

Using the Information from the Washington State Institute for Public Policy to Estimate Benefits and Costs of Prevention Programs

The [Washington State Institute for Public Policy](http://www.wsipp.wa.gov) (WSIPP) has estimated economic benefits and costs associated with more than 400 policies and programs. This handout briefly describes WSIPP’s approach and how you might use WSIPP’s estimates to illustrate the benefits and costs of prevention programs. More detail can be found at www.wsipp.wa.gov.

WSIPP’s benefit-cost approach

The WSIPP benefit-cost model estimates the dollar value of offering a program—a defined set of government efforts—to an additional person. The WSIPP benefit-cost model does this by valuing changes in outcomes (e.g. crime, depression, test scores) produced by programs and comparing them to the costs of providing those programs. The benefit and cost estimates reflect the difference between a person who receives the program and one who does not.

The strength of the WSIPP benefit-cost model is that it uses a consistent framework for all programs. The model uses the same modeling algorithms and background information, along with consistent estimates of the value of different outcomes. That framework is combined with information on specific programs to create comparable benefit-cost results.

Estimating the potential value of a particular program

WSIPP’s website provides detailed information on the benefits and costs of more than 400 policies and programs, including many [public health and prevention programs](#). Visit <http://www.wsipp.wa.gov/BenefitCost> for benefit-cost findings, by program.

Program name <small>(click on the program name for more detail)</small>	Date of last literature review	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs (net present value)	Benefit to cost ratio	Chance benefits will exceed costs
School-based								
Positive Action	Sep. 2018	\$31,159	\$7,950	\$23,209	(\$1,063)	\$30,096	\$29.32	94 %
School-based programs to increase physical activity	Nov. 2015	\$17,180	\$3,798	\$13,382	(\$493)	\$16,686	\$34.81	66 %
Mentoring: School-based by teachers or staff	May. 2018	\$20,119	\$4,627	\$15,492	(\$3,469)	\$16,650	\$5.80	71 %
Caring School Community (formerly Child Development Project)	Apr. 2018	\$11,517	\$2,631	\$8,886	(\$1,100)	\$10,417	\$10.47	60 %
Good Behavior Game	Mar. 2018	\$10,073	\$2,749	\$7,324	(\$160)	\$9,913	\$62.80	76 %

Example

To estimate the net present value or the benefit-to-cost ratio of a program, you'll need:

- **Total benefits:** The total value of the program to society, per participant.
- **Costs:** WSIPP provides the net program costs; the per-participant cost of the program to the funder.
- **(Sometimes) The number of people served:** You could use the number of participants served to estimate total benefits generated by a specific program.

Suppose you plan to implement Positive Action in your school. Based on the information on WSIPP's website, you know that the program costs \$1,063 per student, and you can anticipate an average of \$31,159 in economic benefits to society over the long term for each student served. You have adequate funding to serve the 1000 students in your school.

What is the total net present value of implementing this program for 100 students in your school?

$$\text{(Total benefits per student} - \text{program cost per student)} \times \text{No. of students} = \text{Net present value}$$
$$(\$31,159 - \$1,063) \times 100 = \$3,009,600$$

What is the benefit-to-cost ratio for implementing this program in your school?

$$\text{(Total benefits per student} \div \text{program cost per student)} = \text{Benefit-to-cost ratio}$$
$$(\$31,159 \div \$1,063) = \$29.32 \text{ in societal benefits per } \$1.00 \text{ dollar invested}$$

Interpreting your calculation

Net present value per-participant: This value is in the "Benefits-minus-costs (net present value)" column on WSIPP's website and represents the lifetime societal benefits of providing this program to an additional person.

Interpretation: Based on WSIPP's estimates, there will be an overall benefit to society of about \$30,096 per student served.

Net present value for a particular implementation: This value accounts for the number of people you anticipate serving with a particular program implementation and allows you to estimate the amount of lifetime societal benefit generated from that program implementation.

Interpretation: Based on WSIPP's estimates and the number of students served by this program, we estimate that there will be an overall benefit to society of about \$3 million dollars.

Benefit-to-cost ratio: This value is in the "Benefit to cost ratio" column on WSIPP's website and represents the lifetime societal benefits expected per dollar invested in this program.

Interpretation: Based on WSIPP's estimates, there will be \$29.32 in societal benefits for every \$1.00 invested in this program.