

ISSUE BRIEF

Better Results, Lower Costs

Washington State's Cutting-Edge Policy Analysis Model

Better results with lower costs. That's the goal of policy makers across the country, especially in these challenging fiscal times.

In the state of Washington, legislators and executive agencies use a cutting-edge research model to help achieve that goal, by identifying evidence-based policies that provide the best return on taxpayers' investment.

The state's most extensive experience with this cost-benefit analysis model has been in the criminal justice arena. Since the mid-1990s, Washington State policy makers have used the model to make decisions to invest in crime-prevention and treatment programs. Since that time, the state has experienced...

- A greater improvement in crime rates and juvenile arrest rates, compared with the national average.
- An incarceration rate lower than the national average.
- Savings of \$1.3 billion per two-year budget cycle, eliminating the need to build new prisons and making it possible to close an adult prison and a juvenile detention facility.

Washington State's Model for Results First

▶ **Analyze** all available research to identify what works

▶ **Predict** impacts of policy options for Washington State

▶ **Calculate** potential return on investment and assess investment risk

▶ **Rank** programs based on costs, benefits, and risks

▶ **Identify** ineffective programs to be eliminated

▶ **Assess** policy options as an interrelated package

▶ **Work** closely with policy makers to make findings accessible

Better results, less cost

After conducting a thorough validation by a national panel of experts, Results First, an initiative of the Pew Center on the States and the John D. and Catherine T. MacArthur Foundation with additional support from the Annie E. Casey Foundation, is helping other states implement Washington's model for use in criminal justice and, over time, in policy areas such as child welfare, health care, housing, Pre-K-12 education, mental health, public assistance, substance abuse, and teen birth-prevention programs.

The federal government and many states have used cost-benefit analysis, but Washington State's model goes beyond traditional methods. The Washington State Institute for Public Policy (WSIPP), a nonpartisan center established by the legislature, uses the following methodology when policy makers ask it to assess the costs and benefits of potential policy options:

Analyze available research to systematically identify which programs work and which do not, rather than relying on a few studies or anecdotal evidence. WSIPP first analyzes studies that assessed the outcomes of related programs and policy options. To maximize the accuracy and reliability of its conclusions, WSIPP produces a "meta-analysis" that combines the findings of relevant studies. This means reviewing hundreds of studies on a wide range of programs. The approach also avoids cherry-picking

reports to support a predetermined conclusion.

To guard against bias, WSIPP uses rigorous criteria in assessing these studies. For example, WSIPP considers whether an evaluation was conducted independently or by those who administered a program, and whether research was based on real-world evidence and strong experimental designs.

Predict the impact of policy options.

WSIPP estimates the potential outcomes of programs by applying the combined evidence of all sufficiently rigorous studies to the state's own data. For example, it examines all available research on early childhood education programs to predict the programs' success in achieving key outcomes such as reducing child abuse, improving students' academic success, and reducing substance abuse in participating families.

Calculate the potential return on investment of policy options. WSIPP calculates the future cost for the state to produce the predicted outcomes and the dollar value of these outcomes, in terms of savings and other quantifiable benefits over the long term. WSIPP summarizes these findings by reporting standard financial statistics: net present values (which take into account that costs and benefits might not occur for many years); cost-benefit ratios; and projected returns-on-investment.

These estimates include separate projections of the benefits to program participants, taxpayers, and nonparticipants, combined to produce a total state bottom line. As an example, WSIPP calculates the value of benefits generated by certain early childhood education programs including higher earnings received by participants who are more likely to graduate from school, lower government criminal justice costs realized by participants who are less likely to commit criminal offenses when they are older, and reduced costs to nonparticipants who are less likely to be crime victims.

Assess the investment risk if the initial assumptions behind the estimates turn out differently than predicted. Any analysis of costs and benefits involves some uncertainty. WSIPP performs a Monte Carlo simulation in which key assumptions are varied to test the sensitivity of the results to these changes. This widely accepted statistical method determines the probability that a particular policy option would produce net benefits to the state if the outcome of some of the basic assumptions were different than predicted.

Rank the projected benefits, costs, and risks of all programs in a guide to policy options, comparable in some ways to product rankings that Consumer Reports magazine produces. If insufficient evidence is found for some options, they are

presented but not included in the analysis (and designated as such).

Identify ineffective programs that could be targeted for cuts or elimination.

WSIPP points out programs that are not providing a good return on investment. Policy makers can then focus on cost-effective and evidence-based programs, rather than choosing across-the-board cuts.

Assess the benefits and costs of an interrelated package or “portfolio” of policies. A unique element of WSIPP’s approach is comprehensive analysis of a package of policies, practices, outcomes, and investments, or a “public policy portfolio.” In the same way that investors diversify retirement portfolios to maximize gains and minimize exposure to risk, WSIPP’s cost-benefit model allows policy makers to determine which programs to mix and match so they can identify the portfolio with the best return on investment.

In the 2007 session, the Washington State legislature began to use WSIPP’s estimates on how a portfolio of evidence-based and economically sound programs on prevention, juvenile justice, and adult corrections could affect the state’s crime rate, the need to build more prisons, and total criminal-justice spending by state and local entities. The legislature invested \$48 million in those programs and saved \$250 million by cancelling plans to build a new prison.

Work with legislators and the executive branch to make these analyses highly accessible for policy and budget decision makers. WSIPP maintains close working relationships with the legislature, and uses terms that can be understood without an advanced degree in statistics. In those instances in which WSIPP conducts follow-up studies at the legislature's request, it evaluates for policy makers the results relative to expected outcomes.

For example, after Washington State invested in a community treatment program for certain juvenile offenders, WSIPP found that the intended reduction in recidivism was not achieved, largely because some providers used staff members who lacked required training and competencies. WSIPP determined that while providers using appropriately trained therapists achieved the expected reduction in repeat offenders, the recidivism rate of juveniles served by other providers whose therapists lacked needed competencies was worse than that of a control group receiving no therapy. The state responded to this problem by establishing a quality-assurance system to make certain that therapists followed evidence-based treatment protocols, thus helping to ensure that citizens received the benefits from the investment of their tax dollars.

Applying the Model to a Treatment Program for Juvenile Offenders

WSIPP's analysis of a treatment program for juvenile offenders known as Functional Family Therapy (FFT) is an example of how the model is applied.

FFT was originally tested in Utah, and the state of Washington initially implemented the program in the late 1990s after a WSIPP review. The legislature continues to fund the program, and it is used by many of Washington's juvenile courts. Strategies to improve outcomes and reduce recidivism for juvenile offenders are particularly important, given data showing that 73 percent of adults in Washington's prisons were in the juvenile justice system at one time. At the legislature's request, WSIPP:

Reviewed available research on the program and found eight credible evaluations that investigated the program's impact on juvenile crime. That analysis, combined with state-specific data, resulted in an estimate that adopting the program would reduce crime by 22 percent for Washington youths in the program.

Calculated expected long-term benefits of \$37,739 per participant (2010 dollars), over a span of at least 15 years. These

benefits spring primarily from reduced juvenile crime, but also include labor-market and health-care benefits associated with an increased probability of high school graduation. Of the total \$37,739 in benefits, WSIPP predicted that \$8,536 would be received by taxpayers and \$29,203 would accrue to others, primarily people who were not victimized because crimes were prevented.

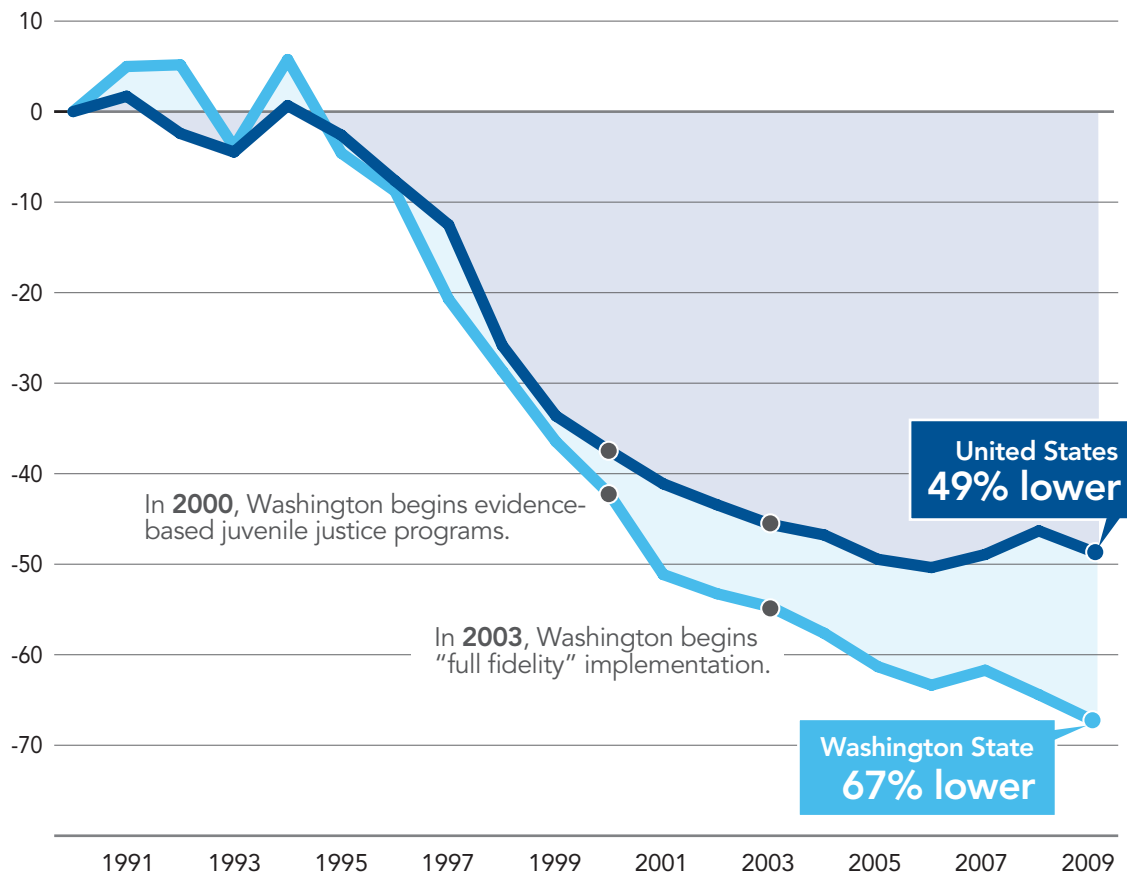
Estimated costs of \$3,190 per participant to implement the 90-day program in Washington.

Compared benefits and costs using standard financial measures, calculating that the program would produce a net present value (benefits minus costs) of \$34,549, and a benefit to cost ratio (benefits divided by costs) of \$11.86.



Keeping Track of Results: Juvenile Arrest Rates

Change since 1990 in the United States and in Washington State



SOURCE: Washington State Institute for Public Policy

WSIPP also calculated that the internal rate of return on this investment, an accounting calculation that makes it possible to compare the efficiency of possible investments, would be 641 percent.

Conducted a risk analysis of the estimated bottom line, finding that the program had a 99 percent chance of producing benefits that exceed costs.

After reviewing this research, WSIPP concluded 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. The legislature has continued to fund the program as part of Washington's crime-prevention policies.

“Based on WSIPP’s analysis, we have made major progress in augmenting treatment programs for juvenile offenders and reducing recidivism,” said Garry Austin, senior budget assistant to the governor. “Applying these approaches requires long-term thinking, because it takes a while before you begin to reap the benefits.”

As shown in this exhibit, Washington State’s juvenile arrest rate has dropped substantially more than the national average, particularly since the state began investing in evidence-based programs and insisting that providers maintain “full fidelity” with treatment designs.

Applying the Model to Education

In its 2009-2010 session, the legislature adopted two major education reform bills, drawing heavily on WSIPP’s research and analysis of proven strategies to achieve better outcomes. All-day kindergarten will be phased in as part of the state education system, and the mechanisms have been established for providing the funding by 2018.

Facilitating Effective Policy

Overall, the state’s innovative cost-benefit analysis model has helped legislators to:

- Make decisions based on evidence rather than anecdotes.
- Transcend partisan gridlock and enact effective responses to major challenges and opportunities.
- Take a long-term perspective, recognizing that the most politically appealing options in the short run might not be the most cost-effective.

It helps that WSIPP was created by the legislature with a board that includes equal numbers of legislators and staff from both major parties, two appointees from the governor, and high-level staff from four universities in the state.

WSIPP gets its research assignments from the legislature and conducts studies using its own policy analysts and economists, specialists from universities, and consultants. It works closely with members and staff of the legislature, state agency staff, and experts in the field to ensure that studies answer relevant policy questions and help in making practical choices.

“Politically, the easiest approach to crime is to put everybody in prison,” said Sen. Jim Hargrove, a Democrat who is chairman of the Washington State Senate Committee on Human Services and Corrections. “But we have research showing ways to lower the crime rate and save money by investing in preventing crime in the first place. It has allowed us to consider policies that are the most effective, even if they don’t sound like a sound bite.”

Skip Priest, who served as ranking Republican on the Washington State House of Representatives Committee on Education, has seen how the cost-benefit model has led to a similar change in Washington’s approach to education policy.

“In the past, the legislature used to take a piecemeal approach to education issues based on what one school district wanted or maybe one study that somebody cited because it supported what they wanted to do,” Priest said.

“WSIPP’s research provides objective investment advice, and because they have such high standards, it takes a lot of the politics out of it. People started to joke that in addition to the Democratic Caucus and the Republican Caucus, we had developed an ‘education caucus’ that came together based on evidence as opposed to partisanship. I took that as a great compliment for the way we were making policy.”

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APPENDIX:

How the Results First Model Summarizes Monetary Benefits and Costs of Evidence-Based Public Policies

Estimates for Washington State, as of July 2011, by the Washington State Institute for Public Policy

A key strength of the Washington State model is that it enables policy makers to compare and rank programs based on the benefits and costs that each program is predicted to generate for taxpayers. The exhibit below is taken from a recent WSIPP report that predicts the costs, benefits, and return on investment of juvenile justice programs. The estimates are based on an analysis of all available studies.

The first column (Topic Area/Program) lists programs that WSIPP examined.

The columns under Monetary Benefits show the expected per participant monetary benefits for each program over a time period of at least 15 years. The total is broken down into two parts – the monetary benefits to taxpayers and other monetary benefits to the public, such as the savings to potential victims of crimes.

The Costs column shows estimated total cost to taxpayers per participant during that same time period.

The final set of columns under Summary Statistics allows policy makers to compare the relative effectiveness of investments in one program compared to others in monetary terms. For example, for Aggression Replacement Training for youth in institutions, it shows that benefits minus costs per participant equals \$65,481, while net benefits for Victim Offender Mediation equals only \$3,357. One program (Scared Straight) actually would generate \$6,095 more in costs per participant than it would achieve in monetary benefits. The next columns apply technical accounting concepts to provide comparisons of benefit to cost ratios and rate of return on investment, and not just the absolute number of expected benefits minus costs. Finally, the Measure of Risk column estimates the chances that an investment in this program will result in greater monetary benefits than costs.

Monetary Benefits and Costs of Evidence-Based Public Policies

Topic Area/Program	MONETARY BENEFITS				SUMMARY STATISTICS			
	Total Benefits	Taxpayer	Non-Taxpayer	Costs	Benefits Minus Costs (net present value)	Benefit to Cost Ratio	Rate of Return on Investment	Measure of Risk (odds of a positive net present value)
Aggression Replacement Training (Inst.)	\$66,954	\$13,669	\$53,285	(\$1,473)	\$65,481	\$45.50	n/e	93%
Functional Family Therapy (Inst.)	\$60,539	\$13,719	\$46,820	(\$3,198)	\$57,341	\$18.98	n/e	99%
Aggression Replacement Training (Probation)	\$36,043	\$8,144	\$27,898	(\$1,476)	\$34,566	\$24.44	n/e	93%
Functional Family Therapy (Probation)	\$37,739	\$8,536	\$29,203	(\$3,190)	\$34,549	\$11.86	641%	99%
Multidimensional Treatment Foster Care	\$40,787	\$8,343	\$32,443	(\$7,739)	\$33,047	\$5.28	142%	85%
Multisystemic Therapy (MST)	\$29,302	\$6,521	\$22,782	(\$7,206)	\$22,096	\$4.07	28%	91%
Family Integrated Transitions (Inst.)	\$27,020	\$5,448	\$21,572	(\$10,968)	\$16,052	\$2.47	17%	86%
Drug Court	\$12,737	\$2,859	\$9,878	(\$3,024)	\$9,713	\$4.22	38%	80%
Coordination of Services	\$5,270	\$1,340	\$3,930	(\$386)	\$4,884	\$13.63	444%	78%
Victim Offender Mediation	\$3,922	\$977	\$2,946	(\$566)	\$3,357	\$6.94	89%	90%
Scared Straight	(\$6,031)	(\$1,591)	(\$4,440)	(\$63)	(\$6,095)	n/e	n/e	1%

NOTE: 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.

SOURCE: Washington State Institute for Public Policy (2011). Return on investment: Evidence-based options to improve statewide outcomes (Document No. 11-07-1201). Olympia: Washington State Institute for Public Policy.

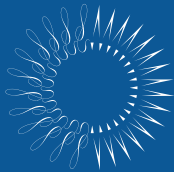
Results First is partnering with states to assess and advance policy options that benefit residents and improve states' fiscal health. Results First is an initiative of the Pew Center on the States and the John D. and Catherine T. MacArthur Foundation, with additional support from the Annie E. Casey Foundation.

The Pew Center on the States is a division of The Pew Charitable Trusts that identifies and advances effective solutions to critical issues facing states. Pew is a nonprofit organization that applies a rigorous, analytical approach to improve public policy, inform the public, and stimulate civic life.

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