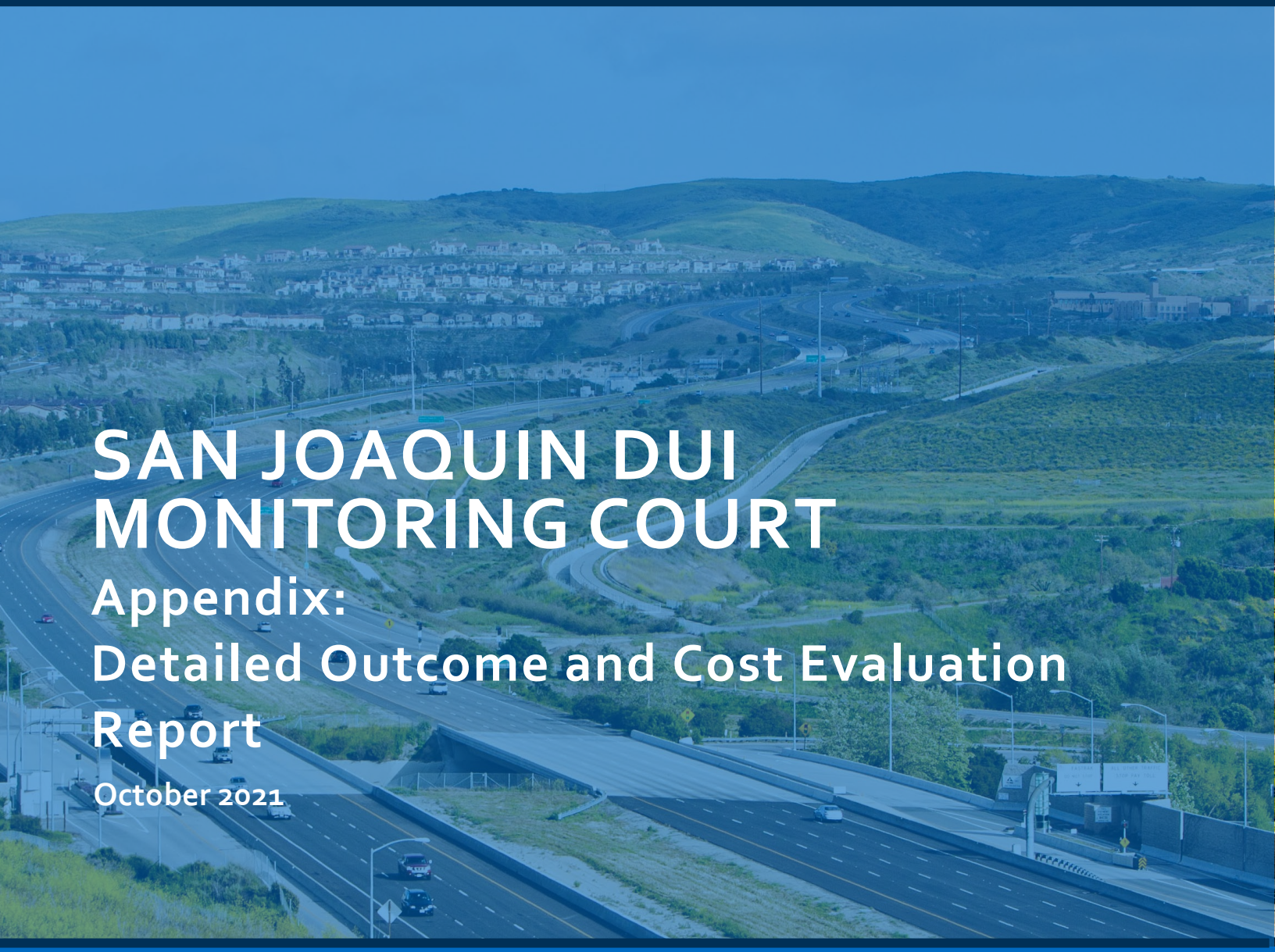

SAN JOAQUIN DUI MONITORING COURT

Appendix: Detailed Outcome and Cost Evaluation Report

October 2021

Submitted to

Superior Court of California
San Joaquin County
DUI Monitoring Court

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INTRODUCTION

In 2007, in the United States, an estimated 12,998 people were killed in alcohol-impaired driving crashes. Roughly 9% (1,115) of those impaired driving fatalities occurred in California. Repeat offenders made up 1.43% of California's drivers, but approximately 60% of the state's injuries and fatalities from impaired driving. Between 2005 and 2007, San Joaquin County California averaged over 620 fatalities per year due to drivers who were under the influence and in 2008, San Joaquin ranked 17th worst for traffic safety out of 58 counties.

To address this serious public safety problem, in 2008 San Joaquin County implemented a system change where all repeat (2nd time and higher) DUI offenders in the largest judicial district (mainly the City of Stockton) were required to participate in a DUI Monitoring Court program. This program was patterned partially after the drug treatment court model, which is most effective with individuals who are high criminogenic risk and who have high substance use disorder needs (i.e., "high risk – high need"). However, the San Joaquin DUI Monitoring Court (SJDMC) was designed to treat *all* repeat DUI offenders, some of whom are high risk and high need (the key target population for the traditional drug treatment court model), and some of whom are not. For this reason, the SJDMC implemented two tracks in the program, with the requirements for each track adjusted to fit the specific risk and need level of the participants. All participants started in track 1, the "monitoring track," where they were required to come to court at three time points - 1 month, 6 months and 1 year after entry to report on progress in completing the terms of their probation, including DMV requirements to qualify to get their license returned. Track 2, the "DUI Treatment Court track," was for those participants who demonstrated that they were unable to comply with Track 1 requirements and were assessed as needing substance use disorder treatment. Track 2 participants received the full traditional DUI court model with treatment according to their assessed need, court appearances every two weeks, regular meetings with their case managers, and continuous monitoring for alcohol and drug use.

In 2012, NPC Research completed an outcome evaluation of the SJDMC. The focus of the evaluation was on outcomes related to public safety, particularly traffic safety including new DUIs and traffic crashes, especially those that resulted in injuries or fatalities. The study population included all SJDMC participants who entered the program between 2008 through 2010 and a comparison group of the population of repeat DUI offenders convicted of a DUI in 2006 (2 years before the program was implemented). These individuals were tracked in DMV data for recidivism events, including new DUI convictions and traffic crashes, for 18 months after their "index DUI" (the DUI that led to their participation in the program). Results showed that program participants were 25% less likely to have a new DUI charge in the 18 months after their index DUI. More importantly, program participants had significantly fewer crashes, including those related to drug and alcohol consumption and those resulting in injury. Program participants were also significantly more likely to comply with court, probation, and DMV requirements.

At the end of 2019, NPC Research completed an updated longitudinal outcome evaluation following the same samples of participant and comparison groups from the 2012 study. Findings from this 2019 study demonstrated that SJDMC participants were significantly less likely to have a new DUI conviction than the comparison group at 6 years after their index conviction. Specifically, six years after the index conviction, participants in the DUI Monitoring Court had an average of 0.28 new DUI convictions versus 0.37 in the comparison group, representing a 24% decrease in DUI recidivism. After controlling the groups for age, gender, and prior number of DUI convictions, it was determined that the program group had significantly fewer new DUI convictions than comparison group ($p < 0.05$).[1]

The original design for the SJDMC was for all repeat DUI offenders to start in Track 1 and then move to Track 2 only if they were unable to comply with the Track 1 requirements. The SJDMC team called this "behavioral triage". No risk or need assessment tools were used in the eligibility and placement process, instead, participants showed by their behavior in Track 1 (i.e., through their failure to adhere to Track 1 requirements) if they needed to be moved to Track 2. Based on recommendations from the 2012 evaluation, and on the availability of a quick alcohol risk and need screening tool, in 2015 the SJDMC began screening all repeat DUI offenders using the Risk and Need Triage tool designed to measure risk and need specifically for new DUI offenses (the DUI-RANT) and used the results of the screen to place participants in Tack 1 or Track 2 at program entry.

NPC Research was contracted with support from a California Court Innovations grant to perform an updated process evaluation to review these new changes to the program process as well as to perform a full outcome and cost evaluation of the SJDMC using a more recent, post-RANT sample of SJDMC participants and a contemporary comparison group. The process evaluation, completed in 2018[2] led to the development of a "how to" manual[3] that provides guidance on how to develop a multi-track DUI-Court model. The outcome evaluation was focused on three main questions: 1. Did implementing the RANT screening tool and placing participants in appropriate tracks at entry result in improved outcomes compared to the pre-RANT time period when the SJDMC used "behavioral triage" (participants were placed in Track 2 if they demonstrated through their behavior that they needed additional support), 2. What is the impact of the SJDMC program on recidivism? (Including, what can we learn about the efficacy of this model in treating participants at different risk and need levels?) 3. Was the SJDMC following its intended model? In addition, a cost evaluation was performed to determine the costs of implementing a multi-track DUI court as well as to learn whether there were benefits (or cost savings) for individuals who participate in the SJDMC. This report presents the detailed methods and results for the outcome and cost evaluation.

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[1] The report on 2019 longitudinal recidivism evaluation of the SJDMC program can be found at think link: **https://npcresearch.com/publication/longitudinal-outcomes-of-the-san-joaquin-dui-monitoring-court/**

[2] The process evaluation is available at this link: **https://npcresearch.com/publication/san-joaquin-dui-monitoring-court-program-process-evaluation-report/**

[3] A copy of the DWI Court Multi-track How-To Manual is available at this link: **https://npcresearch.com/wp-content/uploads/How-To-Manual_Multi-Track-DWI-Court.pdf**

EVALUATION DESIGN SUMMARY

The study included several research questions that examined the effectiveness of track placement based on a risk and needs screening tool, the imapct of the program on recidivism, and the costs and benefits of the SJDMC. The table below organizes the research questions this study sought to answer along with the primary outcomes examined and mode of analysis used to answer each question. Data used to answer the resarch questions included arrest records, court filings, program treatment data, and other data sources.

	1	2	3	4
Research Question	*Did placing SJDMC participants into tracks based on the results of a **risk and needs screening tool (the DUI RANT)** lead to improved outcomes?*	*What is the **impact** of participation in SJDMC on recidivism?*	*Was the SJDMC following its **intended model**?*	*What are the **costs and benefits** of the SJDMC program?*
Mode of analysis	Comparison of program participants before and after RANT assessment usage	Comparison of post-RANT program participants with matched group who did not enter the SJDMC for overall program impact and Comparison of participants at different risk and need levels to determine *the **efficacy** of this model in treating participants at **different risk and need levels***	Assessment of program participation, track assignments and service usage	Summary and comparisons of costs of participation and traditional processing
Primary outcomes	Recidivism (crashes, convictions, rearrests)		Time to program entry, track assignment based on RANT scores, time on continuous monitoring, engagement in treatment,	Program costs & cost offsets (Savings)

SUMMARY OF STUDY GROUPS

Type of study group	Description	Year*	Overall sample size*	Relevant Research Question
Pre-RANT	Participants in the SJDMC who were assigned to tracks based on their behavior (behavioral triage) (prior to the implementation of the RANT for track placement)	2008-2010	1045	RQ1: comparison of pre/post RANT groups
Post-RANT	Participants in the SJDMC who were assigned to tracks using RANT scores (after the SJDMC implemented the RANT)	2015-2018	813	RQ1: Comparison of pre/post RANT groups RQ2: Comparison of SJDMC participants and a contemporary group of repeat DUI offenders who primarily lived outside of the jurisdiction of the Stockton Court and who were not referred and comparison of outcomes for participants at difference risk and need levels RQ3: Program process & service utilization RQ4: Program and outcome costs
External Comparison group	Repeat DUI offenders who did not participate in the SJDMC	2013-2018	811	RQ2: Comparison of outcomes to post-RANT DUI program participants RQ5: Outcome costs in comparison to the post-RANT SJDMC participants

* Depending on type of analysis, some samples additionally broken down by track assignment, number of years pre/post program entry or sentencing, or inactive status (those who completed the program). Also, if corresponding data was limited for certain analyses, the sample size may be smaller.

OUTCOME EVALUATION

The main purpose of outcome evaluation is to determine whether the program has improved participant outcomes. In other words, did the program achieve its intended goals for its participants? An outcome evaluation may examine short-term outcomes that occur while a participant is still in the program. Short-term outcomes include whether the program is delivering the intended amount of services, whether participants are successfully completing the program in the intended amount of time, and what factors lead to participants successfully completing the program. Short term outcomes for this study include a focus on how quickly participants enter the program from the time of the relevant DUI conviction, whether participants are appropriately placed in tracks according to their RANT scores, and whether participants are consistently monitored for use for the intended length of time (i.e., one full year). An outcome evaluation can also measure longer term outcomes (such as arrest recidivism), including participant outcomes after program completion. Longer term outcomes measured for this study include rearrests and convictions (for all charges and specifically for DUI charges), as well as crashes (all crashes and crashes where the driver was under the influence).

The research questions addressed in the outcome study include:

1. Did placing SJDMC participants into tracks based on the results of a risk and needs screening tool (the DUI RANT) lead to improved outcomes compared to SJDMC participants prior to using the screening tool?
2. What is the impact of participation in SJDMC on recidivism?
    a. Does participation in the DUI Monitoring Court reduce rearrests and reconvictions for DUI and other charges compared to similar individuals with repeat DUI charges who did not participate in the SJDMC?
    b. Does participation in the DUI Monitoring Court reduce time in jail or on probation compared to the matched comparison group of non-SJDMC individuals?
    c. Does participation in DUI Monitoring Court lead to fewer traffic crashes, including fewer alcohol- or drug-involved crashes and crashes with injuries compared to similar individuals with repeat DUI charges who did not participate in the SJDMC?
    d. Are there participant characteristics (such as demographics and arrest history) or program services (such as length of time on monitoring) that predict recidivism (rearrests or reconvictions)?
    e. What is the impact on recidivism based on assessed risk and need? Specifically, what is the recidivism rate for Track 1 (Mainly high risk/low need participants) compared to Track 2 (high risk/high need participants)? And What is the recidivism rate for participants at different risk and need levels within Track 1?

3. Was the SJDMC following its intended model?
    a. How quickly did participants enter the program from the date of arrest (that led to DUI conviction)?
    b. Were participants appropriately assigned to tracks based on their RANT scores

METHODS: OUTCOME EVALUATION

Within the context of the San Joaquin DUI Monitoring Court (SJDMC), the program goal is to increase public safety by reducing recidivism (e.g., new arrests and DUI convictions) and crashes (particularly injury crashes). This goal is achieved by implementing alcohol monitoring and frequent drug testing methods, intensely monitoring participants to help prevent driving under the influence, and connecting participants with the appropriate level of substance use disorder treatment and other services. In addition, to better ensure participants are provided the appropriate services and supervision, the SJDMC implemented the DUI-RANT to place participants into tracks according to measured risk and need levels. This approach will, ideally, result in these individuals connecting with the services they need to create long lasting behavior change and improve other areas of the participants' lives.

To assess whether the SJDMC is meeting its main goal of reducing recidivism, the outcome study followed a quasi-experimental design with a contemporary comparison group (repeat DUI offenders who were not referred to the SJDMC during the post-RANT time period), as well as a historical program group of pre-RANT SJDMC participants (to measure changes in participant outcomes after the implementation of the RANT assessment).

The RANT assessment for track placement was first implemented in late May of 2015. The post-RANT group used for analyses was selected among participants who entered the San Joaquin DUI Monitoring Court (SJDMC) program between June 2015 and the day of the data receipt in July 2018. The contemporary comparison group was selected from individuals convicted of a DUI offense in San Joaquin County between January 2013 and December 2018. After reviewing the contemporary comparison population and the SJDMC post-RANT program population, NPC selected a comparison group that matched SJDMC participants on demographics and criminal history. In addition, a cohort of SJDMC participants from the original 2012 study who went through the program prior to the implementation of the RANT assessment (i.e., those entering the program between 2008 and 2010) was used to compare recidivism outcomes per and post-RANT. More details on these groups are listed later in this report.

Based on data availability, SJDMC participants and comparison group members were tracked through existing administrative databases for a period up to 36 months following the DUI conviction that led to SJDMC program entry (or a selected index for the comparison group). The evaluation team used data sources as described in Exhibit 01 to determine whether the program sample and comparison groups differed in criminal justice involvement over time (e.g., arrests, DUI convictions, crashes).

Data Sources

The evaluation team gathered data necessary for the evaluation from administrative databases as described in Exhibit 01. The Exhibit lists the type of data collected and the source of these data.

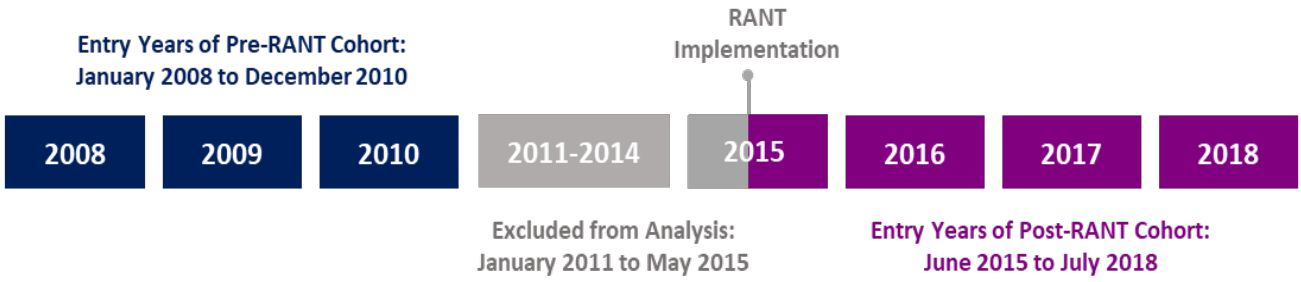
Exhibit 01. Evaluation Data Sources

Data Source	Availability	Items
SJDMC Program Data Superior Court of California, County of San Joaquin Full Court Enterprise (FCE) Database, Supervision Module	Post-RANT: 2015 to 2018 Pre-RANT: 2008-2010	• Participant demographics • Program start and end dates • Dates of court appearances & warrants • Start and end dates of alcohol monitoring • Start and end dates of substance use disorder treatment • RANT assessment information • Track placement
Arrest Data California Department of Justice (DOJ) Automated Criminal History System (ACHS)	1959 to 2020	• Arrest dates • Charge descriptions • Additional demographics
Court Filings and Convictions Superior Court of California, County of San Joaquin Full Court Enterprise (FCE) Database	1990 to 2019	• Case filing dates • Dates of disposition and sentencing • Charge descriptions • Sentencing information
DMV Data California Department of Motor Vehicles (DMV) Driver Record Master Database	2003 to 2019	• DUI Convictions • Crashes • Injury crashes
San Joaquin County Jail Data Advanced Technical Information Management System (ATIMS) and legacy Criminal Justice Information System (CJIS)	2005 to Jan 2021	• Booking dates • Release dates
San Joaquin County Probation Data San Joaquin County Probation	1990 to 2019	• Probation start dates • Probation end dates

San Joaquin DUI Monitoring Court Program Database

NPC obtained multiple program files from the San Joaquin DUI Monitoring Court (SJDMC). The SJDMC participant population is divided into two main cohorts, those that experienced the program prior to the implementation of the RANT tool (those entering the program between January 2008 and December 2010, the "**pre-RANT cohort**") and those that experienced the program after the implementation of the RANT tool (those entering the program between June 2015 and the day of the data receipt in July 2018, the "**post-RANT cohort**"). The program files were provided in Excel and included: demographics, dates of program entry and exit, status review hearing information, alcohol monitoring and drug testing information, dates of substance use disorder treatment, Risk and Needs Triage (RANT) information, and track placement.

Exhibit 02. SJDMC Analytic Cohorts



DOJ ACHS Arrest Data

The California Department of Justice (DOJ) maintains a repository for statewide arrests called the Automated Criminal History System (ACHS). All agencies within the criminal justice community are expected to report arrests to DOJ within 30 days of arrest disposition. Information contained within the repository is used to investigate, charge, and sentence individuals charged with crimes, and this information is also reported to the FBI and used in background checks for employment and licensing purposes[4]. NPC worked with officials from the DOJ to obtain criminal history information on SJDMC participants, as well as individuals convicted of DUI offenses in San Joaquin County between 2013 and 2018. Researchers at NPC provided DOJ with a list of individuals and DOJ then identified these individuals in their system and returned the following information: demographic information (race/ethnicity, date of birth, gender), dates of arrests, arresting jurisdiction, arresting entity, and charges associated with arrest.

The information gathered from DOJ was used to assess prior criminal history as well as recidivism outcomes (new arrests). Charge data were also available in this dataset and were used to calculate recidivism for different charge types (e.g., drug charges, property charges, felony vs. misdemeanor charges). The database covered arrests from 1959 through 2020.

[4] https://oag.ca.gov/sites/default/files/disposition-reporting-brochure_0.pdf

San Joaquin County Court Records

The Superior Court of California, County of San Joaquin houses a county-wide database of criminal court proceedings. The database is known as the Full Court Enterprise or FCE. NPC worked with officials from the court to obtain criminal history information on all individuals with a court case filing in San Joaquin County between 1990 and October 2019. The information in the dataset contained individual names and demographics, date of court case filing, disposition and sentencing dates, and charge information. The information gathered from the Court was used to identify individuals convicted of a DUI within San Joaquin County for the contemporary comparison group.

California Department of Motor Vehicles (DMV)

The California Department of Motor Vehicles (DMV) keeps data on dates of DUI convictions (misdemeanor and felony), crashes (including crashes involving drugs or alcohol, injuries, and fatalities), dates of license reinstatement, failures to appear, and driving history. NPC worked with DMV officials to obtain driving and crash history as well as DUI convictions for all the individuals in the study groups. NPC provided a reference date (i.e., the date of index DUI sentencing) and DMV officials provided summary counts of new DUI convictions and crashes based on this date. DMV was able to provide up to 10 years of prior DUI history and 3 years of recidivism (in 6 month increments). This roughly covered the time frame between 2003 and 2019.

DMV receives reports of crashes from both police (CHP) and crash-involved drivers. In California, drivers are required to report crashes to DMV if the crash involved an injury or fatality, or if there was property damage of more than $1,000.

San Joaquin County Jail

NPC worked with the San Joaquin County Sheriff's Office to obtain a list of all admissions to the county jail between January 2005 and January 2021. Information included in the extract included individual names and background information, dates of jail bookings, and dates of releases.

San Joaquin County Probation

NPC worked with the San Joaquin County Probation Office to obtain a list of all individuals on county probation between January 1990 and November 2019. Information included in the extract included individual names and background information, supervision start dates, and supervision close dates.

SJDMC Sample Selection and Comparison Matching

Participant Groups

Between January 2015 and July 2018 (the date ranges of the SJDMC post-RANT program extract), there were a total of 1,099 participants enrolled in the DUI Monitoring Court. After trimming out any participants that entered between January and May (to allow for full implementation of the RANT

assessment into the placement protocol), there were 813 individuals that had complete information (demographics, driver's license number, and criminal history) for inclusion in the study. For the purposes of this evaluation, this participant group is examined in multiple ways:

Post-RANT Participants for Short-Term (Within Program) Outcome Analysis (*N*=433): All ***non-active*** SJDMC participants entering between June 2015 and July 2018. This group is all those who have exited the program and is used to describe and compare the program activities (e.g., time in program, time on monitoring) of participants who exited after the implementation of the Risks and Needs Triage (RANT) tool.

Participants within this group were subdivided according to track placement, which aligns with their RANT score. Of the 813 SJDMC post-RANT participants, 433 had exited the program at the time of analysis. Of these 433 participants, 150 (35%) were placed in the high risk, high needs track (track 2) and the remaining 283 participants (65%) were placed in track 1. Of the 433 non-active, post-RANT participants, 5 (<1%) exited without successfully completing the program. The remainder were all graduates. The primary time period of interest for these analyses is during program participation (i.e., between program entry and program exit).

Post-RANT Participants for Comparative Analyses (*N*=813): All SJDMC post-RANT participants who entered the program between June 2015 and July 2018 with complete and available data (e.g., demographics, driver's license number, and criminal history), ***regardless of program completion status***. This group was used for any analyses in comparison to the contemporary matched comparison group as well as to the pre-RANT SJDMC participant population, described below. Only participants with at least 1 full year of post-index outcomes were selected for analyses. NPC employs an intent to treat (ITT) approach, where every participant entering the program, regardless of program status, is used to analyze the program impact. Note that outcomes are presented in 1, 2, and 3 year increments. Participants who do not have the opportunity to reach the full outcome window were removed from those analyses.

Pre-RANT Implementation Cohort (*N*=1,045): This is a cohort of SJDMC participants that experienced the program prior to the implementation of the RANT tool for track placement. For consistency with prior evaluations, this is the same group of individuals that was used in the 2012 and 2019 evaluations of the SJDMC program. Between 2008 and 2010, a total of 1,861 participants enrolled in the DUI Monitoring Court. Of these participants, 1,170 had complete information (demographics, driver's license number, and criminal history) for inclusion in the one of the prior studies. Of these 1,170 individuals, an additional 125 individuals were removed in the current study due to duplicates that overlapped multiple time periods and groups with the current evaluation. The final sample of pre-RANT participants used for analyses consisted of 1,045 unique individuals. The primary use of this comparison group was to assess whether the implementation of the RANT tool to place participants into different program service tracks improved participant outcomes.

Of the pre-RANT cohort, 924 participants (88%) were placed in track 1 and 121 participants (12%) were placed in track 2. See the prior report for more information[5] and a description of the SJDMC placement protocol prior to implementation of the RANT tool.

Comparison Group

Matched Comparison Group (*N*=811): The comparison group selected for this study was a group of individuals convicted of a DUI in San Joaquin County between 2013 and 2018, during the same time period as the Post-RANT SJDMC participants, but who were not referred to the SJDMC. This comparison group was selected from administrative data sources, including the San Joaquin County Court records and the California Department of Justice statewide arrest records. NPC obtained court case data for the County of San Joaquin (see Exhibit 01 for more details). Individuals who were convicted of a DUI offense in San Joaquin County between 2013 and 2018 were identified as *potential* comparison group members. The date of sentencing is considered to be the index date for the purposes of this study; that is, criminal history is counted prior to this date, and outcomes are counted after this date for both the SJDMC participant and comparison groups. NPC reviewed additional information such as demographics and criminal history for all potential comparison group members. Propensity score matching (PSM) was used to find a one-to-one matched group of comparison individuals including all variables that were available for both program and non-program individuals. Participants were matched with potential non-program comparison group members on a number of characteristics including: 1) race/ethnicity, 2) age at sentencing, 3) gender, and 4) criminal history (including prior DUI charges). Exhibits 03 and 04 list the specific data elements used in the matching process.

Matching Method

The comparison group was selected from observational data collected by governmental agencies (i.e., participants were not randomly assigned, but were selected based on the natural course of program implementations). Using observational data for inferential statistics is complicated by the fact that program participants may systematically differ from comparison group members, and those differences, rather than the program, may account for some or all of the differences in the impact measures. To reduce this selection bias, NPC employed a matching method called Propensity Score Matching (PSM) to remove study participants from the comparison sample that did not have similar demographics or criminal histories as the PSC population.[6]

Propensity scores are a weighting scheme designed to mimic random assignment. The first step of propensity score analysis was to estimate the probability that a study participant will or will not be a program participant. This prediction (the estimated probability of whether an individual is likely to enter the program) is known as the propensity score. Once the propensity score for each individual was established, the extent to which participants differed from comparison group members was

[5] https://npcresearch.com/publication/san-joaquin-dui-monitoring-court-process-and-outcome-evaluation/
[6] Rosenbaum & Rubin, 1983.

calculated for each program using Weighted Least Squares (WLS) regression. This calculation is done by using the propensity scores to weight the parameters in the equation, which adjusts for any pre-existing differences between the two groups. This methodology has advantages over other techniques that statistically adjust for pre-existing differences because it uses a multivariate approach (taking into account many possible measured variables) to create propensity weights and thus reduces potential bias in impact (e.g., recidivism) results. Researchers matched participants in the comparative analysis sample using a one-to-one matching scenario, without replacement (i.e., each participant was matched to one comparison group member, and comparison group members could only be used once).

Exhibit 03 list the specific data elements used in the matching process.

Exhibit O3. Data Elements Employed in Propensity Score Matching

PSM Matched Data Element
Age at sentencing date
Gender
Race/ethnicity
Number of DUI arrests 10 years prior to sentencing date
Number of DUI court convictions 2 years and 10 years prior to sentencing date
Number of arrests 2 years prior to sentencing date: ▶ Total ▶ DUI ▶ Drug ▶ Felony ▶ Felony DUI

Testing on the validity of the match showed no statistically significant differences between the two groups on demographics (including age, gender, race/ethnicity), and most prior criminal history indicators (including number of prior arrests with DUI, drug, felony, or felony DUI arrests, as well as number of DUI convictions in the 2 years prior to sentencing). Program participants were more likely to have a higher number of prior DUI convictions in the 10 years prior to sentencing (1.42 DUI convictions for the program group versus 1.32 DUI convictions in the comparison group).

While not employed in the matching method, researchers also examined the location of the DUI arrest (according to DOJ arrest records) and the year in which individuals were sentenced. The large majority of both SJDMC post-RANT participants and the comparison group were arrested by a Stockton law enforcement officer or within the border of the City of Stockton, however, a larger proportion of the comparison group members were arrested somewhere else within San Joaquin County (3% of the SJDMC post-RANT group vs. 18% of the comparison group). This sample design was intentional in that

the majority of repeat DUI offenders are referred to the Stockton program so it was necessary to look elsewhere within the county for similar individuals who were not referred. Program stakeholders noted that sometimes arrests occurring on the Stockton border are ultimately deemed within the jurisdiction of another court within the county, and not necessarily filed in at the Stockton courthouse where the SJDMC program resides. One other notable difference is that more of the comparison group was from a more recent time period. That is, more comparison group members had index DUI convictions that occurred in the last year of the sample time period compared to the SJDMC post-RANT participant group (e.g., 15% of SJDMC participants were sentenced in 2018 compared to 38% of the comparison group so the SJDMC participants had a longer outcome window). See Exhibits O4 and O5 for details on the final sample groups.

Exhibit 04. Comparison of SJDMC Post-RANT Participants to Contemporary Comparison Group – χ^2 Statistics - Demographics

	SJDMC (*N*=813)		Comparison (*N*=811)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Gender								
Male	79%	639	78%	636	1	1624	.007	.931
Female	21%	174	22%	175	1	1624	.007	.931
Race								
Black/African American	17%	135	18%	143	3	1624	1.153	.764
Hispanic/Latinx	51%	414	52%	422	3	1624	1.153	.764
White	22%	180	20%	163	3	1624	1.153	.764
Other	10%	84	10%	83	3	1624	1.153	.764
Arrest Location								
Stockton	97%	788	82%	668	1	1624	92.769	.000*
Outside Stockton	3%	25	18%	143	1	1624	92.769	.000*
Sentencing Year								
2013	0%	0	5%	43	5	1624	241.380	.000*
2014	<1%	3	7%	56	5	1624	241.380	.000*
2015	23%	187	10%	85	5	1624	241.380	.000*
2016	30%	243	18%	149	5	1624	241.380	.000*
2017	31%	255	22%	174	5	1624	241.380	.000*
2018	15%	125	38%	304	5	1624	241.380	.000*

Exhibit 05. Comparison of SJDMC Post-RANT Participants to Contemporary Comparison Group – t-test Statistics – Age and Criminal History

	SJDMC (*N*=813)		Comparison (*N*=811)		t-test			
	Mean	Std Dev	Mean	Std Dev	t	df	p	Cohen's d
Age at Sentencing (Years)	35.9	11.5	36.4	11.3	.909	1624	.363	.05
Arrests: 10 years prior to sentencing date								
DUI	3.2	1.6	3.2	2.1	-.779	1624	.877	-.04
Arrests: 2 years prior to sentencing date								
Charge								
All	2.2	1.6	2.1	1.6	-.308	1624	.758	-.02
DUI	1.7	1.1	1.7	0.9	-.193	1624	.847	-.01
Drug	0.6	0.9	0.6	0.9	-.568	1624	.570	-.03
Person	0.3	0.7	0.2	0.7	-.667	1624	.505	-.03
Property	0.1	0.5	0.1	0.5	.977	1624	.329	.05
Severity								
Misdemeanor	2.0	1.4	2.0	1.4	-.035	1624	.972	-.01
Felony	0.4	.08	0.3	0.8	-.779	1624	.436	-.04
DUI Convictions prior to sentencing date								
2 Years	1.0	.54	1.0	.39	.053	1624	.958	.01
10 Years	1.4	.71	1.3	.62	-2.791	1624	.005*	-.14

Analyses

Once all data were gathered on the study participants, researchers cleaned and moved the data into Statistical Package for the Social Sciences (SPSS) 23.0 for statistical analysis. The analyses used to answer specific questions are described below. Some analyses include data sources that do not cover the full outcome window for every participant. In these instances where all participants do not have the full outcome time available, only those with complete information were included. These discrepancies in sample sizes are noted throughout the report. Recidivism outcomes are counted with respect to the DUI sentencing date.

Research Question #1: Did placing SJDMC participants into tracks based on the results of a risk and needs screening tool (the DUI RANT) lead to improved outcomes compared to SJDMC participants prior to using the screening tool?

To assess whether placing participants into tracks based on the RANT screening tool improved outcomes, researchers compared the cohort of SJDMC pre-RANT participants (those entering the program between 2008 and 2010) to the cohort of SJDMC post-RANT participants (those entering the program between 2015 and 2018). SJDMC program data and DMV criminal history were used to compare differences in three ways:

- the entire cohort of pre-RANT participants compared to the entire post-RANT participants,
- those placed in track 1 in the pre-RANT cohort versus those placed in track 1 in the post-RANT cohort, and
- those placed in track 2 in the pre-RANT cohort versus those placed in track 2 in the post-RANT cohort.

Recidivism outcomes are presented for total number of new DUI convictions, total number of crashes, and total number of crashes associated with "had been drinking or using drugs" (HBD). Each outcome is measured at 1, 2, and 3 years post DUI sentencing. Student t-tests were performed on a large variety of descriptive statistics. While we highlight those tests that fall under the $\alpha = 0.05$ threshold, we caution against using the word significance for these tests. The corrected α level becomes miniscule given the amount of comparative tests performed, thereby stifling proclamations of significance. However, we present Cohen's *d* to measure effect sizes which, in conjunction with traditional p-values, provides a solid foundation to understanding the differences between SJDMC post-RANT participant and comparison groups.

Our formula for Cohen's *d* was

$$d = \frac{M_1 - M_2}{S_p}$$

where M_1 and M_2 are the respective means and the pooled sample standard deviation is

$$S_p = \sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{N_1 + N_2 - 2}}$$

A common convention for interpreting effect sizes in behavioral sciences includes the following definitions: small (*d* = ±.20), medium (*d* = ±.50), and large (*d* = ±.80), which are based on Cohen's (1988) guide.

Research Question #2: What is the impact of participation in the SJDMC (post-RANT) on recidivism?

a. Does participation in the DUI Monitoring Court reduce rearrests and reconvictions for DUI and other charges compared to similar individuals with repeat DUI charges who did not participate in the SJDMC?

There were two different data sources utilized to examine recidivism (rearrests and reconvictions):

- statewide DOJ arrest records and
- statewide DUI convictions reported to the DMV.

Descriptive means were utilized to examine the differences in cumulative rearrests (DOJ) and DUI convictions (DMV) at 1, 2, and 3 years post DUI sentencing. These data include the comparison of the SJDMC post-RANT participant group and the contemporary comparison group. Student t-tests and χ^2 tests were performed these descriptive statistics, with any finding falling under the threshold of $\alpha = 0.05$ noted in the table. Cohen's *d* is also presented to aid in interpretation of findings.

Nine separate negative binomial regressions were run with 1, 2, and 3 year cumulative counts for any rearrest type, DUI rearrests, and felony rearrests used as the outcome variables. One additional negative binomial was run on 2-year cumulative DUI convictions as reported to the DMV. All models went through rigorous validation procedures ensuring in inclusion of necessary covariates and factors in balance with a comparatively low AIC. Controlling variables included the number of arrests 2 years prior to DUI sentencing date, age at sentencing, gender, and race. The estimated marginal means were examined by group designation and their pairwise differences are discussed.

Descriptive proportions were utilized to examine the differences in recidivism rates across these data sources, followed by χ^2 tests to assess for any differences not attributed to random chance. Nine logistic regressions were run on the 1, 2, and 3 year rearrest status for any type of rearrest, DUI rearrests, and felony rearrests. Controlling variables in these models included the number of arrests 2 years prior to DUI sentencing date, age at sentencing, gender, and race. The results of the logistic regression were consistent with the χ^2 tests and are available upon request.

Additionally, researchers examined the total number of days incarcerated in the San Joaquin County Jail, as well as the total number of days spent on local probation. Again, Student t-tests and Cohen's d effect sizes are presented to aid interpretation.

b. Does participation in DUI Monitoring Court lead to fewer traffic crashes, including fewer alcohol- or drug-involved crashes and crashes with injuries compared to similar individuals with repeat DUI charges who did not participate in the SJDMC?

Descriptive means and proportions were utilized to examine the differences in cumulative statewide crashes, alcohol- or drug-involved crashes, and injury crashes, as reported to the California Department of Motor Vehicles. These data include the comparison of the SJDMC post-RANT participant group and

the contemporary comparison group at 1, 2, and 3 years post DUI sentencing. Student t-tests and χ^2 tests were performed on a large variety of descriptive statistics. Those tests that fall under the $\alpha = 0.05$ threshold are noted in the table along with Cohen's *d* for context.

Three negative binomial regressions were run with 1, 2, and 3 year cumulative counts for the number of new crashes as the outcome variable. These models went through rigorous validation procedures ensuring in inclusion of necessary covariates and factors in balance with a comparatively low AIC. Controlling variables included the number of prior DUI convictions 2 years and 10 years prior to DUI sentencing date, age at sentencing, gender, and race. The estimated marginal means were examined by group designation and their pairwise differences are discussed. Regression analyses were not possible for alcohol- or drug-involved crashes or injury crashes due to the overall low occurrence of these types of crashes.

c. Are there participant characteristics (such as demographics and arrest history) or program services (such as length of time on monitoring) that predict recidivism (rearrests or reconvictions)?

To answer this question, researchers first reviewed the number of SJDMC post-RANT participants that were rearrested at 2 years post DUI sentencing. At two years post DUI sentencing, there were 726 participants that had two full years of outcome window available for analyses, and of these, 473 (65%) had been rearrested for a new crime, according to the statewide DOJ arrest records. Descriptive means and proportions were utilized to examine the differences in those that were rearrested compared to those that were not. Student t-tests and χ^2 tests were performed on a large variety of descriptive statistics. Those tests that fall under the $\alpha = 0.05$ threshold are noted in the table.

Researchers also reviewed the number of SJDMC post-RANT participants that were rearrested at 2 years post DUI sentencing with available RANT placement information. At two years post DUI sentencing, there were 613 participants that had two full years of outcome window available for analyses, and of these, 411 (67%) had been rearrested for a new crime, according to the statewide DOJ arrest records. Descriptive proportions were utilized to examine the differences in those that were rearrested compared to those that were not by RANT quadrant. χ^2 tests were performed on descriptive statistics and those tests that fall under the $\alpha = 0.05$ threshold are noted in the table.

Complete monitoring data was not available for the full sample of SJDMC post-RANT participants, as multiple agencies housed the information in different places. Researchers worked with program stakeholders to randomly select 138 non-active post-RANT participants, and program staff hand-looked up the monitoring information for each of these individuals. Approximately two-thirds of the random sample (*N*=93) were selected from track 1 and one-third of the random sample (*N*=45) was selected from track 2, which mimic the overall proportion of track placement. Participants could have been on multiple forms of monitoring at one time or over the course or program participation.

There were five main types of monitoring used by SJDMC post-RANT participants. Researchers calculated the percent of people on each type of monitoring, which could have occurred at any point in

program participation. The percent of participants on each form of monitoring can exceed 100%, as participants could have been placed on multiple forms. The results are discussed qualitatively.

Researchers then calculated the total number of days on each form of monitoring by comparing the monitoring start date with the end date. The average length of time on monitoring for SJDMC post-RANT participants is presented by type and the results are discussed qualitatively. To calculate the average number of days from program entry to start of monitoring, researchers compared the program entry date with the first date of any form of monitoring. If the participant was already on monitoring as part of their pre-trial agreement, the program entry date was used as a proxy for the first day of monitoring while in program.

Researchers calculated the number of different types of monitoring on which SJDMC post-RANT participants were placed. Then researchers examined all possible combinations of monitoring that existed in the data. The total time on monitoring was calculated for each combination and the results are discussed qualitatively.

Due to the limited variation in the length of time on monitoring, analyses could not be performed on the relationship between length of monitoring and recidivism.

d. What is the impact on recidivism based on assessed risk and need?

Descriptive means and proportions were utilized to examine the differences in cumulative statewide rearrests and DUI rearrests (as reported to DOJ), as well as DUI convictions, as reported to the California Department of Motor Vehicles. These data include the comparison within the SJDMC post-RANT by track and by RANT screen results (risk and need level) at 1, 2, and 3 years post DUI sentencing. Student t-tests and χ^2 tests were performed on a large variety of descriptive statistics. Those tests that fall under the $\alpha = 0.05$ threshold are noted in the table along with Cohen's *d* for context.

Research Question #3: Was the SJDMC following its intended model?

a. How quickly did participants enter the program from the date of arrest (that led to DUI conviction)?

Researchers identified the last DUI arrest in the DOJ arrest records that occurred prior to program entry. The average number of days from this arrest to program entry was calculated by taking the difference between these two dates. Additionally, researchers calculated the average number of days from DUI sentencing to SJDMC program entry. The results are discussed qualitatively.

b. Were participants appropriately assigned to tracks based on their RANT scores?

To answer this question researchers performed χ^2 analyses on RANT level cross-tabulated with track assignment. Some of the SJDMC post-RANT participants (*N*=118, 15% of the sample) were missing information on the RANT level and were excluded from this analysis.

Study Limitations

The following is a list of limitations impacting data analyses by data source as well as potential limitations in design.

Differing Database Time Periods

The date range for each database used in various analyses differs slightly based on when data extracts were obtained. Both the DOJ statewide arrest records and DMV outcomes (e.g., DUI convictions, crashes) were extracted at the end of 2020. However, program officials at the DMV reported that there is an average delay of 18 months from when a DUI arrest occurs and when the subsequent conviction is reported to the DMV. For these reasons, we only analyzed DMV outcomes (e.g., DUI convictions, crashes) that occurred prior to May 2019 (18 months before the extract date). This is one of the primary reasons that the sample sizes for study participants differs across these two data sources, even for the same time period (e.g., 2 years post DUI sentencing).

Missing or Unavailable Program Data

The SJDMC program uses multiple databases to house all the data related to the monitoring court. Some information is maintained in Excel spreadsheets created by the court, whereas some information is contained in agency databases (such as monitoring data).

The monitoring data for SJDMC post-RANT participants is largely tracked by each of the respective monitoring companies and there is not one comprehensive source of all types and sources of monitoring data. Moreover, extracts from each of the monitoring companies was not feasible. In order to gain estimates of the number, type, and duration of monitoring episodes, researchers worked with program stakeholders to randomly select a subset of the SJDMC post-RANT participants, and program stakeholders manually reviewed all available data sources to provide as comprehensive data for each of these participants as possible.

RANT assessment scores were missing for approximately 15% of our final post-RANT program sample. Additionally, program stakeholders noted that participants could have transitioned between tracks based on RANT rescreening throughout the program and only the final track placement was available for analyses. Participants could have also been placed in track 2, regardless of the RANT level, based on circumstances of the DUI arrest (e.g., a high blood alcohol content).

Missing or Unavailable DOJ Arrest Data

In order to gain access to criminal history information contained in the DOJ's ACHS database, we provided a list of identifiers of all individuals convicted of a DUI within San Joaquin County between 2013 and 2018. While the DOJ was able to find at least one matching arrest record for approximately 95% of our initial sample, it was not always possible to locate the DUI arrest that aligned with the DUI conviction from the local county court data. For these reasons, any program or comparison group

person that did not have a DUI arrest in San Joaquin County within 500 days of the DUI conviction identified in the court records was excluded from analyses.

Missing or Unavailable DMV Data

Similar to the data request process for DOJ arrest records, researchers submitted a list of identifiers of all individuals convicted of a DUI within San Joaquin County between 2013 and 2018 to the California Department of Motor Vehicles (DMV). In addition to name and date of birth, driver's license number was also provided, if available. The primary identifier used to track records in the DMV database is driver's license. Driver's license number was available for most, but not all individuals in the local county court records and the SJDMC program database. If the identifiers provided did not match the driver's license on file with DMV, the conviction and crash history was not provided. Additionally, if the driver was unlicensed, the DMV could not reliably track convictions and crashes over time, and therefore could not provide this history. For these reasons, roughly 15% of the study group was excluded from any analyses containing DMV outcome data (but retained if they were successfully linked in the DOJ arrest data).

Missing or Unavailable CDCR Data

NPC researchers submitted a research proposal to the California Department of Corrections and Rehabilitation requesting corrections data. The CDCR denied the request for data because the study did not fit into their research priorities. Specifically, CDCR representatives indicated that a program like the SJDMC that diverts offenders from correctional institutions is not relative to enhancing the CDCR.

Comparison of Participants at Different Time Periods (Historical Changes)

The differences in outcomes for SJDMC participants pre-RANT (2009-2012) and post-RANT (2015-2018) could be due to other factors aside from the use of the DUI-RANT screening tool. Other changes in SJDMC practices occurred over those time periods and it's possible that changes in the overall court system practices and police procedures may also have changed during that time period. However, the two groups were quite similar in their background characteristics, and an exploration of court practices and police procedures through interviews with key stakeholders revealed little obvious changes, other than a reported possible increase in police surveillance for drivers under the influence over time (which would likely result in greater numbers of DUI arrests and convictions in the later time periods rather than the decrease demonstrated in the results).

RESULTS

This section presents the results of the outcome evaluation according to each outcome study question described above.

Research Question #1: Did placing SJDMC participants into tracks based on the results of a risk and needs screening tool (the DUI RANT) lead to improved outcomes compared to SJDMC participants prior to using the screening tool?

***Summary**: Overall, participants in the Post-RANT group had significantly fewer new DUI convictions, no difference in the number of crashes associated with drugs or alcohol, but had more crashes that were not associated with drugs or alcohol. The number of crashes overall was very small, which may influence the validity of the crash findings. The significantly lower number of DUI convictions in the Post-RANT group provides support for the theory that placing participants in tracks based on a validated screening tool (i.e., providing participants with services based on risk and need scores) results in improved outcomes.*

Details:

Pre and Post-RANT Participant Sample Demographics and Criminal History

Before providing the results to this research question, the demographics of the pre and post RANT participant groups are provided as context for the recidivism outcomes. The first set of tables (Exhibits 06 through O10) display the demographic characteristics and number of prior DUI convictions (from DMV data) of both the pre-RANT and post-RANT SJDMC cohorts - both tracks combined. Demographic comparisons are provided in additional tables for participants in each track separately. There were significant differences between both group (Pre-RANT or Post-RANT) and gender and group and race/ethnicity. The Pre-RANT group contained a larger percentage of males than the Post-RANT group. The Post-RANT group contained a larger percentage of participants who were Hispanic/Latinx than the Pre-RANT group. However, although these differences were statistically significant, this is likely due to the large sample sizes and an examination of the absolute numbers shows that these differences are actually quite small (just 3 percentage points for gender and 5 percentage points for Hispanic participants).

Exhibit 06. SJDMC Participant Characteristics Pre-RANT vs. Post-RANT (Tracks Combined) – χ^2 Statistics

	Pre-RANT (*N*=1,045)		Post-RANT (*N*=813)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Gender								
Male	83%	863	79%	639	1	1858	4.690	.032*
Female	17%	182	21%	174	1	1858	4.690	.032*
Race/Ethnicity								
Black/African American	15%	157	17%	135	1	1858	.863	.369
Hispanic/Latinx	46%	483	51%	414	1	1858	4.049	.044*
White	24%	255	22%	180	1	1858	1.304	.270
Other	11%	116	10%	80	1	1858	.770	.403

There were statistically significant differences in average age and convictions in the 2 years prior to entry between members of the Pre-RANT group and Post-RANT group; participants in the Post-RANT group were younger than participants in the Pre-RANT group and the Post-RANT group had a smaller average number of 2 year prior DUI convictions than the Pre-RANT group. In addition, the Post-RANT group had a larger average number of crashes (any) and had been drinking crashes than the Pre-RANT group. Similar to above, although these differences were statistically significant, the absolute size of the difference is quite small, with a just one year difference in age between pre and post-RANT participants, and a difference of 0.2 prior convictions and 0.1 prior crashes.

Exhibit 07. SJDMC Participant Characteristics Pre-RANT vs. Post-RANT (Tracks Combined) – t-test Statistics

	Pre-RANT (*N*=1,045)		Post-RANT (*N*=813)		t-test			
	Mean	Std Dev	Mean	Std Dev	t	df	p	Cohen's d
Age	37.0	11.9	36.0	11.5	-2.038	1856	.042*	-.10
2 Year Prior:								
DUI Convictions	1.3	0.6	1.1	0.7	-5.516	1731	.000*	-.27
Crashes	0.3	0.5	0.4	0.6	5.464	1727	.000*	.27
HBD Crashes	0.2	0.4	0.3	0.5	6.492	1727	.000*	.32

Exhibits 08 and 09, show the demographic characteristics and number of prior DUI convictions and crashes (from DMV data) of Track 1 participants from both the pre-RANT and post-RANT SJDMC cohorts. There were no significant differences between group (Pre-RANT or Post-RANT) on gender or race/ethnicity. However, among Track 1 participants, there was a statistically significant difference in age between the Pre-RANT and Post-RANT participants; Post-RANT participants were younger than Pre-RANT participants. For Track 1 participants, there was a significant difference between the Pre-RANT and Post-RANT groups in terms of 2 year prior convictions for DUI. The Post-RANT Track 1 group had a smaller average number of 2 year prior DUI convictions than the Pre-RANT Track 1 group. The Post-RANT Track 1 group had a larger average number of crashes (any) and had been drinking crashes than the Pre-RANT Track 1 group; this difference between groups was statistically significant. However, as before, although these differences were statistically significant due to the large sample sizes, the absolute differences were quite small.

Exhibit 08. Track 1 SJDMC Participant Characteristics Pre-RANT vs. Post-RANT – χ^2 Statistics

	Pre-RANT (*N*=922)		Post-RANT (*N*=527)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Gender								
Male	82%	758	80%	421	1	1449	1.197	.293
Female	18%	164	20%	106	1	1449	1.197	.293
Race/Ethnicity								
Black/African American	14%	132	16%	83	1	1449	.545	.489
Hispanic/Latinx	47%	437	52%	275	1	1449	3.072	.081
White	23%	216	20%	108	1	1449	1.663	.213
Other	11%	106	11%	59	1	1449	.030	.932

Exhibit 09. Track 1 SJDMC Participant Characteristics Pre-RANT vs. Post-RANT – t-test Statistics

	Pre-RANT (*N*=922)		Post-RANT (*N*=527)		t-test			
	Mean	Std Dev	Mean	Std Dev	t	df	p	Cohen's d
Age	37.1	11.9	35.4	11.5	-2.651	1447	.008*	-.14
2 Year Prior:								
DUI Convictions	1.3	1.3	1.0	1.0	-7.216	1375	.000*	-.41
Crashes	0.3	0.5	0.4	0.6	4.576	1373	.000*	.26
HBD Crashes	0.2	0.4	0.3	0.5	5.677	1373	.000*	.33

Exhibits 10 through 11, show the demographic characteristics and number of prior DUI convictions (from DMV data) of Track 2 participants from both the pre-RANT and post-RANT SJDMC cohorts. Among Track 2 participants, there was a significant difference between groups (Pre-RANT and Post-RANT) for gender; the Post-RANT group contained a smaller percentage of males. There were no statistically significant differences between group (Pre-RANT and Post-RANT) on the remainder of the demographics or DUI and crash history.

Exhibit 10. Track 2 SJDMC Participant Demographics Pre-RANT vs. Post-RANT – χ^2 Statistics

	Pre-RANT (*N*=121)		Post-RANT (*N*=286)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Gender								
Male	85%	103	76%	218	1	407	4.041	.047*
Female	15%	18	24%	68	1	407	4.041	.047*
Race/Ethnicity								
Black/African American	21%	25	18%	52	1	407	.341	.581
Hispanic/Latinx	38%	46	49%	139	1	407	3.842	.051
White	32%	39	25%	72	1	407	2.135	.146
Other	8%	10	7%	21	1	407	.103	.838

Exhibit 11. Track 2 SJDMC Participant Prior DUI Convictions, Crashes and HBD Crashes -Pre-RANT vs. Post-RANT –t-test Statistics

	Pre-RANT (*N*=121)		Post-RANT (*N*=286)		t-test			
	Mean	Std Dev	Mean	Std Dev	t	df	p	Cohen's d
Age	36.5	12.0	36.8	11.4	0.220	405	.826	.02
2 Year Prior:								
DUI Convictions	1.4	0.7	1.3	0.8	-1.514	352	.131	-.17
Crashes	0.4	0.7	0.5	0.7	0.928	350	.354	.10
HBD Crashes	0.3	0.5	0.4	0.6	1.608	350	.109	.18

Pre and Post RANT Recidivism Results

Exhibit 12, shows the recidivism outcomes, as measured by the average number of new DUI convictions, new crashes, and new crashes associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes) up to three year after program entry (i.e., post-sentencing). Among all SJDMC participants, there was a significant difference between Pre-RANT SJDMC participants Post-RANT SJDMC participants in the mean number of new DUI convictions 1, 2, and 3 years post sentencing and mean traffic crashes (any type) 2 and 3 years post sentencing. The Post-RANT group had a smaller number of new DUI convictions than the Pre-RANT group in each of the follow up years. However, the Post-RANT group had a larger mean number of crashes (of any type) than the Pre-RANT group in years 2 and 3 post sentencing but there was no significant difference in the mean number of HBD crashes. Note that overall, the mean number of crashes is quite small with a total of just 27 HBD crashes over three years out of nearly 1300 individuals. Also note that the number of participants in the post-RANT group that had three years of outcome data is a third of the original sample size (decreasing from 673 to 248), so these findings may not be representative of the overall group.

Exhibit 12. SJDMC Pre-RANT vs. Post-RANT Participant Comparison of DMV Recidivism Outcomes –Means for Cumulative New Convictions and Crashes Over 3 Years

Cumulative, By Type	Pre-RANT			Post-RANT			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	Cohen's d
New DUI Conviction										
Year 1	1045	0.08	0.28	673	0.02	0.17	-4.724	1716	.000*	-.23
Year 2	1045	0.13	0.37	468	0.05	0.24	-4.627	1511	.000*	-.26
Year 3	1045	0.18	0.42	248	0.07	0.28	-3.891	1291	.000*	-.27
Any Crash										
Year 1	1045	0.03	0.19	673	0.04	0.21	1.028	1716	.304	.05
Year 2	1045	0.05	0.23	468	0.09	0.32	3.178	1511	.002*	.17
Year 3	1045	0.08	0.29	248	0.17	0.46	4.172	1291	.000*	.29
HBD Crash										
Year 1	1045	0.01	0.11	673	0.01	0.11	-.022	1716	.982	-.01
Year 2	1045	0.02	0.14	468	0.03	0.18	.989	1511	.323	.05
Year 3	1045	0.02	0.16	248	0.03	0.21	1.192	1291	.234	.08

Exhibit 13, provides the recidivism rate, as measured by the percent of SJDMC participants that had at least one new DUI conviction, crash, or crash associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes). Among all SJDMC participants, there was a significant difference between the Pre-RANT SJDMC group and Post-RANT SJDMC group in the percent of participants with a new DUI conviction 1, 2, and 3 years post sentencing and percent of participants with a traffic crash (any type) 2 and 3 years post sentencing. The Post-RANT group had a smaller percent of participants with new DUI convictions than the Pre-RANT group in each of the follow up years. The Post-RANT group had a larger percent of participants with any traffic crashes than the Pre-RANT group in years 2 and 3 post sentencing. There was no significant difference between the Pre-RANT SJDMC group and Post-RANT SJDMC group in the percent of participants with a HBD crash.

Exhibit 13. SJDMC Pre-RANT vs Post-RANT Participant Comparison of DMV Recidivism Outcomes - Percent with New Convictions and Crashes

Percent, By Type	Pre-RANT			Post-RANT			χ^2 test			
	Total N	Count	%	Total N	Count	%	df	N	χ^2	p
New DUI Conviction										
Year 1	1045	82	8%	673	14	2%	1	1718	25.804	.000*
Year 2	1045	132	13%	468	20	4%	1	1513	24.987	.000*
Year 3	1045	170	16%	248	15	6%	1	1293	17.073	.000*
Any Crash										
Year 1	1045	31	3%	673	26	4%	1	1718	1.026	.335
Year 2	1045	49	5%	468	41	9%	1	1513	9.579	.003*
Year 3	1045	74	7%	248	37	15%	1	1293	15.691	.000*
HBD Crash										
Year 1	1045	10	1%	673	6	1%	1	1718	.019	1.000
Year 2	1045	17	2%	468	10	2%	1	1513	.480	.530
Year 3	1045	21	2%	248	8	3%	1	1293	1.352	.237

Exhibit 14, shows the recidivism outcomes for Track 1 participants, as measured by the average number of new DUI convictions, new crashes, and new crashes associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes). Among SJDMC participants in Track 1, there was a significant difference between Pre-RANT and Post-RANT Track 1 SJDMC participants in the mean number of new DUI convictions 1, 2, and 3 years post sentencing and mean traffic crashes (any type) 2 and 3 years post sentencing. The Post-RANT Track 1 group had a smaller number of new DUI convictions than the Pre-RANT Track 1 group in each of the follow up years. The Post-RANT group had a larger mean number of crashes (any type) than the Pre-RANT group in years 2 and 3 post sentencing. There was no significant difference between the Pre-RANT Track 1 SJDMC group and Post-RANT Track 1 SJDMC group in the mean number of HBD crashes.

Exhibit 14. Track 1 Pre-RANT vs Post-RANT Participant Comparison of DMV Recidivism Outcomes –Means for Cumulative New Convictions and Crashes

Cumulative, By Type	Pre-RANT Track 1			Post-RANT Track 1			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
New DUI Conviction										
Year 1	922	0.06	0.24	443	0.02	0.16	-2.793	1363	.005*	-.16
Year 2	922	0.10	0.31	302	0.04	0.20	-3.229	1222	.001*	-.21
Year 3	922	0.14	0.34	158	0.06	0.27	-2.521	1078	.012*	-.22
Any Crash										
Year 1	922	0.03	0.18	443	0.04	.021	.923	1363	.356	.05
Year 2	922	0.05	0.23	302	0.09	0.30	2.326	1222	.020*	.15
Year 3	922	0.08	0.28	158	0.14	0.37	2.495	1078	.013*	.21
HBD Crash										
Year 1	922	0.01	0.11	443	0.01	0.11	-.114	1363	.909	-.01
Year 2	922	0.02	0.13	302	0.02	0.18	.487	1222	.626	.03
Year 3	922	0.02	0.15	158	0.03	0.19	.437	1078	.662	.04

Exhibit 15, shows the recidivism rate for Track 1 participants, as measured by the percent of SJDMC participants that had at least one new DUI conviction, crash, or crash associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes). Among SJDMC participants in Track 1, there was a significant difference between the Pre-RANT Track 1 SJDMC group and Post-RANT Track 1 SJDMC group in the percent of participants with a new DUI conviction 1, 2, and 3 years post sentencing and percent of participants with a traffic crash (any type) 2 and 3 years post sentencing. The Post-RANT Track 1 group had a smaller percent of participants with new DUI convictions than the Pre-RANT Track 1 group in each of the follow up years. The Post-RANT group had a larger percent of participants with any traffic crashes than the Pre-RANT group in years 2 and 3 post sentencing. There was no significant difference between the Pre-RANT Track 1 SJDMC group and Post-RANT Track 1 SJDMC group in the percent of participants with a HBD crash.

Exhibit 15. Track 1 Pre-RANT vs Post-RANT Participant Comparison of DMV Recidivism Outcomes - Percent with New Convictions and Crashes

Percent, By Type	Pre-RANT Track 1			Post-RANT Track 1			χ^2 test			
	Total N	Count	%	Total N	Count	%	df	N	χ^2	p
New DUI Conviction										
Year 1	922	52	6%	443	9	2%	1	1365	9.126	.002*
Year 2	922	87	9%	302	10	3%	1	1224	11.695	.000*
Year 3	922	123	13%	158	9	6%	1	1080	7.347	.005*
Any Crash										
Year 1	922	26	3%	443	17	4%	1	1365	1.015	.323
Year 2	922	41	4%	302	24	8%	1	1224	5.542	.026*
Year 3	922	66	7%	158	21	13%	1	1080	6.850	.016*
HBD Crash										
Year 1	922	8	1%	443	3	1%	1	1365	.136	1.000
Year 2	922	13	1%	302	4	1%	1	1224	.012	1.000
Year 3	922	17	2%	158	3	2%	1	1080	.002	1.000

Exhibit 16, shows the recidivism outcomes for Track 2 participants, as measured by the average ***number*** of new DUI convictions, new crashes, and new crashes associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes). Among SJDMC participants in Track 2, there was a significant difference between Pre-RANT and Post-RANT Track 2 SJDMC participants in the mean number of new DUI convictions 1, 2, and 3 years post sentencing and mean traffic crashes (any type) 3 years post sentencing. The Post-RANT Track 2 group had a much smaller number of new DUI convictions than the Pre-RANT Track 2 group in each of the follow up years. The Post-RANT group had a larger mean number of crashes (any type) than the Pre-RANT group in year 3 post sentencing. There was no significant difference between the Pre-RANT Track 2 SJDMC group and Post-RANT Track 2 SJDMC group in the mean number of HBD crashes.

Exhibit 16. Track 2 Pre-RANT vs Post-RANT Participant Comparison of DMV Recidivism Outcomes –Means for Cumulative New Convictions and Crashes

Cumulative, By Type	Pre-RANT Track 2			Post-RANT Track 2			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
New DUI Conviction										
Year 1	121	0.26	0.47	230	0.03	0.19	-6.673	349	.000*	-.75
Year 2	121	0.41	0.59	166	0.07	0.30	-6.407	285	.000*	-.76
Year 3	121	0.46	0.64	90	0.08	0.31	-5.227	209	.000*	-.73
Any Crash										
Year 1	121	0.04	0.20	230	0.04	0.22	.089	349	.929	.01
Year 2	121	0.07	0.25	166	0.11	0.36	1.283	285	.200	.15
Year 3	121	0.08	0.36	90	0.23	0.58	2.326	209	.021*	.32
HBD Crash										
Year 1	121	0.02	0.13	230	0.01	0.11	-.261	349	.794	-.03
Year 2	121	0.03	0.18	166	0.04	0.19	.140	285	.889	.02
Year 3	121	0.04	0.24	90	0.06	0.23	.436	209	.664	.06

Exhibit 17, shows the recidivism rate for Track 2 participants, as measured by the percent of SJDMC participants that had at least one new DUI conviction, crash, or crash associated with using alcohol or drugs ("Had Been Drinking" or HBD crashes). Among SJDMC participants in Track 2, there was a significant difference between the Pre-RANT Track 2 SJDMC group and Post-RANT Track 2 SJDMC group in the percent of participants with a new DUI conviction 1, 2, and 3 years post sentencing and percent of participants with a traffic crash (any type) 3 years post sentencing. The Post-RANT Track 2 group had a much smaller percent of participants with new DUI convictions than the Pre-RANT Track 2 group in each of the follow up years. The Post-RANT group had a larger percent of participants with any traffic crashes than the Pre-RANT group in year 3 post sentencing. There was no significant difference between the Pre-RANT Track 2 SJDMC group and Post-RANT Track 2 SJDMC group in the percent of participants with a HBD crash.

Exhibit 17. Track 2 Pre-RANT vs Post-RANT Participant Comparison of DMV Recidivism outcomes - Percent with New Convictions and Crashes

Percent, By Type	Pre-RANT Track 2			Post-RANT Track 2			χ^2 test			
	Total N	Count	%	Total N	Count	%	df	N	χ^2	p
New DUI Conviction										
Year 1	121	30	25%	230	5	2%	1	351	45.189	.000*
Year 2	121	44	36%	166	10	6%	1	287	42.174	.000*
Year 3	121	46	38%	90	6	7%	1	211	27.314	.000*
Any Crash										
Year 1	121	5	4%	230	9	4%	1	351	.010	1.000
Year 2	121	8	7%	166	17	10%	1	287	1.159	.397
Year 3	121	8	7%	90	16	18%	1	211	6.384	.015*
HBD Crash										
Year 1	121	2	2%	230	3	1%	1	351	.069	1.000
Year 2	121	4	3%	166	6	4%	1	287	.020	1.000
Year 3	121	4	3%	90	5	6%	1	211	.640	.501

Research Question #2: What is the impact of participation in the post-RANT SJDMC on recidivism?

Summary: *Overall, there were mixed findings on the impact of the SJDMC participation on recidivism, though most findings were null. There was no difference in rearrests with any charge between SJDMC participants and the matched contemporary comparison group. However, count models did demonstrate that SJDMC participants had significantly fewer new felony arrests than individuals in the comparison group. The SJDMC participants did have fewer DUI convictions, on average, but the difference was not statistically significant. A higher percentage of SJDMC participants had crashes than the comparison group, but there was no significant difference in crashes associated with drug or alcohol use.*

A comparison of time incarcerated and on probation showed that SJDMC participants spent significantly more time in jail and on probation. The probation finding may be due to two factors, 1. SJDMC participants are more likely to be assigned to probation due to participation in the SJDMC program and 2. Individuals in the comparison group were more likely to live outside of Stockton and therefore may be on probation in an agency outside of Stockton. The jail results may also be due to time spent in jail outside of Stockton.

An exploration of participant characteristics and program activities in relation to rearrests demonstrated that while there was no difference in recidivism between genders, Latinx participants had a lower rearrest rate compared to white participants and compared to black participants. Arrest history also predicted recidivism, those with more prior arrests in the 10 years and 2 years before entry had more new arrests in the two year post entry, for all charge types.

An examination of risk and need screening results and a comparison of Track 1 and Track 2 participants demonstrated that participants who were high risk and low need (making up the majority of Track 1 participants) had fewer rearrests and fewer DUI arrests than participants who were high risk and high need (Track 2). This finding demonstrates that the low level intervention provided to participants in Track 1 resulted in relatively low rearrest rates for individuals who were high risk for a DUI but who did not have a substance use disorder.

Overall, although the SJDMC program showed mostly null benefits in reducing recidivism compared to individuals with repeat DUI convictions who did not participate in the program, SJDMC participation was associated with fewer felony arrests and there is some evidence that the intensive monitoring (one year of continuous electronic monitoring) provided in Track 1 does have a beneficial effect on recidivism for high risk low need participants compared to high risk high need participants (who also received the same intensive monitoring).

a. Is participation in the DUI Monitoring Court related to fewer rearrests and reconvictions for DUI and other charges compared to a contemporary group of similar individuals with repeat DUI charges who did not participate in the SJDMC?

Results presented in this section focus on the post-RANT implementation period when the RANT tool was used to place participants into appropriate tracks. Exhibit 18, displays the average number of new arrests (from DOJ records) by charge type for the SJDMC post-RANT group and the contemporary, matched comparison group. There were no significant differences between the treated SJDMC group and the

comparison group in mean number of arrests (any), DUI arrests, person arrests, property arrests, or other arrests at 1, 2, and 3 years post program sentencing.

Exhibit 18. Comparison of DOJ Rearrests by Charge Type –Means for Cumulative Rearrests

Cumulative, By Type	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Any Rearrest										
Year 1	812	0.92	1.221	811	0.90	1.167	.210	1621	.834	.01
Year 2	726	1.37	1.921	548	1.26	1.738	1.032	1272	.302	.06
Year 3	476	1.86	2.835	366	1.65	2.220	1.189	840	.235	.08
DUI Rearrest										
Year 1	812	0.67	0.807	811	0.66	0.853	.279	1621	.780	.01
Year 2	726	0.94	1.159	548	0.85	1.162	1.474	1272	.141	.08
Year 3	476	1.23	1.582	366	1.05	1.514	1.685	840	.092	.12
Person Rearrest										
Year 1	812	0.08	0.370	811	0.10	0.515	-1.058	1621	.290	-.05
Year 2	726	0.13	0.508	548	0.14	0.586	-.388	1272	.698	-.02
Year 3	476	0.22	0.730	366	0.23	0.782	-.263	840	.793	-.02
Property Rearrest										
Year 1	812	0.06	0.450	811	0.06	0.341	-.252	1621	.801	-.01
Year 2	726	0.10	0.751	548	0.12	0.553	-.438	1272	.661	-.02
Year 3	476	0.18	1.306	366	0.17	0.712	.077	840	.939	.01
Drug Rearrest										
Year 1	812	0.13	0.459	811	0.14	0.451	-.443	1621	.658	-.02
Year 2	726	0.20	0.677	548	0.25	0.745	-1.130	1272	.258	-.06

Cumulative, By Type	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Year 3	476	0.33	0.930	366	0.32	0.921	.158	840	.875	.01
Other Rearrest										
Year 1	812	0.36	0.898	811	0.31	0.744	1.164	1621	.245	.06
Year 2	726	0.61	1.304	548	0.54	1.194	1.010	1272	.313	.06
Year 3	476	0.91	1.812	366	0.78	1.529	1.094	840	.274	.08

Exhibit 19, displays the mean number of new arrests (from DOJ records) by charge severity for the program sample and the contemporary, matched comparison group. There were no significant differences between the treated SJDMC group and the comparison group in average number of misdemeanor rearrests or felony rearrests 1, 2, and 3 years post sentencing.

Exhibit 19. Comparison of DOJ Rearrests by Charge Severity – Raw Means for Cumulative Rearrests

Cumulative, By Severity	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Misdemeanor Rearrest										
Year 1	812	0.80	1.054	811	0.76	1.030	.768	1621	.443	.04
Year 2	726	1.18	1.584	548	1.02	1.506	1.801	1272	.072	.10
Year 3	476	1.55	2.158	366	1.33	1.943	1.519	840	.129	.11
Felony Rearrest										
Year 1	812	0.15	0.493	811	0.20	0.594	-1.737	1621	.083	-.09
Year 2	726	0.26	0.837	548	0.33	0.832	-1.433	1272	.152	-.08
Year 3	476	0.43	1.379	366	0.43	0.965	.038	840	.970	.01

Exhibit 20 shows the results of three negative binomial count models examining the relationship between group (SJDMC participants versus the contemporary, matched comparison group) and total number of rearrests, once other factors (e.g., gender, race) have been held constant. Count models do not show a departure from the raw means for [total rearrests for] the comparison group 1, 2, and 3 years post sentencing. In other words, when controlling for certain demographics and criminal history, the mean difference from the model is similar to the mean difference from the raw means. This is likely due to a closely balanced comparison group produced through Mahalanobis distance matching.

Exhibit 20. Comparison of DOJ Total Rearrests – Count Model Results

	Estimated Marginal Means			
	SJDMC		Comparison	
	EMM	SE	EMM	SE
Year 1	.86	.085	.86	.085
Year 2	1.26	.127	1.19	.128
Year 3	1.67	.192	1.58	.195
	Controls			
	2 Year Priors	Age	Gender	Race
Year 1	2.14	36	Male	Hispanic/Latinx
Year 2	2.12	36	Male	Hispanic/Latinx
Year 3	2.17	36	Male	Hispanic/Latinx
	Pairwise Comparisons			
	Mean Difference	Std Error	p	interval
Year 1	.00	.063	.979	(-.12, .12)
Year 2	.06	.094	.517	(-.12, .25)
Year 3	.09	.146	.524	(-.19, .38)

Note: Year 1 *N*=1623, Year 2 *N*=1274, Year 3 *N*=842.

Exhibit 21 shows the results of three negative binomial count models examining the relationship between group (SJDMC participants versus the contemporary, matched comparison group) and total number of new DUI rearrests, once other factors (e.g., gender, race) have been held constant. Count models do not show a departure from the raw means for [DUI rearrests for] the comparison group 1, 2, and 3 years post sentencing. In other words, when controlling for certain demographics and criminal history, the mean difference from the model is similar to the mean difference from the raw means. This is likely due to a closely balanced comparison group produced through Mahalanobis distance matching.

Exhibit 21. Comparison of DOJ DUI Rearrests – Count Model Results

	Estimated Marginal Means			
	SJDMC		Comparison	
	EMM	SE	EMM	SE
Year 1	.64	.068	.63	.067
Year 2	.91	.100	.83	.097
Year 3	1.17	.145	1.02	.136
	Controls			
	2 Year Priors	Age	Gender	Race
Year 1	2.14	36	Male	Hispanic/Latinx
Year 2	2.12	36	Male	Hispanic/Latinx
Year 3	2.17	36	Male	Hispanic/Latinx
	Pairwise Comparisons			
	Mean Difference	Std Error	p	interval
Year 1	.01	.05	.886	(-.09, .11)
Year 2	.08	.073	.257	(-.06, .23)
Year 3	.15	.107	.167	(-.06, .36)

Note: Year 1 *N*=1623, Year 2 *N*=1274, Year 3 *N*=842.

Exhibit 22 shows the results of three negative binomial count models examining the relationship between group (SJDMC participants versus the contemporary, matched comparison group) and total number of felony rearrests, once other factors (e.g., gender, race) have been held constant. Count models do not show a departure from the raw means for [felony rearrests for] the comparison group 3 years post sentencing. In other words, when controlling for certain demographics and criminal history, the mean difference from the model is similar to the mean difference from the raw means. This is likely due to a closely balanced comparison group produced through Mahalanobis distance matching.

Departure in years 1 and 2; became significantly different. Comp group has larger mean number of felony rearrests

Exhibit 22. Comparison of DOJ Felony Rearrests – Count Model Results

	Estimated Marginal Means			
	SJDMC		Comparison	
	EMM	SE	EMM	SE
Year 1	.12	.024	.17	.033
Year 2	.18	.032	.27	.049
Year 3	.35	.061	.44	.083
	Controls			
	2 Year Priors	Age	Gender	Race
Year 1	2.14	36	Male	Hispanic/Latinx
Year 2	2.12	36	Male	Hispanic/Latinx
Year 3	2.17	36	Male	Hispanic/Latinx
	Pairwise Comparisons			
	Mean Difference	Std Error	p	interval
Year 1	-.05	.022	.015*	(-.10, -.01)
Year 2	-.09	.033	.007*	(-.15, -.02)
Year 3	-.09	.058	.105	(-.21, .02)

Note: Year 1 *N*=1623, Year 2 *N*=1274, Year 3 *N*=842.

Exhibit 23, shows the percent of individuals in the SJDMC participant group and contemporary, matched comparison group that were rearrested by charge type. The percent of individuals rearrested does not differ significantly between the treated SJDMC program group and comparison group 1, 2, and 3 years post sentencing for any rearrest, DUI rearrest (1 and 2 years post entry only), person rearrest, property rearrest, drug rearrest, or other rearrest. The percent of individuals rearrested for DUI differs significantly between the treated SJDMC program group and comparison group at three years post sentencing with a smaller percentage of comparison group members rearrested for DUI.

Exhibit 23. Comparison of DOJ Rearrest Rates by Charge Type - Percent Rearrested

Percent, By Type	SJDMC			Comparison			χ^2 test			
	Total N	N Rearrested	% Rearrested	Total N	N Rearrested	% Rearrested	df	N	χ^2	p
Any Rearrest										
Year 1	812	465	57%	811	460	57%	1	1623	.049	.841
Year 2	726	473	65%	548	334	61%	1	1274	2.375	.127
Year 3	476	334	70%	366	234	64%	1	842	3.663	.064
DUI Rearrest										
Year 1	812	415	51%	811	402	50%	1	1623	.385	.551
Year 2	726	419	58%	548	286	52%	1	1274	3.855	.053
Year 3	476	294	62%	366	200	55%	1	842	4.326	.041*
Person Rearrest										
Year 1	812	47	6%	811	50	6%	1	1623	.103	.755
Year 2	726	66	9%	548	48	9%	1	1274	.042	.921
Year 3	476	61	13%	366	44	12%	1	842	.119	.753
Property Rearrest										
Year 1	812	23	3%	811	33	4%	1	1623	1.862	.177
Year 2	726	30	4%	548	34	6%	1	1274	2.810	.119
Year 3	476	27	6%	366	31	9%	1	842	2.525	.131
Drug Rearrest										
Year 1	812	75	9%	811	83	10%	1	1623	.460	.504
Year 2	726	92	13%	548	79	14%	1	1274	.817	.407
Year 3	476	88	19%	366	64	18%	1	842	.140	.719

Other Rearrest										
Year 1	812	192	24%	811	166	21%	1	1623	2.382	.134
Year 2	726	234	32%	548	152	28%	1	1274	2.987	.085
Year 3	476	186	39%	366	123	34%	1	842	2.664	.113

Exhibit 24, shows the percent of individuals in the SJDMC participant group and contemporary, matched comparison group that were rearrested by charge severity. The percent of individuals rearrested for misdemeanors differs significantly between the treated SJDMC program group and comparison group 2 and 3 years post sentencing, with misdemeanors in the comparison group being fewer than the SJDMC program group. The percent of individuals rearrested does not differ significantly between the treated SJDMC program group and comparison group for misdemeanors 1 year post sentencing or for felonies 1, 2, and 3 years post sentencing.

Exhibit 24. Comparison of DOJ Rearrest Rates by Charge Severity - Percent Rearrested

Percent, By Severity	SJDMC			Comparison			χ^2 test			
	Total N	N Rearrested	% Rearrested	Total N	N Rearrested	% Rearrested	df	N	χ^2	p
Misdemeanor										
Year 1	812	443	55%	811	412	51%	1	1623	2.295	.136
Year 2	726	453	62%	548	297	54%	1	1274	8.671	.003*
Year 3	476	316	66%	366	209	57%	1	842	7.595	.006*
Felony										
Year 1	812	93	12%	811	109	13%	1	1623	1.470	.230
Year 2	726	107	15%	548	99	18%	1	1274	2.551	.124
Year 3	476	95	20%	366	86	24%	1	842	1.536	.236

Exhibit 25, shows the mean number of DUI convictions in the SJDMC participant group and contemporary matched comparison group as well as the mean number of DUI convictions by charge severity. Although the SJDMC participants have lower number of arrests on average, these differences are not significant.

Exhibit 25. Comparison of DMV DUI Convictions by Severity – Raw Means for Cumulative Convictions

	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Total DUI Convictions										
Year 1	673	0.02	0.17	518	0.03	0.17	-0.523	1189	.601	.03
Year 2	468	0.05	0.24	335	0.07	0.25	-0.939	801	.348	.07
Year 3	248	0.07	0.29	193	0.09	0.31	-0.723	439	.470	.07
Misdemeanor DUI Convictions										
Year 1	673	0.02	0.16	518	0.03	0.16	-0.825	1189	.409	.05
Year 2	468	0.04	0.22	335	0.07	0.25	-1.516	801	.130	.11
Year 3	248	0.06	0.25	193	0.09	0.31	-1.388	439	.166	.13
Felony DUI Convictions										
Year 1	673	0.00	0.05	518	0.00	0.04	0.355	1189	.723	-.02
Year 2	468	0.00	0.07	335	0.00	0.00	1.198	801	.231	-.09
Year 3	248	0.01	0.09	193	0.00	0.00	1.250	439	.212	-.13

Exhibit 26, provides the adjusted means and statistics from a count model controlling for any differences between SJDMC group and matched comparison group on prior arrests, age, gender and race. This model confirms that there are no significant differences between the two groups on DUI convictions after two years.

Exhibit 26. Comparison of DMV DUI Convictions at 2 Years – Count Model Results

	Estimated Marginal Means			
	SJDMC		Comparison	
	EMM	SE	EMM	SE
Year 2	0.03	0.02	0.05	0.02
	Controls			
	2 Year Priors	Age	Gender	Race
Year 2	1.12	36	Male	Hispanic/Latinx
	Pairwise Comparisons			
	Mean Difference	Std Error	p	interval
Year 2	-0.01	0.02	.319	(-0.04, 0.01)

b. Does participation in the DUI Monitoring Court reduce time in jail compared to the matched comparison group of non-SJDMC individuals?

Exhibit 27 shows the mean number of days incarcerated for the SJDMC participant group and contemporary matched comparison group. At two years out from the index conviction, there are no significant differences between the groups. At three years out, the difference is significant with the comparison group having fewer days incarcerated than the SJDMC participants. Exhibit 27 also shows the mean number of days on probation for both groups. The SJDMC group spent significantly more days on probation than the comparison group.

Exhibit 27. Comparison of Local County Jail and Probation – Raw Means for Total Days

	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Days in Jail										
Year 1	787	14.5	52.9	777	15.9	48.8	-0.513	1562	.608	.03
Year 2	786	22.1	64.7	777	20.8	61.1	0.387	1561	.699	-.02
Year 3	705	25.9	75.7	527	15.1	47.9	2.870	1230	.004*	-.17
Days on Probation										
Year 1	812	107.2	408.2	782	41.4	213.9	4.015	1592	.000*	-.20
Year 2	671	131.2	444.1	492	60.3	263.5	3.157	1161	.002*	-.19
Year 3	408	172.2	540.2	321	68.9	280.3	3.112	727	.002*	-.24

c. Does participation in DUI Monitoring Court lead to fewer traffic crashes, including fewer alcohol- or drug-involved crashes and crashes with injuries compared to a contemporary group of similar individuals with repeat DUI charges who did not participate in the SJDMC?

Exhibit 28, displays the average number of new traffic crashes for the SJDMC participant group and the contemporary matched group. There were no significant differences between treated SJDMC participants and the comparison group in the average cumulative number of traffic crashes 1, 2, and 3 years post sentencing.

Exhibit 28. Comparison of DMV Crashes – Raw Means for Cumulative New Crashes

	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Cumulative Total Crashes										
Year 1	673	0.04	0.21	517	0.05	0.26	-0.495	1188	.621	0.03
Year 2	468	0.10	0.32	334	0.08	0.31	0.805	800	.421	-0.06
Year 3	248	0.17	0.46	192	0.10	0.35	1.940	438	.053	-0.18

Count models (Exhibit 29) do not show a departure from the raw means for [new crashes for] the comparison group 1, 2, and years post sentencing. In other words, when controlling for certain demographics and criminal history, the mean difference from the model is similar to the mean difference from the raw means. This is likely due to a closely balanced comparison group produced through Mahalanobis distance matching.

Exhibit 29. Comparison of DMV Crashes – Count Model Results

	Estimated Marginal Means			
	SJDMC		Comparison	
	EMM	SE	EMM	SE
Year 1	.026	.011	.021	.010
Year 2	.081	.027	.066	.025
Year 3	.148	.054	.103	.041
	Controls			
	2 Year Priors	Age	Gender	Race
Year 1	2.16	36.3	Male	Hispanic/Latinx
Year 2	2.17	36.1	Male	Hispanic/Latinx
Year 3	2.23	35.8	Male	Hispanic/Latinx
	Pairwise Comparisons			
	Mean Difference	Std Error	p	interval
Year 1	<.01	.009	.560	(-.01, .02)
Year 2	.01	.022	.512	(-.03, .06)
Year 3	.04	.043	.300	(-.04, .13)

Note: Year 1 *N*=1190, Year 2 *N*=802, Year 3 *N*=440.

Exhibit 30 displays the percent of SJDMC participants and the contemporary, matched comparison group that were involved in at least one new crash. There were no significant difference between treated SJDMC participants and the comparison group in the percent of individuals who had any traffic crashes 1 and 2 years post sentencing. There was a significant difference in the percent of individuals with any traffic crashes 3 years post sentencing; a smaller percentage of comparison group members had any crash 3 years post sentencing. However, the number of participants with crash data in both groups at three years from index is quite small, so the third year may no longer be a valid comparison.

Exhibit 30. Comparison of DMV Crashes - Percent of Individuals with New Crashes

Percent	SJDMC			Comparison			χ^2 test			
	Total N	N w/ Crash	% w/ Crash	Total N	N w/ Crash	% w/ Crash	df	N	χ^2	p
Any Crash										
Year 1	673	26	4%	517	21	4%	1	1190	0.030	.862
Year 2	468	41	9%	334	22	7%	1	802	1.272	.259
Year 3	248	37	15%	192	16	8%	1	440	4.431	.035*

Exhibit 31 shows the average number of new "Had Been Drinking" crashes for the SJDMC participants and contemporary, matched comparison group. There was no significant difference between treated SJDMC participants and the comparison group in mean number of had been drinking crashes at 1, 2, or 3 years post sentencing.

Exhibit 31. Comparison of DMV Crashes – Raw Means for Cumulative New Crashes Associated with "Had Been Drinking or Using Drugs"

Cumulative Number	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Had Been Drinking Crashes										
Year 1	673	0.01	0.12	517	0.02	0.14	-1.190	998	.235	0.07
Year 2	468	0.03	0.18	334	0.02	0.15	0.138	800	.891	-0.01
Year 3	248	0.04	0.21	192	0.01	0.10	1.713	377	.088	-0.16

Exhibit 32 shows the percent of SJDMC participants and the contemporary, matched comparison group that were involved in at least one new "Had Been Drinking" crash. There was no significant difference between the treated SJDMC group and the comparison group in the percent of participants with had been drinking crashes at 1, 2, or 3 years post sentencing.

Exhibit 32. Comparison of DMV Crashes - Percent of Individuals with New Crashes Associated with "Had Been Drinking or Using Drugs"

Percent	SJDMC			Comparison			χ^2 test			
	Total N	N w/ Crash	% w/ Crash	Total N	N w/ Crash	% w/ Crash	df	N	χ^2	p
Had Been Drinking Crashes										
Year 1	673	6	1%	517	10	2%	1	1190	2.397	.122
Year 2	468	10	2%	334	8	2%	1	802	0.059	.808
Year 3	248	8	3%	192	2	1%	1	440	2.324	.127

Exhibit 33 shows the average number of new injury crashes for the SJDMC participants and contemporary, matched comparison group. There were no significant differences between treated SJDMC participants and the comparison group in the average number of injury crashes/crashes involving injuries 1 and 2 post sentencing. There was a significant difference between the SJDMC and comparison participants for year 3, where the average was lower for the comparison group.

Exhibit 33. Comparison of DMV Crashes – Raw Means for Cumulative New Injury Crashes

Cumulative Number	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Injury Crashes										
Year 1	673	0.02	0.15	517	0.02	0.17	0.059	1188	.953	0.00
Year 2	468	0.04	0.20	334	0.04	0.20	0.470	800	.639	-0.03
Year 3	248	0.09	0.29	192	0.04	0.21	2.339	436.950	.020*	-0.22

Exhibit 34 shows the percent of SJDMC participants and the contemporary, matched comparison group that were involved in at least one new injury crash. There were no significant differences between treated SJDMC participants and the comparison group in the percent of individuals who had an injury crash/crash involving injuries 1 and 2 years post sentencing. There was a significant difference between treated SJDMC participants and the comparison group in the percent of individuals who had an injury crash/crash involving injuries 3 years post sentencing; a smaller percent of comparison group individuals had an injury crash 3 years post sentencing.

Exhibit 34. Comparison of DMV Crashes - Percent of Individuals with New Injury Crashes

Percent	SJDMC			Comparison			χ^2 test			
	Total N	N w/ Crash	% w/ Crash	Total N	N w/ Crash	% w/ Crash	df	N	χ^2	p
Injury Crashes										
Year 1	673	16	2%	517	10	2%	1	1190	0.269	.604
Year 2	468	20	4%	334	11	3%	1	802	0.504	.478
Year 3	248	23	9%	192	6	3%	1	440	6.647	.010*

Exhibit 35 shows the average number of new crashes associated with a DUI conviction for the SJDMC participants and contemporary, matched comparison group. There were no significant differences between treated SJDMC participants and the comparison group in the average number of crashes associated with DUI convictions 1, 2, and 3 years post sentencing.

Exhibit 35. Comparison of DMV Crashes – Cumulative New Crashes Associated with DUI Convictions

Cumulative Number	SJDMC			Comparison			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Crashes										
Year 1	673	0.01	0.10	517	0.01	0.11	-0.198	1188	0.843	0.01
Year 2	468	0.02	0.13	334	0.02	0.14	-0.398	800	0.691	0.03
Year 3	248	0.03	0.17	192	0.02	0.12	0.878	438	0.380	-0.09

Exhibit 36 shows the percent of SJDMC participants and the contemporary, matched comparison group that were involved in at least one new crash associated with a DUI conviction. There were no significant differences between treated SJDMC participants and the comparison group in the percent of individuals who had a crash associated with a DUI conviction 1, 2, and 3 years post sentencing.

Exhibit 36. Comparison of DMV Crashes - Percent of Individuals with Crashes Associated with DUI Convictions

Percent	SJDMC			Comparison			χ^2 test			
	Total N	N w/ Crash	% w/ Crash	Total N	N w/ Crash	% w/ Crash	df	N	χ^2	p
Crashes										
Year 1	673	7	1%	517	6	1%	1	1190	0.039	.843
Year 2	468	8	2%	334	7	2%	1	802	0.159	.690
Year 3	248	7	3%	192	3	2%	1	440	0.774	.524

Question 2d. Are there participant characteristics (such as demographics and arrest history) or program services (such as length of time on monitoring) that predict recidivism (rearrests or reconvictions)?

Exhibits 37 through 38, display the demographic, background, and program activities of SJDMC participants that were rearrested or not rearrested at 2 years post-sentencing.

There was no significant relationship between gender and rearrest at 2 years post-sentencing. There was a significant relationship between race/ethnicity and rearrest at 2 years post-sentencing. A larger percentage of Black/African American participants and white participants were rearrested and a smaller percentage of Hispanic/Latinx and participants of other races were rearrested during this time period. There was a significant different in the average number of court hearings attended by participants who were rearrested and those who were not at 2 years post-sentencing. Participants who were rearrested attended fewer court hearings in their first three months of the program and overall than participants who were not rearrested.

Exhibit 37. SJDMC Participant Background and Program Characteristics by Rearrested Status at 2 Years Post-Sentencing – χ^2 Statistics

	Not Rearrested (*N*=253)		Rearrested (*N*=473)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Gender								
Male	35%	198	65%	370	1	726	.000	1.000
Female	31%	55	69%	103	1	726	.000	1.000
Race								
Black/African American	19%	23	81%	102	1	726	17.993	.000*
Hispanic/Latinx	40%	146	60%	218	1	726	8.901	.003*
White	34%	54	66%	107	1	726	.156	.709
Other	40%	29	60%	43	1	726	1.038	.362

Participants' criminal histories predicted recidivism at 2 years post sentencing. On average, participants who were rearrested has significantly more DUI arrests 10 years prior to sentence date. In the two years prior to sentence date, participants who were rearrested had a larger average number of arrests for any offense, DUI, person, property, drug or DUI, and other offenses. Participants who were rearrested had a larger average number of misdemeanors and felonies two years prior to sentence date than participants who were not rearrested.

Exhibit 38. SJDMC Participant Criminal History by Rearrested Status at 2 Years Post Sentencing – t-test Statistics

	Not Rearrested (*N*=253)		Rearrested (*N*=473)		t-test			
	Mean	Std Dev	Mean	Std Dev	t	df	p	Cohen's d
Arrests: 10 years prior to Sentence Date								
DUI	3.0	1.5	3.3	1.7	-2.266	724	.024*	-.17
Arrests: 2 years prior to Sentence Date								
All	1.8	1.3	2.4	1.8	-4.503	724	.000*	-.35
DUI	1.6	1.0	1.8	1.1	-2.533	724	.012*	-.20
Person	0.2	0.5	0.3	0.8	-2.768	724	.006*	-.22
Property	0.0	0.3	0.1	0.5	-2.485	724	.013*	-.19
Drug	0.5	0.7	0.7	1.0	-2.214	724	.027*	-.17
Drug OR DUI	1.6	1.0	1.9	1.2	-3.085	724	.002*	-.24
Other	0.9	1.1	1.2	1.5	-3.325	724	.001*	-.26
Misdemeanor	1.7	1.2	2.1	1.6	-3.567	724	.000*	-.28
Felony	0.2	0.5	0.4	0.9	-3.680	724	.000*	-.29
DUI Felony	0.1	0.4	0.2	0.4	-1.111	724	.267	-.09

e. What is the impact on recidivism based on assessed risk and need?

As expected based on DUI and overall criminal history and associated risk, there were significant differences in the cumulative number of new rearrests and DUI rearrests between Track 1 and Track 2 participants. Track 1 participants (the majority of whom are high risk and low need) had a smaller number of rearrests and DUI rearrests than Track 2 at 1, 2, and 3 years post sentencing. However, there was not a significant difference in the average number of DUI convictions for Track 1 participants and Track 2.

Exhibit 39. SJDMC Participant Recidivism Outcomes by Track – Cumulative Number of New Arrests or Convictions

Cumulative Number	Track 1			Track 2			t-test			
	N	Mean	SD	N	Mean	SD	t	df	p	d
Total Rearrests										
Year 1	526	0.82	1.25	286	1.09	1.14	-2.960	810	.003*	0.22
Year 2	467	1.10	1.80	259	1.83	2.05	-4.794	477	.000*	0.38
Year 3	302	1.39	2.55	174	2.67	3.12	-4.596	306	.000*	0.45
DUI Rearrests										
Year 1	526	0.60	0.76	286	0.81	0.86	-3.700	810	.000*	0.27
Year 2	467	0.74	0.92	259	1.31	1.43	-5.700	378	.000*	0.47
Year 3	302	0.89	1.14	174	1.82	2.02	-5.541	238	.000*	0.56
DUI Convictions										
Year 1	443	0.02	0.16	230	0.03	0.19	-0.253	671	.800	0.02
Year 2	302	0.04	0.20	166	0.07	0.30	-1.364	250	.174	0.14
Year 3	158	0.07	0.28	90	0.08	0.31	-0.213	246	.832	0.03

Exhibit 40 shows that there were significant differences in the percent of individuals with any new rearrests and any DUI rearrests between Track 1 participants and Track 2. A smaller percentage of Track 1 participants had any new rearrests and any DUI rearrests than Track 2 participants at 1, 2, and 3 years post sentencing There was not a significant difference between Track 1 and Track 2 participants in the percent of individuals with any new DUI convictions.

Exhibit 40. SJDMC Participant Recidivism Outcomes by Track – Percent of Individuals with New Rearrests or Convictions

Percent	Track 1			Track 2			χ^2 test			
	Total N	N Arrested	% Arrested	Total N	N Arrested	% Arrested	df	N	χ^2	p
Any Rearrest										
Year 1	526	275	52%	286	190	66%	1	812	15.163	.000*
Year 2	467	277	59%	259	196	76%	1	726	19.642	.000*
Year 3	302	190	63%	174	144	83%	1	476	20.769	.000*
DUI Rearrest										
Year 1	526	243	46%	286	172	60%	1	812	14.412	.000*
Year 2	467	241	52%	259	178	69%	1	726	20.008	.000*
Year 3	302	163	54%	174	131	75%	1	476	21.236	.000*
DUI Conviction										
Year 1	443	9	2%	230	5	2%	1	673	0.015	1.000
Year 2	302	10	3%	166	10	6%	1	468	1.927	.165
Year 3	158	10	6%	90	6	7%	1	248	0.110	.917

Exhibit 41 shows that participants who are high risk, low need have a lower recidivism rate during the first year than participants who are high risk, high need and a similar recidivism rate to participants who were low risk, high need and low risk, low need, demonstrating that the intensive monitoring without treatment appears to be similarly effective to lower need individuals. Three years out, the high risk, low need participants still demonstrate lower recidivism than participants in the high risk, high need group but, as predicted by risk score, high risk participants have higher recidivism than the low risk participants. Overall three year rearrest rates are high.

Exhibit 41. SJDMC Participant RANT Category by Rearrested Status at 2 Years Post Sentencing – χ^2 Statistics

	High Risk/High Need (N=188)		High Risk/Low Need (N=337)		Low Risk/High Need (N=29)		Low Risk/Low Need (N=140)		χ^2 test			
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	df	N	χ^2	p
Rearrested at:												
One Year	65%	122	58%	194	59%	17	54%	76	3	694	4.270	.234
Two Years	73%	127	67%	202	68%	15	57%	67	3	613	7.871	.049*
Three Years	81%	91	73%	135	67%	8	61%	44	3	381	9.268	.026*

*Note that those without RANT information are excluded from this table.

Although rearrest rates are high, new DUI conviction rates are low (See Exhibit 42), with high risk, high need participants demonstrating the lowest conviction rate compared to all other risk and need levels. However, N sizes for participants in the low risk, high need group are very low, as are the total number of convictions in the sample.

Exhibit 42. SJDMC Participant RANT Category by % with New DUI Convictions at 2 Years Post Sentencing – χ^2 Statistics

	High Risk/High Need (N=152)		High Risk/Low Need (N=272)		Low Risk/High Need (N=26)		Low Risk/Low Need (N=122)		χ^2 test			
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	df	N	χ^2	p
New DUI Convictions at:												
One Year	4%	6	2%	4	0%	0	1%	1	3	572	4.895	.180
Two Years	7%	8	4%	7	8%	1	2%	2	3	379	3.074	.380
Three Years	8%	5	4%	3	14%	1	8%	3	3	179	1.974	.578

Exhibit 43 provides mean number of DUI convictions over 3 years for participants by risk and need level. Mean DUI convictions show a similar pattern as DUI conviction rate with high risk, low need participants demonstrating the lowest mean number of convictions at three years post entry.

Exhibit 43. SJDMC Participant RANT Category by Mean New DUI Convictions

	High Risk/High Need			High Risk/Low Need			Low Risk/High Need			Low Risk/Low Need		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
New DUI Convictions at:												
One Year	152	.05	.24	272	.02	.16	26	.00	.00	122	.01	.09
Two Years	110	.09	.35	175	.05	.24	12	.08	.29	82	.02	.16
Three Years	60	.10	.35	76	.05	.28	7	.14	.38	36	.08	.28

Research Question #3: Was the SJDMC following its intended model?

Summary: The SJDMC followed its intended model including swift entry (median time from sentencing to entry was less than one day), placing participants appropriately in tracks based on screening results, getting participants on monitoring quickly (within one month of entry), keeping participants on monitoring for one year, and providing participants in Track 2 (who were all high need) with significantly more treatment than participants in Track 1 (who were primarily low need). The SJDMC could enhance services in Track 2 by implementing other treatment court best practices such as individualized case plans and reducing caseloads for case managers (see the SJDMC process evaluation report).[7]

a. Swift program entry and intensive monitoring. How quickly did participants enter the program and get placed on monitoring? Did intensive monitoring occur for a full year, as intended?

One of the key practices for the SJDMC model was to protect public safety by ensuring all participants, regardless of track assignment, were swiftly placed in the program and then on alcohol and drug monitoring and were maintained on monitoring for a full year. Participants were placed on a variety of monitoring options based on several factors including cost and the participants ability to pay, participant location relative to the monitoring agency and other factors such as participant preference and availability of monitoring devices.

Exhibits 44 through 49, show the average length of time from arrest and sentencing to program entry, from program entry to start of alcohol monitoring, the percent of participants utilizing each type of monitoring, the length of time on each type of monitoring, and the combinations of monitoring types. Note that complete monitoring information was not available for all SJDMC participants. We used a randomly selected subsample.

Participants entered the program within 3.5 months (108 days) of their index arrest and just over two weeks (17 days) after their sentencing date, on average, though there was considerable variation in the amount of time to program entry (See Exhibit 41).

Exhibit 44. Days from arrest and sentencing dates to program entry

Number of days until program entry from:	Mean Days	Median Days	Range
Index arrest date	108.0	57	0 to 1,073 days
Sentencing date	16.7	0	0 to 841 days

[7] The process evaluation is available at this link: **https://npcresearch.com/publication/san-joaquin-dui-monitoring-court-program-process-evaluation-report/**

Exhibit 45 shows that on average, program participants in Track 2 (high risk high need) began monitoring sooner after program entry than Track 1 participants (primarily high risk low need) and had a narrower range of days from program entry to the start of monitoring.

Exhibit 45. SJDMC Time (in days) from Program Entry to Start of Monitoring

	Track 1 (*N*=93)	Track 2 (*N*=45)	Overall (*N*=138)
Mean	38.4	24.6	33.9
Median	28.5	17.5	25.5
Standard Deviation	66.9	28.1	57.5
Range	0-511	0-137	0-511

Exhibit 46 illustrates that a larger percentage of Track 2 participants than Track 1 participants had their alcohol use monitored via SCRAM or remote breath. More Track 1 than Track 2 participants were monitored via ignition interlock. Overall, ignition interlock was the most frequently used form of alcohol monitoring for participants in both tracks combined.

Exhibit 46. Monitoring Types by Track Status – Count and Percent of Participants on Each Monitoring Type

	Track 1 (*N*=93)		Track 2 (*N*=45)		Overall (*N*=138)	
Type of Monitoring:	**Count**	**%**	**Count**	**%**	**Count**	**%**
Ignition Interlock	59	65%	24	56%	83	62%
SCRAM	47	52%	30	70%	77	57%
Remote Breath	13	14%	15	35%	28	21%
Drug Patch	2	2%	0	0%	2	1%
Daily/Random Testing	0	0%	2	5%	2	1%

Note. Percentages may add to over 100% as participants may experience multiple types of monitoring.

Participants were often assigned to different monitoring types over the course of the program. The following Exhibits 47-49 provide days spent on monitoring for each type of monitoring as well as combinations of monitoring, and then the average time per participant on all monitoring combined. Track 1 participants spent more time on monitoring than Track 2 participants for all of the most frequently used forms of monitoring (ignition interlock, SCRAM, and remote breath). Participants from both Track 1 and Track 2 spent more average time on ignition interlock than the other forms of monitoring used by the majority of participants (excluding drug patch used by 2 participants). Track 1 participants spent nearly 11 months on ignition interlock and Track 1 participants spent nearly 9 months on ignition interlock.

Exhibit 47. Monitoring Types by Track Status – Days on Each Form of Monitoring

Type of Monitoring	Track 1 (*N*=93)	Track 2 (*N*=45)	Overall (*N*=138)
Ignition Interlock			
Count	59	24	83
Mean (Median) Days	329 (366)	261 (290)	309 (362)
Range	2 to 495	28 to 394	2 to 495
SCRAM			
Count	47	30	77
Mean (Median) Days	214 (236)	206 (204)	210 (217)
Range	11 to 434	9 to 403	9 to 434
Remote Breath			
Count	13	15	28
Mean (Median) Days	191 (129)	134 (126)	160 (128)
Range	53 to 372	7 to 306	7 to 372
Drug Patch			
Count	2	0	2
Mean (Median) Days	388 (388)	-	388 (388)
Range	365 to 410	-	365 to 410
Daily/Random Testing			
Count	0	2	2
Mean (Median) Days	-	192 (192)	192 (192)
Range	-	27 to 357	27 to 357

Note. The sum of counts may exceed the total as participants may experience multiple types of monitoring.

Exhibit 48 shows the majority of Track 1 participants experienced only one form of monitoring while over half of Track 2 participants experienced two forms of monitoring.

Exhibit 48. Count and Percent of Participants on Multiple Monitoring Types by Track Placement

	Track 1		Track 2		Overall	
	Count	%	Count	%	Count	%
Number of Monitoring Types:						
1	62	67%	17	38%	79	57%
2	28	30%	24	53%	52	38%
3	1	1%	2	4%	3	2%
None documented	2	2%	2	4%	4	3%

Among participants who experienced more than one form of monitoring, the most common combination was ignition interlock and SCRAM and the second most common combination was SCRAM and remote breath (see Exhibit 49).

Exhibit 49. Comparison of Count, Percent, and Days on Each Monitoring Combination by Track Placement

Monitoring Combination	Track 1 (*N*=93)			Track 2 (*N*=45)			Overall (*N*=138)		
	Count	%	Mean Days	Count	%	Mean Days	Count	%	Mean Days
Ignition Interlock Only	39	42%	350	9	20%	334	48	35%	347
Ignition Interlock + SCRAM	19	20%	428	13	29%	357	32	23%	399
SCRAM Only	18	19%	319	5	11%	335	23	17%	323
SCRAM + Remote Breath	9	10%	321	9	20%	340	18	13%	331
Remote Breath Only	3	3%	369	3	7%	247	6	4%	308
Drug Patch Only	2	2%	388	0	0%	--	2	1%	388
Ignition Interlock + SCRAM + Remote Breath	1	1%	384	1	2%	326	2	1%	355
SCRAM + Daily/Random Testing	0	0%	--	1	2%	457	1	1%	457
Ignition Interlock + Remote Breath	0	0%	--	1	2%	435	1	1%	435
SCRAM + Remote Breath + Daily/Random Testing	0	0%	--	1	2%	462	1	1%	462
None Documented	2	2%	--	2	4%	--	4	3%	--
Total Time on Monitoring	**93**	**100%**	**361**	**45**	**100%**	**335**	**138**	**100%**	**352**

b. Were participants appropriately assigned to tracks based on their RANT scores?

As demonstrated in Exhibit 50, there was a significant association between risk/need level and track placement. A larger percentage of Track 2 participants were individuals assessed as high risk/high needs or high risk/low needs than Track 1 participants. A larger percentage of Track 1 participants were high risk/low needs or low risk/low needs.

Note that some participants (*N*=118, 15%) were missing RANT placement information. Also note that this is the final track placement, as starting track placement was overwritten by final track assignment in the data. Participants could have been placed in Track 2 if they had a high blood alcohol content (BAC) on the index conviction, and they were placed in Track 2 if they demonstrated by their behavior that they were unable to comply with Track 1 requirements.

Exhibit 50. SJDMC Participant RANT Category by Track Placement – χ^2 Statistics

	Track 1 (*N*=430)		Track 2 (*N*=265)		χ^2 test			
	Percent	Count	Percent	Count	df	N	χ^2	p
Risk/Need Level								
High Risk/High Needs	4%	19	64%	169	3	695	312.621	.000*
High Risk/Low Needs	63%	269	26%	69	3	695	312.621	.000*
Low Risk/High Needs	3%	14	6%	15	3	695	312.621	.000*
Low Risk/Low Needs	30%	128	5%	12	3	695	312.621	.000*

Exhibit 51 provides basic demographics for all SJDMC participants (*N*=813) that entered the program between June 2015 and July 2018 (the date of data extract). The majority of SJDMC participants identified as male and Hispanic/Latinx. The average age of participants was about 36 years old. At least half of all participants were employed at the time of program entry (note that this information is missing for 29% of participants) and about two-thirds had a high school diploma equivalent or higher.

In general, participant demographics for Track 1 and Track 2 are roughly similar, though participants in Track 2 were somewhat less likely to have completed high school and less likely to be employed than Track 1 participants. This is consistent with individuals who are higher risk and higher need.

Exhibit 51. SJDMC Participant Demographics by Track

	Track 1 (*N*=527)	Track 2 (*N*=286)	Total (*N*=813)
Gender			
Male	80%	76%	79%
Female	20%	24%	21%
Race/Ethnicity			
Black/African-American	16%	18%	17%
Hispanic/Latinx	52%	49%	51%
White	20%	25%	22%
Other	11%	7%	10%
Age at Sentencing			
Mean	35.4	36.8	35.9
Standard Deviation	11.5	11.4	11.5
Range	19-97	19-77	19-97
Employment Status			
Employed	54%	47%	51%
Not Employed	20%	19%	20%
Missing	26%	34%	29%
Education Level			
Less than HS	21%	26%	23%
High School Graduate/GED	34%	33%	34%
Associates/Vocational Degree	11%	8%	10%
Some College	17%	19%	18%
College/Graduate Degree	3%	1%	2%
Missing	15%	12%	14%

Exhibit 52 shows that the majority of the SJDMC study sample had their program eligible DUI conviction between 2015 and 2017. The average number of arrests in the two years prior to DUI sentencing date for all SJDMC participants was 2.2, and the majority of these arrests were for DUI offenses. As anticipated, higher risk higher need individuals in Track 2 had a greater number of prior arrests compared to individuals in Track 1.

Exhibit 52. SJDMC Participant Criminal History by Track

	Track 1 (*N*=527)	Track 2 (*N*=286)	Total (*N*=813)
Year Sentenced			
2014	<1%	<1%	<1%
2015	24%	21%	23%
2016	27%	36%	30%
2017	33%	28%	31%
2018	16%	14%	15%
Arrests: 2 years prior to Sentencing			
All	1.9	2.7	2.2
DUI	1.5	2.0	1.7
Person	0.2	0.3	0.3
Property	0.1	0.2	0.1
Drug	0.5	0.8	0.6
Drug OR DUI	1.6	2.2	1.8
Other	0.9	1.4	1.1
Misdemeanor	1.7	2.4	2.0
Felony	0.3	0.5	0.4
DUI Felony	0.1	0.2	0.1

Exhibit 53 provides completion status and program activities for SJDMC participants in Track 1 and Track 2. At the time of data extract, about 46% of the participant group was still active in the program. Roughly 1% of participants had been unsuccessfully discharged from the program due to transfer to another jurisdiction or death. Removing active participants from the equation results in a 99% successful completion rate. Because the SJDMC model is that all individuals in Stockton with repeat DUI charges be sentenced to the program, there is no other alternative placement, leading to very few unsuccessful program exits. The average length of time spent in the program was 410 days (or about 13 months) for both tracks. The SJDMC model requires participants in Track 2 to attend court every other week, while participants in Track 1 are only required to attend court 4 times in the course of the

program, unless they are brought in for additional court appearances due to non-compliance. Results are consistent with this expectation with Track 1 participants averaging about 8 appearances over the course of the program while Track 2 participants averaging 17 appearances. Further support for appropriate provision of services according to track assignment is that 84% of the participants had data showing engagement in substance use disorder treatment while just 5% of those in Track 1 engaged with treatment.

Exhibit 53. SJDMC Participant Program Activities by Track

	Track 1 (*N*=527)	Track 2 (*N*=286)	Total (*N*=813)
Program Completion Status			
Successfully Completed	54%	51%	53%
Unsuccessfully Discharged	<1%	1%	1%
Active	46%	46%	46%
Other Exit (death, transferred)	1%	2%	1%
Days in Program (exited only)	412 days	405 days	410 days
Court Hearings In Program			
Within 1 Month	1.5	2.0	1.7
Within 3 Months	3.1	4.7	3.6
Total In Program	8.6	17.2	11.6
Jail Sanctions In Program			
Received Jail Sanction	0%	9%	3%
Average Jail Sanction Length	--	5.7 days	5.7 days
Treatment Participation			
Received Any Treatment	5%	84%	33%
Received Outpatient Treatment	5%	77%	30%
Received Residential Treatment	1%	24%	9%
Average Days in Treatment			
Outpatient (of those participating)	152 days	172 days	170 days
Residential (of those participating)	59 days	79 days	77 days

Note: Data presented are limited to participants for whom data were available.

COST EVALUATION

METHODS: COST EVALUATION

NPC Research conducted an analysis of the San Joaquin DUI Monitoring Court (SJDMC) to assess the cost of the program, and the extent to which program costs were offset by any cost-savings related to participant outcomes. This section provides the methods and results for the cost-benefit analysis performed for the SJDMC. The same program and comparison groups used for the outcome evaluation were used for the cost analysis.

The cost evaluation addressed the following study questions:

1. What are the costs and benefits of the SJDMC program?
    a. What is the average cost per participant of the SJDMC program?
    b. How much is the cost for Track 1 versus Track 2 participants?
    c. What is the cost impact of participation in the SJDMC (the cost of SJDMC participant outcomes), compared to individuals eligible for SJDMC, but who received traditional case processing?

Transaction and Institutional Cost Analysis (TICA)

The cost approach utilized by NPC Research is called Transactional and Institutional Cost Analysis (TICA). The TICA approach views an individual's interaction with publicly funded agencies as a set of transactions in which the individual utilizes resources contributed from multiple agencies. Transactions are those points within a system where resources are consumed and/or change hands. In the case of DUI courts, when a DUI court participant appears in court or has a drug test, resources such as judge time, defense attorney time, court facilities, and urine cups are used. Court appearances and drug tests are transactions. In addition, the TICA approach recognizes that these transactions take place within multiple organizations and institutions that work together to create the program of interest. These organizations and institutions contribute to the cost of each transaction that occurs for program participants. TICA is an intuitively appropriate approach to conducting costs assessment in an environment such as a DUI court, which involves complex interactions among multiple taxpayer funded organizations.

The TICA methodology is based upon six distinct steps. Exhibit 54 lists each of these steps and the tasks involved. NPC conducted step 1 (determining program process) during site visits, through analysis of program documents, and through interviews with key informants. Researchers completed step 2 (identifying program transactions) and Step 3 (identifying the agencies involved with transactions) through observation during site visits and by analyzing the information gathered in Step 1. Step 4 (determining the resources used) was performed through extensive interviewing of key informants, direct observation during site visits, and by collecting administrative data from the agencies involved in the program. NPC completed step 5 (determining the cost of the resources) through interviews with

program staff and with agency financial officers and other staff, as well as analysis of budgets found online or provided by agencies. Finally, Step 6 (calculating cost results) involved calculating the cost of each transaction and multiplying this cost by the number of transactions. For example, to calculate the cost of drug testing, NPC multiplied the drug test cost by the average number of drug tests performed per person. All the transactional costs for each individual were added to determine the overall cost per program participant/comparison group individual. This was reported as an average cost per person for the program, and outcome/impact costs due to rearrests, jail time and other recidivism costs. NPC was also able to calculate the cost of program processing per agency, so that it was possible to determine which agencies contributed the most resources to the program and which agencies gained the most benefit.

Exhibit 54. The Six Steps of TICA

Step	Description	Tasks
Step 1	Determine flow/process (i.e., how program participants move through the system).	Site visits/direct observations of program practice. Interviews with key informants (agency and program staff) using a treatment court typology and cost guide.
Step 2	Identify the transactions that occur within this flow (i.e., where clients interact with the system).	Analysis of process information gained in Step 1.
Step 3	Identify the agencies involved in each transaction (e.g., court, treatment, police).	Analysis of process information gained in Step 1. Direct observation of program transactions.
Step 4	Determine the resources used by each agency for each transaction (e.g., amount of judge time per transaction, amount of attorney time per transaction, number of transactions).	Interviews with key program informants using program typology and cost guide. Direct observation of program transactions. Administrative data collection of number of transactions (e.g., number of court appearances, number of treatment sessions, number of drug tests).
Step 5	Determine the cost of the resources used by each agency for each transaction.	Interviews with budget and finance officers. Document review of agency budgets and other financial paperwork.
Step 6	Calculate cost results (e.g., cost per transaction, total cost of the program per participant).	Indirect support and overhead costs (as a percentage of direct costs) are added to the direct costs of each transaction to determine the cost per transaction. The transaction cost is multiplied by the average number of transactions to determine the total average cost per transaction type. These total average costs per transaction type are added to determine the program and outcome costs.

Cost to the Taxpayer

To maximize the study's benefit to policymakers, a "cost-to-taxpayer" approach was used for this evaluation. This focus helps define which cost data should be collected (costs and avoided costs involving public funds) and which cost data should be omitted or calculated separately in the analyses (e.g., costs to the individual participating in the program).

The central core of the cost-to-taxpayer approach in calculating benefits (avoided costs) for DUI courts specifically is the fact that untreated substance use disorders will cost taxpayer-funded systems money that could be avoided or diminished if substance use disorders were treated. In this approach, any cost that is the result of untreated substance use and that directly impacts a citizen (through tax-related expenditures) is used in calculating the benefits of substance abuse treatment. NPC attempted to include other taxpayer and non-taxpayer societal costs such as prison and parole time, health care expenses, taxes paid, and income, but was not able to acquire the necessary data.

Cost Data Collection

The cost evaluation involved calculating the costs of the program and the costs of outcomes (or impacts) after program entry (or the equivalent for the comparison group). In order to determine if there were any benefits (or avoided costs) due to SJDMC program participation, it was necessary to determine what the participants' outcome costs would have been had they not participated in the SJDMC. One of the best ways to do this is to compare the costs of outcomes for SJDMC participants to the outcome costs for similar individuals who were eligible for the SJDMC but did not participate. The SJDMC participants and comparison group in this cost evaluation were the same samples as those used in the preceding outcome evaluation.

Researchers collected cost data for the SJDMC evaluation and divided them into program costs and outcome costs. The **program costs** were those associated with activities performed within the program. The program-related "transactions" included in this analysis were SJDMC court sessions (including any meetings and other activities preparing for the hearings), case management, substance abuse treatment, drug testing, jail sanctions, and monitoring. The **outcome costs** were those associated with activities that occurred outside the SJDMC program. These transactions included criminal justice-related activities (e.g., new arrests subsequent to program entry, subsequent court cases, jail days, probation days), as well as other events that occurred such as victimizations and car crashes.

The costs for this study were calculated to include taxpayer costs as well as non-taxpayer societal costs (costs to the participant, victimizations and car crashes). All cost results provided in this report are based on fiscal year 2021 dollars or were updated to fiscal year 2021 using the Consumer Price Index.

RESULTS: COST EVALUATION

Program Costs

Program transactions for which costs were calculated include SJDMC court sessions (including team meetings), case management, substance abuse treatment, drug testing, jail sanctions, and monitoring. Obtaining the cost of SJDMC transactions for court sessions and case management involved asking each SJDMC team member for the average amount of time they spend on these activities (including any time needed to prepare for these activities), observing their activities on a site visit and obtaining each SJDMC team member's annual salary and benefits from a supervisor or financial officer at each agency involved in the program. As this is typically public information, some of the salaries were found online, but detailed benefits information often came from the agency's financial officer or human resources department. In addition to salary and benefits, the indirect support rate and jurisdictional overhead rate were used in a calculation that results in a fully loaded cost per participant. The indirect support rates and overhead rates for each agency involved in the program were obtained from agency budgets that were found online or by contacting the agencies directly.

Court Sessions. Court sessions are typically one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- Superior Court of San Joaquin County
- San Joaquin County Probation Department
- Stockton Police Department
- Intercept Offender Monitoring Program
- Treatment Agencies (Chemical Dependency Counseling Center, Service First of Northern California, Pacific Valley Recovery Center)
- San Joaquin County Sheriff's Office

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This included the direct costs for the time spent for each SJDMC team member present, the time team members spend preparing for the session or in team meetings, the agency support costs, and jurisdictional overhead costs. NPC calculated the cost for a single SJDMC court appearance at $61.83 per participant for Track 1 and $114.27 per participant for Track 2. Note that there are fewer team members and agencies present for Track 1 sessions—consisting of only Superior Court and Intercept Offender Monitoring Program staff—thus the lower cost per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).[8]

[8] Case management included meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, documentation, file maintenance, and referrals.

The daily cost of case management was calculated to be $0.87 per participant for Track 1 and $2.75 per participant for Track 2.

Substance Abuse Treatment for SJDMC participants were provided by Chemical Dependency Counseling Center (CDCC), Service First of Northern California (North Office & Weber Office), and Pacific Valley Recovery Center, as well as other area providers. The treatment costs used for this analysis are the State of California Medicaid billing rates for San Joaquin County. Each service specifies a fixed price for each unit of service. NPC used the average cost for several levels of residential treatment, or $145.51 per day. Using information from the Superior Court's Compliance Officer on the average number of outpatient treatment sessions per week per participant and Medicaid billing rates for outpatient, the average cost of outpatient treatment was calculated to be $309.42 per week.

Daily and random **Drug Testing** was performed on site by court staff and also by Intercept Offender Monitoring Program staff. Data on drug tests done at treatment agencies were not available. The court uses instant urinalysis (UA) tests at a cost of $4.86 per test and NPC used the average of the one-time and random UA tests at Intercept, or $14.00 per test.

Jail Sanctions occurred at the San Joaquin County Sheriff's Office jail facilities. Using budget and average daily population information from Sheriff's Office staff, the cost per person of jail was calculated to be $127.48 per day.

Monitoring was performed by Intercept Offender Monitoring Program as well as Lifesaver, Smart Start, Alco-Alert, Intoxalock, Low Cost Interlock, and other agencies. Intercept's remote breath device had an enrollment fee of $35.00 and $6.00 per day for monitoring. Intercept's drug patch also had an enrollment fee of $35.00 and a cost for the patch was calculated to be $3.95 per day. Intercept's transdermal bracelet had an enrollment fee of $35.00 and a cost per day of $8.00. Lifesaver's ignition interlock device had an enrollment fee of $50.00 and a cost of $4.00 per day. Lifesaver's remote breath device had an enrollment fee of $50.00 and a cost of $3.40 per day. Smart Start's ignition interlock device had an installation fee of $130.00 and the cost per day was calculated to be $2.30. Smart Start's remote breath device was $95.00 plus a cost of $2.00 per day. The average for ignition interlock devices at other monitoring agencies was an enrollment fee of $90.00 and a cost of $3.15 per day. The monitoring data NPC received was on a subsample of the full participant sample and all monitoring time (whether paid for by the grant or self-paid by participants) was lumped together. However, SJDMC staff estimated that 10% of participants had their monitoring paid by the grant, and 90% self-paid for their own monitoring, so the cost tables show the total cost of monitoring as well as the breakdown of monitoring costs paid by taxpayers

Program Cost Results by Transaction

Exhibit 55 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the SJDMC events for all Track 1 participants who exited the program.[9] The sum of these events or transactions is the total per participant cost of the SJDMC

[9] Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

program for Track 1 participants. The Exhibit includes the average for all SJDMC participants in the study sample who exited the program regardless of status (graduate or non-graduate) at completion (*N* = 283).

Exhibit 55. Track 1: SJDMC Program Costs per Participant by Transaction

Transaction	Unit Cost	SJDMC Track 1 Participants		(N=283)
		Avg. # of Events per Person	Avg. Cost per Person	Avg. Cost per Person Paid by Taxpayers
Court Sessions	$61.83	8.80	$544	$544
Case Management Days	$0.87	412.43	$360	$360
Outpatient Treatment Weeks	$309.42	1.54	$477	$477
Residential Treatment Days	$145.51	0.63	$92	$92
Jail Sanction Days	$127.48	0.00	$0	$0
UA Drug Tests at Court	$4.86	0.10	$0	$0
UA Drug Tests at Intercept	$14.00	0.00	$0	$0
Remote Breath Device Days	Various	26.70	$284	$28
Drug Patch Days	$3.95+$35	8.30	$68	$7
Transdermal Bracelet Days	$8.00+$35	107.90	$898	$90
Ignition Interlock Device Days	Various	208.60	$1,243	$124
Total			**$3,966**	**$1,722**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions were summed, the result was a total SJDMC program cost per Track 1 participant of $3,966. The largest contributor to the cost of the program was monitoring (Intercept UAs, remote breath device, drug patch, transdermal bracelet, and ignition interlock for a total of $2,493), followed by treatment ($569) and court sessions ($544). It is important to note that only 10% of monitoring costs accrue to taxpayers ($249) while the other 90% ($2,244) are paid by participants, which reduced the cost to taxpayers of the program to $1,722. When compared to treatment courts, the total SJDMC program cost paid by taxpayers per participant of $1,722 is quite low. This is likely due to the smaller team attending court sessions for Track 1 participants, and the fact that treatment usage is low and there were no costs at all for jail sanctions or drug testing.

Exhibit 56 displays the unit cost per program related event (or "transaction"), the number of events and the average cost per individual for each of the SJDMC events for all Track 2 participants who exited the program. The sum of these events or transactions is the total per participant cost of the SJDMC program for Track 2 participants. The Exhibit includes the average for all SJDMC participants in the study sample who exited the program regardless of status (graduate or non-graduate) at completion (N = 150).

Exhibit 56. Track 2: SJDMC Program Costs per Participant by Transaction (Cost to the Taxpayer and the Participant)

Transaction	Unit Cost	Track 2		(N=150)
		Avg. # of Events per Person	Avg. Cost per Person	Avg. Cost per Person Paid by Taxpayers
Court Sessions	$114.27	17.80	$2,034	$2,034
Case Management Days	$2.75	405.02	$1,112	$1,112
Outpatient Treatment Weeks	$309.42	19.90	$6,157	$6,157
Residential Treatment Days	$145.51	15.80	$2,299	$2,299
Jail Sanction Days	$127.48	0.30	$38	$38
UA Drug Tests at Court	$4.86	1.00	$5	$5
UA Drug Tests at Intercept	$14.00	8.50	$119	$12
Remote Breath Device Days	Various	44.50	$399	$40
Drug Patch Days	$3.95+$35	0.00	$0	$0
Transdermal Bracelet Days	$8.00+$35	130.10	$1,076	$108
Ignition Interlock Device Days	Various	139.00	$690	$69
Total			**$13,929**	**$11,874**

When the costs of the transactions were summed the result was a total SJDMC program cost per Track 2 participant of $13,929. The largest contributor to the cost of the program was treatment ($8,456), followed by monitoring (Intercept UAs, remote breath device, drug patch, transdermal bracelet, and ignition interlock for a total of $2,284), and court sessions ($2,034). It is important to note that only 10% of monitoring costs accrue to taxpayers ($229) while the other 90% ($2,055) are paid by participants, which reduced the cost to taxpayers of the program to $11,874. When compared to treatment courts, the total SJDMC program cost paid by taxpayers per participant of $11,874 is in the middle of the range.

Program Cost Results per Agency

Another useful way to examine program costs is by agency. Exhibit 57 shows that for Track 1, the costs (taxpayer only) accruing the Superior Court (court sessions, case management) account for 42% of the total program cost per participant. The next largest cost (33%) was to treatment agencies (court sessions, case management, treatment), followed by monitoring agencies (25%) for time spent on court sessions, case management, and monitoring. For Track 2, the taxpayer only costs accruing to treatment agencies (court sessions, case management, and treatment) account for 76% of the total program cost per participant. The next largest cost (14%) was for the Superior Court (court sessions, case management, and drug testing), followed by monitoring agencies (5%) for time spent on court sessions, case management, and monitoring.

Exhibit 57. SJDMC Program Costs per Participant by Agency (Taxpayer Costs Only)

Agency	Avg. Cost per Person for Track 1 SJDMC Participants	Avg. Cost per Person for Track 2 SJDMC Participants
Superior Court of San Joaquin County	$721	$1,654
San Joaquin County Probation Department	$0	$423
Stockton Police Department	$0	$199
San Joaquin County Sheriff's Office	$0	$38
Monitoring Agencies	$433	$574
Treatment Agencies	$568	$8,986
Total	**$1,722**	**$11,874**

Program Cost Summary

The total taxpayer cost for the SJDMC program was estimated at $1,722 per Track 1 participant and $11,874 per Track 2 participant, averaging roughly $5,239 per program participant (Track 1 and Track 2 combined) Overall, the largest portion of SJDMC Track 1 costs was due to resources put into treatment (an average of $569, or 33% of total costs), followed by court sessions ($544, or 32%), and case management (an average of $360, or 21% of total costs). The largest portion of SJDMC Track 2 costs was due to resources put into treatment (an average of $8,456, or 71% of total costs), followed by court sessions ($2,034, or 17%), and case management ($1,112, or 9%). When program costs were evaluated by agency, the largest portion of Track 1 costs accrued to the Superior Court ($721, or 42% of total costs), followed by treatment agencies ($568, or 33%), and monitoring agencies ($433, or 25%). The largest portion of Track 2 costs accrued to treatment agencies ($8,986, or 76% of total costs), followed by the Superior Court ($1,654, or 14%), and monitoring agencies ($574, or 5%).

Outcome Costs

Outcome costs include any events (transactions) that occur after program entry that were not related to program activities. For this study, criminal justice system related events and life events were included in the cost analyses. These events included arrests, court cases, days in jail, time on probation, victimizations (person and property crimes), and car crashes.

The cost per **Arrest** incorporated the time of the law enforcement positions involved in making an arrest, the salaries and benefits for those positions, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis was the average cost of an arrest by the Stockton Department and the San Joaquin County Sheriff's Office. NPC contacted staff at both law enforcement agencies to obtain this figure, but some cost information was obtained online from agency budgets or pay scales. NPC used that information to calculate the cost of an average arrest episode. The average cost of a single arrest was $241.70.

Court Cases include those criminal cases that were dismissed as well as those cases that resulted in conviction. Because they were the main agencies involved, court case costs in this analysis were shared among the Superior Court of San Joaquin County, San Joaquin County District Attorney's Office, and San Joaquin County Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case was calculated to be $820.29.

Jail occurred at the San Joaquin County Sheriff's Office jail facilities. Using budget and average daily population information from Sheriff's Office staff, the cost per person of jail was calculated to be $127.48 per day.

Probation costs were calculated using online information on the San Joaquin County Probation Department's Adult and Pretrial Services budget and caseload. The average cost of probation was $4.12 per person per day.

Prison costs were obtained from the California Department of Corrections website. The statewide cost per person per day of prison was $224.52. Unfortunately, NPC was not able to obtain administrative data on prison time, so prison costs were not included in this analysis.

Parole costs were obtained from the California Department of Corrections website. The statewide cost per person per day of parole was $36.13. Unfortunately, NPC was not able to obtain administrative data on parole time, so parole costs were not included in this analysis.

Victimization costs were calculated from the National Institute of Justice's Victim Costs and Consequences: A New Look (1996).[10] The costs were updated to fiscal 2021 dollars using the Consumer Price Index. Property crimes were $14,544.15 per event and person crimes were $47,115.99 per event.

The cost of **Car Crashes** used in this analysis used information from the National Safety Council's Injury Facts website. The calculable costs of motor vehicle crashes were wage and productivity loss, medical expenses, administrative expenses, motor vehicle damage, and employer's uninsured costs. The average economic costs by injury severity or crash were updated to fiscal 2021 dollars using the Consumer Price Index. Car crashes with a death were calculated to cost $1,712,917.50. Car crashes involving an injury were calculated to cost $50,523.67, and car crashes with property damage only were calculated to cost $4,646.25.

The outcome cost analyses were based on a cohort of individuals who participated in the SJDMC program and a matched comparison group of individuals who were eligible for the SJDMC program but who did not attend the program. The same program and comparison groups used for the outcome evaluation were used for the cost analyses. These individuals were followed through administrative data for 2 years post program entry (and a similar time period for the comparison group). This study

[10] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2021 dollars using the consumer price index (CPI).

compared recidivism and other outcome costs for the groups over that 2 year period by transaction, as well as the outcome costs by agency. The two year outcome window was chosen over three years because of the decreased sample size for participants and the comparison group in the third year after sentencing.

The outcome costs discussed below do not represent the entire cost to the criminal justice system or other public systems. Rather, the outcome costs include the transactions for which NPC's research team was able to obtain data and cost information on both the SJDMC and comparison group from the same sources. Note that some possible costs or cost savings related to the program were not considered in this study. These include health care expenses and SJDMC participants legally employed and paying taxes. The gathering of this kind of information is generally quite difficult due to HIPAA confidentiality laws and due to the fact that much of the data related to this information are not collected in any one place or are not collected at all. Although NPC examined the possibility of obtaining this kind of data, it was not feasible within the time frame or budget for this study.

Outcome Cost Results by Transaction

Exhibit 58 shows the average number of recidivism-related events per individual for all SJDMC participants and the comparison group over 2 years. These events were counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups). Exhibit 59 also shows the average number of recidivism-related events per individual for Track 1 and Track 2 SJDMC participants, but neither group can be fairly compared to the comparison group as the two groups are not equivalent. The comparison group used in this analysis was matched to the entire SJDMC participant group, not just Track 1 or Track 2.

Exhibit 58. Average Number of Events per Person over 2 Years from SJDMC Entry

Outcome Events 2 years from entry	Average Number of Events per person			
	All SJDMC Participants (*N* = 786)	Comparison Group (*N* = 777)	Track 1 SJDMC Participants (N = 509)	Track 2 SJDMC Participants (N = 277)
Rearrests	1.37	1.26	1.10	1.83
Court Cases	1.37	1.26	1.10	1.83
Jail Days	22.07	20.84	17.74	30.02
Probation Days	131.21	60.32	79.82	223.50
Property Victimizations	0.10	0.12	0.07	.15
Person Victimizations	0.13	0.14	0.10	.20
Car Crashes w/ a Death	0.00	0.00	0.00	0.00
Car Crashes w/ an Injury	0.04	0.04	0.05	0.04
Car Crashes w/ Property Damage Only	0.05	0.04	0.04	0.08

Overall, as demonstrated in Exhibit 58, SJDMC participants had more rearrests, court cases, jail days, probation days, and car crashes with property damage only than the comparison group, but fewer property and person victimizations. Track 1 participants had more car crashes with an injury than Track 2 participants, but for every other outcome event Track 1 participants had fewer average number of events per person than Track 2 participants (again, Track 1 and Track 2 participants cannot be fairly compared to the comparison group because the comparison group is made up of individuals matched to all SJDMC participants (both Track 1 and Track 2 participants combined) because RANT scores are not available on the comparison group.

Exhibit 59 displays the costs of outcomes by transaction that occurred in the 2 years after program entry for all SJDMC participants and the comparison group, and also the costs of outcomes for SJDMC participants by track. Exhibit 59 shows both the taxpayer funded systems and societal outcome costs (non-taxpayer funded systems). The first subtotal displays the costs associated with criminal justice outcomes that occurred in the 2 years after program entry, and the second subtotal displays the costs associated with societal outcomes that occurred in the 2 years after program entry, followed by the grand total that sums the criminal justice and societal outcomes.

Exhibit 59. Taxpayer and Societal Outcome Costs per Person over 2 Years from SJDMC Entry

Outcome Events	Unit Cost	Outcome Costs (per person)			
		All SJDMC Participants (*N* = 786)	Comparison Group (*N* = 777)	Track 1 SJDMC Participants (*N* = 509)	Track 2 SJDMC Participants (N = 277)
Rearrests	$241.70	$331	$305	$266	$442
Court Cases	$820.29	$1,124	$1,034	$902	$1,501
Jail Days	$127.48	$2,813	$2,657	$2,261	$3,827
Probation Days	$4.12	$541	$249	$329	$921
Subtotal for Criminal Justice Recidivism		**$4,809**	**$4,245**	**$3,758**	**$6,691**
Property Victimizations	$14,544.15	$1,454	$1,745	$1,018	$2,182
Person Victimizations	$47,115.99	$6,125	$6,596	$4,712	$9,423
Car Crashes w/ a Death	$1,712,917.50	$0	$0	$0	$0
Car Crashes w/ an Injury	$50,523.57	$2,021	$2,021	$2,526	$2,021
Car Crashes w/ Property Damage Only	$4,646.25	$232	$186	$186	$372
Subtotal for Societal Costs		**$9,832**	**$10,548**	**$8,442**	**$13,998**
Total		**$14,641**	**$14,793**	**$12,200**	**$20,689**

Exhibit 59 shows that the difference in the 2-year outcome cost between all SJDMC participants and the comparison group was $564 more per participant than the comparison group, indicating that SJDMC participants cost slightly more than the comparison group when only criminal justice outcome costs were included. When societal costs were included, the difference in the 2-year outcome cost between all SJDMC participants and the comparison group was $152 per participant, indicating that SJDMC participants cost less than the comparison group when both taxpayer funded and societal costs were included. This difference shows that there is a small benefit, or savings, to taxpayers and to society at large due to SJDMC participation, mainly due to fewer person and property victimizations. It is unfortunate that prison and parole outcome costs were not available for this analysis, as in the outcome section of this report, comparison group members had more felony convictions than SJDMC participants. It is reasonable then to assume that comparison group members thus likely had more prison and parole time than SJDMC participants, which would serve to further increase the benefit or savings due to SJDMC participation.

Average program costs for Track 2 participants are higher than program costs for Track 1 participants (see Exhibit 59), because the participants in Track 2 are high risk/high need and therefore have more need for substance use treatment and other services. High risk/high need individuals are least likely to succeed without the intensive support and supervision provided in a treatment court program, which requires a significant investment in resources. Average outcome costs are also higher for Track 2 participants (see Exhibit 59) due to higher rates of recidivism among Track 2 participants relative to Track 1 participants. Higher post-program recidivism rates are also associated with more extensive prior records such as those exhibited by Track 2 participants. Understanding that program costs vary by track is useful for budgeting and planning. It may be worth investigating ways to enhance the quality and consistency of substance use disorder treatment without substantially increasing the cost. Additionally, the SJDMC court should continue to explore options for ways to fund additional supplemental services for its high risk/high need participants and ensure that participants are appropriately matched to providers for cognitive behavioral therapy and Moral Reconation Therapy as indicated by a full risk and needs assessment, in order to more effectively reduce participants' risk levels. The use of efficient evidence-based services and consistent high quality treatment and monitoring designed to reduce risk and need levels among participants may be the best investments SJDMC can make in an effort to reduce recidivism and its associated costs to a level that is a significant improvement over the effects of traditional case processing.

Outcome Cost Results per Agency

The taxpayer funded outcome costs were also examined by agency to determine the relative benefit to each agency that contributed taxpayer resources to the SJDMC program. The transactions shown in the previous Exhibit were provided by one or more agencies. If one specific agency provides a service or transaction (for example, the San Joaquin County Probation Department provided all probation days), all costs for that transaction accrued to that specific agency. If several agencies all participate in providing a service or transaction (for example, the Superior Court, District Attorney's Office, and Public Defender's Office were all involved in court cases), costs were split proportionately amongst the agencies involved based on their level of participation. Exhibit 60 provides the publicly funded cost for

each agency and the difference in cost between the SJDMC participants and the comparison group per person. A positive number in the difference column indicates a cost savings for SJDMC participants.

Exhibit 60. Taxpayer Funded Outcome Costs per Person by Agency over 2 Years from SJDMC Entry

Agency	SJDMC Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
Superior Court of San Joaquin County	$556	$511	($45)
San Joaquin County District Attorney's Office	$371	$341	($30)
San Joaquin County Public Defender's Office	$197	$182	($15)
Law Enforcement	$331	$305	($26)
San Joaquin County Probation Department	$541	$249	($292)
San Joaquin County Sheriff's Office	$2,813	$2,657	($156)
Total	**$4,809**	**$4,245**	**($564)**

Exhibit 60 shows that none of the involved agencies achieved savings associated with SJDMC participation, although the list of agencies is incomplete without the California Department of Corrections (prison and parole data were not available for this analysis). As demonstrated in Exhibit 60, the total taxpayer funded outcome cost over 2 years from program entry for the SJDMC per participant was $4,809, while the cost per comparison group member was $4,245. The difference between the SJDMC and comparison group represents a loss to taxpayers of $564 per participant. Thought when societal costs (not attributable to agencies) are included there is a slight overall savings of $152 per participant.

Cost Evaluation: Conclusion

Over 2 years, the SJDMC did not save a substantial amount due to improved outcomes compared to DUI offenders who did not participate in the program. The program investment cost is low to average (compared to program investment costs from other studies of treatment court programs)[11], at only $1,722 per Track 1 SJDMC participant and $11,874 per Track 2 SJDMC participant. When the cost difference in taxpayer funded outcomes between SJDMC participants and comparison group members was calculated, the difference due to more arrests, court cases, jail time, and probation days for SJDMC participants over the 2 years included in this cost-benefit analysis came to a small loss of $564. When societal costs (victimizations and car crashes) were also included, the return after 2 years turned positive, to a small savings of $152 per participant. These were the costs that accrued through only 2 years after program entry and did not include prison or parole (which may have increased the benefit had they been included).

[11] Program costs range from $4,035 to $30,624 based on treatment court cost evaluations conducted by NPC in California, Indiana, Maryland, Michigan, Minnesota and Oregon. The average program cost across all these programs is $11,683 (See reports and publications at www.npcresearch.com).

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