



# **Santa Clara County, California Pretrial Risk Assessment Instrument**

**by  
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## **Overview**

This report describes the empirically-derived pretrial risk assessment instrument for use in Santa Clara County, California. The report summarizes the methods used to collect and analyze the data, the results of the analyses, and the empirically-derived instrument and how it is scored, and then concludes with recommendations for next steps to implement the new instrument. The instrument will allow pretrial program staff, judges, attorneys, and jail staff to more accurately determine defendants' risk to public safety, for not appearing in court, and for having a technical violation if under pretrial supervision.

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## Introduction

The California Penal Code lists the factors the court shall consider when setting a defendant's bond. Relevant sections state:<sup>1</sup>

1270. (a) Any person who has been arrested for, or charged with, an offense other than a capital offense may be released on his or her own recognizance by a court or magistrate who could release a defendant from custody upon the defendant giving bail, including a defendant arrested upon an out-of-county warrant. A defendant who is in custody and is arraigned on a complaint alleging an offense which is a misdemeanor, and a defendant who appears before a court or magistrate upon an out-of-county warrant arising out of a case involving only misdemeanors, shall be entitled to an own recognizance release unless the court makes a finding on the record, in accordance with Section 1275, that an own recognizance release will compromise public safety or will not reasonably assure the appearance of the defendant as required. Public safety shall be the primary consideration. If the court makes one of those findings, the court shall then set bail and specify the conditions, if any, whereunder the defendant shall be released.

(b) Article 9 (commencing with Section 1318) shall apply to any person who is released pursuant to this section.

1270.1. (a) Except as provided in subdivision (e), before any person who is arrested for any of the following crimes may be released on bail in an amount that is either more or less than the amount contained in the schedule of bail for the offense, or may be released on his or her own recognizance, a hearing shall be held in open court before the magistrate or judge:

(1) A serious felony, as defined in subdivision (c) of Section 1192.7, or a violent felony, as defined in subdivision (c) of Section 667.5, but not including a violation of subdivision (a) of Section 460 (residential burglary).

(2) A violation of Section 136.1 where punishment is imposed pursuant to subdivision (c) of Section 136.1, Section 262, 273.5, or 422 where the offense is punished as a felony, or Section 646.9.

(3) A violation of paragraph (1) of subdivision (e) of Section 243.

(4) A violation of Section 273.6 if the detained person made threats to kill or harm, has engaged in violence against, or has gone to the residence or workplace of, the protected party.

(b) The prosecuting attorney and defense attorney shall be given a

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<sup>1</sup> California Penal Code, Title 10, Chapter 1, Article 1.

two-court-day written notice and an opportunity to be heard on the matter. If the detained person does not have counsel, the court shall appoint counsel for purposes of this section only. The hearing required by this section shall be held within the time period prescribed in Section 825.

(c) At the hearing, the court shall consider evidence of past court appearances of the detained person, the maximum potential sentence that could be imposed, and the danger that may be posed to other persons if the detained person is released. In making the determination whether to release the detained person on his or her own recognizance, the court shall consider the potential danger to other persons, including threats that have been made by the detained person and any past acts of violence. The court shall also consider any evidence offered by the detained person regarding his or her ties to the community and his or her ability to post bond.

(d) If the judge or magistrate sets the bail in an amount that is either more or less than the amount contained in the schedule of bail for the offense, the judge or magistrate shall state the reasons for that decision and shall address the issue of threats made against the victim or witness, if they were made, in the record. This statement shall be included in the record.

(e) Notwithstanding subdivision (a), a judge or magistrate, pursuant to Section 1269c, may, with respect to a bailable felony offense or a misdemeanor offense of violating a domestic violence order, increase bail to an amount exceeding that set forth in the bail schedule without a hearing, provided an oral or written declaration of facts justifying the increase is presented under penalty of perjury by a sworn peace officer.

1275. (a) In setting, reducing, or denying bail, the judge or magistrate shall take into consideration the protection of the public, the seriousness of the offense charged, the previous criminal record of the defendant, and the probability of his or her appearing at trial or hearing of the case. The public safety shall be the primary consideration.

In considering the seriousness of the offense charged, the judge or magistrate shall include consideration of the alleged injury to the victim, and alleged threats to the victim or a witness to the crime charged, the alleged use of a firearm or other deadly weapon in the commission of the crime charged, and the alleged use or possession of controlled substances by the defendant.

(b) In considering offenses wherein a violation of Chapter 6 (commencing with Section 11350) of Division 10 of the Health and Safety Code is alleged, the judge or magistrate shall consider the following: (1) the alleged amounts of controlled substances involved in the commission of the offense, and (2) whether the defendant is currently released on bail for an alleged violation of Chapter 6 (commencing with Section 11350) of Division 10 of the Health and

Safety Code.

(c) Before a court reduces bail below the amount established by the bail schedule approved for the county, in accordance with subdivisions (b) and (c) of Section 1269b, for a person charged with a serious felony, as defined in subdivision (c) of Section 1192.7, or a violent felony, as defined in subdivision (c) of Section 667.5, the court shall make a finding of unusual circumstances and shall set forth those facts on the record. For purposes of this subdivision, "unusual circumstances" does not include the fact that the defendant has made all prior court appearances or has not committed any new offenses.

However, statute does not provide any guidance to judges on how to define and what weight to assign each of these factors when assessing the degree of risk a defendant poses to public safety and non-appearance in court and when setting bond conditions to mitigate that risk.

Since 1969, the Santa Clara County Office of Pretrial Services has existed to provide judges with the information they need to make pretrial release or detention decisions according to statute. Currently, the Office's mission is to:

Assist the Court in making custody release decisions by using evidence based practices to provide timely, accurate investigative reports and client supervision services that support early intervention, personal improvement and the preservation of public safety.

In fulfilling its mission, the pretrial services office assesses defendants' pretrial risk after they are booked into the jail and provides supervision in the community when defendants are so ordered by the court. To help the office to fulfill its mission to use evidence-based practices and to help the court more accurately know how to define and weight the statutory criteria, the Office obtained technical assistance from the Pretrial Justice Institute to develop a validated pretrial risk assessment instrument.

The development of a validated pretrial risk assessment instrument for Santa Clara County courts is similar to several similar initiatives across the country. These projects have recently occurred in response to justice system officials' demand for more evidence-based and cost-effective policies and practices, including those for pretrial risk assessment. This demand has been met in part through the development of pretrial risk assessment instruments at the federal or state level, such as those in the Federal Court system,<sup>2</sup> Virginia,<sup>3</sup> Ohio,<sup>4</sup> Kentucky,<sup>5</sup> Colorado,<sup>6</sup> and Florida,<sup>7</sup>

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<sup>2</sup> VanNostrand, M., & Keebler, G. (2009). *Pretrial Risk Assessment in the Federal Court*. Washington, DC: U.S. Department of Justice.

<sup>3</sup> VanNostrand, M. (2003). *Assessing Risk Among Pretrial Defendants In Virginia: The Virginia Pretrial Risk Assessment Instrument*. Richmond, VA: Virginia Department of Criminal Justice Services. VanNostrand, M., & Rose, K. J. (2009). *Pretrial Risk Assessment in Virginia*. St. Petersburg, FL: Luminosity, Inc.

<sup>4</sup> Latessa, E., Smith, P., Lemke, R., Makarios, M., & Lowenkamp, C. (2009). *Creation and Validation of the Ohio Risk Assessment System: Final Report*. Cincinnati: University of Cincinnati.

<sup>5</sup> Austin, J., Ocker, R., Bhati, A. (2010). *Kentucky Pretrial Risk Assessment Instrument Validation*. Washington, DC: JFA Institute.

and at the local level, such as those in, for example, Hennepin County, Minnesota,<sup>8</sup> Allegheny County, Pennsylvania,<sup>9</sup> and Coconino County, Arizona.<sup>10</sup>

All of these instruments identify which specific factors are statistically related and how strongly they are related to pretrial misconduct for the types of defendants processed through the local courts. These instruments have demonstrated that it is possible to accurately identify the pretrial risks individual defendants pose to public safety and for non-appearance in court.<sup>11</sup>

The remainder of this report describes the method used to collect and analyze the data, the results of the analyses, the empirically-derived risk instrument and how it is scored, and summary and recommendations.

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<sup>6</sup> Pretrial Justice Institute. (2012). The Colorado Pretrial Assessment Tool (CPAT): A Joint Partnership among Ten Colorado Counties, the Pretrial Justice Institute, and the JFA Institute. Washington, DC: Pretrial Justice Institute.

<sup>7</sup> Austin, J., Bhati, A., Jones, M., & Ocker, R. (2012). Florida Pretrial Risk Assessment Instrument. Washington, DC: JFA Institute.

<sup>8</sup> Fourth Judicial District of Minnesota Research Division. (2006). Fourth Judicial District Pretrial Evaluation: Scale Validation Study. Minneapolis, MN: Fourth Judicial District.

<sup>9</sup> Pretrial Justice Institute. (2007). The Transformation of Pretrial Services in Allegheny County Pennsylvania: Development of Best Practices and Validation of Risk Assessment. Washington, DC: Pretrial Justice Institute.

<sup>10</sup> Levin, D. (2010). Validation of the Coconino County Pretrial Risk Assessment Tool. Washington, DC: Pretrial Justice Institute.

<sup>11</sup> Mamalian, C. (2011). State of the Science of Pretrial Risk Assessment. Washington, DC: Pretrial Justice Institute.

## **Method and Results**

### **Sample**

The sample size for data collection was 1,910 defendants who were released on pretrial status from the Santa Clara County Jail from January 1 to May 31, 2011. Data on defendants' demographics, residence and employment, mental health and substance use/abuse, criminal history and past criminal justice system involvement, and current charges and system involvement were collected. Pretrial misconduct outcome data (e.g., new arrest, failure to appear, technical violation) were also collected.

Data on all defendants were collected from several sources, including a face-to-face interview between pretrial services staff and the defendant, and county, state, and federal criminal justice records.

### **Univariate and Bivariate Analyses**

Bivariate analyses were first performed on the data. These analyses determine which of many potential predictor variables are independently and statistically significantly related to the three separate outcome variables (i.e., technical violation, failure to appear, new arrest).

The results of the bivariate analyses are listed below.

Table 1 shows the frequencies of defendants who were released, had a technical violation, failed to appear, or had a new arrest during their pretrial release.

**Table 1**

<b>Frequencies of Defendants Released, Technically Violating, Failing to Appear, and Newly Arrested</b>		
<b>Released</b>		
	No	17.9
	Yes	82.1
	Unknown	0.0
		1,910
<b>Technical Violation<sup>12</sup></b>		
	No	49.7
	Yes	21.0
	Unknown <sup>13</sup>	29.2
		1,910
<b>Failure to Appear</b>		
	No	71.4
	Yes	10.7
	Unknown	17.9
		1,910
<b>New Arrest</b>		
	No	75.2
	Yes	6.9
	Unknown	17.9

Table 2 lists the potential predictor variables that were analyzed and indicates which ones were independently (i.e., without consideration of the simultaneous influence from any other potential predictors) and statistically significantly related to the pretrial misconduct outcome variables. The symbols <sup>+</sup>, <sup>\*</sup>, and <sup>\*\*</sup> are used to indicate the degree of certainty that a relationship exists between a predictor variable and an outcome variable:

<sup>+</sup> denotes the probability of finding the cell percentage is different than the overall percentage in 90 out of 100 independently sampled studies.

<sup>\*</sup> denotes the probability of finding the cell percentage is different than the overall percentage in 95 out of 100 independently sampled studies.

<sup>\*\*</sup> denotes the probability of finding the cell percentage is different than the overall percentage in 99 out of 100 independently sampled studies.

<sup>12</sup> Technical Violation refers to a series of non-compliant events that result in a revocation of pretrial release for which the defendant was remanded to custody, excluding failure to appear and new arrest.

<sup>13</sup> Unknown refers to defendants for which outcome data were unavailable.



**Table 2**

<b>Frequencies of Potential Predictor Variables and Cross Tabulations</b>					
		Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Gender</b>					
	Male	73.7	12.0 <sup>+</sup>	12.1	8.8
	Female	26.3	8.7	15.5	7.3
		1,910			
<b>Race</b>					
	White	30.2	15.5	12.2	9.5
	African-American	9.8	9.1	13.6	9.1
	American Indian	0.3	0.0	25.0	0.0
	Asian	11.7	6.4	10.6	5.8
	Hispanic	45.9	10.0	14.3	8.5
	Other	1.6	0.0	12.5	0.0
	Unknown	0.5	--	--	--
		1,910			
<b>Marital Status</b>					
	Common Law	0.3	0.0	25.0	0.0
	Divorced	8.7	16.2	16.3	7.4
	Married	11.1	3.4**	8.0	3.4 <sup>+</sup>
	Other	0.1	0.0	0.0	0.0
	Separated	4.4	16.4	15.4	7.7
	Single	57.9	10.5	12.0	7.6
	Widowed	1.0	13.3	21.1	10.5
	Unknown	16.5	--	--	--
		1,910			
<b>Education</b>					
	Less than High School	27.7	10.6	15.2*	9.2
	Degree				
	High School Degree	21.6	9.9	12.8	5.8
	Some College	19.8	10.7	9.7	5.2
	Vocational School	3.0	8.8	11.5	7.2
	College Degree	5.1	1.6*	1.2**	2.5
	Unknown	16.8	--	--	--
		1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Age at Arrest</b>				
18 to 20 years	18.5	8.6	11.7	10.7
21 to 25	17.3	7.4	10.6	6.4
26 to 30	14.0	11.4	16.7	9.8
31 to 35	12.8	11.1	13.4	6.5
36 to 45	17.5	14.0	15.2	9.3
46 to Older	18.7	14.5	12.5	7.7
Unknown	1.2	--	--	--
	1,910			
<b>Lives With</b>				
Child	4.1	8.1	14.1	7.0
Spouse	9.2	5.0 <sup>+</sup>	8.1	4.1
Parent	28.0	8.1	11.0	5.6
Boy/Girlfriend	8.9	7.5	13.9	10.2
Grandparent	2.9	10.3	19.1	4.3
Other Relative	6.8	11.5	13.3	2.9
Friends	4.0	17.4 <sup>+</sup>	13.6	11.9
Roommate	3.2	10.0	13.7	7.8
Alone	4.6	21.8 <sup>**</sup>	14.3	8.6
Sibling	4.3	11.1	13.0	2.9
Other Person	2.1	4.8	3.3	10.0
Unknown	24.6	--	--	--
	1,910			
Family of Any Type	52.3	8.2 <sup>*</sup>	11.4	5.1 <sup>**</sup>
<b>Lived at in Years</b>				
Six Months or Less	20.9	12.5	15.2 <sup>*</sup>	9.7 <sup>*</sup>
Less than 1 Year	4.5	3.2 <sup>+</sup>	5.5	4.1
1 Year	10.4	9.2	8.7	4.6
2 Years	9.0	14.9 <sup>+</sup>	14.9	7.8
3 Years	6.1	9.1	11.8	6.5
4 to 9 Years	15.9	9.8	11.9	4.6
10 Years or More	11.7	5.3 <sup>+</sup>	9.0	6.4
Unknown	21.5	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Housing Payment Type</b>				
Pay Mortgage	4.4	9.8	8.5	5.6
Rent Room in Residence	11.2	11.5	11.1	9.4
Rent/Lease Residence	27.9	8.8	11.3	6.1
Stays Rent Free	31.6	9.4	12.7	6.2
Work for Room and Board	0.4	0.0	20.0	0.0
Unknown	24.6	--	--	--
	1,910			
<b>Years Resided in County</b>				
Six Months or Less	5.3	10.5	17.6	9.5
Less than 1 Year	1.7	4.5	11.1	3.7
1 Year	3.1	11.4	12.5	18.8*
2 Years	4.2	21.1*	13.2	8.8
3 Years	3.7	14.6	16.0	6.0
4 to 9 Years	10.7	5.3	6.4*	8.1
10 Years or More	43.7	11.0	11.4	6.8
Unknown	27.6	--	--	--
	1,910			
<b>Years Resided in State</b>				
Six Months or Less	1.9	5.9	16.7	4.2
Less than 1 Year	0.6	0.0	11.1	0.0
1 Year	1.2	8.3	17.6	11.8
2 Years	2.0	20.0	9.7	6.5
3 Years	1.5	14.3	23.5	11.8
4 to 9 Years	7.5	6.8	10.3	10.3
10 Years or More	68.3	10.4	12.2	6.8
Unknown	17.0	--	--	--
	1,910			
<b>Employed</b>				
No	49.6	6.0**	15.2	8.2
Yes	34.0	13.4	8.3**	5.6 <sup>+</sup>
Unknown	16.3	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Time Employed at Current Job</b>				
Six Months or Less	9.8	4.2	11.8	4.7
Less than 1 Year	2.6	3.0	2.3	4.7
1 Year	3.3	2.6	5.4	10.7
2 Years	5.1	9.4	7.3	7.3
3 Years	3.7	6.4	5.4	3.6
4 to 9 Years	6.1	7.6	8.2	5.2
10 Years or More	3.2	10.8	10.4	4.2
Unknown	66.2	--	--	--
	1,910			
<b>Time Unemployed Since Last Job</b>				
Six Months or Less	13.2	11.1	13.0	5.8
Less than 1 Year	3.4	7.1	9.6	3.8
1 Year	6.6	20.2	14.7	11.9
2 Years	5.9	16.4	17.8	8.9
3 Years	3.5	17.9	20.4	3.7
4 to 9 Years	7.9	16.5	13.6	6.4
10 Years or More	9.1	8.9	18.7	13.7
Unknown	50.5	--	--	--
	1,910			
<b>Means of Support Other than Job</b>				
Government Funded	11.4	16.7**	13.9	8.6
Family Funded	19.8	7.5 <sup>+</sup>	13.1	7.7
Self Funded	3.9	15.4	9.7	1.6
Other Funded	12.4	20.3**	20.3 <sup>+</sup>	10.5 <sup>+</sup>
Unknown	52.5	--	--	--
	1,910			
<b>Mental Health Problem</b>				
No	72.6	10.3	11.3	6.9
Yes	10.6	9.8	16.6*	8.3
Unknown	16.8	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Drug and/or Alcohol Problem</b>				
No	69.8	7.8	11.3	6.4
Yes	13.1	25.7**	17.2*	10.8*
Unknown	17.1	--	--	--
	1,910			
<b>Prior Drug Addiction Treatment</b>				
No	64.1	7.3	10.6	6.5
Yes	18.4	20.6**	18.8**	9.0
Unknown	17.5	--	--	--
	1,910			
<b>Criminal Justice Status at Arrest</b>				
No	79.1	9.1	12.1	7.4
Yes	18.5	19.4**	17.2*	14.0**
Unknown	2.4	--	--	--
	1,910			
<b>On Probation at Arrest</b>				
No	93.1	9.7	12.4	8.7
Yes	4.5	27.1**	24.0**	5.3
Unknown	2.4	--	--	--
	1,910			
<b>On Parole at Arrest</b>				
No	96.6	10.6	12.8	8.5
Yes	1.0	25.0 <sup>+</sup>	25.0	12.5
Unknown	2.4	--	--	--
	1,910			
<b>Active Warrant at Arrest</b>				
No	94.8	10.6	12.8	8.4
Yes	2.8	17.2	19.0	11.9
Unknown	2.4	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Pending Case at Arrest</b>				
No	86.8	9.8	12.6	7.5
Yes	10.9	20.2**	15.8	17.8**
Unknown	2.4	--	--	--
	1,910			
<b>Pending Sentence at Arrest</b>				
No	97.5	10.8	13.0	8.5
Yes	0.1	0.0	0.0	0.0
Unknown	2.4	--	--	--
	1,910			
<b>Primary Arrest Charge</b>				
Violent	11.2	8.7	26.0	3.5*
Property	30.4	4.9**	32.9	7.7
Drugs	36.2	18.3**	43.7**	9.7
Other Public Order	21.8	8.2	24.7**	9.6
Unknown	0.4	--	--	--
	1,910			
<b>Primary Arrest Charge Type</b>				
Felony	85.1	10.8	32.6	9.1
Misdemeanor	14.5	12.3	36.8	4.5*
Infraction	0.1	0.0	16.7	0.0
Unknown	0.4	--	--	--
	1,910			
<b>Secondary Arrest Charge</b>				
Violent	3.9	13.0	10.0	10.0
Property	12.7	6.3*	14.7	12.8
Drugs	27.7	22.1**	14.1	11.5
Other Public Order	19.9	5.2**	10.7	6.1*
Unknown/Not Applicable	35.8	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Secondary Arrest Charge Type</b>				
Felony	29.9	10.0 <sup>+</sup>	12.7	9.6
Misdemeanor	33.8	16.1	15.6	10.3
Infraction	0.6	0.0	0.0	10.0
Unknown/Not Applicable	35.7	--	--	--
	1,910			
<b>Total Number of Charges</b>				
1	35.3	7.2*	10.7	5.4**
2	31.0	9.3	12.1	7.8
3 or More	33.7	17.3**	16.5*	12.0**
Unknown	0.0	--	--	--
	1,910			
<b>Domestic Violence Case</b>				
No	98.1	11.0	13.2	8.4
Yes	1.9	12.1	9.1	6.1
Unknown	0.0	--	--	--
	1,910			
<b>Case Involved Physical Injury to Victim</b>				
No	94.6	11.1	13.4	8.2
Yes	5.4	8.2	7.9	10.1
Unknown	0.0	--	--	--
	1,910			
<b>Case Involved Armed Defendant</b>				
No	98.4	11.1	13.1	8.5
Yes	1.6	5.6	9.5	0.0
Unknown	0.0	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Number of Prior Prison Commitments</b>				
0	83.0	9.8	13.0	7.8
1	6.1	20.0*	17.7	10.1
2	3.1	37.9**	19.5	19.5*
3 or More	3.6	30.4**	10.9	3.5**
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior Misdemeanor Cases</b>				
0	43.2	4.6**	9.7	5.7**
1	16.1	8.5	9.5 <sup>+</sup>	9.5
2	8.7	16.1	15.8	7.2
3 or More	27.7	25.1**	21.7**	14.3**
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior DUI Cases</b>				
0	74.7	10.4	13.2	8.1
1	11.1	10.5	11.7	12.9 <sup>+</sup>
2	5.2	26.2**	19.8	7.4
3 or More	4.8	15.4	12.7	11.1
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior Parole Cases</b>				
0	89.5	10.7	13.4	8.2
1	2.3	11.1	11.5	7.7
2	1.1	50.0**	11.8	23.5*
3 or More	2.9	27.3*	16.3	24.3**
Unknown	4.2	--	--	--
	1,910			



<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Number of Prior Probation Violations</b>				
0	92.7	11.4	13.2	8.5
1	2.3	15.0	21.2	18.2 <sup>+</sup>
2	0.6	0.0	12.5	0.0
3 or More	0.2	100.0**	0.0	100.0**
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior DV Cases</b>				
0	87.4	10.6	13.1	8.4
1	5.6	22.0*	15.4	12.8
2	1.8	31.6**	17.4	17.4
3 or More	1.0	0.0	23.1	7.7
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior FTAs in the Past 3Years</b>				
0	93.6	10.7	12.5	8.3
1	0.1	0.0	0.0	100.0**
2	0.0	0.0	0.0	0.0
3 or More	2.2	50.0**	54.8**	29.0**
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior Juvenile Cases</b>				
0	90.7	11.3	13.5	8.6
1	2.7	17.1	14.0	9.3
2	1.3	10.0	6.7	20.0
3 or More	1.1	8.3	6.2	12.5
Unknown	4.2	--	--	--
	1,910			

<b>Frequencies of Potential Predictor Variables and Cross Tabulations (cont.)</b>				
	Frequency (of all cases)	% of Released Cases with a Technical Violation	% of Released Cases with a Failure to Appear	% of Released Cases with a New Arrest
<b>Number of Prior Other Felony Cases</b>				
0	75.8	8.1	12.2	6.8*
1	10.7	26.1**	18.2	14.9**
2	5.0	20.0 <sup>+</sup>	21.3 <sup>+</sup>	14.7 <sup>+</sup>
3 or More	4.5	39.5**	14.1	23.4**
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior Other Arrests</b>				
0	79.0	10.1	13.3	8.1
1	11.8	13.6	13.6	11.1
2	3.2	30.8**	13.5	9.6
3 or More	1.8	25.0	16.7	20.8*
Unknown	4.2	--	--	--
	1,910			
<b>Number of Prior Parole or Probation Violations</b>				
0	88.0	10.6	13.3	8.0
1	3.1	18.5	12.8	17.9 <sup>+</sup>
2	1.4	31.2*	8.3	12.5
3 or More	3.4	26.9*	19.5	24.4**
Unknown	4.2	--	--	--
	1,910			
<b>Type of Release</b>				
Bail	269	0.0	13.8	29.4**
Release on Recognizance	458	0.2**	9.4*	1.7**
Supervised Release	808	16.9**	15.2*	3.6**
Other Release	33	0.0	6.1	45.5**
Not Released	342	--	--	--
	1,910			
<sup>+</sup> probability of finding the cell percentage is different than the overall percentage in 90 out of 100 independently sampled studies. * probability of finding the cell percentage is different than the overall percentage in 95 out of 100 independently sampled studies. ** probability of finding the cell percentage is different than the overall percentage in 99 out of 100 independently sampled studies.				

## Multivariate Analysis

Multivariate (stepwise) binary logistic regression was used to estimate the relationship between each of the potential predictors with the pretrial misconduct outcomes to determine each predictor variable's unique contribution while controlling for the influence of all other predictor variables.<sup>14</sup>

Tables 3a, 3b, and 3c list the results of the logistic regression analyses.

**Table 3a**

<b>Logistic Regression Model of Technical Violation</b>			
Risk Item	Logged Odds Ratio <sup>1</sup>	Standard Error	Probability of Violation when IV is No/Yes <sup>2</sup>
Property	-1.23**	0.34	10% vs. 3%
Prior Drug Treatment	0.63*	0.24	6% vs. 10%
Two or More Prior Prison Commitments	1.11*	0.46	6% vs. 17%
Two or More Prior Misdemeanors	1.00**	0.24	5% vs. 12%
Prior Failure to Appear	-1.73*	0.77	28% vs. 7%
Domestic Violence Case	1.07 <sup>+</sup>	0.63	6% vs. 17%
Married	-1.24**	0.46	8% vs. 2%
Two or More Charges	0.57*	0.27	5% vs. 8%
Unemployed	0.91**	0.26	4% vs. 9%
Constant	-0.87	0.80	
Number of Cases	960		
$\chi^2$ Likelihood Ratio of Model Improvement	108.11		
McFadden Adjusted R <sup>2</sup> Model Fit	0.14		
<sup>+</sup> probability of finding a relationship in 90 out of 100 independently sampled studies.			
<sup>*</sup> probability of finding a relationship in 95 out of 100 independently sampled studies.			
<sup>**</sup> probability of finding a relationship in 99 out of 100 independently sampled studies.			
<sup>1</sup> STATA (statistical software) utilizes the logged odds ratio to produce unstandardized coefficients.			
<sup>2</sup> Prediction when all other independent variables (IVs) are set to mean values. While not a perfect correspondence to the real world, this gives a good estimation of the impact of the independent variable on the dependent variable.			

<sup>14</sup> All variables from the bivariate analysis were included in the subsequent multivariate analysis.

**Table 3b**

<b>Logistic Regression Model of FTA</b>			
Risk Item	Logged Odds Ratio <sup>1</sup>	Standard Error	Probability of FTA when IV is No/Yes <sup>2</sup>
Property	0.36 <sup>+</sup>	0.20	9% vs. 13%
Prior FTAs	2.44**	0.69	10% vs. 56%
Two or More Prior Misdemeanors	0.71**	0.19	9% vs. 13%
Prior Drug Treatment	0.39 <sup>+</sup>	0.21	9% vs. 13%
Mental Health Problem	0.52*	0.24	10% vs. 15%
Unemployed	0.72**	0.20	7% vs. 13%
College Degree	-2.28*	1.02	8% vs. 15%
Constant	0.18	0.69	
Number of Cases		1,223	
$\chi^2$ Likelihood Ratio of Model Improvement		72.07**	
McFadden Adjusted R <sup>2</sup> Model Fit		0.06	
<sup>+</sup> probability of finding a relationship in 90 out of 100 independently sampled studies.			
<sup>*</sup> probability of finding a relationship in 95 out of 100 independently sampled studies.			
<sup>**</sup> probability of finding a relationship in 99 out of 100 independently sampled studies.			
<sup>1</sup> STATA utilizes the logged odds ratio to produce unstandardized coefficients.			
<sup>2</sup> Prediction when all other independent variables (IVs) are set to mean values. While not a perfect correspondence to the real world, this gives a good estimation of the impact of the independent variable on the dependent variable.			

**Table 3c**

<b>Logistic Regression Model of New Arrest</b>			
Risk Item	Logged Odds Ratio <sup>1</sup>	Standard Error	Probability of New Arrest when IV is No/Yes <sup>2</sup>
Two or More Charges	0.45 <sup>+</sup>	0.25	5% vs. 8%
Pending Case at Arrest	0.60 <sup>+</sup>	0.33	6% vs. 11%
On Probation at Arrest	-1.76 <sup>+</sup>	1.03	7% vs. 1%
Two or More Prior Misdemeanors	0.51 <sup>+</sup>	0.27	6% vs. 9%
Prior Probation or Parole	0.93*	0.36	6% vs. 14%
Ages 18 to 20	0.73*	0.28	6% vs. 11%
Constant	-2.38**	0.45	
Number of Cases	1,206		
$\chi^2$ Likelihood Ratio of Model Improvement	27.85**		
McFadden Adjusted R <sup>2</sup> Model Fit	0.02		
<sup>+</sup> probability of finding a relationship in 90 out of 100 independently sampled studies.			
<sup>*</sup> probability of finding a relationship in 95 out of 100 independently sampled studies.			
<sup>**</sup> probability of finding a relationship in 99 out of 100 independently sampled studies.			
<sup>1</sup> STATA utilizes the logged odds ratio to produce unstandardized coefficients.			
<sup>2</sup> Prediction when all other independent variables (IVs) are set to mean values. While not a perfect correspondence to the real world, this gives a good estimation of the impact of the independent variable on the dependent variable.			

The results above were used to create the risk assessment instrument for the three pretrial misconduct outcomes. These scales are listed in Table 4.

**Table 4**

<b>Santa Clara County Pretrial Risk Assessment Instrument<sup>15</sup></b>			
<b>Risk Factor</b>	<b>Public Safety Scale</b>	<b>Court Appearance Scale</b>	<b>Technical Compliance Scale</b>
Age 18 to 20	2		
Married			-2
Lives with Family*	-1		
College Degree		-6	
Unemployed		2	2
Mental Health Problem		1	
Prior Drug Treatment		1	1
Two or More Current Charges	1		1
Current Domestic Violence Case			2
Current Property Charge		1	-2
Pending Case at Arrest	1		
On Probation at Arrest	-4		
Prior FTA in Past 3 Years		7	-3
Two or More Prior Misdemeanors	1	2	2
Prior Probation or Parole	2		
Two or More Prior Prison Commitments			2
<b>Point Range</b>	<b>-5 to 7</b>	<b>-6 to 14</b>	<b>-7 to 10</b>

\* The Lives with Family item was added to the Public Safety Scale based on logit models not shown in the report. This factor tested very strongly in models with smaller number of observations.

The weights represent a risk factor’s unique contribution to a defendant’s final risk score. Thus, a total risk score can be computed by summing the points for each of the factors for the three scales. The three scales have the following ranges:

- Public Safety: -5 to 7
- Court Appearance: -6 to 14
- Technical Compliance: -7 to 10

The lower a defendant’s score is on each scale, the lower is his/her likelihood of pretrial misconduct. The higher a defendant’s score is on each scale, the higher is his/her likelihood of pretrial misconduct.

<sup>15</sup> Consistent with contemporary pretrial performance measurement, the “no new arrest rate” is expressed here as the “Public Safety rate,” the “failure to appear rate” is expressed at the “Court Appearance rate,” and the “technical violation rate” is expressed as the “Technical Compliance rate.” For a discussion of this topic, see National Institute of Corrections. (2011). *Measuring What Matters: Outcome and Performance Measures for the Pretrial Services Field*. Washington, DC: Author.

Tables 5a, 5b, and 5c below show that defendants can be placed into one of three risk categories of ascending level of risk on each of the risk scales. These categories have different public safety rates, court appearance rates, and technical compliance rates.

**Table 5a**

<b>Risk Scoring Levels for Public Safety</b>			
Risk Category	Percent of Defendants	Public Safety Scale Score Range	Public Safety Rate
Category 1	3%	-5 to -1	99%
Category 2	81%	0 to 3	93%
Category 3	16%	4 to 7	89%

**Table 5b**

<b>Risk Scoring Levels for Court Appearance</b>			
Risk Category	Percent of Defendants	Court Appearance Scale Score Range	Court Appearance Rate
Category 1	5%	-6 to -1	98%
Category 2	93%	0 to 6	87%
Category 3	2%	7 to 14	37%

**Table 5c**

<b>Risk Scoring Levels for Technical Compliance</b>			
Risk Category	Percent of Defendants	Technical Compliance Scale Score Range	Technical Compliance Rate
Category 1	25%	-7 to 1	97%
Category 2	62%	2 to 6	89%
Category 3	13%	7 to 10	66%

A defendant's scores in a risk category for any of the three scales can be interpreted as that defendant having pretrial risk scores consistent with defendants whose average public safety rate is ##%, average court appearance rate is ##%, and average technical compliance rate is ##%. For example, if a defendant's scores place him/her in category 2 for public safety and category 1 for both technical compliance and court appearance, then that defendant's pretrial risk scores are consistent with defendants whose average public safety rate is 93%, average court appearance rate is 98%, and average technical compliance rate is 97%.

## Summary and Recommendations

The research presented here creates the first pretrial risk assessment instrument empirically validated for use in Santa Clara County's criminal justice system. The instrument sorts defendants into one of three risk categories that show their likelihood of success on pretrial release. The results show that three risk scales, each consisting of seven to nine factors, can be constructed. The scales measure a defendant's likelihood of complying with public safety (i.e., not being newly arrested), appearing in court (i.e., not failing to appear), and for complying with court-ordered (technical) conditions of pretrial release. The public safety and court appearance outcomes are consistent with California statute that states that the purpose of bail is to promote both public safety and court appearance.<sup>16</sup>

Local officials can use all three scales to assess defendants' risk. The items relate to several statutory criteria that judges must consider when deciding the type and conditions of bond. Thus, the instrument provides judicial officers with research-based information on how to most effectively define and weigh many statutory criteria. Overall, the ability of the new instrument to assess Santa Clara County defendants' likelihood of pretrial misconduct is known, and therefore it is designed to replace any existing pretrial assessments currently in use.

The new pretrial risk instrument can also be used help improve public safety and manage the size of the pretrial inmate population and the associated costs in the county jail. The instrument will identify which defendants are likely to be higher risk to public safety, court appearance, and technical compliance and which defendants are likely to be non-violent or lower risk. Thus, for any higher risk defendants who are released without bond conditions designed to mitigate public safety risk (i.e., as occurs with some defendants released with only a financial condition), the new instrument enables system officials to identify those defendants and set appropriate conditions, up to and including possible continued pretrial detention. Conversely, for any non-violent or lower risk defendants who are detained for all or some portion of their pretrial period, the new instrument enables those jurisdictions to identify those defendants and set appropriate conditions that reasonably assure public safety and court appearance while those defendants are on pretrial release.

We recommend that a small working group of local justice system officials be convened to implement the new instrument. The working group's tasks will include, among others:

- Develop a matrix that integrates defendants' risk level and current charge to research-guided release conditions designed to mitigate pretrial risk;<sup>17</sup>
- Decide to what extent the new instrument can be automated and integrated into the existing information system;
- Develop an administration and scoring manual. A separate document containing detailed information that links the instrument's items to the existing information system and current information-gathering procedures has been created;<sup>18</sup>

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<sup>16</sup> See California Penal Code, Title 10, Chapter 1, Article 1.

<sup>17</sup> See VanNostrand, M., & Welbrecht, K. (2011). *State of the Science of Pretrial Release Recommendations and Supervision*. Washington, DC: Pretrial Justice Institute.

<sup>18</sup> This document was co-produced by staff from the Pretrial Justice Institute and the Santa Clara County Office of Pretrial Services, and has been provided to the Office of Pretrial Services.



- Train pretrial program staff, judges, attorneys, and detentions staff on the cost-effective use of the use instrument and matrix.

Finally, we recommend that the tool be revalidated in the next three to five years to maintain its relevance and accuracy.