

One-Year Recidivism Rates of Male and Female Releases 2017 – 2019: A Multi-Year Descriptive Analysis of Risk Reduction Programs



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Summary

Descriptive Analysis of Risk Reduction Programs

Definition of Terms

Academic Education Services: Inmates without a high school diploma or equivalency upon admission are identified as being eligible for Academic Education Services, which range from English as a Second Language (ESL) to Adult Secondary Education (ASE) and facilitates inmates earning their high school equivalency.

COMPAS: Correctional Offender Management Profiling for Alternative Sanctions is an automated risk/needs assessment tool utilized to inform the development of an offender's personalized program plan. COMPAS has been normed and validated to the Massachusetts Department of Correction population.

Correctional Recovery Academy (CRA): Is an intensive 6-month substance use program currently located at four institutions: Northeastern Correctional Center, MCI-Norfolk, MCI-Shirley, and MCI-Concord. CRA targets relapse prevention and cognitive behavioral treatment. The program utilizes rolling admission and combines elements of a therapeutic community's social learning approach with an advanced cognitive behavioral curriculum.

Criminal Thinking Program (CT): Is an 8-week program designed to focus on altering the pro-criminal thinking patterns identified as separating those who are serious repeat offenders from those who are not. The program focuses specifically on criminal sentiments and how to develop pro-social alternatives to pro-criminal activities and associates.

Criminogenic need: Factors which impact criminal behavior and can be altered over time with appropriate treatment and programming.

High School Diploma or Equivalent (General Equivalency Diploma, High School Equivalency Test): Education level associated with inmates with a verified High School Diploma or High School Equivalency Credential, or those who earned a High School Equivalency Credential during their current incarceration.

Need Met: Indicates an inmate who completed the core program for the corresponding criminogenic need area. For example, male inmates with a substance use, anger, or criminal thinking need are recommended for the Correctional Recovery Academy (CRA), Violence Reduction Program (VR), or Criminal Addictive Thinking Program (CT), respectively.

Need Not Met: Indicates the inmate who either did not enroll into a core program or enrolled and did not complete. Reasons for not completing a program include, but are not limited to: release, transfer, discipline process, voluntary withdrawal, and failure to meet program expectations.

Override: As part of the Massachusetts Department of Correction case management model, inmates who do not score moderate or high in a criminogenic need area based on their needs assessment, a program recommendation is formulated by their Correctional Program Officer (CPO) due to documentary evidence the inmate can benefit from participating in such a program.

Pathway Program Continuum: Gender-responsive and trauma-informed approaches have been incorporated into the framework of treatment services for female offenders. Each Pathway has a unique set of curricula designed to address each offender's specific pathway into the criminal justice system with the goal of reducing the likelihood of recidivism by addressing the unique issues associated with female offenders such as trauma, abuse, relationship dysfunction, substance abuse, and mental illness. The four Pathways are as follows: Life in Recovery, Building Positive Connections, Healthy Living Community, and Healing for the Future. The model of facilitation addresses multiple need areas within one week of instruction. While the inmate may be enrolled for the entirety of one's sentence, program completion is achieved when the inmate participates in 26-weeks of each curriculum represented in the inmate's Pathway Continuum.

Recidivist: For the purposes of this report, a recidivist is defined as any inmate in the study cohort who, within one year of one's release to the community, is arraigned for an offense that ultimately results in a conviction. For this purpose, "conviction" is defined as any outcome involving a new criminal sentence, probation, suspended sentence, fine, or guilty finding. Additional follow-up time is necessary to collect data because of the time required for an inmate's new criminal charge to reach final resolution in the trial court. For example, if an inmate who was released on January 1, 2013, was arraigned for a new offense on March 1, 2013, and subsequently convicted and sentenced in February 2015, that inmate would be treated as having recidivated within the one-year period.

Recidivism Rate: The recidivism rate is calculated by dividing the number of inmates reconvicted within one year of release by the number of inmates in the release cohort.

Recidivism Risk Score: On intake to the prison system, each inmate is given assessments to establish their Intake/Criminal History/Risk Scale Set. Components of the scale set are the General and Violent Recidivism Risk Scores which may be used to predict recidivism risk. The risk scores are based on a COMPAS Core scale which is a standard decile scale with 1 corresponding to the lowest risk of recidivism and 10 corresponding to the highest risk. The amount of programming required for a given inmate is established by simplifying this scale to Low, Moderate, and High recidivism risk inmates. Inmates scoring a moderate to high risk to recidivate in either the general or the violent recidivism scale are administered a needs assessment and the inmate is referred to programming. Due to the implementation of the COMPAS Assessment, inmates who were incarcerated at the time of the roll-out were administered a Standing Risk Assessment as a proxy to the Initial Risk or Core Risk Assessment. Those assessment scales are used interchangeably in the analysis.

Typology Assessment: A trauma-informed gender-biased COMPAS assessment designed to apply further identification pertaining to an inmate's specific criminogenic needs and to guide matching interventions.

Violence Reduction Program (VR): An 8-week program targeting cognitions which contribute to violent behavior. The goals of the program are to decrease violent behavior and the likelihood of institutional disturbances. During the program inmates identify the specific cognitions which have led to their violent behavior. Once identified, they are taught pro-social strategies and skills to diminish the likelihood of continued violence.

Vocational Programming: Instructional programs focusing on the skills required for a specific job function or trade. Current vocational program opportunities include the following: automotive, barber training, building trades, culinary arts, food service training, small engine repair, welding, and wheelchair repair.

Executive Summary

The purpose of this study is to analyze the recidivism rates¹ of Massachusetts Department of Correction (MA DOC) criminally sentenced inmates who completed programs to address their criminogenic need areas and were released to the community via expiration of sentence or parole from January 1, 2017 – December 31, 2019, to determine if expected reductions in recidivism were observed. The report is divided into two sections: one for female releases and one for male releases. For the female releases, the four programs examined were Pathways, general population services, vocational programming, and academic education. For male releases, the five programs examined were Criminal Thinking, Academic Education, Violence Reduction, Correctional Recovery Academy (CRA), and Vocational Programming.

Key Findings

- For inmates released to the community from January 1, 2017 to December 31, 2019, the overall one-year recidivism rate was 12.2% for males and 15.1% for females.
- Female releases who participated in Pathway Programming had a significantly lower recidivism rate when completing a minimum of 26 weeks of Pathway Programming. The recidivism rate was 8.0% for females who completed a minimum of 26 weeks of Pathway Programming compared to 16.6% for those who participated but did not complete a minimum of 26 weeks.
- Females who were eligible for academic education and earned a high school equivalency had a recidivism rate of 12.1% compared to 16.4% for those who did not earn this equivalency.
- The recidivism rate for female releases who were eligible for vocational programming and completed the certification was 0%, compared to 10% for those who did not earn a vocational certification.
- Males who were eligible for academic education and earned a high school equivalency had a recidivism rate of 10.8% compared to 13.2% for those who did not earn this equivalency.
- The recidivism rate for male releases who were eligible for substance use programming and completed the CRA was 8.8% compared to 17.0% for the inmates who did not complete this program.
- The recidivism rate for male releases who were eligible for anger management programming and completed the Violence Reduction Program was 12.6% compared to 15.7% for those who did not complete this program.
- The recidivism rate for male releases who were eligible for criminal thinking programming and completed the Criminal Thinking Program was 13.0% compared to 15.8% for those who did not complete this program.
- The recidivism rate for male releases who were eligible for vocational programming and completed the certification was 6.0% compared to 13.6% for those who did not earn a vocational certification.
- Analysis illustrating the completion of multiple programs and the associated recidivism rates indicates that completion of the CRA is driving the lower recidivism rate. This is evidenced

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¹ The recidivism rate is based on reconviction within one year for criminally sentenced inmates released to the community via expiration of sentence or parole from January 1, 2017 – December 31, 2019, whose first release occurred during this time-period. The reconviction date is based on the initial arraignment date associated with the reconviction. The recidivism rate is calculated by dividing the number of inmates reconvicted by the number of inmates in the release cohort.

by inmates who complete Violence Reduction, Criminal Thinking, and Academic Education programs without completing the CRA recidivating at a higher rate.

Introduction

A primary objective of the MA DOC is to rehabilitate inmates and prepare them for successful reentry to the community. Male inmates are assessed through a risk/needs analysis and those identified as being at a moderate to high risk of recidivism are recommended to programs designed to target their specific criminogenic need areas, with the goal of deterring future criminality. Although it is known that the male inmate population is comprised of individuals with multiple criminogenic needs, the majority of this report examines the recidivism rate related to the completion of the program associated with a single need area. The model of facilitation for male inmates is designed to address one's criminogenic need through corresponding programming. Female inmates are assessed through a typology assessment and are further delineated into one of four corresponding programming prescriptions termed Pathways. The Pathway model is a holistic approach and allows MA DOC to provide evidence-based treatment designed to address each female offender's criminogenic needs and streamline treatment services. The model of facilitation addresses multiple need areas within one week of instruction, to include comprehensive Pathway specific programming and academic or vocational services. To measure success, recidivism rates are used to determine an inmate's ability to abstain from criminal behavior after release from prison.

How recidivism is conceptualized and how an inmate population is targeted can drastically influence a reported recidivism rate. Commonly used definitions for recidivism include: the recommitting of a crime; the reconviction of a crime; or the reincarceration to jail or prison after release to the community following an incarceration.

For the purposes of this report, recidivism is based on criminally sentenced inmates released to the community via expiration of sentence or parole from January 1, 2017 – December 31, 2019, whose first release occurred during this time-period. Recidivism is defined as a reconviction based on an arraignment occurring within one year from the date of an inmate's release to the community. Conviction types include a criminal sentence to a Massachusetts state or county facility, a term of probation, a suspended sentence, a split sentence, a fine, or a guilty finding. Due to the time it takes to prosecute a crime and reach final resolution of a charge, the initial arraignment date associated with the new conviction is used to determine the date of reconviction.

This report is one example of the MA DOC's data-driven approach to evidence-based decision making.

Methodology for Program Eligibility

The goal of this analysis is to explore MA DOC recidivism rates with reference to risk reduction programs based on program recommendation eligibility, which is defined for each criminogenic need areas as follows:

Programming for All Inmates-

Academic Education Need:

To identify an inmate's educational need, staff record and verify an inmate's self-reported level of completed education. Inmates are further assessed through Tests for Adult Basic Education (TABE) administration. Inmates without a verified high school diploma or equivalency were identified as

having an academic education need and are recommended to the appropriate level of education as dictated by the TABE scores.

Vocational Programming Need:

The COMPAS vocational scale is categorized ranging from 1 to 10 based on decile cut points and then categorized as low (1-5), moderate (6-7), or high (8–10). Inmates with a high school diploma equivalency who score moderate or high risk on the vocation need scale or have an override are considered eligible for vocational services.

Programming for Female Inmates-

Pathway Programming Need:

All female inmates who are serving more than 90 days and complete a COMPAS Typology Assessment are eligible for Pathway Programming. It is intended that the inmate remain program engaged for the entirety of one's sentence. Twenty-six weeks of participation equals one cycle of curricula and is considered program completion for this study; however, inmates are encouraged to remain enrolled beyond the 26-week mark. Additionally, behavioral infractions will initiate re-enrollment into those components of the program which address the causal factors of the infraction.

General Population Services (GPS) Programming:

Through an Inter-departmental Service Agreement (ISA) with the Trial Court, funding was provided to the MA DOC to provide additional programming to the incarcerated population. The portion of these funds devoted to the male population were utilized to increase the number of tracks available for the already established Criminal Thinking and Violence Reduction programs. The portion devoted to the female population was utilized to initiate general population programming separate and apart from the continuous Pathway programming model.

Unlike other programs highlighted in this report, General Population Services program eligibility is not based on criminogenic need; but rather due to placement in the Close Custody Unit (CCU) and the subsequent expectation the inmate returns to Pathway programming. Prior to returning to Pathway programming, the inmate would participate in the GPS Program which focuses on criminal thinking, violence reduction, and substance use education to develop pro-social alternatives intended to maintain one's presence in general population housing and Pathway programming.

Programming for Male Inmates-

CRA Need:

The COMPAS substance abuse scale is categorized ranging from 1 to 10 based on decile cut points and then categorized as low (1-2), moderate (3-4), or high (5–10). The Texas Christian University Drug Screen II or V (TCUDS) is utilized as a secondary measurement to determine substance use treatment need. The TCUDS is administered to offenders admitted to the reception centers and measures one's recent schedule of use, withdrawal, and tolerance factors providing a low or high score (TCUDS-II); or a None, Mild Disorder, Moderate Disorder, Severe Disorder score (TCUDS-V). Inmates who score moderate or high risk on the substance abuse scale, high on the TCUDS-II, Mild or above on the TCUDS-V, or have an override are considered eligible for substance use programming.

Criminal Thinking (CT) Need:

The COMPAS criminal thinking scale is categorized ranging from 1 to 10 based on decile cut points and then categorized as low (1-5), moderate (6-7), or high (8–10). Inmates who score moderate to high risk on the criminal thinking need scale or have an override are considered eligible for criminal thinking programming.

Violence Reduction Need:

The COMPAS anger scale is categorized ranging from 1 to 10 based on decile cut points and then categorized as low (1-4), moderate (5-7), or high (8–10). Inmates who score moderate to high risk on the anger need scale or have an override are considered eligible for anger management programming.

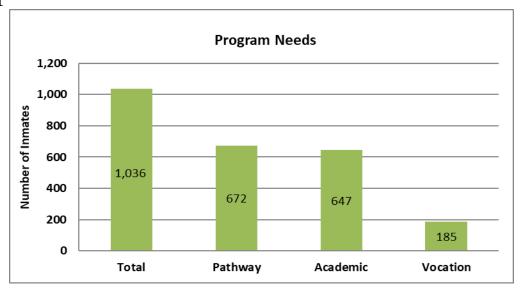
Methodology for Recidivism Analysis

One year reconviction rates were examined for a cohort of inmates released to the community via parole or expiration of sentence. Cohort selection included male and female inmates released to the community via expiration of sentence or parole during the years 2017 through 2019 whose first release occurred during the time-period. Overall, there were 4,135 male releases and 1,036 female releases to the community. Recidivism information was gathered from the Massachusetts Board of Probation (BOP). Data is based on information available at the time of collection and is subject to change. The criminal activity of inmates released to the community was tracked through the Massachusetts Criminal Justice Information System (CJIS) to determine any reconviction within one year of the inmate's release to the community.

Female Data Findings

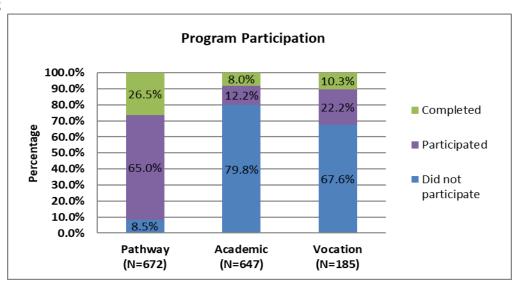
Criminogenic Need Programs

Graph 1



Of the 1,036 female inmates released from the MA DOC between 2017 and 2019, 672 (64.8%) were identified as eligible for Pathway Programming, 647 (62.4%) were determined to have an academic program need, and 185 (17.8%) were recognized as having a vocational program need. (Graph 1)

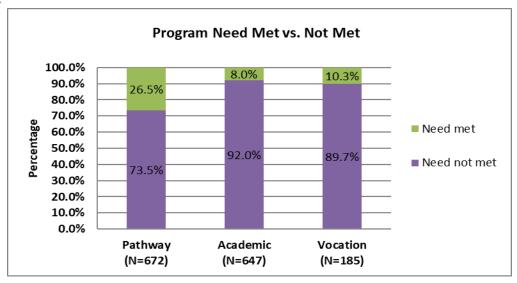
Graph 2



For female inmates eligible for Pathway Programming, 26.5% completed a Pathway Program, 65.0% participated but did not complete 26 weeks of the program, and the remaining 8.5% did not participate in the program. In contrast, among inmates with an academic need, only 8% completed the program and earned their High School Equivalency (HSE), 12.2% participated in the program but did not earn an HSE, and 79.8% were not involved in the program. However, 72% of the inmates who did not participate served less than 90 days. For the smaller number of inmates with a vocation need,

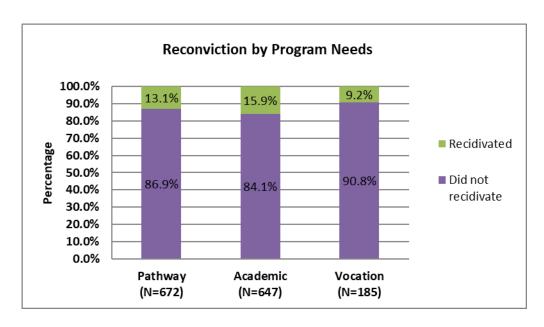
10.3% completed the program, 22.2% participated in the program, and the remaining 67.6% did not take part in the program. (See Graph 2)

Graph 3



Program participation consists of three groups: did not participate, participated, and completed. To translate program participation into need-met and need-not met categories, program completion has been categorized as need-met. Inmates who participated but did not complete a program along with inmates who did not participate in the program are combined into a need-not-met group. Graph 3 shows the percentage of inmates in each need group who met their program needs, 26.5% for Pathway, the highest, 10.3% for vocation, and 8% for academic.

Graph 4



The recidivism rate was different for inmates in each need group. Inmates with an academic need had the highest rate of recidivism at 15.9%, followed by inmates eligible for Pathway programming at 13.1%, and inmates with a vocation need had the lowest rate of 9.2%. (Graph 4)

Table 1

One-Year Reconviction Rates for Inmates by Need Met vs. Not Met

Program Name	Need	Met	Need N	ot Met	TOTAL		
	PCT	N	PCT	N	PCT	N	
Pathway Program*	8.0%	275	16.6%	397	13.1%	672	
Academic Program	12.1%	66	16.4%	581	15.9%	647	
Vocation Program	0% **	19	10.2%	166	9.2%	185	

^{*} Statistically significant at a 95% confidence level

To investigate the association between whether the program need of an inmate was met with recidivism, Table 1 shows those who completed the corresponding program were associated with a lower rate of recidivism for all three program groups. Among female inmates eligible for Pathway programming, 8.0% recidivated if they completed 26 weeks of Pathway programming compared with 16.6% of the inmates who did not complete 26 weeks of programming. The difference between the two need met categories for academic programming was 12.1% vs. 16.4%, and 0% vs. 10.2% for vocational programming. It should be noted that only the difference identified in the Pathway program is statistically significant. However, the data flow found in the other two programs suggests that program completion could reduce the rate of reconviction as well.

Table 2

One-Year Reconviction Rates for Inmates by Program Participation

Program Name	Need Met		Participated		Did Not Participate		TOTAL	
	PCT	N	PCT	N	PCT	N	PCT	N
Pathway Program*	8.0%	275	16.2%	340	19.3%	57	13.1%	672
Academic Program	12.1%	66	10.8%	65	17.1%	516	15.9%	647
Vocation Program	0% **	19	7.3%	41	11.2%	125	9.2%	185

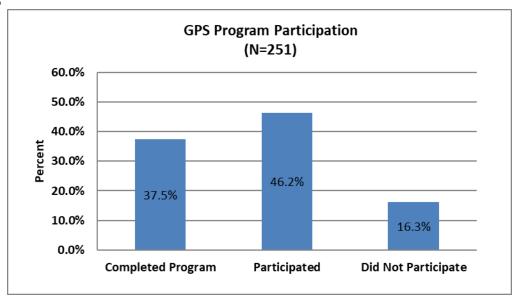
^{*} Statistically significant at a 95% confidence level

To break down the "Need Not Met" category in Table 1 into two participation groups, Table 2 shows the association between completing a program (Need Met) and lower rate of recidivism; as well as illustrating participation in any of the three programs is associated with a lower rate of recidivism when compared with inmates who did not participate in a program. Although a statistically significant difference is only found in the Pathway program, the data flow of the other two programs exhibits encouraging signs that participating in a program could influence whether an inmate would recidivate in the future. The difference in the rate of recidivism between the two participation categories was 16.2% vs. 19.3% for the Pathway program, 10.8% vs. 17.1% for academic programming, and 7.3% vs. 11.2% for vocational programming.

An investigation into the association between program completion and the rate of one-year recidivism shows that program completion was associated with a lower rate of recidivism for all three programs, especially for the Pathway program. It also suggests that participation in a program has potential for lowering the rate of recidivism for all three programs. Therefore, increasing the number of inmates who complete or at least participate in the program that they are eligible for plays an important role in lowering the rate of recidivism.

Female General Population Services (GPS) Program

Graph 5



Of the 1,036 female inmates released from the MA DOC between 2017 and 2019, 251 (24%) were identified as eligible to participate in the GPS Program after being housed in the CCU and prior to returning to general population housing and Pathway programming.

Of the female inmates eligible for the GPS Program, 37.5% completed the GPS Program, 46.2% participated but did not complete the program, and the remaining 16.3% did not participate in the program (Graph 5). To translate program participation into completed and did not complete categories, inmates who participated but did not complete the program, and inmates who did not participate in the program are combined into did not complete for analysis in table 3.

Table 3

One-Year Reconviction Rates for Inmates by GPS Program Completion

Program Name	Complete	d Program	Did Not Comp	lete Program	Total		
	PCT	N	PCT	N	PCT	N	
GPS Program	13.8%	94	9.6%	157	11.2%	251	

Table 3 shows those who completed the GPS Program were associated with a higher rate of recidivism, though not statistically significant. Among female inmates eligible for the GPS Program, 9.6% of them recidivated if they did not complete the program compared with 13.8% of the inmates who completed the program. As previously discussed, program eligibility is established when one is removed from general population and placed in the Close Custody Unit (CCU). The composition of

the assessed² cohort placed in CCU contains a majority of high-risk to recidivate individuals. While the program did not reduce overall recidivism, those high-risk inmates who completed the program had a lower recidivism rate than those high-risk inmates who did not complete the program. Further analysis with a larger sample size will allow for a more meaningful discussion regarding this program.

Table 4

One-Year Reconviction Rates for Inmates by GPS Program Participation

Program Name	Completed Program		Partici	pated	Did Not Pa	rticipate	TOTAL		
	PCT	N	PCT	N	PCT	N	PCT	N	
GPS Program	13.8%	94	8.6%	116	12.2%	41	11.2%	251	

As illustrated in Table 4, the recidivism rate for those who participated in the program but did not complete were shown to have the lowest recidivism rate, at 8.6%. Those who did not participate and those who completed the program had similar rates, 12.2% and 13.8% respectively.

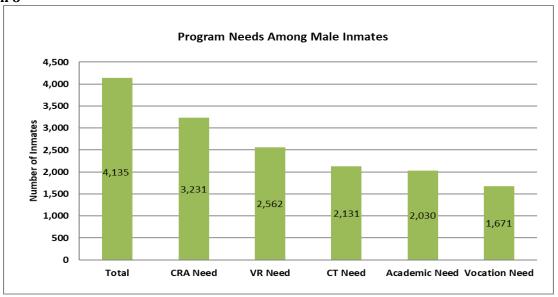
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² Due to shorter sentences of less than 90 days, 68% of those who did not complete the program and 17% of those who did complete the program were not administered the COMPAS Risk Assessment.

Male Data Findings

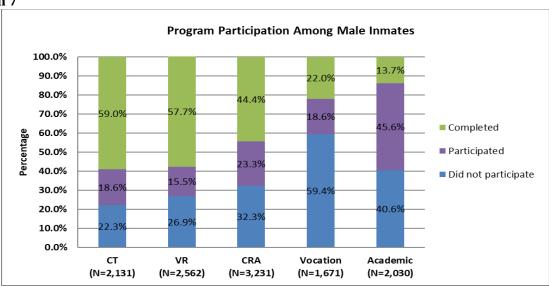
Criminogenic Need Programs

Graph 6



The MA DOC released a total of 4,135 male inmates between 2017 and 2019. Most of the released inmates were identified as having a CRA need (78.1%), and/or Violence Reduction (VR) need (62.0%), and/or a Criminal Thinking (CT) need (51.5%). Less than one-half of the released inmates were determined to have an academic education need (49.1%), or a vocational program need (40.4%). (Graph 6)

Graph 7

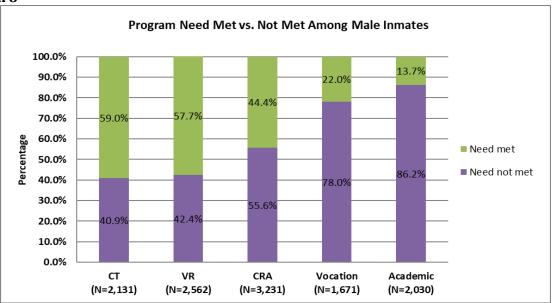


Most inmates with a CT need or a VR need completed the corresponding CT program (59.0%) and the VR program (57.7%). Less than one in two inmates completed the CRA program (44.4%), which is the program with the largest need. The rate of program completion dropped substantially to 22.0% for vocational programs and 13.7% for academic education program.

On the other hand, inmates with an academic need had the highest participation rate of 45.6% followed by CRA (23.3%), CT (18.6%), vocation (18.6%), and VR (15.5%) programs.

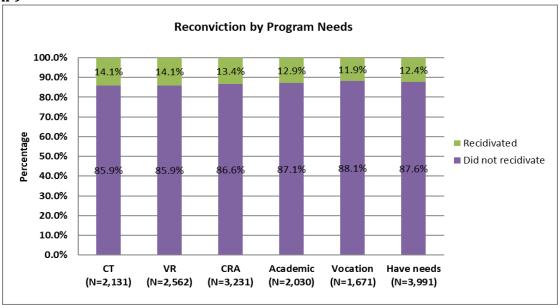
The remaining inmates with needs did not participate in the corresponding program, ranging from the highest non-participation rate of 59.4% for the vocation program to the lowest rate of 22.3% for the CT program. (Graph 7)





Participation consists of three groups: did not participate, participated, and completed. To translate program participation into need-met and need-not met categories, program completion has been categorized as need-met. Inmates who participated but did not complete, and inmates who did not participate in the program are combined into a need-not-met group. Graph 8 shows that about one-half or more inmates met their CT, VR and CRA program needs, and less than one in four inmates met their vocation and academic program needs.

Graph 9



Graph 9 shows the rate of one-year recidivism rate for inmates in different need groups. Inmates with a CT or VR need had the highest recidivism rate of 14.1%, followed by inmates with a CRA need (13.4%), an academic need (12.9%), and a vocation need (11.9%).

Table 5

One-Year Reconviction Rates for Inmates by Need Met vs. Not Met Among Male Inmates

Program Name	Need Met		Need N	ot Met	TOTAL		
	PCT	N	PCT	N	PCT	N	
CRA Program*	8.8%	1,436	17.0%	1,795	13.4%	3,231	
CT Program	13.0%	1,258	15.8%	873	14.1%	2,131	
VR Program*	12.6%	1,477	15.7%	1,085	13.9%	2,562	
Academic Program	10.8%	279	13.2%	1,751	12.9%	2,030	
Vocation Program*	6.0%	368	13.6%	1,303	11.9%	1,671	

^{*} Statistically significant at a 95% confidence level

Table 5 shows the association between whether the program need of an inmate was met with recidivism. As shown, program completion (Need Met) was associated with lower rate of recidivism for CRA, VR and vocation programs. Among male inmates eligible for the CRA, 8.8% recidivated if they had completed the CRA compared with 17.0% of the inmates whose need was not met. The difference between the two need met categories was 12.6% vs. 15.7% for the VR program, and 6.0% vs. 13.6% for the vocation program.

Inmates who met their CT and academic program needs were associated with lower rates of recidivism when compared with inmates who did not meet their program needs, but the differences found here were not statistically significant.

Table 6

One-Year Reconviction Rates for Inmates by Program Participation Among Male Inmates

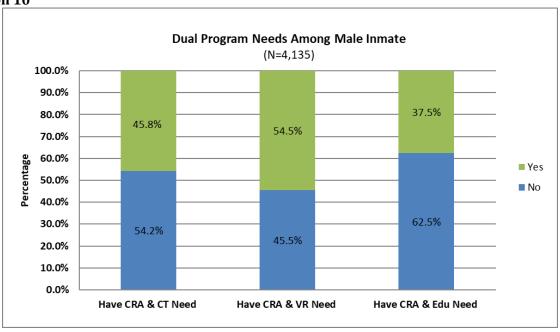
Program Name	Need Met		Participated		Did Not Participate		TOTAL	
	PCT	N	PCT	N	PCT	N	PCT	N
CRA Program*	8.8%	1,436	15.9%	753	17.9%	1,042	13.4%	3,231
CT Program*	13.0%	1,258	17.9%	397	14.1%	476	14.1%	2,131
VR Program*	12.6%	1,477	17.6%	397	14.5%	688	13.9%	2,562
Academic Program	10.8%	279	14.7%	926	11.5%	825	12.9%	2,030
Vocation Program*	6.0%	368	13.8%	311	13.5%	992	11.9%	1,671

^{*} Statistically significant at a 95% confidence level

To break down the "Need Not Met" category in Table 5 into participation and non-participation groups, Table 6 highlights the importance of meeting program needs to lower the rate of recidivism. In four out of five programs, participation in a program was not associated with lower rate of recidivism when compared to inmates in the non-participation groups. The CRA program was the only exception where 15.9% of inmates in the participation group recidivated compared with 17.9% of inmates in the non-participation group, a small but statistically significant difference of 2 percentage points.

Male Multiple Need Cohort Data Findings

Graph 10



In addition to looking at inmates with each individual program need, Graph 10 shows the share of inmates with two needs, a CRA need plus a CT need, a VR need, or an academic need. As shown, most inmates were identified as having both a CRA and a VR need (54.5%), close to one-half of inmates as having a combined CRA and CT need, and slightly over one-third of inmates as having both a CRA and an academic need (37.5%). It should be noted that the findings shown in Graph 10 do not mean that these inmates had only two needs. An overwhelming majority of them were identified as having more than two needs.

Table 7

One-Year Reconviction Rates by Needs Met Among Male Inmates

Need Type	Both Needs Met		CRA Need Met		The Other Need Met		Neither Need Met		Total	
	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N
Have Need for both CRA and CT*	8.5%	555	8.0%	251	17.7%	543	20.2%	545	14.4%	1,894
Have Need for both CRA and VR*	9.0%	655	7.9%	354	17.2%	635	20.6%	608	14.3%	2,252
Have Need for both CRA and Edu*	9.2%	98	8.1%	506	17.1%	105	17.0%	842	13.6%	1,551

^{*} Statistically significant at a 95% confidence level

The association between inmates with two needs and the rate of recidivism, as shown in Table 7, revealed the importance of meeting the CRA need in lowering the rate of recidivism. Disregarding which other need an inmate had, completing a CRA program was associated with the lowest recidivism rate of approximately 8% for all three need groups examined. Meeting both needs were also found with a much lower rate of recidivism when compared with inmates who met the other need or who met neither need, but there was no statistically significant difference between meeting both needs and meeting CRA need only in reducing the rate of recidivism.

Furthermore, for inmates with a CT or a VR need in addition to a CRA need, meeting the CT or VR need only was associated with a lower rate of recidivism of about 3 percentage points, a small but statistically significant effect. Meeting the academic need alone, on the other hand, had no effect on reducing the rate of recidivism. (Table 7)

Summary

In summary, most female inmates released from the MA DOC between 2017 and 2019 had Pathway Programming and academic program needs. Less than one in five had a vocational program need. Of the inmates with a program need, a little over one-fifth of the inmates completed the Pathway Programming and about one in ten finished vocational and academic programs. It is important to note that 72% of the inmates who did not participate in, or complete the programs served less than 90 days, which would affect their ability to participate in and complete educational and vocational programs.

The association between program completion and the rate of one-year recidivism shows that program completion was associated with a lower rate of recidivism for all three programs, especially for the Pathway program. It also suggests that participation in a program has potential for lowering the rate of recidivism for all three programs. Therefore, increasing the number of inmates who complete or at least participate in the program that they are eligible for plays an important role in lowering the rate of recidivism.

For the small number of female inmates who were eligible for the GPS program, an overwhelming majority participated in the program and about one-third completed the program. The association between program completion and the rate of one-year recidivism suggests that program completion was not associated a lower rate of overall recidivism. It was associated with a lower rate of recidivism only among high-risk inmates who completed the program when compared with high-risk inmates who did not complete the program. Because of the small sample size, further analysis with a larger number of inmates is needed to confirm both findings discussed above.

Most male inmates released between the years of 2017 and 2019 from the MA DOC were identified as having a need for CRA, VR, or CT programs. Close to one-half of the inmates were found to need an academic or vocation program. When it comes to meeting these needs, substantial differences

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existed. About one-half of the inmates met their CT, VR, and CRA program needs, and less than one in four inmates met their vocation and academic program needs.

An investigation into the association between program completion and the rate of one-year recidivism shows that program completion was associated with a lower rate of recidivism for CRA, VR, and vocation programs. Participating, but not completing the CRA program was also found to influence a reduction in recidivism.

As for inmates with two needs, meeting the CRA need alone or in combination of the other need produced the best result in lowering the rate of recidivism. Meeting CT or VR need alone also had a moderate effect on lowering the rate of recidivism.

The analysis within this report has shown that completion of programs addressing criminogenic needs were associated with a lower rate of recidivism. However, inmates who completed programs could be different from inmates who did not complete the programs based upon numerous circumstances which were not the subject of this report. These differences can affect recidivism rates, potentially more so than the MA DOC programs under study. Future studies should be conducted to better examine the role of programming on recidivism when holding all other variables equal.