# REEVALUATING CRIMINAL SENTENCES AND POST-RELEASE SUPERVISION

## I. OVERVIEW/SUMMARY

King County prosecutors and defense attorneys request, and judges routinely impose, affirmative conditions on top of (or in lieu of) a standard sentence. This is done despite the reality that community supervision has been virtually eliminated, enforcement of affirmative conditions is haphazard, and the efficacy of many treatment programs is questionable. Until now, we have failed to address this changed landscape and that failure has, in our estimation, done a disservice to citizens, crime victims, and defendants.

Because the current model has essentially collapsed due to a lack of post-conviction supervision, the King County Prosecuting Attorney's Office (KCPAO) has undertaken a comprehensive review of the theory and practice surrounding this part of our practice. This paper is the product of that effort and covers four related topics. First, we outline the penal and legislative history that led away from rehabilitative ideals to the "just desserts" of the Sentencing Reform Act (SRA), and then the gradual shift back toward rehabilitative ideals embedded in the SRA through amendments like the creation of "affirmative conditions" and the Offender Accountability Act.

Second, we attempt to describe the current practice in King County surrounding affirmative conditions – particularly in light of state funding cuts that have decimated community supervision in Washington State – and the practical difficulties courts face in monitoring such conditions and sanctioning non-compliance.

Third, in light of this new reality, we propose immediate changes to our practice to end the use of affirmative treatment conditions for felony offenders who will not be supervised.

Finally, our discussion ends with consideration of potential reforms informed by studies – nationally and in Washington State – that have demonstrated the efficacy of intense community supervision combined with scientifically-based risk-needs assessment of offenders, and community programs for selected offenders that are evidence-based and proven effective.

## II. HISTORY

### A. Origins of the SRA

For most of the twentieth-century, Washington's punishment system was built on a rehabilitative ideal that rested on the principle that people could be changed while under a criminal sentence.[1] "Indeterminate" sentences spanned a period of years and the length of incarceration depended on the offender's rehabilitative progress. The system was not wholly indeterminate, however, as mandatory minimum sentences and habitual offender sentences coexisted with the indeterminate scheme.

The Sentencing Reform Act of 1981 (SRA) grew out of a groundswell of dissatisfaction with the rehabilitative ideal. The reasons for dissatisfaction were many, including the failure of rehabilitative punishment, the realization that it did not sufficiently prevent recidivism, and criticism that indeterminate sentencing produced inequities among similarly situated offenders. There was also great public frustration that seemingly lengthy sentences were only partially served, as offenders were deemed "cured" and released into the community long before citizens felt release was appropriate. This lack of transparency led to demands for truth in sentencing; the idea that sentences should be unequivocal when imposed and that the sentence should actually be served. Citizens wanted to know what they could expect.

[1] For a more complete history of punishment in Washington, see D. Boerner, *Sentencing in Washington,* §2, at 2-1 to 2-26 (1985).

The SRA imposed a "just desserts" model of punishment in place of the rehabilitative model. In pursuit of this principle, the SRA established a standard range based on the offense type and prior criminal history. Judges were required to sentence within the range unless substantial and compelling reasons existed to depart from the range. Judicial discretion was channeled but not eliminated. The goal was to reduce disparities, increase fairness, and promote public confidence through transparency or "truth in sentencing." Emphasis was placed on confinement as the primary means to punish. In fact, the SRA did not originally allow sentencing courts to order treatment as a condition of sentence. There were no "affirmative conditions" or post-conviction supervision. Sentencing courts could impose affirmative treatment conditions only when the Court ordered a Special Sexual Offender Sentencing Alternative (SSOSA) or a First Time Offender Waiver (FTOW). "Reducing the risk of recidivism" through rehabilitation was not one of the original policies of the SRA.

B. The Rehabilitative Ideal Returns (Incrementally) and then Falters

Shortly after the SRA went into effect, some stakeholders began to lobby for crime-related treatment and supervision. In 1991, the Sentencing Guidelines Commission (Commission) concluded that the limited availability of treatment thwarted the objective that the law "offer. . . the offender an opportunity to improve him or herself."[2] The Commission's study came on the heels of a significant increase in drug prosecutions in the late 1980s,[3] and the Legislature's 1988 decision to exclude VUSCA delivery cases from First-Time-Offender-Waiver (FTOW) eligibility. The Commission concluded that "while drug use is clearly associated with crime, treatment for this population is inadequate or unavailable." The Commission believed treatment could be

[2] RCW 9.94A.010.
[3] Between 1986 and 1991, the number of drug sentences increased by 235%.

effective in reducing criminal behavior, both in prison and the community, whether or not the offender volunteered. As a result, the Commission endorsed two reforms: (1) allowing judges to impose treatment and affirmative conditions on offenders on supervision, and (2) creating a drug offender treatment option.

Some of the Commission's 1991 recommendations were adopted by the Legislature. In 1993, the Work Ethic Camp sentencing alternative was created. The following year, King County began the State's first Drug Diversion Court. In 1995, the Drug Offender Sentencing Alternative (DOSA) was created. Each of these changes incrementally shifted sentencing from the "just desserts" rationale of the SRA towards a treatment rationale, although the philosophical shift was not always expressly noted. The changes also placed greater demands on community corrections officers in the Department of Corrections (DOC) because affirmative conditions of sentence required monitoring of treatment.

Another important shift came with the passage of the Offender Accountability Act (OAA) in 1999. The OAA was designed to, among other things, streamline the process of enforcing sentencing conditions by moving most enforcement to administrative hearings. The OAA also added "risk reduction" to the listed purposes of the SRA. The Commission noted, "attempts to mitigate risks involve both crime-related prohibitions as well as imposition of affirmative acts intended to change characteristics of the individual offender." To this end, the OAA authorized sentencing courts to impose affirmative, rehabilitative, treatment conditions on offenders, both in confinement and in the community. The OAA also expanded the DOSA program to apply to all VUCSA crimes with sentences greater than one year, and required the DOC to use a research-based

assessment tool to (1) classify all offenders based on their risk to re-offend, and (2) allocate supervision and treatment resources.

The Commission recognized that these collective changes represented a major departure from the original vision of the SRA: "These 'reforms' of the Sentencing Reform Act are all based upon premises rejected by the Legislature when [the Act] was adopted two decades ago." By adopting reforms to the Sentencing *Reform* Act, the Legislature tacitly endorsed the notion that imposing crime-related treatment conditions on offenders was compatible with the "just desserts" purposes of the original SRA.

Under the OAA, standardized risk assessments are used to decide which offenders would be supervised in the field. Unfortunately, risk assessments are done *after* sentencing, so the assessment is not available to prosecutors, defense counsel, or the sentencing judge. Thus began the practice in which courts imposed sentencing conditions that were never monitored or completed if the offenders scored too low to warrant active supervision. Prosecutors and judges who had expected treatment to follow conviction were disappointed to learn that treatment would not be monitored. This was especially frustrating for victims or witnesses who had been told that the offender would receive treatment in lieu of incarceration. Transparency suffered, and the effort to achieve "truth in sentencing" was once again beginning to falter.

The full impact of this shift is best understood by examining the number of offenders under supervision before and after the OAA. Before the passage of the OAA, the DOC's community supervision caseload included over 66,000 offenders. By 2006, the number of persons under supervision dropped to less than 30,000. See Appendix A.

C. State Budget Cuts Further Undermine Rehabilitative Conditions of Sentence

The changes brought about by the OAA were compounded by the global recession that began in 2008 that further reduced Washington's ability to fund the community corrections officers who monitor compliance with sentence conditions.

In 2009, the Legislature wholly eliminated DOC supervision of (1) offenders convicted of virtually all misdemeanors and gross misdemeanors[4] in Superior Court and, (2) felony offenders who were placed into the two lowest risk assessment categories. Currently, the number of people under supervision has dropped to about 18,000 offenders, and the number is unlikely to increase anytime soon. In fact, recently passed legislation further reduced the sanctions available for "high violent" offenders under active supervision. SB 6204.

Although sentencing courts are still empowered to *impose* treatment conditions on offenders, without actual supervision, nobody knows whether conditions are ever met. And it is safe to assume that they are routinely not met. Thus, while community safety and risk reduction continue to be the stated objectives of the SRA, and while these rehabilitative goals have been touted as replacements for incarceration, the Legislature's elimination of supervision for entire classes of offenders has resulted in thousands of unenforced sentences. For most offenders, compliance with court-ordered treatment is unenforced unless the sentencing court directly supervises the offender.[5] To members of the public, who assume that sentence conditions will be monitored and completed, it is as though the court is sentencing defendants to a jail without doors.

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[4] Defendants convicted of Assault 4 or Violation of a DV Court orders are only supervised if the offender also has a prior conviction for another specific crime. No misdemeanors are supervised even if a mental health or substance abuse issue caused the crime.

[5] The problems are exacerbated, of course, by the fact that funding for treatment is rare. Offenders may struggle to pay for treatment on their own, and may struggle to hold down full-time jobs because of the time and scheduling demands of treatment programs.

## III. SENTENCING PRACTICES IN KING COUNTY

Over the years, King County has employed many sentencing alternatives that involve the use of affirmative conditions coupled with intensive supervision. King County Drug Court, King County Regional Mental Health Court (and Veterans Court) and even DOSA and SOSSA sentences are all used regularly in qualifying cases. Many of these alternatives have been proven effective when evaluated by the Washington State Institute for Public Policy (WSIPP) and others.

Beyond these specified programs are a broad group of cases involving different types of offenders and crimes in which we attempt to employ affirmative conditions (as a part of Community Supervision or Community Custody) in addition to a standard range sentence. These conditions typically utilize a program that operates without direct oversight of the courts or probation officers. Program conditions include substance abuse treatment, domestic violence batterer's treatment, mental health treatment, anger management, and a variety of others. Yet, decisions about when or which affirmative conditions to recommend is often made in trade-offs during negotiations, without sufficient relevant information about the likely effectiveness of the condition for a particular offender.

There is also wide variation in the courts about when to impose affirmative conditions, how to structure supervision in the judgment and sentence, how to monitor compliance during the period of supervision, and how to conduct review/non-compliance hearings. In cases where DOC was ordered to supervise but "closes out" its supervision due to a low risk assessment, prosecutors are not notified of failures to meet conditions. When prosecutors become aware that treatment conditions have not been met, we request reviews on select cases such as DUIs, vehicular assaults, vehicular homicides, assaults,

and harassments. We pay particular attention to cases where a defendant is ordered to obtain mental health treatment, domestic violence treatment, parenting classes, or anger management. In VUCSA cases where treatment was ordered without DOC supervision, we do not routinely ask for review hearings unless there is also another violation, such as a failure to perform community service hours. In many cases, the KCPAO has simply stopped requesting review hearings because neither the courts nor this office can accommodate the volume of cases or provide the monitoring necessary to ensure compliance.

Courts, too, differ over how and when to enforce sentencing conditions where DOC supervision is absent. First, judges disagree over whether they have authority to enforce conditions in cases not supervised by DOC.[6] Second, some courts feel that they cannot enforce a condition after the period of supervision has elapsed, but before the end of the court's jurisdiction. Third, some courts believe that even if supervision time remains, they cannot punish a lack of compliance if the defendant was never ordered to comply by a date certain.

There are also difficulties proving violations without a community corrections officer (CCO) as a witness. The State has the burden of showing noncompliance by a preponderance of the evidence. RCW 9.94A.6333(2)(b). It is difficult to meet this burden without a CCO, to whom the defendant reports, who can testify about noncompliance.

Some judges set review hearings to monitor compliance on their own, a practice known as "bench supervision." These judges set compliance dates and review hearings,

[6] The prosecutor argues that courts always have authority to enforce a judgment and sentence and that the court retains this power until there is an order either terminating supervision or discharging the defendant pursuant to RCW 9.94A.637. See State v. Zabroski, 56 Wn. App. 263 (1989); State v. Neal, 54 Wn. App. 760 (1989); State v. Johnson, 54 Wn. App. 489 (1989).

in the judgment and sentence, and insert specific language that requires a defendant to provide proof of a completed condition. These "supervising" judges find it difficult to guide defendants to the necessary programs for compliance with the Judgment and Sentence. Unlike DOC community corrections officers, judges can't conduct home visits, contact treatment providers, or have ex parte contact with the defendant or third parties. Many judges, on the other hand, simply reject the concept of bench supervision outright. The uncertainty resulting from these different judicial views makes it difficult for the parties to make informed choices during plea negotiations.

## IV. A WAY FORWARD FOR THE KCPAO

The KCPAO will continue to support, through its negotiation practices, the full use of King County Drug Court, King County Regional Mental Health Court (and Veterans Court), DOSA and SOSSA sentencing options. However, the current lack of community supervision resources described above demands at least two critical changes in the existing practice of the KCPAO. First, victims and the community deserve truth in sentencing. We will no longer recommend affirmative treatment conditions as an adjunct to standard range sentences unless we are assured that actual supervision by a CCO is likely to be imposed. Second, we will seek to expand sentencing options that combine a) scientifically based risk-needs assessment of offenders, with b) programs that are evidence-based and have been proven to be effective.

The first change is relatively straightforward. We will no longer recommend – and will advocate against – sentencing conditions and treatment options where there is no active supervision to ensure compliance. Moreover, we must assume that there will be no active supervision absent some clear shift in policy from the DOC. This change ensures

"truth in sentencing" and recognizes the changed circumstances that make it impossible to meaningfully enforce sentencing conditions in the current environment. Supervision by a judge or prosecutor is simply not feasible.

The second change – expanding sentencing options that combine scientifically based risk-needs assessment of offenders with evidence-based programs – is equally important but will prove more difficult. We seek to build a system of intense community supervision for a select group of offenders. The system should take into account the individual risks and needs of the select group of offenders, and match those offenders with truly effective treatment programs. However, this will take time and commitment.

In the meantime, King County has a number of assets that can be used to reduce recidivism for those sentenced to jail time. The first is the existence of a well-regarded Community Corrections Program that runs a number of programs providing alternatives to confinement in our local jail. Although this program is not a substitute for community supervision by the Department of Corrections, it is an important resource that is managing offenders in the community through use of rehabilitative programming.

The second asset is the emerging body of research by the Department of Justice, WSIPP, and The Pew Center Regarding the States, all of which have begun to identify effective treatments and interventions. Such "evidence-based" criminal justice research has found some types of probation/supervision/treatment programs to be effective, and others ineffective, in reducing crime and recidivism.[7]

As an example, one recent legislatively-mandated study attempts to identify cost-effective prevention and intervention programs and policies, and it provides an example

[7] See Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). Return on investment: Evidence-based options to improve statewide outcomes, April 2012 (Document No. 12-04-1201). Olympia: Washington State Institute for Public Policy; and The Pew Center on the States, *State of Recidivism: The Revolving Door of America's Prisons* (Washington, DC: The Pew Charitable Trusts, April 2011).

of how policy-making can be data-driven rather than anecdotal. WSIPP: *Return on Investment: Evidence-Based Options to Improve Statewide Outcomes* (Document No. 11-07-1201 and 12-04-1201).[8] The results, released in July of 2011 and updated in April 2012, provide a ranking of criminal justice interventions by effectiveness. See Appendices B and C. An example of an effective program is DOSA. DOSA reduces prison time for addicted offenders in exchange for successful completion of drug treatment and supervision. If an offender fails to comply with drug treatment, the treatment portion of the sentence can be revoked and the original prison sentence re-imposed. The program has been proven effective. Drug addicted offenders no longer face costly prison terms, their underlying addiction is treated, and the result is less crime. DOSA for drug defendants therefore provides a significant return on public investment.[9]

The WSIPP study also identifies ineffective programs. For example, Domestic Violence Perpetrator Programs, a.k.a. State Certified Domestic Violence Treatment, were shown to have very limited effect on recidivism and provide a negative return on investment. This finding is important because domestic violence treatment is the most common, and sometimes the only, legal response in criminal DV cases. If treatment for domestic violence is ineffective, prosecutors and courts should not tell victims that a batterer ordered into treatment is at a lower risk to batter again. Given the pervasiveness of domestic violence, ineffective interventions should not replace incapacitation of offenders. And, if better interventions exist, they need to be identified.

The third asset for King County is found in the work being done in the King County Pre-trial Risk Assessment project. That project, whose goal is to create a risk-

[8] See Laws of 2009, ch. 564, § 610 (4), ESHB 1244. The study was a partnership between WSIPP and the MacArthur Foundation, which provided most of the funding.
[9] On the other hand, WSIPP found DOSA for general felony offenders not successful.

assessment tool to predict risk of reoffense and failures to appear for pretrial defendants, has broad implications for other related projects. In short, the project represents a significant toehold into a future in which risk-assessment is embraced as a means to determine how and whether to manage offenders in the community.

A final component to any reform must do more than identify programs that work; effective and intensive supervision and sanctions must be coupled with any community treatment program.[10] This point was further underscored in a recent report by WSIPP, *"What Works" in Community Supervision: Interim Report* (Document No. 11-12-1201) (2011). WSIPP found a meaningful recidivism reduction when offenders received treatment in combination with intense supervision.

## V. CONCLUSION

It is time to honestly appraise the changed landscape wrought by severe budget cuts, the profound drop in community supervision of offenders, and the emerging evidence-based sentencing research. The justice system can no longer pretend that most offenders will be supervised, or that traditional interventions are effective. The KCPAO believes the first step is to abandon practices that can no longer be sustained. At the same time, the KCPAO commits to help build a more effective model guided by the consensus of studies on offender recidivism: intense supervision for a select group of offenders based on individual risks and needs, combined with treatment programs that are proven effective. We recognize that this level of intervention may only be available in a relatively small number of cases (due to costs or program availability). But the alternative, in which the court or prosecutors attempt to make broad use of affirmative

[10] See Taxman, F. (2002). Supervision—Exploring the Dimensions of Effectiveness. *Federal Probation, 66(2),* 14

conditions, without intense supervision, is a failed concept. In the final analysis, the community, victims, and offenders deserve assurance that criminal sentences are fair, in terms of being proportionate to the underlying crime, and effective in reducing crime and recidivism.

# APPENDIX A

# Major Sentencing Changes

## Impacting Community Supervision Caseloads and Prison Population

### Community Supervision Caseload

33,250

**1990 ⬆**
- Sex and Serious Violent offender's community custody period increased to two years

**1996 ⬆**
- Vehicular Homicide and Vehicular Assault was added to Community Custody requirements
- Sex offenders community custody period increased to three years

**2000 ⬆**
- Community Custody for prison offenders changed to a range of supervision
- Offenders' supervision level determined by risk

**1999 ⬆**
- Violent and Crimes Against a Person offenses added to required of one year Community Custody
- Increase supervision for DOSA offenders

**1999 ⬇**
- Community supervision for certain FTOW offenders decreased to one year

**2001 ⬆**
- 3ESSB 6151 passed – Certain sex offenses have community custody for statutory maximum of the offense

**2003 ⬇**
- ESSB 5990 passed; eliminating supervision for certain low-risk felony offenders and eliminating the required for DOC supervision for only monetary purposes

65,549

**2005 ⬇**
- SSB 5256 passed; eliminating supervision for certain low-risk misdemeanant offenders

**2006 ⬆**
- Requiring supervision for failure to register
- Increasing community supervision for specific sex offenses
- Requiring supervision for the crime of identify theft and felony DUIs

**2009 ⬇**
- ESSB 5288/6162 was passed; reducing community supervision caseloads

28,894

**2010 ⬇**
- SSB 6414 was passed affecting the length of supervision for first and second time fail to register

**2011 ⬇**
- ESSB 5891 was passed; eliminating sanction tolling for non-sex offenders and reducing community supervision caseloads

18,929

### Prison Population

6,040

**1990 ⬆**
- Burglary and Sex offenses increase in seriousness levels
- Sexual motivation findings were established

**1994 ⬆**
- 3-Strike Law Passed

**1996 ⬆**
- 2-Strike Law Passed

**1995 ⬆**
- Hard Time for Armed Crime Passed

**1997 ⬆**
- Sex Offense Penalties Increased

**1998 ⬆**
- 2-year Enhancement for Prior DUIs for Current Vehicle Homicide-DUI

**1999 ⬇**
- Expanded DOSA Eligibility

**2001 ⬆**
- 3ESSB 6151 Passed; defining Indeterminate sentencing for certain sex offenses

**2002 ⬇**
- Reduced Sentencing Laws and Scoring for Certain Drug Offenses

**2003 ⬇**
- ESSB 5990 Passed affecting Earned Release Calculations

**2004 ⬆**
- Increased Confinement Range for Offenders Sentenced to the Special Sex Offender Sentencing Alternative

**2005 ⬇**
- Residential DOSA Option was created

**2006 ⬆**
- Felony DUI was created
- Mandatory Minimum Sentences were established for certain sex offenses
- Sex offense penalties increased

**2007 ⬆**
- E3SHB 1001 Passed increasing Sentences for Auto Theft

**2007 ⬇**
- ESSB 6157 Offender Reentry was passed

**2009 ⬇**
- Changes to Property Thresholds

**2010 ⬆**
- Sunset of ESSB 5990 affecting Earned Release Calculations

**2010 ⬇**
- Family Offender Sentencing Alternative was passed

18,274

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY90 | FY91 | FY92 | FY93 | FY94 | FY95 | FY96 | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 |
| Community | 33,250 | 35,655 | 38,647 | 42,293 | 44,713 | 47,749 | 51,084 | 52,752 | 54,381 | 53,952 | 56,736 | 58,687 | 62,864 | 65,549 | 35,649 | 29,137 | 26,451 | 27,063 | 28,188 | 28,894 | 20,155 | 18,929 |
| Prison | 6,040 | 6,905 | 8,022 | 10,132 | 10,491 | 10,997 | 11,781 | 12,590 | 13,306 | 14,265 | 14,651 | 15,007 | 15,462 | 16,344 | 16,736 | 17,388 | 17,827 | 18,006 | 18,284 | 18,518 | 18,360 | 18,274 |

# APPENDIX B

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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."[1]

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.[2]

## 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.[3]

**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.[4] Many "real world" lessons were learned about implementing these programs statewide.[5]

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.[6]

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.

[1] Laws of 2009, ch. 564, § 610 (4), ESHB 1244.
[2] http://www.wsipp.wa.gov/pub.asp?docid=11-07-1201
[3] 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.
[4] 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.
[5] 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.
[6] http://www.wsipp.wa.gov/video_tvw21JAN2011.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.[7] 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.

**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

[7] 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).

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.[8] The legislature used this information in subsequent sessions to craft budget and policy decisions.[9] In the near future, we anticipate expanding portfolio analysis to other outcomes such as high school graduation.

## 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.

[8] Aos et al., 2006, Document No. 06-10-1201.
[9] 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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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[1] | Rate of Return on Investment[1] | Measure of Risk (odds of a positive net present value) |
| **Juvenile Justice** | | | | | | | | |
| Aggression Replacement Training (Inst.[2]) | $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% |
| **Juvenile justice programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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[3]) (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. | | | | | | | |
| **Adult Criminal Justice** | | | | | | | | |
| Dangerously Mentally Ill Offenders | $103,596 | $24,391 | $79,205 | ($31,626) | **$71,969** | $3.28 | 19% | 100% |
| Drug Offender Sentencing Alternative: drug offenders | $28,013 | $6,680 | $21,333 | ($1,511) | **$26,502** | $18.57 | n/e | 99% |
| Correctional Education in Prison | $19,923 | $4,785 | $15,138 | ($1,102) | **$18,821** | $18.11 | n/e | 100% |
| Electronic Monitoring | $17,068 | $4,068 | $13,000 | $1,044 | **$18,112** | n/e | n/e | 100% |
| Vocational Education in Prison | $19,083 | $4,634 | $14,449 | ($1,537) | **$17,547** | $12.43 | n/e | 100% |
| Drug Treatment in the Community | $15,419 | $3,671 | $11,748 | ($2,102) | **$13,317** | $7.35 | n/e | 100% |
| Drug Offender Sentencing Alternative: prop. offenders | $14,324 | $3,410 | $10,914 | ($1,513) | **$12,811** | $9.47 | n/e | 76% |
| Mental Health Court | $14,230 | $3,424 | $10,806 | ($2,878) | **$11,352** | $4.95 | 44% | 100% |
| CBT (in prison) | $10,741 | $2,588 | $8,153 | ($217) | **$10,524** | $49.55 | n/e | 99% |
| Drug Treatment in Prison | $14,351 | $3,467 | $10,883 | ($3,894) | **$10,456** | $3.69 | 25% | 100% |
| Intensive Supervision: with treatment | $17,521 | $4,216 | $13,305 | ($7,712) | **$9,809** | $2.28 | 11% | 96% |
| Drug Court | $11,750 | $2,644 | $9,106 | ($4,099) | **$7,651** | $2.87 | 18% | 100% |
| CBT (in the community) | $7,739 | $1,848 | $5,891 | ($217) | **$7,522** | $35.70 | n/e | 99% |
| Work Release | $6,466 | $1,552 | $4,914 | ($649) | **$5,817** | $9.97 | n/e | 97% |
| Correctional Industries in Prison | $6,398 | $1,546 | $4,851 | ($1,387) | **$5,011** | $4.63 | 36% | 100% |
| Community Employment Training/Job Assistance | $4,641 | $1,104 | $3,537 | ($132) | **$4,509** | $35.13 | n/e | 100% |
| Intensive Supervision: surveillance only | ($556) | ($132) | ($424) | ($4,050) | **($4,606)** | ($0.14) | n/e | 10% |
| Domestic Violence Perpetrator Treatment Programs | ($3,724) | ($886) | ($2,839) | ($1,335) | **($5,059)** | ($2.91) | n/e | 20% |
| **Adult criminal justice programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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[1] | Rate of Return on Investment[1] | Measure of Risk (odds of a positive net present value) |
| **Child Welfare[4]** | | | | | | | | |
| Nurse Family Partnership for Low-Income Families | $30,325 | $8,527 | $21,798 | ($9,421) | **$20,905** | $3.23 | 7% | 89% |
| Incredible Years: Parent Training and Child Training | $15,571 | $4,083 | $11,488 | ($2,085) | **$13,486** | $7.50 | 12% | 93% |
| Other Home Visiting Programs for At-Risk Families | $14,896 | $3,668 | $11,228 | ($5,453) | **$9,444** | $2.73 | 5% | 84% |
| Healthy Families America | $13,790 | $4,330 | $9,459 | ($4,508) | **$9,282** | $3.07 | 7% | 98% |
| Parent-Child Interaction Therapy: Disruptive Behavior | $9,584 | $3,026 | $6,558 | ($1,302) | **$8,282** | $7.37 | 31% | 91% |
| Parent-Child Interaction Therapy: Child Welfare | $9,498 | $1,892 | $7,606 | ($1,516) | **$7,982** | $6.27 | 15% | 100% |
| Intensive Family Preservation (Homebuilders®) | $10,995 | $5,889 | $5,106 | ($3,224) | **$7,771** | $3.41 | 4% | 99% |
| Incredible Years: Parent Training | $8,488 | $2,449 | $6,039 | ($2,022) | **$6,466** | $4.20 | 12% | 76% |
| Triple P[5]: Level 4, Individual | $7,237 | $2,371 | $4,866 | ($1,790) | **$5,447** | $4.06 | 19% | 79% |
| Triple P: Level 4, Group | $3,740 | $1,230 | $2,510 | ($365) | **$3,374** | $10.32 | n/e | 89% |
| Parents as Teachers | $7,236 | $1,616 | $5,620 | ($4,138) | **$3,099** | $1.75 | 5% | 74% |
| Triple P: (Universal) | $1,277 | $580 | $696 | ($139) | **$1,137** | $9.22 | 8% | 100% |
| Parent-Child Home Program | $4,855 | $1,137 | $3,718 | ($5,386) | **($531)** | $0.88 | n/e | 48% |
| Other Family Preservation (non-Homebuilders®) | ($70) | ($52) | ($17) | ($2,982) | **($3,052)** | ($0.02) | n/e | 0% |
| **Child welfare programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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. | | | | | | | |
| **Pre-K to 12 Education** | | | | | | | | |
| Early Childhood Education: Low-Income 3/4 Year Olds | $26,480 | $7,244 | $19,236 | ($7,420) | **$19,060** | $3.60 | 7% | 100% |
| Reading Recovery (K-12 Tutoring) | $19,017 | $4,489 | $14,528 | ($1,863) | **$17,154** | $10.25 | 11% | 83% |
| Tutoring for English Language Learners (ELL) | $13,243 | $3,177 | $10,066 | ($1,333) | **$11,910** | $10.05 | 13% | 65% |
| K-12 Tutoring by Peers | $11,937 | $2,838 | $9,099 | ($995) | **$10,942** | $12.00 | 12% | 74% |
| Special Literacy Instruction: ELL | $7,684 | $1,833 | $5,851 | ($275) | **$7,409** | $28.20 | 19% | 67% |
| K-12 Tutoring by Adults | $7,140 | $1,697 | $5,444 | ($1,940) | **$5,200** | $3.69 | 8% | 66% |
| Early Head Start | $13,793 | $4,413 | $9,380 | ($10,230) | **$3,563** | $1.35 | 6% | 47% |
| K-12 Parent Involvement Programs | $3,627 | $854 | $2,773 | ($813) | **$2,814** | $4.62 | 12% | 56% |
| NBPTS[6] Certification Bonuses for Teachers | $1,622 | $384 | $1,238 | ($67) | **$1,555** | $24.28 | 19% | 69% |
| Additional Day of K-12 Instructional Time | $105 | $25 | $80 | ($26) | **$79** | $3.90 | 15% | 53% |
| Even Start | ($1,511) | ($360) | ($1,151) | ($4,050) | **($5,561)** | ($0.37) | n/e | 37% |
| **Pre-K to 12 education programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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[1] | Rate of Return on Investment[1] | Measure of Risk (odds of a positive net present value) |
| **Children's Mental Health[7]** | | | | | | | | |
| 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[8] for Children with Disruptive Behavior Disorders | $5,176 | $1,703 | $3,473 | ($1,245) | **$3,931** | $4.16 | 24% | 63% |
| BPT[9] 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[10] for Serious Emotional Disturbance | $7,361 | $2,936 | $4,425 | ($6,366) | **$994** | $1.16 | 2% | 67% |
| **Children's mental health programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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. | | | | | | | |
| **General Prevention** | | | | | | | | |
| 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% |
| **General prevention programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| 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. | | | | | | | |
| **Substance Abuse** | | | | | | | | |
| 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[11] | $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[1] | Rate of Return on Investment[1] | Measure of Risk (odds of a positive net present value) |
| **Substance abuse prevention and treatment programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| CBT for Substance Abusers | | | | Review in process; results planned for December, 2011. | | | | |
| Relapse Prevention | | | | Review in process; results planned for December, 2011. | | | | |
| Project Alert | | | | See previous WSIPP publications for past findings; an update is planned for December, 2011. | | | | |
| Midwestern Prevention Project | | | | See previous WSIPP publications for past findings; an update is planned for December, 2011. | | | | |
| Project Towards No Tobacco Use | | | | See previous WSIPP publications for past findings; an update is planned for December, 2011. | | | | |
| All Stars | | | | See previous WSIPP publications for past findings; review in process. | | | | |
| Minnesota Smoking Prevention Program | | | | See previous WSIPP publications for past findings; review in process. | | | | |
| Brief Interventions for Substance Abusers | | | | Review in process | | | | |
| Pharmacotherapies for Substance Abuse | | | | Review in process | | | | |
| Project Northland | | | | See previous WSIPP publications for past findings. | | | | |
| DARE | | | | See previous WSIPP publications for past findings. | | | | |
| **Adult Mental Health** | | | | | | | | |
| 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 | | | | See Technical Appendix I for meta-analytic results. | | | | |
| CBT for Adult Depression | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Remote CBT | | | | Review in process; an update is planned for December, 2011. | | | | |
| Treatments for Post-Traumatic Stress Disorder | | | | Review in process; an update is planned for December, 2011. | | | | |
| Eye Movement Desensitization and Reprocessing | | | | Review in process. | | | | |
| Day Programs for Mentally Ill Adults | | | | Review in process. | | | | |
| Psychotherapies for Bipolar Disorder | | | | Review in process. | | | | |
| Family Therapies for Adults With Schizophrenia or Bipolar | | | | Review in process. | | | | |
| Primary Care Interventions for Depression | | | | Review in process. | | | | |
| **Public Health** | | | | | | | | |
| 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. | | | | | | | | |
| **Teen Pregnancy Prevention:** | | | | | | | | |
| Postponing Sexual Involvement | | | | See Technical Appendix I for meta-analytic results. | | | | |
| School-Based Service Learning | | | | See Technical Appendix I for meta-analytic results. | | | | |
| School-Based Sexual Education | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Teen Outreach Program | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Adolescent Sibling Pregnancy Prevention | | | | See Technical Appendix I for meta-analytic results. | | | | |
| **Obesity Prevention:** | | | | | | | | |
| School Programs for Healthy Eating | | | | See Technical Appendix I for meta-analytic results. | | | | |
| School Programs for Physical Activity | | | | See Technical Appendix I for meta-analytic results. | | | | |
| School Programs for Healthy Eating & Physical Activity | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Early Child Care Nutrition & Physical Activity | | | | Too few rigorous evaluations to date. | | | | |
| Taxes on Sweetened Beverages and Snack Food | | | | Too few rigorous evaluations to date. | | | | |
| Nutrition Labeling on Menus & Posting Nutritional Information | | | | Too few rigorous evaluations to date. | | | | |
| **Housing** | | | | | | | | |
| 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 | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Housing Support for Adults With Mental Illness | | | | See Technical Appendix I for meta-analytic results. | | | | |
| Housing Supports for Serious Violent Offenders | | | | See Technical Appendix I for meta-analytic results. | | | | |

**Notes to Exhibit 1**

[1] 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.
[2] Inst. = state institutionalized juvenile justice populations
[3] CBT = Cognitive Behavioral Therapy
[4] 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.
[5] Triple-P = Triple-P Positive Parenting Program
[6] NBPTS = National Board for Professional Teaching Standards
[7] For specific behavioral parent training programs currently administered by Washington State's child welfare system, see the Child Welfare topic heading.
[8] MMT = Multimodal Therapy
[9] BPT = Behavioral Parent Training
[10] MST = Multisystemic Therapy
[11] BASICS = Brief Alcohol Screening and Intervention of College Students

For further information, contact Steve Aos at
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Document No. 11-07-1201

*Washington State Institute for Public Policy*

The Washington Legislature created the Washington State Institute for Public Policy in 1983. The Institute is governed by a Board of Directors that represents the legislature, governor, and public universities. The Board guides the development of all Institute activities. The mission of the Institute is to assist policymakers, particularly those in the legislature, in making informed judgments about important, long-term issues facing Washington State.

# APPENDIX C

Washington State
Institute for
Public Policy

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April 2012

# Return on Investment: Evidence-Based Options to Improve Statewide Outcomes

*—April 2012 Update—*

In the mid-1990s, the Washington State Legislature first began to direct the Washington State Institute for Public Policy (Institute) to identify "evidence-based" policies that have been shown to improve particular outcomes.

The motivation for these assignments is straightforward: to provide Washington policymakers and budget writers with a list of well-researched policies that can, with a high degree of probability, lead to better statewide results and a more efficient use of taxpayer dollars.

This short report provides a snapshot, as of April 2012, of our current list of evidence-based policy options on many public policy topics. Where possible, we provide an independent assessment of the benefits and costs of each option from the perspective of Washington citizens and taxpayers.

In essence, this report is similar to an investment advisor's "buy-sell" list—it contains current recommendations on policy options that can give taxpayers a good return on their investment ("buys"), as well as those that apparently cannot ("sells"). **This report replaces previously published Institute reports on these topics.**

We will occasionally add or update results for individual policy options on our website as new information becomes available. Exhibit 1 of this report includes hyperlinks to detailed results for each program.

Suggested citation: Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes, April 2012* (Document No. 12-04-1201). Olympia: Washington State Institute for Public Policy.

## Background

The Institute was created by the 1983 Washington Legislature to carry out non-partisan research at legislative direction.

The 1997 Legislature directed the Institute to review "evidence-based" policy strategies in juvenile justice and adult corrections. We identified several programs that had been tried and evaluated elsewhere but were not then operating in Washington. We found that some, but not all, programs had the potential to reduce crime and save Washington taxpayers money.[1] In subsequent sessions, the legislature used the information to begin a series of policy reforms.[2] Many practical lessons have been learned about how to implement these programs with fidelity statewide.[3]

Based on this initial success, in the early 2000s the legislature began to direct the Institute to apply the same evidence-based and benefit-cost approach to other public policy areas, including K–12 education, early childhood education, prevention, child welfare, mental health, substance abuse, and public health.[4]

In this report, we discuss our research approach and summarize our current results on these topics.

## General Research Approach

As we have carried out these legislative assignments, we have been implementing a three-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 ranking of public policy options.
3) We measure the riskiness of our conclusions by testing how bottom lines vary when estimates and assumptions change.

A brief description of each step follows.

**Step 1: What Works? What Doesn't?**

In the first research step, we estimate the probability that various policies and programs can improve outcomes. Once the legislature has indicated an outcome of interest, we then carefully analyze all high-quality studies from the United States and elsewhere to identify well-researched policy options that have achieved the outcome (as well as those that have not). We look for research studies with strong evaluation designs; we ignore studies with weak research methods. Our empirical approach then follows a meta-analytic framework to assess systematically all credible evaluations we can locate on a given topic. We produce an estimated effect of a policy on a particular outcome of interest, as well as an estimate of the margin of error in that effect.

**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 have developed—and we continue to refine—an economic model that assesses benefits and costs. The goal is to provide an internally consistent monetary 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 and costs that accrue solely to program participants, those received by taxpayers, and those received by other people in society (for example, crime victims).

The sum of these three perspectives provides a "total Washington" view on whether a policy or program produces benefits that exceed costs. Our model can also restrict the focus solely to the taxpayer perspective which can be useful for fiscal analysis and state budget preparation.

**Step 3: Assessing the Riskiness of the Estimates.**

The third analytical step involves testing the robustness of our results. Any tabulation of benefits and costs involves some degree of speculation about future performance. This is expected in any investment analysis, whether it is in the private or public sector. To assess the riskiness of our conclusions, 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 policy option will at least break even. This type of analysis is used by many businesses in investment decision making.

Thus, for each option, we produce two "big picture" findings: expected benefit-cost results (net present values and rates of return) and, given our understanding of the risks involved, the odds that the policy will at least have benefits greater than costs.

## Changes Since the July 2011 Update

Since the Institute's benefit-cost findings were last published in July 2011, several findings have changed substantially, due to improvements in our benefit-cost methodology. The changes affect our previous results in two major ways, one that affects a particular topic area, and another that cuts across all topic areas.

First, we changed the method by which we monetize children's mental health disorders to more closely match the methods we use to monetize adult mental health disorders. The benefit-cost model is now able to distinguish between the effects of preventing disruptive behavior disorders compared to the effects of treating youth who already have these disorders. The effect of this modeling change, relative to our July 2011 findings, lowers the expected benefits of programs that affect child externalizing behaviors.

Second, we have updated our methods to avoid "double counting" benefits from a single monetary source. For instance, a program evaluation that measures high school graduation rates, test scores, and disordered alcohol use would be monetized, in part, via changes to lifetime earnings in the labor market from each of these outcomes. In the former version of our model, to avoid double counting, we allowed the highest of these three values to "trump" the other values. We discovered that, in a Monte Carlo simulation, consistently selecting the highest of the three values biased the results in a positive direction, and may not have accurately represented the expected monetary benefits of a policy. Thus our prior trumping method favored policies that measured multiple outcomes in their evaluations; for example, the more ways a study measured impacts on labor market earnings, the more likely our previous model would have estimated a positive overall benefit.

In the current update, we have improved our trumping method by taking a weighted average of all outcomes that derive benefits from a single monetary source. Using the new method, we more accurately represent the expected benefits from programs that measure multiple outcomes. This modeling change lowered the estimated benefits of a number of programs that measured certain monetary benefits through multiple outcomes.

For more detail on these modeling changes, see the technical appendix.[5]

## April 2012 Results

In this report, we summarize our results in a *Consumer Reports*-like list of what works and what does not, ranked by benefit-cost statistics and a measure of investment risk. 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.

In Exhibit 1, we have arranged the information by major topic. Some programs listed, of course, achieve outcomes that cut across these topics. The documents hyperlinked to the program titles in this exhibit provide comprehensive outcome information.

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

### Example: How to Read Exhibit 1.

To illustrate our findings, we summarize results for a program called Functional Family Therapy (FFT), designed for juveniles on probation. This program is listed under the topic of juvenile justice 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 Washington juvenile courts.

We reviewed all research we could find on FFT and found eight credible evaluations that investigated whether it reduces crime. The appendix linked in Exhibit 1 provides specific information on the eight studies in our meta-analysis of FFT.

- In Exhibit 1, we show our estimate of the total benefits of FFT per participant (2011 dollars). These benefits spring primarily from reduced crime, but also include labor market and health care benefits due to increased probability of high school graduation.
- Of the total benefits, Exhibit 1 shows that we expect some to be received by taxpayers and the majority to accrue to others, including the participants and people who were not victimized.
- Exhibit 1 also shows our estimates of the program costs per participant in Washington.
- The columns in the right-hand side of Exhibit 1 display our benefit-cost summary statistics for FFT. We show the net present value (benefits minus costs), and the benefit-to-cost ratio. Finally, we show the results of a risk analysis of our estimated bottom line for FFT.
- Based on these findings, 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.

In addition to the summary information displayed in Exhibit 1, we have prepared supplementary documents. The individually linked documents provide detailed results for each option summarized in Exhibit 1, while the technical appendix provides a comprehensive description of the research methods used to compute the results.

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[1] 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.

[2] 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.

[3] Drake, E.K. (2010). *Washington State juvenile court funding: Applying research in a public policy setting.* (Document No. 10-12-1201), Olympia: Washington State Institute for Public Policy. See also: 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.

[4] Previous benefit-cost studies prepared by the Washington State Institute for Public Policy for the legislature include:

- 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 - July 2011 update* - (Document No. 11-07-1201).
- 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., 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).

[5] www.wsipp.wa.gov/rptfiles/12-04-1201B.pdf.

## *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 April 2012*

| Topic Area/Program<br>Benefits and costs are life-cycle present-values per participant, in 2011 dollars. The programs are listed by major topic area, although some programs achieve benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize; see linked documents for program-specific details. | Last Updated | Monetary Benefits | | | Costs | Summary Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | | Total Benefits | Taxpayer | Non-Taxpayer | | Benefits Minus Costs (net present value) | Benefit to Cost Ratio[1] | Measured Risk (odds of a positive net present value) |
| **Juvenile Justice** | | | | | | | | |
| Functional Family Therapy (Institutions[2]) | April 2012 | $70,370 | $14,476 | $55,895 | ($3,262) | **$67,108** | $21.57 | 100% |
| Aggression Replacement Training (Institutions) | April 2012 | $62,947 | $12,972 | $49,976 | ($1,508) | **$61,440** | $41.75 | 94% |
| Multidimensional Treatment Foster Care | April 2012 | $39,197 | $8,165 | $31,032 | ($7,922) | **$31,276** | $4.95 | 85% |
| Functional Family Therapy (Probation) | April 2012 | $33,967 | $8,052 | $25,916 | ($3,261) | **$30,706** | $10.42 | 100% |
| Aggression Replacement Training (Probation) | April 2012 | $31,249 | $7,423 | $23,826 | ($1,510) | **$29,740** | $20.70 | 96% |
| Multisystemic Therapy (MST) | April 2012 | $32,121 | $7,138 | $24,983 | ($7,370) | **$24,751** | $4.36 | 98% |
| Family Integrated Transitions (Institutions) | April 2012 | $28,137 | $5,751 | $22,386 | ($11,219) | **$16,918** | $2.51 | 91% |
| Drug Court | April 2012 | $13,667 | $3,084 | $10,583 | ($3,091) | **$10,576** | $4.42 | 94% |
| Coordination of Services | April 2012 | $5,501 | $1,412 | $4,089 | ($395) | **$5,106** | $13.94 | 82% |
| Victim Offender Mediation | April 2012 | $4,205 | $1,080 | $3,125 | ($579) | **$3,626** | $7.27 | 95% |
| Scared Straight | April 2012 | ($4,949) | ($1,271) | ($3,678) | ($65) | **($5,014)** | ($76.35) | 0% |
| **Juvenile justice programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Cognitive Behavioral Therapy (general) | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Diversion Programs | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Juvenile Boot Camps | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Supervision for Juvenile Offenders | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Sex Offender Treatment for Juvenile Offenders | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Team Child | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Teen Courts | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Wilderness Challenge Programs | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| **Adult Criminal Justice** | | | | | | | | |
| Offender Re-entry Community Safety Program (dangerously mentally ill offenders) | April 2012 | $70,535 | $18,120 | $52,415 | ($32,247) | **$38,288** | $2.19 | 100% |
| Drug Offender Sentencing Alternative (drug offenders) | April 2012 | $22,365 | $5,318 | $17,047 | ($1,542) | **$20,823** | $14.51 | 100% |
| Supervision with Risk Need and Responsivity Principles (high and moderate risk) | April 2012 | $24,203 | $5,817 | $18,386 | ($3,543) | **$20,660** | $6.83 | 100% |
| Correctional Education in Prison | April 2012 | $21,426 | $5,238 | $16,188 | ($1,128) | **$20,298** | $19.00 | 100% |
| Electronic Monitoring (radio frequency or global positioning systems) | April 2012 | $18,745 | $4,438 | $14,307 | $1,067 | **$19,812** | n/e | 100% |
| Vocational Education in Prison | April 2012 | $20,446 | $5,017 | $15,429 | ($1,571) | **$18,875** | $13.01 | 100% |
| Mental Health Courts | April 2012 | $20,424 | $4,998 | $15,425 | ($2,935) | **$17,488** | $6.96 | 100% |
| Drug Treatment in the Community | April 2012 | $17,711 | $4,206 | $13,504 | ($1,602) | **$16,108** | $11.05 | 100% |
| Drug Courts | April 2012 | $15,433 | $3,376 | $12,057 | ($4,178) | **$11,255** | $3.69 | 100% |
| Drug Treatment in Prison | April 2012 | $15,577 | $3,834 | $11,743 | ($4,603) | **$10,974** | $3.38 | 100% |
| Drug Offender Sentencing Alternative (property offenders) | April 2012 | $11,273 | $2,666 | $8,607 | ($1,540) | **$9,733** | $7.32 | 78% |
| Cognitive Behavioral Therapy (moderate and high risk) | April 2012 | $9,695 | $2,308 | $7,387 | ($412) | **$9,283** | $23.55 | 100% |
| Intensive Supervision: With Treatment | April 2012 | $15,169 | $3,610 | $11,559 | ($7,874) | **$7,295** | $1.93 | 96% |
| Work Release | April 2012 | $7,117 | $1,749 | $5,368 | ($661) | **$6,456** | $10.77 | 99% |
| Correctional Industries in Prison | April 2012 | $7,042 | $1,713 | $5,329 | ($1,417) | **$5,625** | $4.97 | 100% |
| Employment Training/Job Assistance in the Community | April 2012 | $5,501 | $1,311 | $4,190 | ($135) | **$5,366** | $40.76 | 100% |
| Intensive Supervision: Surveillance Only | April 2012 | ($578) | ($133) | ($445) | ($4,140) | **($4,718)** | ($0.14) | 11% |
| Domestic Violence Perpetrator Treatment Programs | April 2012 | ($4,908) | ($1,165) | ($3,742) | ($1,359) | **($6,266)** | ($3.61) | 14% |
| **Adult criminal justice programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Adult Boot Camps | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Drug Treatment in Jail | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Jail Diversion for Mentally Ill Offenders | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Life Skills Education Programs for Adults | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Restorative Justice for Lower-Risk Adult Offenders | October 2006 | See previous WSIPP publication for past findings. | | | | | | |
| Sex Offender Community Notification and Registration | June 2009 | See previous WSIPP publication for past findings. | | | | | | |
| Sex Offender Treatment | October 2006 | See previous WSIPP publication for past findings. | | | | | | |

## *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 April 2012*

| Topic Area/Program<br>Benefits and costs are life-cycle present-values per participant, in 2011 dollars. The programs are listed by major topic area, although some programs achieve benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize; see linked documents for program-specific details. | Last Updated | Monetary Benefits | | | Costs | Summary Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | | Total Benefits | Taxpayer | Non-Taxpayer | | Benefits Minus Costs (net present value) | Benefit to Cost Ratio[1] | Measured Risk (odds of a positive net present value) |
| **Child Welfare** | | | | | | | | |
| Nurse Family Partnership for Low-Income Families | April 2012 | $22,781 | $6,219 | $16,562 | ($9,600) | **$13,181** | $2.37 | 80% |
| Parent Child Interaction Therapy (PCIT) for Families in the Child Welfare System | April 2012 | $7,168 | $1,277 | $5,892 | ($1,551) | **$5,617** | $4.62 | 100% |
| Intensive Family Preservation Services (Homebuilders) | April 2012 | $6,942 | $3,759 | $3,183 | ($3,288) | **$3,655** | $2.11 | 99% |
| SafeCare | April 2012 | $1,501 | $278 | $1,223 | ($102) | **$1,399** | $14.65 | 100% |
| Parents as Teachers | April 2012 | $4,992 | $1,116 | $3,876 | ($4,227) | **$765** | $1.18 | 57% |
| Alternative Response | April 2012 | $852 | $257 | $595 | ($96) | **$756** | $8.88 | 100% |
| Triple P Positive Parenting Program (System) | April 2012 | $865 | $334 | $531 | ($143) | **$722** | $6.06 | 100% |
| Other home visiting programs for at-risk mothers and children | April 2012 | $5,138 | $1,233 | $3,904 | ($5,603) | **($465)** | $0.92 | 44% |
| Parent Child Home Program | April 2012 | $3,920 | $1,082 | $2,838 | ($5,496) | **($1,576)** | $0.71 | 38% |
| Healthy Families America | April 2012 | $2,589 | $1,165 | $1,424 | ($4,601) | **($2,011)** | $0.56 | 26% |
| Other Family Preservation Services (non-Homebuilders) | April 2012 | ($902) | ($208) | ($693) | ($3,046) | **($3,948)** | ($0.30) | 0% |
| **Child welfare programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Family Team Decision Making | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Structured Decision Making Risk Assessment | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Dependency (or Family Treatment) Drug Courts | July 2008 | See previous WSIPP publication for past findings; update in process. | | | | | | |
| Flexible Funding via Title IV-E Waivers | July 2008 | See previous WSIPP publication for past findings. | | | | | | |
| Subsidized Guardianship | July 2008 | See previous WSIPP publication for past findings. | | | | | | |
| Circle of Security | | Too few rigorous evaluations. | | | | | | |
| Project KEEP | | Too few rigorous evaluations. | | | | | | |
| Promoting First Relationships | | Too few rigorous evaluations. | | | | | | |
| **Pre-K to 12 Education** | | | | | | | | |
| Reading Recovery (K-12 Tutoring) | April 2012 | $18,603 | $4,410 | $14,194 | ($1,895) | **$16,708** | $9.82 | 100% |
| Early Childhood Education for Low Income 3- and 4-Year Olds | April 2012 | $22,457 | $6,802 | $15,655 | ($7,523) | **$14,934** | $2.99 | 100% |
| K-12 Tutoring by Peers | April 2012 | $12,273 | $2,904 | $9,369 | ($1,016) | **$11,257** | $12.08 | 100% |
| Tutoring (vs. No Tutoring) for English Language Learner Students | April 2012 | $10,938 | $2,598 | $8,341 | ($1,362) | **$9,576** | $8.03 | 85% |
| Special Literacy Instruction for English Language Learner Students | April 2012 | $6,969 | $1,652 | $5,317 | ($282) | **$6,688** | $24.75 | 90% |
| K-12 Tutoring by Adults | April 2012 | $6,683 | $1,586 | $5,097 | ($1,992) | **$4,691** | $3.36 | 93% |
| Teacher Induction Programs | April 2012 | $3,648 | $866 | $2,783 | ($63) | **$3,585** | $57.79 | 88% |
| K-12 Parent Involvement Programs | April 2012 | $3,575 | $850 | $2,725 | ($836) | **$2,739** | $4.28 | 68% |
| National Board for Professional Teaching Standards (NBPTS) Certification Bonuses | April 2012 | $1,802 | $428 | $1,374 | ($69) | **$1,734** | $26.28 | 100% |
| Teacher Performance Pay Programs | April 2012 | $295 | $69 | $225 | ($34) | **$261** | $8.62 | 63% |
| Additional Day of K-12 Instructional Time | April 2012 | $86 | $20 | $65 | ($27) | **$59** | $3.18 | 59% |
| K-12 Educator Content-Specific Professional Development | April 2012 | $19 | $4 | $14 | ($6) | **$12** | $3.01 | 52% |
| K-12 Educator Professional Development (Non-Content Specific) | April 2012 | ($1) | ($0) | ($0) | ($6) | **($7)** | ($0.11) | 48% |
| Even Start | April 2012 | ($1,257) | ($296) | ($961) | ($4,126) | **($5,383)** | ($0.30) | 14% |
| Early Head Start | April 2012 | $2,264 | $1,516 | $748 | ($10,420) | **($8,156)** | $0.22 | 17% |
| **Pre-K to 12 education programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Pre-K and Elementary Bilingual Instructional Programs (vs. English-based) for English Language Learners | April 2012 | See linked document for meta-analytic results. | | | | | | |
| K-12 Teachers—Impact of Having a Graduate Degree | April 2012 | See linked document for meta-analytic results. | | | | | | |
| K-12 Teachers—Impact of Having an In-subject Graduate Degree | April 2012 | See linked document for meta-analytic results. | | | | | | |
| K-12 Teachers—Effectiveness by Years of Experience | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Class Size | March 2007 | See previous WSIPP publication for past findings. | | | | | | |
| Full-Day Kindergarten (vs. half-day) | March 2007 | See previous WSIPP publication for past findings. | | | | | | |
| Increased Per-Student Expenditures | December 2007 | See previous WSIPP publication for past findings. | | | | | | |

## *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 April 2012*

| Topic Area/Program<br>Benefits and costs are life-cycle present-values per participant, in 2011 dollars. The programs are listed by major topic area, although some programs achieve benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize; see linked documents for program-specific details. | Last Updated | Monetary Benefits | | | Costs | Summary Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | | Total Benefits | Taxpayer | Non-Taxpayer | | Benefits Minus Costs (net present value) | Benefit to Cost Ratio[1] | Measured Risk (odds of a positive net present value) |
| **Children's Mental Health** | | | | | | | | |
| Cognitive Behavioral Therapy (CBT)-Based Models for Child Trauma | April 2012 | $8,929 | $2,779 | $6,151 | $317 | **$9,246** | n/e | 100% |
| Remote Cognitive Behavioral Therapy (CBT) for Anxious Children | April 2012 | $7,653 | $2,265 | $5,388 | $741 | **$8,393** | n/e | 96% |
| Group Cognitive Behavioral Therapy (CBT) for Anxious Children | April 2012 | $7,247 | $2,143 | $5,104 | $393 | **$7,640** | n/e | 98% |
| Individual Cognitive Behavioral Therapy (CBT) for Anxious Children | April 2012 | $7,337 | $2,170 | $5,166 | ($734) | **$6,603** | $10.00 | 95% |
| Eye Movement Desensitization and Reprocessing (EMDR) for Child Trauma | April 2012 | $5,804 | $1,815 | $3,989 | $155 | **$5,959** | n/e | 79% |
| Parent Cognitive Behavioral Therapy (CBT) for Anxious Young Children | April 2012 | $3,291 | $998 | $2,293 | $608 | **$3,899** | n/e | 81% |
| Cognitive Behavioral Therapy (CBT) for Depressed Adolescents | April 2012 | $3,441 | $1,022 | $2,419 | ($484) | **$2,957** | $7.11 | 99% |
| Brief Strategic Family Therapy (BSFT) | April 2012 | $3,112 | $965 | $2,147 | ($512) | **$2,601** | $6.08 | 69% |
| Parent Child Interaction Therapy (PCIT) for Children with Disruptive Behavior Problems | April 2012 | $3,385 | $1,120 | $2,265 | ($1,335) | **$2,049** | $2.53 | 100% |
| Triple P Positive Parenting Program: Level 4, Individual | April 2012 | $3,621 | $1,195 | $2,426 | ($1,833) | **$1,788** | $1.98 | 92% |
| Triple P Positive Parenting Program: Level 4, Group | April 2012 | $2,112 | $696 | $1,416 | ($375) | **$1,737** | $5.63 | 100% |
| Multisystemic Therapy (MST) for Youth with Serious Emotional Disturbance (SED) | April 2012 | $7,443 | $2,885 | $4,558 | ($6,501) | **$942** | $1.14 | 68% |
| Behavioral Parent Training (BPT) for Children with Disruptive Behavior Disorders | April 2012 | $768 | $252 | $516 | $105 | **$873** | n/e | 68% |
| Families and Schools Together (FAST) | April 2012 | $2,610 | $775 | $1,834 | ($1,759) | **$851** | $1.48 | 52% |
| Behavioral Parent Training (BPT) for Children with ADHD | April 2012 | $430 | $126 | $304 | $106 | **$536** | n/e | 98% |
| Incredible Years: Parent Training | April 2012 | $2,482 | $797 | $1,685 | ($2,074) | **$408** | $1.20 | 61% |
| Incredible Years: Parent Training + Child Training | April 2012 | $2,429 | $774 | $1,655 | ($2,135) | **$295** | $1.14 | 59% |
| Multimodal Therapy (MMT) for Children with Disruptive Behavior | April 2012 | $656 | $222 | $435 | ($1,274) | **($617)** | $0.52 | 42% |
| Cognitive Behavioral Therapy (CBT) for Children with ADHD | April 2012 | ($37) | ($8) | ($28) | ($985) | **($1,021)** | ($0.04) | 3% |
| Multimodal Therapy (MMT) for Children with ADHD | April 2012 | $1,749 | $440 | $1,309 | ($8,343) | **($6,593)** | $0.21 | 11% |
| **Children's mental health programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Intensive Case Management (Wraparound) for Youth with Emotional Disturbance | July 2008 | See previous WSIPP publication for past findings. | | | | | | |
| **General Prevention Programs for Children and Adolescents** | | | | | | | | |
| Youth Mentoring Programs (taxpayer costs only) | April 2012 | $7,207 | $1,958 | $5,249 | ($1,479) | **$5,728** | $4.87 | 61% |
| Good Behavior Game | April 2012 | $4,790 | $1,337 | $3,454 | ($154) | **$4,637** | $31.19 | 100% |
| Quantum Opportunities Program | April 2012 | $30,311 | $8,737 | $21,574 | ($25,743) | **$4,568** | $1.18 | 60% |
| Youth Mentoring Programs | April 2012 | $8,333 | $2,348 | $5,985 | ($4,799) | **$3,534** | $1.74 | 58% |
| Seattle Social Development Project | April 2012 | $5,804 | $1,686 | $4,118 | ($3,026) | **$2,779** | $1.92 | 59% |
| Guiding Good Choices | April 2012 | $2,540 | $598 | $1,942 | ($870) | **$1,670** | $2.92 | 85% |
| Behavioral Monitoring and Reinforcement Program | April 2012 | $1,995 | $531 | $1,463 | ($1,276) | **$719** | $1.56 | 58% |
| Promoting Alternative Thinking Strategies (PATHS) | April 2012 | ($19) | ($6) | ($13) | ($115) | **($134)** | ($0.17) | 23% |
| Strengthening Families for Parents and Youth 10-14 | April 2012 | $696 | $213 | $483 | ($1,077) | **($381)** | $0.65 | 7% |
| Children's Aid Society--Carrera | April 2012 | $7,184 | $2,381 | $4,802 | ($14,220) | **($7,036)** | $0.51 | 37% |
| CASASTART | April 2012 | ($1,574) | ($385) | ($1,188) | ($6,806) | **($8,380)** | ($0.23) | 0% |
| Fast Track prevention program | April 2012 | $1,953 | $450 | $1,503 | ($58,747) | **($56,794)** | $0.03 | 0% |

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| | | Total Benefits | Taxpayer | Non-Taxpayer | | Benefits Minus Costs (net present value) | Benefit to Cost Ratio[1] | Measured Risk (odds of a positive net present value) |
| **Substance Abuse** | | | | | | | | |
| Motivational Interviewing / Motivational Enhancement Therapy for Alcohol Abuse | April 2012 | $9,164 | $1,926 | $7,238 | ($206) | **$8,957** | $44.38 | 100% |
| Motivational Interviewing / Motivational Enhancement Therapy for Smoking | April 2012 | $7,949 | $295 | $7,654 | ($206) | **$7,743** | $38.49 | 99% |
| Brief Alcohol Screening and Intervention for College Students (BASICS) | April 2012 | $3,110 | $771 | $2,339 | ($226) | **$2,883** | $13.75 | 97% |
| Motivational Interviewing / Motivational Enhancement Therapy for Cannabis Abuse | April 2012 | $2,388 | $691 | $1,697 | ($206) | **$2,182** | $11.58 | 100% |
| Motivational Interviewing / Motivational Enhancement Therapy for Illicit Drug Abuse | April 2012 | $2,023 | $593 | $1,430 | ($207) | **$1,816** | $9.78 | 97% |
| Life Skills Training | April 2012 | $1,290 | $289 | $1,001 | ($34) | **$1,256** | $37.52 | 100% |
| Project Towards No Drug Abuse (TND) | April 2012 | $123 | $31 | $92 | ($14) | **$109** | $8.61 | 76% |
| Project STAR | April 2012 | $582 | $151 | $431 | ($489) | **$93** | $1.19 | 71% |
| Project ALERT | April 2012 | $7 | $2 | $5 | ($145) | **($138)** | $0.05 | 1% |
| **Substance abuse prevention and treatment programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| All Stars | July 2004 | See previous WSIPP publication for past findings. | | | | | | |
| DARE | July 2004 | See previous WSIPP publication for past findings. | | | | | | |
| Minnesota Smoking Prevention Program | July 2004 | See previous WSIPP publication for past findings. | | | | | | |
| Project Northland | July 2004 | See previous WSIPP publication for past findings. | | | | | | |
| Project Towards No Tobacco Use | July 2004 | See previous WSIPP publication for past findings. | | | | | | |
| **Adult Mental Health** | | | | | | | | |
| Cognitive Behavioral Therapy (CBT) for Adult Anxiety | April 2012 | $17,731 | $4,938 | $12,793 | ($341) | **$17,390** | $52.01 | 97% |
| Cognitive Behavioral Therapy (CBT) for Adult Depression | April 2012 | $15,632 | $4,619 | $11,013 | ($227) | **$15,405** | $68.90 | 100% |
| **Adult mental health treatment programs for which we have not calculated benefits and costs (at this time):** | | | | | | | | |
| Day Programs for Mentally Ill Adults | Review in process. | | | | | | | |
| Remote Cognitive Behavioral Therapy | Review in process. | | | | | | | |
| Treatments for Post-Traumatic Stress Disorder | Review in process. | | | | | | | |
| Eye Movement Desensitization and Reprocessing | Review in process. | | | | | | | |
| Primary Care Interventions for Depression | Review in process. | | | | | | | |
| **Public Health** | | | | | | | | |
| 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. | | | | | | | | |
| **Teen Pregnancy Prevention:** | | | | | | | | |
| Postponing Sexual Involvement | April 2012 | See linked document for meta-analytic results. | | | | | | |
| School-Based Service Learning | April 2012 | See linked document for meta-analytic results. | | | | | | |
| School-based Sexual Education | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Teen Outreach Program | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Adolescent Sibling Pregnancy Prevention | April 2012 | See linked document for meta-analytic results. | | | | | | |
| **Obesity Prevention:** | | | | | | | | |
| School programs for healthy eating to prevent obesity | April 2012 | See linked document for meta-analytic results. | | | | | | |
| School programs for physical activity to prevent obesity | April 2012 | See linked document for meta-analytic results. | | | | | | |
| School programs for healthy eating & physical activity to prevent obesity | April 2012 | See linked document for meta-analytic results. | | | | | | |
| **Obesity prevention programs for which we have not calculated meta-analytic results (at this time):** | | | | | | | | |
| Early child care centers & homes nutrition & physical activity programs | Too few rigorous evaluations. | | | | | | | |
| Taxes on sweetened beverages and snack food | Too few rigorous evaluations. | | | | | | | |
| Nutrition labeling on menus & posting nutritional information | Too few rigorous evaluations. | | | | | | | |

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| **Housing** | | | | | | | | |
| 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 | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Housing Support for Adults With Mental Illness | April 2012 | See linked document for meta-analytic results. | | | | | | |
| Housing Supports for Serious Violent Offenders | April 2012 | See linked document for meta-analytic results. | | | | | | |

**Notes to Exhibit 1**
[1] Benefit to cost ratios cannot be computed in every case; we list "n/e" for those that cannot be reliably estimated.
[2] Institutions = state institutionalized juvenile justice populations

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*Washington State Institute for Public Policy*

The Washington Legislature created the Washington State Institute for Public Policy in 1983. The Institute is governed by a Board of Directors that represents the legislature, governor, and public universities. The Board guides the development of all Institute activities. The mission of the Institute is to assist policymakers, particularly those in the legislature, in making informed judgments about important, long-term issues facing Washington State.