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December 1, 2014

The Honorable Edward Kasemeyer
Chairman, Senate Budget and Taxation Committee
3 West, Miller Senate Building
Annapolis, Maryland 21401-1991

The Honorable Norman H. Conway
Chairman, House Committee on Appropriations
Room 121, House Office Building
Annapolis, Maryland 21401-1991

RE: Implementation and outcomes of re-entry mediation

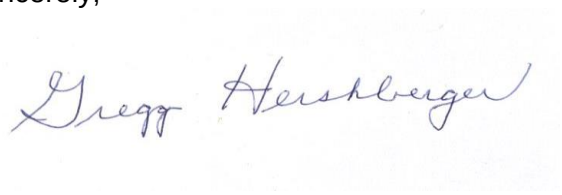
Dear Senator Kasemeyer & Delegate Conway:

The Department is pleased to submit a study conducted by Dr. Shawn M. Flower, Principal Researcher at Choice Research Associates, per the language below.

> *Further provided that $100,000 of this appropriation may not be expended until the Department of Public Safety and Correctional Services submits a report to the budget committees on the implementation of a reentry mediation initiative and associated outcomes demonstrating the effectiveness of the program. The evaluation should improve on a previous study by utilizing a control group not participating in or volunteering to receive mediation services. The report shall be submitted by June 30, 2015, and the budget committees shall have 45 days to review and comment. Funds restricted pending the receipt of a report may not be transferred by budget amendment or otherwise to any other purpose and shall revert to the General Fund if the report is not submitted to the budget committees.*

We hope that this study will be informative and helpful to you and your committee members. If the Department can be of further assistance, please do not hesitate to contact me at 410-339-5005 or Kevin Loeb, Director of Government, Legislative Affairs & Community Affairs at 410-339-5051.

Sincerely,



Gregg L. Hershberger
Secretary

Attachment

c: Senator Nathaniel McFadden, Vice Chair, Senate Budget and Taxation Committee
Delegate James Proctor, Vice Chair, House Committee on Appropriations
Members of the Senate Budget and Taxation Committee
Members of the House Committee on Appropriations
Mr. John Griffin, Chief of Staff, Governor's Office
Ms. Jean Hitchcock, Governor's Chief Legislative and Policy Officer
Ms. Shanetta Paskel, Governor's Deputy Legislative Officer
Ms. Hanna Dier, Policy Analyst, Department of Legislative Services
Mr. Matthew Schmid, Budget Analyst, Department of Budget and Management
Ms. Chantelle Green, Staff, House Committee on Appropriations
Mr. Matthew Bennett, Staff, Senate Budget and Taxation Committee
Ms. Cathy Kramer, Department of Legislative Services
Ms. Sarah Albert, Department of Legislative Services

Community Mediation Maryland

Reentry Mediation In-Depth Recidivism Analysis

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By Shawn M. Flower, Ph.D.
Principal Researcher
Choice Research Associates

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November 2014

We are grateful to the Abell Foundation in Baltimore City for the funding support for this research. Thanks also to AmeriCorps members, CMM center staff and volunteers, the University of Maryland Baltimore, and the Maryland Department of Public Safety and Correctional Services. Last but not least, thanks to the men and women who agreed to participate in this study so that others may learn from their experiences.

Points of view or opinions contained within this document are those of the author and do not necessarily represent the official position or policies of the Abell Foundation, Community Mediation Maryland or the Maryland Department of Public Safety and Correctional Services. All errors are my own.

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Executive Summary

Community Mediation Maryland (CMM) Reentry Mediation is a unique program which responds to the need, identified in criminal justice research, for individuals returning from prison to have positive relationships in the community. Reentry Mediation supports inmates and their families or loved ones by enabling them to discuss their past experiences, to build understanding, and to jointly plan for reentry into the family structure and community before the inmate is released. The Abell Foundation in Baltimore City Maryland funded this analysis of the effect of reentry mediation on recidivism.

This report considers the impact of re-entry mediation provided by CMM on recidivism. This study shows that mediation is effective at reducing recidivism. Recidivism is measured as the arrest, conviction, sentence to incarceration, and the return of an individual to Department of Corrections for a violation or new offense.

An earlier report considering the impact of reentry mediation on recidivism was issued in April 2013.[1] The April 2013 report showed that those who participate in mediation were less likely to be arrested and survived in the community for a longer period of time prior to arrest, compared to those who signed up for mediation but did not participate mediation. The April 2013 analysis reported some limitations, including: the need for a larger treatment group; official release dates; data on returns to prison; and the utilization quasi-experimental statistical controls to select the comparison group.

This report addresses key limitations detailed in the prior report, including: obtaining a larger treatment group; utilizing release dates provided by the Department of Public Safety and Correctional Services (DPSCS); conducting a larger scale study utilizing quasi-experimental statistical controls (propensity score matching) on a second comparison group randomly selected from a cohort released in a similar time period; and matching the treatment group to the group of individuals who signed up for mediation but did not participate in the service. Finally, DPSCS provided return to prison data for those who violated parole or probation for either a new arrest or a technical violation. Given the rigor of the analytic method, the quality and quantity of the data, and the consistency of these results, it is clear that the CMM Reentry Mediation model is an effective tool for reducing the costs of involvement in the criminal justice system to the individual, their families, and the community.

For this analysis, the 282 individuals who participated in mediation between November 2008 and March 2014 were matched using quasi-experimental methods based on a calculated propensity score (which is the probability that they would have been in the treatment group if selected) to two control groups (See Appendix A for details on the study samples). The first matched control group consists of people who requested and were eligible to participate, but did not receive mediation for a variety of reasons (referred to as the "CMM Control Group"). This group is considered to be similar in the motivation to those who requested mediation, thus allowing the consideration of this otherwise unobservable trait. In addition, because these individuals were interviewed by CMM staff for the service, they completed a questionnaire with detailed information which can be used for matching

[1] http://www.choiceresearchassoc.com/documents/cmm_recidivism_final_04182013.pdf?patientinform-links=yes&legid=spcjp;0887403412466671v1

and to control for other factors in this analysis. The second control group matched a random sample of individuals from the population released from DPSCS facilities (where CMM services were provided) for the period from FY2009 through FY2013 (the "Cohort Control Group") (see Appendix B for more on the propensity score matching process).

The method of analysis used to assess post-release outcomes is logistic regression, which provides a predicted *probability*[2] of the outcomes (measured by arrest, conviction, incarceration, and return to prison by DOC), and is calculated based on all of the factors in the regression model. Cox Regression survival analysis was also used to compare on the *risk* of failure of the mediation treatment group and the two comparison groups in their time to failure (defined here again as a post-release arrest, conviction, incarceration, and DOC return to prison). The survival analysis seeks to determine whether those who did not mediate "failed" (e.g., were rearrested) sooner than those who did mediate.

The impact of mediation was examined by comparing the treatment group, which was matched to each of the two comparison groups, to discover whether there were significant differences between the groups. There were a few differences in the results between the treatment group and the two control groups. It is important to note that given the availability of self-reported data from the CMM Group related to their relationship and perspective on conflict, the CMM Control Group is likely a more closely matched comparison group to the mediation treatment group than the Cohort Control Group. For this reason, while the Cohort Control Group findings are reported in the overall report below, this summary focuses on the CMM Group findings.

Key findings of this study comparing the mediation treatment group to the CMM Control Group indicate that participation in reentry mediation has a significant impact on all recidivism outcomes measured in this project, after controlling for key factors that may otherwise explain this finding (e.g., days since release, age, number of times previously incarcerated). Specifically:

- The predicted probability of arrest for those who participate in mediation is 45% compared to the probability of arrest for the CMM Control Group at 58%. Overall, the probability of arrest is reduced by 13%. The number of sessions is also a significant factor – with each additional mediation session, the probability of arrest is reduced by 8%;

- The predicted probability of conviction for those who participate in mediation is 15%, compared to those who do not participate at 30%; an overall reduction of 15%. With each additional mediation session, the probability of conviction is reduced by 9%;

- The predicted probability of being sentenced to a period of incarceration of 1 day or more post-release for mediation participants is 13% compared to 23% of those who do not participate; an overall reduction of 10%, With each additional mediation session, the probability of conviction is reduced by 7%; and

- Among those returned to prison by DPSCS Department of Corrections (DOC), the probability of being returned for those who mediate is 32% -- 12% less than those who do

[2] The probability of arrest is not the same as the hazard or risk of arrest. The ***probability*** of an outcome event is based on the cumulative, or the overall probability of a situation occurring**.** The ***risk*** of an event considers the timing of the arrest, or the relative rate of this person failing given how long they have survived.

not mediate with a predicted probability of return of 44%. The number of sessions is not a significant factor on this measure.

A second key finding, revealed by the Cox Regression survival analysis is that mediation reduces the hazard (or *risk*) of all outcomes reported compared to those who do not mediate. Further, the mediation treatment group survives in the community longer than the CMM Control Group, even after controlling for relevant key factors (e.g., age, average days sentenced, number of times previously incarcerated), as follows:

- The risk of arrest for those who mediate is reduced by 34% compared to those who do not mediate. In addition, those in the mediation group had a significant longer period of time before their first post-release arrest than those in the comparison group. On average, those who mediated survived in the community for 239 days longer before their first arrest than those who did not mediate.

- The risk of an arrest leading to a conviction for those who mediate is reduced by 49% compared to those who do not mediate. The mediation group averaged 230 days longer in the community before incurring an arrest leading to a conviction; compared to those in the CMM control group.

- The risk of arrest leading to a sentence of incarceration for 1 or more days for those who mediate is reduced by 45% and lasted in the community, on average, 163 days longer than the comparison group.

- The risk of return to Prison by DOC for a technical violation or new arrest for those who mediate is reduced by 30% compared to those who do not mediate, with all other values held constant.

Finally, the Cox Regression survival analysis reveals that at one, two, and three years post –release, and while controlling for other factors that could explain these findings, we note that:

- One year post release:
  - 81% of the mediation treatment group survived without an arrest compared to 68% of the control group;
  - 92% of the mediation treatment group survived without an arrest leading to a conviction, versus 85% of the control group;
  - 92% of the mediation treatment group survived without an arrest leading to incarceration, versus 88% of the control group;
  - 78% were not returned to prison compared to 72% of the control group.

- Two years post release:
  - 66% of the mediation treatment group survived without an arrest compared to 51% of control group;
  - 86% of the mediation treatment group survived without an arrest leading to a conviction, versus 75% of the control group;
  - 88% of the mediation treatment group survived without an arrest leading to incarceration, versus 79% of the control group;

- 70% of the mediation treatment group was not returned to prison compared to 59% of the control group.

❖ Three years post release:
- 49% of the mediation treatment group survived without an arrest compared to 39% of control group;
- 78% of the mediation treatment group survived without an arrest leading to a conviction, versus 67% of control group;
- 85% of the mediation treatment group survived without an arrest leading to incarceration, versus 76% of control group;
- 65% of the mediation treatment group was not returned to prison compared to 55% of the control group.

The key to understanding the saliency of these findings is that the greatest limitation of mediation may also be its greatest strength – it is a short-term "intervention". In fact, the majority of the mediation participants only had one 2 hour session. The impact of mediation is believed to be akin to a critical course correction to turn an individual away from a criminal trajectory through the improved relationship with family and support persons and adherence to agreements and plans negotiated during mediation. Mediation is an innovative tool that addresses a critical reentry factor and should be incorporated in a comprehensive and integrated reentry strategy.

Introduction

Community Mediation Maryland (CMM) Reentry Mediation is a unique program which responds to the need, identified in criminal justice research, for individuals returning from prison to have positive relationships in the community. Reentry Mediation supports inmates and their families or loved ones by enabling them to discuss their past experiences, to build understanding, and to jointly plan for reentry into the family structure and community before the inmate is released. The Abell Foundation in Baltimore City Maryland funded this analysis of the effect of reentry mediation on recidivism.

This report considers the impact of re-entry mediation provided by CMM on recidivism. This study shows that mediation is effective at reducing recidivism. Recidivism is measured as the arrest, conviction, sentence to incarceration, and the return of an individual to Department of Corrections for a violation or new offense.

An earlier report considering the impact of reentry mediation on recidivism was issued in April 2013.[3] The April 2013 report showed that those who participate in mediation were less likely to be arrested and survived in the community for a longer period of time prior to arrest, compared to those who signed up for mediation but did not participate mediation. The April 2013 analysis reported some limitations, including: the need for a larger treatment group; official release dates; data on returns to prison; and, the utilization of quasi-experimental statistical controls to select the comparison group.

This report addresses key limitations detailed in the prior report, including: obtaining a larger treatment group; utilizing release dates provided by the Department of Public Safety and Correctional Services (DPSCS); conducting a larger scale study utilizing quasi-experimental statistical controls (propensity score matching) on a second comparison group randomly selected from a cohort released in a similar time period; and matching the treatment group to the group of individuals who signed up for mediation but did not participate in the service. Finally, DPSCS provided return to prison data for those who violated parole or probation for either a new arrest or a technical violation. Given the rigor of the analytic method, the quality and quantity of the data, and the consistency of these results, it is clear that the CMM Reentry Mediation model is an effective tool for reducing the costs of involvement in the criminal justice system to the individual, their families, and the community.

Reentry Mediation

Criminal justice literature highlights the importance of strong pro-social relationships to support successful reentry and to reduce recidivism. Reentry mediation responds to this need by providing an opportunity for an inmate and family members or loved ones to meet, with the help of a non-judgmental mediator, before release, for the purpose of having an open, honest, and often difficult dialogue to prepare for the inmate's transition back into the community. Reentry mediation creates a space for everyone involved to talk about their experiences, be heard by each other, and to establish a plan on how to move forward productively before the individual is released. For some

[3] http://www.choiceresearchassoc.com/documents/cmm_recidivism_final_04182013.pdf?patientinform-links=yes&legid=spcjp;0887403412466671v1

families, there is an understanding that an inmate will return home, but there may be anxiety about the different expectations everyone brings to the transition. Reentry mediation provides an opportunity to manage divergent expectations for all participants through a discussion of issues and resolution of, or prevention of, conflicts. By rebuilding relationships between inmates and family or caring individuals in the community, Reentry Mediation taps into the resources indigenous to the community, strengthens these connections, and allows for collaborative transition planning.

CMM and member centers have been providing reentry mediation services to inmates preparing for release and their family members or support people for five years. The first two years, the program was operating as a pilot project. In the fall of 2008, CMM signed a Memorandum of Understanding with the DPSCS, paving the way for expansion of the pilot project. Soon after that, CMM began work with Choice Research Associates to develop a system which would allow for both short term program evaluation and long term analysis of the effect of reentry mediation on recidivism. This system was developed using the Program Development Evaluation (PDE) process which emphasizes collaboration between the practitioner and researcher, and which sets out measurable goals, outcomes, and process standards to ensure the program is implemented as intended.

In February 2009, CMM centers began collecting comprehensive data on all inmates who requested mediation, with the intention of preparing for the eventual recidivism study. This data was collected on all those who requested the service.[4] Many of these individuals were not able to receive the service because family members could not be reached, family members declined the service, inmates were released or transferred earlier than expected, or because of institutional issues. Those who did not receive the service form the first of the two control groups in this study – the "CMM Control Group"-- because they have the same motivation as those who requested the service, they have agreed to participate in the study through signed consent, and we have extensive demographic and personal information about them. This demographic and personal information is used to create a stronger match in propensity score matching process, and to control for these factors in isolating the impact of mediation. The second control group is made up of a random sample of individuals from the population released from DPSCS facilities (where CMM services were provided) for the period from FY2009 through FY2013 (referred to as the "Cohort Control Group"). Details related to the methodology and the samples, follow.

Methodology and Sample Descriptives

This study examines the recidivism outcomes of 282 individuals who received mediation (the "Mediation Treatment Group") and two control groups. These groups are compared to discover whether there were significant differences between the groups on outcomes of arrest, conviction, incarceration, and DOC returns to prison. The method of analysis used to assess post-release outcomes is logistic regression, which provides a predicted probability of the outcome (recidivism) that is calculated based on all of the factors in the regression model. A second step was to conduct Cox Regression survival analysis, which compares the treatment and comparison groups in their time to failure (a post-release event such as an arrest or conviction).

[4] All protocols and procedures were approved by the University of Baltimore Institutional Review Board in accordance with Federal regulations to protect the rights and welfare of human research subjects recruited to participate in research activities.

For this analysis, the 282 individuals who participated in mediation between November 2008 and March 2014 were matched using quasi-experimental methods based on a calculated propensity score (which is the probability that they would have been in the treatment group if selected) to two control group samples (See Appendix A for details on the study samples). The two groups are the CMM Control Group of those who applied to participate in the service, but did not; and a second control group of a random sample of individuals from the population released from DPSCS facilities (where CMM services were provided) for the period from FY2009 through FY2013 (referred to as the "Cohort Control Group"). Descriptives of the samples follow.

CMM Mediation Treatment and CMM Control Group

In order to obtain the data necessary for this project, the 1,731 names of those who requested mediation services from November 2008 to March 2014 were submitted to the Department of Public Safety and Correctional Services (DPSCS) for a Criminal Justice Information System (CJIS) criminal history data extract. Of those 1,731, 391 were not located in the CJIS system, and 2 names omitted due to a research error. A total of 1,338 individuals had a criminal record and were matched. After excluding 22 individuals who would not have been eligible to receive services and 16 because they were released after July 1, 2014 (the last date of activity contained within the CJIS file), there were 1,300 records. Of those records, 4 individuals, while matched, had no CJIS activity and were omitted from pool from which cases would be selected by propensity score. Descriptive information is provided by those who wish to participate in mediation through a questionnaire done by CMM staff during when an inmate requests mediation services.

In addition to the CJIS data, DPSCS provided DOC returns to prison data for those released from FY2009 to FY2013. Of the 1,296 in the CMM mediation treatment and CMM Control Group with CJIS data, 797 were included in the DOC Returns to Prison Data. Given that CMM provides reentry mediation services in both DPSCS and local jail facilities, it isn't surprising that a portion of the mediation treatment and CMM Control Group would not have DOC return to prison data. Among the 499 without DOC Return to prison data, 150 were released in FY2014 (thus were too recent to have a return to DOC record), 179 were in a DPSCS detention facility (not a DOC facility), and 318 were released from a local facility, leaving 797 CMM mediation treatment and CMM Control Group individuals with DOC return data, eligible to be matched.

CMM Control Group Match Sample Summary

As previously noted, the CMM Control Group was matched to the Mediation Treatment Group by propensity score (See Appendix B for more on the propensity score matching process). Once the matching process was complete, 762 individuals were included in CJIS recidivism outcomes of arrest, conviction and incarceration analysis. Of those 762, 166 mediated; 596 did not mediate. Among the 762 matched in CMM Group, 578 also had DOC return data. Of those 578, 119 mediated, 459 did not mediate. Descriptives of the full CMM Group follow.

CMM Control Group and Mediation Treatment Group Descriptives

Among the 1,296 individuals in the Mediation Treatment Group and CMM Control Group, 282 individuals (22%) mediated at least once; within a range of 1 to 10 times and on average 1.54 times. These individuals were on average 35 years old, (ranging in age from 17 to 69), the majority is male (85%), African American (74%), Caucasian (24%) and of other racial backgrounds

(2%). Approximately half were single/never married (53%), 16% were married/cohabitating and 17% were in committed relationships but not married. Approximately 73% have children. Among those who have children, they had on average 2.5 children (ranging from 1 to 12 children), with on average 1.77 children under 18 years old (ranging from 0 to 8).

Table 1 provides additional information gathered at intake that relates to quality of the relationship with those the inside participants (referred to as P1) wish to mediate with and their attitude toward conflict. Note that a higher value on these measures indicates a stronger or more positive relationship. These questions assess whether the outside participant (referred to as P2) plays a positive role in their life (on a scale of 1 to 5, with 5 indicating strong agreement), the level of happiness (on a scale of 1 to 7, with 7 being extremely happy), how often they confide in one another (on a scale of 1 to 4 with 4 indicating "almost always", and 1 indicating "almost never" confiding in one another). The last relationship related question is "I feel like I have no control over what happens in my relationship" [with the other mediation party]. Participants are asked their level of agreement with this statement on a scale of 1 to 5 (set up so that higher values indicating a more positive response or a greater level of empowerment in their relationship with the other participant). The final question is geared toward measuring how the individual perceives conflict with the statement "in general, conflict can usually be dealt with productively". This is scored from 1 to 5, with 5 indicating the participant strongly agrees with this statement, and 1 indicates they strongly disagree.

As evidenced in Table 1, inside participants agree or strongly agree (reporting an average score of 4.20) that the outside participant plays a positive role in their life, and they are generally happy with the outside participant (with an average score of 4.72). From the inside participant's perspective, they are somewhat more likely to confide in the outside participant (average score of 2.60 indicating they confide between sometimes and often in the outside participant) than they believe the outside participant confides in them (reporting a score of 2.44). In terms how much control they feel in their relationship with the outside participant, inside participants report an average score of 3.27, indicating that on average, they neither agree nor disagree with that statement. Finally, inside participants generally feel positive (score of 3.91) that conflict can be dealt with productively

Table 1: Participant Relationship Descriptives

P1: My Relationship with P2 at Intake *Higher Value = Stronger/More Positive Relationship*	**N**	**Range**	**Mean (SD)**
P2 plays a positive role in my life[+]	1149	1 to 5	4.20 (1.07)
Degree of happiness with P2[++]	1148	1 to 7	4.72 (1.88)
How often do you confide in P2?[+++]	1151	1 to 4	2.60 (1.18)
How Often does P2 confide in you?[+++]	1148	1 to 4	2.44 (1.19)
I feel have no control over my relationship with P2[+](R)	815	1 to 5	3.27 (1.34)
Conflict can be dealt with productively	1121	1 to 5	3.91 (.98)

[+]Scale of 1 to 5, with 5 indicating strong agreement
[++]Scale 1 to 7 where 7 = extremely happy
[+++]Scale of 1 to 4 with 4 ="almost always" and 1 = "almost never"
(R) Reverse Coded so that higher values = feeling more control over relationship

CMM Control Group and Mediation Treatment Group – Criminal History

Table 2 provides a number of measures of criminal history for the 762 CMM Control Group and mediation treatment individuals matched by propensity score, based on two sources. The first is the information provided by the participant during intake; the second was calculated or summarized from the CJIS criminal history data. Among the and mediation treatment and CMM Control Group who completed an intake form, 21% were experiencing their first incarceration, 67% had been convicted two or more times, and 51% had been incarcerated 12 months or less, while 29% had been incarcerated from 1 to 3 years, 9% 3 to 5 years, and the remaining 11% over 5 years. These participants also reported that on average their first involvement in crime (whether or not they were caught or arrested) was 15 years old, ranging from 4 to 62.

The remaining information was gathered from CJIS. At the time of the last date of activity in the CJIS data, July 14, 2014, these individuals had been released[5] on average for 986 days, ranging from 78 to 1,927 days). Among those who applied to participate in mediation, the most common type of offender is a person offender (72%), followed by drug (19%), property (5%), and sex offender (3%). Note that this offender class is based on the most serious conviction over their criminal career and not on the most frequent type of crime or most recent offense committed.[6] The length of criminal career was based on the first date of arrest recorded in CJIS to the date of release, and spanned a range from as little as 28 days to over 43 years and on average, the study participants had been criminally involved over 14 years.

The prior arrest history reflects this longevity. Study participants had an average of 12 arrests (ranging from 1 to 60), 6 prior convictions and an average conviction rate of 59% overall. Among those convictions, approximately 34% were for felony level offenses and the maximum seriousness category averaged 4.0, translating into a level IV offense (ranging from the most serious category of level I to least serious, level VII).[7] Level IV offenses include arson, manufacture and/or distribution of controlled dangerous substances, second and third degree burglary, escape from confinement, and robbery. Table 2 also provides arrest information broken down to provide charge data. Those in the mediation treatment and CMM Control Group had an average of 34 charges (ranging from 1 to 141 charges) in their criminal career, with 9 charges resulting in a conviction (ranging from 1 to 57 charges convicted), thus 29% of all charges resulted in a conviction. Among these charges, 28% were for felony level offenses, and the most serious charge category averaged 4.8 – close to a level III offense. Level III offenses include first degree assault, first degree burglary, robbery with a dangerous weapon, and manufacture and/or distribution of narcotics.

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[5] Dates of release were provided by DPSCS for 522 (or 69%) of the 762 cases. The remaining dates of release were based on information provided by the participant in the CMM intake process.

[6] In determining the most serious conviction, person offenses were privileged over drug and property types of offenses. For the purpose of offense seriousness, DUI/DWI offenses, eluding police, etc., although designated as traffic for the offense type, were still considered as person offenses and thus were privileged over property, drug and other types of offenses. Thereafter, seriousness was determined based on the specific charges in accordance with the State of Maryland criminal law statutes.

[7] Each charge was coded by offense seriousness category from I (most serious) to VII (least serious) (which was reverse coded so that a higher value indicated a more serious crime) in accordance with Maryland State statutes. The source for statute classification information was from the Maryland State Commission on Criminal Sentencing Guidelines Manual Guidelines Offense Table Appendix A, updated February 2006, with updates from the 2012 manual and 2014 manual.

A breakdown by different types of offenses includes both the number of charges overall, within a range, and the number of those charges that lead to a conviction. Note that the offenses listed include person crimes (including weapons charges) and sex crimes (including prostitution). Given that weapons (due to their potential lethality) add a level of seriousness to the offense, and that those who engage in prostitution have a fair number of charges among a small group (N=41), both weapons and prostitution charges and convictions are provided separately.

The final section of Table 2 is incarceration history. In this sample, 99% of the 762 participants had been incarcerated for one or more days during their career.[8] They've experienced from 1 to 25 periods of incarceration, on average serving close to 5 times. The total time imposed over the course of the participant's career ranges from 0 days to 151 years, with an average time imposed of 15 years. The average sentence per incarceration period is 6 months, but ranges up to 7 years.

Table 2: Criminal History Descriptives Mediation Treatment and CMM Control Group N=762

	N	Freq.	Percent	Range	Mean (SD)
Intake Data					
Age at First Involvement with Crime	762			4 to 62	15.50 (6.3)
First Time Incarcerated	759		21%	0 to 1	.21 (.41)
Convicted More than 2 Times	761		67%	0 to 1	.67 (.47)
Length of Current Stay	761				
Up to 1 year or Less		385	51%		
1 to up to 3 years		221	29%		
3 to up to 5 years		71	9%		
More than 5 years		84	11%		
CJIS Data					
Time Since Release					
Days Since Release	762			78 to 1927	986 (332)
First Time Arrested	762			0 to 1	.05 (.22)
Offender Class (Serious Conviction)	762				
Person		547	72%		
Sex		27	3%		
Drug		148	19%		
Property		39	5%		
Other		1	<1%		
Criminal Career					
Length of Career (in months)[9]	762			<1 to 526.3	172.6 (105.0)
Length of Career (in days)	762			28 to 16009	5251 (3195)

[8] Calculated from sentencing data by subtracting the sentence suspended from sentence imposed. However, there is no ability to discern in the CJIS data those sentences that were served consecutively from those served concurrently, thus these figures likely overestimate the amount of time actually served.

[9] Length of criminal career was calculated based on the first date of arrest in the CJIS data to the date of release.

	N	Freq.	Percent	Range	Mean (SD)
Arrest, Charge, and Conviction History					
Total Number of Prior Arrests	762			1 to 60	12.1 (9.9)
Total Number Prior Convictions - Arrest	762			1 to 30	6.3 (5.0)
Prior Arrest Conviction Rate	762			0 to 1	.59 (.21)
Proportion of Prior Felony Convictions	762			0 to 1	.34 (.30)
Most Serious Category - Convictions	762			1 to 7	4.0 (1.2)
Total Number of Prior Charges	762			1 to 141	34.2 (23.5)
Total Number Prior Convictions - Charges	762			1 to 57	9.2 (7.1)
Average Charges Per Prior Arrest	762			1 to 38	3.7 (3.2)
Prior Charges Conviction Rate	762			0 to 1	.29 (.15)
Proportion of Prior Felony Charges	762			0 to 1	.28 (.15)
Most Serious Category - Charges	762			1 to 7	4.8 (1.12)
Charge & Conviction History By Type of Offense					
Person Offenses (Including Weapons)					
Total Number of Charges	674			1 to 61	11.4 (9.9)
Total Number of Convictions	674			0 to 13	2.1 (2.0)
Weapons Only Offenses					
Total Number of Charges	437			1 to 22	4.1 (3.7)
Total Number of Convictions	437			0 to 8	.65 (.93)
Sexual Offenses (Including Prostitution)					
Total Number of Charges	102			1 to 39	4.5 (5.4)
Total Number of Convictions	102			0 to 14	1.6 (2.3)
Prostitution Only Offenses					
Total Number of Charges	41			1 to 19	3.8 (4.4)
Total Number of Convictions	41			0 to 14	2.5 (3.1)
Drug Offenses					
Total Number of Charges	615			1 to 66	13.3 (11.5)
Total Number of Convictions	615			0 to 19	4.1 (4.0)
Property Offenses					
Total Number of Charges	663			1 to 133	11.0 (14.5)
Total Number of Convictions	663			0 to 29	2.5 (3.8)
Traffic Offenses					
Total Number of Charges	154			1 to 23	2.6 (3.2)
Total Number of Convictions	154			0 to 7	.41 (.96)
Total "Other" Charges					
Total Number of Charges	161			1 to 21	1.9 (2.0)
Total Number of Convictions	161			0 to 7	.52 (.92)

	N	Freq.	Percent	Range	Mean (SD)
Total Violation Probation/Parole					
Total Number of Charges	483			1 to 14	2.6 (2.2)
Total Number of Convictions	483			0 to 14	2.2 (1.8)
Incarceration History					
Sentenced to Incarceration Rate	762			0 to 1	.99 (.11)
Prior Times Incarcerated	752			1 to 25	4.74 (4.01)
Total Time Imposed (in days)	752			0 to 55115	5414 (6390)
Average Incarceration Sentence (in days)	752			0 to 2676	188.0 (268.9)

Cohort Control Group Construction and Match Sample Summary

The second control group was developed from data provided by DPSCS. DPSCS provided the CJIS criminal history and DOC return data for everyone released (excluding the CMM Control Group and Mediation Treatment Group) from a DPSCS facility from FY2009 to FY2013 – a total of 35,297 individuals. Of those 35,297 people released, 8 were under 18 years old and were dropped from the sample. Another 709 were dropped because there was no recorded prior CJIS activity, leaving 34,580 individuals. Of those 34,580 released in this 5 year period, 25,242 were released from facilities where CMM provides services. The only exception was that a number of the CMM Control Group and Mediation Treatment Group were released from the Maryland Reception, Diagnostics and Classification Center (MRDCC) in Baltimore and from the Home Detention Unit (HDU). From this pool of 25,242, a random sample of 25% of cases (6,471) was selected to be placed in the propensity match pool.

Once the matching process was complete, 6,234 individuals were included in CJIS recidivism outcomes of arrest, conviction and incarceration analysis. Of those 6,234, 271 mediated; 5,963 did not mediate. Among the 6,234 matched in the Mediation Treatment and Cohort Control Group, 6,121 also had DOC return data. Of those 6,121, 158 mediated, 5,953 did not mediate. Descriptives of the 25% random sample Cohort Control Group follow.

Cohort Control Group Demographics

Among the 25% random sample of those released from FY2009 to FY2013, they were on average 35.4 years old, (ranging from 18 to 85), the majority were male (91%), African American (72%), White (27%) and the remaining 1% were Asian, Indian or Unknown. Almost half (46%) of those released were released on mandatory supervised release (MSR), while 30% were released on parole, 18% at the expiration of their sentence, and 4% were released from court.

Cohort Control Group – Criminal History

Table 3 provides many of the same criminal history measures for the 5,963 Cohort Control Group individuals matched by propensity score, based on data calculated or summarized from the CJIS criminal history and DOC Return to Prison data. Length of stay was calculated from the months sentenced data in the DOC return file, indicating that 14% had been incarcerated 12 months or less,

32% had been incarcerated from 1 to 3 years, 21% for 3 to 5 years, and the remaining 33% over 5 years.

The remaining information was gathered from CJIS. At the time of the last date of activity in the CJIS data, July 14, 2014, these individuals had been released on average 41 months, ranging from 12 to 70 months; (in days, they averaged 1283 days since release within a range from 379 to 2,220 days). Among this randomly selected release group, the most common type of offender is a person offender (68%), followed by drug (23%), property (5%), and sex offender (3%). Again, this offender class is based on the most serious conviction over their criminal career and not on the most frequent type of crime or most recent offense committed. The length of criminal career was based on the first date of arrest recorded in CJIS, and spanned a range from as little as 1 day to over 43 years and on average, the Cohort Control Group had been criminally involved a little less than 14 years.

The Cohort Control Group had an average of 10 arrests (ranging from 1 to 71), 5 prior convictions and an average conviction rate of 61% overall. Among those convictions, approximately 34% were for felony level offenses and the maximum seriousness category averaged 3.5, translating into a level V offense (ranging from the most serious category of level I to least serious, level VII). Level V offenses include second degree assault; false statement to law enforcement officer; uttering false document; theft over $500; motor vehicle theft; possession of controlled dangerous substances (not marijuana); third degree sexual offense; weapons – illegal possession by convicted felon; and obstructing & hindering. Table 3 also provides arrest information broken down to provide charge data. The Cohort Control Group subjects had an average of 29 charges (ranging from 1 to 145 charges) in their criminal career, with 8 charges resulting in a conviction (ranging from 1 to 52 charges convicted), thus 29% of all charges resulted in a conviction. Among these charges, 28% were for felony level offenses, and the most serious charge category averaged 4.8 – close to a level III offense. Level III offenses include first degree assault, first degree burglary, robbery with a dangerous weapon, and manufacture and/or distribution of narcotics. Just as was provided for the mediation treatment and CMM Control Group, a breakdown by different types of offenses includes both the number of charges overall, within a range, and the number of those charges that lead to a conviction, including weapons and prostitution.

The final section of Table 3 is incarceration history. In this Cohort Control Group, 98% of 5,963 individuals had been incarcerated for one or more days during their career. They've experienced from 1 to 40 periods of incarceration, on average serving 4 times. The total time imposed over the course of the individual's career ranges from 0 days to 251 years, with an average time imposed of 12 years. The average sentence per incarceration period is 6 months, but ranges up to 30 years.

Table 3: Criminal History Descriptives Cohort Control Group N=5,963

	N	Freq.	Percent	Range	Mean (SD)
DOC Data					
Length of Current Sentence	5963				
Up to 1 year or Less		818	14%		
1 to up to 3 years		1890	32%		
3 to up to 5 years		1262	21%		
More than 5 years		1993	33%		
CJIS Data					
Time Since Release					
Days Since Release	5963			379 to 2200	1283 (523)
First Time Arrested	5963			0 to 1	.08 (.26)
Offender Class (Serious Conviction)	5963				
Person		4084	68%		
Sex		186	3%		
Drug		1400	23%		
Property		286	5%		
Other & Traffic		7	<1%		
Criminal Career					
Length of Career (in months)[10]	5963			<1 to 524.4	163.8 (106.0)
Length of Career (in days)	5963			1 to 15951	4982 (3225)
Arrest, Charge, and Conviction History					
Total Number of Prior Arrests	5963			1 to 71	10.1 (8.5)
Total Number Prior Convictions - Arrest	5963			1 to 45	5.4 (4.4)
Prior Arrest Conviction Rate	5963			0 to 1	.61 (.22)
Proportion of Prior Felony Convictions	5963			0 to 1	.34 (.30)
Most Serious Category - Convictions	5963			1 to 7	3.5 (1.4)
Total Number of Prior Charges	5963			1 to 145	29.7 (21.9)
Total Number Prior Convictions - Charges	5963			1 to 52	7.8 (6.4)
Average Charges Per Prior Arrest	5963			1 to 78	3.7 (3.2)
Prior Charges Conviction Rate	5963			0 to 1	.29 (.15)
Proportion of Prior Felony Charges	5963			0 to 1	.28 (.18)
Most Serious Category - Charges	5963			1 to 7	4.8 (1.15)
Charge & Conviction History By Type of Offense					
Person Offenses (Including Weapons)					
Total Number of Charges	5180			1 to 117	10.1 (9.9)
Total Number of Convictions	5180			0 to 22	2.0 (2.1)

[10] Length of criminal career was calculated based on the first date of arrest in the CJIS data to the date of release.

	N	Freq.	Percent	Range	Mean (SD)
Weapons Only Offenses					
Total Number of Charges	3247			1 to 37	3.6 (3.4)
Total Number of Convictions	3247			0 to 10	.58 (.81)
Sexual Offenses (Including Prostitution)					
Total Number of Charges	746			1 to 80	4.5 (5.7)
Total Number of Convictions	746			0 to 16	1.2 (1.8)
Prostitution Only Offenses					
Total Number of Charges	199			1 to 21	2.6 (3.4)
Total Number of Convictions	199			0 to 15	1.9 (2.6)
Drug Offenses					
Total Number of Charges	4730			1 to 128	11.0 (10.1)
Total Number of Convictions	4730			0 to 18	3.1 (2.8)
Property Offenses					
Total Number of Charges	4937			1 to 128	10.4 (13.0)
Total Number of Convictions	4937			0 to 42	2.5 (3.6)
Traffic Offenses					
Total Number of Charges	1181			1 to 36	2.84 (3.3)
Total Number of Convictions	1181			0 to 8	.46 (.75)
Total "Other" Charges					
Total Number of Charges	1219			1 to 18	1.8 (1.9)
Total Number of Convictions	1219			0 to 7	.47 (.79)
Total Violation Probation/Parole					
Total Number of Charges	3316			1 to 26	2.5 (2.1)
Total Number of Convictions	3316			0 to 26	2.1 (1.8)
Incarceration History					
Sentenced to Incarceration Rate	5963			0 to 1	.98 (.15)
Prior Times Incarcerated	5905			1 to 40	4.01 (3.4)
Total Time Imposed (in days)	5905			0 to 91615	4574 (5556)
Average Incarceration Sentence (in days)	5905			0 to 10950	208 (419)

Research Design

Two methods of analysis were utilized to explore the impact of mediation on four measures of recidivism -- re-arrest, reconviction, re-incarceration, and return to prison by DOC. CJIS criminal history data, combined with CMM intake and service records, were analyzed with two principal statistical methods – logistic regression and Cox Regression (or survival/hazard modeling). In addition, where appropriate, the analysis included measures to control for relevant factors including the length of criminal career (in days) and days since release.

The first method discussed is logistic regression, which predicts which of the four possible outcomes (arrest/no arrest; conviction/no conviction; incarceration/no incarceration; DOC Return/No DOC Return) are going to occur, while accounting for information contained in other variables which could explain that outcome (e.g., older offenders are less likely to recidivate, thus one would want to "control" for age in the analytic model).

The next analytic method employed was Cox Regression – also referred to as survival analysis. This method allows one to explore the timing of events, including the time for an individual to "fail" (in this case arrested, convicted, incarcerated or returned to prison by DOC). This analysis is useful because it allows one to account for different starting points (e.g., you don't have to artificially eliminate subjects because they were released either before or after a period you want to observe). For this analysis, the Mediation Treatment Group was compared to the two control groups to ascertain whether the mediation helped these previously incarcerated people remain in the community without reengaging into the justice system for a longer than those who did not mediate.

Note that the probability of arrest -- derived from the logistic regression analysis -- is not the same as the hazard or risk of arrest. The ***probability*** of arrest is based on the cumulative, or the overall likelihood of a situation occurring**.** The ***risk*** of arrest, obtained in the survival analysis, considers the timing of the arrest, or the relative rate of this person failing given how long they have survived.

The mediation intervention was assessed two ways – as a discrete event (e.g., mediated vs. not mediated) and by number of mediation sessions (ranging from 1 to 5). The logistic regression results comparing the recidivism outcomes for those in the Mediation Treatment Group versus the CMM Control Group are outlined in Table 4 and Table 5. This is followed by Table 6 and Table 7, which explore these same outcomes, but looking at the Mediation Treatment Group compared to the Cohort Control Group. Note that these tables report the Logistic Odds Ratios where if the value is more than 1, the relationship is positive (increasing the probability of recidivism). Likewise, if the Odds Ratio is below 1, the relationship is negative – thereby reducing probability of the recidivism outcome.

Once the logistic regression results are explicated, Table 8 and Table 9 detail the Cox Regression Survival analysis for the CMM mediation treatment vs. CMM Control Group. Then Table 11 and Table 12 explore the survival analysis for those in the Mediation Treatment Group versus the Cohort Control Group. The results are detailed below.

Recidivism Analysis and Results

Logistic Regression

Results: Logistic Regression -- Mediation Treatment Group vs. CMM Control Group

As indicated in Table 4 and Table 5, participation in reentry mediation significantly reduces the probability that that an individual will be arrested, convicted, sentenced to incarceration, and returned to prison for a technical violation and/or new arrest post-release, compared those who did not participate in mediation.

Arrest

As indicated in the first column of Table 4 (Model 1), after controlling for key factors, the probability of arrest for those who participate in mediation is 45% compared to the probability of arrest of 58% for those who do not participate in mediation.[11] Further, Table 5 indicates that the number of sessions is also a significant factor, with each additional mediation session reducing the probability of arrest by 8%.

For mediation and number of mediation sessions, the length of time since the individual was released (those who were in the community longer were more likely to be arrested), and age (older people are less likely to be re-engaged into the justice system) were significant factors in the models. In addition, for those with a higher prior arrest conviction rate, a higher number of average days sentenced to incarceration, and those who reported a higher degree of happiness with the other party they wished to mediate with, all reduce the individual's probability of arrest (although the impact on the probability of arrest for both days from release and average days sentenced was negligible). Those who report feeling more control in their relationship and those with a higher number of times incarcerated for 1 or more days have a higher likelihood of arrest.

Conviction

The second column of Table 4 (Model 2) and Table 5 provides the results for participation in mediation and the number of mediation sessions on post-release conviction. Similar to arrest, days since release, age of the participant, average number of days sentenced and number of times incarcerated are all significant factors in conviction.

After controlling for key factors, the probability of a conviction for those who participate in mediation is 15% compared to the probability of conviction of 30% for those who do not participate in mediation, an overall reduction of 15%. The number of sessions is also a significant factor, with each additional mediation session reducing the probability of arrest by 9%.

[11] Probabilities for the treatment mediation and CMM Control Group were calculated based on output values, and the calculation worksheets are provided in Appendix C.

Incarceration

Model 3 in Table 4 and Table 5 detail the results for the impact of mediation and number of sessions on the probability of being sentenced to incarceration by the court after release. Mediation participants have a significant reduction in probability of incarceration compared to the CMM Control Group, with an overall reduction of 10%. The probability of being sentenced to a period of incarceration of 1 day or more post-release for mediation participants is 13% compared to 23% of those who do not participate. With each additional mediation session, the probability of conviction is reduced by 7%.

All of the factors that significantly influenced conviction also play a role in incarceration, with one additional variable – the prior charge conviction rate. Here those with a history of having a higher number of charges that lead to convictions are more likely to be incarcerated post-release. It may be that number of prior charge convictions may distinguish more serious offenders, with a higher likelihood of incarceration.

DOC Return to Prison

Mediation is also effective at reducing returns to prison for a technical violation or arrest (Table 4). However, number of sessions is not a significant factor (Table 5).In this model, days from release, age of the participant and prior incarceration experiences all influence the probability of the individual returning to prison for a technical violation or new arrest by the DOC. Among those returned to prison by DPSCS Department of Corrections (DOC), the probability of being returned for those who mediate is 32% -- 12% less than those who do not mediate with a predicted probability of return of 44%.

Table 4: Regression: Mediation on Recidivism – Mediation Treatment vs. CMM Control Group

	Logistic Odds Ratios[#] and z Statistic			
	(1) Arrest	(2) Conviction	(3) Incarceration - Sentence	(4) DOC Returned Tech &/or Arrest
Mediated	0.578 (2.83)**	0.427 (3.69)***	0.478 (3.04)**	0.601 (2.27)*
Days Since Release	1.001 (4.28)***	1.001 (4.80)***	1.001 (4.46)***	1.001 (3.79)***
Age of Participant	0.947 (5.34)***	0.952 (4.27)***	0.945 (4.52)***	0.974 (2.32)*
Degree of Happiness with Other Party	0.877 (2.79)**	0.967 (0.66)	1.008 (0.15)	1.050 (0.97)
No Control Relationship(R) (higher values = more control)	1.171 (2.49)*	1.128 (1.74)	1.117 (1.52)	0.952 (0.72)
Prior Arrest Conviction Rate[L]	0.211 (3.51)***	0.455 (1.57)	0.354 (1.94)	0.675 (0.81)
Prior Charge Conviction Rate[L]	3.084 (1.80)	3.454 (1.80)	5.407 (2.35)*	1.016 (0.02)
Average Number Days Sentenced to Incarceration[L]	0.999 (2.75)**	0.998 (3.06)**	0.998 (2.64)**	1.000 (1.05)
Total Times Incarcerated 1 or More Days[L]	1.173 (6.26)***	1.157 (5.93)***	1.130 (4.86)***	1.056 (2.15)*
Observations	762	762	762	578
Pseudo R-Square	.1155	.1185	.1046	.0417
Log Likelihood	-464.31	-409.86	-378.16	-376.24

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

[#]Odds Ratios with values above 1 indicate a positive association (or higher odds of the outcome occurring), values below 1 indicate a negative association (or lower odds of the outcome occurring).

Table 5: Regression: Sessions on Recidivism - Mediation Treatment vs. CMM Control Group

	Logistic Odds Ratios[#] and z Statistic			
	(1) Arrest	(2) Conviction	(3) Incarceration	(4) Returned Prison Tech &/or Arrest
Number of Sessions	0.729 (2.83)**	0.628 (3.10)**	0.655 (2.65)**	0.835 (1.39)
Days Since Release	1.001 (4.19)***	1.001 (4.70)***	1.001 (4.39)***	1.001 (3.75)***
Age of Participant	0.947 (5.35)***	0.952 (4.26)***	0.945 (4.52)***	0.975 (2.23)*
Degree of Happiness with Other Party	0.874 (2.88)**	0.962 (0.77)	1.004 (0.07)	1.044 (0.87)
No Control Relationship(R) (higher values = more control)	1.173 (2.52)*	1.126 (1.72)	1.115 (1.50)	0.953 (0.70)
Prior Arrest Conviction Rate[L]	0.210 (3.53)***	0.455 (1.58)	0.353 (1.95)	0.696 (0.75)
Prior Charge Conviction Rate[L]	2.991 (1.75)	3.283 (1.74)	5.169 (2.30)*	1.021 (0.03)
Average Number Days Sentenced to Incarceration[L]	0.999 (2.66)**	0.998 (3.00)**	0.998 (2.59)**	1.000 (1.10)
Total Times Incarcerated 1 or More Days[L]	1.174 (6.29)***	1.158 (5.96)***	1.130 (4.90)***	1.054 (2.09)*
Observations	762	762	762	578
Pseudo R-Square	.1160	.1151	.1028	.0376
Log Likelihood	-464.08	-411.465	-378.92	-377.87

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

[#]Odds Ratios with values above 1 indicate a positive association (or higher odds of the outcome occurring), values below 1 indicate a negative association (or lower odds of the outcome occurring).

Results: Logistic Regression -- Mediation Treatment Group vs. Cohort Control Group

Table 6 and Table 7 provide the results of the logistic regression analysis comparing those who participate in CMM versus the randomly selected and matched Cohort Control Group. In this analysis, participation in reentry mediation significantly reduces the probability that that an individual will be arrested and convicted. However, while the sentenced to incarceration model is statistically significant, we have concerns about the model given there were indicators of specification error in the equation when diagnostic tests were conducted. In addition, DOC returns to prison was not significantly different for the Mediation Treatment Group compared to the Cohort Control Group.

Arrest

As indicated in the first column of Table 6 (Model 1) the probability of arrest for those who participate in mediation is 44% compared to the probability of arrest of 56% for those who do not participate in mediation.[12] Table 7 indicates that number of sessions is also a significant factor, with each additional mediation session reducing the probability of arrest by 7%.

Both mediation and number of mediation sessions had very similar results with most of the control variables also significantly influencing the probability of arrest. For example, days since release, race and gender (Non-white individuals and males) all increase the probability of arrest, where the arrest conviction rate and whether this was this individuals first arrest significantly reduce the probability of arrest.

In addition, the total number of drug convictions, VOP convictions, and property convictions are all positively related to recidivism – with higher the number of these types of convictions, the more likely one is to be rearrested post-release.

Conviction

Similarly, the second column of Table 6 (Model 2) shows the probability of conviction for those who participate in mediation is 21% compared to the probability of arrest of 30% for those who do not participate in mediation. Table 7 indicates that number of sessions is also a significant factor, again with each additional mediation session reducing the probability of arrest by 7%. However, race, gender nor number of drug, VOP, or property convictions are no longer significant in the conviction model as they were in the arrest model.

The Cox Regression survival analysis follows.

[12] Probabilities were calculated based on output values (calculation worksheets are provided in Appendix D.)

Table 6: Regression: Mediation on Recidivism – Mediation Treatment vs. Cohort Control Group

Logistic Odds Ratios[#] and z Statistic

	(1) Arrest	(2) Conviction	(3) Sentenced to Incarceration	(4) DOC Returned Tech &/or Arrest
Mediated	0.637	0.647	0.689	1.153
	(3.20)**	(2.61)**	(2.07)*	(0.80)
Days Since Release	1.001	1.001	1.001	1.001
	(16.27)***	(19.14)***	(18.26)***	(16.57)***
Age	0.938	0.944	0.944	0.954
	(19.30)**	(15.59)***	(14.56)***	(13.75)***
Race (1=Non-White; 0=White)	1.387	1.057	1.095	1.081
	(4.86)**	(0.78)	(1.19)	(1.12)
Gender (1=Male; 0=Female)	1.401	1.083	1.223	1.703
	(3.42)**	(0.74)	(1.73)	(4.74)***
Prior Arrest Conviction Rate[L]	0.272	0.428	0.513	0.924
	(7.84)**	(4.71)***	(3.50)***	(0.47)
Prior Charge Conviction Rate[L]	1.895	2.233	1.770	0.445
	(2.82)**	(3.19)**	(2.12)*	(3.25)**
Total Drug Convictions[L]	1.061	1.027	1.023	0.948
	(4.05)**	(1.88)	(1.49)	(3.71)***
Total VOP Convictions[L]	1.045	1.032	1.033	1.072
	(2.21)*	(1.72)	(1.70)	(3.78)***
Total Property Convictions[L]	1.031	1.036	1.038	0.985
	(2.19)*	(2.68)**	(2.76)**	(1.14)
Average Number Days Sentenced to Incarceration[L]	1.000	1.000	1.000	1.000
	(1.84)	(2.84)**	(1.51)	(3.47)**
Total Times Incarcerated 1 or More Days[L]	1.145	1.137	1.135	1.162
	(8.12)**	(7.99)***	(7.67)***	(9.34)***
First Time Arrested (1=Yes; 0=No)	0.621	0.451	0.422	0.571
	(3.53)**	(4.63)***	(4.55)***	(3.90)***
Observations	6234	6234	6234	6121
Pseudo R-Square	.1469	.1358	.1299	.0946
Log Likelihood	-3663.92	-3410.36	-3145.04	-3580.55

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

[#]Odds Ratios with values above 1 indicate a positive association (or higher odds of the outcome occurring), values below 1 indicate a negative association (or lower odds of the outcome occurring).

Table 7: Regression: Sessions on Recidivism – Mediation vs. Cohort Control Group

Logistic Odds Ratios[#] and z Statistic

	(1) Arrest	(2) Conviction	(3) Sentenced to Incarceration	(4) DOC Returned Tech &/or Arrest
Number of Sessions	0.743	0.716	0.742	1.066
	(3.49)***	(2.95)**	(2.44)*	(0.66)
Days Since Release	1.001	1.001	1.001	1.001
	(16.25)***	(19.10)***	(18.22)***	(16.57)***
Age	0.938	0.944	0.944	0.954
	(19.29)***	(15.59)***	(14.57)***	(13.77)***
Race	1.389	1.059	1.097	1.081
(1=Non-White; 0=White)	(4.88)***	(0.79)	(1.21)	(1.12)
Gender	1.409	1.086	1.225	1.700
(1=Male; 0=Female)	(3.48)**	(0.77)	(1.74)	(4.73)***
Prior Arrest Conviction Rate[L]	0.273	0.429	0.514	0.923
	(7.81)***	(4.69)***	(3.49)***	(0.47)
Prior Charge	1.878	2.218	1.760	0.445
Conviction Rate[L]	(2.78)**	(3.17)**	(2.09)*	(3.25)**
Total Drug Convictions[L]	1.060	1.027	1.022	0.948
	(4.01)***	(1.86)	(1.48)	(3.70)***
Total VOP Convictions[L]	1.045	1.033	1.033	1.072
	(2.22)*	(1.73)	(1.71)	(3.78)***
Total Property Convictions[L]	1.031	1.036	1.038	0.985
	(2.20)*	(2.68)**	(2.76)**	(1.15)
Average Number Days	1.000	1.000	1.000	1.000
Sentenced to Incarceration[L]	(1.82)	(2.82)**	(1.50)	(3.47)**
Total Times Incarcerated	1.145	1.137	1.135	1.163
1 or More Days[L]	(8.13)***	(8.00)***	(7.67)***	(9.35)***
First Time Arrested	0.621	0.450	0.422	0.571
(1=Yes; 0=No)	(3.52)***	(4.63)***	(4.55)***	(3.90)***
Observations	6234	6234	6234	6121
Pseudo R-Square	.1473	.1362	.1303	.0946
Log Likelihood	-3662.30	-3408.76	-3143.75	-3580.65

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

[#]Odds Ratios with values above 1 indicate a positive association (or higher odds of the outcome occurring), values below 1 indicate a negative association (or lower odds of the outcome occurring).

Results: Cox Regression -- Mediation Treatment Group vs. CMM Control Group

The next analysis was to observe if there was a difference between the Mediation Treatment Group and the CMM Control Group, accounting for time to arrest. CJIS data provides the offender's history including all dates of arrest, the outcome of that arrest, and sentencing data. The period between the date of release and the date of the first arrest was calculated to create a "days to event" which was the outcome measure. The same process was used to identify the date of first arrest leading to a conviction post release, and the number of days to the first arrest leading to a sentence of incarceration. DPSCS provided the dates of return to prison; days to this event were calculated.

Across all outcomes examined, participation in mediation reduces the hazard (or risk)[13] of post-release engagement in the justice system compared to those in the CMM Control Group who did not mediate (see Table 8 and Table 9[14]). In addition, controlling for key factors, a higher percentage of individuals in the Mediation Treatment Group survived longer than those in the CMM Control Group (See Table 10 for a summary of survival rates).

Arrest

As indicated in the first column of Table 8 (Model 1), after controlling for key factors, the risk of arrest for those who mediate is reduced by 34% compared to those who do not mediate. The 166 CMM participants matched to the 596 individuals in the CMM comparison group (those who applied for mediation, but did not participate) had a statistically significant ($p<.01$) longer period of time before their first post-release arrest than those in the comparison group. On average, those who mediated survived in the community for 239 days longer before their first arrest than those who did not mediate.

Conviction

The second column of Table 8 (Model 2) shows that the risk of an arrest leading to a conviction for those who mediate is reduced by 49% compared to those who do not mediate. The mediation group averaged 230 days longer in the community before incurring an arrest leading to a conviction; compared to those in the CMM control group. They also survived in the community significantly longer than the comparison group before their first arrest leading to a conviction ($p<.01$). Again, the mediation group averaged 230 days longer in the community before an arrest leading to a conviction, compared to the CMM Control Group.

Incarceration

The second column of Table 8 (Model 3) reveals that the risk of arrest leading to a sentence of incarceration for 1 or more days for those who mediate is reduced by 45%. In addition, those who participated in mediation survived in the community, on average, 163 days longer than the comparison group. The Mediation Treatment Group survived significantly longer than the comparison group to their first arrest leading to incarceration ($p<.05$). The mediation group lasted, on average, 163 days longer than the comparison group.

[13] See Appendix E for calculation worksheet for conversation of hazard rate into relative risk.

[14] While the regression results for the number of sessions is provided, the results are very similar to the mediation results, thus were not included in the hazard rate worksheet, and won't be discussed in detail here.

DOC Return to Prison

Mediation is also effective at reducing returns to prison for a technical violation or arrest (Table 8, Model 4). The risk of return to prison by DOC for a technical violation or new arrest for those who mediate is reduced by 30% compared to those who do not mediate, with all other values held constant. Finally, mediation participants also survived longer than the comparison group with respect to the number of days before being returned by DPSCS to prison for either a technical violation and/or a new arrest. The mediation group lasted, on average, 134 days longer than the comparison group; however, the difference in the average number of days survived was not statistically significant.

Table 8: Regression: Mediation on Time to Failure - Mediation Treatment vs. CMM Control Group

Cox Coefficients and Standard Errors

	(1) Time to First Arrest	(2) Time to First Arrest Leading to Conviction	(3) Time to First Arrest Leading to Sentence of Incarceration	(4) Time to DOC Return to Prison for Tech Violation &/or Arrest
Mediated	-0.416 (3.24)**	-0.681 (3.57)***	-0.600 (2.89)**	-0.354 (2.02)*
Age of Participant	-0.040 (5.99)***	-0.043 (4.60)***	-0.050 (4.74)***	-0.024 (2.67)**
Degree of Happiness with Other Party	-0.069 (2.40)*	-0.030 (0.76)	0.001 (0.03)	0.031 (0.80)
No Control Relationship(R) (higher values = more control)	0.094 (2.41)*	0.092 (1.71)	0.086 (1.41)	-0.036 (0.69)
Prior Arrest Conviction Rate[L]	-1.282 (4.19)***	-0.885 (2.13)*	-1.076 (2.34)*	-0.338 (0.93)
Prior Charge Conviction Rate[L]	0.826 (2.01)*	1.237 (2.27)*	1.672 (2.85)**	0.011 (0.02)
Average Number Days Sentenced to Incarceration[L]	-0.001 (2.80)**	-0.002 (3.11)**	-0.002 (2.74)**	-0.000 (1.35)
Total Times Incarcerated 1 or More Days[L]	0.091 (7.21)***	0.114 (7.07)***	0.105 (5.69)***	0.042 (2.36)*
Observations	762	762	762	578
Log Likelihood	-2500.83	-1386.49	-1133.93	-1439.33

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

Table 9: Regression: Sessions on Time to Failure - Mediation Treatment vs. CMM Control Group

Cox Coefficients and Standard Errors

	(1) Time to First Arrest	(2) Time to First Arrest Leading to Conviction	(3) Time to First Arrest Leading to Sentence of Incarceration	(4) Time to DOC Return to Prison for Tech Violation &/or Arrest
Number of Sessions	-0.242	-0.389	-0.355	-0.139
	(2.98)**	(3.03)**	(2.55)*	(1.36)
Age of Participant	-0.040	-0.043	-0.050	-0.023
	(5.98)***	(4.57)***	(4.72)***	(2.62)**
Degree of Happiness with Other Party	-0.072	-0.034	-0.002	0.027
	(2.50)*	(0.86)	(0.04)	(0.70)
No Control Relationship(R) (higher values = more control)	0.094	0.090	0.084	-0.035
	(2.40)*	(1.66)	(1.38)	(0.68)
Prior Arrest Conviction Rate[L]	-1.281	-0.886	-1.073	-0.344
	(4.20)***	(2.14)*	(2.34)*	(0.95)
Prior Charge Conviction Rate[L]	0.819	1.206	1.632	0.032
	(1.99)*	(2.23)*	(2.81)**	(0.06)
Average Number Days Sentenced to Incarceration[L]	-0.001	-0.002	-0.002	-0.000
	(2.73)**	(3.05)**	(2.69)**	(1.36)
Total Times Incarcerated 1 or More Days[L]	0.090	0.113	0.104	0.041
	(7.23)***	(7.10)***	(5.72)***	(2.31)*
Observations	762	762	762	578
Log Likelihood	-2501.27	-1387.95	-1134.57	-1440.52

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

The difference between the treatment and comparison groups on these recidivism outcomes are also illustrated in the survival plots provided in Figure 1, 2, 3 and 4. On the vertical axis is the cumulative survival rate, or the overall rate of those who have survived – or not re-arrested. These graphs were calculated including the variables contained in the Cox regression models.

In terms of arrest leading to a conviction, At 365 days post release, 92% of mediation participants survived in the community compared to 85% of the comparison group. Looking at Figure 1, the gap between the treatment and control group begins to widen around 300 days (10 months), and the treatment group continues to survive at higher rates than those in the comparison group. Within two years of release, 86% of the CMM mediation group survived, compared to 75% of the comparison group; at three years, 78% of those who mediated survived without an arrest leading to a conviction, compared to 67% of the comparison group.

The same pattern exhibited for arrest and arrest leading to conviction is evident with respect to a post release arrest leading to incarceration. Of the mediation group, 92% survived without an arrest compared to 88% of the non-mediation group at 365 days. At two years 88% of the treatment group survived versus 79% of the comparison group; 3 years out, 85% survived compared to 76% of those who applied for mediation but did not participate.

Among those returned to prison by DOC, 78% of those who mediated survived a year prior to being returned compared to 72% of the comparison group. At 2 years post-release, 70% of the CMM mediation group survived compared to 59%; and at 3 years, 65% of the treatment group survived compared to 55% of those in the comparison group.

Figure 1: Survival Plot: Days to First Arrest Mediation Treatment vs. CMM Control Group

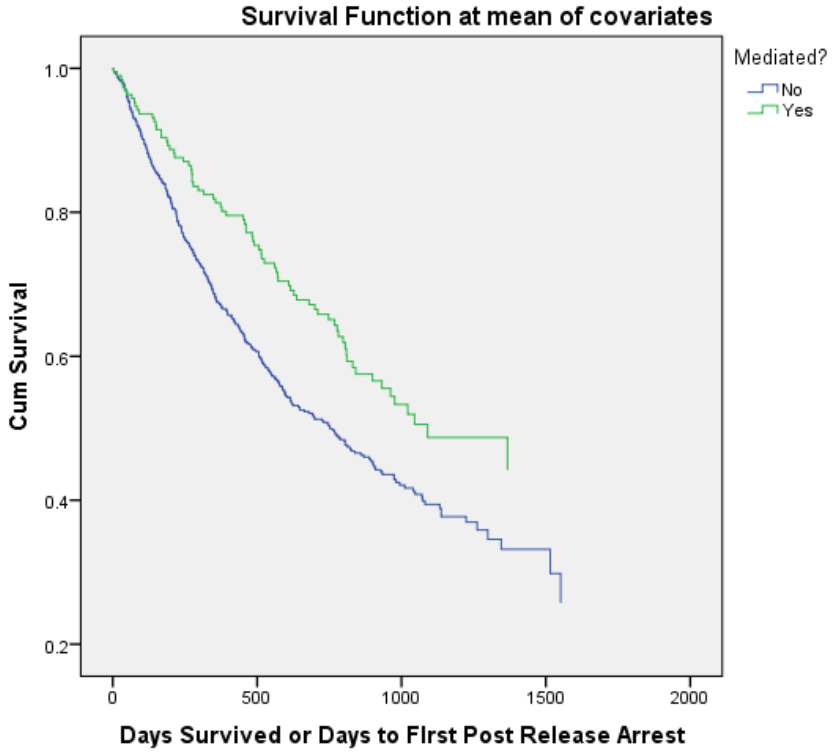

Figure 2: Survival Plot: Days to First Arrest Leading to Conviction Mediation Treatment vs. CMM Control Group

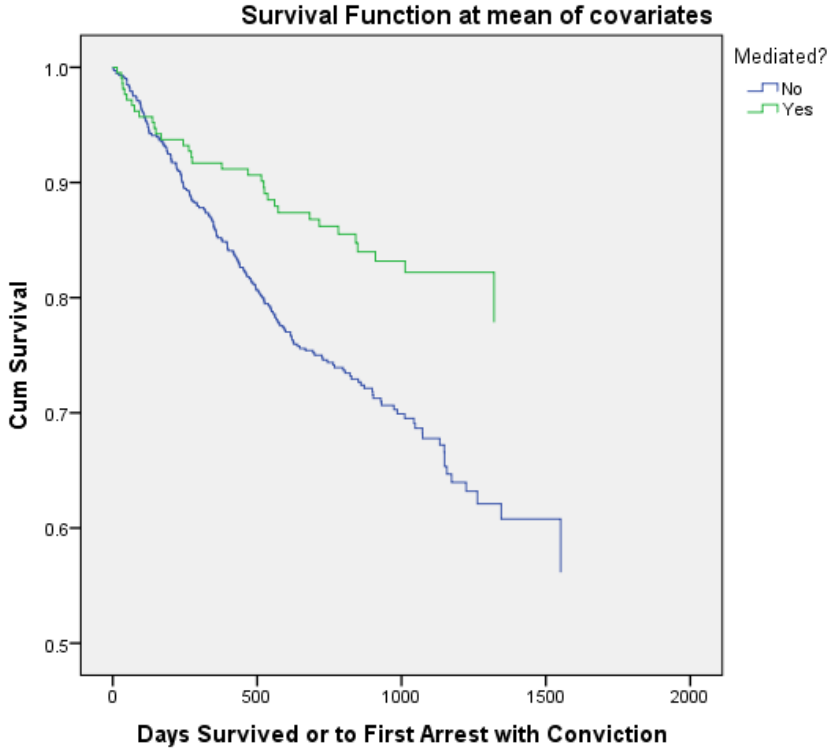

Figure 3: Survival Plot: Days to First Arrest Leading to Incarceration Mediation Treatment vs. CMM Control Group

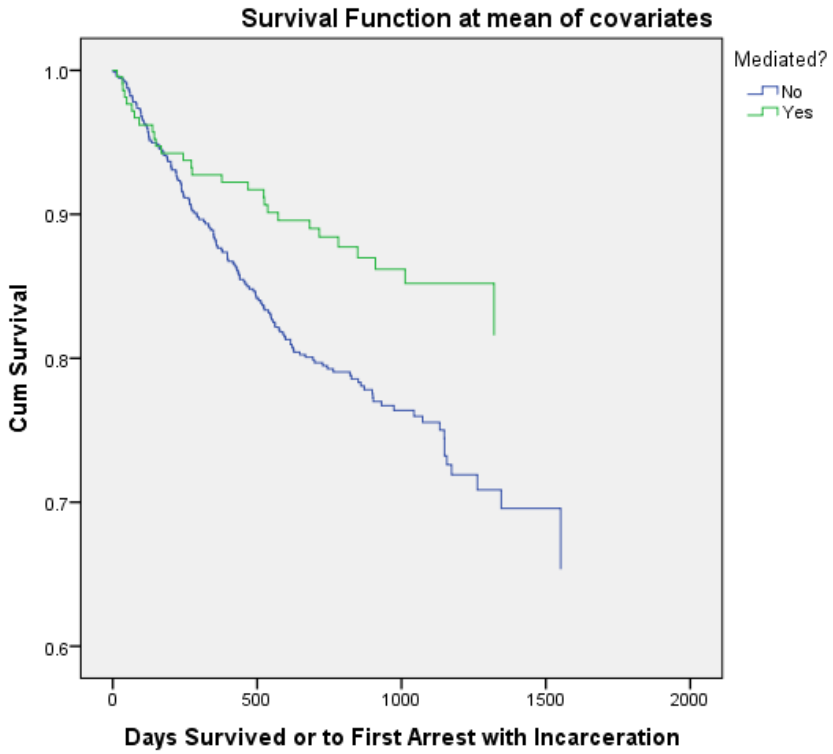

Figure 4: Survival Plot: Days to DOC Return to Prison Mediation Treatment vs. CMM Control Group

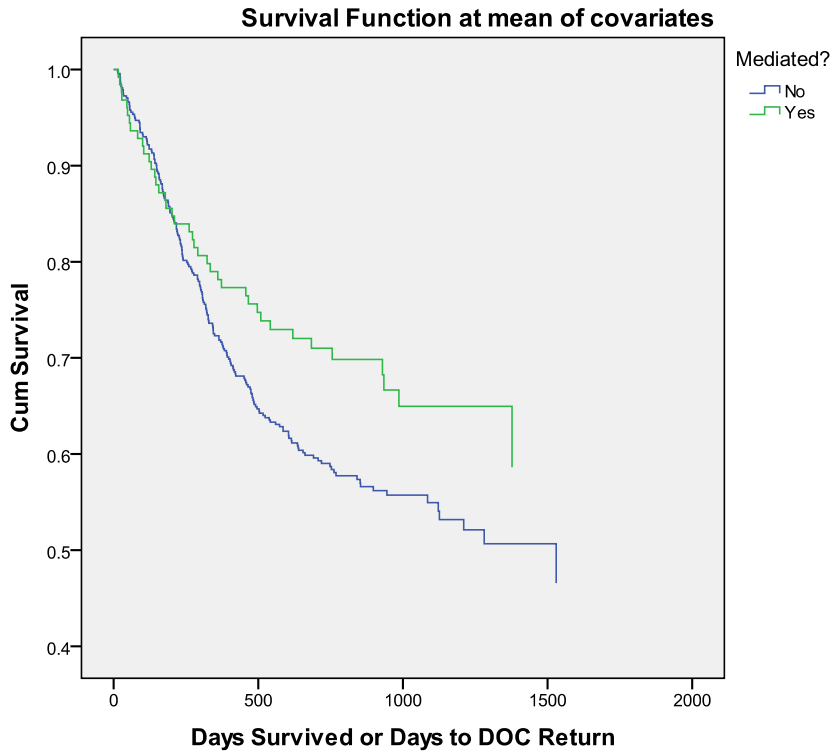

Table 10: Survival at 1, 2 and 3 years – Mediation Treatment vs. CMM Control Group

	1 Year		At 2 Years		At 3 Years	
	TX	**CTRL**	**TX**	**CTRL**	**TX**	**CTRL**
Arrest	81%	68%	66%	51%	49%	39%
Conviction	92%	85%	86%	75%	78%	67%
Incarceration	92%	88%	88%	79%	85%	76%
DOC Return	78%	72%	70%	59%	65%	55%

Results: Cox Regression -- Mediation Treatment Group vs. Cohort Control Group

When the Mediation Treatment Group is compared Cohort Control Group, mediation reduces the risk of arrest, conviction and incarceration. A higher percentage of individuals who received mediation survive longer in the community at 1, 2 and 3 years post-release (see Table 13 for a summary of survival rates).

Arrest

As indicated in the first column of Table 11 (Model 1), after controlling for key factors, the risk of arrest for those who mediate is reduced by 28% compared to those in the Cohort Control Group, with all other values held constant. Overall, the 271 CMM participants survived significantly ($p<.01$) longer before arrest than the 5,963 individuals in the cohort comparison group.

Conviction

Again, the overall the mediation participants survived in the community significantly longer than the Cohort Control Group before their first arrest leading to a conviction ($p<.01$) (Table 11, Model 2). However, those who mediated survived in the community, on average, for 67 *fewer* days before their first arrest leading to a conviction than those in the Cohort Control Group who did not mediate. While that difference was significant at $p<.05$, it should be noted that this test is conducted on the model without controlling for any other key factors.

Incarceration

Among those sentenced to 1 or more days of incarceration post release, overall, mediation participants survived significantly longer than the cohort comparison group ($p<.01$) to their first arrest leading to incarceration ($p<.05$). However, while not controlling for any factors that may influence the outcome, those who mediated survived in the community, on average, for 100 *fewer* days before their first arrest leading to a conviction than those in the Cohort Control Group who did not mediate. That difference was significant at $p<.05$.

DOC Return to Prison

Finally, there is no difference among those returned to prison by DOC between those who mediated and those in the cohort control group participants in the survival analysis.

Table 11: Regression: Mediation on Time to Failure - Mediation vs. Cohort Control Group

Cox Coefficients and Standard Errors

	(1) Time to First Arrest	(2) Time to First Arrest Leading to Conviction	(3) Time to First Arrest Leading to Sentence of Incarceration	(4) Time to DOC Return to Prison for Tech Violation &/or Arrest
Mediated	-0.324 (3.35)**	-0.423 (3.08)**	-0.438 (2.85)**	-0.035 (0.25)
Age	-0.044 (20.21)***	-0.042 (15.04)***	-0.044 (14.14)***	-0.039 (14.49)***
Race (1=Non-White; 0=White)	0.224 (5.16)***	0.058 (1.06)	0.090 (1.48)	0.052 (0.97)
Gender (1=Male; 0=Female)	0.223 (3.33)**	0.043 (0.53)	0.129 (1.36)	0.421 (4.54)***
Prior Arrest Conviction Rate[L]	-0.824 (7.73)***	-0.610 (4.38)***	-0.512 (3.32)**	-0.118 (0.90)
Prior Charge Conviction Rate[L]	0.401 (2.69)**	0.562 (2.90)**	0.416 (1.91)	-0.645 (3.30)**
Total Drug Convictions[L]	0.030 (3.74)***	0.020 (1.99)*	0.020 (1.84)	-0.035 (3.28)**
Total VOP Convictions[L]	0.024 (2.44)*	0.030 (2.56)*	0.033 (2.57)*	0.052 (4.47)***
Total Property Convictions[L]	0.009 (1.21)	0.013 (1.41)	0.017 (1.77)	-0.018 (1.85)
Average Number Days Sentenced to Incarceration[L]	-0.000 (3.04)**	-0.000 (3.40)**	-0.000 (1.83)	0.000 (3.70)***
Total Times Incarcerated 1 or More Days[L]	0.086 (10.12)***	0.084 (8.17)***	0.086 (7.71)***	0.111 (10.04)***
First Time Arrested (1=Yes; 0=No)	-0.434 (4.27)***	-0.764 (5.06)***	-0.839 (4.90)***	-0.460 (3.88)***
Observations	6234	6234	6234	6121
Log Likelihood	-27503.73	-16790.32	-13716.00	-17675.21

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

Table 12: Regression: Sessions on Time to Failure - Mediation vs. Cohort Control Group

Cox Coefficients and Standard Errors

	(1) Time to First Arrest	(2) Time to First Arrest Leading to Conviction	(3) Time to First Arrest Leading to Sentence of Incarceration	(4) Time to DOC Return to Prison for Tech Violation &/or Arrest
Number of Sessions	-0.222 (3.51)***	-0.320 (3.30)**	-0.333 (3.06)**	-0.028 (0.36)
Age	-0.043 (20.21)***	-0.042 (15.03)***	-0.044 (14.14)***	-0.039 (14.49)***
Race (1=Non-White; 0=White)	0.225 (5.18)***	0.059 (1.08)	0.091 (1.49)	0.052 (0.98)
Gender (1=Male; 0=Female)	0.228 (3.40)**	0.047 (0.58)	0.133 (1.40)	0.421 (4.54)***
Prior Arrest Conviction Rate[L]	-0.822 (7.71)***	-0.609 (4.36)***	-0.510 (3.30)**	-0.117 (0.90)
Prior Charge Conviction Rate[L]	0.400 (2.68)**	0.558 (2.88)**	0.412 (1.89)	-0.645 (3.31)**
Total Drug Convictions[L]	0.030 (3.70)***	0.020 (1.97)*	0.020 (1.82)	-0.035 (3.28)**
Total VOP Convictions[L]	0.024 (2.45)*	0.030 (2.58)**	0.033 (2.59)**	0.052 (4.48)**
Total Property Convictions[L]	0.009 (1.20)	0.013 (1.41)	0.017 (1.76)	-0.018 (1.85)
Average Number Days Sentenced to Incarceration[L]	-0.000 (3.03)**	-0.000 (3.38)**	-0.000 (1.82)	0.000 (3.70)***
Total Times Incarcerated 1 or More Days[L]	0.086 (10.13)***	0.084 (8.18)***	0.087 (7.71)***	0.111 (10.04)***
First Time Arrested (1=Yes; 0=No)	-0.435 (4.28)***	-0.765 (5.07)***	-0.840 (4.91)***	-0.460 (3.88)***
Observations	6234	6234	6234	6121
Log Likelihood	-27502.43	-16788.65	-13714.51	-17675.17

[L] Lifetime measure based on criminal history

* Significant at p<.05 ** Significant at p<.01 ***Significant at p<.000

The difference between the treatment and cohort comparison group on these recidivism outcomes are also illustrated in the survival plots provided in 5, 6 and 7. On the vertical axis is the cumulative survival rate, or the overall rate of those who have survived – or not re-arrested. These graphs were calculated including the variables contained in the Cox regression models.

At 365 days post release, 81% of mediation participants survived in the community without being arrested. In contrast, 71% of the cohort comparison group survived. Within two years of release, 67% of the CMM mediation group survived, compared to 56% of the cohort comparison group; at three years, 53% of those who mediated survived without an arrest, compared to 47% of the Cohort Control Group.

In terms of arrest leading to a conviction, At 365 days post release, 91% of mediation participants survived in the community compared to 86% of the comparison group. Within two years of release, 84% of the CMM mediation group survived, compared to 77% of the cohort comparison group; at three years, 81% of those who mediated survived without an arrest leading to a conviction, versus 69% of the Cohort Control Group.

The same pattern exhibited for arrest and arrest leading to conviction is evident with respect to a post release arrest leading to incarceration. Of the mediation group, 92% survived without an arrest compared to 88% of the cohort comparison group at 365 days. At two years 87% of the treatment group survived versus 81% of the comparison group; 3 years out, 84% survived compared to 75% of those who applied for mediation but did not participate.

Figure 5: Survival Plot: Days to First Arrest: Mediation vs. Cohort Control Group

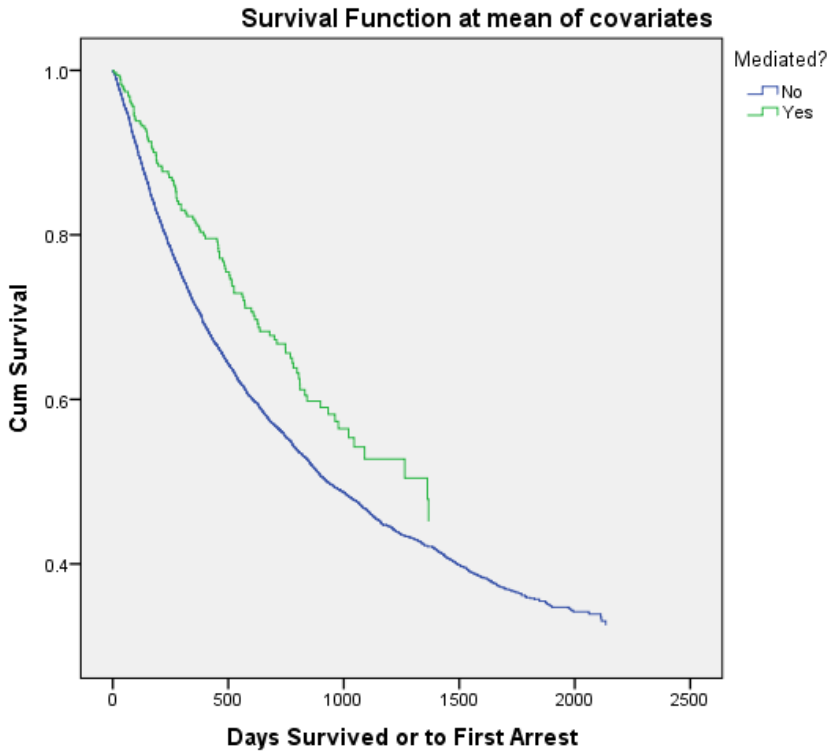

Figure 6: Survival Plot: Days to First Arrest to Conviction: Mediation vs. Cohort Control Group

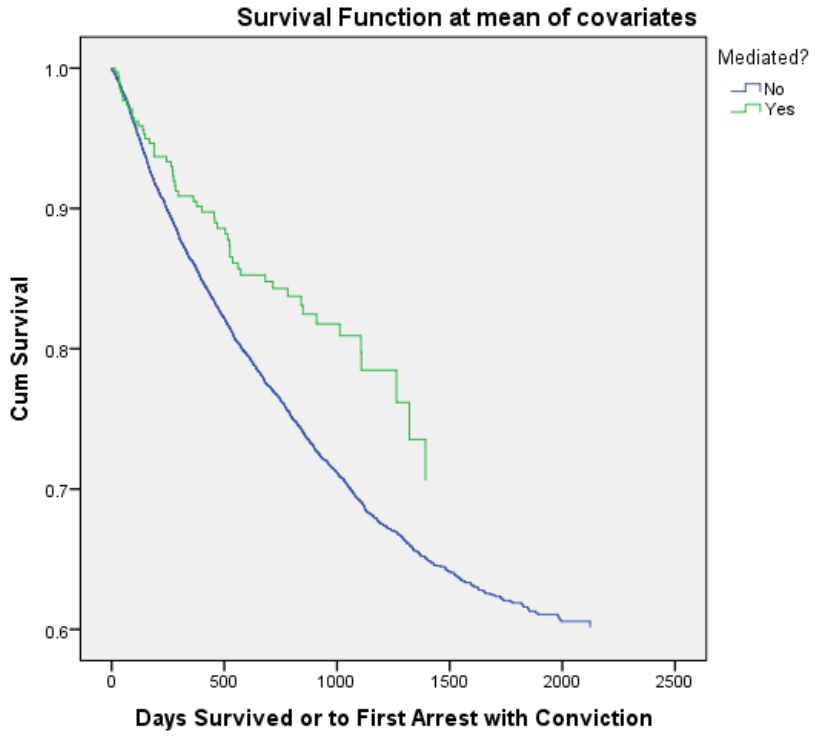

Figure 7: Survival Plot: Days to First Arrest to Incarceration: Mediation vs. Cohort Control Group

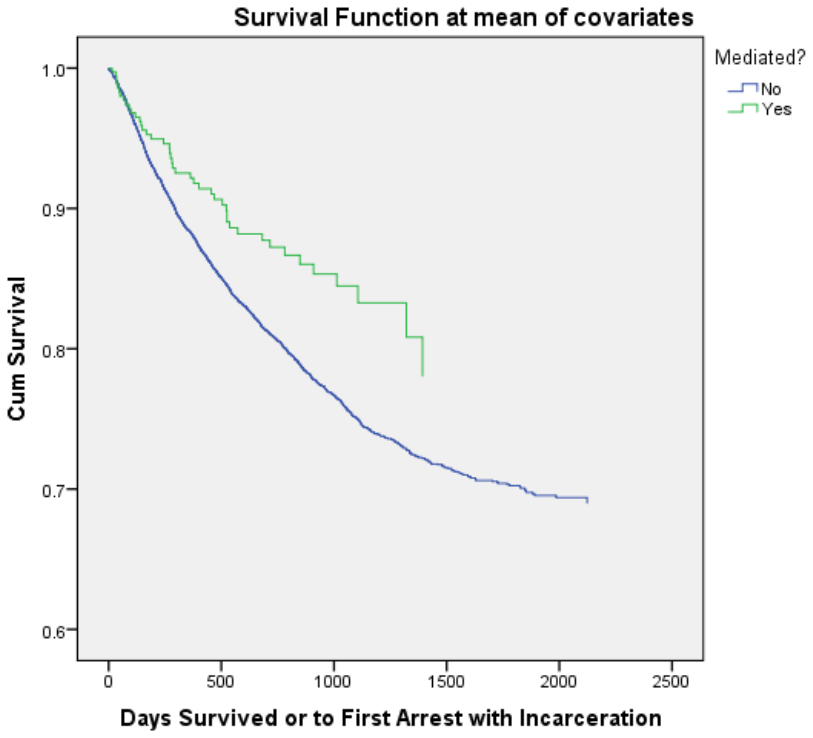

Table 13: Survival at 1, 2 and 3 years – Mediation vs. Cohort Control Group

	1 Year		At 2 Years		At 3 Years	
	TX	**CTRL**	**TX**	**CTRL**	**TX**	**CTRL**
Arrest	81%	71%	67%	56%	53%	47%
Conviction	91%	86%	84%	77%	81%	69%
Incarceration	92%	88%	87%	81%	84%	75%
DOC Return	Not Significant		Not Significant			

Conclusion

In summary, participation in mediation has a strong impact by reducing the probability of arrest, conviction, incarceration and returns to prison by DOC.

An earlier report considering the impact of reentry mediation on recidivism was issued in April 2013. The April 2013 report showed that those who participate in mediation were less likely to be arrested and survived in the community for a longer period of time prior to arrest, compared to those who signed up for mediation but did not participate mediation. The April 2013 analysis reported some limitations, including: the need for a larger treatment group; official release dates; data on returns to prison; and the utilization quasi-experimental statistical controls to select the comparison group.

This report addresses key limitations detailed in the prior report including: obtaining a larger treatment group; utilizing release dates provided by the Department of Public Safety and Correctional Services (DPSCS); conducting a larger scale study utilizing quasi-experimental statistical controls (propensity score matching) on a second comparison group randomly selected from a cohort released in a similar time period; and matching the treatment group to the group of individuals who signed up for mediation but did not participate in the service. Finally, DPSCS provided return to prison data for those who violated parole or probation for either a new arrest or a technical violation.

This report used two separate control groups for the comparison. The first control group was created by pulling from inmates who requested mediation services but did not receive those services because the outside person could not be reached, the other participant chose not to mediate, facility logistical issues prevented the mediation from occurring or the inmate was transferred or released before the mediation could be set up. This control group provides for a stronger and more rigorous analysis because these individuals demonstrated the same "motivation" by requesting the service as those who were in the treatment group. Furthermore, because these individuals requested the service, CMM staff completed a questionnaire with them which provides significant demographic, criminal history, and attitudinal data. This data can then be used for matching and can be controlled for when isolating the impact of mediation.

The second control group includes those who were randomly selected among individuals released from DPSCS during the same period. The advantage to considering this group is that it allows for a comparison with the general population. The disadvantage is that the information about this group is limited to data included in CJIS and there is no information about their attitudes, families, or detailed demographics. Therefore, these other factors, many of which affect recidivism, cannot be considered in the analysis.

The results show that mediation is effective at decreasing recidivism across both groups. The results for the first group are somewhat stronger. This is to be expected because the analysis with this first group controls for a range of factors that affect recidivism and fully isolate the impact of mediation, separate from motivation for change and separate from other attitudinal factors. This group is considered to be the better comparison group. However, the fact that mediation is still so strongly significant in comparison to the random sample of DPSCS releases, even when many of these factors cannot be controlled, is a testament to the strength and consistency of these findings.

Given the rigor of the analytic method, the quality and quantity of the data and the consistency of these results, it is clear that the CMM Reentry Mediation model is an effective tool for reducing the costs of involvement in the criminal justice system to the individual, their families, and the com
Two studies have now found that the CMM reentry mediation model decreases recidivism. DPSCS and local detention centers should find ways to expand the program to offer these services to more individuals preparing for release.

Future research might focus further on the internal workings of the program to understanding what mediation components are most important for success and to further refine best practices.

Appendix A: Study Samples

CMM Sample – Treatment and Comparison

1,731 Unique Individuals Requested Services
Names/SID Numbers Submitted CJIS Data
391 Not Matched in CJIS data
2 Names Omitted Due to Researcher Error
Total = 1,338 Matched in CJIS

Of **1,338** Matched in CJIS,
22 Never Eligible for Service
16 Released after 7/1/2014
(Last Date of CJIS activity)
1,018 Did Not Mediate
282 Mediated
Total = 1,300 with CJIS Record
4 Control Cases no prior CJIS Activity
1,296 in Propensity Score Match Pool
CJIS Recidivism Analysis
282 Mediated
Of **1,296** in the Propensity Match Pool
762 Matched
Total = 762 CMM Group Analysis
596 Did Not Mediate
166 Mediated

Of **1,296** in CMM Group Recidivism Analysis
797 with Returns to Prison Data
Data Not Available or Not Applicable:
179 in Detention (ACTSAP, BCDC, DHW)
139 in Local Facility
150 Released FY2014
31 No Data Provided
Of **181** without Returns to Prison Data
141 Did Not Mediate
40 Mediated
Of **797** with Returns to Prison Data
636 Did Not Mediate
161 Mediated
Total = 797 DOC Return to Prison Recidivism Analysis
Of the **762** Matched CMM Group Analysis
Total = **578 had DOC Return Data**
459 Did Not Mediate
119 Mediated

Treatment and Cohort Comparison Group

35,297 Released from DPSCS
FY 2009 to FY 2013
8 Under 18 years old – dropped
709 Cohort Cases no prior CJIS Activity
34,580 for Random Sample
25,242 Released Facilities* with CMM
24,960 Did Not Mediate
282 Mediated
Randomly selected 25% of Released
6,471 in the Propensity Score Match Pool
6,234 Matched
Total = 6,234 Cohort Control Group Analysis
5,963 Did Not Mediate
271 Mediated

Of **6,234** in Cohort Control Group Recidivism Analysis
6, 121 with Returns to Prison Data
Of **113** without Returns to Prison Data
74 Did Not Mediate
39 Mediated
Total = 6,121 DOC Return to Prison Recidivism Analysis
Of **6,121** Matched Cohort Control Group Analysis
5,963 Did Not Mediate
158 Mediated

*Plus the Maryland Reception, Diagnostics, and Classification Center (MRDCC) and Home Detention Unit (HDU) as a number of individuals' who participated in CMM services were released from these facilities.

Appendix B: Propensity Matching Technical Report

Random assignment to the treatment condition is considered the scientific "gold standard". This is because when individuals are assigned to treatment by chance, it can be assumed that variations between those in the comparison and the treatment groups are random and should not influence or bias the outcomes of the study.

In many instances, random assignment is not feasible, so it is possible that those participating in a program that selected (or self-selected) into the treatment condition were substantially different than those who would be randomly assigned to treatment. One way to overcome this selection bias is to create a comparison group by calculating a propensity score using logistic regression to estimate the probability that, had this intervention employed random assignment, the individual would have been assigned to the treatment group.[15]

Two sources of data were utilized to create the propensity score. For both the CMM Mediation Treatment and Control Group and the Cohort Control Groups, data for matching were obtained through summated variables from the standard Criminal Justice Information System (CJIS) criminal history. In addition, for the CMM Mediation Treatment and Control Group, data from the pre-service questionnaire provided by those who request the service, allowed us to include key data related to both the relationship between the inmate and the person they wanted to mediate with; as well as information as to how the individual viewed conflict generally. Note that having these type of self-report measures, unavailable for the Cohort Control Group, likely renders the CMM Control Group as the more closely matched comparison group than the Cohort Control Group.

The objective of the propensity score analysis is to obtain "covariate balance … [where] the observed covariates x and the treatment Z are *conditionally independent* within the matched sets" of individuals.[16] The selection of the variables to be included in the propensity score calculation were more of a "kitchen sink" approach where all theoretically relevant factors believed to influence either someone's participation in the treatment and/or the outcome of a post-release arrest, were included in the model. In this case, virtually every variable available was considered. The final set of variables that were included in the propensity score for the final comparison group are listed in Table 14.

Using StataSE 13, logistic regression was conducted for each of the comparison groups. While a number of variables were examined, several variables originally considered were dropped from the model because it was not possible to "balance" the treatment and comparison groups when these variables where included (e.g., length of criminal career was dropped). For the CMM Mediation Treatment and Control Group, 25 variables were ultimately selected (see Figure 8 for the final CMM Mediation Treatment and Control Group Matching model). For the Cohort Control Group, 13 variables were included (see Figure 10).

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[15] Rosenbuam, P.R., & D.B. Rubin (1985). Constructing a Control Group Using Multivariate Matched Sampling Methods that Incorporate the Propensity Score. The American Statistician, 39, (1), 33-38.

[16] Loughran, T. (2007). Causal Inference Using Propensity Scores. Presentation at the American Society of Criminology Workshop, November 13, 2007.

Table 14: Variables Used to Calculate Propensity Score

Variable Name	Explanation
Age	Age as of Date of Release/Signed up for CMM Service
Nonwhite	Race/Ethnicity White=0; Non-White=1
Gender	Male or Female Female=0; Male=1
Daysfromrel	Days Since Release
Hxage*	Age at first involvement with crime (self-report)
Pposrole*	Other party plays a positive role in my life (self-report)
Phappy*	Often you confide in other party? (self-report)
Pucon*	Often does the other party confide in you? (self-report)
noctrlR*	Feeling of Control of Relationship (Recoded) (self-report)
Conflict*	Conflict can be dealt with productively (self-report)
Drugoff	Most serious prior conviction was a drug offense
Personoff	Most serious prior conviction was a person offense
N_arrests	Arrests Prior Career Total
arrconvrate	Prior Arrest Conviction Rate
N_totalchgs	Total Prior Charges
chgconvrate	Prior Charge Conviction Rate
Actualmean	Average number of days sentenced to incarceration
Sercat_first	Prior Most Serious Offense Category
incarcer_sum	Total Times Incarcerated 1 or more Days
convsercat_mean	Average Serious Category, Prior Convictions
Convperson_sum	Prior Total Person Convictions
convproperty_sum	Prior Total Property Convictions
Convdrug_sum	Prior Total Drug Convictions
Convvop_sum	Prior Total Violation of Probation/Parole Convictions
convmisfel_mean	Prior Average Felony Convictions

*CMM Mediation Treatment and CMM Control Group Data Only

Once the propensity scores were calculated, the comparison groups were matched to the treatment sample by requesting two comparison cases who were the "nearest neighbor" to the treatment case based on the propensity score. For the CMM Mediation Treatment and Control Group, of the initial 1,296 cases in the propensity match pool, 762 cases were matched and included in the final sample. Of those 762, 562 were in the CMM Control Group, matched to 166 in the Mediation Treatment Group. Refer to Figure 9 for a graphical display (box plots) of the area of common support (e.g., the overlap) between the two groups.

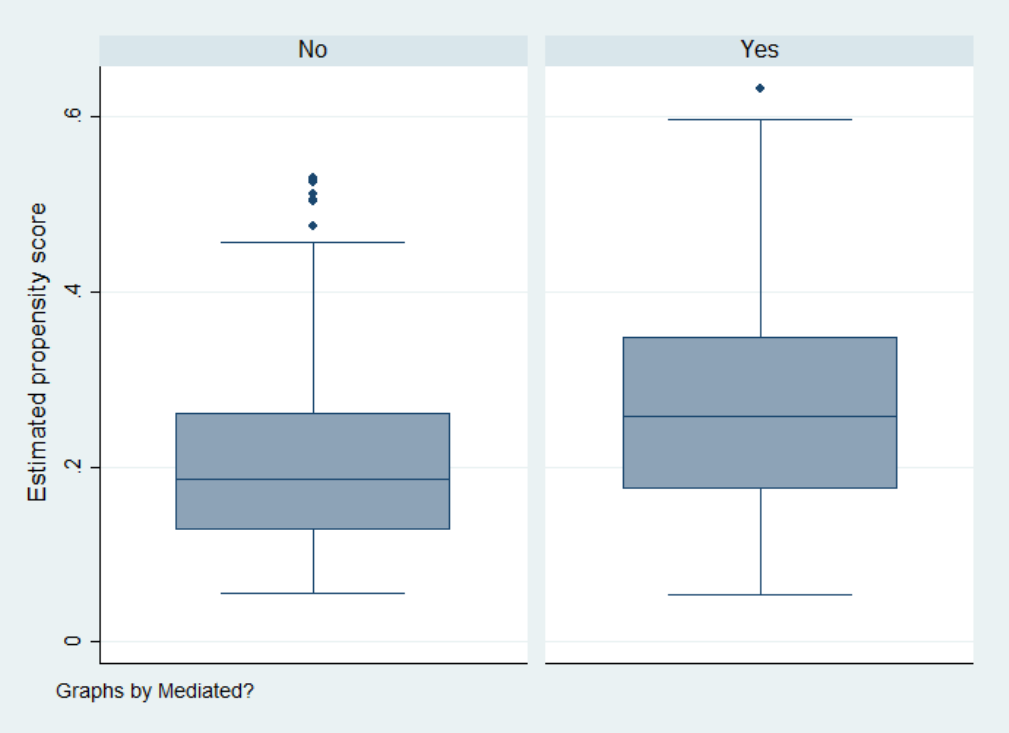
For the CMM Mediation Treatment and Control Group, statistical tests were also conducted to compare those retained to those who were dropped in the propensity matching process. In many realms, (except gender, number of children, feelings of control and first involvement in crime and a few of the summated CJIS criminal history variables) those who matched and retained in the analysis were generally more serious offenders overall with a higher number of prior arrests, convictions, charges, and longer criminal careers. There were also differences in race and days since release – with those retained being more likely to be nonwhite and have been out for almost 3 years (compared to those not matched who were released on average for 18 months). This appears to indicate that those in the Mediation Treatment Group were more serious offenders than the general population and potentially more likely to get arrested, if not for the mediation process.

Figure 8: CMM Mediation Treatment and Control Group - Propensity Score Variable Coefficients, Standard Errors & t-values

```
. reg $ylist $treatment $xlist

      Source |       SS       df       MS              Number of obs =     776
-------------+------------------------------           F( 26,   749) =    5.75
       Model |  32.0638333    26  1.23322436           Prob > F      =  0.0000
    Residual |  160.616579   749  .214441361           R-squared     =  0.1664
-------------+------------------------------           Adj R-squared =  0.1375
       Total |  192.680412   775  .248619887           Root MSE      =  .46308

------------------------------------------------------------------------------
          arrest |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
        mediated |  -.1226636   .0419588    -2.92   0.004    -.2050343   -.0402928
             age |  -.0115182   .0022876    -5.04   0.000     -.016009   -.0070275
          single |  -.0113887   .0365263    -0.31   0.755    -.0830948    .0603174
        nonwhite |   .0786375   .0451766     1.74   0.082    -.0100503    .1673252
          gender |   .0777343   .0520283     1.49   0.136    -.0244044     .179873
           hxage |  -.0012192   .0030039    -0.41   0.685    -.0071163    .0046779
     daysfromrel |   .0002332   .0000518     4.50   0.000     .0001315    .0003348
        pposrole |   .0168165   .0203343     0.83   0.408    -.0231024    .0567354
          phappy |  -.0328473   .0122161    -2.69   0.007    -.0568292   -.0088653
           pucon |  -.0059398    .017243    -0.34   0.731    -.0397903    .0279106
         noctrlR |   .0309935   .0136942     2.26   0.024       .00411     .057877
        conflict |  -.0099709   .0190213    -0.52   0.600    -.0473122    .0273705
         drugoff |   .0492382   .0738792     0.67   0.505    -.0957968    .1942731
       personoff |    .043655    .070025     0.62   0.533    -.0938137    .1811237
       N_arrests |   .0046394   .0049792     0.93   0.352    -.0051354    .0144142
     arrconvrate |   -.265146   .1145914    -2.31   0.021    -.4901046   -.0401874
     N_totalchgs |   .0001359   .0015789     0.09   0.931    -.0029638    .0032356
     chgconvrate |    .354869     .16781     2.11   0.035     .0254351    .6843029
      actualmean |  -.0001921   .0000782    -2.46   0.014    -.0003456   -.0000386
    sercat_first |  -.0131335   .0158299    -0.83   0.407    -.0442098    .0179428
    incarcer_sum |   .0139682   .0109391     1.28   0.202    -.0075067    .0354432
 convsercat_mean |   .0143416   .0364659     0.39   0.694    -.0572459     .085929
  convperson_sum |  -.0079511   .0123864    -0.64   0.521    -.0322673    .0163651
convproperty_sum |   .0026813   .0087863     0.31   0.760    -.0145675      .01993
    convdrug_sum |   .0090616   .0095454     0.95   0.343    -.0096773    .0278004
 convmisfel_mean |   .0971101   .1088414     0.89   0.373    -.1165604    .3107806
           _cons |   .5611879   .1776068     3.16   0.002     .2125216    .9098542
------------------------------------------------------------------------------

. pscore $treatment $xlist, pscore(myscore) blockid(myblock) comsup
```

Note that even with matching, 7 variables remain statistically different – age, days since release, how happy the inmate is with the outside party, control in the relationship, arrest conviction rate, charge conviction rate, average number of days sentenced to incarceration, and total number of times incarcerated for 1 or more days. Consequently, these variables were included in the outcome models to account for these differences.

Figure 9: Mediation Treatment and CMM Control Group Box Plots N=762



For the Mediation Treatment and Cohort Control Group, again, once the propensity scores were calculated, the comparison group was matched to the treatment sample by requesting two comparison cases who were the "nearest neighbor" to the mediation treatment case based on the propensity score. Of the initial 6,471 cases in the propensity match pool, 6,234 cases were matched and included in the final sample. Of those 6,234, 5,963 were in the Cohort Control Group, matched to 271 in the Mediation Treatment Group.

Figure 10 includes the output table reflecting each variable in the propensity score calculation, coefficients, standard errors, and t values. Again, just as with the CMM Mediation Treatment and Control Group model., there are 9 variables which remain statistically different post matching -- age, gender, nonwhite, arrest conviction rate, charge conviction rate, number of property crime convictions, number of drug crime convictions, and total number of times incarcerated for 1 or more days. Consequently, these variables, as well as several other theoretically relevant variables that could not be included given the balancing constraints (e.g., days since release), were considered in the outcome models to account for these differences.

Refer to Figure 11 for a graphical display (box plots) of the area of common support (e.g., the overlap) between the two groups.

Figure 10: Cohort Control Group Propensity Score Variable Coefficients, Standard Errors & t-values

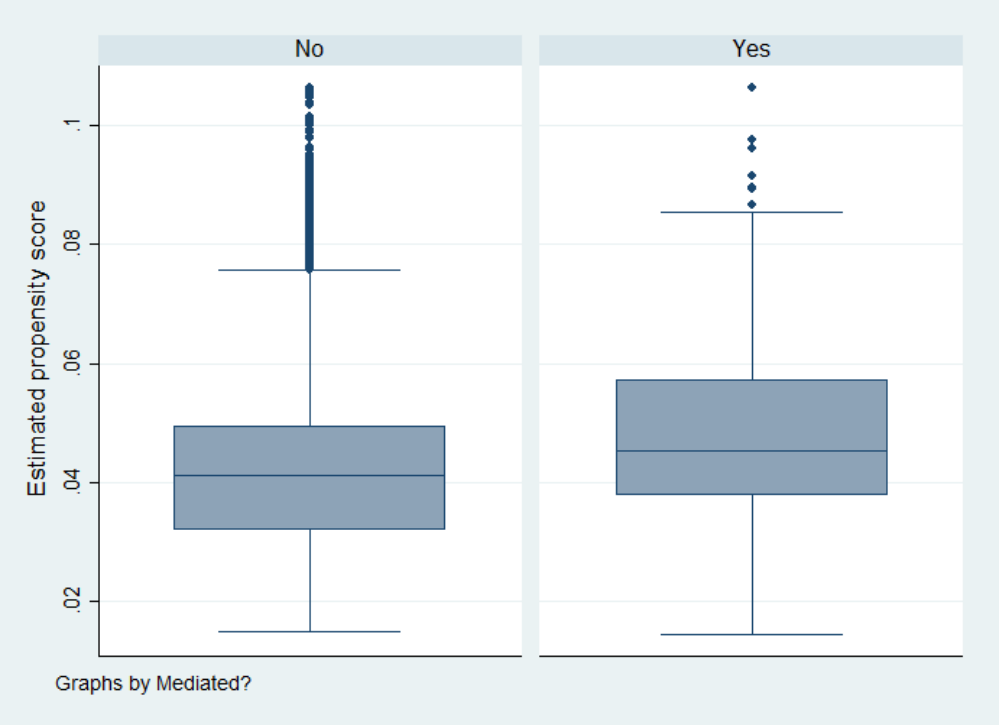
```
. reg $ylist $treatment $xlist
```

Source	SS	df	MS		
Model	222.988915	14	15.9277796	Number of obs	= 6279
Residual	1333.41338	6264	.212869313	F(14, 6264)	= 74.82
				Prob > F	= 0.0000
Total	1556.40229	6278	.247913714	R-squared	= 0.1433
				Adj R-squared	= 0.1414
				Root MSE	= .46138

arrest	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
mediated	-.169809	.028735	-5.91	0.000	-.2261394	-.1134786
age	-.0127401	.0006205	-20.53	0.000	-.0139564	-.0115237
gender	.0572419	.0202119	2.83	0.005	.0176196	.0968641
nonwhite	.0596951	.0139435	4.28	0.000	.032361	.0870293
drugoff	-.0259999	.0159513	-1.63	0.103	-.05727	.0052702
arrconvrate	-.3276208	.0307477	-10.66	0.000	-.3878968	-.2673447
chgconvrate	.1239026	.0483889	2.56	0.010	.0290439	.2187614
convmisfel_mean	-.0187004	.0212957	-0.88	0.380	-.0604474	.0230465
convperson_sum	.0023087	.0036446	0.63	0.526	-.004836	.0094533
convproperty_sum	.0059614	.0028476	2.09	0.036	.0003791	.0115437
convdrug_sum	.0144334	.0031994	4.51	0.000	.0081615	.0207053
convvop_sum	.0131164	.0039004	3.36	0.001	.0054703	.0207625
actualmean	-.0000266	.0000152	-1.75	0.081	-.0000564	3.24e-06
incarcer_sum	.0249525	.0037057	6.73	0.000	.017688	.032217
_cons	.9216459	.0380204	24.24	0.000	.8471128	.9961789

```
. pscore $treatment $xlist, pscore(myscore) blockid(myblock) comsup
```

Figure 11: Mediation Treatment and Cohort Control Group Box Plots N=6,234



Finally, it is important also to remember is that the propensity score is *not* matching each of the different variables one by one within the comparison group to the treatment cases. What the propensity score does is calculate an *overall* score that allows these different factors to play a role in context with the other attributes. While using this statistical method made it possible to create a well matched comparison group, it is important to note that this is matched on *observed* characteristics of these individuals (e.g., age, criminal history). There could be additional *unobserved* factors that we cannot account for in this process that also likely influence the outcomes of recidivism – particularly with the Cohort Control Group.

We attempt to address this limitation by including as many variables as possible in the model, but this limitation remains. Nonetheless, the rigor of the propensity score method, if used appropriately, has advanced the ability of social scientists who work primarily in a non-laboratory setting, to assess and evaluate treatment using these matching techniques.

Appendix C: Conversion Odds Ratio to Probability - Mediation vs. CMM Control Group

ARREST	Odds Ratio	Reduction In Odds	Change from 0 (CTRL) to 1 (TX)	Change into %			
Mediated	0.578	-42%	-0.135	-13%	Probability those who mediate will be arrested is reduced by 13%		
Days Since Release	1.000	0%	0.000	0%			
Age	0.947	-5%	-0.005	-1%	obs	762	
Happy with Party	0.877	-12%	-0.028	-3%	LL	-464.31	
No Control	1.171	17%	0.039	4%			
Arrest Conv. Rate	0.211	-79%	-0.360	-36%	psudo r2	0.1155	12%
Charge Conv. Rate	3.080	208%	0.262	26%	prvalue	0.55	
Average Days Sent	1.170	17%	0.000	0%	Prob TX Arrest	45%	med=1
Times Incarcerated	1.173	17%	0.038	4%	Prob CT Arrest	58%	med=0
Sessions - Number	0.729	-27%	-0.078	-8%	With each session, probability of arrest is reduced by 8%		
Days Since Release	1.001	0%	0.000	0%			
Age	0.947	-5%	-0.013	-1%			
Happy with Party	0.874	-13%	-0.033	-3%	obs	762	
No Control	1.173	17%	0.040	4%	LL	-464.08	
Arrest Conv. Rate	0.210	-79%	-0.368	-37%	psudo r2	0.116	12%
Charge Conv. Rate	2.991	199%	0.265	26%			
Average Days Sent	0.998	0%	0.000	0%			
Times Incarcerated	1.174	17%	0.040	4%			

CONVICTION	Odds Ratio	Reduction In Odds	Change from 0 (CTRL) to 1 (TX)	Change into %			
Mediated	0.427	-57%	-0.145	-15%	Probability those who mediate will be convicted is reduced by 15%		
Days Since Release	1.001	0%	0.000	0%			
Age	0.952	-5%	-0.011	-1%	obs	762	
Happy with Party	0.967	-3%	-0.007	-1%	LL	-409.86	
No Control	1.127	13%	0.020	2%			
Arrest Conv. Rate	0.455	-55%	-0.157	-16%	psudo r2	0.1185	12%
Charge Conv. Rate	3.453	245%	0.263	26%	prvalue	0.4479	
Average Days Sent	0.998	0%	0.000	0%	Prob TX Convict	15%	med=1
Times Incarcerated	1.157	16%	0.020	2%	Prob CT Convict	30%	med=0

CONVICTION (Cont)	Odds Ratio	Reduction In Odds	Change from 0 (CTRL) to 1 (TX)	Change into %
Sessions - Number	0.628	-37%	-0.090	-9%
Days Since Release	1.001	0%	0.000	0%
Age	0.952	-5%	-0.010	-1%
Happy with Party	0.962	-4%	-0.008	-1%
No Control	1.126	13%	0.023	2%
Arrest Conv. Rate	0.455	-55%	-0.152	-15%
Charge Conv. Rate	3.282	228%	0.228	23%
Average Days Sent	0.998	0%	0.000	0%
Times Incarcerated	1.157	16%	0.028	3%

With each session, probability of conviction reduced by 9%

obs	762	
LL	-411.46	
psudo r2	0.1151	12%

INCARCERATION	Odds Ratio	Reduction In Odds	Change from 0 (CTRL) to 1 (TX)	Change into %
Mediated	0.477	-52%	-0.107	-10%
Days Since Release	1.00	0%	0.000	0%
Age	0.95	-5%	-0.013	-1%
Happy with Party	1.01	1%	0.001	0%
No Control	1.117	12%	0.015	1%
Arrest Conv. Rate	0.3538	-65%	-0.180	-18%
Charge Conv. Rate	5.4	440%	0.325	32%
Average Days Sent	0.998	0%	0.000	0%
Times Incarcerated	1.129	13%	0.014	1%

Probability those who mediate will be reincarcerated reduced by 10%

obs	762	
LL	-378.16	
psudo r2	0.1046	10%
prvalue	0.2064	
Prob TX Reincar	13%	med=1
Prob CT Reincar	23%	med=0

Sessions - Number	0.6549	-35%	-0.069	-7%
Days Since Release	1.001	0%	0.000	0%
Age	0.95	-6%	-0.009	-1%
Happy with Party	1.00	0%	0.001	0%
No Control	1.115	12%	0.018	2%
Arrest Conv. Rate	0.3533	-65%	-0.170	-17%
Charge Conv. Rate	5.1688	417%	0.269	27%
Average Days Sent	0.998	0%	0.000	0%
Times Incarcerated	1.13	13%	0.020	2%

With each session, probability of reincarceration reduced by 7%

obs	762	
LL	-378.92	
psudo r2	0.1028	10%

DOC RETURN PRISON (Violation or New Arrest)	**Odds Ratio**	**Reduction In Odds**	**Change from 0 (CTRL) to 1 (TX)**	**Change into %**			
Mediated	0.60127	-40%	-0.119	-12%	Probability those who mediate returned to DOC reduced by 12%		
Days Since Release	1.00	0%	0.000	0%			
Age	0.97	-3%	-0.006	-1%	obs	578	
Happy with Party	1.05	5%	0.011	1%	LL	-376.24	
No Control	0.951	-5%	-0.012	-1%			
Arrest Conv. Rate	0.675	-33%	-0.096	-10%	psudo r2	0.0417	4%
Charge Conv. Rate	1.016	2%	0.004	0%	prvalue	0.4116	
Average Days Sent	0.999	0%	0.000	0%	Prob TX DOC	32%	med=1
Times Incarcerated	1.055	5%	0.012	1%	Prob CT DOC	44%	med=0

Sessions - Number	**Not Significant**

Appendix D: Conversion Odds Ratio to Probability– CMM vs. Cohort Grp

ARREST	Odds Ratio	Reduction In Odds	Change from 0 (CTRL) to 1 (TX)	Change into %			
Mediated	0.637	-36%	-0.112	-11%	The probability those who mediate will be arrested is reduced by 11%		
Days Since Release	1.000	0%	0.000	0%			
Age	0.938	-6%	-0.005	0%	obs	6234	
Race	1.387	39%	0.081	8%	LL	-3663.92	
Gender	1.401	40%	0.084	8%			
Arrest Conv. Rate	0.271	-73%	-0.306	-31%	psudo r2	0.1469	15%
Charge Conv. Rate	1.894	89%	0.154	15%	prvalue	0.5516	
Drug Conv. Total	1.061	6%	0.015	1%	Prob TX Arrest	44%	med=1
VOP Conv. Total	1.044	4%	0.011	1%	Prob CT Arrest	56%	med=0
Prop. Conv. Total	1.030	3%	0.008	1%			
Average Days Sent	0.999	0%	0.000	0%			
Times Incarcerated	1.144	14%	0.033	3%			
First Time Arrested	0.621	-38%	-0.119	-12%			
Sessions - Number	0.743	-26%	-0.073	-7%	With each session, probability of arrest is reduced by 7%		
Days Since Release	1.000	0%	0.000	0%			
Age	0.938	-6%	-0.016	-2%			
Race	1.389	39%	0.081	8%	obs	6234	
Gender	1.409	41%	0.085	8%	LL	-3662.3	
Arrest Conv. Rate	0.273	-73%	-0.311	-31%	psudo r2	0.1473	15%
Charge Conv. Rate	1.878	88%	0.155	15%			
Drug Conv. Total	1.060	6%	0.014	1%			
VOP Conv. Total	1.045	4%	0.011	1%			
Prop. Conv. Total	1.031	3%	0.008	1%			
Average Days Sent	1.000	0%	0.000	0%			
Times Incarcerated	1.145	14%	0.034	3%			
First Time Arrested	0.621	-38%	-0.117	-12%			

CONVICTION	**Odds Ratio**	**Reduction In Odds**	**Change from 0 (CTRL) to 1 (TX)**	**Change into %**
Mediated	0.647	-35%	-0.082	-8%
Days Since Release	1.001	0%	0.000	0%
Age	0.944	-6%	-0.011	-1%
Race	1.057	6%	0.012	1%
Gender	1.083	8%	0.016	2%
Arrest Conv. Rate	0.428	-57%	-0.181	-18%
Charge Conv. Rate	2.232	123%	0.175	18%
Drug Conv. Total	1.027	3%	0.006	1%
VOP Conv. Total	1.032	3%	0.007	1%
Prop. Conv. Total	1.036	4%	0.007	1%
Average Days Sent	1.000	0%	0.000	0%
Times Incarcerated	1.137	14%	0.021	2%
First Time Arrested	0.451	-55%	-0.140	-14%

Probability those who mediate will be convicted is reduced by 8%

obs	6234	
LL	-3410.36	
psudo r2	0.1358	14%
prvalue	0.292	
Prob TX Convict	21%	med=1
Prob CT Convict	30%	med=0

Sessions - Number	0.716	-28%	-0.069	-7%
Days Since Release	1.001	0%	0.000	0%
Age	0.944	-6%	-0.012	-1%
Race	1.058	6%	0.012	1%
Gender	1.085	9%	0.017	2%
Arrest Conv. Rate	0.429	-57%	-0.174	-17%
Charge Conv. Rate	2.218	122%	0.164	16%
Drug Conv. Total	1.027	3%	0.006	1%
VOP Conv. Total	1.032	3%	0.007	1%
Prop. Conv. Total	1.036	4%	0.007	1%
Average Days Sent	0.999	0%	0.000	0%
Times Incarcerated	1.137	14%	0.027	3%
First Time Arrested	0.450	-55%	-0.164	-16%

With each session, probability of conviction is reduced by 7%

obs	6234	
LL	-3408.76	
psudo r2	0.1362	14%

INCARCERATION

Mediated **Model. Specification Questions**

Sessions - Number **Model. Specification Questions**

RETURN TO PRISON (DOC) (Violation or New Arrest)

Mediated **Not Significant**

Sessions - Number **Not Significant**

Appendix E: Conversion Hazard Rates to Relative Risk - Mediation vs. CMM Control Group

ARREST	Exp(B) Hazard Rate	Relative Risk
Mediated	.660	-34%
Age	.960	-4%
Happy Other Party	.933	-7%
No Control	1.099	10%
Arrest Conv. Rate	.277	-72%
Charge Conv. Rate	2.284	128%
Average Days Sent	.999	0%
Times Incarcerated	1.096	10%

The risk of arrest for those who mediate is reduced by 34% compared to those who do not mediate, with all other values held constant.

CONVICT	Exp(B) Hazard Rate	Relative Risk
Mediated	.506	-49%
Age	.958	-4%
Happy Other Party	.970	-3%
No Control	1.097	10%
Arrest Conv. Rate	.413	-59%
Charge Conv. Rate	3.447	245%
Average Days Sent	.998	0%
Times Incarcerated	1.121	12%

The risk of an arrest leading to a conviction for those who mediate is reduced by 49% compared to those who do not mediate, with all other values held constant.

INCARCERATION	Exp(B) Hazard Rate	Relative Risk
Mediated	.549	-45%
Age	.951	-5%
Happy Other Party	1.001	0%
No Control	1.089	9%
Arrest Conv. Rate	.341	-66%
Charge Conv. Rate	5.322	432%
Average Days Sent	.998	0%
Times Incarcerated	1.110	11%

The risk of arrest leading to a sentence of incarceration for 1 or more days for those who mediate is reduced by 45% compared to those who do not mediate, with all other values held constant.

DOC RETURN TO PRISON	Exp(B) Hazard Rate	Relative Risk
Mediated	.702	-30%
Age	.976	-2%
Happy Other Party	1.031	3%
No Control	.965	-3%
Arrest Conv. Rate	.713	-29%
Charge Conv. Rate	1.011	1%
Average Days Sent	1.000	0%
Times Incarcerated	1.043	4%

The risk of return to Prison by DOC for a technical violation or new arrest for those who mediate is reduced by 30% compared to those who do not mediate, with all other values held constant.

Appendix F: Conversion Hazard Rates to Relative Risk - CMM vs. Cohort Control Group

ARREST	Exp(B) Hazard Rate	Relative Risk
Mediated	.723	-28%
Age	.957	-4%
Race	1.251	25%
Gender	1.250	25%
Arrest Conv. Rate	.439	-56%
Charge Conv. Rate	1.493	49%
Drug Conv. Total	1.030	3%
VOP Conv. Total	1.024	2%
Property Conv. Total	1.009	1%
Average Days Sent	1.000	0%
Times Incarcerated	1.089	9%
First Time Arrested	.648	-35%

The risk of arrest for those who mediate is reduced by 28% compared to those in the Cohort Control Group, with all other values held constant.

CONVICT	Exp(B) Hazard Rate	Relative Risk
Mediated	.655	-34%
Age	.959	-4%
Race	1.059	6%
Gender	1.044	4%
Arrest Conv. Rate	.543	-46%
Charge Conv. Rate	1.753	75%
Drug Conv. Total	1.020	2%
VOP Conv. Total	1.031	3%
Property Conv. Total	1.013	1%
Average Days Sent	1.000	0%
Times Incarcerated	1.088	9%
First Time Arrested	.466	-53%

The risk of an arrest leading to a conviction for those who mediate is reduced by 34% compared to those in the Cohort Control Group, with all other values held constant.

INCARCERATION	Exp(B) Hazard Rate	Relative Risk
Mediated	.646	-35%
Age	.957	-4%
Race	1.094	9%
Gender	1.138	14%
Arrest Conv. Rate	.599	-40%
Charge Conv. Rate	1.516	52%
Drug Conv. Total	1.021	2%
VOP Conv. Total	1.034	3%
Property Conv. Total	1.017	2%
Average Days Sent	1.000	0%
Times Incarcerated	1.090	9%
First Time Arrested	.432	-57%

The risk of arrest leading to a sentence of incarceration for 1 or more days for those who mediate is reduced by 35% compared to those in the Cohort Control Group, with all other values held constant.

DOC RETURN TO PRISON	
Mediated	**Not Significant**