

WORKING PAPER • No. 2021-1

The Impact of Felony Diversion in San Francisco

Elsa Augustine, Johanna Lacoë, Steve Raphael, Alissa Skog
June 2021



www.capolicylab.org
[@capolicylab](https://twitter.com/capolicylab)

The Impact of Felony Diversion in San Francisco

-

Elsa Augustine, Johanna Lacoë, Steven Raphael, Alissa Skog

June 2021

Abstract

In the traditional criminal justice system, an arrest is followed by multiple decision points determining detention, prosecution, guilt, and sentence. Many jurisdictions across the United States are exploring alternative programs and approaches that consider individual needs and assessed risks at each decision point. San Francisco County uses post-filing pretrial diversion programs as alternatives to the traditional criminal justice system for defendants based on factors including social and behavioral needs. In this paper, we estimate the impact of a referral to felony pretrial diversion programs on case outcomes and subsequent criminal justice contact. To address selection bias associated with non-random assignment into diversion programs, we exploit the random assignment of felony cases to arraignment judges and use variation among judicial diversion referral rates as an instrument for the diversion referral. We find that a referral to diversion increases the time to disposition in the current case and decreases the probability of a subsequent conviction up to five years following case arraignment. Subgroup analyses find that the benefits of diversion are concentrated among females, those who are under the age of 25, and those facing drug sales charges.

INTRODUCTION

The overall footprint of the U.S. criminal justice system has expanded along all possible margins over the past three and half decades. Between 1978 and 2008, U.S. prison incarceration rates expanded from 133 per 100,000 to 506 per 100,000, before retreating to 431 per 100,000 by 2018. Similarly, the number of people in local and county jails per 100,000 increased over this period, with local jail populations comprising roughly one third of the total correctional population in the United States. The size of the population under community corrections supervision also increased, and is much larger than the combined prison and jail populations. Between 1980 and 2016, the combined population of individuals on probation or parole increased from 1.3 to 4.5 million. Expressed per 100,000 U.S. residents, correctional populations increased from 590 per 100,000 in 1980 to 1,400 per 100,000 in 2016.

These large correctional populations are costly. For those involved with the criminal justice system, incarceration deprives liberty, limits ability to work, earn, contribute to the economy, and may permanently alter available employment opportunities. Individuals under community supervision also face many restrictions to mobility and freedom of association, are subject to warrantless search, and in many jurisdictions are subject to substantial fines and fees. Needless to say, large prison, jail, probation, and parole populations are costly to tax payers.

Incarceration sentences, pretrial detention, and terms of community correctional supervision are imposed in pursuit of specific policy or public safety objectives. For example, incarceration sentences incapacitate and may deter criminal offending. Pretrial detention is often justified by concerns that a criminal defendant may flee a jurisdiction, may not show up for important court hearings, or may commit a serious offense during the pretrial period. Probation sentences are often imposed in lieu of an incarceration spell, or as an add-on to a relatively short

jail sentence, with the aim of providing supervision without completely depriving someone of their liberty. As these examples illustrate, criminal justice sanctions and precautionary measures such as pretrial detention are often employed in an attempt to further legitimate public safety and procedural goals.

However, the expansion of criminal justice populations in the U.S. raises questions regarding whether the U.S. has overshot in levying these sanctions. Specifically, are there alternative resolutions, be it those with a restorative justice focus or perhaps interventions focused on addressing the needs of the criminal defendant that may achieve the same public safety goals but at lower overall social costs?

This paper presents estimates of the causal effects of such an intervention in one large urban jurisdiction. The City and County of San Francisco operates a network of diversion programs whereby defendants who are referred may have their criminal cases diverted from traditional case processing, effectively adjudicating the criminal case outside of the formal criminal justice system. These diversion programs focus on the needs of the defendants and range in terms of the intensity of the intervention from a low-touch pretrial diversion program to the more intensive Collaborative Courts, which include a behavioral health court, a drug court, a court dedicated to veterans, and a court targeted at transitional age felony defendants (defined as defendants 18 to 25 years of age). Cases that successfully proceed through this alternative resolution system are often disposed without a criminal conviction and without future criminal justice supervision once the case is resolved. Individuals that fail to successfully complete these diversion programs see their cases returned to criminal court and processed accordingly.

Following Aizer and Doyle (2013) and Dobbie, Goldin, and Yang (2018), and others, we exploit the quasi-random assignment of felony cases to judges to identify exogenous variation in

the likelihood of being referred to a diversion program. Specifically, using the judge to which a specific felony case is assigned at arraignment, we tabulate the proportion of cases not inclusive of the current case where the defendant is referred to one of the Collaborative Court diversion programs.¹ We document substantial heterogeneity across judges in these referral rates. Most importantly, our variable measuring judge and case-specific propensity to divert provides a strong predictor of the likelihood of diversion. We use this variable to identify exogenous variation in a referral to diversion with the aim of estimating causal effects of diversion on case disposition outcomes and several measures of subsequent criminal justice involvement.

Our analysis reveals a complex selection process into the Collaborative Court system for the jurisdiction under study. Those diverted tend to have more extensive criminal histories and are more frequently arrested for felony drug offenses, yet are more often diverted for cases that are more likely to be dismissed and less likely to result in a new conviction. Regarding measures of future criminal involvement, simple comparisons of means as well as mean differences that regression adjust for observed personal and case characteristics generally show that those who are diverted are more likely to be arrested in the future, more likely to be arrested in the future for felonies, and are more likely to experience new convictions.

When the cases in our analytical sample are stratified by the propensity of the arraignment judge to steer cases toward the Collaborative Courts, we observe balance on case characteristics, criminal history, and the personal characteristics of the defendants. Moreover, we do not observe a higher likelihood of dismissal nor a lower likelihood of conviction for individuals whose cases are heard by a judge with a higher propensity to make a diversion

¹ From here on out, we use the term “diversion” to refer to a referral on a felony filing to Collaborative Court program.

referral. Our two-stage least squares (2SLS) results yield evidence of less, as well as less serious, future criminal justice involvement for those who are diverted. Point estimates pertaining to future arrests and future felony arrests are generally negative, though often imprecisely measured and not statistically significant. We find consistent evidence of a sizable and statistically significant negative effect of diversion on the likelihood of future arrests that lead to a new conviction. These findings hold for at least five years post-arraignment, suggesting that the impact of a diversion outlasts the program's duration, which is typically between one and two years.

Finally, we present estimation results for subgroups – defined by controlling offense, criminal history, race, ethnicity, age, and gender – many of which have not been previously studied in this context. While we have substantially less power in these subgroup analyses, some patterns emerge. In particular, we see the largest negative effects of diversion on future convictions for those defendants initially charged with drug offenses and offenses against a person. In addition, diversion reduces felony re-arrest rates for transitional age youth and individuals with no prior felony conviction. By gender, we observe large significant effects for women and insignificant effects for men, though given the imprecision of our estimates we cannot rule out sizable negative effects of diversion on male recidivism outcomes.

The remainder of this paper is structured as follows: first, we describe the growing literature around pretrial diversion and the San Francisco setting that is the basis for this analysis, then we outline our methodology and the administrative datasets used. Next, we present our main results and the results of subgroup analyses, and conclude by discussing the implications of our findings.

PRE-TRIAL DIVERSION IN THE UNITED STATES AND SAN FRANCISCO

The National Association of Pretrial Service Agencies (2008) defines pretrial diversion programs as voluntary alternative programming to traditional case processing that may be offered to a criminal defendant where upon satisfactory completion of the alternative program would ideally result in the dropping of the criminal charges. There are thousands of different pretrial diversion programs practiced in jurisdictions throughout the United States as well as in other countries. These programs range from pre-booking diversions to service providers, deferred adjudications of guilt that combine the threat of formal conviction with traditional community corrections, to interventions targeted at the needs of specific defendants such as specialized courts devoted to defendants with mental health problems or substance abuse issues. In addition, pretrial diversion programs may be managed through community service providers, pretrial service agencies, prosecutor's officers, or through local court systems. The Center for Health and Justice at TASC (2013) conducted a national survey of jurisdiction to gauge and characterize the nature of such effort in the United States. While the programs vary widely in content and approach, the report notes that many programs focus on individuals with mental health problems and substance abuse histories and on individuals charged with their first serious offense.

Given the heterogeneity in programs that one might classify as front-end or diversion interventions, the extant literature regarding effectiveness is diffuse and better developed for some interventions relative to others. For example, there is now a sizable body of research on drug courts along with several meta-analyses of these studies spanning multiple decades. There are over 3,000 drug courts operating across the United States (U.S. Department of Justice, 2020). Drug courts typically involve either diversions occurring prior to a plea agreement or following

conviction, with the reward for successful completion equal to either dropping the charges (for those diverted pre-plea) or a lighter sentence (for those diverted post-conviction). Drug court generally requires conditions such as participation in drug treatment, frequent drug testing, and regular court hearings to discuss developments, progress, and changes in status. Mitchell, Wilson, Eggers, and MacKenzie (2012) provide a recent meta-analysis of drug court evaluations covering both experimental and non-experimental evaluations. The authors conclude that the corpus of research on this intervention supports the conclusion that drug courts reduce recidivism by one third to one half, that the reduction persists for three years following participation, and that the effects are largest for programs that condition participation on not having a history of violence.

Short of drug court diversions, there are many other mental health focused interventions that involve quick diversion to service providers and less long-term involvement of courts and other arms of the criminal justice system. By the mid-2010s there were hundreds of mental health courts operating across the United States (Lowder et al., 2017). McNiel and Binder's 2007 study of the Behavioral Health Court in San Francisco found that participation in the program was associated with desistance from future criminal justice contact, with program graduates experiencing better outcomes than dropouts. Ray (2014) studied a mental health court serving mostly misdemeanor cases in North Carolina and found that program participation resulted in lower recidivism, while successful program completion led to even more desistance. Lowder et al. (2017) review existing evaluations of mental health courts across the country and find modest impacts on future recidivism. Cuellar, McReynolds, and Wasserman (2006) review mental health diversion programs for youth and find that one such program in Texas led to desistance from recidivism for juvenile participants. Severson and Matejkowski (2016) review existing

evaluations of jail diversion programs including the use of crisis intervention centers pre-booking, crisis intervention training for law enforcement coupled with strategic partnerships with non-law enforcement service providers, and several other early diversion programs. While they offer several examples of jurisdictions employing such interventions, to our knowledge there is little research on the effectiveness of these early diversion efforts for adults charged with felonies or the differential effectiveness of these efforts by race, ethnicity, or gender.

Prosecutorial diversion may occur either before or after the filing of criminal charges and are motivated by several goals. Prosecutorial diversion serves both a triage function (aiming to reserve prosecutorial resources for the most serious cases) as well as an attempt to address the unmet needs of individuals who are diverted that are likely contributing to criminal justice involvement. In addition, prosecutorial diversion often aims to reduce local correctional populations and reduce the incidence of stigma created by prior criminal convictions (RTI International, 2020). Rempel et al. (2018) provide the most comprehensive analysis of prosecutorial diversion programs. The authors provide a process review of 15 such programs across the country, subjecting five of the programs to a quasi-experimental evaluation based on propensity score matching of diverted individuals to non-experimental control subjects. For the five sites evaluated, the authors document lower subsequent rates of criminal justice contact among those diverted.

There are very few non-experimental studies that identify plausible exogenous variation on diversion with an eye on measuring causal effects. Mueller-Smith and Schnepel (2020) is one such study. The authors estimate the effects of deferred adjudication, the practice of placing a defendant on community corrections supervision following an intermediate plea agreement, where the defendant admits guilt yet avoids conviction if they comply with the terms of their

agreement for a specified period of time. The authors study this practice in Harris County, Texas exploiting an exogenous decrease in the use of deferred adjudication associated with a 1990 sentencing reform and an increase in the use of these intermediate pleas due to a later failure to expand jail capacity. The authors find causal effects of deferred adjudication, with substantial long-term negative effects on future criminal cases and positive effects on quarterly earnings.

Using a methodological strategy similar in spirit to what we present below, Agan, Doleac, and Harvey (2020) use the nearly random assignment of criminal cases to arraignment assistant district attorneys (ADA) to identify exogenous variation in early decisions to not prosecute non-violent misdemeanors in one large urban jurisdiction. The authors document notable differences across ADAs in the propensity to not prosecute lower level offenses. In the jurisdiction studied, the decision to not prosecute removes the underlying arrest from the individual's criminal history record. The authors find very large effects on the number of days to case disposition, large declines in the likelihood of a misdemeanor conviction, and very large declines in the likelihood of future arrests and prosecutions up to two years post case disposition.

San Francisco began diverting defendants in the 1970s through the Pretrial Diversion program (Augustine, Skog, Laco, & Raphael, 2020). The Collaborative Courts, which provide post-filing diversion opportunities for individuals arrested on misdemeanor and felony offenses, began diverting cases in the 1990s. Together, the Collaborative Courts and Pretrial Diversion programs provide diversion opportunities for individuals with significantly diverse needs who are arrested for a variety of offenses. This paper focuses on the effects of a referral to diversion on a felony offense, which limits eligibility to a subset of the Collaborative Courts programs:

Behavioral Health Court, Drug Court, Veterans Justice Court, and Young Adult Court.² The Collaborative Court programs that serve felony defendants tend to be higher-touch in nature, providing participants with tailored case management and social services, typically for more than a calendar year. Specifically, the Behavioral Health Court is a small, intensive program for individuals diagnosed with a mental illness. The Court has a capacity to serve approximately 140 individuals at a time, and requires a full year of participation. During that time, participants must comply with an individualized treatment plan, including case management, medication management, psychiatric rehabilitation, supportive living arrangements, and substance abuse treatment. The Veterans Justice Court provides intensive social service, educational, and vocational support for veterans who may also be dealing with post-traumatic stress disorders, and the Young Adult Court serves only transitional-aged youth. Finally, individuals participating in Drug Court have substance use disorders and experience either outpatient or residential treatment specifically focused on addressing substance use. Past research has demonstrated that individual courts within the Collaborative Courts lead to improved criminal justice outcomes for participants (Kilmer & Sussell, 2014; McNiel & Binder, 2007), but this is the first research that attempts to quantify the broader impact of a referral on a felony arrest to any of San Francisco's Collaborative Court diversion programs.

Criminal cases in San Francisco begin with an arrest and case referral by the police to the Office of the San Francisco District Attorney (SFDA). For cases where the SFDA chooses to file formal charges, the case can proceed through the business-as-usual adjudication process or be diverted to one of several programs. A defendant can receive a referral to a Collaborative Court

² Note that individuals arrested on a felony offense may be referred to other pretrial diversion programs, but these are the programs designed specifically for felony offenders. A small number of cases referred to the Misdemeanor Behavioral Health Court are included in this analysis (see Table 12).

program at any point during the adjudication of the case in question. However, referrals are typically made at first arraignment coinciding with the initial filing of charges. The Collaborative Courts are truly collaborative in nature—a defendant’s involvement in a program is jointly determined by judges, prosecutors, the defense team, and program staff. Most first-time misdemeanor offenders are eligible for and automatically referred to Pretrial Diversion, a very light-touch alternative to a formal criminal trial. However, felony defendants are often diverted as well, usually to one of several of the specialty Collaborative Courts. In the analysis period this paper considers, new filings between 2009 and 2017, the largest recipient of felony referrals is the Drug Court, which serves individuals with diagnosed substance use disorders arrested on non-violent crimes. Other diversion programs accepting felony defendants include the county’s Veteran Justice Court for US veterans, a Youth Adult Court focusing on defendants 18 to 25 years of age, and the Behavioral Health Court that works with felony defendants with diagnosed mental illness.³

The focus of this paper on felony referrals to any of the Collaborative Courts is both practically motivated by limitations imposed by the identification strategy and intentional due to the nature of San Francisco’s operation of the Collaborative Courts. While we identify the first program to which an individual is referred, roughly one fifth of individuals referred to a Collaborative Court in San Francisco engage in multiple programs over the course of their case (see Appendix C).⁴ This is indicative of the Collaborative Courts’ holistic, no-wrong-door approach aimed at matching individuals to the program or programs that will best serve their needs (Augustine et al., 2020). With this in mind, we cannot evaluate the effects of any one

³ See Tables 1 and 12 for a breakdown of diversion referrals by program.

⁴ All appendices are available at the end of this article as it appears in JPAM online. Go to the publisher’s website and use the search engine to locate the article at <http://onlinelibrary.wiley.com>.

specific program in the Collaborative Court system with the identification strategy that we detail below.

Collaborative Court programming varies by court and by the unique needs of the enrollee. However, there are core components to the Collaborative Courts that are consistent across the programs: each program seeks primarily to provide participants with direct services that will address their needs and help them both reduce recidivism and lead successful lives more broadly.⁵ The programs all provide participants with tailored, direct services intended to address the individual's social and behavioral needs: for example, Drug Court primarily provides participants with treatment for diagnosed substance abuse disorders, while Behavioral Health Court participants receive treatment and case management focused on their mental health needs. All of the Collaborative Courts provide additional support to participants, as needed, to address other needs or challenges they may face. For example, Drug Court participants may also receive mental health treatment or participate in job training. In lieu of the traditional courtroom experience, and in conjunction with the programming that a Collaborative Court participant receives, each participant has periodic meetings involving the case attorneys, program staff, and a judge dedicated to the Collaborative Courts docket to monitor progress and adjust participation criteria as needed. The length of a participant's engagement in a Collaborative Court also varies, depending on the nature of the court and the individual's needs.

Eligibility for each of the Collaborative Courts also varies and can be defined through legal criteria, assessments of defendant suitability, willingness to participate, and/or assessments of whether the individual meets certain clinical criteria. These eligibility criteria are guidelines

⁵ Depending on the participant, this could entail recovery from a substance abuse disorder, management of a mental health condition, or achieving stable housing or employment (among others).

for participation, and at times exceptions are made for those who do not meet eligibility criteria. In fact, our identification strategy relies on discretion in the ability to divert a defendant, in particular the influence of the arraignment judge. Roughly one quarter of new filings are referred to a diversion program annually in San Francisco. In the decade that this analysis considers, both filings and diversion referrals decreased in keeping with state and local criminal justice reforms that led to a decline both in felony filings and in the ability of prosecutors to compel people into the Collaborative Court programs.

In what follows, we present estimates of the effect of diversion of criminal cases in San Francisco similar to the work of Agan, Doleac, and Harvey (2020), leveraging the differential propensity of judges in San Francisco (along with the near random assignment of cases to judges) to refer cases to the suite of diversion programs available in the city. This method has been employed extensively in criminal justice research, as well as in other disciplines. For example, Arnold, Dobbie, and Yang (2018), Gupta, Hansman, and Frenchman (2016), and Leslie and Pope (2017) use randomly assigned judges to identify exogenous variation in the likelihood of pretrial detention and money bail decisions. Dobbie, Goldin, and Yang (2018) use judge assignment to examine the impact of pretrial detention and Aizer and Doyle (2013) examine the impacts of juvenile incarceration. Bhuller, Dahl, Løken, and Mogstad (2016) and Kling (2006) leverage randomness in judge assignment to measure the impact of imprisonment on recidivism and future employment. Outside of the sphere of criminal justice research, Dobbie and Song (2015) use the random assignment of bankruptcy filings to judges to examine the impacts of bankruptcy protection on future earnings, mortality, and foreclosure rates. Collinson et al. (2021) use random judge assignment to examine the downstream effects of an eviction.

EMPIRICAL STRATEGY AND DESCRIPTION OF THE DATA

Identification Strategy

We analyze administrative data for felony cases filed within the City and County of San Francisco between 2009 and 2017. We restrict the analysis to the first case observed for specific defendants during this time period. We exploit the quasi-random assignment of felony cases to judges to identify exogenous variation in the likelihood of being referred to one of the Collaborative Court programs. Specifically, we define i as an index for felony cases,⁶ j as an index for specific judges, I^j as the total number of felony cases heard by judge j , and R_{ij} as a dummy variable equal to one for cases where the defendant is referred to a Collaborative Court. For each case in our estimation sample, we measure the propensity of the arraignment judge to divert felony defendant i using the following leave-out-mean equation:

(1)

$$Divert_{ij} = \frac{\sum_{i=1}^{I^j} R_{ij} - R_{ij}}{I^j - 1}.$$

Note this diversion propensity measure will vary slightly across cases heard by the same judge though the variation is by design greater between judges relative to variation within judges.

We use the case-specific estimate of the propensity of the arraignment judge to refer to a Collaborative Court program as an instrument for actual case referrals. Defining Y_{ij} as an outcome variable of interest (either a case disposition outcome or post-arrest measure of

⁶ Specific felony cases are defined by separate court numbers. To calculate the leave-out mean for each court case, we use all felony cases filed over our observation period. There may be some defendants that appear more than once on separate cases. In such instances, there are separate court numbers for each case. Note, our estimation sample focuses only on the first case for each defendant, and is subsequently restricted to felony cases.

additional criminal activity), our principal results rely on estimation of the following two-stage-least-squares model (2SLS):

$$(2) \quad Y_{ij} = \alpha + \beta R_{ij} + \gamma' Year_{ij} + \delta' X_{ij} + \mu_{ij}$$

$$R_{ij} = \theta + \pi Divert_{ij} + \lambda' Year_{ij} + \varpi' X_{ij} + \varepsilon_{ij}$$

where $Year_{ij}$ is a vector of arrest year dummies with conforming parameter vector γ in the second stage and λ in the first stage, X_{ij} is a vector of personal, criminal history, and case characteristics with conforming parameter vector δ in the second stage and ϖ in the first stage, α , β , θ , and π are parameters to be estimated, and μ_{ij} and ε_{ij} are the error terms for the second and first stage equations, respectively. We cluster the standard errors by judge in all 2SLS model estimates.

Following the primary models, we conduct subgroup analyses by defendant demographic characteristics, charge type, and criminal history, to discern whether there is variation in impacts for different groups. The subgroups were selected intentionally. First, we explore whether there is variation in the impact estimates by the type of charge that is being diverted. Evaluating the impact of participation in specific Collaborative Courts is not possible with the identification strategy outlined here, however we can investigate whether individuals diverted on felony drug charges, and are likely to be referred to Drug Court, fare better or worse than defendants diverted on other charges. Further, individuals with no prior felony conviction arguably stand to benefit the most from a successful diversion, which would keep their record clear of felony offenses. Therefore, we generate estimates for the subgroup with and without a prior felony conviction.

Given persistent racial and ethnic disparities throughout the justice system (in the United States as well as in San Francisco), we explore variation in the impact of diversion by race and ethnicity. Finally, we explore variation in the impact estimate by gender (male/female) and age

(transition aged youth 18-25, or older) to understand whether courts targeting these subgroups appear more or less effective. These subgroup analyses are particularly important because, to our knowledge, there is no research to date that investigates whether there are differential effects of diversion by demographic subgroups aside from age.

Outcome Measures

Our outcome variables fall into two broad categories: case disposition outcomes and measures of future criminal justice involvement post arraignment. Regarding the case disposition outcomes, we test for an effect of diversion on the likelihood of conviction, case dismissal, and time to case disposition. We also create a summary measure indicating a generally positive disposition outcome from the point of view of the defendant (dismissal, successful diversion, not being convicted).

Regarding our measures of future criminal activity, following Bhuller, Dahl, Løken, and Mogstad (2016), we focus our attention on the period commencing with the arraignment for the controlling offense. Alternatively, one might focus instead on the period commencing with the date of case disposition. However, as we will demonstrate below, diversion greatly increases the time to disposition. For this reason, we anchor our post period to the arraignment date and explore heterogeneity of the treatment effect for various periods up to five years post arraignment.⁷ The average diverted case disposes in less than two years. Hence, beyond a certain period it is possible to infer whether there are any treatment effects after active program participation.

⁷ Diverted and non-diverted individuals are in custody following arraignment at similar rates, so there is little concern that post-arraignment outcomes will be affected by one group spending more time in custody in the outcome period.

We test for effects of referral to diversion on subsequent arrests, subsequent arrests for a new felony offense, and subsequent arrests that result in new convictions. Our main results focus on two sub-samples of our data: All individuals for whom we can observe two complete years of post-arraignment outcomes and all individuals for whom we can observe five complete years of post-arraignment outcomes.

Table 1 presents average values of the background characteristics included in the control vector X_{ij} . The table presents averages for cases that are not diverted and cases that are diverted as well as the difference in averages. Roughly 19 percent of felony cases studied are diverted over the analysis time period, with most referrals to Drug Court and Behavioral Health Court (60 percent and 27 percent of all referrals, respectively) (Table 1). Individuals who are diverted have similar demographic profiles to those who are not diverted: they have an average age of 35 to 36 years, are overwhelmingly male, and are disproportionately Black relative to the population in the community (roughly 6 percent of the resident population of San Francisco is Black). Several of these disparities are statistically significant given the size of the sample.

[Table 1 about here]

We see notable differences in the most serious arrest charge and arrest history. Diverted defendants are more likely to be arrested for a drug offense and less likely to be arrested for a person (i.e., offense that involves a victim) felony offense. While both groups have large numbers of prior arrests and convictions, and nearly a fifth have been sentenced to prison in the past, the diverted sample has been arrested three more times on average relative to the average for the not-diverted sample.

The observable and likely unobservable difference between the diverted and not-diverted defendants hint at important selection challenges to estimating the causal effect of diversion to a

Collaborative Court program on outcomes. Given higher average arrests and the higher likelihood of arrest for drug offenses, one might expect that the process for selecting individuals into the diversion program would in and of itself lead to a higher likelihood of future criminal activity among those diverted. Table 2 suggests that this is indeed the case. The first few rows present average values for the adjudication outcomes of the case in question. Those who are diverted are considerably less likely to be convicted, are somewhat more likely to have their case dismissed, and are 19 percentage points more likely to experience a generally positive outcome from the viewpoint of the defendant (not convicted, case dismissed, successful diversion). We also observe that the time to disposition on average is nearly twice as long for diverted cases relative to non-diverted cases (438 and 233 days, respectively). Regarding post-arraignment arrests, the cumulative proportion arrested in each of the six-month periods spanning the first two years following arraignment is consistently larger for diverted defendants. This is consistent with an earlier descriptive analysis of the Collaborative Court programs (Augustine et al. 2020). These patterns are likely driven by endogenous selection, therefore identifying exogenous variation in diversion is particularly important for the research question at hand.

[Table 2 about here]

Data and Sample

The data for this project comes from several sources and covers the period from March 2008 through December 2018. First, the analysis sample is constructed from the San Francisco District Attorney's case management system. These data provide information on all arrests referred to the district attorney and include information on the defendant, the list of arrest charges, and the ultimate disposition of the criminal case. The case management system data also includes a record of every court event, with information on event date, event type, prosecutor,

defense attorney, courtroom, and event comments entered manually by the court clerk. To identify cases that are diverted to pretrial diversion programs, we use regular-expression keyword analysis of the keyed comment field.⁸

We define any case with a diversion reference in the event data as diverted regardless of whether the individual ever participates in a program. In a previous analysis comparing the referral and participation rates for all diversion programs, participation rates conditional on referral were shown to vary greatly across programs, with a conditional participation rate of 46 percent for Behavioral Health Court, 76 percent for Drug Court, 89 percent for Veteran Justice Court, and 69 percent for the Youth Adult Court (Augustine et. al., 2020). Our estimates should be thought of as intent-to-treat effects, since we are identifying exogenous variation in referrals to diversion. Furthermore, as our analysis is limited to individuals who are eligible for diversion on a felony case, our estimates should be considered local average treatment effects for diversion-eligible individuals. Given that the actual program an individual is referred to is based on an assessment of their needs and occurs following referral (and may change), our identification strategy cannot identify exogenous variation in the likelihood of participating in a specific program. Our analysis of all of the Collaborative Court programs that accept felony cases, however, is fitting based on the holistic nature of the programs and the frequent transfer of participants across the different programs. For instance, 20 percent of individuals referred to diversion in San Francisco were referred to more than one program, and more than half of these individuals were referred to the Drug Court – the most common program among felony referrals

⁸ We worked with the SFDA to develop keywords to identify different stages in the diversion process including: referral to a diversion program, assessment for eligibility in the diversion program, first appearance in the diversion courtroom, and any termination event from the diversion program (including successful completion, graduation, unsuccessful court termination, and self termination from the program). See Appendix A for a full list of keyword search terms. All appendices are available at the end of this article as it appears in JPAM online. Go to the publisher's website and use the search engine to locate the article at <http://onlinelibrary.wiley.com>.

(Augustine et al., 2020). The collaborative nature of the programs makes the evaluation of any single diversion program in San Francisco difficult and illuminates the importance of understanding the impact of a referral to any program, given that some of the matching of participants to programs takes place post-referral.

We use the date and courtroom along with the Superior Court of California's annual judicial assignments to determine the presiding judge at each arraignment.⁹ When an individual case has multiple recorded arraignments, we identify the first arraignment or, if there is a referral to diversion on record, the arraignment that occurred on the same day as the referral event. We employ data from the San Francisco Sheriff's Office to determine bookings and releases at the San Francisco Jail. Finally, we draw upon data from the California Department of Justice's records of arrests and prosecutions (RAP) to determine statewide criminal history and subsequent statewide criminal justice involvement. We define subsequent contact in two ways: first, subsequent arrests, and second, arrests that lead to convictions that occur after the initial case is arraigned. Due to data availability, all measures of subsequent contact are limited to contact with the criminal justice system in the state of California.

Our sample is restricted to the first observed arrest for a specific defendant resulting in charges filed by the San Francisco District Attorney between 2009 and 2017. We limit our sample to felony cases, starting with 27,064 unique individuals and cases. We exclude defendants whose age is missing from all data sources (159 records dropped), and drop all cases that are based on arrests for charges including domestic violence, murder, and sex crimes that are

⁹ Historic judicial assignments beginning with the 2009 assignments were provided by the District Attorney's Office. Current judicial assignments are available at the San Francisco Superior Court's website, <https://www.sfsuperiorcourt.org/general-info/judicial-assignments>. Importantly, cases are often heard in other courtrooms (with different judges) after arraignment. In our sample, only one third of cases have the same judge from arraignment to disposition.

categorically ineligible for diversion to the Collaborative Courts (dropping 1,695 records). We also exclude cases with fewer than three events recorded in the court event data (dropping 2,596 records), have a visiting judge preside at arraignment (1,350 records), and cases where the arraignment judge is not recorded (2,038 records). Lastly, we restrict our sample to cases based on an arrest before 2018 and that are arraigned at least one year before our outcome data ends (dropping 2,268 records). The final analysis sample consists of 16,958 records.

RESULTS

In this section, we report our principal results. We document the first stage relationship between our judge propensity measure and the likelihood of being referred to diversion and present evidence supportive of our assumption that the leave-out-mean instrument is exogenous. Next, we present results showing the causal effects of diversion on case adjudication outcomes. Finally, we present estimates of the effect of diversion on future criminal justice involvement.

Documenting the First Stage

Table 3 presents results from two linear probability models. The first model presents the results from a bivariate regression where the dependent variable is a dummy variable indicating the case was referred for diversion and the key explanatory variable is the leave-out-mean propensity measure for the judge arraigning the case. The second regression adds the covariates presented in Table 1 to the specification. Here, we only present the coefficient on the instrument to conserve space. Standard errors are clustered by judge in both models.

[Table 3 about here]

The instrument is a strong predictor of the likelihood of a referral, with t-statistics on the coefficient of approximately 29 in the bivariate regression and 15 in the multivariate regression.

The instrument easily clears the conventional F-test statistic threshold for a strong instrument. Interestingly, adding covariates to the first-stage regression does not appreciably alter the coefficient on the leave-out mean, suggesting that the instrument is uncorrelated with observable personal characteristics of the defendants as well as the observable case characteristics.¹⁰

In Table 4, we further explore whether the measure of judicial propensity to refer is correlated with observable characteristics of the individual or case. The table presents average defendant and case characteristics after stratifying the analytical sample into cases with below median values of the judge leave-out mean and cases with above median values. The table reveals general balance on covariates when we stratify the sample by values of our instrument. While there are a few significant differences among the covariates, we generally see that cases assigned to judges with a low propensity to refer to the Collaborative Courts are quite similar to those who are assigned to high propensity judges, a pattern consistent with random assignment of cases to judges. Moreover, there is a sizable (7 percentage points) and statistically significant difference in the referral rate between the cases controlled by the high propensity-to-refer and low-propensity-to-refer judges.

[Table 4 about here]

¹⁰ Following Dobbie, Goldin, and Yang (2018) and Bhuller, Dahl, Løken, and Mogstad (2016) we ensure that the monotonicity assumption is met by confirming that the first stage relationship between the judge leave-out measure and the likelihood of case referral to diversion is positive and statistically significant for all subgroups (based on criminal history, arrest offense, age, gender, and race and ethnicity). We also find a positive correlation between judge leave-out means when calculated separately for individual subgroups (tables and figures available from authors upon request). To ensure that the exclusion restriction is satisfied, we create a sample of non-diverted cases dropped from our sample due to eligibility or data quality reasons. We regress all outcomes included in this analysis on the judge leave-out measure and find that there is no significant relationship between a judge's propensity to refer cases to diversion and subsequent case or criminal justice outcomes (See Appendix B). All appendices are available at the end of this article as it appears in JPAM online. Go to the publisher's website and use the search engine to locate the article at <http://onlinelibrary.wiley.com>.

To formally test for covariate balance, Table 5 presents the results from two regressions. The first regresses our instrumental variable on a complete set of arrest year dummy variables. There is a clear time trend in the likelihood of a referral associated with changes in state law and local enforcement that decreased filing rates and reduced the use of diversion referrals post 2014 (Augustine et al., 2020). Hence, year effects are nearly statistically significant when the collective significance of this set of covariates is formally assessed. The second regression adds the full covariate list to the specification. While the F-test on the overall model for the second regression yields a P-value below 0.05, a test of the joint significance of these additional variables yields an F-test of 1.17 with a corresponding P-value of 0.137. Hence, the instrument provides a strong predictor of referral to the Collaborative Court programs that appears to be uncorrelated with case and personal characteristics that likely would impact the willingness of judges to make a referral.

[Table 5 about here]

The Impact of the Diversion on Case Disposition Outcomes

Table 6 presents estimates of the effect of diversion on four case disposition outcomes: whether the case results in a conviction, whether the case is dismissed, the time between arrest and case disposition, and a summary indicator of a broadly positive outcome from the point of view of the defendant (charges dismissed, found not guilty, or diversion deemed successful). The first two columns present results from ordinary least squares (OLS) models with and without covariates, where the reported estimates and standard errors pertain to the coefficients on the referral indicator variable. The third and fourth columns present results from 2SLS models where the judge leave-out mean variable is used as an instrument for referral to the Collaborative Courts. Standard errors are clustered by judge in all models. Beginning with the OLS results,

those who are diverted are substantially less likely to be convicted, by 29 percentage points in the bivariate model and 24 percentage points in the multivariate model. Both estimates are significant at the five percent level of confidence. Time to disposition is significantly and substantially longer, by roughly 200 days, for those cases referred for diversion. Moreover, those who are diverted are roughly 15 to 19 percentage points more likely to experience a broadly positive outcome.

[Table 6 about here]

The 2SLS models yield conflicting results, suggesting that either the OLS estimates are driven by endogenous selection into diversion or that the local average treatment effect of diversion for those cases where the likelihood of referral is sensitive to the assigned judge differs from the average treatment effect. We find no evidence of an impact of diversion on the likelihood of being convicted for the controlling offense. While the standard errors in the 2SLS models are substantially larger relative to the OLS models, we have enough power to measure effect size on conviction of the magnitude observed in the OLS regressions. The coefficient estimates for conviction are smaller in magnitude, positive in the bivariate 2SLS model and negative in the 2SLS model with covariates. Similarly, we observe no impact of diversion on the likelihood that the case is dismissed as well as the likelihood of an overall positive outcome. We do however see significant effects of diversion on time to disposition, with 2SLS estimates of being referred to diversion of 289 days in the bivariate model and 326 days in the full 2SLS model inclusive of covariates (both estimates statistically significant at the five percent level).

The results in Table 6, along with the difference in means between diverted and non-diverted cases presented in Table 1, suggest a complex selection process into Collaborative Court programs. Table 1 shows that individuals who select into diversion tend to have deeper arrest

histories and are more likely to be arrested for drug possession and intent-to-sell offenses. Given their past outcomes, individuals who are diverted are relatively more likely to be involved with the criminal justice system in the future, independent of any impact of the Collaborative Court interventions. However, the patterns in Table 6 (lower conviction rates in OLS but no effect in the 2SLS models) suggest that cases that are diverted tend to be cases where the likelihood of conviction is low, despite the extensive criminal histories of the average felony defendant referred to one of the diversion programs. Combined, these two selection mechanisms generate lower average conviction rates and more frequent recidivism outcomes, creating the possibly false impression that diversion is more lenient and results in greater recidivism. However, when we use plausibly exogenous variation in referral to a Collaborative Court program, we see no such evidence of greater leniency, but evidence that diversion involves a much lengthier case disposition process. This does not necessarily suggest that diverted individuals are spending more time in contact with the justice system, as not-diverted individuals may be experiencing incarceration or supervision under probation or parole post-disposition while diverted individuals are engaged in pre-disposition diversion programming, at times followed by post-disposition incarceration or supervision.

The Impact of Diversion on Future Arrests and Convictions

Table 7 presents OLS and 2SLS estimates of the effect of diversion on several measures of future criminal justice involvement. For these models, we restrict the sample to cases where we can observe two full years of outcomes following the arraignment generating the felony case. We test for cumulative effects through the second year post arraignment and investigate three alternative dependent variables at one and two years post arraignment: any new arrest, any new felony arrest, and any arrest generating a new conviction. Beginning with the ordinary least

squares results, the bivariate and multivariate models suggest that individuals who are diverted are five to six percentage points more likely to be rearrested, are six to seven percentage points more likely to experience a felony arrest, and are four percentage points less likely to have a new arrest leading to a conviction during the first year after arraignment. All of these point estimates are significant at the five percent level of confidence. We see even larger estimated effects of diversion on cumulative arrests through the second year, with the diverted seven percentage points more likely to be arrested and eight percentage points more likely to experience a felony arrest relative to those who are not diverted. We also see lower conviction rates two years post-arraignment, though the differences are smaller than in the first year alone.

[Table 7 about here]

The 2SLS results contrast sharply with the OLS results. First, in the first post arraignment year all of the arrest coefficients are negative, though none are statistically significant. Second, we observe a large negative effect of diversion on the likelihood of a new arrest resulting in a new conviction in year one, with effect sizes of 19 percentage points in the bivariate 2SLS model and 13 percentage points in the multivariate 2SLS model (both significant at the five percent level). Through the second year, again we find no effect of diversion on new arrests for either the any-arrest outcome or the felony-arrest outcome. However, we still see suppression of arrests generating a new conviction. This reconviction effect is statistically significant at the ten percent level in the multivariate 2SLS model and is roughly 10 percentage points in magnitude.

Figure 1 explores these results in more detail, focusing on six month periods for the two years following the initial arraignment and graphing the cumulative effect of diversion on the likelihood of arrest and reconviction within six months, one year, one and a half years, and two years of the initial arraignment generating the felony case. In addition to plotting the point

estimate for each outcome and time period, the figure also shows the 90 percent and 95 percent confidence intervals for each estimate. We observe cumulative effects on a new conviction that are significant at the five or ten percent level for all but the third estimate, while none of the cumulative arrest estimates are significant.

[Figure 1 about here]

Figure 2 reproduces this analysis but for a smaller subsample for which we can observe five full years of post-arraignment outcomes. Similar to our findings for the two-year sample, we see negative effects on the likelihood of an arrest that generates a new conviction in each period with all of the individual point estimates significant at the five percent level. By the end of the five-year period, we observe a cumulative decline in the likelihood of new conviction of nearly 20 percentage points. For arrests, the cumulative effect is negative through all periods though not statistically significant at the ten percent level.

[Figure 2 about here]

SUBGROUP ANALYSIS

Our final set of results tests for separate causal effects by subgroup. We present estimates of the effect of a diversion referral on case outcomes and then focus on the sub-sample where we have two years of observable outcome data and present cumulative estimates of the effect of diversion up to two years post arraignment for new arrests, a new felony arrest, and an arrest generating a new conviction. Table 8 presents estimates for sub-samples defined by the nature of the original offense (drug possession, drug sales, other offenses, person offense, and property offenses). Table 9 presents results for subgroups defined by race and ethnicity. Table 10 presents results by gender and for transitional age youth under the age of 26 and older adults. Finally,

Table 11 presents results for individuals with and without prior felony convictions. These subgroups were selected for analysis because individuals with different demographic profiles and criminal histories experience contact with the criminal justice system in significantly different ways, and therefore stand to experience a diversion referral differently in ways that may be obscured by analyses on the full sample. Similarly, splitting the analysis by original offense is motivated by the fact that the characteristics of the original offense may reveal something about the underlying needs of the individual participants, which specific diversion programs intend to address. Given that eligibility for the unique Collaborative Courts is based in part on details of the arrest offense, splitting individuals on original offense allows for potential disentanglement of the impacts of the different Collaborative Court programs.

All of the subgroup analysis tables are structured similarly. The variable in the stub lists the dependent variable in a 2SLS model inclusive of all covariates where the judge leave-out-mean provides the instrument for the diversion referral dummy. The column heading identifies the subgroup. For each subgroup we present four measures of case outcomes (conviction, dismissal, time between arrest and disposition, and a measure of a positive case outcome), two estimates for arrests, two estimates for felony arrests, and two estimates for arrests generating a new conviction (all at one year and two years post-arraignment). We should caution in advance that the sample sizes for many of these subgroups are considerably smaller than our overall sample size. Hence, our estimates are considerably less precise and for many subgroups we do not have sufficient power to rule out sizable effects of diversion.

Beginning with Table 8, the results for subgroups defined by controlling offense charge suggests notable heterogeneity by initial offense. Our findings are concentrated on individuals arrested for a drug sales offense or a person offense (i.e., an offense with a victim). We find that

these groups are less likely to be convicted for their initial case, and we observe sizable declines in the likelihood of arrests that generate new convictions in the two years following the arrest for the controlling offense. There are no measurable impacts for those arrested for other offenses or for property offenses. Due to the limitations of our identification strategy, these findings cannot be extrapolated to infer the varying impacts of the different Collaborative Court programs, but rather may suggest what defendants could fare best in any of the programs when presented at arraignment.

[Table 8 about here]

Table 9 presents a comparable analysis for subgroups defined by race and ethnicity. We find that individuals identified as Latinx who are referred to diversion are 32 percentage points less likely to have their initial case result in a conviction, while White individuals are 20 percentage points less likely to have their case result in a dismissal than their non-diverted counterparts. We observe no significant effects for any racial or ethnic subgroup for arrests, though the standard errors are quite large. Regarding arrests resulting in new convictions, the point estimates are generally negative for all groups and most years, with several significant coefficient estimates for Asian defendants and Latinx defendants.

[Table 9 about here]

Separate estimates by gender and for transitional age youth compared to older defendants show no significant effects for any of the initial case outcomes, with the exception of a significant negative impact on the likelihood that a case will end in a dismissal for male defendants (Table 10). Women make up less than 20 percent of diverted and non-diverted samples (Table 1) and are referred to the different diversion programs at similar rates to males (Table 11). There are stark differences in results for men and women, with significant and

sizable negative effects of diversion on arrests, felony arrests, and arrests leading to new convictions for women in all years. For men, there is a positive significant effect on arrests in the second year post arraignment (significant at the 10 percent level), no evidence of an impact on felony arrests, and insignificant negative coefficients for the new conviction outcomes. When we split the sample by age, we find that diverted transitional age youth, who make up 27 percent of the diverted sample, are significantly less likely to have a new felony arrest in the two years following arraignment, while older defendants are significantly less likely to have an arrest leading to a new conviction following arraignment, similar to the full sample findings (Table 10). In keeping with overall trends, Drug Court is the most common program that transitional age youth are referred to, but they are referred to Young Adult Court second most frequently (28 percent of referrals) and are less likely to receive a Behavioral Health Court referral (only 17 percent of referrals, compared to 27 percent overall) (Table 11).

[Table 10 about here]

[Table 11 about here]

Finally, Table 12 presents estimates for individuals with and without a prior history of felony convictions, each group making up roughly half of the sample (Table 1). The impacts of a diversion referral on initial case outcomes are negligible, with the only significant results being that individuals with no prior felony convictions are less likely to have their initial case dismissed. However, we find that individuals with no prior felony convictions are 15 percentage points less likely to have a new felony arrest only in the first year following arraignment, while the impacts of a referral on subsequent convictions observed on the full sample appear to be concentrated among individuals with prior convictions on their records. They are 18 to 20

percentage points less likely to have an arrest leading to a new conviction in the two years following their arraignment (significant at five percent confidence) (Table 11).

[Table 12 about here]

CONCLUSION AND POLICY IMPLICATIONS

This paper exploits the random assignment of felony cases to arraignment judges in San Francisco to instrument for a given case's likelihood of referral to a post-filing pretrial diversion program. This method addresses the substantial selection process occurring in who is referred to diversion, which makes results from a simple comparison of means or regression-adjusted OLS misleading, and allows us to analyze the impacts of a referral on a felony arrest to a Collaborative Court diversion program.

We find that a felony referral to a diversion program substantially increases case length, measured as days between case arraignment and disposition, by close to one year. This may reflect the length of time that individuals spend engaged in the diversion program prior to their cases' disposition, and is potentially counterbalanced by a cessation of contact with the justice system upon case disposition rather than disposition being followed by a probation term. We find no other detectable effect on case outcomes. Second, we find that a referral to a felony diversion program has no impact on subsequent arrest rates, but reduces the likelihood of a new arrest leading to a subsequent conviction in the five years following arraignment on the initial case. This suggests that any average differences between subsequent arrest rates of individuals referred to diversion and those who are not is driven by selection into these programs, rather than any causal relationship between diversion and new arrests. It also suggests that the effects of a diversion on subsequent contact persist beyond the duration of participation in the diversion program.

Subgroup analyses demonstrate that diversion programs work particularly well for young and female defendants, two groups that make up minor shares of the overall sample of non-diversion and diversion referrals in San Francisco. The results for transitional age youth show that diversion programs are preventing youth arrested on felony charges from subsequent felony arrests. This finding is generalized to participants in all diversion programs studied, not just the Young Adult Court designed specifically for this population. If these trends persist in a manner consistent with prior research into the efficacy of diversion programs designed for youth (Cuellar, McReynolds, & Wasserman, 2006; Seroczynski, Evans, Jobst, Horvath, & Carozza, 2016), these findings imply that diversion is changing the tide for some young adults who, after receiving a diversion referral, remain free of future contact with the justice system. Transitional age youth tend to have higher rates of criminal justice contact and recidivate more than older adults (Durose, Cooper, and Snyder, 2014), so any intervention found to interrupt this trend is promising for policymakers.

Women are another group that fare extremely well in diversion programs: women who are referred to a Collaborative Court experience significantly less subsequent contact with the justice system across all outcomes measured. There is no evidence that male and female participants in the Collaborative Courts are receiving differential treatment, and no evidence that women are more likely to receive a referral to a diversion program. While we are not able to discern why these programs yield better outcomes for women at this time, this is an area that, to our knowledge, has been under-studied to date and is worth further examination.

While it is difficult to put a dollar amount on a lower conviction rate among people referred to diversion, past estimates of program costs provide some insight into the relative costs of diversion versus traditional criminal court processing. The Drug Court and Behavioral Health

Court are the most intensive Collaborative Court programs, and most costly. Previous cost-benefit analyses estimate a per person program cost for Drug Court of \$9,757 and for Behavioral Health Court of \$12,101 (Carey & Waller, 2008; Lindberg, 2009). In contrast, these studies estimate a per person costs of traditional court processing of \$16,379. The Behavioral Health Court evaluation found higher upfront costs for additional jail days while individuals awaited placement and treatment costs, that were more than offset in later years by less interaction with the criminal justice system and lower mental health service utilization (Lindberg, 2009). The Drug Court evaluation estimated savings among participants due to fewer subsequent court cases and jail days (Carey & Waller, 2008). Our study leverages a stronger identification strategy, and finds more concentrated, and somewhat more modest recidivism impacts.

This paper presents net positive benefits of felony diversion in San Francisco, a previously under-studied practice, with no increase in arrests and a decrease in arrests leading to future convictions. San Francisco's practices are unique even as diversion becomes an increasingly common practice in the United States. The county diverts high risk individuals with felony offenses and long criminal histories, and treats the Collaborative Courts as a holistic treatment that can address participants' complex needs, offering programming beyond the typical drug courts and mental health courts that are increasingly common in the United States. However, as case filing and diversion referral rates in San Francisco have declined in recent years, this study provides some insight into groups for whom alternatives to traditional prosecution may be particularly beneficial, such as young adults and women, individuals with no prior felony record, and felony drug offenders. As the criminal justice community considers modifications to diversion programs and expansions to alternatives to prosecution more broadly, it may be wise to focus resources on such groups that stand to potentially benefit greatly.

However, despite these promising results, this paper does not tell the full story of the impact of diversion. Future research will characterize the impact of felony diversion on physical health, behavioral health, and housing outcomes to understand how effectively these programs meet the multiple needs that they are designed to address.

REFERENCES

- Aizer, A., & Doyle, Jr., Joseph J. (2013). Juvenile incarceration, human capital and future crime: Evidence from randomly-assigned judges. Working Paper No. 19102. National Bureau of Economic Research. Available at <https://doi.org/10.3386/w19102>.
- Arnold, D., Dobbie, W., & Yang, C. S. (2018). Racial bias in bail decisions. *The Quarterly Journal of Economics*, 133, 1885–1932. Available at <https://doi.org/10.1093/qje/qjy012>.
- Augustine, E., Skog, A., Laco, J., & Raphael, S. (2020, July). Alternatives to prosecution: San Francisco’s Collaborative Courts and pretrial diversion. California Policy Lab. Available at <https://www.capolicylab.org/alternatives-to-prosecution-san-franciscos-collaborative-courts-and-pretrial-diversion/>
- Bhuller, M., Dahl, G. B., Løken, K. V., & Mogstad, M. (2016). Incarceration, recidivism and employment. Working Paper No. 22648. National Bureau of Economic Research. Available at <https://doi.org/10.3386/w22648>.
- Carey, S. M., & Waller, M. (2008). California drug courts: Costs and benefits PHASE III: DC-CSET statewide launch, Superior Court of San Francisco County drug court site-specific report. Submitted to California Administrative Office of the Courts, September 2008.
- The Center for Health and Justice at TASC. (2013). No entry: A national survey of criminal justice diversion programs and initiatives. Chicago, IL. Available at https://www.centerforhealthandjustice.org/tascblog/Images/documents/Publications/CHJ%20Diversion%20Report_web.pdf.
- Collinson, R., Humphries, J.E., Madar, N., Reed, D., Tannenbaum, D., & Van Dijk, W. (2021). Eviction and poverty in American cities: Evidence from Chicago and New York. Manuscript under review.
- Cuellar, A. McReynolds, L., & Wasserman, G. (2006). A cure for crime: Can mental health treatment diversion reduce crime among youth? *Journal of Policy Analysis and Management*, 25, 197-214. Available at <https://doi.org/10.1002/pam.20162>.
- Dobbie, W., Goldin, J., & Yang, C. S. (2018). The effects of pretrial detention on conviction, future crime, and employment: Evidence from randomly assigned judges. *American Economic Review*, 108, 201–240. Available at <https://doi.org/10.1257/aer.20161503>.
- Dobbie, W., & Song, J. (2015). Debt relief and debtor outcomes: Measuring the effects of consumer bankruptcy protection. *American Economic Review*, 105, 1272–1311. Available at <https://doi.org/10.1257/aer.20130612>.
- Durose, M. R., Cooper, A. D., & Snyder, H. N. (2014). Recidivism of prisoners released in 30 states in 2005: Patterns from 2005 to 2010. Available at <https://www.bjs.gov/content/pub/pdf/rprts05p0510.pdf>.
- Gupta, A., Hansman, C., & Frenchman, E. (2016). The heavy costs of high bail: Evidence from judge randomization. SSRN Scholarly Paper ID 2774453. Social Science Research Network. Available at <https://doi.org/10.2139/ssrn.2774453>.

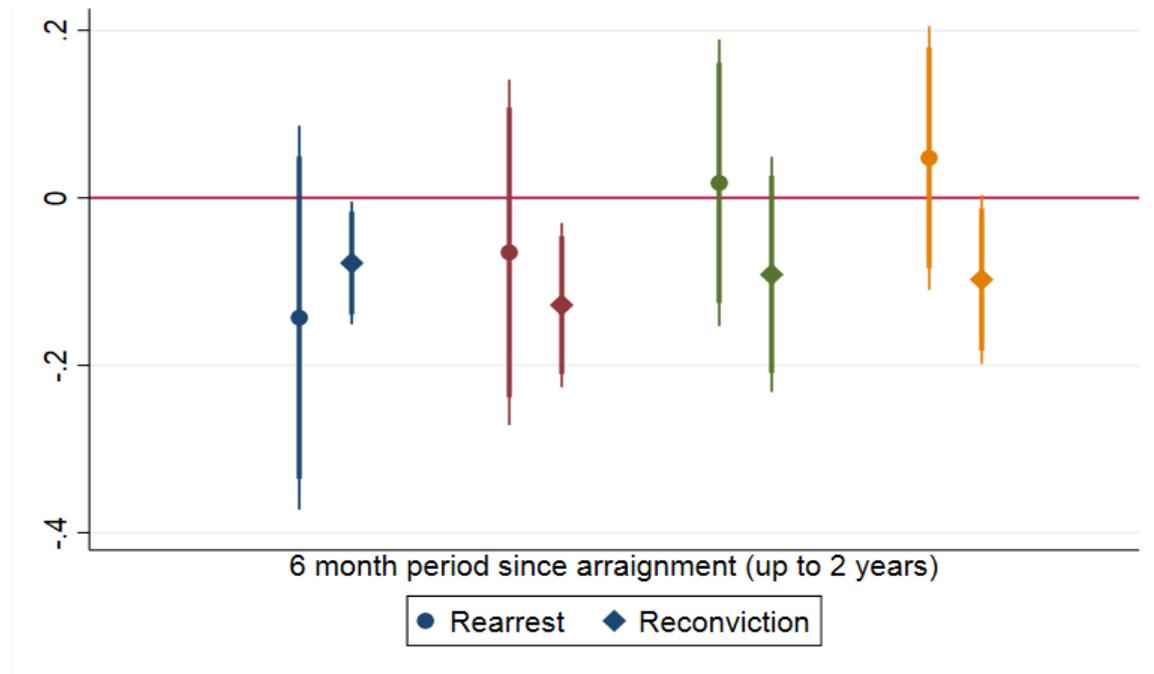
- Kilmer, B., & Sussell, J. (2014). Does San Francisco's Community Justice Center reduce criminal recidivism? RAND. Available at <https://www.sfsuperiorcourt.org/sites/default/files/pdfs/RAND%20study%20of%20the%20CJC.pdf?1546646436995>.
- Kling, J. R. (2006). Incarceration length, employment, and earnings. *American Economic Review*, 96, 863–876. Available at <https://doi.org/10.1257/aer.96.3.863>.
- Leslie, E., & Pope, N. G. (2017). The unintended impact of pretrial detention on case outcomes: Evidence from New York City arraignments. *Journal of Law and Economics*, 60, 529–557.
- Lindberg, A. J. (2009). Examining the program costs and outcomes of San Francisco's Behavioral Health Court: Predicting success. Prepared for the Office of Collaborative Justice Programs Superior Court of California, San Francisco County.
- Lowder, E. M., Rade, C. B., & Desmarais, S. L. (2017). Effectiveness of mental health courts in reducing recidivism: A meta-analysis. *Psychiatric Services*, 69, 15–22. Available at <https://doi.org/10.1176/appi.ps.201700107>.
- McNiel, D. E., & Binder, R. L. (2007). Effectiveness of a mental health court in reducing criminal recidivism and violence. *American Journal of Psychiatry*, 164, 1395-1403. Available at <https://www.courtinnovation.org/sites/default/files/EffectivenessMentalHealthCourt.pdf>
- Mitchell, O., Wilson, D. B., Eggers, A., & MacKenzie, D. L. (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of traditional and non-traditional drug courts. *Journal of Criminal Justice*, 40, 60–71.
- Mueller-Smith, M., & T. Schnepel, K. T. (2020). Diversion in the criminal justice system. *The Review of Economic Studies*, 88, 883-936. Available at <https://doi.org/10.1093/restud/rdaa030>
- National Association of Pretrial Service Agencies. (2008). Performance standards and goals for pretrial diversion/intervention. National Association for Pretrial Service Agencies, Washington, D.C.
- Ray, B. (2014). Long-term recidivism of mental health court defendants. *International Journal of Law and Psychiatry*, 37, 448–454. Available at <https://doi.org/10.1016/j.ijlp.2014.02.017>.
- Rempel, M., Labriola, M., Hunt, P., Davis, R. C., Reich, W. A., & Cherney, S. (2018). NIJ's multisite evaluation of prosecutor-led diversion programs. New York, NY: Center for Court Innovation. Available at <https://nij.ojp.gov/library/publications/nij-multisite-evaluation-prosecutor-led-diversion-programs-strategies-impacts>.
- RTI International. (2020). Prosecutorial Literature Review-Bibliography. BJA Report NCJ# 255610. Available at <https://innovativeprosecutionsolutions.org/wp-content/uploads/2020/09/Literature-Review-on-Prosecutor-Led-Diversion.pdf>.
- Seroczynski, A., Evans, W., Jobst, A., Horvath, L., & Carozza, G. (2016). Reading for Life and adolescent re-arrest: Evaluating a unique juvenile diversion program. *Journal of Policy Analysis and Management*, 35, 662-682. Available at <https://doi.org/10.1002/pam.21916>.
- Severson, M. and Matejkowski, J. (2016). Review of the literature on jail diversion programs and summary recommendations for the establishment of a mental health court and crisis

center within Douglas County, Kansas. Working paper, University of Kansas, School of Social Welfare.

U.S. Department of Justice. (2020). Drug Courts. Available at <https://www.ojp.gov/pdffiles1/nij/238527.pdf>.

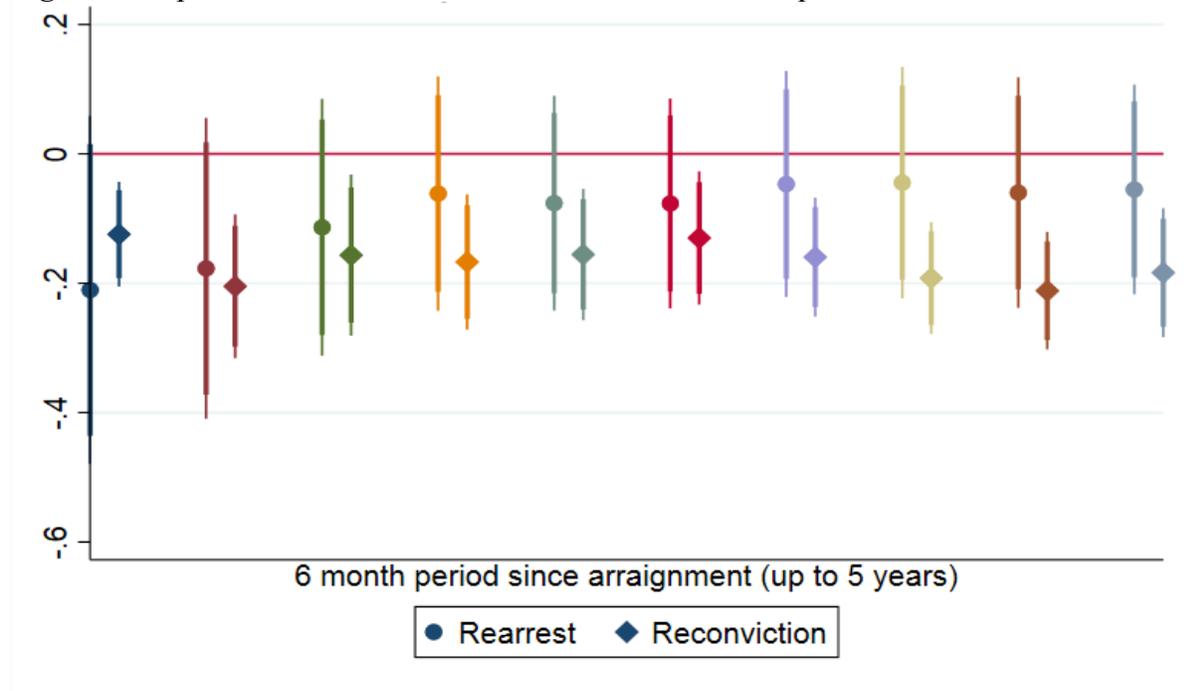
TABLES AND FIGURES

Figure 1. Impact of Diversion Referral on Cumulative Subsequent Outcomes



Notes. Cohort that can be followed for two years post-arraignment. Lines denote 95 percent (thick) and 90 percent (thin) confidence intervals.

Figure 2. Impact of Diversion Referral on Cumulative Subsequent Outcomes



Notes. Cohort that can be followed for five years post-arraignment. Lines denote 95 percent (thick) and 90 percent (thin) confidence intervals.

Table 1. Average Personal and Case Characteristics of Individuals Not Diverted and Individuals Diverted to a Collaborative Court Program

	Not Diverted	Diverted	Difference in means
Demographics			
Black	0.43	0.40	0.03 ^a
Latinx	0.17	0.15	0.02 ^a
API	0.08	0.07	0.01
Male	0.84	0.81	0.03 ^a
Age at Arrest	34.73	35.88	-1.15 ^a
Out of state	0.02	0.02	0.00
Most serious felony arrest charge			
Drug Possession	0.14	0.24	-0.10 ^a
Drug Sales	0.21	0.25	-0.04 ^a
Other	0.10	0.03	0.07 ^a
Person	0.31	0.24	0.06 ^a
Property	0.25	0.24	0.01
Criminal History			
Match to DOJ data	0.89	0.90	-0.01
Prior arrests	12.55	15.31	-2.76 ^a
Prior convictions	3.52	3.59	-0.07
Prior prison term	0.23	0.20	0.03 ^a
Prior probation	0.69	0.65	0.03 ^a
Prior jail sentence	0.69	0.65	0.04 ^a
Prior felony arrests	0.85	0.86	-0.01
Prior felony convictions	0.51	0.49	0.02 ^a
Diversion program referrals			
Behavioral Health Court	-	0.27	
Drug Court	-	0.61	
Misdemeanor Behavioral Health Court	-	0.01	
Veterans' Justice Court	-	0.04	
Young Adult Court	-	0.08	
N	14,230	2,730	-

a. Difference statistically significant at the one percent level of confidence.

Table 2. Average Case and Rearrest Outcomes for Defendants Who are Not Diverted and Individuals Diverted to a Collaborative Court Program

	Not Diverted	Diverted	Difference in means
Case Outcomes			
Convicted	0.66	0.37	0.29 ^a
Case dismissed	0.19	0.23	-0.04 ^a
Time to disposition	232.85	437.51	-204.65 ^a
Positive Outcome	0.24	0.42	-0.19 ^a
Disposition missing	0.06	0.07	-0.01
Post-Arrest Arrest Outcomes^b			
Within 6 months	0.37	0.40	-0.03 ^a
6 to 12 months	0.50	0.56	-0.06 ^a
12 to 18 months	0.57	0.63	-0.06 ^a
18 to 24 months	0.61	0.68	-0.07 ^a
N	14,230	2,730	-

a. Difference statistically significant at the one percent level of confidence.

b. Sample used to tabulate rearrest outcome change with period to accommodate difference in observable post-arrest observation length.

Table 3. Linear Probability Model Estimates of the First-Stage Regression Modeling the Likelihood of a Diversion Referral

	No Covariates	Inclusive of Covariates
Judge propensity to divert	0.912 ^a (0.032)	0.981 ^a (0.062)
N	16,958	16,958

Notes. Robust standard errors clustered by judge are in parentheses. The judge propensity measure is the case-specific leave out mean outlined in equation (1). The model inclusive of covariates includes year fixed effects as well as controls for demographic variables, case characteristics, and criminal history variables listed in Table 1.

a. Coefficient is statistically significant at the one percent level of confidence.

Table 4. Comparison of Average Covariate Values for Cases with Below Median and Above Median Values of the Leave-Out-Mean Estimate of the Judge Propensity to Refer to Diversion

	Below Median	Above Median	Difference in means
<i>Demographics</i>			
Black	0.62	0.62	0.00
Latinx	0.09	0.09	0.00
API	0.02	0.02	0.00
Male	0.79	0.79	0.00
Age at Arrest	34.22	34.38	0.16
Out of state	0.00	0.00	0.00
<i>Most serious felony arrest charge</i>			
Drug Possession	0.14	0.13	-0.01
Drug Sales	0.50	0.49	-0.01
Other	0.04	0.03	-0.01
Person	0.25	0.26	0.01
Property	0.08	0.09	0.01
<i>Criminal History</i>			
Match to DOJ data	0.92	0.91	-0.01 ^a
Prior arrests	17.66	18.12	0.45
Prior convictions	4.13	4.16	0.03
Prior prison term	0.29	0.30	0.01
Prior probation	0.81	0.81	0.00
Prior jail sentence	0.80	0.79	-0.01
Prior felony arrests	0.91	0.89	-0.02 ^a
Prior felony convictions	0.70	0.70	0.00
Proportion Referred for Diversion	0.13	0.20	0.07 ^a
N	9,459	7,501	-

Notes. Robust standard errors clustered by judge for all estimates with the exception of the proportion of cases referred for diversion, which is a simple difference in means.

a. Difference statistically significant at the one percent level of confidence.

Table 5. Regressions Models of the Leave-Out-Mean Estimate of the Judge Propensity to Refer to Diversion on Year Fixed Effects and the Full Demographic/Case Characteristics/Criminal History Covariate Vector

	Year Effects Only	Year Effects and Full Covariates	
Black	-	-0.0018	(0.0013)
Latinx	-	0.0001	(0.0014)
Other	-	0.0003	(0.0029)
API	-	-0.0019	(0.0024)
Race Missing	-	-0.0141	(0.0106)
Age	-	-0.0001	(0.0003)
Age ²	-	0.0000	(0.0000)
Out of State	-	-0.0098 ^c	(0.0049)
Male	-	-0.0002	(0.0013)
<i>Most Serious Arrest Charge</i>			
Drug Sales	-	0.0021	(0.0023)
Other	-	0.0005	(0.0069)
Person	-	0.0127 ^c	(0.0073)
Property	-	0.0067 ^c	(0.0038)
<i>Criminal History</i>			
Prior arrests	-	0.0000	(0.0000)
Prior convictions	-	-0.0002	(0.0002)
Prior prison term	-	0.0031	(0.0019)
Prior probation	-	-0.0015	(0.0035)
Prior jail sentence	-	-0.0010	(0.0034)
Prior felony arrests	-	-0.0022	(0.0017)
Prior felony convictions	-	0.0029 ^c	(0.0015)
# of open arrests	-	0.0000	(0.0001)
F-test	1.659	1.809	
P-Value	0.126	0.032	
N	16,958	16,958	

Notes. Standard errors in parentheses are tabulated accounting for clustering by judge.

c. Coefficient statistically significant at the 10 percent level of confidence.

Table 6. OLS and 2SLS Estimates of the Effect of Diversion of Case Disposition Outcomes

Outcome	Mean	OLS		2SLS	
		Bivariate estimates	Multivariate estimates	Bivariate estimates	Multivariate estimates
Convicted	0.612	-0.289 ^a (0.0229)	-0.239 ^a (0.0202)	0.0846 (0.155)	-0.0878 (0.143)
Case Dismissed	0.195	0.0397 ^b (0.0159)	0.00716 (0.0143)	-0.177 (0.127)	-0.0958 (0.0791)
Time to disposition	265.6	204.7 ^a (13.27)	208.8 ^a (13.95)	288.5 ^a (114.0)	325.5 ^a (68.26)
Positive outcome	0.265	0.189 ^a (0.0164)	0.146 ^a (0.0151)	-0.0879 (0.0998)	0.0316 (0.0751)
N	15,857	15,857	15,857	15,855	15,855

Notes. Standard errors are presented in parentheses. The standard errors in the 2SLS models are clustered by judge. The variables listed along the stub of the table provide the dependent variables. The reported coefficients present estimates of the effect of being referred for diversion on the outcome listed in the stub. The OLS models simply regress the outcome on the referral dummy with and without covariates. The 2SLS models employ the leave-out-mean variable as the identifying instrument in the first stage. Again, we present estimates of models with and without additional covariates. The multivariate models (both for OLS and 2SLS) use all of the variables listed in Table 1 as control variables. The sample is restricted to the 94 percent of cases for which a disposition is recorded.

a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence.

Table 7. OLS and 2SLS Estimates of the Effect of Diversion of Rearrest and Reconviction Outcomes: Restricted to Sample for Which We Observe Two Years of Post-Arrest Outcomes

Outcome	Mean	OLS		2SLS	
		Bivariate estimates	Multivariate estimates	Bivariate estimates	Multivariate estimates
<i>New arrest</i>					
Year 1	0.503	0.0595 ^a (0.0132)	0.0523 ^a (0.0111)	-0.150 (0.138)	-0.0651 (0.105)
Year 2	0.618	0.0735 ^a (0.0138)	0.0738 ^a (0.0123)	0.0193 (0.125)	0.0478 (0.0803)
<i>New felony Arrest</i>					
Year 1	0.337	0.0687 ^a (0.0101)	0.0615 ^a (0.00894)	-0.0755 (0.0968)	-0.0977 (0.0716)
Year 2	0.412	0.0813 ^a (0.0113)	0.0789 ^a (0.0110)	0.0715 (0.0955)	-0.0143 (0.0667)
<i>New Conviction</i>					
Year 1	0.196	-0.0351 ^a (0.00611)	-0.0428 ^a (0.00570)	-0.189 ^a (0.0725)	-0.128 ^a (0.0501)
Year 2	0.300	-0.0256 ^a (0.00868)	-0.0322 ^a (0.00801)	-0.119 (0.0850)	-0.0976 ^b (0.0515)
N	15,428	15,428	15,428	15,428	15,428

Notes. Standard errors are presented in parentheses. The standard errors in the 2SLS models are clustered by judge. The variables listed along the stub of the table provide the dependent variables. The reported coefficients present estimates of the effect of being referred for diversion on the outcome listed in the stub. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). The OLS models simply regress the outcome on the referral dummy with and without covariates. The 2SLS models employ the leave-out-mean variable as the identifying instrument in the first stage. Again, we present estimates of models with and without additional covariates. The multivariate models (both for OLS and 2SLS) use all of the variables listed in Table 1 as control variables.

a. Statistically significant at the five percent level of confidence.

b. Statistically significant at the ten percent level of confidence.

Table 8. 2SLS Estimates of Diversion on Case Outcomes, Future Arrest, Future Felony Arrest, and Future Convictions by Original Offense Category

	Drug Possession	Drug Sales	Other	Person	Property
<i>Case outcomes</i>					
Convicted	0.151 (0.221)	-0.448 ^c (0.231)	1.569 (1.007)	-0.234 ^b (0.0986)	-0.0657 (0.222)
Case Dismissed	0.0311 (0.150)	0.481 ^b (0.167)	-1.019 (0.745)	-0.263 ^b (0.0513)	-0.157 (0.139)
Time to disposition	470.4 ^b (132.3)	419.8 ^b (177.8)	927.5 ^b (454.4)	273.9 ^b (97.01)	219.2 ^b (71.99)
Positive outcome	0.0294 (0.163)	0.531 ^b (0.176)	-0.871 (0.674)	-0.0493 (0.0540)	-0.0746 (0.124)
N	2,467	3,478	1,354	4,659	3,897
<i>New arrest</i>					
Year 1	-0.103 (0.161)	-0.288 ^b (0.125)	0.310 (0.396)	0.052 (0.133)	-0.117 (0.144)
Year 2	0.023 (0.162)	-0.0952 (0.103)	0.0414 (0.385)	0.192 ^b (0.0884)	-0.0379 (0.128)
<i>New felony arrest</i>					
Year 1	-0.126 (0.146)	-0.243 ^c (0.125)	-0.0768 (0.477)	-0.0302 (0.109)	-0.0874 (0.0982)
Year 2	-0.00671 (0.173)	-0.127 (0.120)	0.0152 (0.495)	0.0863 (0.0823)	-0.0754 (0.132)
<i>New Conviction</i>					
Year 1	-0.107 (0.075)	-0.175 ^b (0.0085)	0.414 (0.289)	-0.199 ^b (0.0557)	-0.101 (0.083)
Year 2	0.000441 (0.0814)	-0.199 ^b (0.0697)	0.482 (0.300)	-0.191 ^b (0.0767)	0.0214 (0.0911)
N	2,531	3,584	1,243	4,444	3,626

Notes. Robust standard errors in parentheses. The reported coefficients present 2SLS estimates of the effect of being referred for diversion on the outcome listed in the stub for the subgroup listed across the top of the table. Subsequent contact outcome estimates are restricted to the sample for which we observe two years of data following case arraignment. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). Models include all of the variables listed in Table 1 as control variables.

a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence.

Table 9. 2SLS Estimates of Diversion on Case Outcomes, Future Arrest, Future Felony Arrest, and Future Convictions by Race/Ethnicity

	Asian	Black	Latinx	White
<i>Case outcomes</i>				
Convicted	0.0150 (0.222)	-0.128 (0.191)	-0.324 ^b (0.125)	0.0327 (0.137)
Case Dismissed	-0.0997 (0.222)	-0.0290 (0.101)	-0.0213 (0.109)	-0.202 ^b (0.0793)
Time to disposition	207.0 (201.8)	307.9 ^b (119.0)	520.5 ^b (120.5)	291.3 ^b (59.43)
Positive outcome	0.0477 (0.244)	0.0771 (0.123)	0.0404 (0.107)	-0.0247 (0.0835)
N	1,179	6,844	2,554	4,899
<i>New arrest</i>				
Year 1	-0.113 (0.216)	-0.0456 (0.179)	-0.0274 (0.197)	-0.146 (0.120)
Year 2	-0.120 (0.199)	0.0896 (0.0978)	0.0579 (0.188)	-0.0112 (0.114)
<i>New felony arrest</i>				
Year 1	-0.0316 (0.205)	-0.0759 (0.138)	-0.199 (0.126)	-0.140 (0.0930)
Year 2	-0.144 (0.200)	0.0380 (0.106)	-0.142 (0.138)	-0.0347 (0.0962)
<i>New Conviction</i>				
Year 1	0.357 ^b (0.162)	-0.122 (0.123)	-0.211 ^b (0.0881)	-0.194 ^b (0.0925)
Year 2	0.221 (0.192)	-0.101 (0.118)	-0.331 ^b (0.104)	-0.0661 (0.0815)
N	1,141	6,668	2,457	4,779

Notes. Robust standard errors in parentheses. The reported coefficients present 2SLS estimates of the effect of being referred for diversion on the outcome listed in the stub for the subgroup listed across the top of the table. Subsequent contact outcome estimates are restricted to the sample for which we observe two years of data following case arraignment. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). See Tables 6 and 7 for outcome means. Models include all of the variables listed in Table 1 as control variables.

a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence.

Table 10. 2SLS Estimates of Diversion on Case Outcomes, Future Arrest, Future Felony Arrest, and Future Convictions by Gender and Broad Age Group

	Women	Men	Transitional Age Youth (TAY)	Non-TAY
<i>Case outcomes</i>				
Convicted	-0.208 (0.200)	-0.0616 (0.141)	-0.174 (0.124)	-0.0535 (0.162)
Case Dismissed	0.0823 (0.205)	-0.134 ^c (0.0730)	-0.0951 (0.111)	-0.102 (0.0842)
Time to disposition	291.6 ^b (126.4)	347.6 ^b (65.71)	267.4 (168.7)	343.3 ^b (54.70)
Positive outcome	0.246 (0.162)	-0.0142 (0.0780)	0.141 (0.0967)	-0.00956 (0.0882)
N	2,667	13,188	4,510	11,345
<i>New arrest</i>				
Year 1	-0.382 ^b (0.166)	0.0039 (0.106)	-0.112 (0.130)	-0.052 (0.107)
Year 2	-0.340 ^c (0.174)	0.133 ^c (0.0777)	0.213 (0.135)	-0.002 (0.0777)
<i>New felony arrest</i>				
Year 1	-0.299 ^c (0.155)	-0.0543 (0.0686)	-0.336 ^b (0.131)	-0.033 (0.0751)
Year 2	-0.292 ^c (0.150)	0.0468 (0.0669)	-0.234 ^c (0.121)	0.0445 (0.0732)
<i>New Conviction</i>				
Year 1	-0.234 ^b (0.0963)	-0.105 ^c (0.0561)	-0.111 (0.0883)	-0.130 ^b (0.0475)
Year 2	-0.393 ^b (0.137)	-0.0319 (0.0679)	-0.0386 (0.112)	-0.113 ^b (0.0431)
N	2,612	12,816	4,292	11,136

Notes. Robust standard errors in parentheses. The reported coefficients present 2SLS estimates of the effect of being referred for diversion on the outcome listed in the stub for the subgroup listed across the top of the table. Subsequent contact outcome estimates are restricted to the sample for which we observe two years of data following case arraignment. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). See Tables 6 and 7 for outcome means. Models include all of the variables listed in Table 1 as control variables.

a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence.

Table 11. Diversion Program Referrals by Demographic Group

	Full sample	Women	Men	TAY	Non- TAY
Behavioral Health Court	0.27	0.27	0.27	0.17	0.30
Drug Court	0.60	0.64	0.60	0.52	0.64
Misdemeanor Behavioral Health Court	0.01	-	0.01	-	0.01
Veterans' Justice Court	0.04	-	0.05	-	0.05
Young Adult Court	0.08	0.07	0.08	0.28	-
N	2,730	530	2,200	724	2,006

Table 12. 2SLS Estimates of Diversion on Case Outcomes, Future Arrest, Future Felony Arrest, and Future Convictions by felony criminal history

	Prior felony convictions	No prior felony convictions
<i>Case outcomes</i>		
Convicted	-0.204 (0.181)	0.0222 (0.121)
Case Dismissed	0.0212 (0.0791)	-0.217 ^b (0.0969)
Time to disposition	310.6 ^b (74.36)	317.5 ^b (102.3)
Positive outcome	0.106 (0.0967)	-0.0370 (0.0825)
N	8,170	7,685
<i>New arrest</i>		
Year 1	-0.0584 (0.141)	-0.0977 (0.0814)
Year 2	0.0743 (0.0930)	-0.00268 (0.0998)
<i>New felony arrest</i>		
Year 1	-0.0632 (0.0998)	-0.146 ^b (0.0716)
Year 2	0.0498 (0.0988)	-0.0942 (0.0670)
<i>New Conviction</i>		
Year 1	-0.196 ^b (0.0575)	-0.0714 (0.0556)
Year 2	-0.176 ^b (0.0643)	-0.0214 (0.0548)
N	8,101	7,327

Notes. Robust standard errors in parentheses. The reported coefficients present 2SLS estimates of the effect of being referred for diversion on the outcome listed in the stub for the subgroup listed across the top of the table. Subsequent contact outcome estimates are restricted to the sample for which we observe two years of data following case arraignment. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). See Tables 6 and 7 for outcome means. Models include all of the variables listed in Table 1 as control variables.

a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence

APPENDIX A

Table A-1 details the keywords used to identify diversion to a felony Collaborative Court – Behavioral Health Court (BHC), Drug Court (DC), Veterans’ Justice Court (VJC), and Young Adult Court (YAC) – in the court event data. The “Step” column identifies which stage of the diversion process is identified; “Court” identifies which Collaborative Court the reference pertains to (“Generic” denotes a reference to a diversion program where specific program is undetectable); and “Keyword String” denotes the specific string searched for in the regular expression analysis.

Table A-1. Keywords Used to Identify Diverted Cases in San Francisco’s Court Event Data

Step	Court	Keyword String
Appearance	BHC	Behavior Court Report
Appearance	BHC	TRANS to DEPT 15
Appearance	DC	To Join Drug Diversion Eligibility
Appearance	DC	Drug Court-Track II
Appearance	DC	Drug Court
Appearance	VJC	Matter is in Veteran's CT in CJC
Appearance	VJC	VJC Progress Report
Appearance	VJC	Review VJC Plan
Appearance	VJC	Veterans Court
Appearance	VJC	VJC PROGRESS REP
Appearance	YAC	Young Adult Court Progress
Assessment	BHC	Found not eligible for BHC
Assessment	BHC	4011,6 Report for BHC
Assessment	BHC	4011,6 for BHC purposes
Assessment	BHC	BHC Suitability
Assessment	DC	Drug Ct Elig + Contd: Drug Court for In-Custody Assessment
Assessment	DC	Defendant is found eligible for Drug Court
Assessment	DC	Drug Court Assessment
Assessment	DC	Drug Court Assessment Report
Assessment	DC	Drug Court Suitability
Assessment	DC	Drug Court Eligibility
Assessment	DC	Ref to Drug Court
Assessment	DC	Drug Court for in-custody assessment
Assessment	VJC	found suitable for VJC
Assessment	VJC	CJC for Veteran's Court Ref
Assessment	VJC	VJC Assessment
Assessment	VJC	Veterans Court Assessment
Assessment	VJC	CJC (VJC) Assessment
Assessment	YAC	Declines to participate in young adult court
Assessment	YAC	The Defendant is Referred to Young Adult Court
Assessment	YAC	Youth Adult Assessment
Assessment	YAC	Youth Adult Court Assessment

Assessment	YAC	Young Adult Court Eligibility
Assessment	YAC	Assessed for Young Adult Court Suitability
Assessment	YAC	YAC Suitability
Assessment	YAC	Assessed for Youth Adult Court Suitability
Assessment	YAC	YAC assmt
Assessment	YAC	YAC Eligibility
Bench warrant	Generic	Bench Warrant
Bench warrant	Generic	Bench Warrant Date Issued
Bench warrant	Generic	FTA/BWI
Bench warrant	Generic	FTA/OREVKD/BWI
Bench warrant	Generic	Bench warrants issued this date
Court term	DC	Defendant is found not suitable for drug court and terminated from the program
Court term	DC	Defendant is terminated with prejudice from drug court
Court term	DC	court termination drug court
Court term	DC	TERMINATE DRUG COURT
Court term	DC	drug court termination
Court term	DC	defendant is not suitable for drug court
Court term	DC	Defendant is terminated from Drug Court
Court term	Generic	FTA/OREVKD/BWI
Court term	Generic	Probation in #[0-9]{7,8} is hereby terminated as unsuccessful
Court term	VJC	VJC DEJ PRG RPT/DEF: Terminated from Program 13013663
Court term	YAC	Defendant Terminated from Youth Adult Court
Court term	YAC	DEFENDANT IS NOT ELIGIBLE FOR YOUNG ADULT COURT
Court term	YAC	No longer eligible for young adult court
MTR	Generic	MTR filing
Other term	Generic	DEFT DECEASED
Other term	Generic	DEFENDANT IS DECEASED
Other term	BHC	status of conservatorship
Referral	BHC	BHC Referral
Referral	BHC	BHC Referral
Referral	BHC	Referred to BHC
Referral	BHC	Behavior Court Referral
Referral	DC	Drug Diversion Eligibility Report
Referral	DC	Drug Div Elig
Referral	DC	Drug Court Elig
Referral	DC	Defendant did not enter drug court
Referral	DC	Drug Court Eligibility
Referral	DC	Drug Court Referral
Referral	DC	Drug Court- Referral
Referral	DC	Drug Ct Referral
Referral	DC	Drug Court Ref
Referral	DC	Referred to Drug Court
Referral	Generic	REFRD TO DIVERSN

Referral	VJC	VJC Eligibility
Referral	VJC	Unsuitable for both CJC & VJC
Referral	VJC	VJC Suitability
Referral	VJC	Veteran's Court Eligibility
Referral	VJC	VJC Referral
Referral	VJC	Veterans Court Referral
Referral	VJC	Veterans Court Refer
Referral	VJC	Veteran Court Referral
Referral	VJC	Referral - Veteran's Court
Referral	VJC	Veteran's Court Referral
Referral	VJC	VETERAN'S COURT REFERRAL
Referral	YAC	YAC Eligibility
Referral	YAC	Status of Transitional Aged Youth Court
Referral	YAC	Youth Court Referral
Referral	YAC	Not Accepted in Youth Adult Court
Referral	YAC	Young Adult Court Refer
Referral	YAC	Referred to YAC
Referral	YAC	YAC Referral
Referral	YAC	Youth Adult Court Referral
Referral	YAC	Young Adult Court Referral
Referral	YAC	Referred to Young Adult Court
Self term	DC	Defendant self-terminated from Drug Court
Self term	DC	def self-term drug court
Self term	DC	defendant self-terminates drug court
Self term	DC	defendant admitted failure to complete the drug court program
Self term	VJC	Defendant requests termination from VJC
Successful completion	DC	1000,5
Successful completion	BHC	Defendant has successfully completed the behavioral health court
Successful completion	BHC	Defendant has completed the Behavior Court Program
Successful completion	BHC	1001,7
Successful completion	BHC	DEF:COMPLETED BHC PROGRAM
Successful completion	BHC	Behavior Court Graduation
Successful completion	BHC	Behavior court program has been completed successfully
Successful completion	DC	Defendant will graduate today
Successful completion	DC	Case will be dismissed re penal code 1000,5PC
Successful completion	DC	[GRADUATION]: Hearing Description: [Drug Ct- Track II Prog Rpt]
Successful completion	DC	Has successfully completed all terms and conditions of Drug Court
Successful completion	DC	GRADUATION CEREMONY HELD TODAY
Successful completion	DC	DRUG COURT GRADUATION
Successful completion	Generic	17(B)/MO GRTD
Successful completion	Generic	17B is granted
Successful completion	Generic	PC 17(B) MOTION/MO GRTD
Successful completion	Generic	RECORDS ORDERED SEALED PURSUANT TO PC 851,90

Successful completion	Generic	DEF HAS SUCCESFULLY COMPLETED A DIVERSION PROGRAM
Successful completion	Generic	851,90 is filed,/mo grtd
Successful completion	Generic	1203,4 MOTION/NP/MO GRTD
Successful completion	Generic	PC 1203,4 (A) PETITION IS GRANTED
Successful completion	Generic	grants motion pursuant to pc 1203,4
Successful completion	Generic	1203,4 petition/mo grtd
Successful completion	Generic	grants defendant's motion pursuant to PC 1203,4
Successful completion	Generic	COURT GRANTS BOTH THE 1203,4 AND 17(B) MOTIONS
Successful completion	Generic	COURT GRANTS PC 1203,4 MOTION FOR DISMISSAL
Successful completion	Generic	DIVERSION HAS BEEN SUCCESSFULLY COMPLETED
Successful completion	Generic	CASE DISMISSED
Successful completion	Generic	DEFENDANT IS DISCHARGED
Successful completion	Generic	GRANTS MOTION PURSUANT TO PC 1203,4
Successful completion	Generic	DEFENDANT REMAINS ON SUPERVISED PROBATION
Successful completion	Generic	DEFENDANT REMAINS ON COURT PROBATION
Successful completion	Generic	THE DEFENDANT WILL CONTINUE ON COURT PROBATION
Successful completion	Generic	DFT REMAINS ON SUPERVISED PROBATION
Successful completion	Generic	DEFT REMAINS ON SUPERVISED PROBATION
Successful completion	Generic	Probation in #[0-9]{7,8} is hereby terminated as successful
Successful completion	VJC	MO PC 1385: Successful completion of VJC
Successful completion	VJC	Successful VJC completion
Successful completion	VJC	Successful completion of terms of veterans justice court
Successful completion	VJC	Successfully completed all terms and conditions of veteran's court
Successful completion	YAC	Successfully completed all terms and conditions of young adult court
Successful completion	YAC	Graduated and successfully completed the young adult program

APPENDIX B

Table B-1 presents the results of a placebo test, in which we limit the sample only to those observations we drop from analysis sample due to ineligibility for diversion programs, or other reasons, and test whether the judge leave-out propensity to refer to diversion is correlated with any of the measured outcomes. Each row presents a separate model, inclusive of demographic, charge, and criminal history controls (see Table 1 for full list). The judge propensity to divert is not associated with any of the outcome measures for the omitted sample.

Table B-1. Associations Between Judge Propensity to Divert and Outcome Measures Among Cases Omitted from Analysis Sample

Outcome	Judge propensity to divert	N
Convicted	0.158 (0.103)	4542
Case dismissed	-0.0158 (0.0376)	4542
Time to disposition	77.75 (51.58)	4542
Positive outcome	-0.0622 (0.0598)	4542
New arrest (1 year)	0.0315 (0.101)	3432
New arrest (2 years)	-0.0467 (0.110)	3172
New felony arrest (1 year)	0.0259 (0.0762)	3432
New felony arrest (2 years)	-0.0444 (0.0842)	3172
New conviction (1 year)	0.0170 (0.0413)	3432
New conviction (2 years)	-0.0328 (0.0664)	3172

Notes. Robust standard errors in parentheses. Subsequent contact outcome estimates are restricted to the sample for which we observe two years of data following case arraignment. Dependent variables are cumulative (Year 2 reports on any outcome in the two years, not just in the second year). Models include all of the variables listed in Table 1 as control variables.

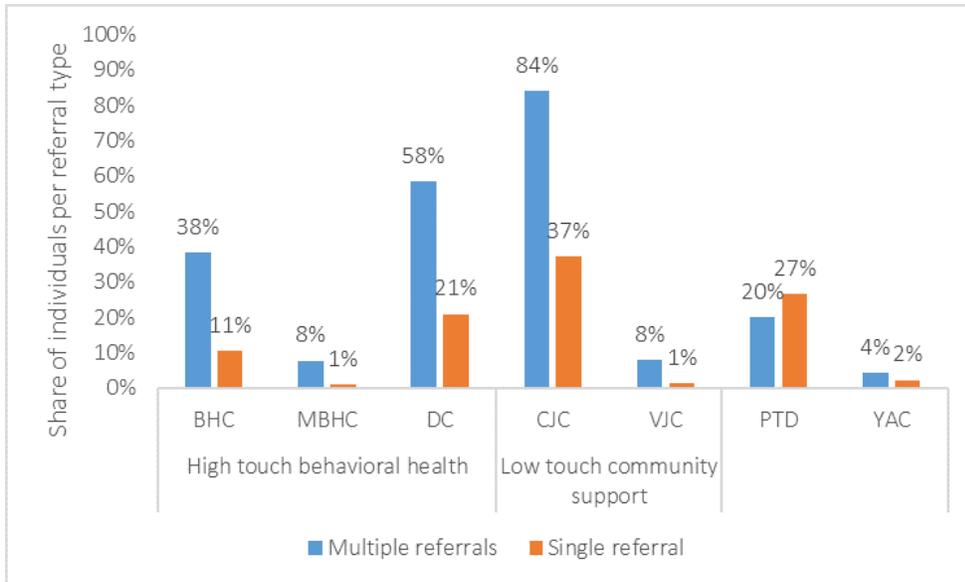
a. Statistically significant at the one percent level of confidence.

b. Statistically significant at the five percent level of confidence.

c. Statistically significant at the ten percent level of confidence.

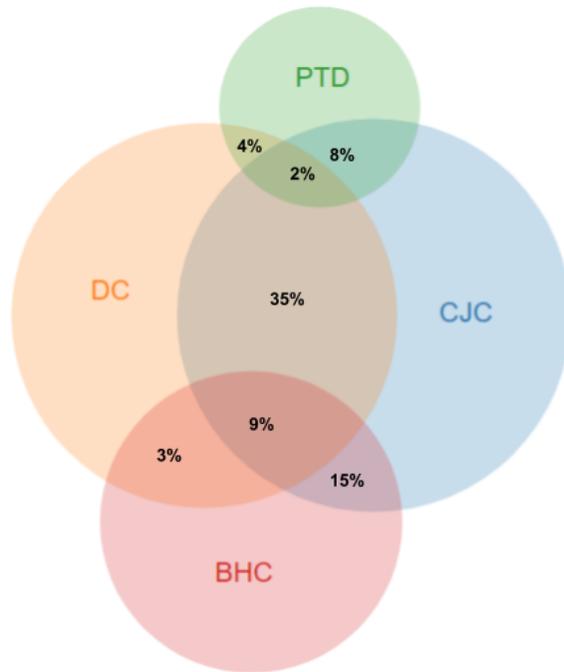
APPENDIX C

Figure C-1. Share of Individuals Referred to Diversion Programs, by Multiple or Single Referral Status



Notes. The figure presents the share of individuals referred to multiple programs, who are referred to each program (the blue bars, which are not mutually exclusive and therefore add up to more than 100 percent), and the share of individuals who received only one referral referred to each program (the orange bars, which sum to 100 percent).

Figure C-2. Most Common Referral Combinations Among Those Referred to Multiple Programs



Notes. Clients who are referred to multiple programs are most often referred to both the Community Justice Center and Drug Court (one-third of all those referred to multiple programs). The second most common combination of referrals is to the Behavioral Health Court and Community Justice Center (15 percent of individuals referred to multiple programs). Nine percent of clients who receive multiple referrals are referred to the Behavioral Health Court, Community Justice Center, and Drug Court.