JUVENILE JUSTICE



8 services have benefit-cost ratios

Executive summary February 2018

State agencies, counties, private service providers, courts, and local law enforcement support a broad, decentralized network of programming for delinquent or at risk youth. These activities have the potential to keep juveniles in their home, enhance public safety, and improve educational outcomes, thereby generating benefits to participants and taxpayers. Appropriate interventions for delinquent youth are critical to their future success, as experiencing an arrest as an adolescent triples the odds of an arrest as a young adult. These interventions alone cannot, however, generate positive outcomes. Delinquent activity arises from complex societal and socioeconomic factors. While this analysis focuses on existing correctional interventions, many other institutions and systems play a role in the health and opportunity of our youth.

Minnesota Management & Budget (MMB) worked with state and local partners to identify existing services in probation and residential facilities, and estimate the benefits and costs of services that have been adequately researched. MMB found 67 juvenile justice services presently offered in Minnesota. As reflected in Figure 1, these offerings have varying degrees of evidence of effectiveness in reducing future crime. Twenty-five of the services are proven effective or promising. Three of the services have evidence that reveals no effect on crime. Thirty-nine services are theory-based services.

Figure 1: Summary of juvenile justice inventory

39 services are
Theory-based, which means
adequate evidence is not
currently available regarding
impact

17 services are
Promising, which
means they have
one qualifying study
demonstrating
favorable impact

8 services are
Proven effective,
which means
they have
multiple
qualifying studies
demonstrating
favorable impact

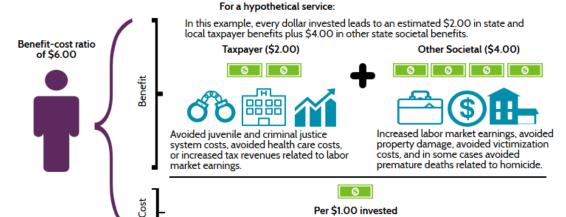
No effect

For eight services, adequate information is available to conduct benefit-cost analyses. To estimate the ratios, MMB uses a statistical model that assigns dollar values to the benefits of decreasing juvenile and adult crime. These benefits include reductions in crime and health care expenses and increases in earnings from employment. Seven services have benefit-cost ratios greater than \$1, meaning their overall benefits exceed their cost. Benefits per dollar invested range from \$12.10 to \$0.50. For five services, taxpayer benefits alone (i.e., excluding other benefits to society) exceed the cost.

In the full report, MMB highlights three evidence-informed opportunities to improve juvenile outcomes in Minnesota. First, there are differences in the availability of treatment services across the state. For example, proven, cost-effective services, like Aggression Replacement Training and Functional Family Therapy, have limited adoption, especially outside the metropolitan area. Second, the research is clear that decreasing correctional contact for low-risk youth can improve their outcomes. Decreased contact allows counties to focus treatment funding on higher-risk youth, positively impacting both groups. Finally, providers have to implement services effectively. If they fail to deliver services to the right person, at the right intensity, and at the right time, Minnesota may not see the anticipated returns. MMB found limited funding for ensuring evidence-based practices are implemented effectively. The full analysis is at mn.gov/mmb/results-first.

Benefit-cost analysis

Law enforcement agencies, county diversion programs, state and county probation officers, and children's residential facilities administer the services listed in Figure 3. MMB's analysis shows that investing in these services can generate cost-effective outcomes for youth involved with the juvenile justice system. For seven



Per \$1.00 invested

Figure 2: Explanation of a benefit-cost ratio

of the eight services listed below, the estimated benefits exceed costs. The benefit-cost ratios range from \$12.10 for Aggression Replacement Training (ART) to \$0.50 for Multisystemic therapy (MST). Two types of diversion do not have benefit-cost ratios, because they are less expensive than the likely alternative punishment and generate benefits from reducing recidivism. Designed to minimize contact with the system, diversion targets low-risk youth who are least likely to reoffend. This reduction of service saves agencies money and produces better outcomes. Since the denominator is less than zero, there is no mathematical ratio.

Figure 3: Comparison of benefit-cost ratios for juvenile justice services

Service or Practice	Per participant benefit minus cost	Benefit-cost ratio (A+B)	Taxpayer ratio (A)	Other societal ratio (B)
Diversion with services	\$2,550	Service is less expensive tha	n the standard alternative service reducing recidivism.	e and generates benefits from
Diversion without services	\$4,830	Service is less expensive tha	n the standard alternative service reducing recidivism.	e and generates benefits from
Aggression Replacement Training (ART)	\$6,730	\$12.10	\$2.30	\$9.80
Cognitive Behavioral Therapy	\$5,150	\$6.00	\$1.20	\$4.80
Mentoring	\$8,190	\$3.90	\$0.80	\$3.10
Vocational programming	\$3,840	\$2.70	\$1.30	\$1.40
Functional Family Therapy	\$5,870	\$1.80	\$0.40	\$1.40
Multisystemic therapy (MST)	(\$6,410)	\$0.50	\$0.10	\$0.40

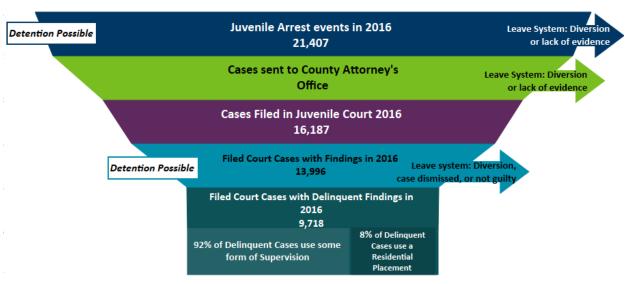
Per participant benefit minus cost is the difference between the present value of cash inflows (anticipated benefits) from a given service and the present value of cash outflows (costs).

Benefit-cost ratio is the net present value of anticipated benefits to state residents for every dollar invested in the service. Taxpayer benefits (blue) accrue from avoided health care and criminal justice costs, and increased tax revenues from labor earnings. Other societal benefits (green) accumulate to society through increased labor market earnings, avoided property damage, avoided victimization costs, and in some cases avoided premature deaths related to homicide.

Minnesota's juvenile justice system

Over the last 15 years, juvenile justice system use has fallen in Minnesota and across the United States. In Minnesota, juvenile arrests fell nearly seventy percent from 75,000¹ in 2000 to 23,000 in 2015. From 2000 to 2012, juvenile court filings dropped from 24,700 to 16,000. This reduction comes from multiple factors, including increased use of alternative sanctions, improved prevention and health promotion efforts stemming from breakthroughs in the understanding of cognitive development, and broader societal and demographic trends. While these reductions are promising, Figure 4 reveals the scale of juvenile justice use is still large.





Source: MN BCA Uniform Crime Report 2016, MMB Analysis of Minnesota Courts 2016 data **Note**: "Detention" includes temporary stays after arrest or while a juvenile is awaiting placement to another facility, after a court appearance. "Supervision" may include community probation, conditions, home monitoring, service, etc. Residential placements use some form of supervision after an initial placement. Some diverted youth may also use a form of supervision.

Diversion—when properly applied—generates cost savings by reducing correctional resources spent on low-risk youth and improves outcomes by reducing stigma and contact with more advanced delinquents. Figure 4 illustrates all the points youth can be diverted and exit the system without a delinquency finding. In fact, Minnesota's Department of Public Safety estimates that in 2012 one in four juveniles arrested were diverted. Opportunities remain, however, to improve its application and extend its use. For example, the evidence cautions against "net widening," whereby a greater number of youth are brought into the system because of the introduction of diversion. In this way, some participants may never have been processed, but for the diversion option. Net widening can have a negative impact on participants, and use of diversion services should be monitored for appropriateness.

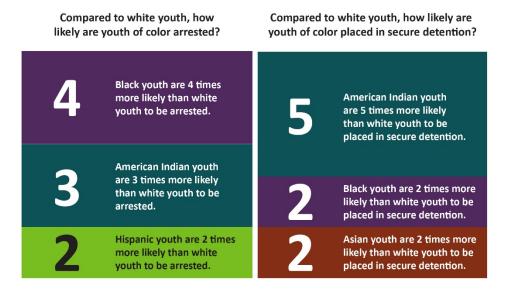
To continue this progress, the state can continue incremental progress in the availability and delivery of evidence-based practices. It also can look to address the underlying societal and socioeconomic factors that portend justice system involvement. While this report focuses on juvenile justice services, health promotion and prevention plays an important role in juvenile justice system involvement.

¹ More than seventy percent of these offenses were for non-violent person or property offenses, like possession of alcohol.

Overrepresentation in system contact for youth of color

Even as the total number of youth interacting with the juvenile justice system declines, there remains overrepresentation for Minnesota youth of color. Figure 5 shows Black youth are four times more likely than white youth to be arrested and twice as likely to be placed in secure (locked) detention. American Indian youth are three times more likely than white youth to be arrested and five times more likely to be placed in secure detention. Hispanic youth are twice as likely as white youth to be placed in secure detention.

Figure 5: Overrepresentation for youth of color at arrest and secure detention



Source: Minnesota Department of Public Safety (2015) **Note**: Not every arrest results in a secure detention.

Disproportionate minority contact is not an issue unique to Minnesota, but also is not an immutable feature of the juvenile justice system. Many partners in the Results First process identified these disparities and are working to reduce them; the full report describes a few of these efforts. To ensure these efforts are reducing disparities, correctional agencies should monitor, evaluate, and share their progress. These final two components are important, as the evidence-base practices literature on reducing disparities in juvenile justice is still developing.

Results First background

Through the Minnesota *Results First Initiative*, enacted in 2015, MMB inventories evidence-based offerings and estimates the extent to which publicly funded services generate positive, cost-effective outcomes for Minnesotans. MMB collaborates with state, local, and national partners to identify and estimate the benefits and costs of a range of public services that support the well-being of Minnesotans. As policymakers face difficult budget choices, knowing which services have outcomes proven to provide taxpayer savings is valuable. When applied consistently, these insights improve outcomes and maximize benefits for Minnesotans. Past efforts include work in adult criminal justice, adult mental health, and adult and youth substance use. Future analyses will study child welfare, higher education, and children's mental health.

To learn more about the Results First Initiative and access the full juvenile justice inventory and report, please visit mn.gov/mmb/results-first

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