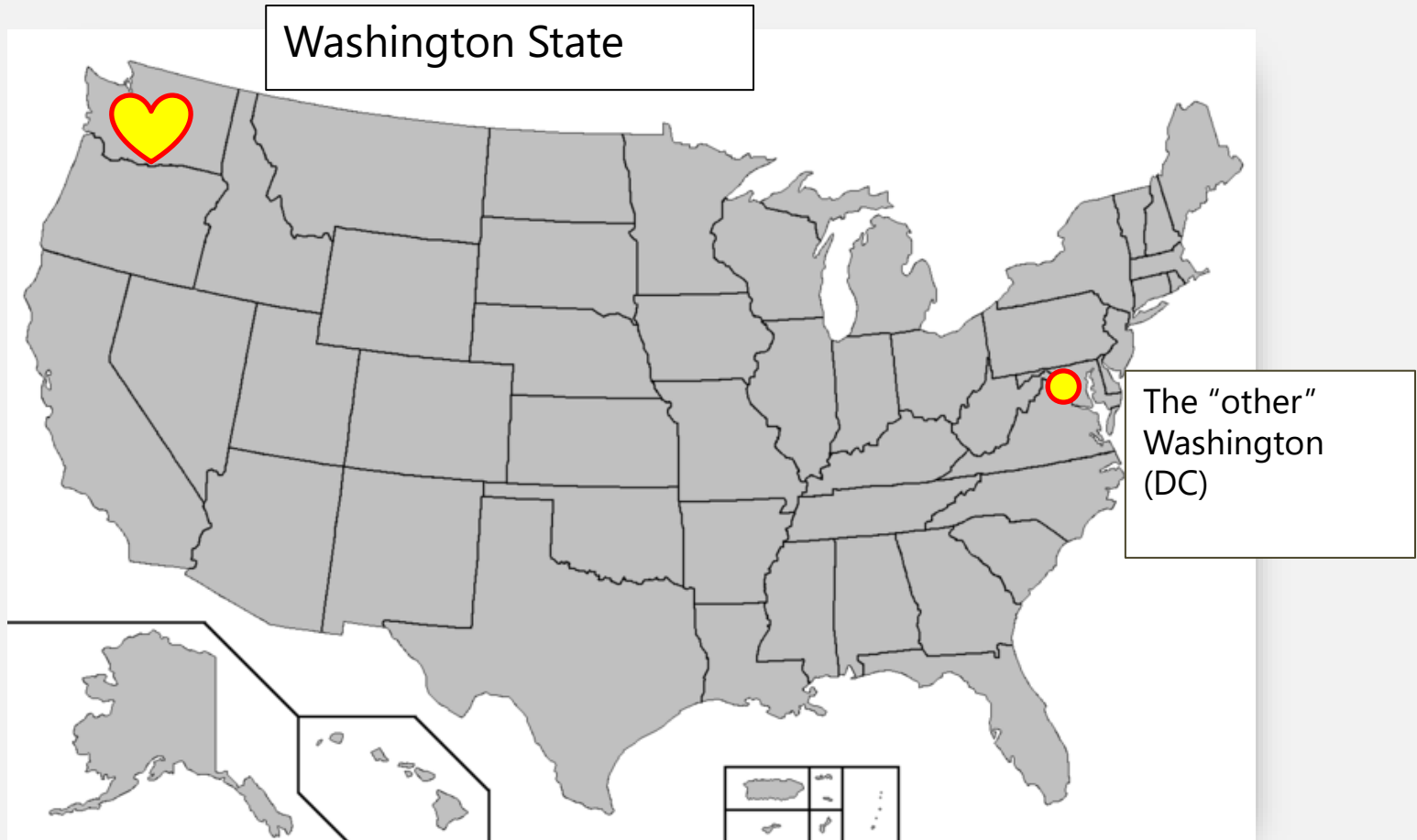


Using economic evaluation to inform policy: An example from Washington State




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INSIA
SIA Conference
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Location



State vs. National Government

	United States 	Sweden 	Washington State 
2022 population (millions)	333.3	10.4	7.7
GDP per capita (2021)	\$70,000 USD	\$61,000 USD	\$74,000 USD
Life expectancy	77	83	79.2
University (BA) completion	38%	42%	37%
Infant mortality rate (deaths/1,000 live births)	5.5	1.8	4.3
Murder rate (per 100,000 pop)	4.96	1.08	4.5
Incarceration rate (inmates/100,000 pop)	737	82	176

WSIPP: A state-level organization

- ✓ **Mission:** *"to assist policymakers . . . in making informed judgments about important, long-term issues facing Washington State."*
- ✓ Government-based, nonpartisan, academically rigorous

Frequent Topics of Inquiry

- ✓ Crime
- ✓ Child welfare
- ✓ Early childhood
- ✓ Education
- ✓ Public Health/Prevention
- ✓ Behavioral Health
- ✓ Health Care

Typical Projects

- ✓ What works?
 - Outcome evaluations in WA
 - Evidence reviews
- ✓ Benefit-cost analysis
 - Based on "what works?" or
 - Specific cases
- ✓ General research questions, e.g.,
 - Reviews/comparisons of policy in other places

WSIPP's Benefit-Cost Approach

Are there programs/policies/interventions that can improve outcomes AND lead to benefits that outweigh costs?

- 1. Assess the evidence:** What strategies are effective? How large are the expected impacts?
- 2. Estimate the economics:** What are the expected long-term benefits relative to the short-term costs?
- 3. Evaluate the risk:** What is the likelihood the long-term benefits will outweigh the costs?

Why Benefit-Cost Analysis?

- ✓ **Simple**

Basic formula: $\text{Price} * \text{Quantity} - \text{Cost}$

- ✓ **Consistent**

Allows comparisons across policy areas—
everything is expressed in dollars

- ✓ **Intuitive**

Easily understood by policymakers

Features of WSIPP Benefit-Cost Analysis

- ✓ **Per-participant basis:** What are the costs and benefits for each person who *participates*?
 - Estimates do not rely on successful completion of treatment
- ✓ **Societal perspective:** Who benefits from this investment?
 - Participants
 - Taxpayers
 - Others
- ✓ **Lifetime horizon:** How will benefits and costs accrue over the life cycle?
 - What are tomorrow's dollars worth today?

Basic Formula

$$\text{Net benefits} = \sum (\text{Quantity}_i * \text{Price}_i) - \text{Cost}$$

- ✓ **Quantity:** What is the expected change for each outcome?
- ✓ **Price:** How much money is each outcome worth?
- ✓ **Cost:** What does it take to implement the program and get those effects?

Example

All Research Areas	Juvenile Justice	Adult Criminal Justice	Child Welfare	Pre-K to 12 Education	Children's Mental Health	Health Care	Substance Use Disorders	Adult Mental Health	Public Health & Prevention	Workforce Development	Higher Education
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Child Welfare



For questions on benefit-cost results relating to Child Welfare, contact [Marna Miller](#).

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
Parent-Child Interaction Therapy (PCIT) for families in the child welfare system	Aug. 2017	\$26,092	\$9,662	\$16,430	(\$1,727)	\$24,365	\$15.11	96 %
Intensive Family Preservation Services (HOMEBUILDERS®)	Aug. 2017	\$17,498	\$10,008	\$7,490	(\$3,674)	\$13,824	\$4.76	97 %
Subsidized guardianship (Title IV-E waivers)	Aug. 2017	\$5,750	\$1,209	\$4,541	\$3,811	\$9,561	n/a	99 %
SafeCare	Aug. 2017	\$4,056	\$1,557	\$2,499	(\$195)	\$3,861	\$20.82	94 %
Alternative Response	Nov. 2018	\$1,884	\$687	\$1,198	(\$256)	\$1,628	\$7.36	82 %
Flexible funding (Title IV-E waivers)	Apr. 2012	\$1,438	\$448	\$990	\$0	\$1,438	n/a	90 %
Promoting First Relationships UPDATED	Jun. 2021	\$725	\$765	(\$41)	(\$1,380)	(\$655)	\$0.53	47 %
Other Family Preservation Services (non-HOMEBUILDERS®)	Aug. 2017	(\$4,758)	(\$1,007)	(\$3,751)	(\$3,371)	(\$8,130)	(\$1.41)	0 %
Family dependency treatment court	Aug. 2017	(\$6,669)	(\$1,500)	(\$5,169)	(\$5,799)	(\$12,469)	(\$1.15)	8 %
Youth Villages LifeSet (YV LifeSet) for former foster youth	Jul. 2019	(\$4,063)	\$383	(\$4,446)	(\$10,312)	(\$14,375)	(\$0.39)	7 %

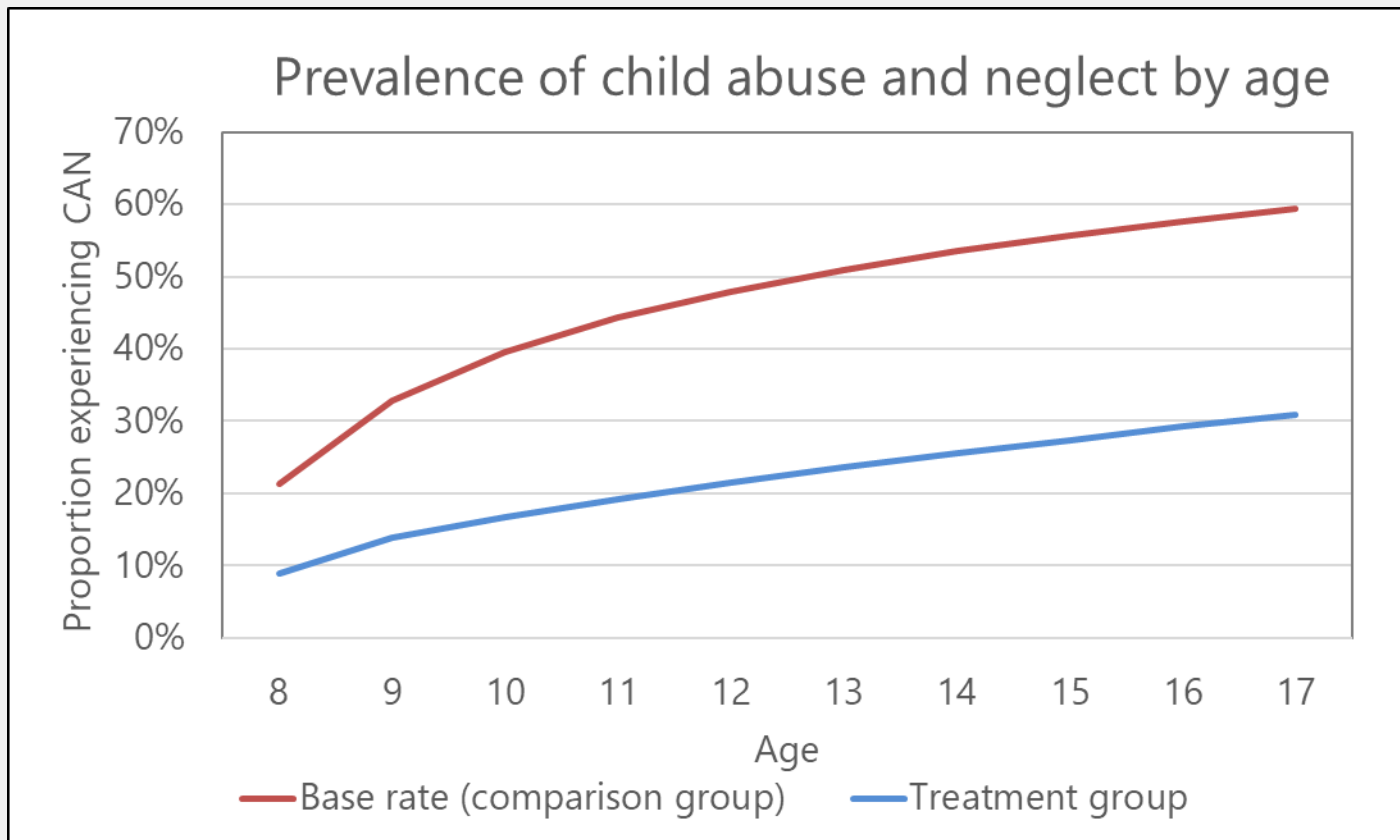
To view details of all Child Welfare programs in a single pdf, click here.

Quantity: Meta-analysis

- ✓ Find all program evaluations on a given topic.
- ✓ Select only those that meet standards for rigor.
 - Comparison group?
 - Statistical controls?
- ✓ Meta-analyze average effect on each outcome.
 - Standardized metric
 - How much change can we expect?
- ✓ For example,
 - How much change do we observe in reports of child abuse and neglect?

Quantity: Unit Change

Effect size = $-.72$, Base rate = 59%
Unit change = ~ 24 percentage points



Price: Direct Consequences of CAN

- ✓ Child welfare system
 - Placement out-of-home
 - Investigations, in-home services
 - Courts
- ✓ Victimization
 - Medical and quality of life costs
- ✓ Labor market earnings
 - Adults with a history of CAN are less likely to be employed
 - Adults with a history of CAN earn less money once employed

Price: Indirect Consequences of CAN

✓ Child abuse and neglect

- Substance use disorders
- Depression
- Anxiety
- Posttraumatic stress disorder
- High school graduation
- Crime
- K-12 grade repetition
- K-12 special education

✓ Costs include

- \$ Healthcare
- \$ Labor market earnings
- \$ Criminal justice system
- \$ Victimization
- \$ Education system

Cost: Net Program Cost

- ✓ Program cost includes:
 - Average cost of parent-child coaching program per family served in Washington
 - 5.2 motivational sessions per family
- ✓ Comparison cost includes:
 - Average cost for “treatment as usual” for a family in the system

Net Benefits

✓ Quantity x Price - Cost

- Quantity: over ages 8 to 17, reduces CAN likelihood by about 24 percentage points on average
- Price: CAN costs about:
 - \$ 16,000 in child welfare system costs
 - \$ 7,000 in criminal justice system costs
 - \$ 5,000 in education system costs
 - \$ 4,000 in health care costs
 - \$ 70,000 in labor market earnings,
- Cost: the intervention costs about \$1700

✓ Net present value: $(24\% \times \$102,000) - \$1,700 = \sim \$23,000$

Risk

- ✓ Uncertainty across many domains
 - Program effectiveness
 - Other assumptions, e.g.,
 - Discount rate
 - Magnitude of relationships between CAN and other outcomes
 - Price of various outcomes
 - Cost of providing PCIT
- ✓ Monte Carlo analysis
 - 96%

Example

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Impact: Decisions

- ✓ **Juvenile justice:**
 - Findings on tested and effective programs led to budget directing dollars toward evidence and away from ineffective programs.
 - Findings on therapist adherence led to a robust quality assurance system.
- ✓ **Behavioral health, children's services, prevention:**
 - Findings on evidence, benefits, and costs of interventions used to increase provision of evidence-based services.
- ✓ **Corrections:**
 - Estimates of benefits and costs of a portfolio of crime reduction options led to increased funding across "silos" and removal of a prison from the forecast.
- ✓ **Education:**
 - Estimates of long-term benefits and costs of state early childhood education program used to support increased funding.

Limitations of Benefit-Cost Analysis

✓ Limitations

- Time- and labor-intensive
- Findings are specific to assumptions
- Only as good as the underlying research
- Not exhaustive (can't measure or monetize everything)
- Need feedback loop for reality check

WSIPP Publications

Washington State Institute for Public Policy


All Research Areas

- Juvenile
- Adult
- Child
- Pre-K to
- Children's
- Health
- Substance
- Adult
- Public
- Workforce
- Higher Education


HOME **REPORTS** **BENEFIT-COST RESULTS** ABOUT WSIPP

Chance benefits will exceed costs


5	100 %
2	100 %
4	73 %
5	76 %
7	79 %
3	65 %
7	57 %
7	81 %
3	61 %
4	50 %
3	42 %
3	21 %
)	17 %
)	0 %
7	100 %
L	98 %




WSIPP's mission is to carry out practical, non-partisan research—at legislative direction—on issues of importance to Washington State.



POLICY AREAS



FEATURED REPORTS



CURRENT PROJECTS

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A scenic landscape photograph of Mount Rainier in Washington State. The mountain, covered in snow and partially shrouded in clouds, dominates the background. In the foreground, a calm lake reflects the surrounding evergreen trees and the sky. The scene is bright and clear, with a blue sky and scattered white clouds.

Thank You!

Mount Rainier, Washington State