

Understanding & Improving Court Appearance Rates

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TECHNICAL APPENDIX

Background

The San Francisco Pretrial Diversion Project (SF Pretrial) is a nonprofit organization that has been providing supervised pretrial release services for over 45 years to 1) support clients charged with a crime to appear for court, 2) connect them with appropriate treatment programs, and 3) contribute to the safety of its community. For those released to pretrial supervision in San Francisco, SF Pretrial provides three levels of supervision: Own Recognizance-No Active Supervision (OR-NAS), Own Recognizance-Minimum Supervision (OR-MS), and Assertive Case Management (ACM). ACM is reserved for higher needs clients who may be at greater risk of failure to appear or rearrest. ACM clients meet regularly with case managers who remind clients about court hearings and oversee structured case management services, which includes the development of treatment plans and referrals for issues related to education, employment, substance use, mental health, and housing. SF Pretrial clients receive automated text message reminders of court hearings and ACM staff visit clients in the community when they do not have contact information. SF Pretrial does not administer drug testing or electronic monitoring for individuals released to their supervision.

This study utilized a mixed-methods approach to explore trends and factors associated with failure to appear outcomes among SF Pretrial clients released to ACM on supervised pretrial release. A mixed-methods approach enabled the triangulation of findings across quantitative and qualitative data. Quantitative data analysis was used to identify which factors were most strongly associated with failing to appear, and qualitative data helped provide context and nuance regarding why these factors serve as barriers to appearing in court.

Data and Methods

Quantitative Data & Analysis

The quantitative dataset included data for 4,249 unique ACM cases, including active, inactive, and closed cases that were referred to SF Pretrial between May 2016 and April 2020. This study focused on closed cases that had at least one court hearing. The final sample was comprised of 3,699 unique cases.

The dataset included individual-level variables related to client demographic characteristics (e.g., gender, age, and race/ethnicity), stability and needs (e.g., housing, employment, and medical status), crime characteristics (e.g., charge and severity), criminal history (e.g., prior convictions), and prior failures to appear. A number of these variables are from the Public Safety Assessment (PSA), which San Francisco adopted in March 2015. The dataset also included programmatic variables such as dates of arrest, referral, and termination, as well as program termination status, case management requirements, and a record of court hearings and their outcomes.¹

To conduct this analysis, RDA ran a logistic regression to predict the likelihood of two failure to appear outcomes: whether an individual missed one or more court hearings during their pretrial supervision period and whether the individual was terminated from pretrial supervision due to a missed court appearance (see Data Definitions section for more detail on how these outcomes are defined). In order to measure the likelihood of missing one or more court hearings during the duration of a case, we converted court hearing data into a dichotomous variable to identify whether an individual ever missed

¹ Court hearing and program termination status data were available through November 2020.

court hearing. An existing variable (program termination status) indicated whether a client was terminated from pretrial supervision due to missed court appearance.²

Descriptive characteristics of the study population (presented in Table 2) demonstrate how each variable was operationalized.

Data Definitions

Failure to appear outcomes. The study defined failure to appear in two ways: (1) whether an individual ever missed a court hearing and (2) whether an individual was terminated from pretrial supervision due to a missed court appearance. Bench warrants were issued in all cases when an individual was terminated from pretrial supervision due to a missed court appearance. However, not all bench warrants necessarily result in the termination of pretrial supervision. If a judge issues a warrant for a missed court appearance, individuals may go to the court to reschedule their court hearing and put themselves back on the calendar in order to recall the warrant.³ In these cases—as well as when a bench warrant was stayed⁴—the individual missed a court hearing but did not end pretrial supervision due to the missed court appearance.

Client stability characteristics. Two stability characteristics were transformed into dichotomous variables to be included in the analysis: housing and medical needs.

- **Unstable and Transitional/Stable Housing:** An individual was considered to have unstable housing when they reported living in a shelter, detox facility, car, streets, camping, or couch surfing. An individual was considered in stable or transitional housing when they reported living in a stable housing, a single room occupancy (SRO), residential treatment, or other transitional housing.⁵
- **High and Low Medical Needs:** SF Pretrial administers a medical triage assessment to assess clients' medical needs. This assessment includes questions regarding clients' health insurance, access to healthcare, and medical conditions. An individual was considered to have high medical needs when they scored between 0 and 4 on their medical triage assessment. An individual was considered to have low medical needs when they scored between 5 and 7 on the medical triage assessment.

Qualitative Data

Qualitative data was collected through focus groups and in-depth interviews with SF Pretrial staff, supervised release clients, and representatives from San Francisco justice agencies. Focus group and interview guides as well as outreach strategies were approved by an Institutional Review Board (IRB) in March 2020. ACM client recruitment started in November 2020, and focus groups and interviews were facilitated in December 2020. Focus groups and interviews were conducted in both English and Spanish. The research team conducted focus groups virtually (via Zoom) and offered times during the day and evening to maximize participation. Participants who preferred to participate in individual interviews

² Other termination statuses included terminated compliant (for individuals who successfully completed pretrial supervision) and terminated noncompliant (for individuals who were unsuccessful, generally due to rearrest).

³ SF Pretrial staff notify clients of the warrant and provide instructions on how to put themselves back on the court calendar.

⁴ Judges may choose to stay the bench warrant in order to provide clients an additional opportunity to attend court.

⁵ The majority of ACM clients reported either (1) living in stable housing (48%) or (2) living in their car, on the street, or couch surfing (38%).

were invited to private phone interviews scheduled in the times/dates proposed by each participant. The research team provided \$50 gift cards as incentives to participating ACM clients.

Table 1 presents a list of the stakeholders who participated in qualitative data collection.

Table 1. Qualitative Data Collection

Group/Stakeholder	Type	Number of participants
ACM clients	Focus Groups (2) and Interviews (4)	13
SF Pretrial case managers and clinicians	Focus Group (1)	7
SF Pretrial court team	Focus Group (1)	9
SF Pretrial leadership	Interviews (2)	2
District Attorney	Interview (1)	1
Public Defender	Interview (1)	1
Sheriff	Interview (1)	1
Court (judge)	Interview (1)	1
Private attorney	Interview (1)	1

Considerations and Limitations

As with any real-world evaluation, there are limitations that are important to consider.

Impacts of COVID-19. Data collection and analysis took place during the COVID-19 pandemic and California's Shelter-in-Place orders. Data collection activities, including interviews and focus groups, that were planned to be in-person shifted to virtual settings. Virtual meetings mitigated some travel and scheduling barriers, but the pandemic also created personal challenges for some individuals that may have impacted their availability to engage in data collection activities. The pandemic also impacted court operations, which were reduced due to the COVID-19 pandemic—leading to a large backlog in cases—and shifted to virtual hearings.

Data availability and quality. Certain variables, such as employment status, mental health, and case management requirements, were excluded from the analysis due to a high proportion of missing values. Variables with up to 11% missing values were included in the model and coded as missing. Other relevant variables that could relate to barriers to attending court (e.g., access to transportation, childcare obligations, etc.) were not collected in a standardized way that facilitated incorporation in the analysis.

Selection bias. SF Pretrial invited ACM clients to participate in qualitative data collection. The individuals interested and able to participate in focus groups and interviews represent a small fraction of ACM clients. It is possible that those who participated in data collection have different characteristics (e.g., more stable, hold more positive impressions of ACM) than those who did not participate. The sample of ACM clients who participated in qualitative data collection were generally representative of the overall ACM population across demographic characteristics. However, there was a slight over-representation of Hispanic individuals and under-representation of Black individuals in the focus group sample.

Causality. Logistic regression findings demonstrate statistically significant associations between variables that are unlikely to be due to random chance, but they do not establish causation.

Descriptive Characteristics of Research Population

Table 2 presents the characteristics of ACM clients who were referred to SF Pretrial between May 2016 and April 2020 with at least one scheduled court hearing. Characteristics are presented for:

- The full sample (n=3,699),
- ACM clients who missed at least one court hearing (n=1,880), and
- ACM clients who were terminated from pretrial supervision due to a missed court appearance (n=1,553).

These are not mutually exclusive groups: all individuals who were terminated from pretrial supervision due to a missed court appearance also, by definition, missed at least one court hearing.

Table 2. Descriptive Characteristics of Research Population

	Total Sample		Missed 1+ Court Hearing		Pretrial Supervision Terminated Due to Missed Court Appearance	
	n=3,699	%	n=1,895	%	n=1,553	%
Sex						
Female	566	15%	316	17%	260	17%
Male	3,133	85%	1,579	83%	1,293	83%
Age						
18-26	893	24%	426	23%	349	22%
27-39	1,458	39%	798	42%	660	42%
40-49	673	18%	359	19%	297	19%
50+	669	18%	308	16%	244	16%
Unknown	6	0%	4	0%	3	0%
Race						
American Indian/Alaskan	13	0%	9	0%	7	0%
Asian or PI	200	5%	101	5%	84	5%
Black	1,541	42%	740	39%	596	38%
Hispanic	776	21%	382	20%	326	21%
White	1,113	30%	640	34%	520	33%
Other/Unknown	56	2%	23	1%	20	1%
Housing						
Stable & Transitional Housing	1,946	53%	832	44%	649	42%
Unstable Housing	1,506	41%	941	50%	799	51%
Unknown	247	7%	122	6%	105	7%
Medical Needs						
Low need	967	26%	453	24%	356	23%
High need	2,531	68%	1,341	71%	1,105	71%
Unknown	201	5%	101	5%	92	6%
Mental Health Flag⁶						
Yes	1,161	31%	637	34%	512	33%

⁶ Mental health flag data is not included in the logistic regression models due to the high proportion of missing values.

	Total Sample		Missed 1+ Court Hearing		Pretrial Supervision Terminated Due to Missed Court Appearance	
	n=3,699	%	n=1,895	%	n=1,553	%
No	2,134	58%	1,018	54%	822	53%
Unknown	404	11%	240	13%	219	14%
Charge						
Felony	2,241	61%	1,124	60%	891	57%
Infraction	166	4%	87	5%	65	4%
Misdemeanor	1,048	28%	572	30%	495	32%
Unknown	244	7%	112	6%	102	7%
Crime⁷						
Drugs	488	13%	248	13%	202	13%
Property	1,216	33%	696	37%	567	37%
Public Order	375	10%	200	11%	176	11%
Violent	1,053	28%	473	25%	373	24%
Weapons	161	4%	71	4%	54	3%
Unknown	406	11%	207	11%	181	12%
Failure to appear within two years						
No	2,232	60%	1,033	55%	807	52%
Yes	1,157	31%	692	37%	602	39%
Unknown	310	8%	170	9%	144	9%
Failure to appear older than two years						
No	1,892	51%	936	49%	757	49%
Yes	1,498	40%	790	42%	653	42%
Unknown	309	8%	169	9%	143	9%
Prior convictions						
No	713	19%	302	16%	240	15%
Yes	2,678	72%	1,424	75%	1,170	75%
Unknown	308	8%	169	9%	143	9%
Pending charges at arrest						
No	2,466	67%	1,250	66%	1,001	64%
Yes	923	25%	475	25%	408	26%
Unknown	310	8%	170	9%	144	9%
Year Case Closed						
2016	266	7%	149	8%	139	9%
2017	596	16%	300	16%	253	16%
2018	1,040	28%	554	29%	473	30%
2019	1,403	38%	702	37%	568	37%
2020	394	11%	190	10%	120	8%

⁷ Because cases can have charges for more than one type of crime, this variable reflects the following hierarchy of charges: violent, weapons, property, drug, and public order.

Logistic Regression Results

Table 3 presents logistic regression results to identify the characteristics 1) associated with missing one or more court hearings or 2) having pretrial supervision terminated due to a missed court appearance.

- Model I predicts the likelihood of missing a court hearing. This model includes all ACM clients who were referred to SF Pretrial between May 2016 and April 2020 and had at least one scheduled court hearing.
- Model II predicts the likelihood of a pretrial supervision being terminated due to a missed court appearance. Model II's sample only includes cases for the same sample of ACM clients who either (1) completed pretrial supervision successfully or (2) were terminated from pretrial supervision due to a missed court appearance. This model does not included cases that were terminated due to re-arrest (n=373).

An odds ratio of one indicates that failure to appear is equally likely to occur when compared to the reference category. An odds ratio greater than one indicates the outcome is more likely to occur and an odds ratio less than one indicates the outcome is less likely to occur. For example, Table 3 demonstrates that the odds of missing court were 1.311 times higher for females than males.

Table 3. Logistic Regression Odds Ratios of Predictors of Failure to Appear

	Model I: Missed 1+ Court Hearing (n=3,699)	Model II: Pretrial Supervision Terminated Due to Missed Court Appearance (n=3,326)
Gender		
Female	1.311** (0.127)	1.159 (0.118)
Male	<i>Reference Category</i>	
Age		
18-26	1.394** (0.166)	1.452** (0.187)
27-39	1.381** (0.139)	1.481*** (0.162)
40-49	1.248 (0.142)	1.288* (0.159)
50+	<i>Reference Category</i>	
Race/ethnicity		
American Indian/Alaskan Native	1.589 (0.980)	1.350 (0.824)
Asian/Pacific Islander	0.901 (0.145)	0.994 (0.171)
Black	0.777** (0.0650)	0.876 (0.0787)
Hispanic or Latino	0.856 (0.089)	1.041 (0.116)
White	<i>Reference Category</i>	
Housing status		
Unstable Housing	2.025*** (0.150)	2.165*** (0.172)
Stable or Transitional Housing	<i>Reference Category</i>	
Medical needs		

High Needs	1.184* (0.095)	1.259** (0.109)
Low Needs	<i>Reference Category</i>	
Charge		
Infraction	1.267 (0.217)	1.049 (0.193)
Misdemeanor	1.077 (0.087)	1.248* (0.108)
Felony	<i>Reference Category</i>	
Crime		
Drug	1.237 (0.146)	1.139 (0.144)
Property	1.421*** (0.129)	1.325** (0.130)
Public Order	1.174 (0.154)	1.418* (0.203)
Weapons	1.001 (0.178)	0.822 (0.159)
Violent Offense	<i>Reference Category</i>	
Failure to appear within two years		
Yes	1.487*** (0.124)	1.801*** (0.161)
No	<i>Reference Category</i>	
Failure to appear older than two years		
Yes	0.986 (0.082)	1.099 (0.099)
No	<i>Reference Category</i>	
Prior convictions		
Yes	1.334** (0.135)	1.265* (0.138)
No	<i>Reference Category</i>	
Pending charges at arrest		
Yes	0.873 (0.077)	1.084 (0.103)
No	<i>Reference Category</i>	
Year case closed		
2016	1.067 (.155)	1.288 (.198)
2017	.830 (.089)	.837 (.096)
2018	<i>Reference Category</i>	
2019	.823* (.071)	.710*** (.067)
2020	.823 (.104)	.434*** (.060)

*** p<0.001 ** p<0.01 * p<0.05

Standard errors in parentheses

Variables with <11% missing data were included in the models. Missing observations were coded as missing and included in the models to preserve cases.

Key Results

As noted in the policy brief, regression results from Model I (missed 1+ court hearing) indicate that:

- Demographic Characteristics
 - Women had higher odds of missing court than men.
 - Younger individuals (18-39 years old) had higher odds of missing court than older individuals (50+ years old).
 - Black individuals had lower odds of missing court than White individuals.
- Offense Type
 - Individuals charged with property offenses had higher odds of missing court than individuals charged with violent offenses.
- Criminal History
 - Individuals with prior convictions had higher odds of missing court than those without prior convictions.
- Past Failure to Appear
 - Individuals who failed to appear in court in the past two years had higher odds of missing court than those who did not fail to appear in court in the past two years.
- Needs
 - Individuals with unstable housing had higher odds of missing court than individuals with stable or transitional housing.
 - Individuals with high medical needs had higher odds of missing court than individuals with low medical needs.

A number of differences arise when comparing Model I (missed 1+ court hearing) to Model II (Pretrial Supervision Terminated Due to Missed Court Appearance). Key differences include:

- Compared to men, women had higher odds of missing court hearings but did not have higher odds of being terminated from pretrial supervision due to a missed court appearance.
- Compared to White individuals, Black individuals had lower odds of missing court hearings but did not have lower odds of being terminated from pretrial supervision due to a missed court appearance.
- Compared to individuals charged with felony offenses, individuals charged with misdemeanor offenses had higher odds of being terminated from pretrial supervision due to a missed court appearance but did not have higher odds of being more likely to miss court.

The following variables were not associated with increased odds of missing court or having pretrial supervision terminated due to a missed court appearance: (1) failure to appear older than two years and (2) pending charges at arrest.