



Colorado Department of Human Services, Office of Behavioral Health RFP Evidence-Based Prevention Programs & Policies

Amount Requested: \$200,000

Organization Background

As a longstanding youth-serving organization, Boys & Girls Clubs in Colorado (BGCC) is applying for OBH's Evidence-Based Prevention Programs and Policies RFP with nine counties. As a statewide administrator, BGCC leverages knowledge and resources that add value to local implementation efforts, and has the capacity to oversee program implementation and fidelity to ensure effectiveness. BGCC will partner with Black Canyon Boys & Girls Clubs (Montrose County), Boys & Girls Clubs of Chaffee County, Boys & Girls Clubs of Fremont County, Boys & Girls Clubs of Larimer County, Boys & Girls Clubs of Northwest Colorado (Routt and Moffat Counties), Boys & Girls Clubs of Pueblo County, Boys & Girls Clubs of the San Luis Valley (Alamosa County), and Boys & Girls of Weld County to implement the Positive Action program at each of their Club sites (for a total of 21 Clubs). BGCC will ensure that all staff involved in this project will be trained on the Positive Action program, and will be kept up-to-date of resources and best practices for implementation.

Evidence-Based Program Proposal

Positive Action is an evidence-based program aimed at improving social and emotional learning as well as the Club social climate by teaching and reinforcing positive behaviors. The program supports the prevention, intervention, and treatment of substance abuse, including alcohol, tobacco, marijuana, methamphetamines, opiates, stimulants, steroids, hallucinogens, inhalants, and prescription drugs. Instead of scare tactics, short-term strategies, or information-only approaches, the Positive Action program teaches young people how and why they can be strong and live without drugs. The Positive Action program is recognized by the Department of Justice, Office of Juvenile Justice and Delinquency Prevention, Blueprint for Healthy Youth Development, and Substance Abuse and Mental Health Services Administration among others for preventing substance misuse and other undesirable behaviors.

Using a trauma-informed and positive youth development approach with evidence-based curricula such as Positive Action means that the program is built and structured around being responsive to the diverse needs and cultural considerations of the youth and incorporates a whole person approach that integrates academic success, leadership and health and wellness. The program is well suited to incorporating youth peer leaders and junior staff to help implement the program and ensure the content and positive behaviors are modeled by other youth in the Club. Positive Action also contains supplemental family kits that reinforce positive behaviors learned during the program that will be used for monthly family activities.

Supporting Great Futures

For more than a century, Boys & Girls Clubs have been on the forefront of youth development in the country. We work every day to make every Club a safe place for youth to come and feel they can become anything they want. With the support of OBH, Clubs in our rural and urban communities will have the resources to implement and administer upstream prevention services that can make a difference for young people and families in their communities.

Positive Action

Public Health & Prevention: School-based

Benefit-cost estimates updated May 2017. Literature review updated August 2015.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [Technical Documentation](#).

Program Description: Positive Action is one example of a school-wide positive behavior program, aimed at improving social and emotional learning and school climate. Positive Action consists of a detailed curriculum of approximately 140 short lessons throughout the school year in K-6th grades and 82 lessons in 7th-8th grades. School climate components of the program reinforce the classroom curriculum and include training and professional development for teachers, resource coordination, and incentives for positive behavior.

Benefit-Cost Summary Statistics Per Participant

Benefits to:

Taxpayers	\$3,543	Benefit to cost ratio	\$31.57
Participants	\$7,095	Benefits minus costs	\$13,558
Others	\$3,441	Chance the program will produce	
Indirect	(\$78)	benefits greater than the costs	87 %
Total benefits	\$14,002		
Net program cost	(\$444)		
Benefits minus cost	\$13,558		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2016). The chance the benefits exceed the costs are derived from a Monte Carlo risk analysis. The details on this, as well as the economic discount rates and other relevant parameters are described in our [Technical Documentation](#).

Detailed Monetary Benefit Estimates Per Participant

Benefits from changes to: ¹	Benefits to:				
	Participants	Taxpayers	Others ²	Indirect ³	Total
Crime	\$0	\$58	\$127	\$29	\$214
Labor market earnings associated with test scores	\$7,173	\$3,258	\$3,185	\$0	\$13,616
K-12 grade repetition	\$0	\$178	\$0	\$89	\$267
Property loss associated with alcohol abuse or dependence	\$2	\$0	\$5	\$0	\$7
Health care associated with anxiety disorder	\$43	\$131	\$162	\$66	\$402
Costs of higher education	(\$123)	(\$82)	(\$37)	(\$41)	(\$282)
Adjustment for deadweight cost of program	\$0	\$0	\$0	(\$221)	(\$221)
Totals	\$7,095	\$3,543	\$3,441	(\$78)	\$14,002

¹In addition to the outcomes measured in the meta-analysis table, WSIPP measures benefits and costs estimated from other outcomes associated with those reported in the evaluation literature. For example, empirical research demonstrates that high school graduation leads to reduced crime. These associated measures provide a more complete picture of the detailed costs and benefits of the program.

²"Others" includes benefits to people other than taxpayers and participants. Depending on the program, it could include reductions in crime victimization, the economic benefits from a more educated workforce, and the benefits from employer-paid health insurance.

³"Indirect benefits" includes estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

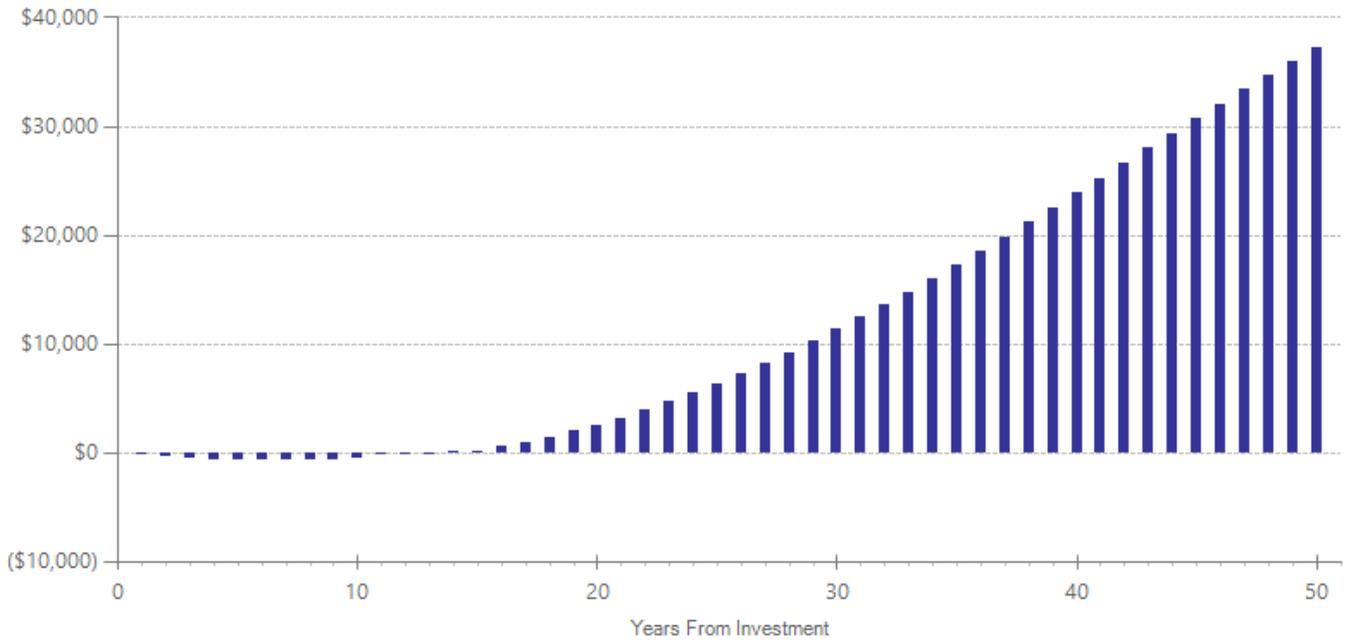
Detailed Annual Cost Estimates Per Participant

	Annual cost	Year dollars	Summary	
Program costs	\$115	2014	Present value of net program costs (in 2016 dollars)	(\$444)
Comparison costs	\$0	2014	Cost range (+ or -)	10 %

The studies that we reviewed evaluated schools after an average of 3.5 years of implementing the Positive Action program. The cost includes the price of the Positive Action program kit for the first year (average cost of \$425 for 30 students); a refresher kit for each subsequent year (average of \$102.11 for 30 students for 2.5 years); teacher training at an average of \$3,100 for 30 teachers; and a Positive Action school-wide climate kit costing \$450 for a school with 30 classrooms (<http://www.positiveaction.net/>). We calculated the value of staff time using average Washington State compensation costs (including benefits) for teachers as reported by the Office of the Superintendent of Public Instruction. To calculate a per-student annual cost, we used the average number of students per classroom in Washington's prototypical school formula.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The cost range reported above reflects potential variation or uncertainty in the cost estimate; more detail can be found in our [Technical Documentation](#).

Detailed Annual Cost Estimates Per Participant



The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in non-discounted dollars to simplify the “break-even” point from a budgeting perspective. If the dollars are negative (bars below \$0 line), the cumulative benefits do not outweigh the cost of the program up to that point in time. The program breaks even when the dollars reach \$0. At this point, the total benefits to participants, taxpayers, and others, are equal to the cost of the program. If the dollars are above \$0, the benefits of the program exceed the initial investment.

Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect sizes and standard errors used in the benefit-cost analysis						Unadjusted effect size (random effects model)	
			First time ES is estimated			Second time ES is estimated			ES	p-value
			ES	SE	Age	ES	SE	Age		
Alcohol use before end of middle school	2	1171	-0.185	0.058	11	-0.185	0.058	21	-0.415	0.001
Anxiety disorder	1	195	-0.111	0.206	15	-0.051	0.098	16	-0.257	0.213
Cannabis use before end of middle school	1	195	-0.150	0.148	15	-0.150	0.148	25	-0.348	0.026
K-12 grade repetition	1	5754	-0.307	0.007	11	-0.307	0.007	11	-0.307	0.001
Illicit drug use before end of middle school	1	976	-0.332	0.065	11	-0.332	0.065	21	-0.771	0.001
Initiation of sexual activity [^]	1	976	-0.447	0.066	11	-0.447	0.066	11	-1.039	0.001
Major depressive disorder	1	195	-0.060	0.206	15	0.000	0.017	16	-0.139	0.502
Obesity	1	195	-0.090	0.105	15	0.000	0.101	17	-0.210	0.047
School attendance [^]	4	17656	0.328	0.157	10	0.328	0.157	10	0.526	0.001
Smoking before end of middle school	2	1171	-0.163	0.059	11	-0.163	0.059	21	-0.341	0.002
Suspensions/expulsions [^]	4	10429	-0.175	0.105	10	-0.175	0.105	10	-0.224	0.042
Test scores	5	13990	0.121	0.064	11	0.087	0.070	17	0.309	0.046

[^]WSIPP’s benefit-cost model does not monetize this outcome.

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

Citations Used in the Meta-Analysis

- Bavarian, N., Lewis, K.M., Acock, A., DuBois, D.L., Zi, Y., Vuchinich, S., . . . Flay, B.R. (under review). *Direct and mediated effects of a social-emotional learning and health promotion program on adolescent health outcomes: A matched-pair, cluster-randomized controlled trial.*
- Bavarian, N., Lewis, K.M., DuBois, D.L., Acock, A., Vuchinich, S., Silverthorn, N., . . . Flay, B.R. (2013). Using social-emotional and character development to improve academic outcomes: A matched-pair, cluster-randomized controlled trial in low-income, urban schools. *Journal of School Health, 83*(11), 771-9.
- Beets, M.W., Flay, B.R., Vuchinich, S., Snyder, F.J., Acock, A., Li, K.K., Burns, K., . . . Durlak, J. (2009). Use of a social and character development program to prevent substance use, violent behaviors, and sexual activity among elementary-school students in Hawaii. *American Journal of Public Health, 99*(8), 1438-1445.
- Flay, B.R., & Allred, C.G. (2003). Long-term effects of the Positive Action program. *American Journal of Health Behavior, 27*(Suppl. 1), S6-S21.
- Flay, B.R., Allred, C.G., & Ordway, N. (2001). Effects of the Positive Action Program on achievement and discipline: Two matched-control comparisons. *Prevention Science, 2*(2), 71-89.
- Lewis, K.M., Bavarian, N., Snyder, F.J., Acock, A., Day, J., DuBois, D. L., ... & Flay, B.R. (2012). Direct and mediated effects of a social-emotional and character development program on adolescent substance use. *The International Journal of Emotional Education, 4*(1), 56.
- Lewis, K. M., Dubois, D. L., Silverthorn, N., Bavarian, N., Acock, A., Vuchinich, S., . . . Ji, P. (2013). Effects of positive action on the emotional health of urban youth: A cluster-randomized trial. *Journal of Adolescent Health, 53*(6), 706-711.
- Lewis, K.M., Schure, M.B., Bavarian, N., DuBois, D.L., Day, J., Ji, P., . . . Flay, B.R. (2013). Problem behavior and urban, low-income youth. *American Journal of Preventive Medicine, 44*(6), 622-30.
- Snyder, F., Vuchinich, S., Acock, A., Washburn, I., Beets, M., & Li, K. (2010). Impact of the Positive Action program on school-level indicators of academic achievement, absenteeism, and disciplinary outcomes: A matched-pair, cluster randomized, controlled trial. *Journal of Research on Educational Effectiveness, 3*(1), 26-55.

For further information, contact:
(360) 664-9800, institute@wsipp.wa.gov

Printed on 09-18-2017



Washington State Institute for Public Policy

The Washington State Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs WSIPP and guides the development of all activities. WSIPP's mission is to carry out practical research, at legislative direction, on issues of importance to Washington State.

Outcomes Summary

Main Effects

Academics

- ↑ 20.7% State reading tests
- ↑ 51.4% State math tests
- ↓ 72.7% Grade retention
- ↓ 28% Absenteeism

Closing the Gap—Reading and Math

- ↑ 10% Low poverty group (<15%)
- ↑ 21% Middle poverty group (16–51%)
- ↑ 90% High poverty group (>51%)

Behavior

- ↓ 47% Tobacco
- ↓ 46% Alcohol
- ↓ 70% Got drunk

- ↓ 73% Illegal/marijuana
- ↓ 62% Violence
- ↓ 51% Bullying
- ↓ 85% Disciplinary referrals
- ↓ 73% Suspensions
- ↓ 83% Voluntary sexual activity

Character

- ↑ 23% Self-control
- ↑ 19% Pro-social interactions
- ↑ 18% Affiliation with good friends
- ↑ 8% Altruistic behavior
- ↓ 81% Aggressive problem-solving

See outcomes on website—<http://www.positiveaction.net/research/>

Long-Term Effects: Middle School

Academics

- ↑ 20% Math achievement scores
- ↑ 16% Reading achievement scores
- ↓ 75% Truancy

Behavior

- ↓ 71% Drug, alcohol, and tobacco use
- ↓ 70% Violence-related incidents (threats, fights, battery, weapons)
- ↓ 52% Property crime
- ↓ 69% Dissing behaviors (disrespect, disobedience, disruptive)

Flay, et al., 2003, *American Journal of Health Behavior*.

Long-Term Effects: High School

Academics

- ↑ 15% Academic achievement scores
- ↑ 38% PA graduates are more likely to obtain higher education
- ↑ 18% PA graduates are more likely to become employed
- ↓ 37% Dropout rates
- ↓ 30% In-school suspensions
- ↓ 25% Out-of-school suspensions
- ↓ 12% Truancy

Behavior

- ↓ 49% Drug, alcohol, and tobacco use
- ↓ 50% Violence
- ↓ 63% Sex-related incidents
- ↓ 57% Falsifying information
- ↓ 28% Dissing behaviors (disrespect, disobedience, disruptive)

Flay, et al., 2003, *American Journal of Health Behavior*.

Family Effects

Parent Responses

- ↑ 9.8% Family cohesion
- ↑ 14.2% Parent/child bonding
- ↓ 17.2% Family conflict

Youth Responses

- ↑ 6.8% Family relations/cohesion
- ↑ 7.8% Decision-making
- ↓ 12.9% Family conflict

Flay, B.R., 2010, *The Positive Action Family Program: A Pilot Randomized Trial and Replication*, Unpublished Report, Oregon State University.

Pre-Kindergarten Effects

- ↑ 11.4% Self-concept
- ↑ 13% Physical health
- ↑ 11.7% Intellectual health
- ↑ 9.7% Self-management
- ↑ 16% Self-control
- ↑ 11.1% Respect
- ↑ 11.7% Consideration
- ↑ 11.3% Social bonding
- ↑ 11.8% Honesty
- ↑ 12.7% Self-improvement

Schmitt et al., 2014, *Early Child Development & Care*.

Widely-Recognized as an Evidence-based Program

U.S. Department of Education What Works Clearinghouse (WWC)

Awarded *Positive Action* a top rating of “positive effects” for improving **both academics and behavior**.

- +14 percentile points in **academics** (standardized achievement scores in reading and math, grade retention, absentee rates)
- +19 percentile points in **behavior** (suspensions, violence, substance use)



U.S. Department of Education

Approved **Whole-School Reform Model Provider** for School Improvement Grants from the U.S. Department of Education

Council of Administrators of Special Education (CASE)

Endorsed *Positive Action* as a comprehensive instructional approach to academics, behavior and character, which works for the general as well as special education students.

- Met or exceeded all of the criteria on the CASE Rubric.

National Registry of Evidence-based Programs and Practices (NREPP)

Listed *Positive Action* as a program for:

- Improving **academic achievement**
- Reducing numerous **problem behaviors**, including: violence, alcohol, tobacco, drug use, disciplinary referrals, suspensions, and school absenteeism

Also rated *Positive Action* with a perfect score for **readiness for dissemination** (4 out of 4).

Office of Juvenile Justice and Delinquency Prevention (OJJDP)

Recognized *Positive Action* as:

- An Effective Program for **prevention** in the Title V Model Programs Guide and Database
- A Best Practice for **reducing minority contact with law enforcement** in the Disproportionate Minority Contact Best Practices Database
- A Best Practice for **reducing and/or eliminating the detention and incarceration of status offenders** in the Deinstitutionalization of Status Offenders Database

Character Education Partnership (CEP)

Found that *Positive Action* shows strong evidence of support in:

- **Reducing Risk Behaviors:** drug use, violence/aggression, and general misbehavior
- Improving School-Based Outcomes: school **behavior** and **academic achievement**
- Sustained and long-term effects

The Collaborative for Academic, Social, and Emotional Learning (CASEL)

Recognized *Positive Action* as an **evidence-based SElect** program.

