
HOW THE RESULTS FIRST COST-BENEFIT AND CLEARINGHOUSE TOOLS CAN BE USED TO EVALUATE EVIDENCE-BASED JUVENILE JUSTICE POLICY

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James E. Anderson Pennsylvania Conference on Juvenile Justice



PennState
College of Health and
Human Development



Evidence-to-Impact
Collaborative



HISTORY OF RESULTS FIRST

<u>Topic Area/Program</u>	<u>Monetary Benefits</u>			<u>Costs</u>	<u>Summary Statistics</u>			
	Total Benefits	Taxpayer	Non-Taxpayer		Benefits Minus Costs (net present value)	Benefit to Cost Ratio ¹	Rate of Return on Investment ¹	Measure of Risk (odds of a positive net present value)
Benefits and costs are life-cycle present-values per participant, in 2010 dollars. While the programs are listed by major topic area, some programs attain benefits in multiple areas. Also, some programs achieve benefits that we cannot monetize. See Technical Appendix I for program-specific details.								
Child Welfare⁴								
Nurse Family Partnership for Low-Income Families	\$30,325	\$8,527	\$21,798	(\$9,421)	\$20,905	\$3.23	7%	89%
Incredible Years: Parent Training and Child Training	\$15,571	\$4,083	\$11,488	(\$2,085)	\$13,486	\$7.50	12%	93%
Other Home Visiting Programs for At-Risk Families	\$14,896	\$3,668	\$11,228	(\$5,453)	\$9,444	\$2.73	5%	84%
Healthy Families America	\$13,790	\$4,330	\$9,459	(\$4,508)	\$9,282	\$3.07	7%	98%
Parent-Child Interaction Therapy: Disruptive Behavior	\$9,584	\$3,026	\$6,558	(\$1,302)	\$8,282	\$7.37	31%	91%
Parent-Child Interaction Therapy: Child Welfare	\$9,498	\$1,892	\$7,606	(\$1,516)	\$7,982	\$6.27	15%	100%
Intensive Family Preservation (Homebuilders®)	\$10,995	\$5,889	\$5,106	(\$3,224)	\$7,771	\$3.41	4%	99%
Incredible Years: Parent Training	\$8,488	\$2,449	\$6,039	(\$2,022)	\$6,466	\$4.20	12%	76%
Triple P ⁵ : Level 4, Individual	\$7,237	\$2,371	\$4,866	(\$1,790)	\$5,447	\$4.06	19%	79%
Triple P: Level 4, Group	\$3,740	\$1,230	\$2,510	(\$365)	\$3,374	\$10.32	n/e	89%
Parents as Teachers	\$7,236	\$1,616	\$5,620	(\$4,138)	\$3,099	\$1.75	5%	74%
Triple P: (Universal)	\$1,277	\$580	\$696	(\$139)	\$1,137	\$9.22	8%	100%
Parent-Child Home Program	\$4,855	\$1,137	\$3,718	(\$5,386)	(\$531)	\$0.88	n/e	48%
Other Family Preservation (non-Homebuilders®)	(\$70)	(\$52)	(\$17)	(\$2,982)	(\$3,052)	(\$0.02)	n/e	0%

The Cost-Benefit Model was created by The Washington State Institute for Public Policy (WSIPP) with funding from MacArthur Foundation and Pew Charitable Trusts

This model was used by Pew to work with states from 2010-2021 and this model as well as other Pew assets were transitioned to the EIC in 2021.

Washington State Institute for Public Policy

HOME

PUBLICATIONS

BENEFIT-COST

CURRENT PROJECTS

ALL ▾



Search



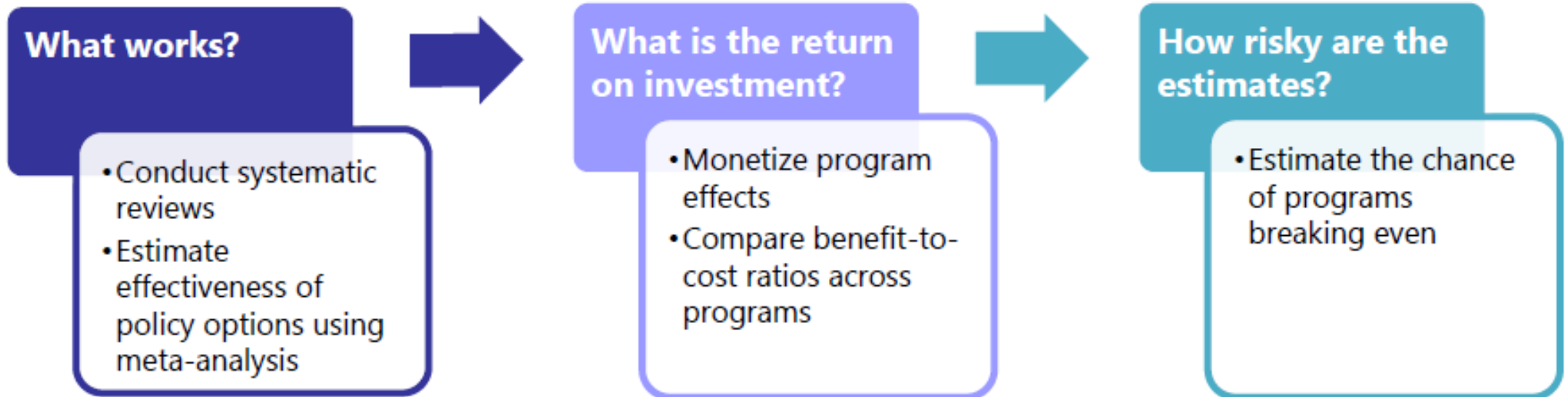
WSIPP is assigned a variety of projects at the directive of the Washington State legislature or its Board of Directors.

Washington State Institute for Public Policy

The Washington State Institute for Public Policy (WSIPP) is a nonpartisan public research group located in Olympia, the hub of Washington State government. WSIPP is a team of multidisciplinary researchers who conduct applied policy research for the state legislature in a creative and collaborative environment.

WSIPP is strongly committed to the core values of nonpartisanship, quality, and impartiality. Created in 1983, WSIPP has become nationally and internationally recognized for the design, depth, and quality of its research reports and benefit-cost analyses.

THE 'WSIPP' COST-BENEFIT MODEL OVERVIEW



RESULTS FIRST (PEW CHARITABLE TRUSTS/MAC ARTHUR FOUNDATION)

Pew

TOPICS PROJECTS FEATURES ABOUT GET INVOLVED SEARCH



The Results First initiative worked with states to implement an innovative evidence-based policymaking approach that helped them invest in policies and programs that were proven to work.

Using Evidence to Deliver Results

States and counties spend billions of dollars on critical services and programs to help protect and improve public health, support reentry for individuals who were formerly incarcerated, and protect children from abuse and neglect—yet many state and county leaders lack comprehensive information about the impact of those expenditures. Results First aimed to fill that information gap.

From 2010 to 2023, the Results First initiative helped 27 states and 10 counties use evidence and customizable tools such as cost-benefit analysis to inform their policy and budget processes and direct funding to effective programs that can provide a return on

RELATED EXPERT

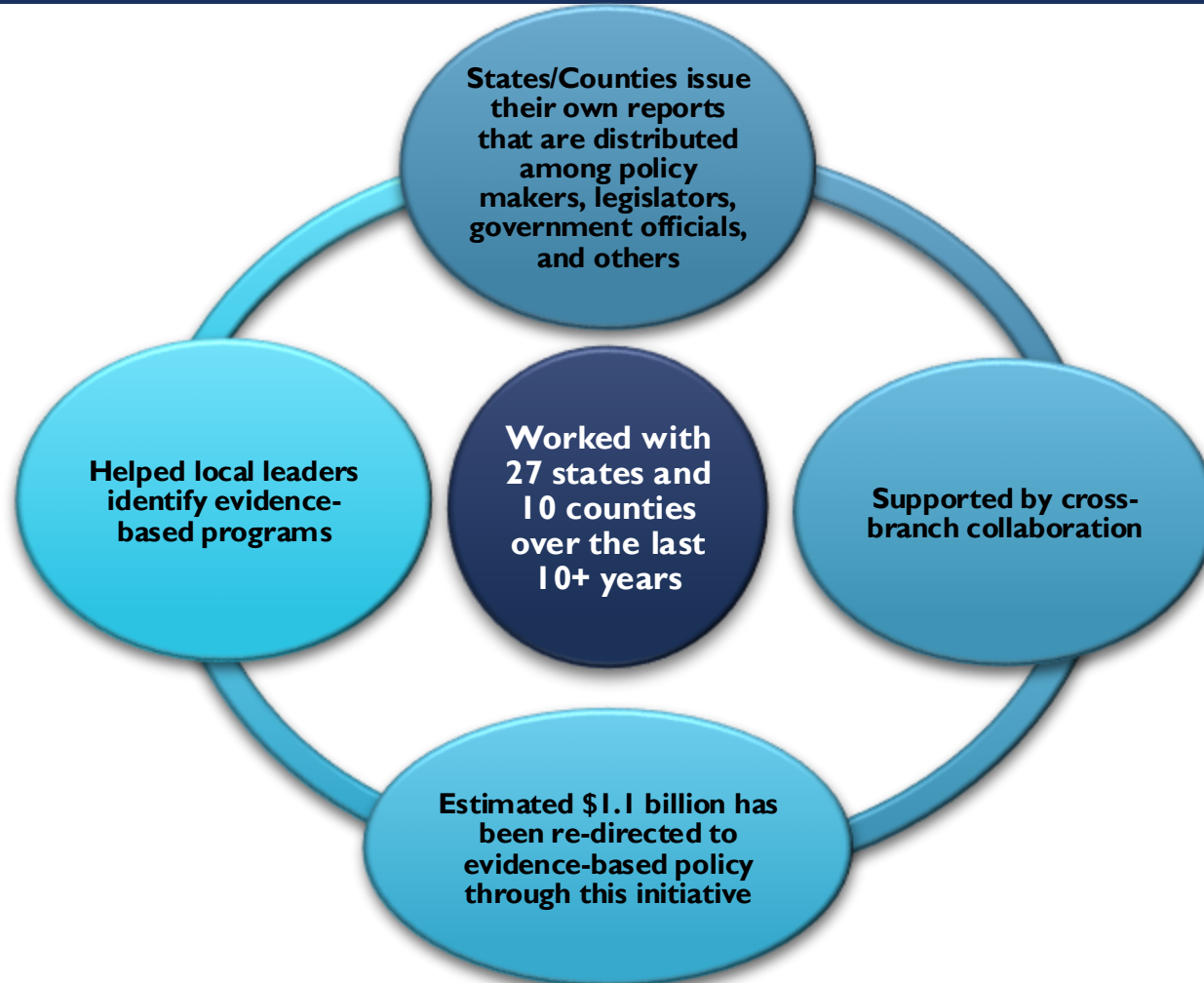


Sara Dube
Director
Fiscal & Economic Policy



Evidence-Based Policymaking Made Easy by

RESULTS FIRST (PEW CHARITABLE TRUSTS/MAC ARTHUR FOUNDATION)





EVIDENCE-TO-IMPACT COLLABORATIVE

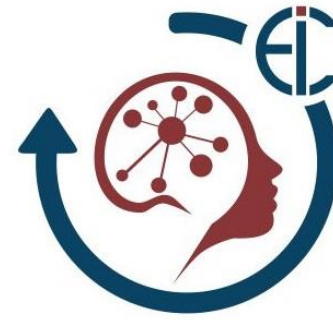
EIC MISSION

- The EIC's *mission* is to increase the societal benefits of science through improving the relevance, value, and use of scientific insights by decision-makers.
 - **Relevance**—creating more rigorous, useful, and timely scientific insights through better data, design, and optimization of research
 - **Value**—increasing decision-makers' appreciation for and their perceived utility of scientific insights and research institutions
 - **Use**—improving decision-makers' engagement with scientists, decision-making informed by scientific evidence, and decisions that promote positive impact
- The EIC offers a **home for inquiry** into the science of scientific impact and a resource for enhancing the relevance of scientific discovery and translating it for use by decision-makers.

EVIDENCE-TO-IMPACT RESEARCH INFRASTRUCTURES



Administrative Data
Accelerator



Design4Impact
Incubator



Social Investment
Optimizer



Research Translation
Platform

RESULTS FIRST ASSETS TRANSITIONED TO THE EIC



Results First Clearinghouse Database: an online resource that brings together information on the effectiveness of social policy programs from nine national clearinghouses.



Cost-benefit model: a customizable tool that enables state and local governments to estimate the expected return on investment for evidence-based programs they fund or are considering funding in a variety of social policy areas.



Evidence-Based Policymaking Resource Center: a collection of the project's research, including state-specific case studies, which helps policymakers and staff explore new ideas, identify promising practices, and inform their own approaches to ensuring effective government.

EIC RESULTS FIRST WEBPAGE



Data Accelerator

Design4Impact Incubator

Social Investment Optimizer

Research Translation Platform

Home

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Researchers

Industry Partners

Investors

About Us

Results First Resources

The Results First resources help states implement an evidence-based policymaking approach that allows them to better invest in policies and programs that are proven to work.

The Results First resources consist of the Cost-Benefit Model, the Evidence-Based Policymaking Resource Center, and the Clearinghouse Database.

The Results First initiative, a project supported by The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, invested in the development of the Cost-Benefit Model and created the Evidence-Based Policymaking Resource Center and the Clearinghouse Database. Pew transferred these resources to Penn State University and ended its work on them in 2021.

Cost-Benefit Model



The Cost-Benefit Model (CB Model) enables state governments to estimate the expected return on investment (ROI) for programs they fund or are considering funding. What makes the model unique is that it uses a consistent approach for analyzing programs within a policy area, such as adult mental health, child welfare, or juvenile justice, allowing policymakers to make an apples-to-apples comparison between different programs' benefits and costs. Government leaders can then use this information to help inform their programmatic funding decisions and ensure they are making the best use of taxpayer dollars.



RESULTS FIRST CLEARINGHOUSE



- Inclusive of:
 - Blueprints
 - CEBC
 - CrimeSolutions.gov
 - EBCCP
 - NREPP*
 - Social Programs That Work
 - TPP Evidence Review*
 - What Works for Health
 - WWC
 - Penn State Clearinghouse for Military Family Readiness Continuum of Evidence

*Not being updated at this time

The screenshot shows the 'Results First Clearinghouse Database' interface. At the top, there is a search bar with the text 'Search Clearinghouse Database' and a magnifying glass icon. To the right of the search bar are navigation tabs: 'Overview', 'Clearinghouses', 'Rating Colors & Systems', and 'FAQ'. Below the search bar, it displays 'Results: 1,009 programs found' and a 'Clear results' button. A 'Categories' section lists various topics with checkboxes: Crime & delinquency, Child & family well-being, Education, Employment & job training, Mental health, Public health, Sexual behavior & teen pregnancy, and Substance use. A 'Settings' section includes checkboxes for 'Community' and 'Correctional facility'. The main content area shows three program entries, each with a title, a 'Clearinghouse' rating (represented by colored circles), and a brief description with a 'Read more' link. The first entry is '"Seeking Safety" for Incarcerated Women' with a rating of three yellow circles. The second is 'A Safety Awareness Program (ASAP) for Women with Disabilities' with a rating of one yellow circle. The third is 'A Stop Smoking in Schools Trial (ASSIST) Program'.

-  **Highest rated**
The program had a positive impact based on the most rigorous evidence.
-  **Second-highest rated**
The program had a positive impact based on high-quality evidence.

-  **Mixed effects**
The program had inconsistent impacts based on high-quality evidence. That is, study findings showed a mix of positive impact, no impact, and/or negative impact.
-  **No effects**
The program had no impact based on high-quality evidence. That is, there was no difference in outcomes between program participants and those in the comparison group.

-  **Negative effects**
The program had a negative impact based on high-quality evidence.
-  **Insufficient evidence**
The program's current research base does not have adequate methodological rigor to determine impact.

EVIDENCE- BASED POLICYMAKING RESOURCE CENTER

Program Assessment

Review public programs to understand their evidence base

Budget Development

Use evidence of program effectiveness in budget processes to make more informed investment choices.

Implementation Oversight

Support effective implementation to ensure the benefits of evidence-based programs are achieved.

Outcome Monitoring

Measure and report outcome data to determine whether programs or priorities are achieving desired results.

Targeted Evaluation

Support impact evaluations of select public programs to learn what works.



HOW THE RESULTS FIRST MODEL WORKS

THE RF COST- BENEFIT MODEL

Originally created by WSIPP

Excel-based

Model is customized with state specific data

The tool is periodically updated based on model refinements;
users can make other updates themselves as guided by RF

Results First has provided on-going TA to states for the tool



RESULTS FIRST
COST-BENEFIT
MODEL POLICY
AREAS

KEY QUESTIONS (UP FRONT)

What is being used to address needs?

- Important to understand what is being done and whether it works.

- What is the evidence-base?

- Are there local rigorous evaluations of whether something is working?

- Is there data on implementation quality?

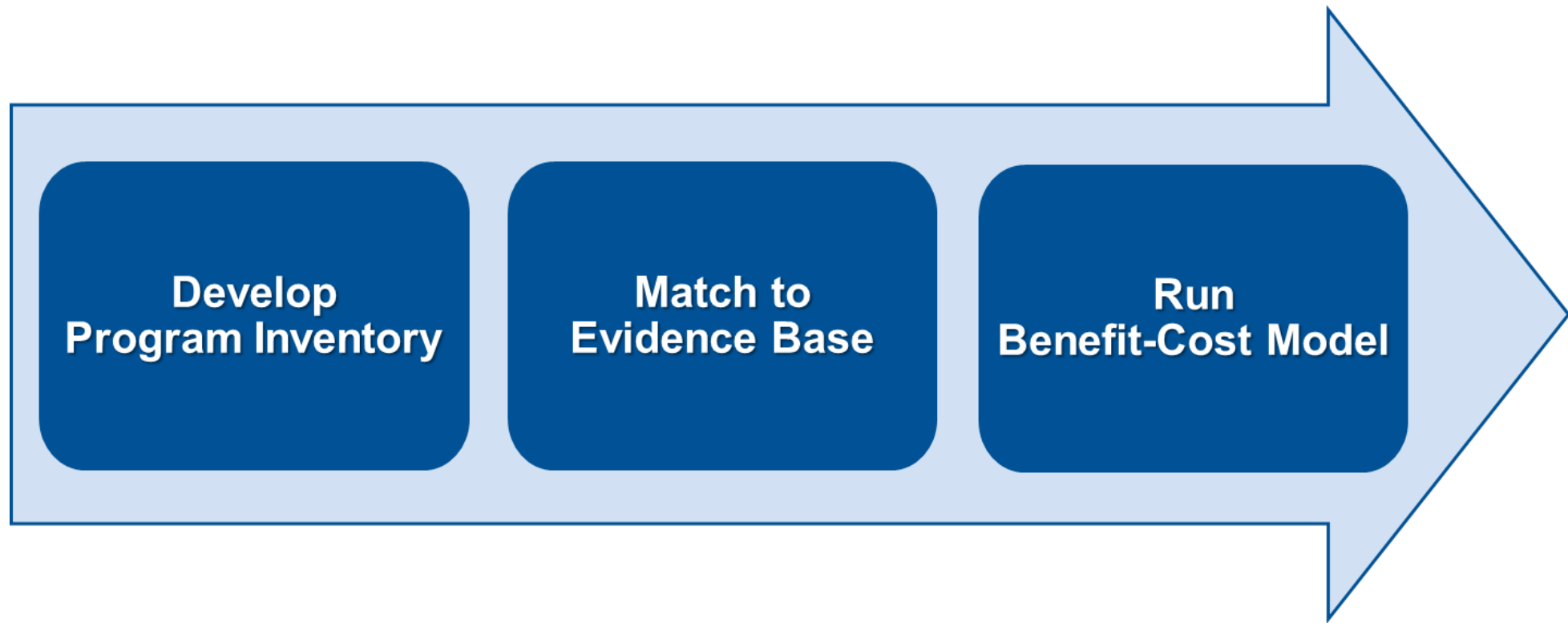
Can be considered in terms of effectiveness and efficiency

- Does it work, and if so for what behaviors/outcomes?

- What do services cost (usually best considered in terms of per-person), and is there possibly an economic benefit?

Bottom line: Can we introduce programming that prevents or reduces need for juvenile justice resources/adjudication, and can it be done efficiently.

RESULTS FIRST TECHNICAL STEPS



PROGRAM INVENTORY

Programs are systematic activities that engage participants in order to achieve desired outcomes.

- In Juvenile Justice, this includes programs that address recidivism, pro-social skills, family engagement, substance abuse, etc.
 - For example:
 - Chemical dependency treatment for juveniles
 - Multisystemic Therapy (MST)
 - Wilderness experience

USING THE PROGRAM INVENTORY

- Establish a baseline
- Evaluation decisions
 - Identify programs that need evaluation
 - Use data collection as a check on program fidelity
- Budget decisions
 - Target resources at effective programs
 - Use Clearinghouse Database as a menu of potential investments
- Identify program capacity issues



EVIDENCE- BASED?

Programs or practices whose level of effectiveness has been determined by rigorous evaluations

- Evidence-based programs can be ineffective or even have a negative impact
- Where is the evidence?
 - Jurisdiction-specific evaluation
 - Clearinghouses



PI PROCESS CAN INFORM...

What programs/services are currently funded/in place?

Are they evidence-based?

Are they effective?

What programs should be prioritized for evaluation?

What programs have additional or lack capacity?

PI CAN ASSESS LEVEL OF FUNDING FOR EBP

For example:

PROGRAM INFORMATION	BUDGET		EVIDENCE LEVEL
PROGRAM NAME	PROGRAM BUDGET	% OF PROGRAM BUDGET	RATINGS
Functional Family Therapy	\$125,000	6%	Highest rated
Multisystemic Therapy	\$50,000	3%	Highest rated
Parenting with Love and Limits	\$300,000	15%	Second-highest rated
Victim offender mediation	\$250,000	13%	Second-highest rated
Family court	\$180,000	9%	No effects
Canine training for youth in juvenile halls	\$100,000	5%	Not rated
All others	\$950,000	49%	Not rated

CLEARINGHOUSES

- Identify “what works”
- Review and summarize rigorous evaluations of different programs and practices
- Assign ratings to programs and practices based on the evidence (e.g., model, promising, mixed effects)
- Use slightly different methodologies, criteria, and terminology
- Policy area specific
 - What Works Clearinghouse = Education
 - CrimeSolutions.gov = Criminal & Juvenile Justice
- Results First provides a Clearinghouse of clearinghouses...







RESULTS FIRST CLEARINGHOUSE



- Inclusive of:
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THE RESULTS FIRST MODEL



Use the best research to identify what works



Predict the impact in your state



Calculate long-term benefits and costs

DATA NEEDED FOR THE MODEL

Program/services
information

Recidivism
Analysis

Resource use

Resource costs

Victimization
information

PROGRAM/SERVICES INFORMATION



Match programs/services that have an established effect size to programs that are being used in your state

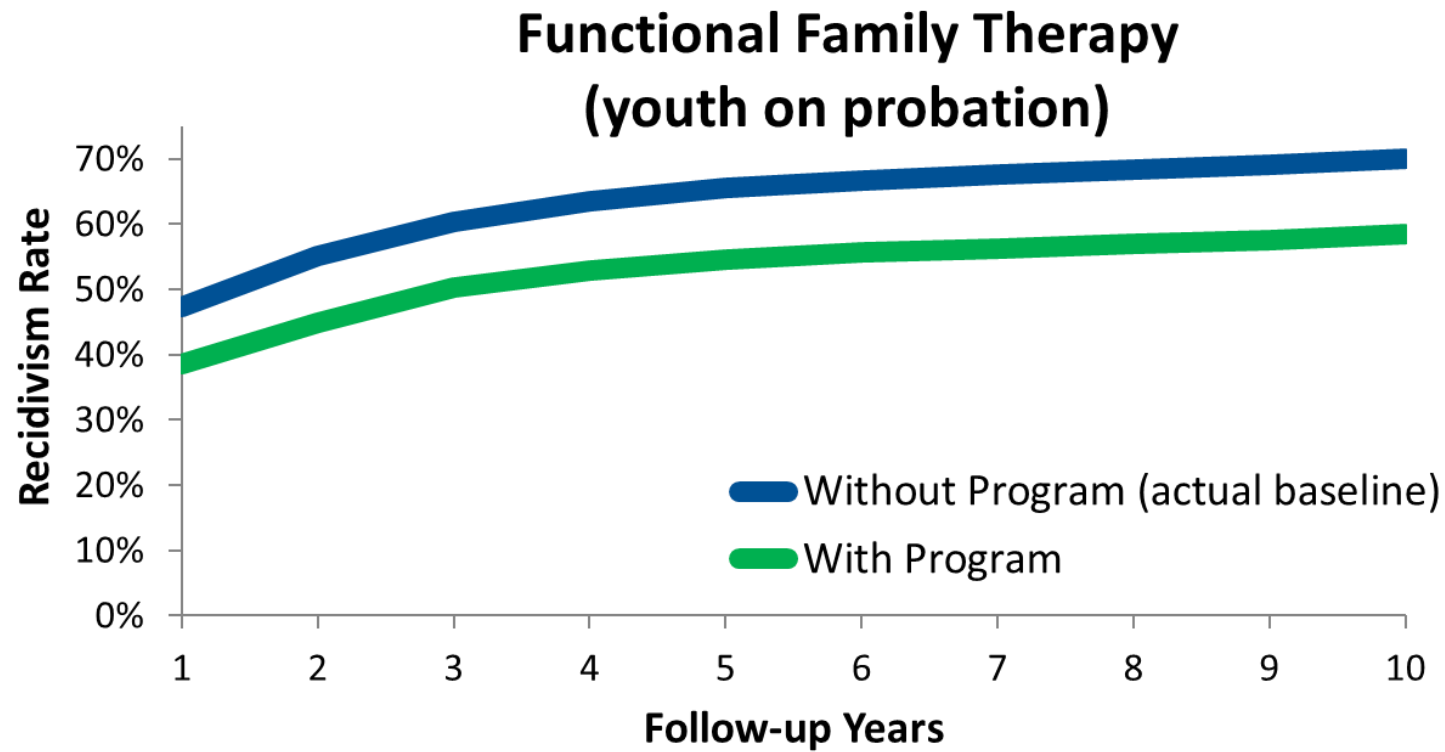


Calculate the marginal cost per participant of each program/service



Determine duration of program

RECIDIVISM ANALYSIS



RESOURCE USE EX: JUVENILE JUSTICE

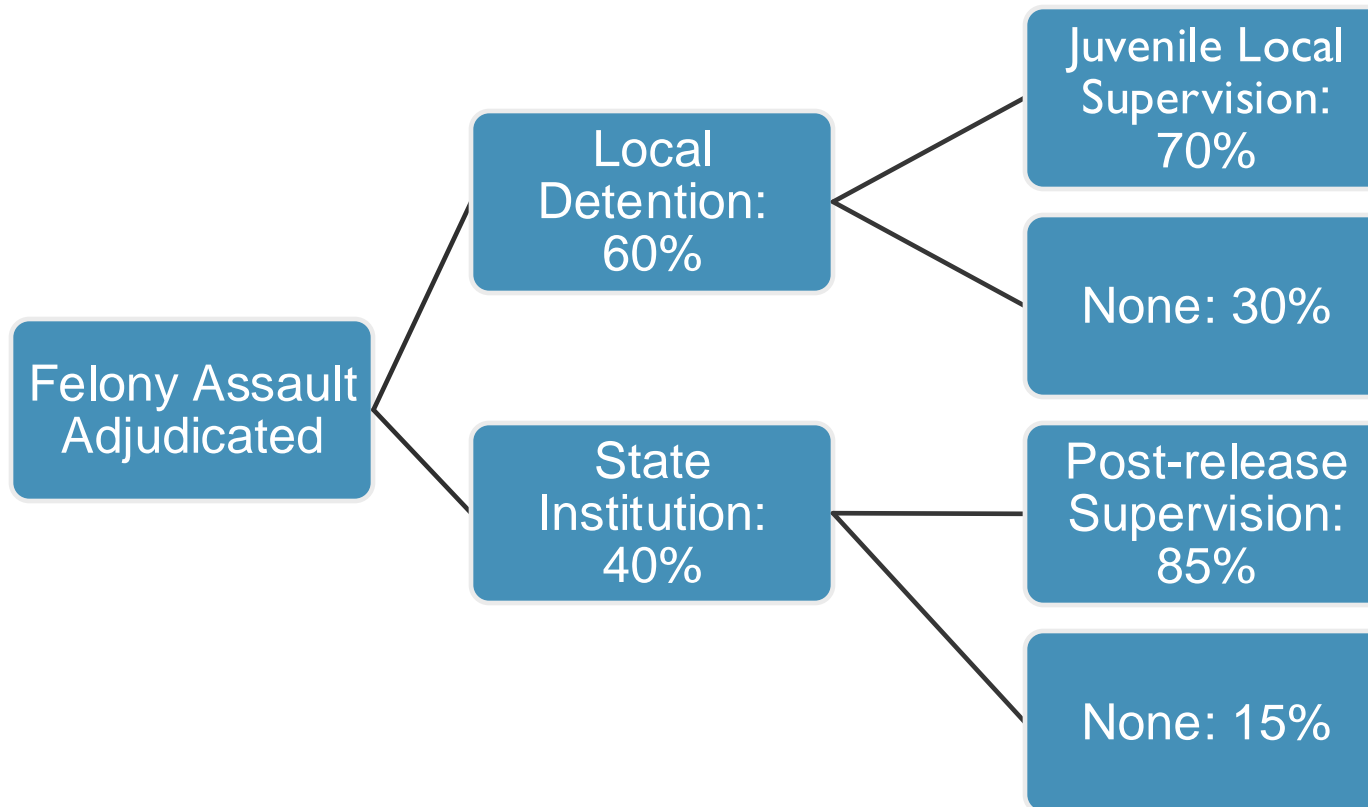
Probability

- Likelihood of using each resource
- Based on a decision tree to show which crimes result in which resources

Length

- Amount of time using each resource
- Based on a decision tree to show the length of resource use by crime type

PROBABILITY OF RESOURCE USE



LENGTH OF RESOURCE USE



RESOURCE COSTS: JUVENILE JUSTICE

Taxpayer

- Arrest, courts, local detention, state institutions, jail, probation (juvenile and adult), prison, and post-release supervision (juvenile and adult)
- Percent local, state, and federal

Society

- Tangible: Medical treatment, cash losses, property theft or damage, and lost earnings from injury
- Intangible: Pain and suffering estimates

**Marginal costs are preferred in BCA because juvenile justice and adult criminal justice system changes tend to be incremental.*

RESULTS FIRST COST-BENEFIT MODEL

Monetization relies on direct and indirect linkages (based on causal associations established in research)

Can incorporate effects on primary and secondary program participants

Users can update many inputs with state-specific values

Program selection is based on available evidence and the programs states are considering implementing or have already implemented

Specific populations can be selected based on the nature of program impact

Model also calculates the value of an outcome (i.e., the monetary benefit of avoiding a case of child abuse and neglect)

Select a stored program from this drop-down list

Public health/Prevention: Good Behavior Game

Edit program name in this box

Public health/Prevention: Good Behavior Game

- Check to Include Deadweight Costs
- Check to Display the Losers
- Check for Batch Run

Use the drop-down selector to enter outcome

Benefits from Outcomes

	Benefits								
	Participant s	By Perspective					Other1	Other2	TOTAL
		Taxpayer Perspective							
	Taxpayers	Federal	State	Local					
High school graduation									
Smoking before end of middle school	Externalizing to Crime	\$0	\$116	\$0	\$75	\$41	\$261	\$0	\$377
Smoking	Externalizing to Special Education: K-12 System Costs	\$0	\$371	\$4	\$216	\$151	\$0	\$0	\$371
Alcohol use disorder	Externalizing: Health Care Costs	\$265	\$938	\$800	\$138	\$0	\$968	\$0	\$2,171
Major depressive disorder	Anxiety to Grade retention: K-12 System Costs	\$0	\$3	\$0	\$2	\$1	\$0	\$0	\$3
Illicit drug use disorder	High School Grad: Labor Market Effects	\$3,663	\$1,559	\$1,000	\$316	\$243	\$2,000	\$0	\$7,221
Anxiety disorder	High School Grad: Labor Market Effects								
Externalizing behavior symptoms	Smoking before end of middle school								
Suicide attempts	DSM-IV Major Depressive Disorder								
Antisocial personality disorder									
Smoking before end of high school									
Attention deficit hyperactivity disorder									
Suicidal ideation									

Single Run or Monte Carlo

of Monte Carlo Runs

- Single Run
- Monte Carlo

3

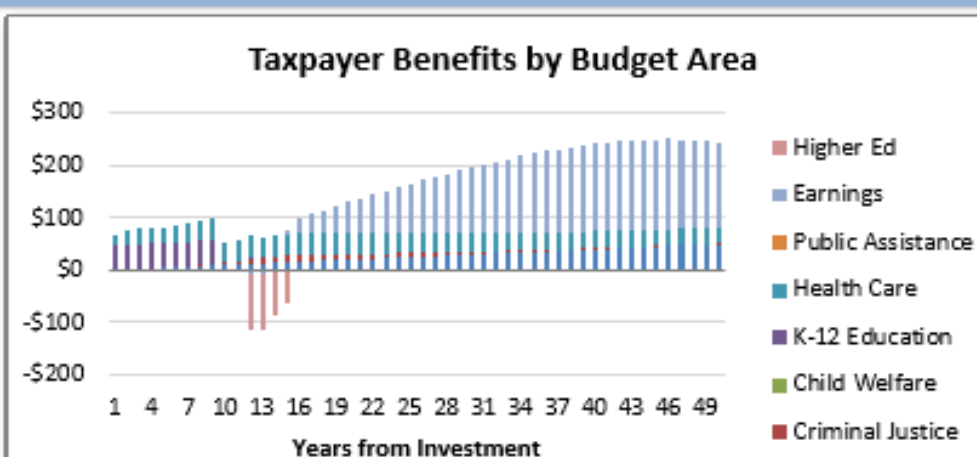
Summary of Benefit-Cost Results

Single

Monte

Participant Benefits	\$3,574	\$3,574
Taxpayer Benefits	\$2,749	\$2,749
Other1 Benefits	\$3,128	\$3,128
Other2 Benefits	\$97	\$97
Total Benefits	\$9,548	\$9,548
Total Costs	(\$160)	(\$160)
Net Present Value	\$9,387	\$9,387
Benefit-Cost Ratio	\$59.53	\$59.53
Chance that NPV > 0		100%

Taxpayer Benefits by Budget Area



Treatment Group
Control Group

Check to Save Results (and overwrite previous stored results)

\$0 1.00 2011

training, subcontractor support, and



PA RESULTS FIRST WORK

PAST PA RF WORK WITH PEW

Cost-Benefit Analysis for PCCD's Evidence-based Initiatives – Full Report: Investing in Effective Programs to Improve Lives and Save Tax Payer Dollars

A Report of the Pennsylvania Commission on Crime and Delinquency in collaboration with the
Pew-MacArthur Results First Initiative

- Numbers in parenthesis indicate zero economic benefits and the presence of additional economic costs beyond what it costs to implement the program

Table 3. Pennsylvania Cost-Benefit Analysis

PROGRAM NAME	BENEFITS	COSTS	COSTS CI (+/-)	Benefit/Cost Ratio		
				LOW	MID	HIGH
Aggression Replacement Training (ART)	\$2,214	\$905	\$602	\$1.47	\$2.45	\$7.31
Big Brothers Big Sisters (BBBS)	(\$169)	\$1,603	\$504	(\$0.08)	(\$0.11)	(\$0.15)
Functional Family Therapy (FFT)	\$11,015	\$3,918	*	\$2.20	\$2.81	\$3.98
LifeSkills Training (LST)	\$1,489	\$131	\$60	\$7.80	\$11.37	\$20.97
Multisystemic Therapy (MST)	\$5,632	\$8,683	*	\$0.52	\$0.65	\$0.89
Positive Action (PA)	\$13,727	\$63	**	\$66.64	\$217.89	\$334.80
Positive Parenting Program (Triple P)	\$1,072	\$1,376	\$388	\$0.61	\$0.78	\$1.09
Project Towards No Drug Abuse (TND)	\$303	\$117	\$47	\$1.85	\$2.59	\$4.33
Promoting Alternative Thinking Strategies (PATHS)	\$7,711	\$215	\$54	\$28.67	\$35.87	\$47.89
Strengthening Families Program 10-14 (SFP 10-14)	\$5,056	\$1,754	\$287	\$2.48	\$2.88	\$3.45
Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)	\$19,300	\$1,666	\$580	\$8.59	\$11.58	\$17.77
The Incredible Years (IY)	\$2,612	\$2,104	\$658	\$0.95	\$1.24	\$1.81

* Based on survey completed by MST and FFT providers.

** Based on 2 grants, MID is weighted average, LOW and HIGH are actual costs per service.

CI = Confidence Interval.

ROI data like that shown above is only one way to understand the value of evidence-based programs. This report includes additional information on each program's proven outcomes, reach, impact in Pennsylvania, and a

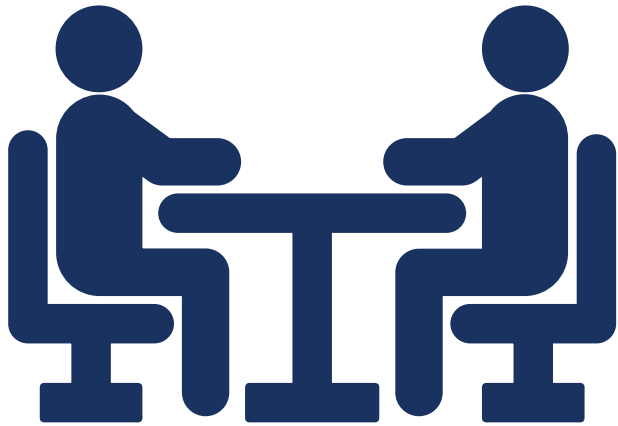
CURRENT JCJC RF WORK WITH EIC

- **First and foremost: Understanding effectiveness and efficiency of necessary programs and services**
 - Not about ranking based on ROI
 - About demonstrating the *value* of programs to support more funding decisions
 - Not all areas of need will be easy to lead to positive ROI, but some programs can help pay for themselves
 - Collectively, there is likely a return for a portfolio of evidence-based programming
 - Understanding program/services costs, effectiveness in PA, and implementation quality can better ensure impact on lives and possibly budgets
 - Where effective and potentially cost-effective programs are determined, can increase dissemination where EBP is not in place



CURRENT JCJC WORK WITH EIC

Recently met with Adelphoi and The Academy



RF Process:

Step 1

Gathering list of services they provide (Current)

Step 2

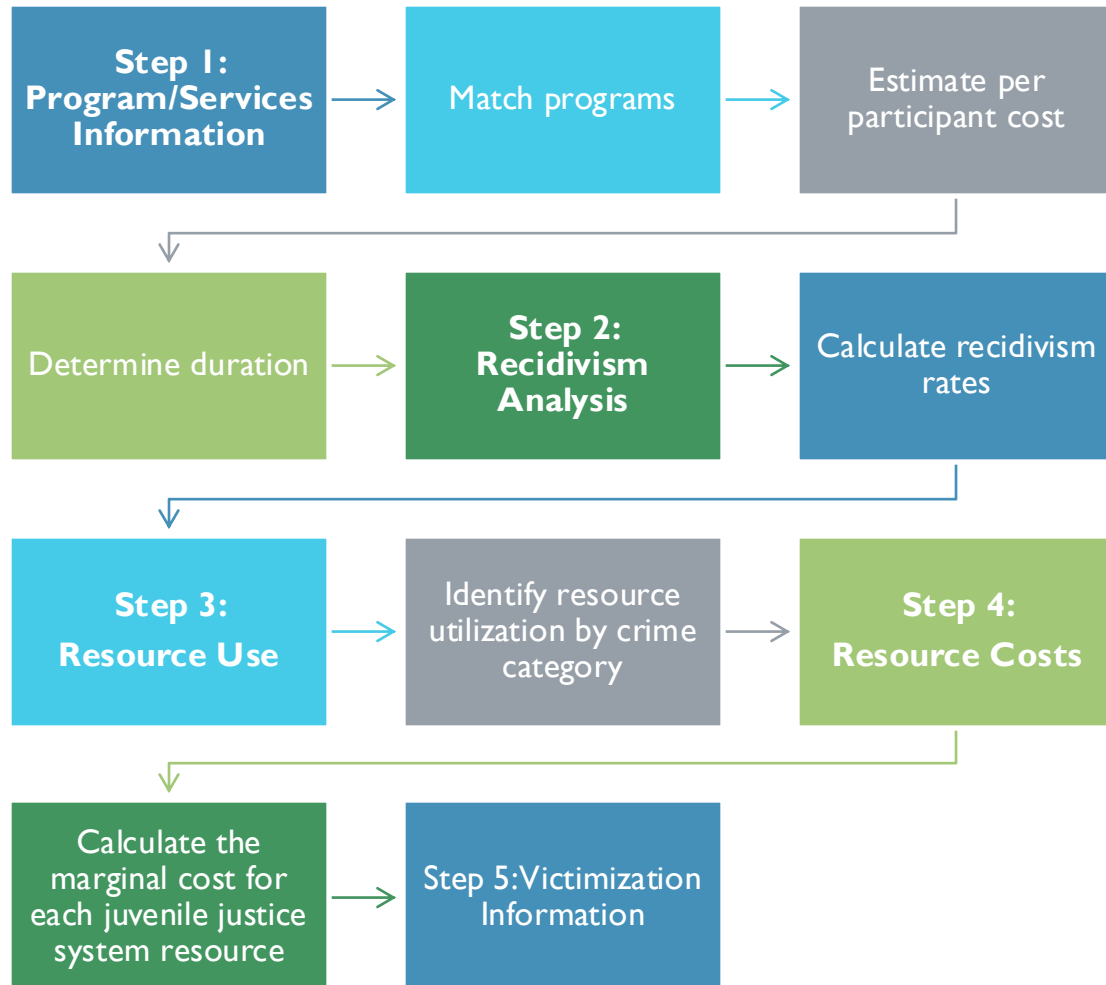
Matching SPEP'd and non-SPEP'd services to WSIPP services in the model

Step 3

Gathering cost information for select services

Step 4

Run these services through the model to provide cost benefit analysis



SUMMARY



Analyzing national and
state recidivism
numbers



Analyzing PA
Commission on
Sentencing (PCS) data



Finalizing an AI chatbot
to launch within the RF
Clearinghouse

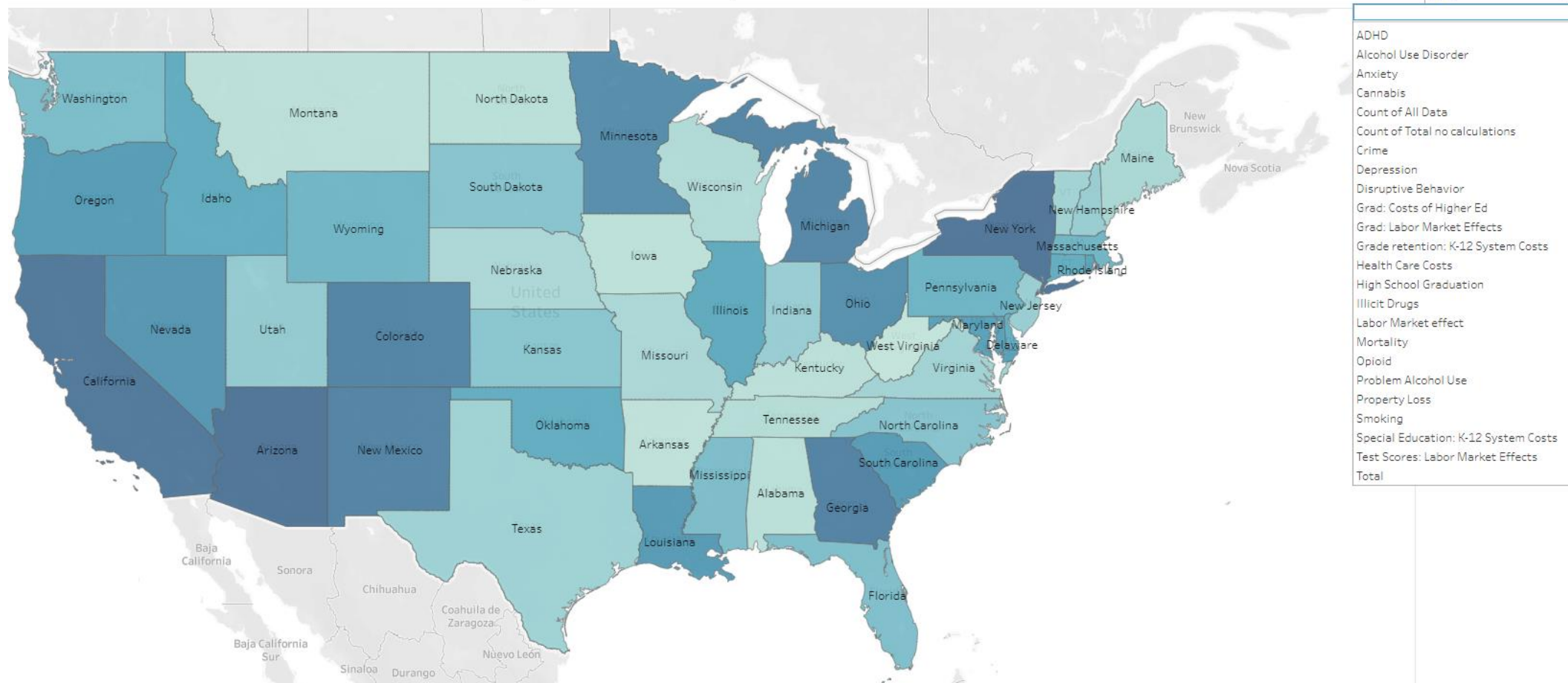


Tableau tool for quick
state specific “cost of
avoidance” numbers

CURRENT EIC RF ACTIVITIES AND TOOLS

VALUE OF AVOIDING BEHAVIORAL HEALTH OUTCOMES

Total Monetary Benefit of Outcome by State



QUESTIONS? COMMENTS?



prevention.psu.edu/



evidence2impact.psu.edu



[@Evidence2Impact](https://twitter.com/Evidence2Impact)

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