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CRIMINAL JUSTICE AGENCY

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**COMMUNITY SUPERVISION AS A MONEY BAIL ALTERNATIVE: THE  
IMPACT OF CJA'S MANHATTAN SUPERVISED RELEASE PROGRAM  
ON LEGAL OUTCOMES AND PRETRIAL MISCONDUCT**

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**Final Report**

April 2016

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The mission of the New York City Criminal Justice Agency  
is to assist the courts and the city in reducing unnecessary pretrial detention.

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While credit is due to many, all errors of commission or omission in the design, analysis and conclusions are the sole responsibility of the authors.

## INTRODUCTION

The New York City Criminal Justice Agency (CJA), Inc., is a non-profit organization, working under a contract with the City of New York to provide pretrial services to defendants prosecuted in the City's Criminal Court system. The Agency's primary mission is to reduce unnecessary pretrial detention in New York City. As part of that mission, CJA has advocated for community supervision as an alternative to money bail for defendants posing a medium risk of failure to appear (FTA) if released on unsupervised personal recognizance. CJA created a pilot program after extensive consultation with, and the support of, the New York City Office of the Criminal Justice Coordinator (since renamed the Mayor's Office of Criminal Justice). The program was designed to offer judges at Criminal Court arraignment the option of supervised release as a bail alternative in selected non-violent felony cases with a high likelihood of having bail set.

In August 2009, CJA introduced its first Supervised Release (SR) program in the Queens Criminal Court. Based on the success of that program, the City contracted with CJA to develop a similar three-year demonstration project in the New York County (Manhattan) Criminal Court, which was implemented in April 2013. Owing to the success of the CJA programs the City, through the Mayor's Office of Criminal Justice, developed a proposal to introduce a more expansive program of pretrial release under supervision citywide. In March 2016, CJA's program was replaced in Manhattan by this new City initiative.

CJA's Manhattan Supervised Release (MSR) program, like its Queens counterpart, offered judges a pretrial community-based supervision program as an alternative to setting bail at the Criminal Court arraignment in cases arraigned on selected non-violent felony charges. In Manhattan, these have been felony charges involving drug, property, or fraud/theft crimes, plus a comparatively small number of other types of non-Violent Felony Offense (VFO) crimes (e.g., D-felony robbery). Cases involving domestic violence, or where the defendant was scheduled for a hospital arraignment, were excluded even if charge eligible.

Beyond the charge criteria, the program had additional restrictions used to screen potentially eligible cases and defendants that could be actively pursued by program staff. These included a review of adult criminal conviction histories, factors affecting risk of pretrial failure to appear (FTA) based on criteria used in CJA's release recommendation system, and supplemental criminal history information. Program court staff also was required to collect and verify community ties information necessary to maintain contact with defendants if released to the program. This has been an essential program component for ensuring that clients released under supervision in lieu of bail and pretrial detention would appear at all regularly scheduled court dates and comply with program requirements.

In this research study we analyze case processing and court outcomes, and investigate the pretrial misconduct—failure to appear and in-program re-arrests—of MSR clients. We also examine the jail displacement effect of community supervision as an alternative to money bail and pretrial detention. In order to assess the potential impact of the MSR program on these activities, we create for comparison purposes a data set of felony cases arraigned in the downtown Manhattan Criminal Court during the first twenty-one months of the MSR program (April 2013 – December 2014) in which defendants appeared to be eligible for MSR, to the extent that could be determined, but were not screened by MSR court staff.

It is not possible to perfectly mirror the actual composition of program cases and defendant characteristics in the comparison group for a variety of reasons. For example, defendants were ineligible for the program if they had a violent felony offense (VFO) within the past ten years. The MSR court staff had access to full criminal history records and could effectively screen potential clients based on this criterion. In comparison, CJA's main information system, on which the research data set is based, contains only a limited amount of criminal history information for each arrest. This includes the numbers of cases, if any, in which the most serious conviction charge is of felony and/or of misdemeanor severity, but not information about the specific charges in these cases. However, care was taken to ensure that the composition of the comparison group matched as closely as possible to the case and defendant characteristics of the population from which clients were drawn.

Among the specific research questions this study addresses are the extent to which there are differences found between client and comparison group cases and defendants with respect to:

- Court outcomes, especially conviction rates;
- Whether incarceration sentences are imposed in convicted cases;
- Case processing, including time to disposition;
- Pretrial failure-to-appear (FTA) rates; and,
- Pretrial re-arrest rates.

These research questions are based on differences found during the program planning process between cases and defendants with ROR versus bail set at Criminal Court arraignment in the program's target population, issues raised by stakeholders, findings from CJA's study of legal outcomes in its Queens Supervised Release program, and social science research on the consequences of pretrial detention. These are therefore outcomes which we hypothesize have been affected by the MSR program. In a separate report section we explore how the program may have achieved the goal of jail displacement.



## THE MANHATTAN SUPERVISED RELEASE PROGRAM'S CASE AND CLIENT CHARACTERISTICS

To have been eligible for the Manhattan Supervised Release (MSR) program the case and the defendant must have met a variety of charge, criminal history and community-ties criteria.<sup>1</sup> Only designated non-violent felony charges, of B-felony or lesser severity, were eligible. Defendants could have no more than six prior misdemeanor convictions and no more than one felony conviction which could not have been for a VFO crime within the past ten years. To be admitted into the program the defendant also had to have a New York City area address and access to a working telephone.

In addition, the program sought to actively pursue charge and criminal history eligible defendants most likely to have bail set. Defense attorneys played an important gate keeping role in this regard, and their consent had to be obtained before the program could interview prospective clients. In addition, the program would not proactively screen defendants classified by CJA as Recommended for ROR if the instant case appeared as the defendant's first arrest on the rap sheet. This restriction was created to provide a barrier against the enrollment of defendants with the greatest likelihood of being granted ROR (Solomon 2014).

This study began by selecting the MSR clients who were admitted from the beginning of the program on April 8, 2013, through December 31, 2014. To this we added the criteria that these clients must have exited the program *and* their case must have had an adjudicated outcome on or before June 30, 2015. However, not all convicted cases had been sentenced by June 30<sup>th</sup>, and in a handful of these cases the conviction could be superseded at a later date by a dismissal, ACD, or a plea to a charge of lesser severity than entered on the original conviction. For the purposes of this analysis, in these cases the first adjudicated outcome of a conviction, and the

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<sup>1</sup> In some circumstances the program admitted defendants who did not meet all the program requirements. Usually such defendants were referred by the arraignment judge.

original conviction charge, is used. These selection criteria result in an analysis of 568 MSR clients.<sup>2</sup>

The MSR clients in this analysis are predominantly male, non-Hispanic black, and under the age of 30. Of the 568 clients in the analysis 72.5% are male and 27.5% female. Among the race/ethnicity characteristics 54.6% are non-Hispanic black, 31.9% Hispanic, and most of the remainder non-Hispanic white. Somewhat under half (46.7%) of the study clients are between the ages of 20 and 29, and another 15.7% between the ages of 16-19. The age distributions are shown in Figure 1.

**Figure 1**

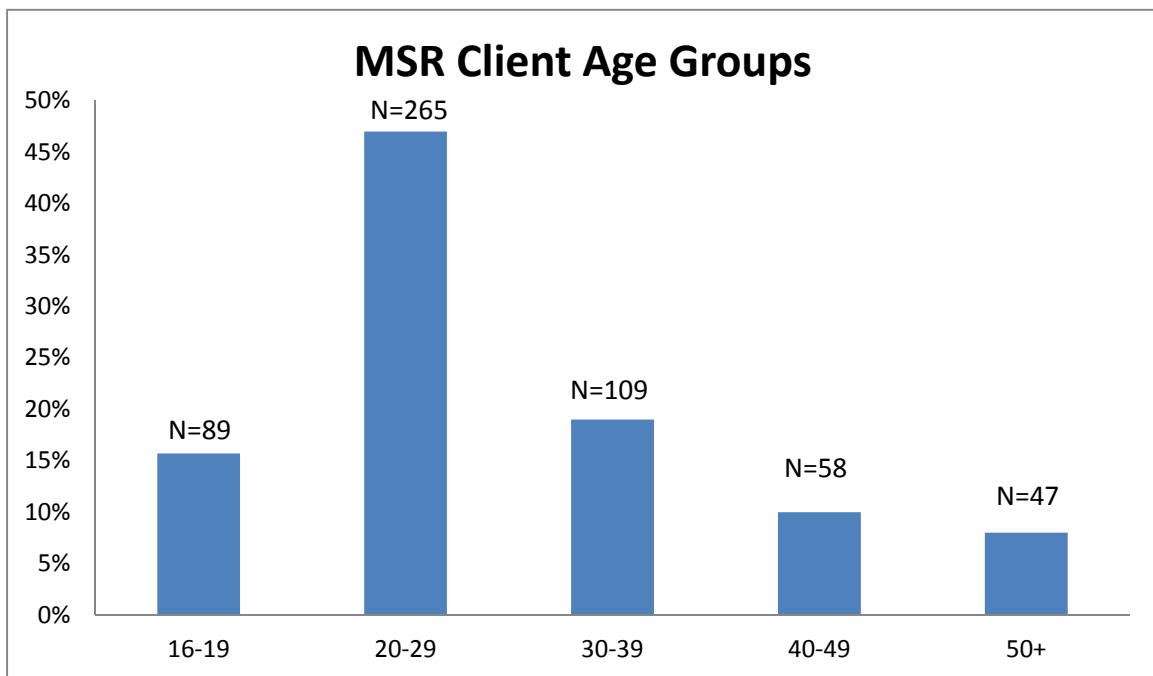
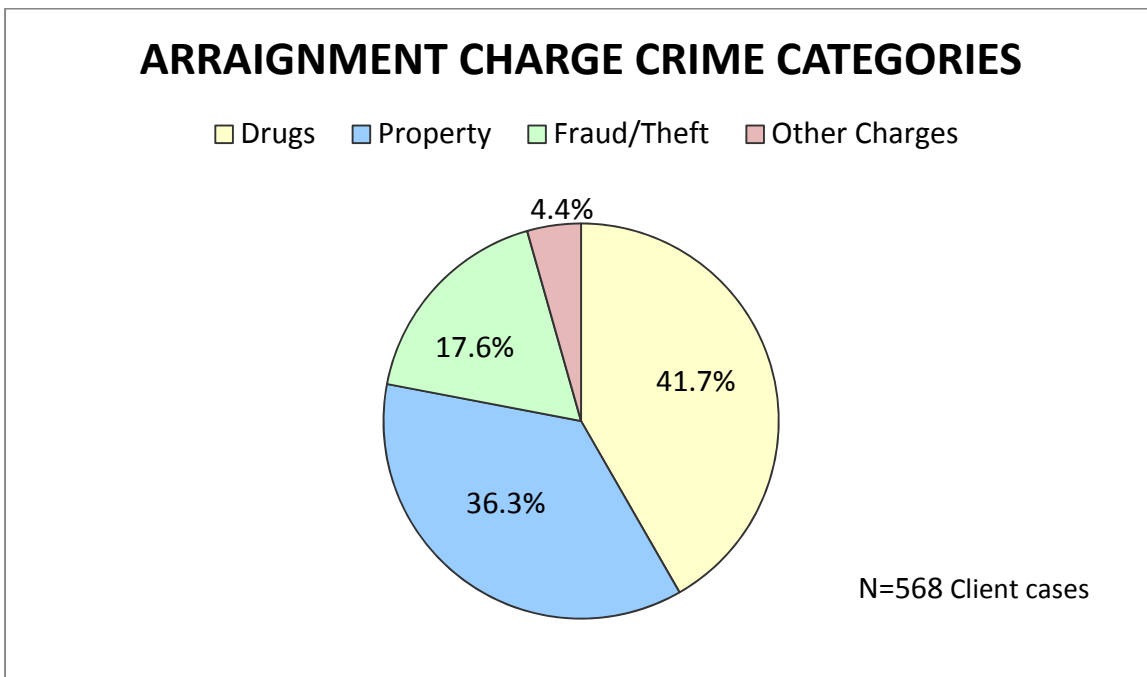


Figure 2 shows that the overwhelming majority of all client cases have a top arraignment charge of a felony drug or property crime. A plurality of the 568 clients have a drug charge as the top charge at Criminal Court arraignment, most commonly the B-felony severity charges of possession (PL § 220.16) or sale (PL § 220.39) of narcotics. Property crime is the second largest charge category. Most common in this

<sup>2</sup> There are actually 569 cases that meet these criteria. However, one MSR client had a top charge severity of an A misdemeanor. When analyzing statistical models that include charge severity, having a distinct category with only one case is mathematically problematic. Thus for the purposes of this analysis we removed the case.

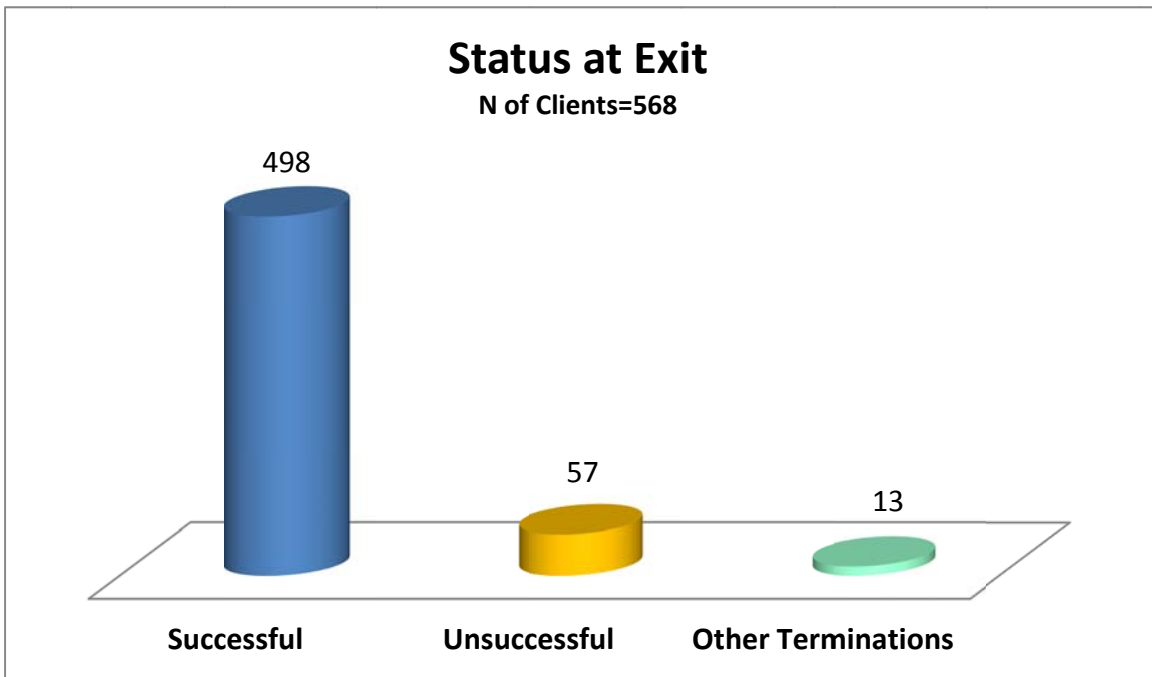
category are the E-felony grand larceny (PL § 155.30), D-felony (PL § 155.35) grand larceny, and the E-felony possession of stolen property (PL § 165.45) charges. Most prominent in the fraud/theft category are charges of possession of forged instruments in Penal Law Article 170. A handful of MSR client cases have other types of top arraignment charges such as D-felony robbery or a VTL offense. These are included in the “other” category.

**Figure 2**



As shown in Figure 3, of the 568 MSR clients included in this analysis, 498 were in compliance with program requirements at the time of exit and were considered successful clients (87.7%). Supervision was revoked for 57 clients because of participation issues (10.0%). The reasons for these unsuccessful exits can include failure to comply with program requirements, failure to appear for scheduled court dates, detention on another arrest, or any combination of those factors. Another 13 clients exited the program for other reasons (2.3%). These other terminations include

**Figure 3**



detention pursuant to an INS hold, detention on a case that had begun prior to the client's enrollment in MSR, and a variety of other events. These cases are considered distinct from the unsuccessful client group because the defendant's exit from the program is not due to in-program misconduct.

## **CREATING A COMPARISON GROUP**

To examine the potential impact of MSR on court outcomes, case processing, and pretrial defendant misconduct, this study first compares the MSR client cases to non-MSR cases. These are cases in which the charge and defendant characteristics are as similar as possible, based on available data elements, for both clients and non-clients and their cases. We selected cases in which the charge and defendant characteristics appeared to meet the program's criteria, and like the program cases were arraigned between the program's beginnings on April 8, 2013 through the end of calendar year 2014, but were not screened for the program.

Some defendants were found in both the client group and the comparison group if they had other cases eligible for MSR but for which they were not screened. Also, some defendants had multiple eligible cases in the comparison group. For the purposes of analysis, we excluded cases in the comparison group for any defendant who was a program client. For cases in which non-program defendants had more than one prospective case in the comparison group, only the case with the earliest arraignment date is included.

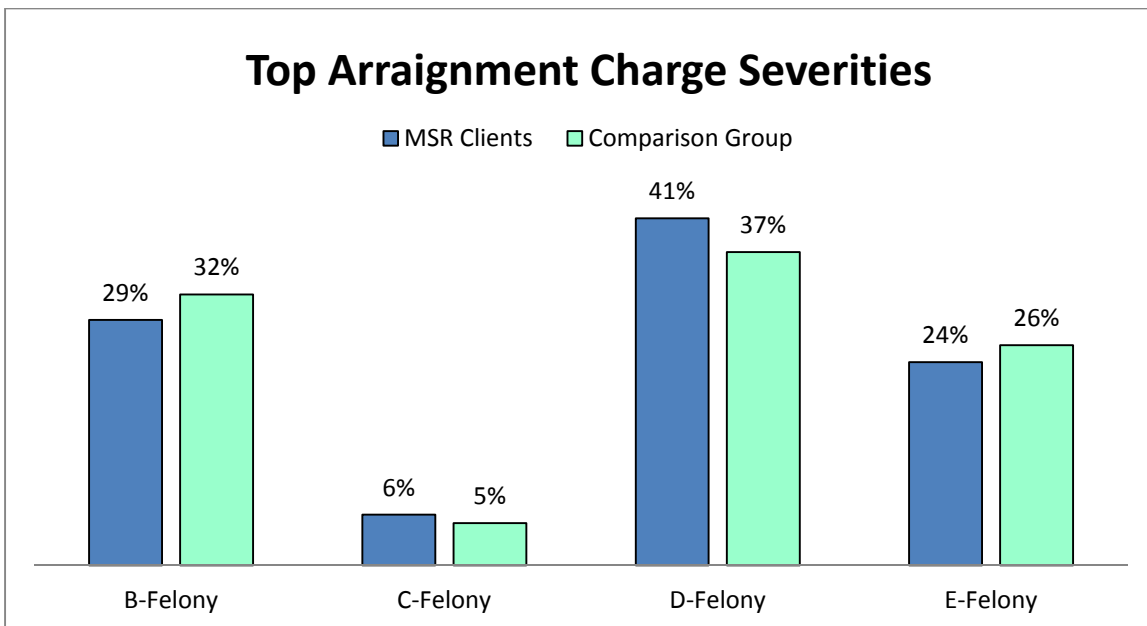
To determine the potential effect of MSR on court outcomes and case processing, the comparison group cases are restricted to those continued after the arraignment hearing and which have an adjudicated outcome on or before June 30, 2015. As with the client cases, not all comparison group convicted cases had been sentenced as of June 30<sup>th</sup>, and in a handful of these cases the conviction could be superseded at a later date by a dismissal, ACD, or a plea to a charge of lesser severity than entered on the original conviction. For the purposes of this analysis, for these cases the first adjudicated outcome of a conviction, and the original conviction charge, are used. Using these criteria, the number of cases in the non-screened comparison group is 1,661.

Among the 1,661 comparison group cases, defendants in 1,009 (60.7%) had bail set at Criminal Court arraignment. About two-fifths of defendants in the cases with bail set at arraignment were released prior to disposition, some by immediately posting bail

but most by a bail or recognizance release at some later pretrial point in case processing. Defendants in the other 652 cases (39.3%) were released on recognizance (ROR) at arraignment. During program planning it was not possible to develop models from available information that could predict with certainty which cases within the program's target population would have bail set. What was known was that in the cases fitting the program's criteria majorities of defendants would have bail set, and some proportion of these defendants subsequently would be released pretrial. It was therefore sufficient for comparative purposes that the case and defendant characteristics in the comparison group were not substantially dissimilar from the program's client cases and defendants.

There are some differences in the distribution of crime categories between the two groups, but drug and property crimes account for a majority of both groups' cases, and there is little difference in the distribution of the charges within these crime categories. For example, within the drug crime category approximately 37% of both groups' cases have a top arraignment charge of B-felony sale (PL § 220.39), and another 35% B-felony drug possession (PL § 220.16). In addition, the distribution among severity classifications of the top arraignment charge is very similar as illustrated by Figure 4.

**Figure 4**



## **COMPARING COURT OUTCOMES, CASE PROCESSING, AND PRETRIAL MISCONDUCT BETWEEN MSR CLIENT AND COMPARISON GROUP CASES**

In this report section we explore the extent to which there are differences between the MSR client and comparison groups in regard to court outcomes, case processing, and pretrial misconduct. Differences found between the client and comparison group cases are measured using tests of statistical significance. Statistical significance indicates the likelihood of obtaining the observed outcome given a hypothesis about the effect of a treatment, program, or intervention. In this study the hypotheses are that the MSR program has an effect on court outcomes, imprisonment sentences being imposed if convicted, and case processing times. We also examine and test if the program has an effect on failure to appear (FTA) rates or pretrial arrests for released defendants.

Statistical significance tests calculate the probability of obtaining an effect at least as large as the one in the sample data, given the hypothesis. This is referred to as a *p-value*. The *p-value* ranges from 0 to 1, and the closer the *p-value* to 0, the more confident one can be that the data provide support for the hypothesis. The most common confidence level used in the social sciences to determine statistical significance is .05, which is the criterion applied in this report. A significance level of 0.05 indicates a 5% risk of concluding that a difference exists between the two groups when there is no actual difference.<sup>3</sup> However, statistical significance is not a substitute for an analytic decision about the substantive importance of differences which may be found, and which are addressed in some depth in the concluding section of the report.

### **Court outcomes for MSR clients and the comparison group cases**

Conviction rates differ slightly between the MSR client cases and those in the comparison group. Clients have a slightly higher rate of conviction than the defendants in the comparison group. The difference is not statistically significant based on a two-tailed significance test.

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<sup>3</sup> Because the direction of the differences (i.e. increase or decrease) was not predicted, a two-tailed test of significance was used.

<b>Table 1</b>				
<b>Client and Comparison Group Conviction Rates</b>				
<b>Group</b>	<b>Convicted</b>		<b>Not convicted</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 568)	444	78.2	124	21.8
Comparison group (N = 1,661)	1,263	76.0	398	24.0

The lack of statistical significance suggests that the difference in the conviction rates between the MSR client and comparison group is not attributable to the program. In addition, virtually all convictions for both groups are by pleas (data not shown).

We consider outcomes beyond conviction and examine whether a defendant receives a favorable disposition in his/her case. For the purposes of this research we define a favorable disposition as an acquittal, dismissal, or a conviction on a charge of lesser severity than the top arraignment charge.

<b>Table 2</b>				
<b>Type of Disposition for Clients and Comparison Group</b>				
<b>Group</b>	<b>Not a Favorable Disposition</b>		<b>Favorable Disposition</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 567)	175	30.9	392	69.1
Comparison group (N = 1,645)	468	28.4	1,177	71.6

*\*The N's are different for these data because we are unable to determine the conviction charge severity in some cases.*

MSR clients are less likely to have a favorable disposition than defendants in the comparison group cases as a whole, but this difference is not statistically significant.

Table 3 illustrates the likelihood of any imprisonment sentence being imposed after a conviction. The number of cases in this table is smaller than the total number of convictions because not all convicted cases had a sentence at the time the data set for the analysis was created.<sup>4</sup>

<sup>4</sup> The difference in whether or not a sentence had been imposed between convicted MSR clients and defendants in the comparison group is not statistically significant. In addition, in a small number of cases



<b>Table 3</b>				
<b>Any Sentence of Imprisonment for Convicted &amp; Sentenced Clients and Comparison Group</b>				
<b>Group</b>	<b>Imprisonment</b>		<b>No Imprisonment</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 373)	125	33.5	248	66.5
Comparison group (N = 1,080)	588	54.4	492	45.6

The imposition of any imprisonment sentence differs substantially between the MSR clients and the comparison group. Convicted and sentenced clients are less likely to receive sentences that include any incarceration in comparison to convicted and sentenced defendants in the comparison group. The difference is significant at the  $p < .000$  level. This means we can be very confident that participation in CJA's Supervised Release program contributes to the clients being far less likely to be sentenced to imprisonment than non-clients.

In this research we test only if any imprisonment sentence is imposed but not differences between clients and comparison group defendants in the sentence lengths when they occur. It is not possible from the data to reliably determine actual amounts of time defendants might serve after accounting for pretrial detention time and any good-time credit that might be applied to imprisonment sentences.

### **Case processing for MSR clients and the comparison group cases**

Most bail set cases are scheduled for the first post-arraignment appearance within five days. This is due to requirements set forth in New York State's Criminal Procedure Law (CPL § 180.80), which governs allowable time for the prosecution to move forward on the initial felony complaint for defendants held at arraignment. However, during the program planning process, case processing times from Criminal Court arraignment to the first post-arraignment appearance for ROR defendants were found to be highly variable. For this reason the program proposed a more regularly scheduled interval to the first post-arraignment appearance.

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in both groups the original conviction subsequently may have been withdrawn and a new disposition such as a dismissal or ACD substituted after successful completion of a treatment program.

Table 4 illustrates the mean (mathematical average) and median (midpoint) time from Criminal Court arraignment to the first post-arraignment appearance for MSR client and comparison group cases, shown by release status and overall.

<b>Table 4</b>		
<b>Time from Criminal Court Arraignment to the First Post-Arraignment Appearance</b>		
<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 568)	31.3	40.0
Comparison group – ROR (N = 652)	68.4	80.0
Comparison group – bail set (N = 1,009)	5.6	5.0
Comparison group – all (N = 1,661)	30.2	5.0

The mean and median times to the first post-arraignment appearance for clients is about half that of the ROR defendants in the comparison group. The difference in means is significant at the  $p < .000$  level. For cases with bail set at Criminal Court arraignment, the time to the first post-arraignment appearance is much shorter. This interval for the bail set cases conforms to statutory requirements which greatly restrict flexibility in the length of the first adjournment and therefore is not comparable to adjournment lengths for released defendants among MSR clients or ROR defendants.

The proportions of client and comparison group cases adjudicated in Supreme Court are virtually identical, and there is little difference in proportions which reached an adjudicated outcome in Criminal versus Supreme Court within crime categories. For those defendants with cases transferred to Supreme Court for disposition, Table 5 illustrates the time from the Criminal Court arraignment to defendant first appearances in Supreme Court.

<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 225)	93.1	69.0
Comparison group – ROR (N = 114)	123.4	90.0
Comparison group – bail set (N = 533)	51.2	33.0
Comparison group – all (N = 647)	63.9	38.0

MSR clients have their first Supreme Court appearance scheduled sooner than the defendants in the comparison group with an ROR release status at Criminal Court arraignment. This difference is statistically significant at the  $p < .01$  level. Defendants in the comparison group with bail set at Criminal Court arraignment have a substantially shorter time to the first Supreme Court appearance, again most likely affected by procedural requirements for defendants never released pretrial in this comparison group.

Table 6 illustrates the time from Criminal Court arraignment to the 1<sup>st</sup> adjudicated outcome across courts for the MSR client and comparison group cases.

<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 568)	165.2	151.5
Comparison group – ROR (N = 651)	163.5	140.0
Comparison group – bail set (N = 1,010)	141.3	108.5
Comparison group – all (N = 1,661)	150.0	125.0

Overall case processing times are longer for MSR clients compared to the entire comparison group. Client cases take only a slightly longer time to reach an adjudicated

outcome compared with defendants in the comparison group cases with an ROR release status at Criminal Court arraignment, and this difference is not statistically significant. The MSR client and ROR comparison group cases each have a longer time to reach an adjudicated outcome compared to defendants in the comparison group with bail set at Criminal Court arraignment, which includes cases of both never released and post-arraignment released defendants.

The number of court appearances between Criminal Court arraignment and the appearance at which an adjudicated outcome occurs also varies between the comparison group and the clients. Defendants in the comparison group cases overall have an average of 5.3 court appearances up to the first adjudicated outcome. MSR clients have an average of 5.6 court appearances. This difference is not statistically significant.

Defendants in the comparison group with an arraignment ROR have an average of 3.9 appearances; the difference between these defendants and the clients' 5.6 appearances is statistically significant at the  $p < .000$  level. Defendants for whom bail was set have an average of 6.2 appearances; the difference between the longer average number of court appearances for these defendants and the MSR clients is statistically significant at the  $p < .01$  level. (Data not shown)

### **Pretrial misconduct of MSR clients and comparison group defendants**

In this section we explore differences in two key types of pretrial misconduct, failure-to-appear and re-arrest rates, between the clients and comparison group defendants. For defendants in the comparison group we include misconduct up until the first adjudicated outcome. For MSR clients we include misconduct either until their exit from the program, or the date of their first adjudicated outcome, whichever occurred first.<sup>5</sup>

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<sup>5</sup> A Manhattan Supervised Release client typically would exit the program on the date of the adjudicated outcome or shortly thereafter. Some convicted clients not immediately sentenced upon conviction would continue in the program until a sentence was imposed and may have remained for several weeks or even several months after the initial disposition. Some clients would leave the program before adjudication, including clients removed from the program due to pretrial misconduct or due to issues not related to

However, the analysis of pretrial misconduct does not take into account differences among the groups in time at risk. That is, the amount of non-custodial pretrial detention time between Criminal Court arraignment and disposition. Because virtually all MSR clients are released at arraignment their at-risk time would likely be most similar to those with an arraignment release in the comparison group. For the bail set cases with post-arraignment releases, average time at risk likely would be shorter.

Failure to appear (FTA)

Table 7 illustrates FTA rates for the MSR clients and those in the comparison group. We report the rates for the comparison group in total. We also report the rates for those in the comparison group released at arraignment and those held at arraignment but released at some point prior to the disposition of their case.

We report FTA rates and “Adjusted FTA” rates. The Adjusted FTA rate does not count an FTA if the defendant returns to court within 30 days of the date of the appearance for which they failed to appear.<sup>6</sup>

<b>Table 7</b>				
<b>FTA Rates for the MSR clients and Comparison Group</b>				
<b>Group</b>	<b>FTA</b>		<b>Adjusted FTA</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 568)	24	4.2	12	2.1
Comparison group – ROR or bail made at arraignment (N = 730)	50	6.8	14	1.9
Comparison group – held at arraignment but released prior to final disposition (N = 490)	33	6.7	4	0.8
Total Comparison group (N = 1,220)	83	6.8	18	1.5

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program participation. For this analysis we do not track misconduct after the first adjudication in order to allow for a closer comparison between the clients and the comparison group.

<sup>6</sup> For this report we only analyze cases with an adjudicated outcome. In some cases the last status of a case is the issuance of a warrant. Issuance of a warrant is not an adjudicated outcome and those cases are excluded from this report. As a result, this report essentially undercounts the number of MSR clients with an FTA. We use the same criteria for including cases in the comparison group and as a result are also undercounting the number of FTAs in that group. Thus, for the purposes of comparing MSR clients to the comparison group our criteria should not have any meaningful effects on the conclusions reached.

Overall FTA rates are low for all groups, but MSR clients have a lower FTA rate than the defendants in the comparison groups who were released at arraignment or at a subsequent point prior to the disposition of their case. This difference is statistically significant at the  $p < .05$  level.

The adjusted FTA rate for clients is fractionally higher than those defendants released at arraignment, and slightly higher than those who were held at arraignment but released at another time prior to the disposition of their case. The difference in the adjusted FTA rate between the clients and those in the comparison group who were ever at risk is not statistically significant.

### Re-arrest rates

We examine re-arrests for MSR clients and the comparison group defendants. For defendants in the comparison group we include all prosecuted arrests that occurred in New York City on any date after the defendant's arraignment and before the date of the first adjudicated outcome. For clients we include all prosecuted arrests that occurred between the program admission date and either the date of the first adjudicated outcome *or* the date of exit from the program, whichever came first.<sup>7</sup> We limit arrests to those that occurred within New York City because we only have immediate access to other NYC arrests for the comparison group. The MSR program tracks all client re-arrests including those that occur in other jurisdictions. Because we cannot do the same for the defendants in the comparison group we do not report on those arrests for the clients. Otherwise the re-arrest rate for clients would be artificially inflated relative to the comparison group. We only include prosecuted arrests, excluding in-custody arrests.

Of the 568 clients in the sample, 147 (25.9%) have at least one in-program arrest. Of the 1,220 defendants in the comparison group who were released at some point prior to the disposition of their case, 261 (21.4%) have at least one arrest between

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<sup>7</sup> For virtually every client the date of entry into MSR is the same date as the arraignment. For five defendants in this analysis entry into MSR came after the arraignment. Four of those defendants entered the program within 1-5 days of the arraignment, and one defendant entered over a month after the arraignment.

their arraignment and a disposition of their case. This difference is statistically significant at the  $p < .05$  level. However, and as stated previously, these data do not control for differences in time at risk between defendants released at or subsequent to Criminal Court arraignment.

Table 8 shows the charge severity of the most severe re-arrest for MSR clients and defendants in the comparison group. The percentages indicate the percentage of all defendants within that group, including defendants with no re-arrests.

Severity of the Most Severe Re-arrest Charge	MSR Clients (N = 568)		Comparison Group Defendants Ever At Risk (N = 1,220)	
	N	%	N	%
A felony	1	0.2	4	0.3
B felony	26	4.6	28	2.3
C felony	6	1.1	16	1.3
D felony	17	3.0	33	2.7
E felony	5	0.9	20	1.6
<b>Subtotal Felony re-arrests</b>	<b>55</b>	<b>9.7</b>	<b>101</b>	<b>8.3</b>
Misdemeanor	83	14.6	144	11.8
Lesser severity/other	9	1.6	16	1.3
<b>Subtotal Non-Felony re-arrests</b>	<b>92</b>	<b>16.2</b>	<b>160</b>	<b>13.1</b>
<b>Total Re-arrests</b>	<b>147</b>	<b>25.9</b>	<b>261</b>	<b>21.4</b>

While the MSR clients have an overall re-arrest rate several percentage points higher than the comparison group, the difference in the felony re-arrest rate is smaller. The difference in the felony re-arrest rate between the clients and sample group is not statistically significant.

The time to the first re-arrest is almost identical for both groups. Using the earliest re-arrest, the average time to the first re-arrest for MSR clients is 86.1 days, with a median of 64.0 days. For defendants in the comparison group the average time to the first re-arrest is 84.6 days, with a median time of 64.0 days (data not shown).

Table 9 illustrates the crime category of the most severe re-arrest for MSR clients and the comparison group using a CJA typology. The overall pattern in the types of re-

arrests is very similar between the clients and the defendants in the ever released comparison group. The most frequent types of re-arrests for both groups involve drug, property (e.g. larceny), or fraud/theft (e.g. theft-of-services, most commonly 'turnstile jumping') charges.

Crime Category of Most Severe Re-arrest Charge	MSR Clients (N = 568)		Comparison Group Defendants Ever At Risk (N = 1,220)	
	N	%	N	%
Harm to persons	13	2.3	33	2.7
Harm to persons and property	7	1.2	11	0.9
Weapon	4	0.7	12	1.0
Property	27	4.8	38	3.1
Drug	41	7.2	75	6.1
Fraud/Theft	21	3.7	41	3.4
Misconduct	8	1.4	13	1.1
Obstructing justice	7	1.2	11	0.9
VTL	11	1.9	13	1.1
Unknown/other	8	1.4	14	1.1

The harm-to-persons category contains a mix of some of the most serious charges involving interpersonal violence along with non-felony charges such as misdemeanor assault. Almost all the charges in harm-to-persons-and-property are felonies, and almost all are Violent Felony Offenses (VFO) such as robbery. For both groups new arrests for charges in these categories combined are between 3 and 4 percent of each group's re-arrests. A more complete overview of the charges in the different categories is found in Appendix A.

Some defendants have more than one re-arrest. Among the MSR clients, 105 have one re-arrest and 42 defendants two or more (with a maximum of seven). In the comparison group 185 defendants have one re-arrest and 76 defendants two or more (with a maximum of seven). Ten defendants in the comparison group have two or more prosecuted arrests on the same date, as did one client. Otherwise, defendant re-arrests occurred on different dates. We do not include the data on defendants with multiple arrests. However, differences in the total number of re-arrests between the clients and the comparison group are not statistically significant.



## **COMPARING COURT OUTCOMES, CASE PROCESSING AND PRETRIAL MISCONDUCT BETWEEN MATCHED CLIENT AND COMPARISON GROUP CASES AND DEFENDANTS**

We decided to further explore and confirm the findings from the comparisons between client cases and those we identified as having seemingly similar characteristics but which were not screened for program eligibility. For this analysis we use propensity score matching (PSM) to pair each client case with one from the comparison group. PSM is a statistical method used to assign a score to each case in both the treatment and non-treatment groups that measures the likelihood they would have been in the treatment group, based on the known characteristics of the treatment group. A comprehensive explanation of the PSM statistical methodology can be found in Appendix B.

### **Differences between the MSR clients and the comparison group: Matched comparison group analysis**

In the first stage of creating propensity scores it is necessary to identify variables that are significant predictors of both inclusion in the treatment group and the outcome variable. For example, if age has a statistically significant relationship to whether or not defendants are convicted and whether a defendant is an MSR client, then the grouping of defendants by age should not be substantially different between the clients and the comparison group defendants. In our analysis there are several outcome variables, the key outcome variable being whether the defendant has a favorable outcome in his/her case.<sup>8</sup> Thus, in determining whether there were key differences in the treatment and comparison group we explored the differences in variables that could be significant predictors of both inclusion in the treatment group (Manhattan Supervised Release), and a favorable outcome in the defendant's case.

We considered a variety of legal, socio-demographic and criminal history variables that could be predictors of inclusion in MSR and a favorable outcome in the case. Among the legal variables analyzed were type and severity of the top

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<sup>8</sup> For the purposes of our analysis we define a favorable outcome as either an acquittal, dismissal, adjournment in contemplation of dismissal (ACD) or conviction on a charge of lesser severity than the arraignment charge.

arraignment charge, and whether the case proceeded in the Manhattan Drug Court or regular court parts. Among the socio-demographic and criminal history characteristics were items of information collected by CJA staff during a pre-arraignment interview such as ethnicity, age, sex, employment status and length of time at current residence, criminal conviction histories, and whether the defendant had other open cases at the time of the arraignment.

Our analysis indicated the following variables had a statistically significant relationship to both status as an MSR client and a favorable disposition in the defendant's case:

#### Arrest Charge

- Charge type (property crime, drug crime, fraud/theft, other)

#### Defendant Demographic Characteristics

- Sex (male, female)
- Age (16-19, 20-29, 30-39, 40-49, 50+)
- Ethnicity (black, Hispanic, other)

#### Defendant Criminal History

- Prior convictions (one or more prior convictions, no prior convictions)

While there are compelling theoretical reasons to include several other variables, we decided to favor parsimony and use only these five variables in the propensity score matching (PSM) procedure.

Table 10 illustrates the differences between the MSR clients and comparison group on the variables included in the PSM. Using propensity score matching we created a comparison group of 560 cases, matched with the same number of client cases, that do not significantly differ from each other on any of the key variables.<sup>9</sup> We use these two groups to again analyze the impact of Manhattan Supervised Release on court outcomes, case processing and pretrial misconduct. The following analysis allows for greater confidence that we are measuring the impact of the Supervised Release program rather than the effects of other factors.

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<sup>9</sup> There were eight program cases that could not be matched with a comparison group case based on the PSM protocols used in this study. See Appendix B.

**Table 10**  
**Differences Between MSR Clients and Eligible, Non-Screened Defendants on**  
**Demographic Characteristics, Criminal History, and Case Characteristics**

Variable	Initial Sample		Matched Sample	
	MSR Clients (568)	Eligible, non-screened defendants (1,661)	MSR Clients (560)	Eligible, non-screened defendants (560)
<b>Sex</b>		***		
Female	27.5	20.7	26.6	25.2
Male	72.5	79.3	73.4	74.8
<b>Age</b>		***		
16-19	15.7	9.4	15.7	14.6
20-29	46.7	47.9	47.1	47.7
30-39	19.2	22.5	19.5	19.5
40-49	10.2	11.4	10.2	9.8
50+	8.3	8.7	7.5	8.4
<b>Ethnicity</b>		**		
Black	54.6	48.8	54.4	57.5
Hispanic	31.9	32.2	32.0	32.3
Other	13.6	19.0	13.6	10.2
<b>Prior convictions</b>		**		
No	62.3	55.5	62.1	61.3
Yes	37.7	44.5	37.9	38.8
<b>Charge type</b>		*		
Property crime	36.3	31.6	35.9	33.4
Drug Crime	41.7	44.6	42.1	43.6
Fraud/Theft	17.6	16.6	17.7	18.6
Other Crimes	4.4	7.2	4.3	4.5

\* $p < 0.05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ; \*\*\*\* $p < .000$

### Court outcomes for matched MSR client and comparison group cases

Conviction rates differ slightly between the cases of matched MSR clients and comparison group defendants. Client cases have a slightly higher rate of conviction than those in the matched comparison group. The difference is not statistically significant.

Group	Convicted		Not convicted	
	N	%	N	%
MSR clients (N = 560)	438	78.2	122	21.8
Comparison group (N = 560)	421	75.2	139	24.8

We consider outcomes beyond conviction and examine whether a defendant receives a favorable disposition in his/her case. As indicated earlier, we define a favorable disposition as an acquittal, a dismissal, or a conviction on a charge of lesser severity than the top arraignment charge.

Group	Not a favorable disposition		Favorable disposition	
	N	%	N	%
MSR clients (N = 559)	174	31.1	385	68.9
Comparison group (N = 557)	165	29.6	392	70.4

*\*The N's are different for these data because we are unable to determine the conviction charge severity in some cases.*

MSR clients in the matched sample are less likely to have a favorable disposition than the matched comparison group, but the difference is not statistically significant.

We again find that the imposition of any imprisonment sentence differs substantially between the matched clients and comparison group. Table 13 illustrates

the likelihood of imprisonment being imposed on defendants who had been convicted and sentenced at the time of this analysis.<sup>10</sup>

<b>Table 13</b>				
<b>Any Imprisonment Sentence Imposed for Cases of Convicted &amp; Sentenced Matched Clients and Comparison Group Defendants</b>				
<b>Group</b>	<b>Imprisonment</b>		<b>No Imprisonment</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 368)	123	33.4	245	66.6
Comparison group (N = 368)	190	51.6	178	48.4

MSR clients in the matched sample are less likely to have an imprisonment sentence imposed than the defendants in the comparison group. The difference is significant at the  $p < .000$  level. This means we can be very confident that there is something about Supervised Release that contributes to the clients being far less likely to have an imprisonment sentence imposed than non-clients.<sup>11</sup>

To further analyze the relationship between the MSR program and court outcomes, we perform logistic regression analysis. Logistic regression is a statistical method of determining the effect of a set of *predictor variables* (sometimes referred to as *independent variables*) on an *outcome variable* (sometimes referred to as a *dependent variable*). This analysis controls for the effects of the other predictor variables included in the model. For example, we can use it to further examine whether being an MSR client (a predictor variable) is a statistically significant predictor of the likelihood of being convicted (the outcome variable) after controlling for other predictor variables that could predict the likelihood of conviction, such as age or criminal history. Appendix C provides additional information about logistic regression and the different

<sup>10</sup> The difference in whether or not a sentence had been imposed between MSR clients and defendants in the comparison group who had been convicted was not statistically significant. In other words, differences in whether or not a sentence had been imposed between MSR clients and defendants in the comparison group are likely random.

<sup>11</sup> Among the matched MSR clients 52 were sentenced to time served as were 39 defendants in the comparison group. A sentence of imprisonment with time served includes all pretrial detention time, including between a defendant's arrest and the arraignment. We also conducted an analysis including only cases in which the sentence included imprisonment beyond time served. The outcomes were substantially similar to the analyses presented here and were thus not included in the report.

measures used to determine the statistical significance of the independent variables in the model on the dependent variable.

Modeling for whether defendants are convicted or not indicates that the MSR clients are more likely to be convicted than defendants in the matched comparison group, but the effect of status as an MSR client is not statistically significant (results not shown). Similarly, and as shown in Table 14 below, MSR clients are less likely to receive a favorable disposition in their case (as defined earlier) when controlling for other relevant variables, but the effect is not statistically significant.

**Table 14**  
**Logistic Regression Model of Favorable Disposition**

Independent Variables	Wald	Odds Ratio	Unstandardized $\beta$
Sex (baseline: male)	.363	1.102	.097
Age (baseline: 16-19)	13.362**		
20-29		1.438	.363
30-39		1.540	.432
40-49		2.910****	1.068
50+		2.007*	.697
Ethnicity (baseline: Black)	2.382		
Hispanic		1.192	.175
Other		1.615	.286
Crime type (baseline: property)	15.658***		
Drug		.646**	-.436
Theft intangible		.944	-.058
Other		2.534*	.930
Prior convictions (baseline: no prior convictions)	9.550**	.634	-.456
MSR client (baseline: yes)	.406	.919	-.085
Constant	.066***	2.021	.703
		Nagelkerke R Square	.048

N = 1,116

\*p<.05; \*\*p<.01; \*\*\*p<.001; \*\*\*\*p<.000

The following table illustrates a logistic regression model of a sentence of imprisonment. It indicates that status as an MSR client is statistically significant when controlling for other relevant variables. MSR clients are substantially less likely to have a post-conviction sentence imposed than the defendants in the comparison group.

**Table 15**  
**Logistic Regression Model of Sentence of Imprisonment**

Independent Variables	Wald	Odds Ratio	Unstandardized $\beta$
Sex (baseline: male)	8.656**	.562	-.577
Age (baseline: 16-19)	8.257		
20-29		.747	-.291
30-39		.514*	-.665
40-49		.556	-.587
50+		.429*	-.846
Ethnicity (baseline: Black)	1.054		
Hispanic		1.194	.177
Other		1.104	.099
Crime type (baseline: property)	3.944		
Drug		1.078	.075
Theft intangible		.697	-.362
Other		.728	-.318
Prior convictions (baseline: no prior convictions)	17.949****	2.093	.739
MSR client (baseline: no)	24.940****	.455	-.787
Constant	1.291	1.327	.283
Nagelkerke R Square			.120

N = 736

\*p<.05; \*\*p<.01; \*\*\*p<.001; \*\*\*\*p<.000

### **Case processing times for matched MSR comparison group cases**

Table 16 illustrates the time from arraignment to the first post-arraignment appearance for the defendants in the matched client and comparison group. MSR clients have their first post-arraignment appearance scheduled sooner than the defendants in the comparison group with ROR at Criminal Court arraignment. This

difference is significant at the  $p < .000$  level. Defendants in the comparison group with bail set at arraignment have a substantially shorter time to the first post-arraignment appearance. As previously discussed, speedy-trial requirements affect this interval for defendants in the bail set cases so they are not comparable with time for cases of defendants released at Criminal Court arraignment.

<b>Table 16</b>		
<b>Time from Criminal Court Arraignment to First Post-Arraignment Appearance: Matched Comparison Groups</b>		
<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 560)	31.1	40.0
Comparison group – ROR (N = 241)	65.9	74.0
Comparison group – bail set (N = 319)	4.8	5.0
Comparison group – all (N = 560)	31.1	5.0

Table 17 illustrates the time from Criminal Court arraignment to the first appearance in Supreme Court, for matched clients and comparison defendants with cases transferred to Supreme Court for adjudication. The difference between the matched clients and the defendants in the comparison group with an ROR at Criminal Court arraignment is not statistically significant.

<b>Table 17</b>		
<b>Time from Criminal Court Arraignment to First Appearance in Supreme Court: Matched Comparison Groups</b>		
<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 223)	92.5	65.0
Comparison group – ROR (N = 48)	106.1	78.5
Comparison group – bail set (N = 176)	50.3	32.0
Comparison group – all (N = 224)	62.3	36.0



Table 18 illustrates the time from the Criminal Court arraignment to the court appearance with an adjudicated outcome for the matched MSR client and comparison group cases, overall and by the arraignment release status. The difference between the clients and defendant in the comparison group who were granted ROR at arraignment is not statistically significant.

<b>Table 18 Time from Criminal Court Arraignment to Disposition: Matched Comparison Groups</b>		
<b>Group</b>	<b>Mean days</b>	<b>Median days</b>
MSR clients (N = 560)	165.2	151.5
Comparison group – ROR (N = 241)	164.3	133.5
Comparison group – bail set (N = 319)	143.3	108.0
Comparison group – all (N = 560)	152.3	123.5

Case processing time is longer for MSR clients compared to the entire matched comparison group. Cases of the matched clients take a slightly longer time to reach an adjudication compared to the cases of defendants in the comparison group with ROR at Criminal Court arraignment, but this difference is not statistically significant. Both the matched MSR client and ROR comparison group defendant cases have longer times to disposition compared with those in the comparison group with bail set at the Criminal Court arraignment.

The number of court appearances to an adjudicated outcome also varies between the matched MSR clients and defendants in the comparison group. Clients have an average of 5.6 court appearances. The matched comparison group defendants have an average of 5.4 court appearances up to the first adjudicated outcome. This difference is not statistically significant. Defendants in the matched comparison group with ROR at Criminal Court arraignment have an average of 4.0 appearances. This difference with MSR clients is significant at the  $p < .000$  level. Defendants for whom bail was set had an average of 6.5 appearances. The difference between these defendants and the clients is significant at the  $p < .05$  level.

## **Pretrial misconduct for matched groups**

In this section we explore differences in failure-to-appear (FTA) and re-arrest rates between matched MSR client and comparison groups. For clients we include misconduct either until their exit from the program, or the date of their first adjudicated outcome, whichever occurred first.<sup>12</sup> For defendants in the comparison group we include misconduct up until the first adjudicated outcome. As previously discussed, this analysis does not take into account differences in time at risk. For the purposes of these comparisons, the program clients are likely to be most similar to matched defendants in the comparison group with ROR at arraignment.

### Failure to Appear (FTA)

Table 19 illustrates FTA rates for the matched MSR clients and comparison group defendants. We report the rates for the matched comparison group defendants in total. We also report the rates for those in the comparison group released at arraignment and those held at arraignment but released at some point prior to the disposition of their case. We report FTA rates and “Adjusted FTA” rates. The Adjusted FTA rate does not count an FTA if the defendant returns to court within 30 days of the date of the appearance for which they failed to appear.<sup>13</sup>

Overall FTA rates are low for all groups, but MSR clients have a lower FTA rate than defendants in the comparison groups who were released at Criminal Court arraignment or at a subsequent point prior to the disposition of their case. The adjusted FTA rate for clients is slightly lower than those defendants released at arraignment, and

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<sup>12</sup> A Manhattan Supervised Release client typically would exit the program on the date of the adjudicated outcome or shortly thereafter. Occasionally convicted clients not immediately sentenced would continue in the program until a sentence was imposed and may have remained for several weeks or even several months after the initial disposition. Some clients would leave the program before adjudication, including clients removed from the program due to pretrial misconduct or due to issues not related to program participation. For this analysis we do not track misconduct after the first adjudication in order to allow for a closer comparison between the clients and the comparison group.

<sup>13</sup> For this report we only analyze cases with an adjudicated outcome. In some cases the last status of a case is the issuance of a warrant. Issuance of a warrant is not an adjudicated outcome and those cases are excluded from this report. As a result, this report essentially undercounts the number of MSR clients with an FTA. We use the same criteria for including cases in the comparison group and as a result are also undercounting the number of FTAs in that group. Thus, for the purposes of comparing MSR clients to the comparison group our criteria should not have any meaningful effects on the conclusions reached.

slightly higher than those who were held at arraignment but released at another time prior to the disposition of their case.

<b>Group</b>	<b>FTA</b>		<b>Adjusted FTA</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
MSR clients (N = 560)	23	4.1	11	2.0
Comparison group – ROR or bail made at arraignment (N = 262)	17	6.5	6	2.3
Comparison group – held at arraignment but released prior to final disposition (N = 153)	10	6.5	2	1.3
Total Comparison group (N = 415)	27	6.5	8	1.9

The differences in FTA and adjusted FTA rates between the MSR clients and the comparison group are not statistically significant.

#### Re-arrest rates

We examine re-arrests for MSR clients and the comparison group using the matched samples. For clients we include all prosecuted New York City arrests, excluding in-custody arrests, that occurred between the program admission date and either the date of the first adjudicated outcome *or* the date of exit from the program, whichever came first.<sup>14</sup> For defendants in the comparison group we include all prosecuted arrests, excluding any in-custody arrests, which occurred in New York City on any date after the defendant's arraignment and before the date of the first adjudicated outcome.

Of the 560 clients in the matched sample, 146 (26.1%) have at least one in-program arrest. Of the 415 defendants in the matched comparison group who were released at some point prior to the disposition of their case, 95 (22.9%) have at least

<sup>14</sup> For almost every client the date of entry into MSR is the same as the arraignment. For five defendants in this analysis entry into MSR came after the arraignment. Four of those defendants entered the program within 1-5 days of the arraignment, and one defendant entered over a month after arraignment.

one arrest between their arraignment and a disposition of their case. This difference is statistically significant at the  $p < .05$  level.

Table 20 shows the charge severity of the most severe re-arrest for matched MSR clients and defendants in the comparison group. The percentages indicate the percentage of all re-arrests within that group.

Severity of the Most Severe Re-arrest Charge	MSR Clients (N = 560)		Comparison Group Defendants ever At Risk (N = 415)	
	N	%	N	%
A felony	1	0.2	2	0.5
B felony	26	4.6	13	3.1
C felony	6	1.1	4	1.0
D felony	17	3.0	11	2.7
E felony	5	0.9	7	1.7
<b>Subtotal Felony re-arrests</b>	<b>55</b>	<b>9.8</b>	<b>37</b>	<b>8.9</b>
Misdemeanor	82	14.6	53	12.8
Lesser severity/other	9	1.6	5	1.2
<b>Subtotal Non-Felony re-arrests</b>	<b>91</b>	<b>16.2</b>	<b>58</b>	<b>14.0</b>
<b>Total Re-arrests</b>	<b>146</b>	<b>26.1</b>	<b>95</b>	<b>22.9</b>

While the clients have an overall re-arrest rate several percentage points higher than the comparison group, the difference in the felony re-arrest rate is smaller. The difference in the felony re-arrest rate between the matched MSR clients and sample group is not statistically significant.

There is little difference in the time to the first re-arrest for both groups. Using the earliest re-arrest, the average time to the first re-arrest for MSR clients is 86.4 days, with a median of 64.5 days. For defendants in the comparison group the average time to the first re-arrest is 87.5 days, with a median time of 62.0 days (data not shown).

Table 21 illustrates the crime category of the most severe re-arrest for matched MSR clients and comparison group defendants using a CJA typology, as described in Appendix A. The proportional distributions among crime categories display similar patterns. Drug charges make up the largest numbers and percentages of pretrial re-arrests for both groups. Re-arrests for property crimes (e.g. larceny) are more prevalent

among the clients than among ever released matched comparison group defendants, while the latter has a higher rate of re-arrests in the harm-to-persons category.

Crime Category of Most Severe Re-arrest Charge	MSR Clients (N = 560)		Comparison Group Defendants Ever At Risk (N = 415)	
	N	%	N	%
Harm to persons	13	2.3	13	3.1
Harm to persons and property	7	1.3	4	1.0
Weapon	4	0.7	5	1.2
Property	27	4.8	13	3.1
Drug	40	7.1	30	7.2
Fraud/Theft	21	3.8	14	3.4
Misconduct	8	1.4	5	1.2
Obstructing justice	7	1.3	3	0.7
VTL	11	2.0	3	0.7
Unknown/other	8	1.4	5	1.2

Some defendants in the matched groups have more than one re-arrest. Among the MSR clients, 104 have one re-arrest and 42 two or more (with a maximum of seven). In the matched comparison group 65 defendants have one re-arrest and 30 defendants two or more (with a maximum of six). One defendant in the comparison group has two prosecuted arrests on the same date, as does one MSR client. Otherwise, defendant re-arrests occurred on different dates. We do not include the data on defendants with multiple arrests. However, differences in the total number of re-arrests between the matched clients and the comparison group defendants are not statistically significant.

## **REDUCING PRETRIAL DETENTION THROUGH SUPERVISED RELEASE**

An important goal of MSR is jail displacement: the substitution of release under supervision for unnecessary pretrial detention. It is not possible with available data to calculate the numbers of displaced jail days the MSR program accomplished for its clients or the City. Nor is it possible to provide actual net cost savings from MSR without being able to calculate program costs relative to the cost of pretrial detention. However, we can estimate some pretrial detention times for defendants in different comparison groups in the study, all of whom were arraigned between April 2013 and December 2014, with a case disposition on or before June 30, 2015. Although not precise measurements, they do provide some insights into the amounts of pretrial detention time utilized by potentially eligible defendants who did not have the opportunity to be considered for the program.

### Pretrial detention time

In the program design, clients normally would be admitted at the Criminal Court arraignment and remain released under supervision until an adjudicated outcome or a need to terminate participation earlier. The latter is most likely to occur due to non-compliance with program requirements and/or a change in a defendant's release status. In-program arrests can result in at least short-term pre-arraignment detention which would interrupt the ongoing community release. However, unless the new arrest results in a change of the client's release status and program termination, clients for the most part are continuously at liberty from admission through exit. This most closely resembles the trajectory for defendants with ROR at arraignment. Majorities of defendants released at arraignment are likely to remain at liberty for the duration of their court cases although new arrests or other changes in circumstances can result in a change of release status.

Some defendants with bail set at the Criminal Court arraignment will remain in pretrial detention until case disposition. In other cases with bail set at arraignment, defendants may be released pretrial immediately by posting bail with the Court, or at some subsequent point prior to case adjudication either by making bail or a change of

release status to ROR. However, once released, these defendants may or may not remain at liberty until disposition.

Comparing MSR clients and defendants in all comparison group cases

Among the 568 program clients all but five were released into the program at the Criminal Court arraignment, and four of the five who entered after the arraignment date entered in 1-5 days of their arraignment. Therefore, for all intents and purposes we assign no pretrial detention time for clients. Of the 1,661 comparison group cases arraigned between April 2013 and December 2014 in this study, there are 651 with ROR at Criminal Court arraignment. Among the 1,010 cases with bail set at arraignment, defendants in 440 are never released, as shown in Table 22. The

Pretrial Release Condition	Pretrial Detention Time, in days		Case Processing Time, in days		N of Cases	Estimated Number of Pretrial Detention Days
	Mean	Median	Mean	Median		
MSR Clients	0	0	165.2	151	568	0
All Comparison Group Cases	Mean	Median	Mean	Median	N of Cases	Estimated Number of Pretrial Detention Days
Bail Set, Never Released	66.11	20	66.11	20	440	29,088.4
Bail Set, Post-Arraignment Release	12.81	4	201.57	179	479	6,136.0
Bail Set, Arraignment Release	0	0	192.61	171	79	0
ROR at Arraignment	0	0	163.53	140	651	0
Bail Set, Release Cannot Be Determined	N/A	N/A	154.75	144	12	N/A

average (mean) time from Criminal Court arraignment to disposition in the never released category is 66.11 days with a median (midpoint) of 20 days. By multiplying the number of cases of never released defendants by the average pretrial detention time, we can estimate that defendants in these 440 cases utilized approximately 29,088.4 pretrial detention jail bed days while awaiting the disposition of their cases. Case processing times in these cases, which also average 66.11 days, have a range from two to 561 case processing days from Criminal Court arraignment to a court appearance with an adjudicated outcome.

Among the bail set cases are another 491 in which defendants were released at a pre-disposition date after going into the custody of the Department of Correction leaving the Criminal Court arraignment. We are able to determine the post-arraignment release date in 479 of these 494 cases from which we can calculate the post-arraignment pretrial detention time to the first release. Defendants in these cases have an average of 12.81 post-arraignment days in pretrial detention, with a median of 4 days and a range of anywhere from 1 to 450 days from Criminal Court arraignment to first release. From this we can estimate that these 479 defendants spent a cumulative total of approximately 6,136.0 jail days of pretrial detention during their case processing.

There are 79 bail-set comparison group cases in which defendants posted bail immediately after the arraignment. No pretrial detention days are assigned to these cases, which averaged 192.61 days from Criminal Court arraignment to disposition. Similarly there are no pretrial detention days that we can assign to the defendants in the 651 comparison group cases with an arraignment ROR nor to the 568 cases in which defendants were MSR clients.

The comparison group is comprised of cases and defendants not dissimilar to those of program clients, arraigned during the same twenty-one months as program clients, but without the opportunity for a full program eligibility assessment. That is, the criminal histories of defendants fit the program's basic eligibility criteria, to the extent that could be determined from the study data, as do the arraignment charges. However, estimating potential pretrial jail displacement from the entire comparison group exaggerates the magnitude of the displacement. Not all of the defendants in the



bail set groups would have been found suitable for the program after further eligibility screening. Further, even if found eligible, other courtroom stakeholders, and especially judges, may not have been willing to substitute community supervision for bail.

#### Comparing MSR clients and matched comparison group

We also compare bail and release in the matched comparison groups, each with 560 defendants, to further narrow the scope of estimating the program's potential for jail displacement. Among the matched cases are 560 program clients, all but two of which were released into the program at the Criminal Court arraignment and, of the two, one entered the next day. We therefore do not assign any pretrial detention time for clients.

Within each category on Table 23, average case processing times for arraignment to disposition have only small variations to the full complement of comparison group and client cases. However, the numbers of comparison group cases in each category is considerably smaller than the entirety of the comparison group from which they are drawn; the number of client cases is smaller to account for those that could not be matched. For both matched client and comparison group cases the Criminal Court arraignment occurred between April 2013 and December 2014, and there was a court disposition on or before June 30, 2015.

Shown in Table 23 are 145 matched comparison group cases with bail set at Criminal Court arraignment in which the defendants have no pretrial release. For defendants in these cases the average pretrial detention time is 60.08 days with a median of 11.0 days, the same as the average case processing time from Criminal Court arraignment to the date of the court appearance at which an adjudicated outcome was entered. From this we would estimate that defendants in these cases would likely have utilized 8,711.60 pretrial jail days. An additional 153 cases have defendants released at some pre-disposition point after the Criminal Court arraignment. The defendants in these cases have a total of 2,041.02 days of pretrial detention prior to release.

<b>Table 23</b>						
<b>Pretrial Release and Detention from Criminal Court Arraignment to Disposition: Matched MSR Client and Comparison Groups</b>						
Pretrial Release Condition	Pretrial Detention Time, in days		Case Processing Time, in days		N of Cases	Estimated Number of Pretrial Detention Days
	Mean	Median	Mean	Median		
Matched MSR Clients	0	0	165.15	151.5	560	0
Matched Comparison Groups	Mean	Median	Mean	Median	N of Cases	Estimated Number of Pretrial Detention Days
Bail Set, Never Released	60.08	11.0	60.08	11.0	145	8,711.60
Bail Set, Post-Arraignment Release	13.34	4.0	215.02	183.0	153	2,041.02
Bail Set, Arraignment Release	0	0	193.0	186.5	22	0
ROR at Arraignment	0	0	164.26	133.5	240	0

Among the matched comparison group cases are 22 in which defendants made bail directly from the arraignment appearance, and 240 with ROR at arraignment. Like the MSR clients cases, none are assigned any pretrial detention time.

As indicated at the outset of this section, it is not possible to gauge the amount of pretrial jail displacement the MSR program accomplished for clients. What is possible is to estimate some average amounts of custodial time among defendants in non-screened cases in different comparison groups in the study who spent some or all of their pretrial time in detention. And it is evident from these data that supervised release presents an opportunity for reducing pretrial detention cost, the most expensive form of supervision.

## SUMMARY OF FINDINGS

This report has presented an analysis of program performance, court outcomes, case processing, and pretrial misconduct for Manhattan Supervised Release (MSR) program clients. The selection criteria for MSR clients was restricted to those admitted between the program's implementation on April 8, 2013 through December 31, 2014, who had exited the program *and* whose cases had an adjudicated outcome as of June 30, 2015. These criteria resulted in an analysis of 568 Manhattan program clients.

To put those data into context we also analyzed data on court outcomes, case processing, and pretrial misconduct—FTA and re-arrests, for defendants in two types of comparison groups. The first contained cases of defendants who appeared to meet the program's eligibility requirements, were arraigned in the Manhattan Criminal Court between April 2013 and the end of December 2014, but were not screened by the program. This occurred either because the case was arraigned during a shift not covered by MSR court staff or because MSR court staff had been unable to screen the case in advance of the arraignment.

We also conducted analyses on subsets of the client and comparison groups created from propensity score matching which allowed us to better account for differences found between MSR clients and the overall pool of potentially eligible non-screened defendants. For example, there were some differences in several demographic characteristics between clients and the overall comparison group's defendants. MSR clients also were somewhat more likely to have no prior convictions. Clients were relatively more likely to be charged with a property crime in comparison with a drug crime than the overall population of eligible, non-screened defendants.

The results from the analyses of conviction rates were similar when MSR clients were compared with the overall comparison group, or when compared using matched client and comparison cases and defendants. The program appears to have had no influence on the likelihood of conviction. Over three-fourths of all client and comparison group cases ended with a conviction, and virtually all by pleas.

MSR clients were slightly more likely to be convicted than defendants in the overall and matched comparison groups. Clients were also slightly less likely to receive a favorable disposition – defined as a dismissal, acquittal, ACD, or conviction on a charge of lesser severity than the top arraignment charge – than defendants in the comparison group. However, these differences were small and not statistically significant. The lack of statistical significance means our data do not provide evidence that MSR had an impact on conviction rates or favorable dispositions.

The results from both the overall and matched comparison group analyses allow for high confidence that the MSR program has had a strong impact on the type of sentence convicted defendants receive. The relationship between status as an MSR client and a sentence of imprisonment being imposed was highly significant, even when controlling for other relevant variables. Specifically, the analysis showed that MSR program participation substantially lowered the likelihood a defendant would have any incarceration sentence imposed when convicted.

There were mixed results from the data analysis of case processing times. The program planning process for Manhattan Supervised Release found wide variations in the scheduling of the first post-arraignment appearance for released defendants in the program's target population, anywhere from several days to several months. The program worked with the stakeholders to more regularly schedule the first post-arraignment appearance. This allowed the program sufficient time to assess and begin to address client needs, and then to report in-program compliance to the Court and other stakeholders to ensure client accountability.

The research found that MSR clients had their first post-arraignment appearance scheduled closer to the date of the Criminal Court arraignment than the defendants in the overall and matched comparison groups who were released on recognizance (ROR) at the arraignment appearance. The first appearance for clients in Supreme Court, when cases were moved to that Court for adjudication, also was scheduled closer to the date of the Criminal Court arraignment than for ROR defendants in the comparison groups. But these events did not expedite overall case processing times. The average time to adjudication was very similar between client and ROR defendant cases in the

comparison groups, although the median time for client cases was somewhat greater. The average number of court appearances to reach an adjudicated outcome was slightly greater for cases of program clients compared with cases of ROR defendants, and slightly fewer in comparison with defendants held at arraignment in the comparison groups. However, these differences were not statistically significant.

In general there were few differences in pretrial misconduct when FTA and re-arrest rates for program clients were compared with ever released defendants in the whole or matched comparison groups.

Overall FTA rates for all released defendants in this study were low and even lower for MSR clients in comparison with defendants released at or post arraignment in both the full and matched comparison groups. The difference in FTA rates between MSR clients and ever released defendants in the full comparison group was statistically significant, but not significant when tested with the matched comparison group. The adjusted FTA rate for MSR clients was fractionally higher relative to the full comparison group; it was fractionally lower in the matched comparison with cases of defendants released at arraignment, with which they are most similar. However, there was no statistically significant difference in adjusted FTA rates when MSR clients were compared with released defendants in the full or matched comparison group cases.

The overall re-arrest rate for MSR clients was slightly higher than for the defendants in the comparison group and the difference was statistically significant. However, the difference between the clients and comparison group defendants for felony re-arrests was less than one percentage point and not statistically significant.

## CONCLUSIONS

CJA first introduced a supervised release program as a demonstration project in the Queens County Criminal Court in August of 2009. Based on the success of that program the City authorized CJA to implement a comparable three-year supervised release program in the Manhattan Criminal Court which began in April 2013 and ended as of March 1, 2016. The combined success of these two programs has led New York City develop an expanded and citywide program of supervised release.

The Manhattan Supervised Release program, like its Queens County counterpart, has provided judges at the Criminal Court arraignment an alternative to money bail which was likely to result in pretrial detention of defendants for some or all pre-adjudication case processing. The program was restricted to felony cases, virtually all of which are continued at the Criminal Court arraignment, thereby necessitating a decision on release conditions. Only some non-violent felony cases, of B or lesser severity classification, were eligible. In addition to charge criteria, the program only could accept defendants with limited criminal histories, excluding persons with a VFO conviction within the most recent ten years. Further, the program was restricted to defendants with verified local-area community ties. The array of eligibility criteria created a target population in which defendants posed a medium risk of failing to appear if released on recognizance, were neither charged with nor had a recent history of conviction for a VFO charge, were likely to have bail set at arraignment with at least some attendant pretrial detention, and who had local-area ties sufficient for supervision by program case managers.

Research on legal outcomes from the Queens Supervised Release (QSR) program tested the extent to which the program as a bail alternative would alter court outcomes or case processing. That research found that conviction rates remained high and unchanged, and virtually all convictions in cases of both program clients and defendants in a pre-program comparison group were by pleas. It also found that the program did not affect case processing times when compared with cases of defendants released pretrial at or subsequent to arraignment. What distinguished Queens program cases from their pre-program counterparts was that the rate of imposition of any

imprisonment sentence for convicted QSR clients was about half that found among pre-program baseline cases (which included cases of both held and released defendants), and only slightly higher than in the pre-program cases in which defendants had been ROR at arraignment (Solomon 2013).

In many respects this research on the Manhattan Supervised Release program replicates the legal outcome findings of the Queens study. Convictions overwhelmingly were the court outcomes for both client and comparison group cases, and virtually all convictions were by pleas. Case processing times to an adjudicated outcome were very similar between program client cases and the cases with released defendants in the comparison groups. MSR clients, unlike their Queens counterparts, were not more likely to have more favorable outcomes, including pleas to lesser-severity charges, than non-program participants. However, and like their Queens counterparts, convicted MSR clients were far less likely to have an incarceration sentence imposed than defendants in either the full or matched comparison groups. A related question, initially raised when CJA began its programs, was whether upon conviction incarceration sentences would be imposed, and potentially of longer duration to offset the absence of pretrial detention time. That clearly has not happened.

A primary goal of supervised release has been effective jail displacement, in keeping with CJA's mission to work with criminal justice policymakers to reduce unnecessary pretrial detention. It also was a City goal when CJA was authorized to introduce its programs. As a result, among the most compelling findings from the Manhattan and Queens legal outcome studies is the jail displacement effect of community supervision as a bail alternative. Not only have the programs resulted in pretrial jail displacement, but also reduced the likelihood of any post-conviction time being imposed as well.

The jail displacement effects of CJA's Supervised Release programs are consistent with an emerging body of criminal justice research examining the relationship between pretrial release/detention status and the likelihood of an incarceration sentence if convicted. These studies, including others conducted by CJA senior researchers, repeatedly show that pretrial detention has a strong relationship to the imposition of jail

or prison time, and the lengths of those sentences. In one of these CJA studies, examining the impact of pretrial detention in cases prosecuted with felony charges, the author found pretrial detention significantly affected the likelihood of a jail or prison sentence, and the lengths of sentences imposed (Phillips 2008). In another recent study, in Kentucky, the authors similarly found that the likelihood of an incarceration sentence, and the length of the sentence, was related to pretrial detention. Among their specific findings was that: “when other relevant statistical controls are considered, defendants detained until trial or case disposition are 4.44 times more likely to be sentenced to jail and 3.32 times more likely to be sentenced to prison than defendants who are released at some point pending trial. The jail sentence is 2.78 times longer for defendants who are detained for the entire pretrial period, and the prison sentence is 2.36 times longer” (Lowenkamp, VanNostrand and Holsinger 2013a).

As the City’s pretrial services agency, one of CJA’s most important operational activities is to make a release recommendation based on risk of FTA for almost all defendants held for Criminal Court arraignment. New York remains one of only three states with a statute that provides for pretrial release decisions based exclusively on risk of FTA. And in setting conditions of release, prior to the introduction of CJA’s Supervised Release programs, decisions almost always relied on a dichotomous choice between ROR and money bail. A critical issue in developing a program for the SR target population was whether release under supervision in lieu of bail and pretrial detention could accomplish jail displacement without increasing FTA.

What CJA’s routine reports to the City prepared by the program’s management staff, and this research, have demonstrated is that community supervision as a bail alternative for CJA’s target population maintained, and even perhaps slightly reduced, the City’s already low FTA rates.

Although New York makes no statutory provision for consideration of potential pretrial misconduct other than FTA, it is widely recognized that decisions about bail setting often implicitly consider the nature of crimes and defendants in the context of public safety. The numbers of defendants with felony re-arrests were very small among clients and comparison group defendants overall and in the matched groups. Re-arrest



rates among MSR clients were higher than for released defendants in the comparison groups, but differences in felony re-arrest rates were smaller and not statistically significant. These data do not provide support for concerns by some stakeholders that MSR would jeopardize public safety by an increased likelihood that program clients would have higher felony re-arrest rates when compared with charge eligible cases of similar defendants released at or subsequent to Criminal Court arraignment. In addition, there is an emerging body of research showing a strong correlation between pretrial detention and post-disposition recidivism (Lowenkamp, VanNostrand and Holsinger 2013b).

A half century after former Attorney General Robert F. Kennedy convened the first National Conference on Bail and Criminal Justice Bail reform, the issue of bail reform is once again receiving attention at all levels of government. A 2011 symposium on the issue, jointly convened by the U.S. Department of Justice and the Pretrial Justice Institute, drew attention to the continuing pernicious effects of reliance on money bail. An important aspect of this is the role financial resources play when judges use charge severity or type in setting money bail rather than risk of pretrial misconduct. The result is that defendants with resources purchase their release while defendants with limited or no financial resources remain in pretrial detention regardless of their relative risks of pretrial misconduct (Pretrial Justice Institute).

Bail reform in recent years also has been receiving considerable attention in New York. A key focus of New York City criminal justice policymakers has been to find alternatives to money bail, a critical factor leading to the disproportionate representation of pretrial detainees in the New York City jails. Against this backdrop, and the results of CJA's supervised release demonstration programs, the current City administration has embarked on a major expansion of supervised release programs. This new initiative is bringing pretrial release under supervision to all of the City's main Criminal Courts. It also is extending the supervised release option to a wider defendant population pending arraignment on non-violent felony charges, and also to defendants in misdemeanor cases continued at arraignment. In addition, and with the research assistance of CJA, the City is seeking to bring greater consideration of risk, and especially risk of felony re-arrest, into eligibility decisions for release under supervision in lieu of money bail.

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## APPENDIX A

### CJA'S CRIME-TYPE CATEGORIES: AN OVERVIEW

The categories and principal charges found in CJA's typology of offenses are as follows:

- The *harm-to-persons* category consists of some of the most serious felony crimes such as murder, manslaughter and rape, as well as various types of assault including those of misdemeanor severity.
- The *harm-to-persons-and-property* category consists almost exclusively of violent felony offenses such as robbery.
- The *weapon* category includes all charges relating to use, possession and sale of weapons found in Article 265 of the New York State Penal Law.
- The *property* crime category includes petit larceny at the misdemeanor level, and grand larceny at the felony level, and also includes related offenses such as possession of stolen property or burglar's tools. This category also includes criminal mischief charges that can be of either felony or misdemeanor severity.
- The *drug* category includes all non-marijuana charges found in Article 220, and all marijuana charges found in Article 221, of the New York State Penal Law.
- The *fraud* (theft) category principally contains the theft-of-services misdemeanor charge, the vast majority of which involve fare beating, and other types of theft-by-deception activities such as forgery, credit card and welfare fraud, or trademark infringement.
- The *misconduct* category contains a variety of public-order offenses such as criminal trespass, harassment, disorderly conduct, and loitering, and other charges such as illegal gambling.
- The *obstruction-of-justice* category includes charges such as resisting arrest and criminal contempt charges including violating protection orders.
- *VTL* refers to offenses contained in the Vehicle and Traffic Laws, the vast majority of which are considered to be of unclassified misdemeanor severity.
- The *other/unknown* crime category contains mostly charges from sources outside the Penal Law or VTL, such as the City's Administrative Code covering offenses such as unlicensed vending or open alcohol container violations, or the sale of untaxed cigarettes under the State Tax Code. This category also is used for the small percentages of cases in which the charges as transmitted to CJA do not link to the charge index used in the CJA database.

## **APPENDIX B**

### **PROPENSITY SCORE MATCHING**

Propensity score matching (PSM) is a statistical procedure used to evaluate the effects of a treatment in observational data (Guo and Fraser 2010). To measure treatment effects the “gold standard” is an experimental design; one that involves random assignment of participants into treatment and control groups. Random assignment increases confidence that differences in observed outcomes for the treatment and comparison groups are reflecting the effects of the treatment, and are less a result of other factors.

It is not always possible to do experimental designs. For ethical, legal, budgetary, or programmatic reasons, program administrators may be unwilling or unable to deny treatment to individuals by randomly assigning them to a control group. An experimental study of the Manhattan Supervised Release Program would require that eligible defendants who are willing to participate be randomly assigned to Supervised Release *or* a control group in which defendants are not offered the program’s services. Doing so would result in some otherwise eligible and willing defendants being denied entry into MSR, and thus being denied the potential benefits the program offers.

This means a study of the impacts of MSR requires analysis of observational data. When measuring differences in outcomes between a treatment group and a comparison group, observational data are fundamentally flawed for drawing inferences about the effect of treatment. This is due to the potential for selection bias. Selection bias occurs if the placement of study participants’ in either the treatment or comparison group is not truly random.

For example, if a treatment program disproportionately selects men rather than women, or disproportionately selects individuals under the age of 30, analysis of any observed differences between the treatment and comparison groups becomes more difficult. This is true whether program administrators purposefully selected members of one group versus another, or such selection was by chance. In such situations, researchers are less confident that the treatment has an impact on the individuals in the

treatment group. Instead, there is an increased likelihood that observed differences are due to the variations in key characteristics (in this example, the defendant's sex and age).

Statisticians have developed a variety of statistical methods to address the problem of selection bias. Propensity score matching is an increasingly popular method for this purpose. PSM uses characteristics associated with selection to the treatment group to estimate the probability of a participant being assigned to the treatment group. That probability is referred to as a propensity score. For each case in the treatment group, the procedure identifies a comparison case that has a similar probability of being selected for the treatment group. In other words, we are measuring the likelihood a defendant in MSR would be enrolled in the program, and finding a defendant who is not an MSR client, but would have had a similar likelihood of being enrolled had they been screened.

We use SPSS for the propensity score matching, using SPSS's PSM extension bundle. We use sampling without replacement, which means that each case in the original comparison group can be included only once in the matched comparison group. Using this option may decrease the likelihood of achieving balanced samples but ensures that the procedure does not rely too heavily on only some cases in the comparison group.<sup>15</sup> SPSS uses nearest neighbor matching that is based on a "greedy matching" algorithm. Cases in both the treatment and non-treatment group are sorted by their propensity scores. Each case in the treatment group is then matched sequentially to the case in the control group with the closest propensity score (Thoemmes 2012). Use of PSM is expected to result in the loss of at least some cases in the treatment group.

We implement a match tolerance of .001. This allows for cases to be matched if the differences in the propensity score are .001 or less. Using such a strict tolerance is likely to improve the balance between the groups but potentially at the risk of losing

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<sup>15</sup> The other option is to allow cases in the comparison group to be used more than once. For example, if one defendant in the comparison group has a similar comparison score to two or more defendants in the treatment group, that defendant from the comparison group would be included as two or more separate cases for the purpose of analysis.

numerous cases. However, this level of tolerance results in the loss of only eight cases in the treatment group. We believe the loss of eight cases (1.4%) to be justified by the improved matching. It also creates two more closely matched samples than we were able to achieve using a less strict tolerance.

## APPENDIX C

### LOGISTIC REGRESSION ANALYSIS

This report used logistic regression to develop three statistical models. The first predicts the likelihood of conviction. A conviction includes a plea of guilty or a finding of guilty after a trial. The second predicts the likelihood of receiving a “favorable outcome.” We define a favorable outcome as a dismissal, acquittal, ACD, or a conviction of a crime of lesser severity than the top arraignment charge. The third model predicts the likelihood of receiving a sentence that includes imprisonment.

In each model the *outcome variable* (often referred to as the *dependent variable*) is coded using two values: 0 or 1. For the model predicting likelihood of conviction, a conviction is coded as 1 and a no conviction is coded as 0. Similarly, for the model predicting a favorable outcome, a favorable outcome is coded as 1 and an unfavorable outcome coded as 0. Finally, in the third model a sentence that includes imprisonment is coded as 1, and cases in which imprisonment is not imposed are coded as 0.

The models use information about a variety of defendant and case characteristics. These are called the *predictor variables* (often referred to as the *independent variables*). Logistic regression models produce several statistical measures to evaluate the effect of the independent variables.

Statistical Significance. Regression analysis includes *statistical significance tests* for each predictor variable. These tests report *p values*, which measure the likelihood of obtaining an effect at least as large as the one in the sample data, given the hypothesis being tested. The p-value ranges from 0 to 1, and the closer the p-value to 0, the more confident one can be that the data provide support for the hypothesis.

A statistical significance test takes into account the size of the sample as well as the magnitude of the effect of the predictor variable on the outcome. Effects estimated from larger samples are more likely to be statistically significant, and larger effects are more likely to be statistically significant. In this report, following standard convention, we considered significance levels of less than .05 as statistically significant. In other words, when the data that we observed had less than a 5% probability of

having occurred, this increases our confidence that the predictor variable has an effect on the outcome variable.

Wald Statistic. The Wald Statistic indicates the statistical significance of a predictor variable by examining the differences in the distributions of that predictor variable relative to the outcome variable.

Using an example from this report, consider the relationship between a defendant's race (one of the predictor variables in the model) and whether or not that defendant receives a sentence of imprisonment (the outcome variable). If race is not an important factor in whether a defendant receives a sentence of imprisonment, we would expect to observe in the data somewhat similar percentages of black defendants, Hispanic defendants, and defendants in the "other" category receiving sentences of imprisonment. If that is true, the Wald statistic is likely to be smaller, and less likely to be statistically significant.

The results of the logistic regression model for imprisonment indicate that is true for race. If our hypothesis were true that race is an important factor in sentencing, we would expect to see greater disparities in incarcerative sentences between the different racial groups. However, the differences are not substantial when controlling for the other variables in the model. As a result, the Wald statistic is smaller and not significant at the .05 level. Thus, we conclude our data do not provide any evidence that race is an important factor in whether a defendant is sentenced to time in prison.

The Odds Ratio. The odds ratio indicates whether the effect of the predictor variable is to make an outcome more or less likely to occur. Returning to the model that predicts imposition of a sentence of imprisonment, the odds ratio for each variable indicates how much more or how much less likely a defendant is to receive a sentence of imprisonment if a defendant has that characteristic, everything else being equal. The odds ratio indicates the change in odds for each category relative to a baseline comparison group.

For example, consider the model predicting a sentence of imprisonment. The race variable in this model uses Black as the baseline comparison. The odds ratio for defendants of Hispanic ethnicity is 1.194. This indicates that everything else being



equal, the odds that a Hispanic individual would receive a sentence of imprisonment are 1.194 times higher than the odds that a black individual would receive a sentence of imprisonment. We should note this predictor variable is not statistically significant.

In this model, a predictor variable that *is* statistically significant is a defendant's status as an MSR client. In this model the odds ratio for an MSR client is .455. Because the odds ratio is less than 1 it indicates the odds of an MSR client receiving a sentence of imprisonment when convicted is far *lower* than the odds of a defendant in the comparison group receiving a sentence of imprisonment. For example, imagine that everything else being equal, the probability of receiving a sentence of imprisonment is 50%. Another way of saying the probability is 50% is to say the odds are 1:1 (there is an equal chance of the defendant being sentenced to time in prison or not). The odds ratio for the MSR client variable is .455, indicating the odds change from 1:1 to .455:1. The probability an MSR client has an imprisonment sentence imposed can be computed by dividing the odds ratio by the odds ratio plus 1:  $.455/(1 + .455)$ . That computes to 31.3%, meaning the probability of an MSR client receiving an imprisonment sentence, all else being equal, is 31.3%. That probability is far more favorable to MSR clients than the hypothetical probability of 50% that we began with.