (2006). *Evidence-based adult corrections programs: What works and what does not* (Document No. 06-01-1201).
- Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennucci A. (2004). *Benefits and costs of prevention and early intervention programs for youth* (Document No. 04-07-3901).

**Step 1: What Works?** In the first research step, we estimate the capability of various policies and programs to improve outcomes. We carefully analyze all high-quality studies from the United States and elsewhere to identify well-researched interventions that have achieved outcomes (as well as those that have not). We look for research studies with strong, credible evaluation designs, and we ignore studies with weak research methods. Our empirical approach follows a meta-analytic framework to assess systematically all relevant evaluations we can locate on a given topic.

**Step 2: What Makes Economic Sense?** Next, we insert benefits and costs into the analysis by answering two questions.

- ✓ How much does it cost to produce the results found in Step 1?
- ✓ How much is it worth to people in Washington State to achieve the outcome? That is, in dollar and cents terms, what are the program’s benefits?

To answer these questions, we developed—and continue to refine—an economic model that assesses benefits and costs. The goal is to provide an internally consistent valuation so that one option can be compared fairly to another. Our bottom line benefit-cost measures include standard financial statistics: net present values, benefit-cost ratios, and rates of return on investment.

We present these monetary estimates from three distinct perspectives: the benefits that accrue solely to program participants, those received by taxpayers, and any other measurable (non-participant and non-taxpayer) monetary benefits.

The sum of these three perspectives provides a “total Washington” view on whether a program produces benefits that exceed costs. Restricting the focus solely to the taxpayer perspective can also be useful for fiscal analysis and state budget preparation.

**Step 3: Assessing Risk.** The third analytical step involves testing the robustness of our results. Any tabulation of benefits and costs necessarily involves uncertainty and some degree of speculation about future performance. This is expected in any investment analysis, whether it is in the private or public sector. Therefore, it is important to understand how conclusions might change when assumptions are altered. To assess risk, we perform a “Monte Carlo simulation” in which we vary the key factors in our calculations. The purpose of the risk analysis is

to determine the odds that a particular approach will at least break-even. This type of risk and uncertainty analysis is used by many businesses in investment decision making; we employ the same tools to test the riskiness of the public sector options considered in this report.

**Step 4: Impacts on Statewide Outcomes.** In the final analytic step, we estimate the degree to which a “portfolio” of programs and policies is likely to affect statewide outcomes. We initiated portfolio analysis in 2006, estimating how a combination of prevention, juvenile justice, and adult corrections’ programs could influence Washington’s crime rate, the need to build prisons, and overall state and local criminal justice spending.<sup>8</sup> The legislature used this information in subsequent sessions to craft budget and policy decisions.<sup>9</sup> In the near future, we anticipate expanding portfolio analysis to other outcomes such as high school graduation.

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## July 2011 Results

In this report, we summarize results from Steps 1, 2, and 3 of our research. We prepare a *Consumer Reports*-like list of what works and what does not, ranked by benefit-cost statistics and a measure of investment risk.

**Bottom Line.** We identify a number of evidence-based options that can help policy makers achieve desired outcomes as well as offer taxpayers a good return on their investment, with low risk of failure. Washington is already investing in several of these options. We also find other evidence-based options that do not produce favorable results.

**Summary Table.** In Exhibit 1, we have arranged the information by major topic area. Some programs listed, of course, achieve outcomes that cut across these topic areas. For each program, all the specific outcomes measured in the studies are described in the first technical appendix.

For some programs, we found insufficient information to allow a calculation of benefits and costs. We list these programs in each topic area, along with the reason for their exclusion.

**Example.** To illustrate our findings, we summarize results for a program called Functional Family Therapy (FFT), designed for juveniles on probation. This program is listed in the juvenile justice topic area in Exhibit 1. FFT was originally tested in Utah. Washington began to implement the program in the mid-1990s. The legislature continues to fund FFT, and it is now used by many of Washington’s juvenile courts.

- We reviewed all research we could find on FFT and found eight credible evaluations that investigated whether it reduces juvenile crime. The technical appendix provides specific information on the eight studies in our meta-analysis of FFT; for example, two of the eight were from Washington.
- In Exhibit 1, we show our estimate that FFT achieves total benefits of \$37,739 per FFT participant (2010 dollars). These benefits spring primarily from reduced juvenile crime, but also include labor market and health care benefits due to increased probability of high school graduation.
- Of the total \$37,739 in benefits, Exhibit 1 shows that we expect \$8,536 to be received by taxpayers and \$29,203 will accrue to others, primarily people who were not victimized by the avoided crimes.
- Exhibit 1 shows that the program costs \$3,190 per participant to implement in Washington.
- Exhibit 1 also displays our benefit-cost summary statistics for FFT. The net present value (benefits minus costs) is \$34,549, and the benefit to cost ratio (benefits divided by costs) is \$11.86. The internal rate of return on investment is an astounding 641 percent. Finally, when we performed a risk analysis of our estimated bottom line for FFT, we found that the program has a 99 percent chance of producing benefits that exceed costs.
- Thus, one would conclude that FFT is an attractive evidence-based program that reduces crime and achieves a favorable return on investment, with a small chance of an undesirable outcome. These are the central reasons why FFT continues to be part of Washington’s crime-reduction portfolio.

As noted, in addition to the summary information displayed in Exhibit 1, we have prepared two technical appendices. The first appendix presents detailed results for each program summarized in Exhibit 1, while the second appendix provides a comprehensive description of the research methods used to compute the estimates.

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<sup>8</sup> Aos et al., 2006, Document No. 06-10-1201.

<sup>9</sup> Laws of 2007, ch. 522 §203, SHB 1128.

## Exhibit 1

### Monetary Benefits and Costs of Evidence-Based Public Policies

Summary of policy topics assigned to the Washington State Institute for Public Policy by the Washington State Legislature  
Estimates for Washington State, as of July 2011

Topic Area/Program	Monetary Benefits			Costs	Summary Statistics			
	Total Benefits	Taxpayer	Non-Taxpayer		Benefits Minus Costs (net present value)	Benefit to Cost Ratio <sup>1</sup>	Rate of Return on Investment <sup>1</sup>	Measure of Risk (odds of a positive net present value)
<b>Juvenile Justice</b>								
Aggression Replacement Training (Inst. <sup>2</sup> )	\$66,954	\$13,669	\$53,285	(\$1,473)	<b>\$65,481</b>	\$45.50	n/e	93%
Functional Family Therapy (Inst.)	\$60,539	\$13,719	\$46,820	(\$3,198)	<b>\$57,341</b>	\$18.98	n/e	99%
Aggression Replacement Training (Probation)	\$36,043	\$8,144	\$27,898	(\$1,476)	<b>\$34,566</b>	\$24.44	n/e	93%
Functional Family Therapy (Probation)	\$37,739	\$8,536	\$29,203	(\$3,190)	<b>\$34,549</b>	\$11.86	641%	99%
Multidimensional Treatment Foster Care	\$40,787	\$8,343	\$32,443	(\$7,739)	<b>\$33,047</b>	\$5.28	142%	85%
Multisystemic Therapy (MST)	\$29,302	\$6,521	\$22,782	(\$7,206)	<b>\$22,096</b>	\$4.07	28%	91%
Family Integrated Transitions (Inst.)	\$27,020	\$5,448	\$21,572	(\$10,968)	<b>\$16,052</b>	\$2.47	17%	86%
Drug Court	\$12,737	\$2,859	\$9,878	(\$3,024)	<b>\$9,713</b>	\$4.22	38%	80%
Coordination of Services	\$5,270	\$1,340	\$3,930	(\$386)	<b>\$4,884</b>	\$13.63	444%	78%
Victim Offender Mediation	\$3,922	\$977	\$2,946	(\$566)	<b>\$3,357</b>	\$6.94	89%	90%
Scared Straight	(\$6,031)	(\$1,591)	(\$4,440)	(\$63)	<b>(\$6,095)</b>	n/e	n/e	1%
<b>Juvenile justice programs for which we have not calculated benefits and costs (at this time):</b>								
Supervision for Juvenile Offenders	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Sex Offender Treatment for Juvenile Offenders	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Cognitive Behavioral Therapy (CBT <sup>3</sup> ) (general)	See previous WSIPP publications for past findings.							
Diversion Programs	See previous WSIPP publications for past findings.							
Juvenile Boot Camp	See previous WSIPP publications for past findings.							
Team Child	See previous WSIPP publications for past findings.							
Teen Court	See previous WSIPP publications for past findings.							
Wilderness Challenge Programs	See previous WSIPP publications for past findings.							
<b>Adult Criminal Justice</b>								
Dangerously Mentally Ill Offenders	\$103,596	\$24,391	\$79,205	(\$31,626)	<b>\$71,969</b>	\$3.28	19%	100%
Drug Offender Sentencing Alternative: drug offenders	\$28,013	\$6,680	\$21,333	(\$1,511)	<b>\$26,502</b>	\$18.57	n/e	99%
Correctional Education in Prison	\$19,923	\$4,785	\$15,138	(\$1,102)	<b>\$18,821</b>	\$18.11	n/e	100%
Electronic Monitoring	\$17,068	\$4,068	\$13,000	\$1,044	<b>\$18,112</b>	n/e	n/e	100%
Vocational Education in Prison	\$19,083	\$4,634	\$14,449	(\$1,537)	<b>\$17,547</b>	\$12.43	n/e	100%
Drug Treatment in the Community	\$15,419	\$3,671	\$11,748	(\$2,102)	<b>\$13,317</b>	\$7.35	n/e	100%
Drug Offender Sentencing Alternative: prop. offenders	\$14,324	\$3,410	\$10,914	(\$1,513)	<b>\$12,811</b>	\$9.47	n/e	76%
Mental Health Court	\$14,230	\$3,424	\$10,806	(\$2,878)	<b>\$11,352</b>	\$4.95	44%	100%
CBT (in prison)	\$10,741	\$2,588	\$8,153	(\$217)	<b>\$10,524</b>	\$49.55	n/e	99%
Drug Treatment in Prison	\$14,351	\$3,467	\$10,883	(\$3,894)	<b>\$10,456</b>	\$3.69	25%	100%
Intensive Supervision: with treatment	\$17,521	\$4,216	\$13,305	(\$7,712)	<b>\$9,809</b>	\$2.28	11%	96%
Drug Court	\$11,750	\$2,644	\$9,106	(\$4,099)	<b>\$7,651</b>	\$2.87	18%	100%
CBT (in the community)	\$7,739	\$1,848	\$5,891	(\$217)	<b>\$7,522</b>	\$35.70	n/e	99%
Work Release	\$6,466	\$1,552	\$4,914	(\$649)	<b>\$5,817</b>	\$9.97	n/e	97%
Correctional Industries in Prison	\$6,398	\$1,546	\$4,851	(\$1,387)	<b>\$5,011</b>	\$4.63	36%	100%
Community Employment Training/Job Assistance	\$4,641	\$1,104	\$3,537	(\$132)	<b>\$4,509</b>	\$35.13	n/e	100%
Intensive Supervision: surveillance only	(\$556)	(\$132)	(\$424)	(\$4,050)	<b>(\$4,606)</b>	<b>(\$0.14)</b>	n/e	10%
Domestic Violence Perpetrator Treatment Programs	(\$3,724)	(\$886)	(\$2,839)	(\$1,335)	<b>(\$5,059)</b>	<b>(\$2.91)</b>	n/e	20%
<b>Adult criminal justice programs for which we have not calculated benefits and costs (at this time):</b>								
Sex Offender Treatment	Review in process.							
Sex Offender Community Notification and Registration	Review in process.							
Adult Boot Camp	See previous WSIPP publications for past findings.							
Drug Treatment in Jail	See previous WSIPP publications for past findings.							
Jail Diversion for Mentally Ill Offenders	See previous WSIPP publications for past findings.							
Life Skills Education	See previous WSIPP publications for past findings.							
Restorative Justice for Lower-Risk Offenders	See previous WSIPP publications for past findings.							

**Exhibit 1, continued**

Topic Area/Program	Monetary Benefits			Costs	Summary Statistics			
	Total Benefits	Taxpayer	Non-Taxpayer		Benefits Minus Costs (net present value)	Benefit to Cost Ratio <sup>1</sup>	Rate of Return on Investment <sup>1</sup>	Measure of Risk (odds of a positive net present value)
Benefits and costs are life-cycle present-values per participant, in 2010 dollars. While the programs are listed by major topic area, some programs attain benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize. See Technical Appendix I for program-specific details.								
<b>Child Welfare<sup>4</sup></b>								
Nurse Family Partnership for Low-Income Families	\$30,325	\$8,527	\$21,798	(\$9,421)	<b>\$20,905</b>	\$3.23	7%	89%
Incredible Years: Parent Training and Child Training	\$15,571	\$4,083	\$11,488	(\$2,085)	<b>\$13,486</b>	\$7.50	12%	93%
Other Home Visiting Programs for At-Risk Families	\$14,896	\$3,668	\$11,228	(\$5,453)	<b>\$9,444</b>	\$2.73	5%	84%
Healthy Families America	\$13,790	\$4,330	\$9,459	(\$4,508)	<b>\$9,282</b>	\$3.07	7%	98%
Parent-Child Interaction Therapy: Disruptive Behavior	\$9,584	\$3,026	\$6,558	(\$1,302)	<b>\$8,282</b>	\$7.37	31%	91%
Parent-Child Interaction Therapy: Child Welfare	\$9,498	\$1,892	\$7,606	(\$1,516)	<b>\$7,982</b>	\$6.27	15%	100%
Intensive Family Preservation (Homebuilders®)	\$10,995	\$5,889	\$5,106	(\$3,224)	<b>\$7,771</b>	\$3.41	4%	99%
Incredible Years: Parent Training	\$8,488	\$2,449	\$6,039	(\$2,022)	<b>\$6,466</b>	\$4.20	12%	76%
Triple P <sup>5</sup> : Level 4, Individual	\$7,237	\$2,371	\$4,866	(\$1,790)	<b>\$5,447</b>	\$4.06	19%	79%
Triple P: Level 4, Group	\$3,740	\$1,230	\$2,510	(\$365)	<b>\$3,374</b>	\$10.32	n/e	89%
Parents as Teachers	\$7,236	\$1,616	\$5,620	(\$4,138)	<b>\$3,099</b>	\$1.75	5%	74%
Triple P: (Universal)	\$1,277	\$580	\$696	(\$139)	<b>\$1,137</b>	\$9.22	8%	100%
Parent-Child Home Program	\$4,855	\$1,137	\$3,718	(\$5,386)	<b>(\$531)</b>	\$0.88	n/e	48%
Other Family Preservation (non-Homebuilders®)	(\$70)	(\$52)	(\$17)	(\$2,982)	<b>(\$3,052)</b>	<b>(\$0.02)</b>	n/e	0%
<b>Child welfare programs for which we have not calculated benefits and costs (at this time):</b>								
Family Team Decision Making	See Technical Appendix I for meta-analytic results.							
Structured Decision Making® Risk Assessment	See Technical Appendix I for meta-analytic results.							
Dependency (or Family Treatment) Drug Court	See previous WSIPP publications for past findings; update in process.							
Promoting First Relationships	Review in process.							
Subsidized Guardianship	Review in process.							
Intensive Case Management for Emotional Disturbance	Review in process.							
Flexible Funding via Title IV-E Waivers	Review in process.							
SafeCare	Too few rigorous evaluations to date.							
Circle of Security	Too few rigorous evaluations to date.							
Project KEEP	Too few rigorous evaluations to date.							
<b>Pre-K to 12 Education</b>								
Early Childhood Education: Low-Income 3/4 Year Olds	\$26,480	\$7,244	\$19,236	(\$7,420)	<b>\$19,060</b>	\$3.60	7%	100%
Reading Recovery (K-12 Tutoring)	\$19,017	\$4,489	\$14,528	(\$1,863)	<b>\$17,154</b>	\$10.25	11%	83%
Tutoring for English Language Learners (ELL)	\$13,243	\$3,177	\$10,066	(\$1,333)	<b>\$11,910</b>	\$10.05	13%	65%
K-12 Tutoring by Peers	\$11,937	\$2,838	\$9,099	(\$995)	<b>\$10,942</b>	\$12.00	12%	74%
Special Literacy Instruction: ELL	\$7,684	\$1,833	\$5,851	(\$275)	<b>\$7,409</b>	\$28.20	19%	67%
K-12 Tutoring by Adults	\$7,140	\$1,697	\$5,444	(\$1,940)	<b>\$5,200</b>	\$3.69	8%	66%
Early Head Start	\$13,793	\$4,413	\$9,380	(\$10,230)	<b>\$3,563</b>	\$1.35	6%	47%
K-12 Parent Involvement Programs	\$3,627	\$854	\$2,773	(\$813)	<b>\$2,814</b>	\$4.62	12%	56%
NBPTS <sup>6</sup> Certification Bonuses for Teachers	\$1,622	\$384	\$1,238	(\$67)	<b>\$1,555</b>	\$24.28	19%	69%
Additional Day of K-12 Instructional Time	\$105	\$25	\$80	(\$26)	<b>\$79</b>	\$3.90	15%	53%
Even Start	(\$1,511)	(\$360)	(\$1,151)	(\$4,050)	<b>(\$5,561)</b>	<b>(\$0.37)</b>	n/e	37%
<b>Pre-K to 12 education programs for which we have not calculated benefits and costs (at this time):</b>								
Pre-K and Elementary Bilingual Instructional Programs	See Technical Appendix I for meta-analytic results.							
K-12 Educator Professional Development	See Technical Appendix I for meta-analytic results.							
Class Size	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Full-Day Kindergarten (vs. half-day)	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Increased Per-Student Expenditures	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Teacher Compensation-Pay for Degrees	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Teacher Compensation-Pay for Experience	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Teacher Compensation-Other Policies	Review in process.							
Social-Emotional Learning in Educational Settings	Review in process.							
Before- and After-School Programs	Review in process.							
Summer School Programs	Review in process.							
Instructional Aides	Review in process.							
Online Learning	Review in process.							

**Exhibit 1, continued**

Topic Area/Program	Monetary Benefits			Costs	Summary Statistics			
	Total Benefits	Taxpayer	Non-Taxpayer		Benefits Minus Costs (net present value)	Benefit to Cost Ratio <sup>1</sup>	Rate of Return on Investment <sup>1</sup>	Measure of Risk (odds of a positive net present value)
Benefits and costs are life-cycle present-values per participant, in 2010 dollars. While the programs are listed by major topic area, some programs attain benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize. See Technical Appendix I for program-specific details.								
<b>Children's Mental Health<sup>7</sup></b>								
Parent CBT for Anxious Children	\$15,587	\$4,807	\$10,780	\$595	\$16,182	n/e	n/e	83%
Individual CBT for Anxious Children	\$13,047	\$3,913	\$9,134	(\$718)	\$12,330	\$18.21	24%	83%
Group CBT for Anxious Children	\$11,909	\$3,563	\$8,346	\$384	\$12,293	n/e	n/e	90%
CBT for Depressed Adolescents	\$8,511	\$2,500	\$6,011	(\$474)	\$8,036	\$17.93	33%	90%
Brief Strategic Family Therapy (BSFT)	\$4,652	\$1,438	\$3,214	(\$501)	\$4,151	\$9.27	n/e	82%
MMT <sup>8</sup> for Children with Disruptive Behavior Disorders	\$5,176	\$1,703	\$3,473	(\$1,245)	\$3,931	\$4.16	24%	63%
BPT <sup>9</sup> for Children with ADHD	\$3,683	\$1,122	\$2,560	\$104	\$3,786	n/e	n/e	84%
BPT for Children with Disruptive Behavior Disorders	\$3,443	\$1,136	\$2,307	\$103	\$3,546	n/e	n/e	73%
MMT for Children with ADHD	\$11,677	\$3,066	\$8,611	(\$8,167)	\$3,510	\$1.45	5%	48%
CBT for Children with ADHD	\$1,993	\$528	\$1,466	(\$963)	\$1,031	\$2.08	8%	51%
MST <sup>10</sup> for Serious Emotional Disturbance	\$7,361	\$2,936	\$4,425	(\$6,366)	\$994	\$1.16	2%	67%
<b>Children's mental health programs for which we have not calculated benefits and costs (at this time):</b>								
Trauma-focused CBT	Review in process; results planned for December, 2011.							
Families & Schools Together (FAST) program	Review in process; results planned for December, 2011.							
Remote CBT for Anxious Children	Review in process.							
CBT for Depressed Children	Too few rigorous evaluations to date.							
Interpersonal Therapy for Depressed Adolescents	Too few rigorous evaluations to date.							
Social Skills Training for Depressed Children	Too few rigorous evaluations to date.							
Family Treatment for Depressed Adolescents	Too few rigorous evaluations to date.							
Primary Care Interventions for Depressed Youth	Too few rigorous evaluations to date.							
Behavioral Treatment for Socially Phobic Youth	Too few rigorous evaluations to date.							
Group CBT for Anxious Adolescents	Too few rigorous evaluations to date.							
Interventions for Suicidal Youth	Too few rigorous evaluations to date.							
Attentional Training for ADHD Children	Too few rigorous evaluations to date.							
Social Skills Training for Children with ADHD	Too few rigorous evaluations to date.							
<b>General Prevention</b>								
Youth Mentoring Programs (taxpayer costs only)	\$23,445	\$6,229	\$17,216	(\$1,434)	\$22,010	\$16.52	16%	94%
Youth Mentoring Programs (total costs)	\$24,785	\$6,672	\$18,113	(\$4,650)	\$20,135	\$5.39	10%	82%
Good Behavior Game	\$14,508	\$4,137	\$10,371	(\$150)	\$14,358	\$96.80	79%	100%
Seattle Social Development Project	\$6,237	\$1,952	\$4,285	(\$2,959)	\$3,279	\$2.11	9%	61%
Promoting Alternative Thinking Strategies (PATHS)	\$1,460	\$483	\$977	(\$112)	\$1,348	\$13.04	30%	66%
Quantum Opportunities Program	\$24,377	\$7,670	\$16,706	(\$25,262)	(\$885)	\$0.98	4%	47%
Children's Aid Society--Carrera	\$7,612	\$2,285	\$5,327	(\$13,919)	(\$6,308)	\$0.55	n/e	38%
Fast Track	\$3,693	\$1,018	\$2,674	(\$57,492)	(\$53,800)	\$0.06	n/e	0%
<b>General prevention programs for which we have not calculated benefits and costs (at this time):</b>								
Strengthening Families Program For Parents and Youth 10-14	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
CASASTART	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
Guiding Good Choices	See previous WSIPP publications for past findings; an update is planned for December, 2011.							
<b>Substance Abuse</b>								
Motivational Interviewing/Enhancement: Smoking	\$7,129	\$277	\$6,853	(\$201)	\$6,928	\$35.44	n/e	89%
Motivational Interviewing/Enhancement: Alcohol	\$6,768	\$1,408	\$5,360	(\$202)	\$6,566	\$33.56	n/e	99%
Motivational Interviewing/Enhancement: Cannabis	\$3,867	\$1,042	\$2,825	(\$202)	\$3,665	\$19.18	n/e	93%
BASICS <sup>11</sup>	\$2,216	\$555	\$1,662	(\$221)	\$1,995	\$10.04	n/e	86%
Motivational Interviewing/Enhancement: Illicit Drugs	\$2,010	\$596	\$1,414	(\$202)	\$1,808	\$9.96	n/e	80%
Life Skills Training	\$1,415	\$360	\$1,055	(\$34)	\$1,382	\$42.13	n/e	88%
Project Towards No Drug Abuse (TND)	\$243	\$60	\$183	(\$14)	\$229	\$17.31	n/e	99%

**Exhibit 1, continued**

Topic Area/Program	Monetary Benefits			Costs	Summary Statistics			
Benefits and costs are life-cycle present-values per participant, in 2010 dollars. While the programs are listed by major topic area, some programs attain benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize. See Technical Appendix I for program-specific details.	Total Benefits	Taxpayer	Non-Taxpayer		Benefits Minus Costs (net present value)	Benefit to Cost Ratio <sup>1</sup>	Rate of Return on Investment <sup>1</sup>	Measure of Risk (odds of a positive net present value)
	<b>Substance abuse prevention and treatment programs for which we have not calculated benefits and costs (at this time):</b>							
CBT for Substance Abusers Relapse Prevention Project Alert Midwestern Prevention Project Project Towards No Tobacco Use All Stars Minnesota Smoking Prevention Program Brief Interventions for Substance Abusers Pharmacotherapies for Substance Abuse Project Northland DARE					Review in process; results planned for December, 2011. Review in process; results planned for December, 2011. See previous WSIPP publications for past findings; an update is planned for December, 2011. See previous WSIPP publications for past findings; an update is planned for December, 2011. See previous WSIPP publications for past findings; an update is planned for December, 2011. See previous WSIPP publications for past findings; review in process. See previous WSIPP publications for past findings; review in process. Review in process Review in process See previous WSIPP publications for past findings. See previous WSIPP publications for past findings.			
<b>Adult Mental Health</b>								
See Technical Appendix I for meta-analytic results for adult mental health programs covered in this review. We have not have not completed our computation of benefits and costs for these programs.								
CBT for Adult Anxiety CBT for Adult Depression Remote CBT Treatments for Post-Traumatic Stress Disorder Eye Movement Desensitization and Reprocessing Day Programs for Mentally Ill Adults Psychotherapies for Bipolar Disorder Family Therapies for Adults With Schizophrenia or Bipolar Primary Care Interventions for Depression					See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. Review in process; an update is planned for December, 2011. Review in process; an update is planned for December, 2011. Review in process. Review in process. Review in process. Review in process. Review in process.			
<b>Public Health</b>								
See Technical Appendix I for meta-analytic results for prevention programs targeting teen pregnancy and obesity. We have not have not completed our computation of benefits and costs for these programs.								
<b>Teen Pregnancy Prevention:</b>								
Postponing Sexual Involvement School-Based Service Learning School-Based Sexual Education Teen Outreach Program Adolescent Sibling Pregnancy Prevention					See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results.			
<b>Obesity Prevention:</b>								
School Programs for Healthy Eating School Programs for Physical Activity School Programs for Healthy Eating & Physical Activity Early Child Care Nutrition & Physical Activity Taxes on Sweetened Beverages and Snack Food Nutrition Labeling on Menus & Posting Nutritional Information					See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. Too few rigorous evaluations to date. Too few rigorous evaluations to date. Too few rigorous evaluations to date.			
<b>Housing</b>								
See Technical Appendix I for meta-analytic results for housing programs for offenders returning to the community and adults with mental illness. We have not have not completed our computation of benefits and costs for these programs.								
Housing Supports for Offenders Returning to the Community Housing Support for Adults With Mental Illness Housing Supports for Serious Violent Offenders					See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results. See Technical Appendix I for meta-analytic results.			
<b>Notes to Exhibit 1</b>								
<sup>1</sup> Benefit to cost ratios and return on investment statistics cannot be computed in every case; we list "n/e" for those that cannot be reliably estimated. <sup>2</sup> Inst. = state institutionalized juvenile justice populations <sup>3</sup> CBT = Cognitive Behavioral Therapy <sup>4</sup> Under the child welfare heading, we include several behavioral parent training programs administered by Washington State's child welfare system. These programs also apply to children's mental health. <sup>5</sup> Triple-P = Triple-P Positive Parenting Program <sup>6</sup> NBPTS = National Board for Professional Teaching Standards <sup>7</sup> For specific behavioral parent training programs currently administered by Washington State's child welfare system, see the Child Welfare topic heading. <sup>8</sup> MMT = Multimodal Therapy <sup>9</sup> BPT = Behavioral Parent Training <sup>10</sup> MST = Multisystemic Therapy <sup>11</sup> BASICS = Brief Alcohol Screening and Intervention of College Students								

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Document No. 11-07-1201



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