Good Behavior Game

Program description:
The Good Behavior Game is a 2-year classroom management strategy designed to improve aggressive/disruptive classroom behavior and prevent later criminality. The program is universal and can be applied to general populations of early elementary school children (grades 1 and 2).

Typical age of primary program participant: 6

Typical age of secondary program participant: N/A

Meta-Analysis of Program Effects

Outcomes Measured	Primary or Secondary Participant	No. of Effect Sizes	Unadjusted Effect Sizes (Random Effects Model)			Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	P	1	-0.11	0.10	0.27	-0.06	0.10	20	-0.06	0.10	30
High school graduation	P	1	0.16	0.09	0.07	0.08	0.09	20	0.08	0.09	30
Age of initiation (tobacco)	P	2	-0.23	0.07	0.00	-0.09	0.07	12	-0.09	0.07	22
Regular smoking	P	1	-0.57	0.31	0.06	-0.28	0.31	20	-0.28	0.31	30
Alcohol abuse or dependence	P	1	-0.41	0.17	0.01	-0.21	0.17	20	-0.21	0.17	30
Major depressive disorder	P	2	-0.22	0.08	0.01	-0.21	0.08	20	-0.09	0.04	25
Other illicit drug abuse or dependence	P	1	-0.32	0.09	0.00	-0.16	0.09	20	-0.16	0.09	30
Anxiety disorder	P	2	-0.24	0.09	0.01	-0.24	0.09	20	-0.10	0.04	25
Externalizing behavior symptoms	P	2	-0.31	0.07	0.00	-0.25	0.07	12	-0.11	0.03	17
Suicide attempts	P	1	-0.45	0.18	0.01	-0.23	0.18	20	-0.23	0.18	25
Antisocial personality disorder	P	1	-0.29	0.14	0.03	-0.15	0.14	20	-0.06	0.06	25

Benefit-Cost Summary

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2011). The economic discount rates and other relevant parameters are described in Technical Appendix 2.	Program Benefits					Costs	Summary Statistics			
	Participants	Taxpayers	Other	Other Indirect	Total Benefits		Benefit to Cost Ratio	Return on Investment	Benefits Minus Costs	Probability of a positive net present value
	$1,626	$1,337	$1,124	$704	$4,790	-$154	$31.19	25%	$4,637	100%

Detailed Monetary Benefit Estimates

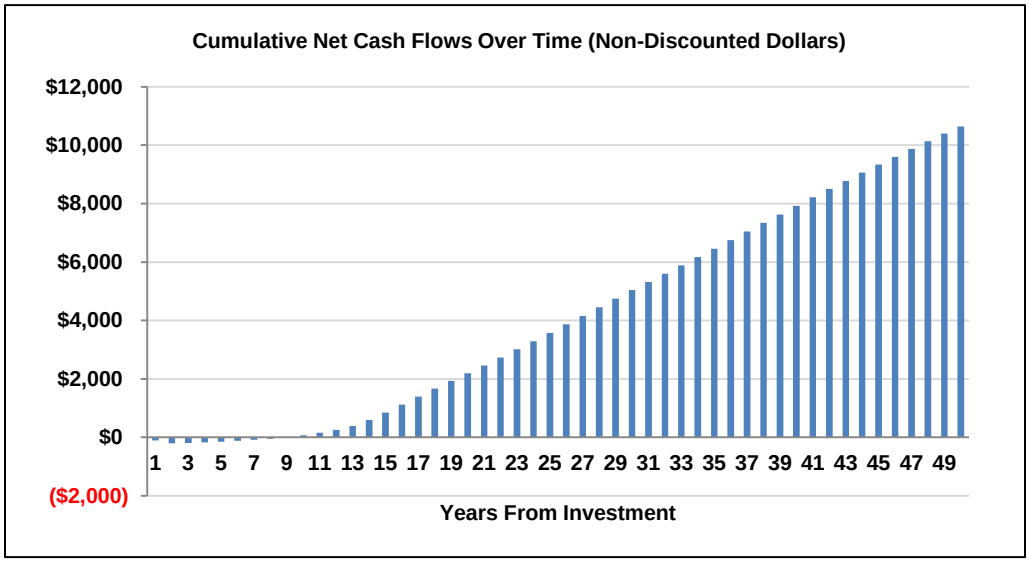
Source of Benefits	Benefits to: Participants	Taxpayers	Other	Other Indirect	Total Benefits
Crime	$0	$233	$639	$116	$988
Earnings via high school graduation	$424	$156	$0	$81	$661
Earnings via regular smoking	$7	$3	$0	$29	$39
Health care costs for regular smoking	$8	$23	$22	$11	$64
Earnings via alcohol disorder	$206	$76	$0	$42	$323
Health care costs for alcohol disorder	$4	$13	$10	$6	$32
Property loss from alcohol disorder	$3	$0	$6	$0	$10
Earnings via illicit drug disorder	$5	$2	$0	$1	$9
Health care costs for illicit drug disorder	$1	$6	$4	$3	$15
Property loss from illicit drug disorder	$4	$0	$7	$0	$10
Earnings via depressive disorder	$123	$45	$0	$22	$190
Health care costs via depressive disorder	$34	$104	$103	$52	$293
Earnings via anxiety disorder	$689	$253	$0	$129	$1,071
Health care costs for anxiety disorder	$115	$346	$341	$173	$975
Health care costs for disruptive behavior symptoms	$9	$29	$28	$14	$81
Health care costs via education	-$6	$48	-$36	$24	$30

Detailed Cost Estimates

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 uncertainty range is used in Monte Carlo risk analysis, described in Technical Appendix 2.

Program Costs			Comparison Costs			Summary Statistics	
Annual Cost	Program Duration	Year Dollars	Annual Cost	Program Duration	Year Dollars	Present Value of Net Program Costs (in 2011 dollars)	Uncertainty (+ or – %)
$78	2	2011	$0	1	2011	$150	10%

Source: Costs include teacher training, classroom supplies, district GBG coach training, subcontractor support, and travel costs. The estimate is based on training for 30 teachers and one coach over two years and a cumulative 3,375 students served in GBG classrooms over five years. Information for this costs estimate was provided by Jeanne Poduska, Sc D, American Institutes for Research.



Multiplicative Adjustments Applied to the Meta-Analysis

Type of Adjustment	Multiplier
1- Less well-implemented comparison group or observational study, with some covariates.	0.5
2- Well-implemented comparison group design, often with many statistical controls.	0.5
3- Well-done observational study with many statistical controls (e.g., IV, regression discontinuity).	0.75
4- Random assignment, with some RA implementation issues.	0.75
5- Well-done random assignment study.	1.00
Program developer = researcher	0.5
Unusual (not “real world”) setting	0.5
Weak measurement used	0.5

Studies Used in the Meta-Analysis

Ialongo, N., Poduska, J., Werthamer, L., & Kellam, S. (2001). The distal impact of two first-grade preventive interventions on conduct problems and disorder in early adolescence. *Journal of Emotional and Behavioral Disorders, 9*(3), 146-160.

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Kellam, S. G., Reid, J., & Balster, R. L. (2008). Effects of a universal classroom behavior program in first and second grades on young adult problem outcomes. *Drug and Alcohol Dependence, 95*(Suppl. 1), S1-S4.

Storr, C. L., Ialongo, N. S., Kellam, S. G., & Anthony, J. C. (2002). A randomized controlled trial of two primary school intervention strategies to prevent early onset tobacco smoking. *Drug and Alcohol Dependence, 66*(1), 51-60.

Vuijk, P., van Lier, P. A. C., Crijnen, A. A. M., & Huizink, A. C. (2007). Testing sex-specific pathways from peer victimization to anxiety and depression in early adolescents through a randomized intervention trial. *Journal of Affective Disorders, 100*(1-3), 221-226.

Witvliet, M., van Lier, P. A. C., Cuijpers, P., & Koot, H. M. (2009). Testing links between childhood positive peer relations and externalizing outcomes through a randomized controlled intervention study. *Journal of Consulting and Clinical Psychology, 77*(5), 905-915.