

STATE OF CONNECTICUT

Results First

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

November 2016

INSTITUTE FOR MUNICIPAL AND  
REGIONAL POLICY



Central Connecticut State University

**Connecticut Results First Benefit-Cost Analyses of  
Adult Criminal and Juvenile Justice Evidence-Based Programs**

**Pursuant to  
Connecticut General Statutes, Sections 4-68r and -68s  
(Public Act 15-5, June Special Session)**

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## EXECUTIVE SUMMARY AND KEY FINDINGS

- ❖ For the second time in a year, Connecticut’s criminal justice agencies for both its juvenile and adult populations have compiled inventories of programs that are evidence-based, research-based, and promising.
- ❖ The program inventories submitted in January 2016 provided data to support benefit-cost analyses that proved useful in evaluating programs and making decisions about those to eliminate or reduce in order to accommodate adjustments to the FY 17 budget that became effective July 1, 2016.
- ❖ The program inventory submissions from the Judicial Branch's Court Support Services Division and the departments of Correction, Children and Families, and Mental Health and Addiction Services list a total of 193 programs, 72 of which were identified as being evidence-based.
- ❖ Seven of these programs were included in the Results First model and had marginal cost information that allows the Institute for Municipal and Regional Policy (IMRP) to calculate a Connecticut-specific benefit-cost analysis.
- ❖ The six program categories in the benefit-cost analyses show, for the programs analyzed, that benefits outweigh costs, with a probability of between 66% and 99%.
- ❖ 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:
  - Identify the programs it funds and at what cost.
  - Target state, federal, and private funds to cost-beneficial, evidence-based programs.
  - Promote and support the use of technology for data collection and analysis.
  - Evaluate program implementation and fidelity.
  - Articulate program capacity and utilization to maximize participation in effective, evidence-based programs.
  - Allow adult criminal and juvenile justice agencies to share data to improve service delivery and reduce recidivism.
  - Use evidence and outcome data to inform decisions on where to prioritize limited resources.

- ❖ Future benefit-cost analyses can be improved by developing and sustaining the agency and analytic infrastructure to support improved decision-making. Steps include:
  - Supporting technology development for data collection and program inventory reports.
  - Instituting routine program evaluations to assure program fidelity and overall effectiveness by dedicating in-agency personnel to assess state-run programs and including performance measures, program evaluation requirements, and costs in private provider contracts.
  - Dedicating adequate resources in each adult criminal and juvenile justice agency to the preparation of complete and consistent program inventories.
  - Training staff in evidence-based policy and budget decision-making.
  - Developing expertise in maintaining and utilizing the web-based Results First model.
  
- ❖ Agencies as well as those making policy and budget decisions should be encouraged to use program inventories and the resulting benefit-cost analyses to prioritize program offerings and improve program effectiveness and outcomes.
  
- ❖ IMRP wishes to thank our agency partners in this project for their efforts in providing the necessary data for the benefit-cost analyses as well as the Pew-MacArthur Results First Initiative staff for their technical assistance.

## *Guide to Use of Results First Benefit-Cost Analysis Report*

The intent of this guide is to assist users of the “Results First Benefit-Cost Analyses of Adult Criminal and Juvenile Justice Evidence-Based Programs.” This report is produced by the Institute for Municipal and Regional Policy (IMRP) on November 1, 2016, in compliance with the legislative requirement (PA 15-5, June Special Session, Sections 486 and 487) to conduct and report on cost-benefit analyses (CBA) of agency-inventoried programs, also pursuant to this requirement. These CBA’s are developed in collaboration with the Results First Initiative, a project of the association between the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. The Washington State Institute for Public Policy (WSIPP) developed the econometric model used to produce the CBA’s under this initiative. It includes modules on criminal and juvenile justice, pre-K through 12th-grade education, child welfare, mental health, substance abuse, and public health. The Results First Initiative provided the cost-benefit model software and technical assistance for its use in compiling the program inventory.

The Results First model 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 the state’s unique population characteristics and the costs to provide these programs here. 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 that Connecticut would achieve if it chose to appropriately fund each program and implement it with fidelity. Programs may then be compared on common terms as to long-term cost effectiveness.

The Results First program inventory template used by the agencies lists a great deal of information on Connecticut agency programs and is designed to include the information required to populate the model with state-specific data. Each agency’s program inventory must list all programs and identify them as evidence-based, research-based, or promising. In addition to the analyses that the inventories support, this categorization is helpful in promoting the effort to transition to more evidence-based programs. 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, IMRP can match programs with those in the model and calculate the benefit-cost ratio.

Also important to this effort is the use of the Results First Clearinghouse Database. This one-stop online resource provides policymakers with an easy way to find information on the effectiveness of various interventions as rated by eight national research clearinghouses employing rigorous research and evidence rankings. Our report includes a chart portraying the Effectiveness Ratings of Evidence-Based programs where available.

Since this is a tool intended to enhance policy and budget decision-making, it would be appropriate if the user’s review of the report was informed by a firm understanding of (A) statewide program priorities and how each state-funded agency fits into those priorities and (B) each agency priority and how its programs fit into those priorities. If these are not already understood, budget and policymakers could begin by determining:

1. the state’s program priorities (Vision, Mission, Goals, Objectives, Activities, etc.);
2. which agencies (and programs if they cross agencies) advance these priorities; and
3. which priority agency’s programs fit within the state priorities.

*Note: Underlying this is the assumption that there is a validated current and forecast need for the program/service.*

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 CBA's, but are listed due to evidence associated with them and (2) have the CBA calculation.

For programs without CBA's (Table 1, page 14 et seq.): 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 so, then determine whether the program model evidence forecasts favorable results (positive outcomes and Cost-Benefit [C/B] ratio.)
  - ii. (If not, 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 CBA's (Table 2, pages 23-24): 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

### Public Act 15-5, June Special Session

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 advances the work of the Results First project at Central Connecticut State University's Institute for Municipal and Regional Policy (IMRP), which administers the Pew-MacArthur Results First Initiative.<sup>1</sup> 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 law requires 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 that are the basis and include the data for implementation of the Result First project. It includes the provision requiring IMRP to develop benefit-cost analyses of the evidence-based adult criminal and juvenile justice programs listed in those inventories. Governor Dannel Malloy signed the legislation on June 30, 2015. The relevant sections became effective on July 1, 2015.

By law, the four state agencies had to (1) compile complete lists of each agency's adult criminal and juvenile justice programs and (2) categorize them as evidenced-based, research-based, promising, or lacking any evidence, which they did for the first time in early 2016. The law requires these agencies to submit updated inventories by October 1, 2016 and in every even-numbered year thereafter.

Each designated agency's list had to 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,

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<sup>1</sup> 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>.



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.

JB-CSSD and the adult and juvenile criminal justice departments had to submit their program inventories to the Office of Policy and Management's (OPM) Criminal Justice Policy and Planning Division (CJPPD), the Appropriations and Finance, Revenue and Bonding committees, the Office of Fiscal Analysis (OFA), and IMRP.

This report includes the benefit-cost analysis for each program included in the model for which the inventory provided the necessary cost information. By law, the report, due November 1, 2016, goes to CJPPD, the Appropriations and Finance, Revenue and Bonding committees, and OFA.

In addition, IMRP's benefit-cost analyses may be included as part of OPM's and OFA's annual fiscal accountability report 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' expenditure requirements 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.

## 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.

## **II. THE RESULTS FIRST INITIATIVE**

### **Background**

The Pew-MacArthur Results First Initiative works with 22 state and seven 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) pursued its study of juvenile parole and recidivism, (2) collaborated with the Juvenile Justice Policy Oversight Committee on its juvenile justice reform efforts and with the Connecticut Sentencing Commission on its study of pretrial diversionary programs, (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 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, 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 Connecticut 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 five 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.
- Department of Correction operated 19 adult programs that match programs in the clearinghouse database: five programs with the highest rating, 11 with the second-highest rating, and three programs with mixed effects.
- Department of Mental Health and Addiction Services operated four adult programs with the highest rating and two with the second-highest rating.
- Department of Children and Families operated seven juvenile programs with the highest rating.

It should be noted that agencies 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, DMHAS, DOC	Start Now/Advanced Supervision Intervention & Support Team	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	Drug Intervention Program	Second-Highest
DOC	Tier Program: Addiction Services	Highest Rating
DOC	CALM – Controlling Your Anger and Learning to Manage It	Highest Rating
DOC	Re-lapse Awareness	Highest Rating
DOC	Transitional Case Management	Highest Rating
DOC	Unified School District #1 -- Vocational	Highest Rating
DOC	Moving On	Second-Highest
DOC	Intensive Aftercare Program – Facility Addiction Services	Second-Highest
DOC	Unified School District #1 – Basic/Secondary	Second-Highest
DOC	Residential Mental Health	Second-Highest
DOC	Sex Treatment Track Two Group	Second-Highest
DOC	Cognitive Behavioral Therapy	Second-Highest
DOC	Dual Recovery Anonymous	Second-Highest
DOC	F-TREM (Trauma Recovery and Empowerment Model)	Second-Highest
DOC	Sex Treatment	Second-Highest
DOC	Social Rehabilitation	Second-Highest
DOC	Veteran’s Service Unit	Second-Highest
DOC	Methadone Treatment	Mixed Effects
DOC	Residential Work Release	Mixed Effects
DOC	Electronic Monitoring	Mixed Effects

Agency	Program Name	Effectiveness Rating*
DMHAS	CT Offender Re-entry Program (CORP)	Highest Rating
DMHAS	Forensic Supportive Housing (FSH)	Highest Rating
DMHAS	Rental Assistance Program (RAP)	Highest Rating
DMHAS	Sierra Pretrial Transitional Residential Program	Highest Rating
DMHAS	Jail Diversion, Mental Health	Second-Highest
DMHAS	Jail Diversion Substance Abuse (JDSA)	Second-Highest

**Connecticut**  
**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
DCF	Adolescent Community Reinforcement Approach (A-CRA) & Assertive Continuing Care (ACC)	Highest Rating
DCF	Functional Family Therapy (FFT)	Highest Rating
DCF	Triple P - Positive Parenting Program	Highest Rating
DCF	Multi-Systemic Therapy	Highest Rating
DCF	Multi-Dimensional Family Therapy (MDFT)	Highest Rating
DCF	Multi-Systemic Therapy-Family Integrated Transitions (MST-FIT)	Highest Rating
DCF	Multi-Systemic Therapy-Problem Sexual Behavior (MST-PSB)	Highest Rating

\*Source: The [Results First Clearinghouse Database](#) provides more information about the eight national research clearinghouses.

### **III. PROGRAM INVENTORIES**

In October 2016, each of the four agencies submitted a complete or partial inventory spreadsheet to IMRP. There was additional contact with agencies 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 2016 cost and budget information, including the marginal cost.

#### **Judicial Branch – Court Support Services Division**

JB-CSSD identified 14 adult criminal justice programs of which 10 are evidence-based and four had adequate cost information for purposes of applying the model to calculate the benefit-cost analysis. The division's inventory for juvenile justice programs identified 16 programs, 12 are evidence-based, three of which are in the model.

#### **Department of Mental Health and Addiction Services**

The department identified 18 programs of which 12 are evidence-based including one, funded and managed in collaboration with JB-CSSD and DOC, that had adequate cost and program matching information for purposes of applying the Results First model.

#### **Department of Children and Families**

The DCF program inventory identifies 16 different programs, seven of which are listed as evidence-based. Of the total number, none of the evidence-based programs had adequate cost information for purposes of applying the Results First model.

#### **Department of Correction**

The department identified 129 programs, including four basic academic education programs and 19 different vocational education programs as well as four community-based programs. The department considers 31 to be evidence-based (10, if the education programs are combined and the vocational education programs are combined). Of the total number, none of the evidence-based programs had adequate cost information for purposes of applying the Results First model.

## Evidence-Based Programs for Preventing Crime Recidivism

The four adult criminal and juvenile justice agencies that submitted program inventories were required to identify the programs that they determine 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 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.

The programs listed in Table 1, “Evidence-Based Program Inventory Information by Agency,” could not be included in the “consumer report” chart with a benefit-cost analysis. Nevertheless, the table shows important program details as reported for the evidence-based programs that these agencies manage 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 2016.
- *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.

(An asterisk [and pink shading] indicates changes in a program's funding and capacity that occurred in FY 2017 due to budget reductions that became effective July 1, 2016.)



**Table 1: Evidence-Based Program Inventory Information by Agency**

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
<b>Judicial Branch – Court Support Services Division (Dollar Year 2016) (SID #12043) – Adult</b>							
Domestic Violence Perpetrator Treatment - Evolve	Reduced recidivism	26 weeks	766	0	690	\$187,000	\$244
Domestic Violence Perpetrator Treatment – Explore	Reduced recidivism	26 weeks	2,493	0	2,070	\$1,660,582 State: \$1,562,753 Federal: \$97,829	\$666
Domestic Violence Perpetrator Treatment - Bridgeport	Reduced recidivism	12 weeks	184	0	240	\$88,400	\$480
* Drug Intervention Program	Reduced recidivism	9 – 12 months	73	0	Not Available	\$397,344	\$5,443
Electronic Monitoring	Offender tracking and deterrence	2-4 months	3,967	Not available	Not available	\$1,384,478 (including \$335,881 for Victim Notification Program)	\$349
Family Violence Education Program	Reduced recidivism	9 weeks	5,312	0	6,314	\$1,084,777	\$204
Residential Drug Tx Collaborative (with DMHAS)	Decreased dependence on drugs and alcohol	21 days to 9 months	1,029	0	295 beds, average 75 days length of stay:	\$9,600,176	\$9,330

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
					Capacity, 1,180		

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
<b>Judicial Branch–Court Support Services Division (Dollar Year 2016) (SIDs #12105 and 12375) – Juvenile</b>							
Adolescent-Community Reinforcement Approach & Assertive Continuing Care - Outpatient	Reduce substance use, improve social and family functioning; reduce recidivism	6 months	96	Not available	216	\$353,342	\$3,681
* Adolescent-Community Reinforcement Approach & Assertive Continuing Care – Residential	Reduce substance use, improve social and family functioning; reduce recidivism	Residential: 60 days; aftercare in community: 4 months	See DCF	See DCF	12 beds (11 JB-CSSD, 1 DCF)	\$673,000 (JB-CSSD portion/MOA with DCF)	DCF: undetermined
Boys Therapeutic Respite and Assessment Center	Increase family function and provide stabilization; reduce recidivism	1-3 months	43	Clients tracked at admission	32 (8 beds)	\$1,269,625	\$29,526
Community Residential Program	Provide short-term, safe, staff-secure environment; reduce recidivism	Various, as determined by court	235	Not available	18 beds (3 6-bed programs)	\$3,315,966	\$14,110
Intermediate Residential	Reduction in substance use and improved family relationship; reduce recidivism.	4 months	52	Clients tracked at admission	42 (14 beds)	\$2,619,703 State: \$2,592,703 PI: \$27,000	\$50,379
Multidimensional Family Therapy (Contracted)	Reduce recidivism, improve family relationships	5 months	85	Clients tracked at admission	84	\$1,234,031 State: \$1,074,125	\$14,518

						PI: \$159,906	
Multidimensional Family Therapy (With DCF)	Reduce recidivism, improve family relationships	5 months	DCF: undetermined	DCF: undetermined	DCF: undetermined	\$700,174	DCF: undetermined
* Multidimensional Treatment Foster Care	Reduce recidivism, family reunification	6-9 months	See DCF	See DCF	See DCF	\$268,820	DCF: undetermined
Youth Mentoring	Pro-social connection	1 year	211 admitted; 104 matched	0	225	\$447,521	\$4,303

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
<b><i>Department of Mental Health and Addiction Services (Dollar Year 2016) (SID #10010, 12278, 12157, 12292, 12465, 16003). DMHAS shows actual program costs where they were lower than a program's budgeted amount.</i></b>							
Jail Diversion, mental health court based, post-booking	Crime/ Recidivism, Mental Health, Substance Abuse Treatment	Duration of contact with JD staff depends on client. SMI= average is about 3 months	2,632 evaluated 1,333 diverted	Unknown	Flexible	\$5,200,915	\$3,121
Jail Diversion for women, post-booking	Crime/ Recidivism, Mental Health, Substance Abuse Treatment	102 days	134	Unknown	80	\$575,543	\$4,295
Jail Diversion for Veterans, court based, post-booking	Crime/ Recidivism, Mental Health, Substance Abuse Treatment	158 days	108 evaluated 40 diverted	Unknown	Flexible	\$563,926	\$3,916
Jail Diversion Substance Abuse (JDSA)	Crime/ Recidivism, Substance Abuse Treatment	73 days	73 evaluated 61 diverted	Unknown	70	\$254,336	\$4,169
CT Offender Re-entry Program (CORP)	Crime/ Recidivism, Mental Health, Substance Abuse Treatment	Approximately 1 year	47, in prison; 17 at any time in the community	Unknown	100 in prison, 50, in the community	\$1,551,369	\$15,514
Alternative Drug Intervention (ADI)	Crime/ Recidivism,	69 days	135	Unknown	50	\$342,316	\$2,536

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
	Substance Abuse Treatment						
* Transitional Case Management	Crime/ Recidivism, Substance Abuse Treatment	93 days	186	Unknown	270, then 240*	\$890,045	\$4,785
Sierra Pretrial Transitional Residential Program	Mental Health, Crime/Recidivism Substance Abuse Treatment	108 days	28	Unknown	31	\$452,019	\$16,144
Community Recovery Engagement Support and Treatment (CREST)	Mental Health, Crime/Recidivism Substance Abuse Treatment	196 days	46	Unknown	60 or fewer, depending on length of stay	\$840,496	\$18,272
Forensic Supportive Housing	Housing, Crime/Recidivism	Permanent unless client no longer wants or needs services	61	Unknown	60	\$566,845	\$9,293
Rental Assistance Program	Housing, Crime/Recidivism	Permanent unless client no longer wants or	>71	Unknown	61 at start of FY16, then 82	\$740,000	Approximately \$10,000/year for rent

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
		needs subsidy					
<b><i>Department of Children and Families (SID #16116, 16141, 16043, 16064, 16092)</i></b>							
Adolescent Community Reinforcement Approach-Assertive Continuing Care (A-CRA-ACC)	Reduce substance use and dependence; increase social stability; improve physical and mental health; improve life satisfaction	6 months	446	NA	432	\$1,412,158	NA
Multi-Systemic Therapy (MST)	Reduce recidivism and out-of-home placements; improve family functioning; decrease substance use; reduce mental health problems for serious juvenile offenders	3-5 months	214	NA	201	\$1,435,334	NA
Multi-Systemic Therapy-Family Integrated Transitions (MST-FIT)	Reduce recidivism and out-of-home placements; improve family functioning; decrease substance use; increase school performance; improve mental health functioning with CBT strategies	6 months	28	NA	60	\$600,154	NA
Multi-Systemic Therapy-Problem	Reduce recidivism of problem sexual behavior;	5-7 months	79	NA	96	\$1,745,941	NA

<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
Sexual Behavior (MST-PSB)	reduce out-of-home placements; improve family functioning; increase school performance						
Multi-Dimensional Family Therapy (MDFT)	Reduce recidivism and out-of-home placements; improve family functioning; decrease substance use; increase school performance	4-6 months	947	NA	868	\$8,976,491	NA
Functional Family Therapy	Reduce recidivism, child maltreatment, substance abuse. Mental Health. Out-of-home placement	3-6 months	495	NA	525	\$1,790,515	NA
Triple P – Positive Parenting Program	Decrease risk factors for child abuse and neglect	4 months	1,723	NA	2,160	\$5,156,379	NA
<b><i>Department of Correction (Dollar Year 2016) (SID #10010-Personal Services, unless noted otherwise)</i></b>							
Moving On	Crime/Recidivism. Female offenders	4-6 months	NA	NA	NA	NA	\$25/session per client
USD #1 Academic Education (four programs listed),	Education	Ongoing, based on need	5,434	Indeterminate	Indeterminate	\$11,661,927	\$2,146
USD #1 Vocational Education (21 programs listed)	Vocational education/training	9-12 months	2,996	Indeterminate	Indeterminate	\$4,150,339	1,385



<i>Program Name</i>	<i>Intended Outcomes</i>	<i>Average Duration</i>	<i>Number of Participants Served</i>	<i>Eligible but Not Served</i>	<i>Annual Capacity</i>	<i>Program Budget</i>	<i>Annual Cost per Participant/Average</i>
Methadone Treatment Program (SID #10020-OE)	Substance abuse treatment	--	203	0	NA	\$17,666 (OE only, APT Foundation and UCHC-CMHC)	87
Tier One – Addiction Services	Substance abuse treatment	1 month	126	13	NA	\$39,806	316
Sex Treatment Track Two Group (SID #12242)	Mental health treatment	12 months	1	0	NA	Provided by UCHC-CMHC	NA
Cognitive Behavioral Therapy (SID# 12242)	Mental health treatment	Continuous		13	0	Component of \$86M contract w/ UCHC-CMHC	
Relapse Awareness Program	Reintegration Enhancement/Relapse Prevention	--	NA	NA	NA	NA	NA
Transitional Case Management	Mental health treatment	--	NA	NA	NA	See DMHAS	
Veterans' Service Unit	Behavior modification	--	NA	NA	NA	NA	NA
Residential Mental Health (SID# 16173)	Mental health	Continuous	32	NA	15 beds	\$903,080	\$28,221
Residential Work Release (SID# 16173)	Employment	Continuous	2,571	NA	685 beds	\$18,336,951	\$7,132
Electronic Monitoring (SID #10020-OE)	Crime/Recidivism	Continuous	NA	NA	NA	\$1,007,516	1,168



## **IV. BENEFIT-COST ANALYSES**

### **Results First Model**

Results First employs a sophisticated econometric model to analyze the costs and benefits of potential investments in public programs. The model 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 the state. For each potential investment, the model produces separate projections of benefits that would accrue to program participants, nonparticipants, and taxpayers. The model then calculates the cost of producing these outcomes and the return on investment that Connecticut can expect to achieve if each program is appropriately funded and implemented with fidelity.

### **Cost and Budget Data**

Generally, the cost of a program includes fixed costs (those that are incurred regardless of how many people participate in a program) and variable costs (those that are dependent on the number of program participants). Step-fixed costs are those that would increase or decrease with a more significant change in a program's workload or participation level.

For purposes of applying the Results First benefit-cost analysis (BCA) model, it is better to know the marginal cost for program participants, that is, the cost to provide the program to one more person or unit of service, rather than an average cost, which includes fixed costs and can overstate the BCA. Marginal costs are preferred in the calculation of benefit-cost analyses because justice system costs tend to be incremental, for items like clothing, food, and some services. Average costs per participant include fixed costs and overestimate potential savings from reduced recidivism. Although in the case of a program contracted to a private provider that charges costs on a per participant basis, the average and the marginal costs are the same, for purposes of the Results First model.

As illustrated in the Vera Institute of Justice's "A Guide to Calculating Justice-System Marginal Costs" (May 2013): "the average and marginal costs of prison illustrate this important distinction. Nationwide, the average annual per-inmate cost of state prison is about \$30,000. A common misconception is that reducing the prison population by a small amount will translate into \$30,000 per inmate in taxpayer savings. But the average cost includes costs for administration, utilities, and other expenses that will not change when the prison population is slightly reduced. A small change affects expenses such as food, clothing, and medical care: these are the marginal costs associated with a small reduction in the inmate population. The difference between the average and marginal cost of prison is vast. In Massachusetts, for example, the average annual per-inmate cost of incarceration is \$46,000, whereas the marginal cost is only \$9,000."

Appendix B, also based on the Vera Institute guide, describes in more detail the types and components of program costs.

## **Program Summaries**

Benefit-cost analyses are calculated for the following programs. Only these seven programs had the requisite data included in the program inventory for application of the Results First model:

1. Adult Behavioral Health Services
2. Alternative in the Community
3. Start Now/Advanced Supervision Intervention & Support Team (ASIST)
4. Adult Sex Offender Treatment Services
5. Children, Youth and Family Support Service Centers
6. Juvenile Sex Offender Services
7. Multi-Systemic Therapy

These Connecticut programs are matched to the model's evidence-based programs described here.

### ***Adult Behavioral Health Services***

Program Descriptions: Outpatient/Non-Intensive Drug Treatment (Community): This program category includes less intensive treatment modalities delivered in the community. They are generally less intensive outpatient, group counseling, drug education, and relapse prevention.

### ***Alternative in the Community (AIC) and Start Now/Advanced Supervision Intervention & Support Team (ASIST)***

Program Description: Cognitive behavioral therapy (CBT) emphasizes individual accountability and teaches offenders that cognitive deficits, distortions, and flawed thinking processes cause criminal behavior. Programs delivered specifically as sex offender treatment are excluded. Treatment is commonly delivered in either an institutional or community setting.

### ***Adult Sex Offender Treatment Services***

Program Description: Sex offender treatments in the community include broad therapeutic components such as cognitive behavioral treatment, individual or group counseling, psychotherapy, behavioral therapy, and aversion therapy.

### ***Children, Youth and Family Support Centers (CYFSC)***

Program Description: Aggression Replacement Training<sup>®</sup> (ART<sup>®</sup>) is a cognitive behavioral intervention program that specifically targets chronically aggressive children and adolescents. ART aims to help adolescents improve social skill competence and moral reasoning, better manage anger, and reduce aggressive behavior.

CYFSC costs cover services in addition to ART.

## ***Juvenile Sex Offender Services***

Program Description: Sex offender treatment (non-MST) for juvenile offenders includes individual or family therapies that follow cognitive behavioral strategies.

### **Multi-Systemic Therapy**

Program Description: Multi-Systemic Therapy (MST) is an intensive family- and community-based therapy for youth with antisocial behaviors. For juveniles, MST is designed for violent and chronic offenders.

## **V. BENEFIT-COST COMPARISONS**

Table 2 shows the seven programs from the program inventories that are included in six program areas from the Results First/WSIPP model for which the agency was able to calculate a marginal cost for the program. With this data and for these programs, IMRP is able to present the benefit-cost ratio.

The fields shown in the chart are defined and can be interpreted as follows:

- *Total benefits*: The sum of long-term benefits to taxpayers and society that result from one person's participation in a program.
- *Benefits to Participants*: The monetary gains (or losses) to the program participant, (e.g., increased labor market earnings from improved likelihood of high school graduation as modeled with the juvenile crime programs).
- *Taxpayer Benefits*: The benefit from a governmental or budgeting perspective. For example, state and local criminal justice expenses avoided as a result of programming that reduces future crime resulting in convictions. Taxpayer costs avoided include police arrests, court adjudication, prison detention and incarceration, and probation or parole supervision.
- *Non-Taxpayer Benefits*: Benefits other than state and local resources to individual persons who would be affected by crime. For adult criminal justice and juvenile justice programs, non-taxpayer benefits are calculated using costs associated with avoided victimization, including tangible (e.g., medical expenses, cash or property theft, or lost earnings due to injury) and intangible costs (e.g., pain and suffering resulting from being a crime victim).
- *Other Indirect Benefits*: Avoided expenses or additional costs related to the increased tax burden to fund the program. A positive value represents a net reduced tax burden to fund the criminal justice system. A negative value represents the net increased tax burden to pay for the program.

- *Costs*: The incremental cost of providing a program, service, or policy to an additional client, participant, or specific population. Program costs do not include fixed costs, such as rent or utilities, unless these costs are essential to the program's operation. Connecticut Results First estimated program costs using FY 2016 budgetary data.
- *Benefits minus Costs (Net Present Value)*: The difference between the present value of discounted cash inflows (benefits) from a given program and the present value of cash outflows (costs). A program with a net present value of \$1,000 produces \$1,000 in benefits per participant after subtracting the costs of participation.
- *Benefit-to-cost Ratio*: The ratio of program benefits to program costs. A ratio greater than 1 is favorable. For example, if a program's benefit-to-cost ratio is \$6.60, its net benefit to society is \$6.60 for every \$1 invested.
- *Odds of a positive net present value*: The percentage of time we can expect benefits to exceed costs after running the benefit/cost analysis 1,000 times, in this case.

Graphs showing the changes in benefits and costs for each year after a participant enters the program appear in Appendix C. The costs and benefits for each of the seven programs in Table 2 are broken out by perspective – Participants, Taxpayers, Others (avoided victimization) and Other Indirect (avoided expenses/costs).

**Table 2: Connecticut Results First: Benefit-Cost Comparisons  
Benefit-Cost Analyses for JB-CSSD Programs for Preventing Crime Recidivism (2016 Dollars)**

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio</i>	<i>Odds of a Positive Net Present Value</i>
<b>Adult Crime</b>									
<b><i>Outpatient/Non-intensive Drug Treatment (Community)</i></b>									
Adult Behavioral Health Services* (#12043)	\$3,481	0	\$1,453	\$1,313	\$715	\$(1,294)	\$2,187	\$2.69	78%
<b><i>Cognitive Behavioral Therapy (High and moderate risk offenders)</i></b>									
Alternative in the Community (#12043)	\$10,810	0	\$3,611	\$5,365	\$1,834	\$(1,881)	\$8,929	\$5.75	84%
Start Now/Advanced Supervision Intervention & Support Team (ASIST) (Collaboratively funded and managed by JB-CSSD, DMHAS and DOC** (#12043 & 90626)	5,479	0	2,333	1,957	1,189	(120)	5,359	45.66	90%
<b><i>Sex Offender Treatment in the Community</i></b>									
Adult Sex Offender Treatment Services (#12043 & 90281)	\$17,705	0	\$7,480	\$6,476	\$3,750	\$(57)	\$17,648	\$310.61	96%

\*JB-CSSD's Adult Behavioral Health Program costs were re-estimated by sub-program to achieve a more appropriate marginal cost.

\*\*DMHAS' Start Now and JB-CSSD's ASIST programs are funded collaboratively and the marginal cost shown is a weighted average of their different program component costs.

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (net present value)</i>	<i>Benefits to Cost Ratio</i>	<i>Odds of a positive net present value</i>
<b>Juvenile Justice</b>									
<b><i>Juvenile Crime (Aggression Replacement Training)</i></b>									
Children, Youth and Family Support Service Centers (#12105, 12128, & 12375)	\$14,574	\$2,355	\$5,837	\$3,993	\$2,388	\$(5,746)	\$8,828	\$2.54	77%
<b><i>Sex Offender Treatment (non-MST) for Juvenile Offenders</i></b>									
Juvenile Sex Offender Services (#12105 and 12375)	\$17,473	\$1,302	\$4,899	\$9,209	\$2,064	\$(208)	\$17,265	\$84.00	66%
<b><i>Multi-Systemic Therapy (MST) for Juvenile Offenders</i></b>									
Multi-Systemic Therapy (#12105 & 12375)	\$15,354	\$1,484	\$5,867	\$5,412	\$2,590	\$(193)	\$15,161	\$79.55	99%
Value of an Outcome: Convicted of a Crime (Adult Supervision – General)	\$124,546	0	\$50,972	\$48,249	\$25,315	-	\$124,546	n/a	100%

**Note:** Includes Deadweight Cost of Taxation and 1,000 Monte Carlo Simulations



## **VI. FINDINGS AND RECOMMENDATIONS**

### **The Process**

Updated inventories that had to be completed by October 1, 2016 and this report dated November 2016 are intended to provide program information for consideration of the biennial budget for FYs 2018-19. The anticipated continued slow growth in revenues as well as increased fixed costs are expected to require reductions in discretionary spending in the next budget biennium. Once again, the benefit-cost analyses can inform decisions in the development and execution of the budget and policy, including during the 2017 legislative session.

IMRP provided extensive training and technical assistance to program inventory teams when they developed their first inventories. To prepare for this round of updated inventories, IMRP convened a meeting for the work group (agency contacts, budget and program staff) with Pew-MacArthur Results First Initiative and IMRP Results First Connecticut staff on August 9, 2016, to (1) assess the original process, (2) discuss suggestions for revisions to the inventory template, and (3) conduct an in-depth training session on calculating program costs and matching programs to those in the Results First model. Additional meetings, discussions, and conferences were conducted as needed.

### **Assessment of Compliance**

Generally, compliance with the October submission requirement improved over last January in terms of both timeliness and substance. DOC and JB-CSSD submitted final inventories by the due date. The DMHAS inventory submitted on October 4 did not include the required cost and budget data, but that was sent on October 21. The DCF inventory, submitted on October 12 (with cost and budget data submitted on October 19) had program listings, descriptions, participant and capacity, and evidence-based information that was significantly more detailed and improved. The DCF budget data was for program totals only, with no additional fiscal analyses such as per participant average or marginal costs, due to resource limitations at the department.

The web-based version of the Results First model, recently adopted by IMRP at no additional cost, greatly enhances its utility not only for IMRP staff but for other users as well. Still, Connecticut lags in its use of the model because so few program inventories include the marginal cost data on each program needed to produce a true benefit-cost analysis and calculate a program's return on investment. While the second edition of inventories were improved over the first, agencies should continue to anticipate collecting the necessary information and refine their calculations. This will be particularly useful in the coming years as program budget and policy decisions are expected to require additional scrutiny.

Data limitations also prevented IMRP from verifying that all programs were delivered competently, particularly for those programs based on a formal, published model. Ideally, agency staff would routinely monitor and document program delivery to certify program fidelity. Anticipated effect sizes are based on programs that are evaluated and delivered with competency and fidelity.

Moreover, many of the identified programs in Connecticut lacked a rigorous internal evaluation of effectiveness; in particular, they did not include an assessment of outcomes compared to a control or matched comparison group.

Also of note, other programs were related to evidence-based or research-based evaluations not included in the Results First model. While a benefit-cost analysis using the Results First model could not be performed on these programs, other evidence may prove their comparable productivity.

### **Recommendations and Next Steps**

- The effort to collect and report program inventory data is significant and requires ongoing commitment by agency leadership as well as dedicated and knowledgeable staff. The management practices supported by the Results First Initiative, when integrated into an agency's administrative procedures and practices, help to assure not only better inventory data for this particular purpose, but also generally more successful program performance and outcomes.
  - The state should determine and allocate the resources needed to comply with the data collection requirement, including mechanisms for calculating their program marginal costs, which is necessary to apply the Results First model and produce a program's benefit-cost ratio and return on investment.
  - Because the law requires biennial inventories, agencies should adopt an ongoing process to monitor programs and collect the necessary data. Detailed tracking of program participation data and program expenditures is necessary to provide a more complete inventory in the future.
  - The state should encourage and incentivize agencies to incorporate in their management processes the program evaluation and fidelity aspects of this project.
  - The program inventory template identifies the core information necessary for benefit-cost analyses. Agencies should feel free to add data components that will assist their own fiscal and program management efforts, for their internal use.
- In order to maximize the utility of the program inventories and benefit-cost analyses, IMRP should provide information and any necessary training to the statutory recipients on how best to understand and apply them, whether in the Office of Policy and Management or the legislature, particularly the Appropriations Committee and its subcommittee members and the Office of Fiscal Analysis. Policy and budget decision makers should take advantage of the investment in analysis supported by the Results First Initiative.

- IMRP should maximize features in the upgraded cloud-based Results First model by expanding user access to include other stakeholders, easily updating data, producing additional benefit-cost analyses, and generating reports.
- Agencies should be required to substantiate their budget option proposals by showing that any new program is evidence-based and likely to solve an identified problem. Procedures for the award, implementation, and payment of state grants and contracts should include requirements for program evaluation, data collection, and evidence-based practices.
- IMRP, in consultation with the Pew-MacArthur Results First Initiative, should consider expanding the program inventory and benefit-cost analysis project to other public policy areas, such as education. While continuing to improve its work with the adult criminal and juvenile justice agencies, IMRP can use its experience to help develop program inventories in other policy areas and enhance departments' utilization of evidence-based practices.
- Finally, programs are generally designed to address criminal justice and public safety outcomes as well as quality of life improvements for the clients/program participants. Though these quality of life benefits may not necessarily be represented in quantitative terms like the costs of a program's operation, they should not be overlooked.

## Appendix A

### ***Program Inventories of Agency Adult Criminal and Juvenile Justice Programs and Cost-Benefit Analysis Report Statutory Requirements***

#### **CGS §§ 4-68r and -68s, 4-68m, and 4-77c**

(June Special Session, Public Act No. 15-5, §§ 486 – 489)

**CGS Sec. 4-68r. Definitions.** For purposes of this section and sections 4-68s and 4-77c:

- (1) "Cost-beneficial" means the cost savings and benefits realized over a reasonable period of time are greater than the costs of implementation;
- (2) "Program inventory" means the (A) compilation of the complete list of all agency programs and activities; (B) identification of those that are evidence-based, research-based and promising; and (C) inclusion of program costs and utilization data;
- (3) "Evidence-based" describes a program that (A) incorporates methods demonstrated to be effective for the intended population through scientifically based research, including statistically controlled evaluations or randomized trials; (B) can be implemented with a set of procedures to allow successful replication in the state; (C) achieves sustained, desirable outcomes; and (D) when possible, has been determined to be cost-beneficial;
- (4) "Research-based" describes 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 all of the criteria of an evidence-based program; and
- (5) "Promising" describes a program or practice that, based on statistical analyses or preliminary research, shows potential for meeting the evidence-based or research-based criteria.

**CGS Sec. 4-68s. Program inventory of agency criminal and juvenile justice programs. Reports.** (a) Not later than January 1, 2016, and not later than October first in every even-numbered year thereafter, the Departments of Correction, Children and Families and Mental Health and Addiction Services, and the Court Support Services Division of the Judicial Branch shall compile a program inventory of each of said agency's criminal and juvenile justice programs and shall categorize them as evidence-based, research-based, promising or lacking any evidence. Each program inventory shall include a complete list of all agency programs, including the following information for each such program for the prior fiscal year: (1) A detailed description of the program, (2) the names of providers, (3) the intended treatment population, (4) the intended outcomes, (5) the method of assigning participants, (6) the total annual program expenditures, (7) a description of funding sources, (8) the cost per participant, (9) the annual number of participants, (10) the annual capacity for participants, and (11) the estimated number of persons eligible for, or needing, the program.

(b) Each program inventory required by subsection (a) of this section shall be submitted in accordance with the provisions of section 11-4a of the general statutes to the Criminal Justice Policy and Planning Division within the Office of Policy and Management, the joint standing committees of the General Assembly having cognizance of matters relating to appropriations and the budgets of state

agencies and finance, revenue and bonding, the Office of Fiscal Analysis, and the Institute for Municipal and Regional Policy at Central Connecticut State University.

(c) Not later than March 1, 2016, and annually thereafter by November first, the Institute for Municipal and Regional Policy at Central Connecticut State University shall submit a report containing a cost-benefit analysis of the programs inventoried in subsection (a) of this section to the Criminal Justice Policy and Planning Division of the Office of Policy and Management, the joint standing committees of the General Assembly having cognizance of matters relating to appropriations and the budgets of state agencies and finance, revenue and bonding, and the Office of Fiscal Analysis, in accordance with the provisions of section 11-4a.

(d) The Office of Policy and Management and the Office of Fiscal Analysis may include the cost-benefit analysis provided by the Institute for Municipal and Regional Policy under subsection (c) of this section in their reports submitted to the joint standing committees of the General Assembly having cognizance of matters relating to appropriations and the budget of state agencies, and finance, revenue and bonding on or before November fifteenth annually, pursuant to subsection (b) of section 2-36b.

**CGS 4-68m. Criminal Justice Policy and Planning Division. Duties. Collaboration with other agencies. Access to information and data. Reports.**

(b) The division shall develop a plan to promote a more effective and cohesive state criminal justice system and, to accomplish such plan, shall:

- (1) Conduct an in-depth analysis of the criminal justice system;
- (2) Determine the long-range needs of the criminal justice system and recommend policy priorities for the system;
- (3) Identify critical problems in the criminal justice system and recommend strategies to solve those problems;
- (4) Assess the cost-effectiveness of the use of state and local funds in the criminal justice system;
- (5) Recommend means to improve the deterrent and rehabilitative capabilities of the criminal justice system;
- (6) Advise and assist the General Assembly in developing plans, programs and proposed legislation for improving the effectiveness of the criminal justice system;
- (7) Make computations of daily costs and compare interagency costs on services provided by agencies that are a part of the criminal justice system;
- (8) Review the program inventories and cost-benefit analyses submitted pursuant to section 4-68s and consider incorporating such inventories and analyses in its budget recommendations to the General Assembly;
- (9) Make population computations for use in planning for the long-range needs of the criminal justice system;

- (10) Determine long-range information needs of the criminal justice system and acquire that information;
- (11) Cooperate with the Office of the Victim Advocate by providing information and assistance to the office relating to the improvement of crime victims' services;
- (12) Serve as the liaison for the state to the United States Department of Justice on criminal justice issues of interest to the state and federal government relating to data, information systems and research;
- (13) Measure the success of community-based services and programs in reducing recidivism;
- (14) Develop and implement a comprehensive reentry strategy as provided in section 18-81w; and
- (15) Engage in other activities consistent with the responsibilities of the division.

**CGS Sec. 4-77c. Estimates of expenditure requirements for implementation of evidence-based programs.** The Departments of Correction, Children and Families and Mental Health and Addiction Services, and the Court Support Services Division of the Judicial Branch may include in the estimates of expenditure requirements transmitted pursuant to section 4-77, and the Governor may include in the Governor's recommended appropriations in the budget document transmitted to the General Assembly pursuant to section 4-71, an estimate of the amount required by said agencies for expenditures related to the implementation of evidence-based programs.

## Appendix B

### ***“A Guide to Calculating Justice-System Marginal Costs” Vera Center of Justice, May 2013***

#### **TYPES OF GOVERNMENT COSTS**

The costs of a government agency—or a private firm, for that matter—are said to be variable, fixed, or step-fixed. (See the table below for examples of each type of cost.) Identifying these costs is the first step in calculating marginal costs.

Variable costs are those directly related to workload and change immediately as workload increases or decreases.

Fixed costs, in contrast, are those that remain fixed over a given period and are not usually affected even if the workload changes.

Step-fixed costs remain constant for a certain range of workload, but can change if the workload exceeds or falls below that range. The most common examples of step-fixed costs are staff salaries and benefits. These step-fixed costs are sometimes said to be lumpy or tiered, because positions are typically added or subtracted only if the workload reaches a certain threshold. For example, a probation department might not hire a new officer in response to a small increase in its caseload, but is likely to wait until the caseload reaches a point at which the work would fully occupy the time of an additional officer. Similarly, a county corrections department cannot reduce jail staffing if the inmate population decreases slightly, but if the decline is sufficient to close an entire housing area, the corrections department could eliminate the positions related to that unit.

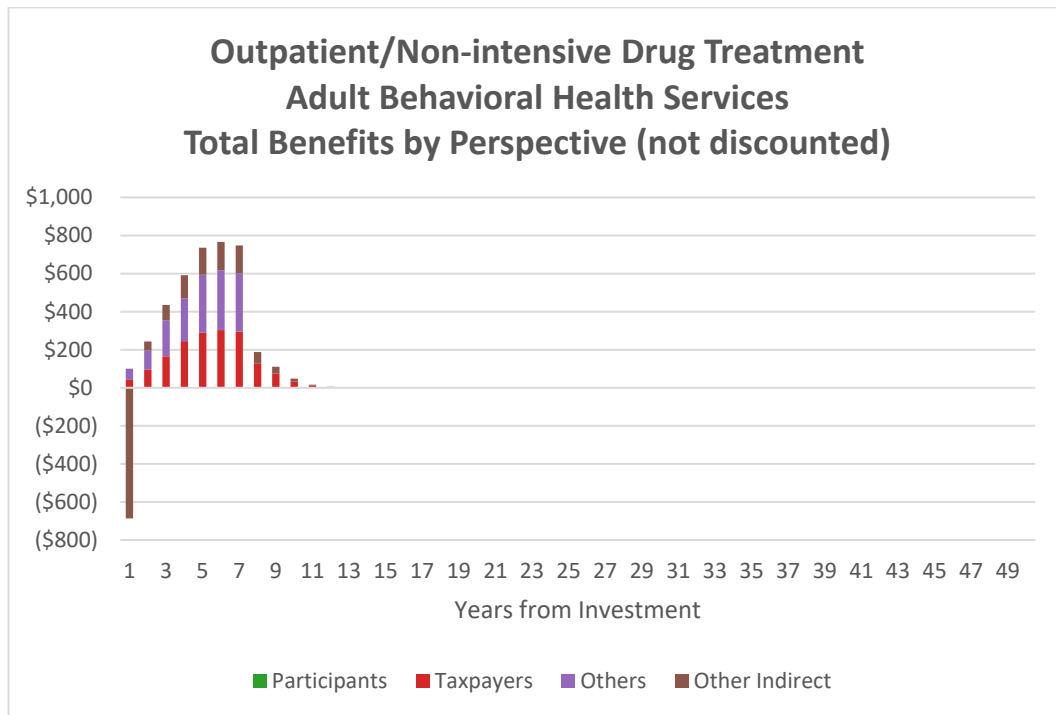
Examples of each type of cost are below.

<b><i>Variable Costs</i></b>	<b><i>Fixed Costs</i></b>	<b><i>Step-Fixed Costs<sup>1</sup></i></b>
Overtime	Rent	Staff salaries
Supplies	Utilities	Fringe benefits, such as health care and pensions and possibly some fixed costs when staffing levels change by a large amount
Contracted services	Central administration	
Client subsidies	Debt service	
Travel	Equipment	
Fuel		
Food		

## Appendix C

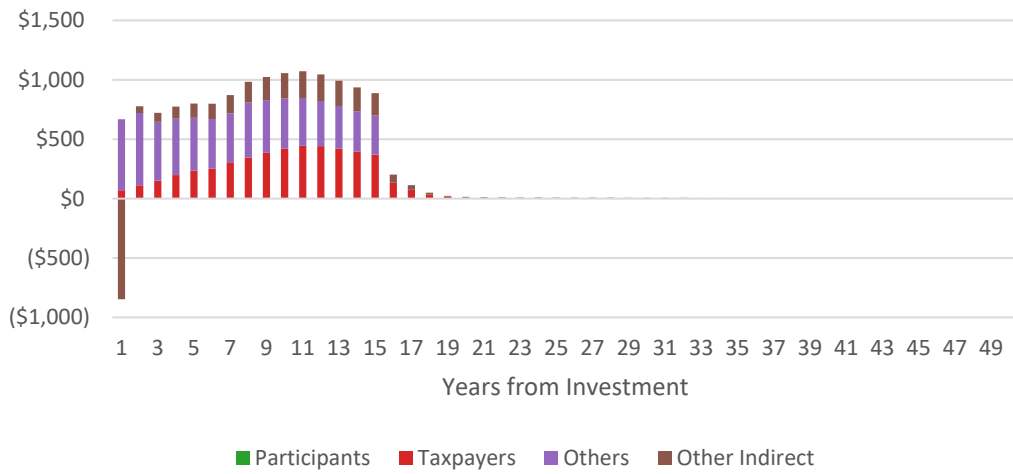
### Total Program Benefits Over Time

The graphs below show, for each Connecticut program listed in Table 2, the change in benefits and costs for each year after a participant enters a particular program. These costs and benefits are broken out by perspective – Participants, Taxpayers, Others (e.g., avoided victimization) and Other Indirect (avoided expenses/costs). Not discounting the benefits means that the time-value (present value) of money was not taken into account in the analysis that produced the graph.

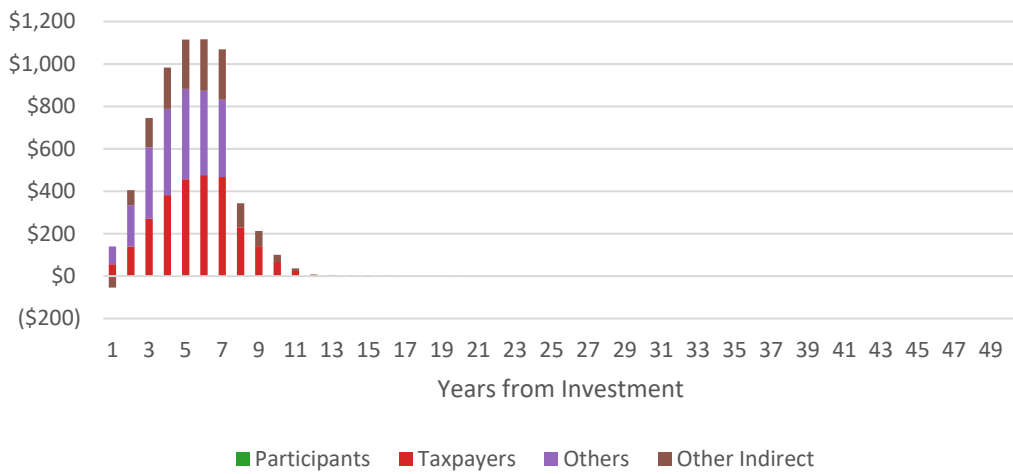




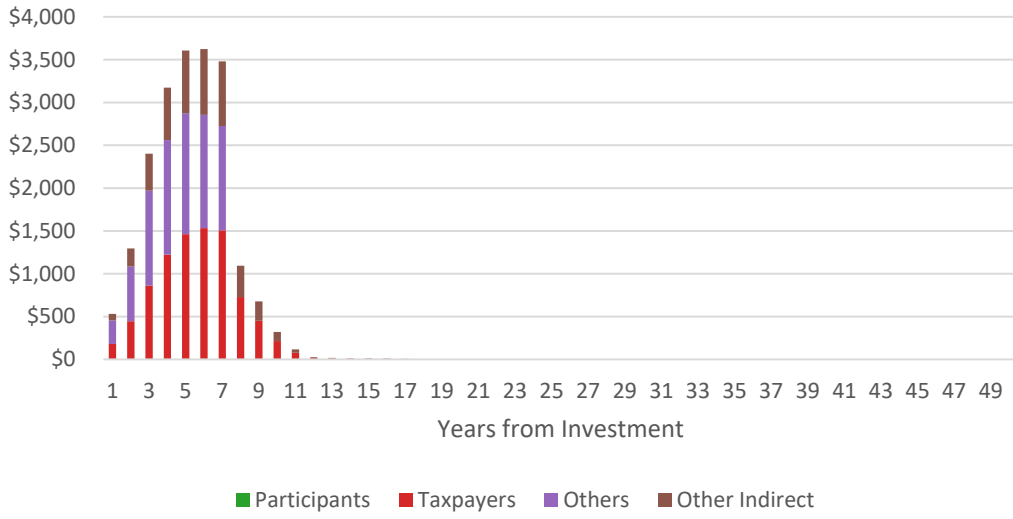
**Cognitive Behavioral Therapy  
(High and Moderate Risk Offenders)  
Alternative in the Community  
Total Benefits by Perspective (not discounted)**



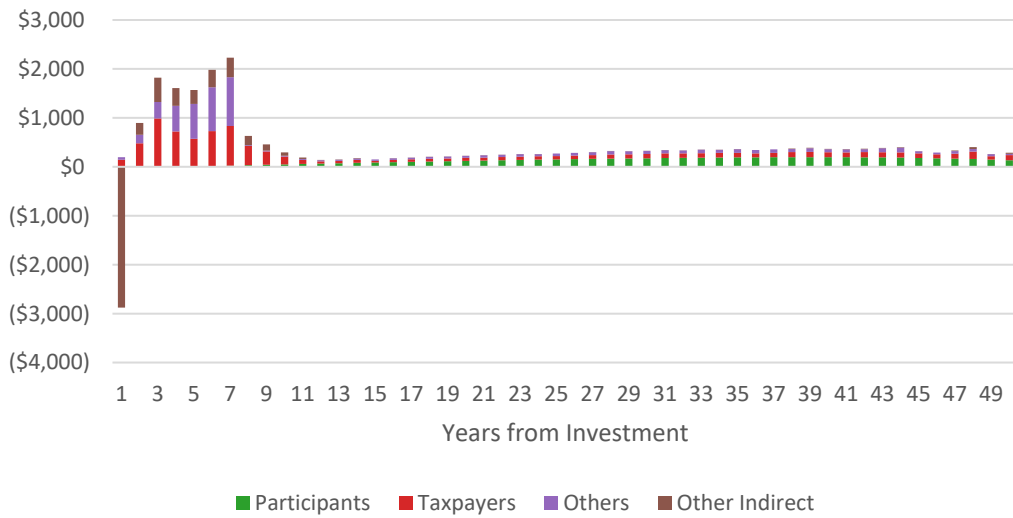
**Cognitive Behavioral Therapy  
(High and Moderate Risk Offenders)  
DMHAS -Start Now & JB-CSSD ASIST  
Total Benefits by Perspective (not discounted)**



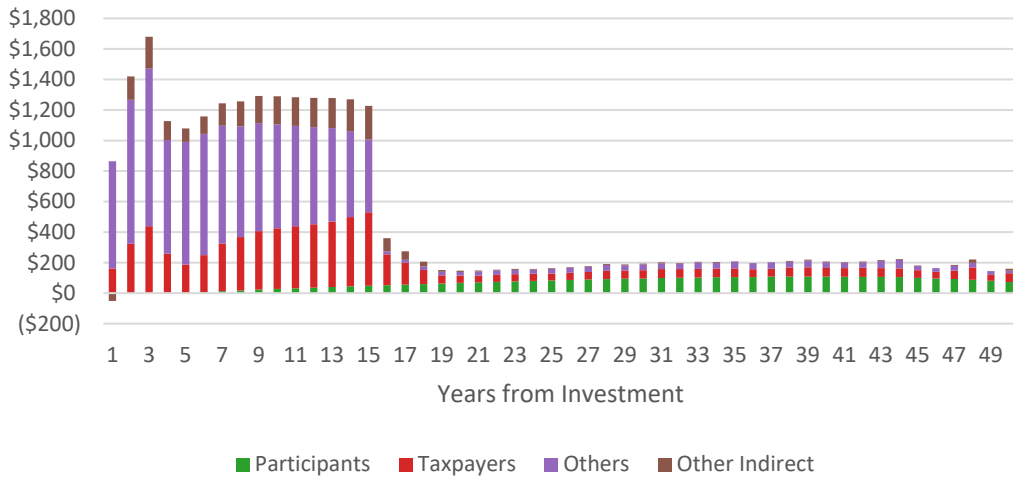
**Sex Offender Treatment in the Community  
Adult Sex Offender Treatment Services  
Total Benefits by Perspective (not discounted)**



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



**Sex Offender Treatment (non-MST) for Juvenile Offenders**  
**Juvenile Sex Offender Services**  
**Total Benefits by Perspective (not discounted)**



**Multisystemic Therapy (MST) - for Juvenile Offenders**  
**Total Benefits by Perspective (not discounted)**

