

## Cognitive Behavioral Therapy (high and moderate risk adult offenders)

**Program description:**

Cognitive-behavioral therapy (CBT) emphasizes individual accountability and teaches offenders that cognitive deficits, distortions, and flawed thinking processes cause criminal behavior. For this broad grouping of studies, CBT was delivered to adults in either an institutional or community setting and included a variety of “brand name” programs (Moral Reconciliation Therapy, Reasoning and Rehabilitation, and Thinking 4 a Change). We excluded studies from this analysis that evaluated CBT delivered specifically as sex offender treatment. We investigated additional policy questions about CBT using multivariate regression analysis for the 38 effect sizes and found some variation in effectiveness across this broad grouping of programs. Although not statistically significant (p=0.178), results slightly favor brand name CBT programs. We also found there is no difference in effectiveness for programs delivered in prison versus in the community (p=0.947).

Typical age of primary program participant: 28

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					
			ES	SE	p-value	First time ES is estimated			Second time ES is estimated		
						ES	SE	Age	ES	SE	Age
Crime	P	38	-0.14	0.05	0.00	-0.13	0.05	30	-0.13	0.05	40

### 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			
	Partici-pants	Tax-payers	Other	Total Benefits		Benefit to Cost Ratio	Return on Investment	Benefits Minus Costs	Probability of a positive net present value
	\$0	\$2,308	\$6,217	\$1,170	\$9,695	-\$412	\$23.55	n/e	\$9,283

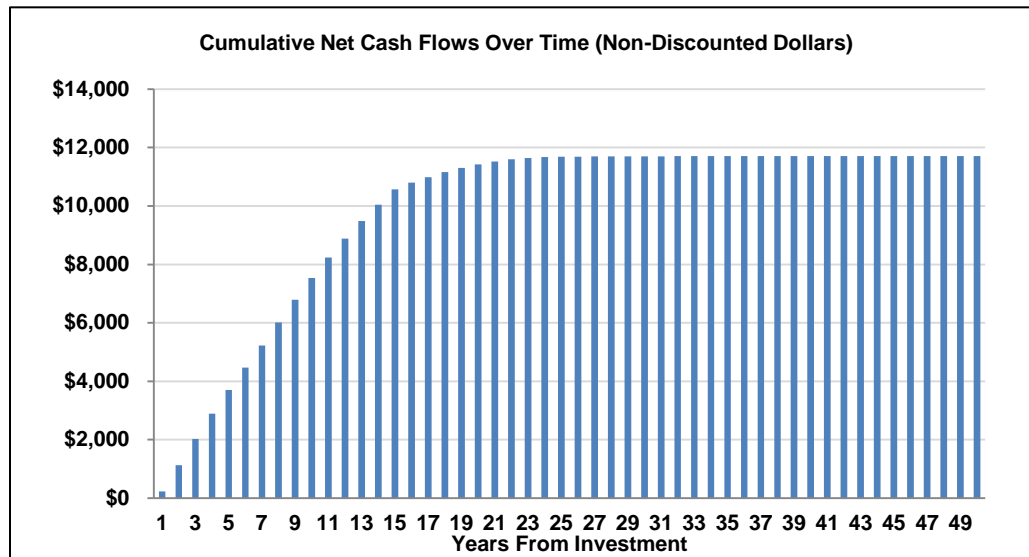
### Detailed Monetary Benefit Estimates

Source of Benefits	Benefits to:					Total Benefits
	Partici-pants	Tax-payers	Other	Other In-direct		
<b>From Primary Participant</b>						
Crime	\$0	\$2,308	\$6,217	\$1,170		\$9,695

### 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 - %)
	\$412	1	2011	\$0	0	2011	\$412	10%

Source: Estimate provided by the Washington State Department of Corrections.



### Multiplicative Adjustments Applied to the Meta-Analysis

Type of Study	Multiplier
1- Less well-implemented comparison group or observational study, with some covariates.	1.00
2- Well-implemented comparison group design, often with many statistical controls.	1.00
3- Well-done observational study with many statistical controls (e.g., instrumental variables).	1.00
4- Random assignment, with some implementation issues.	1.00
5- Well-done random assignment study.	1.00
Program developer = researcher	0.36
Unusual (not "real-world") setting	0.50
Weak measurement used	0.80

The multiplicative adjustments for these studies are based on our empirical knowledge of the research in a topic area. We performed a multivariate regression analysis of 96 effect sizes from evaluations of adult and juvenile justice programs. The analysis examined the relative magnitude of effect sizes for studies rated a 1, 2, 3, or 4 for research design quality, in comparison with a 5 (see Technical Appendix B for a description of these ratings). We weighted the model using the random effects inverse variance weights for each effect size. The results indicated that research designs 1, 2, and 3 should have an adjustment greater than 1 and research design 4 should have an adjustment of approximately 1. Using a conservative approach, we set all the multipliers to 1.

In this analysis, we also found that effect sizes were statistically significantly higher when the program developer was involved in the research evaluation. Similar findings, although not statistically significant, indicated that studies using weak outcome measures (such as technical violations) were higher.

### Studies Used in the Meta-Analysis

Armstrong, T. A. (2003). The effect of Moral Reconciliation Therapy on the recidivism of youthful offenders: A randomized experiment. *Criminal Justice and Behavior, 30*(6), 668-687.

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