STATE OF CONNECTICUT

Results First

Benefit-Cost Analyses of Adult
Criminal and Juvenile Justice
Evidence-Based
Programs

November 2017

INSTITUTE FOR MUNICIPAL AND
REGIONAL POLICY

JMRP

Central Connecticut State University

EXECUTIVE SUMMARY AND KEY FINDINGS

❖ State law requires (1) four adult criminal and juvenile justice agencies to submit their respective program inventories biennially in even-numbered years and (2) the Institute for Municipal and Regional Policy (IMRP) to publish an annual benefit-cost analyses report of programs identified in the inventories.

❖ Though not required by law, the Judicial Branch Court Support Services Division (JB-CSSD) elected to complete its inventory this year. The other agencies, the departments of Correction, Children and Families, and Mental Health and Addiction Services were unable to do so, given budget and staffing limitations. Thus, this benefit-cost analyses report of adult criminal and juvenile justice programs identified in the inventory is limited to a review of the programs and 2017 data submitted by JB-CSSD.

❖ The 2017 JB-CSSD program inventory lists a total of 24 programs, 17 of which were identified as being evidence-based.

❖ Eight of all programs were included in the Results First model and five of them had marginal cost information that allows IMRP to calculate a Connecticut-specific benefit-cost analysis. All show a positive return on investment.

❖ The five model program categories in the benefit-cost analyses show, for the programs analyzed, that benefits outweigh costs, with a probability of between 65% and 100%.

❖ Legislation enacted in 2017 expands the current program inventory requirements to include all of the agencies' and division's programs, not just the criminal and juvenile justice programs and adds Department of Social Services' (DSS) programs and makes the inventory requirement annual, rather than biennial. It also requires the Office of Policy and Management (OPM) to create a pilot program applying the Pew-MacArthur Results First model to at least eight state-financed grant programs.

❖ The move to structured evidence-based decision-making will result in a more effective and efficient utilization of state resources for intended outcomes. As the Results First Initiative's benefit-cost analyses and the underlying program inventories become more robust and sustainable, the state will be able to:

   o Identify the programs it funds and at what cost.
   o Target state, federal, and private funds to cost-beneficial, evidence-based programs.
   o Promote and support the use of technology for data collection and analysis.
   o Evaluate program implementation and fidelity.
   o Articulate program capacity and utilization to maximize participation in effective, evidence-based programs.
   o Allow adult criminal and juvenile justice agencies to share data to improve service delivery and reduce recidivism.

With this fundamental understanding, the Results First CBA report can best be used to then determine which of these inventoried, matched, and analyzed programs are most productive (efficient and effective) at achieving the established priorities.

Begin by referring to the tables in the report of Results First program areas and agency programs that fit under those broad areas that (1) do not have CBAs but are listed due to evidence associated with them and (2) have the CBA calculation.

For programs without CBAs (Table 1, pages 13-14): Within each Results First program area that has agency programs substantiated by WSIPP or Results First Clearinghouse evidence (or other rigorous evaluation), but that do not have CBA's, use the list to relate the evidence to the state-operated program to determine:

    (A) whether the actual agency program operates with fidelity to the program model evaluated with evidence.
        i.   If <u>so</u>, then determine whether the program model evidence forecasts favorable results (positive outcomes and Cost-Benefit [C/B] ratio.
        ii.   If <u>not</u>, then study further, treat as low priority and/or consider divestment.

    OR

    (B) the comparative cost per unit per similar program area and select those with lower costs and better outcomes and deselect those with higher costs and worse outcomes.

For programs with CBAs (Table 2, pages 25-26): Within each Results First program area, see the comparative C/B ratios listed for each agency program and Special Identifier (SID) and select/prefer (i.e., treat as high priority) those with the highest C/B ratio and lowest cost to achieve such ratio to invest in or continue. Deselect/down-grade (treat as low priority) those with comparatively lower C/B ratio and requiring higher cost to achieve the same or better ratio.

Once you have established that (1) there is a current and forecast need for the program services/area, (2) it is a high priority for the state, and (3) there is good evidence that the program model achieves intended outcomes with a high level of effect, prefer programs whose C/B ratio is comparatively higher and whose costs to operate are lower. Therefore, the programs with the highest C/B ratio and the lowest cost to operate should be preferred.

Conclusion

CBA is "[a] decision tool, not [a] decision rule." It is helpful in making decisions based on identified criteria and priorities and should not result in *de facto* decisions based on numbers. It helps to understand how activities compare on similar bases of operation and cost so that decisions conform to priorities, outcome expectations and budgets.

I. STATUTORY CHARGE

This report is submitted pursuant to 2015 legislation, CGS §§ 4-68r and -68s (PA 15-5, June Special Session, An Act Implementing Provisions of the State Budget for the Biennium Ending June 30, 2017 Concerning General Government, Education and Health and Human Services and Bonds of the State, Sections 486 – 487) (see Appendix A). This law advanced the work of the Results First project at Central Connecticut State University's Institute for Municipal and Regional Policy, which administers the Pew-MacArthur Results First Initiative.[1] Results First Connecticut has focused on the agencies associated with adult criminal and juvenile justice policy and their state-funded programs that are evidence-based. The model, developed by the Washington State Institute for Public Policy (WSIPP) relies on meta-analyses of national research and Connecticut-specific costs and participant data to produce an expected return on investment for the state. Initially, agencies' so-called program inventories are necessary in order to apply the Results First economic model. Then, IMRP must calculate the benefit-cost analyses (BCA) used to make policy and budget decisions.

The 2015 law required the Judicial Branch's Court Support Services Division (JB-CSSD) and the departments of Correction (DOC), Children and Families (DCF), and Mental Health and Addiction Services (DMHAS) to develop program inventories in even-numbered years that would provide the data for implementation of the Result First project. It included the provision requiring IMRP to develop annual benefit-cost analyses of the evidence-based adult criminal and juvenile justice programs listed in those inventories.

On October 26, 2017, the General Assembly completed its work on the state budget legislation that included changes to the 2015 Results First law. Effective October 31, 2017, the law expands application of Results First in Connecticut by extending the program inventory requirement to cover the Department of Social Services and to include all currently required agencies and divisions to incorporate all programs, not just their criminal and juvenile justice programs (PA 17-2, June Special Session, An Act Concerning the State Budget for the Biennium Ending June 30, 2019, Making Appropriations Therefor, Authorizing and Adjusting Bonds of the State and Implementing Provisions of the Budget, [for relevant section, see Appendix B]). It also requires annual, rather than biennial, program inventories. The IMRP benefit-cost analyses report must use the additional and expanded inventories as the basis for its annual report.

In addition, the new law requires the OPM secretary to create, by January 1, 2019, a pilot program that applies the principles of the Pew-MacArthur Results First cost-benefit analysis model to at least eight state-financed grant programs the secretary chooses. Selected programs must include ones that provide family and employment services, with at least one contracted program with an annual budget of over $200 million. OPM must submit a report on this pilot project to the Appropriations Committee by April 1, 2019.

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[1] The Pew-MacArthur Results First Initiative, a project of the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, works with states to implement an innovative cost-benefit analysis approach that helps them invest in policies and programs that are proven to work. Additional information about Results First is available at http://www.pewstates.org/projects/pew-macarthur-results-first-initiative-328069.

Program inventories must include the following information for the previous fiscal year:

1. a detailed program description and the names of providers,

2. the intended treatment population and outcomes,

3. total annual program expenditures and a description of funding sources,

4. the method for assigning participants,

5. the cost per participant,

6. the annual capacity for and the number of actual participants, and

7. an estimate of the number of people eligible for or needing the program.

Because agencies were not required by law to compile program inventories in 2017 and due to budget and staffing restrictions, this year's edition of the benefit-cost analyses report for adult criminal and juvenile justice evidence-based programs includes only those programs identified by the Judicial Branch's Court Support Services Division, which was able to submit an updated inventory.

Program Definitions

An *"evidence-based program"* incorporates methods demonstrated to be effective for the intended population through scientifically based research, including statistically controlled evaluations or randomized trials; can be implemented with a set of procedures to allow successful replication in Connecticut; achieves sustained, desirable outcomes; and, when possible, has been determined to be cost-beneficial.

A *"research-based program"* is a program or practice that has some research demonstrating effectiveness, such as one tested with a single randomized or statistically controlled evaluation, but does not meet the full criteria for evidence-based.

A *"promising program"* is a program or practice that, based on statistical analyses or preliminary research, shows potential for meeting the evidence-based or research-based criteria.

On October 2, 2017, JB-CSSD submitted its program inventory to IMRP. This BCA report includes the benefit-cost analysis for each program included in the Results First model for which the inventory provided the necessary cost information. The report, due November 1, goes to OPM's Criminal Justice Policy and Planning Division, the Appropriations and Finance, Revenue and Bonding committees, and the Office of Fiscal Analysis (OFA).

In addition, IMRP's benefit-cost analyses may be included as part of OPM's and OFA's annual fiscal accountability report normally due by November 15 to the legislature's fiscal committees each year. Under the statute, "cost beneficial" means that the cost savings and benefits realized over a reasonable period of time are greater than the costs of a program's implementation.

By law, OPM must develop a plan to promote a more effective and cohesive state criminal justice system. To accomplish this, OPM must also review the program inventories and

benefit-cost analyses and consider incorporating them in its budget recommendations to the legislature.

In addition, the designated agencies' budget request for the FY 2019 midterm budget adjustments submitted to OPM and the legislature may include costs to implement evidence-based programs and the governor may include these costs in the budget he submits to the legislature.

II.   THE RESULTS FIRST INITIATIVE

Background

The Pew-MacArthur Results First Initiative works with 26 states and ten county jurisdictions to implement an innovative evidence-based policymaking approach and benefit-cost analysis model that helps them invest in policies and programs that are proven to work. It gives public officials the information they need to make policy and budget decisions based on probable outcomes and return on investment. It is intended to identify opportunities that effectively invest limited resources to produce better outcomes and potential savings.

Results First employs a sophisticated econometric model to analyze the costs and benefits of evidence-based programs across a variety of social policy areas. By calculating the long-term return on investment for multiple programs through the same lens, it produces results and comparisons that policymakers can use in planning and budgeting decisions.

Connecticut became an early participant in the Results First Initiative in March 2011 when Governor Dannel Malloy and legislative leaders submitted formal letters of support to Results First. To date, Connecticut's work with Results First has focused on conducting a comprehensive benefit-cost analysis of the state's criminal justice programs. In the past year, the Results First project in Connecticut has:

1. published its study of juvenile parole and recidivism,
2. collaborated with (a) the Juvenile Justice Policy Oversight Committee on its juvenile justice reform efforts and (b) the Connecticut Sentencing Commission on its studies of pretrial release and detention and the state's sex offender registry law,
3. expanded its outreach efforts with updated information on the website and a monthly newsletter, and
4. promoted the systematic utilization of evidence-based programs and data collection in state agencies.

Methodology

The Results First model, which was originally developed by the Washington State Institute for Public Policy, applies the best available national rigorous research on program effectiveness to predict the public safety and fiscal outcomes of each program category in Connecticut, based on our unique population characteristics and the costs to provide these programs in this state. For each potential investment, the model produces separate projections of benefits that would accrue to program participants, nonparticipants, and taxpayers. These are summed to estimate a total state bottom-line benefit. The model then calculates the cost of producing these outcomes and the return on investment on a per-participant basis that Connecticut would achieve if it chose to continue an appropriate level of funding and maintain fidelity to each program.

The Results First program inventory spreadsheet template is designed to provide the information required to populate the model with state-specific data. To the extent that the listed programs are (1) evidence-based as substantiated by rigorous research and included in the model and (2) have costs expressed appropriately and a sufficient number of participants, IMRP can match programs with those in the model and calculate the benefit-cost analysis.

Results First Clearinghouse Database

As an additional aid in evaluating evidence-based programs, the Results First Initiative has created a Results First Clearinghouse Database that policymakers can use as a resource for information on program effectiveness. The database is a single, on-line compilation of research, literature reviews, and evaluations from eight different national clearinghouses on interventions in policy areas, including adult criminal and juvenile justice. Information on over 1,000 interventions in the database rate program effectiveness and describe evaluations to identify interventions that work. While each separate clearinghouse has its own rating system, the Results First Clearinghouse Database assimilates these into one that easily conveys a common perspective on rated effectiveness.

Not all the programs in the clearinghouse are included in the Results First model for determining a benefit-cost analysis. However, the clearinghouse can be a useful tool to identify programs that have been evaluated as evidence-based and effective.

In the process of producing the benefit-cost analyses, IMRP relies on the agencies to review the Results First Clearinghouse Database and identify those of its programs included in the database. The charts below show the effectiveness ratings listed in the Results First Clearinghouse Database for the JB-CSSD adult and juvenile programs that match those in the database.

The ratings shown for the agencies with matched programs indicate that:

➢ Judicial Branch's Court Support Services Division operated four adult programs with the highest effectiveness rating (one of which is funded and managed in collaboration with DMHAS and DOC), three adult programs with the second highest rating, and eight juvenile programs with the highest rating and one with the second-highest rating.

It should be noted that the agency may be operating effective programs that are not listed as having been matched within the Results First Clearinghouse Database, however the lack of a match does not mean that non-matched programs are ineffective.

Effectiveness Rating*

Highest Rating	🟩
Second-Highest	🟨
No Evidence of Effects	⬜
Mixed Effects	🟦
Negative Effects	🟥

Connecticut
Evidence-Based Effectiveness Ratings

Adult Criminal Justice Programs

Agency	Program Name	Effectiveness Rating*
JB-CSSD	Adult Behavioral Health Services	Highest Rating
JB-CSSD	Alternative in the Community	Highest Rating
JB-CSSD	Domestic Violence - Evolve	Highest Rating
JB-CSSD	Domestic Violence - Explore	Highest Rating
JB-CSSD	Electronic Monitoring	Second-Highest
JB-CSSD	Adult Sex Offender Treatment Services	Second-Highest
JB-CSSD	Residential Drug Tx Collaborative (with DMHAS)	Second-Highest

Evidence-Based Effectiveness Ratings
Juvenile Justice Programs

Agency	Program Name	Effectiveness Rating*
JB-CSSD	Adolescent Community Reinforcement Approach (A-CRA) & Assertive Continuing Care (ACC)	Highest Rating
JB-CSSD	Boys Therapeutic Respite and Assessment Center	Highest Rating
JB-CSSD	Community Residential Program	Highest Rating
JB-CSSD	Child, Youth and Family Support Centers	Highest Rating
JB-CSSD	Intermediate Residential	Highest Rating
JB-CSSD	Youth Mentoring	Highest Rating
JB-CSSD	Multidimensional Family Therapy (MDFT)	Highest Rating
JB-CSSD	Multi-systemic Therapy (MST)	Highest Rating
JB-CSSD	Juvenile Sex Offender Services	Second-Highest

*Source: The Results First Clearinghouse Database provides more information about the eight national research clearinghouses.

III.   PROGRAM INVENTORY

In October 2017, JB-CSSD submitted an inventory spreadsheet to IMRP. There was additional contact to clarify certain components of the information in order for IMRP to begin its work compiling the benefit-cost analysis portion of the project.

In order to apply the Results First model, IMRP needed to have the following information included in the program inventory:

1.   the program name and description;
2.   whether the program is included in the Results First model;
3.   participant data; and
4.   FY 2017 cost and budget information, including the marginal cost.

Judicial Branch – Court Support Services Division

JB-CSSD initially identified 13 adult criminal justice programs of which seven are evidence-based. Four of those programs are in the Results First model and three had appropriate information for purposes of applying the model to calculate the benefit-cost analysis. The division's inventory for juvenile justice programs identified 11 programs; 10 are evidence-based, two of which are in the model and have marginal cost calculations and an adequate number of participants.

Evidence-Based Programs for Preventing Crime Recidivism

The JB-CSSD's program inventories identified the adult and juvenile programs that they determined are evidence-based, referring to the WSIPP model and the clearinghouse database. In most cases, however, IMRP was unable to apply the Results First model for purposes of calculating the benefit-cost analysis for one or more of the following reasons.

1.   The agency did not provide the necessary marginal cost information.

2.   The number of participants was too small for predictive value (e.g., juvenile sex offender services).

3.   The Connecticut program description or operation does not match any program in the WSIPP model, even where the appropriate benefit and cost data are included in the inventory.

Table 1, "Evidence-Based Program Inventory Information by Agency," lists the programs that JB-CSSD identified as evidence-based, but not all of them could be included in the "consumer report" chart with a benefit-cost analysis (see Table 2). Nevertheless, the table shows important program details as reported for the evidence-based programs that the agency manages in Connecticut, including the intended outcomes, duration and annual participant capacity, the number of participants served, as well as those who were eligible but not served, the annual program budget, and the cost per participant (whether average or marginal). Some

evidence-based programs may be seen at: [Washington State Institute for Public Policy](#) and [Results First Clearinghouse Database.](#)

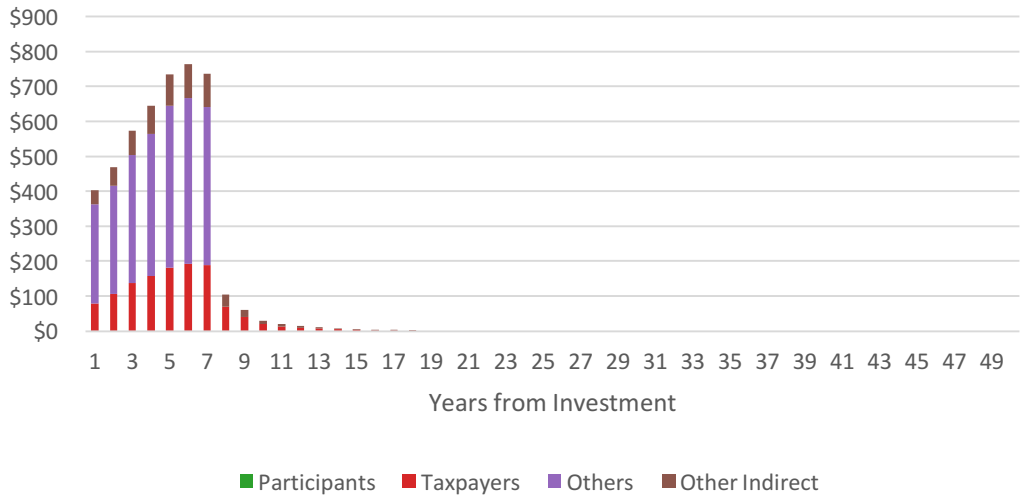The fields shown in the table below are defined as follows:

- *Program Name*: The specific, formal program name of the program.

- *Intended Outcomes*: The outcomes or results that the program is intended to address, based on outcomes that are measured in the Results First BCA model (i.e., crime/recidivism, substance abuse or mental health treatment).

- *Average Duration:* The length of time required for program delivery (e.g., "6 – 12 months" or "12 weeks").

- *Number of Participants Served:* The number of clients treated (regardless of completion) in state FY 2017.

- *Eligible But Not Served*: The estimated number of persons in the program's service jurisdiction that would qualify for or need this program, but who did not receive it. This may simply be a wait list. The estimate should represent an annual count from a single fiscal year.

- *Annual Capacity:* The annual number of program slots or beds available at any given time as currently funded.

- *Program Budget:* The total amount budgeted by the agency for the program for the year used for the cost estimates.

- *Annual Cost per Participant (Average or Marginal)*: The estimated annual cost of the program per participant. Note the method of estimating the per participant unit cost for the program: marginal if based on variable costs only or average if based on variable and fixed (overhead) costs.

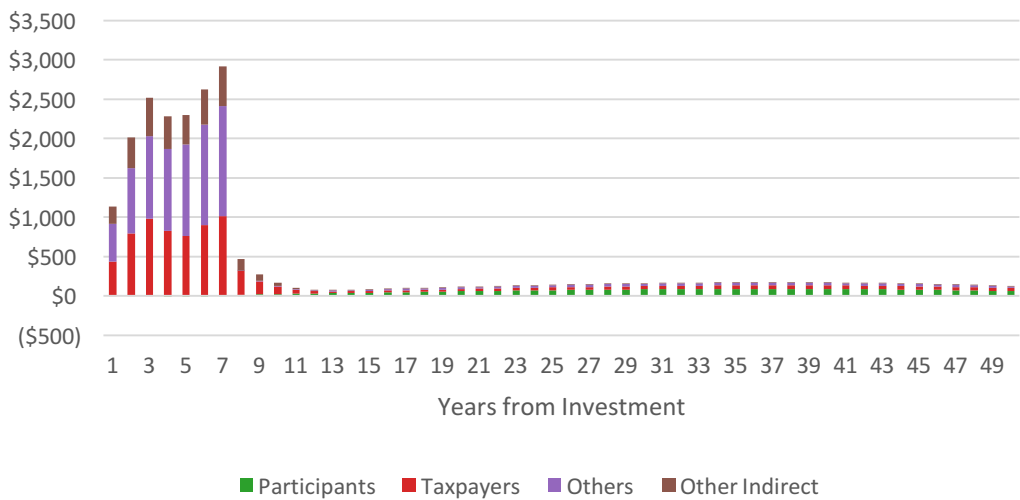## Table 1: Evidence-Based Program Inventory Information

Program Name	Intended Outcomes	Average Duration	Number of Participants Served	Eligible but Not Served	Annual Capacity	Program Budget	Annual Cost per Participant/ Average
Judicial Branch – Court Support Services Division (Dollar Year 2017) (SIDs #12043 and 90281) – Adult							
Adult Behavioral Health Services	Reduced recidivism	3-6 months	18,269	0	Not available	$17,076,770	$935 $1,294 (MC)
Alternative in the Community	Reduced recidivism	3-6 months	7,803	0	Not available	16,141,598	2,453 32 (MC)
Advanced Supervision Intervention & Support Team	Increase treatment engagement; reduced recidivism	4-6 months	337	0	290 slots 580 total capacity	1,013,266	3,007 78 (MC)
Adult Sex Offender Treatment Services	Reduced inappropriate sexual behavior; reduced recidivism	2 years	1,807	0	Not available	3,069,993	1,699 12 (MC)
Domestic Violence Perpetrator Treatment - Evolve	Reduced recidivism	26 weeks	732	0	690	956,546	1,307
Domestic Violence Perpetrator Treatment – Explore	Reduced recidivism	26 weeks	1,878	0	2,070	1,557,127	829
Electronic Monitoring	Offender tracking and deterrence	2-4 months	3,083	Not available	Not available	1,284,590	417
Residential Drug Tx Collaborative (with DMHAS)	Decreased dependence on drugs and alcohol	21 days to 9 months	838	0	188 beds 940 total capacity	5,188,284	6,191

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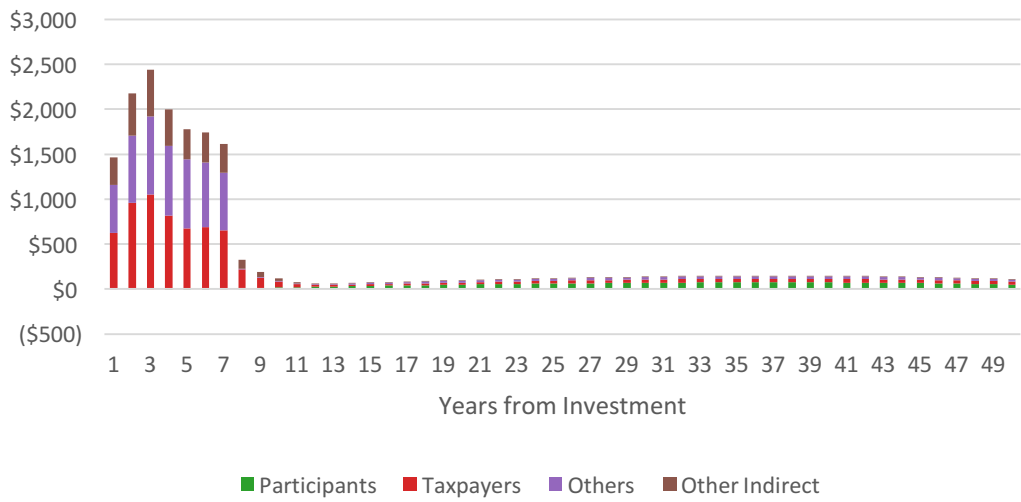| Program Name	Intended Outcomes	Average Duration	Number of Participants Served	Eligible but Not Served	Annual Capacity	Program Budget	Annual Cost per Participant/ Average
Judicial Branch–Court Support Services Division (Dollar Year 2017) (SIDs #12105, 12375, and 12128) – Juvenile							
Adolescent-Community Reinforcement Approach & Assertive Continuing Care - Outpatient	Reduced substance use, improve social and family functioning; reduced recidivism	6 months	72	Not available	216	$333,269	$4,629
Boys Therapeutic Respite and Assessment Center	Increased family function and provide stabilization; reduced recidivism	1-3 months	39	Not available	8 beds 32 total capacity	1,205,235	30,903
Community Residential Program	Provide short-term, safe, staff-secure environment; reduced recidivism	Various, as determined by court	119	Not available	6 beds	2,003,006	16,832
Child, Youth & Family Support Centers	Diversion of status offenders; reduced recidivism	4 months, per contract	1,013	0	820	8,974,781	8,860 106 (MC)
Intermediate Residential	Reduction in substance use and improved family relationship; reduced recidivism.	4 months	55	Not available	14 beds 42 total capacity	2,670,289	48,551
Juvenile Sex Offender Services	Reduced recidivism	Up to 1 year	40	0	36	370,911	9,273 166 (MC)
Multidimensional Family Therapy (Contracted)	Improved family relationships; reduced recidivism	5 months	25	Not available	36	482,847	19,314
Multidimensional Family Therapy (With DCF)	Improved family relationships; reduced recidivism	5 months	DCF: undetermined	DCF: undetermined	DCF: undetermined	622,852	DCF: undetermined
Multisystemic Therapy	Improved family relationships; prevent out-of-home placement; reduced recidivism	5 months	382	Not available	401	4,357,338	11,407 146 (MC)
Youth Mentoring	Pro-social connection	1 year	78	0	120	327,239	4,195

Sex Offender Treatment in the Community
Adult Sex Offender Treatment Services
Total Benefits by Perspective (not discounted)

Juvenile Crime - Agression Replacement Training
Children, Youth & Family Support Service Centers
Total Benefits by Perspective (not discounted)

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Multi-Systemic Therapy (MST)- for Juvenile Offenders (High Risk)
Total Benefits by Perspective (not discounted)

Years from Investment

■ Participants ■ Taxpayers ■ Others ■ Other Indirect

Multi-Systemic Therapy (MST) - for Juvenile Offenders (Moderate Risk)
Total Benefits by Perspective (not discounted)

Years from Investment

■ Participants ■ Taxpayers ■ Others ■ Other Indirect

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