# A Reassessment of the Bail Classification Instrument and Pretrial Release Practices in Harris County, Texas

by

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# The Report

Portions of this report have been excerpted from the original report where necessary to present a better understanding of the Harris County Pretrial Services Agency, its operating environment, or the issues surrounding pretrial release as it occurs in Harris County, Texas. The report is not gender-sensitive with regard to the bonding industry or any related areas; that is, the terms *bondsman* and *bondsmen*, for example, are used for convenience of reference and should be construed to include both males and females engaged in the business of providing criminal bail bonds. The points of view expressed in this document are those of the authors, and do not necessarily represent the official position or policies of Harris County, Texas or the Harris County Pretrial Services Agency.

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Jimmy W. Ray, Director Mike Shannon, Assistant Director Jason L. Miley, Database Administrator Cheryl Price, Systems Support Supervisor The truth is never pure and rarely simple.

Oscar Wilde

# **Executive Summary**

#### Major Findings of this Study<sup>1</sup>

According to data drawn from calendar year 1995:

- The risk classification scale implemented by the PTSA on January 1, 1993 continued to perform well. Neither reweighting of the current scale items nor redesign of the scale based on more recent data offered results sufficient to warrant changes to the current risk classification instrument (page 23).
- The misconduct rate for all defendants released before trial in Harris County was 9.82%.
   For the purposes of this study, the term "misconduct" refers to both failure-to-appear incidents and/or incidents in which a defendant was alleged to have committed a new criminal offense while out on bail (page 22).
- The rate of misconduct for personal-bonded defendants supervised by the Pretrial Services Agency (hereafter "PTSA") was 8.61%, compared to a misconduct rate of 7.11% for cash-bailed defendants and 10.74% for surety-bailed defendants. The rate for persons bailed by Harris County-licensed bondsmen was 10.83% (Table 1).

	FTA Reoffense		Reoffense		Total Mi	conduct	
	Count	%	Count	%	Count	%	Total
Cash Bail	358	5.44%	110	1.67%	468	7.11%	6,579
PTSA Personal Bond	486	6.92%	118	1.68%	604	8.61%	7,019
Surety, Harris County Licensed Bondsmen	2,226	8.07%	763	2.76%	2,989	10.83%	27,595
Surety, All Others	69	6.24%	24	2.17%	93	8.41%	1,106
Surety, Total	2,295	8.00%	787	2.74%	3,082	10.74%	28,701
Total, All Methods	3,139	7.42%	1,015	2.40%	4,154	9.82%	42,299

Table 1. Misconduct Rates for Defendants Released by Various Methods<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Page numbers following bulleted items are page references for more information within the full report.

<sup>&</sup>lt;sup>2</sup> The figures in this table reflect case data for study defendants, regardless of whether interview data were available. The count figures in the bottom row are the sum of cash, personal bond, and aggregate surety releases for each column. The shaded cells reflect disaggregated figures for surety releases. "Surety, All Others" refers to surety releases arranged by other bondsmen or defense attorneys.

- Broken into component parts, the data indicated that the failure-to-appear rate for PTSA-supervised personal bond defendants, at 6.92%, was somewhat higher than the cash bail FTA rate of 5.44%. The reoffense rates for these two release methods were virtually the same at 1.68% and 1.67%, respectively. The failure-to-appear rate for all surety-bailed defendants was 15% higher (8.00%) than that for PTSA-supervised personal bond defendants, and the accompanying 2.74% misconduct rate for surety bailees was more than 60% higher than that for PTSA or cash-bailed defendants.
- Over the last three years, a number of commercial bail industry representatives have explicitly stated that the "performance" of surety-bailed defendants (measured in terms of failure-to-appear and reoffense rates) was "better" than that of defendants released on personal bonds under PTSA supervision. This study could find no evidence supportive of those claims. To the contrary, the data demonstrate that in comparison to PTSA personal bond releasees, defendants released to the custody of Harris County-licensed surety bondsmen have: (a) a higher overall misconduct rate; (b) higher misconduct rates within each release category; (c) higher overall and category-specific failure-to-appear rates; and (d) higher overall and category-specific reoffense rates (page 31).<sup>3</sup>
- Across all types of release, approximately 5% of defendants were known to have committed a new criminal offense while out on bail. Of these, approximately 4 out of 5 such incidents involved a new misdemeanor offense. Of the remaining felony incidents, nearly half involved a state jail (4th degree) felony (page 29).<sup>4</sup>
- Across all types of release, at least two-thirds of the new offenses committed by defendants while out on bail fell into the categories of (a) misdemeanor drug or DWI charges; (b) misdemeanor theft; and (c) other misdemeanor charges. Fewer than 12% of the new charges were classifiable as violent offenses (including sex offenses, robbery, and all assaultive offenses) (page 29).
- The PTSA appears to provide substantial savings to the County. Using a 1995 jail housing cost basis of \$45.24 per day per inmate provided by the Harris County Office of Management Services, the release of pretrial defendants on personal bond under Agency supervision vacated over 1,100 inmate beds and provided potential cost savings of as

<sup>&</sup>lt;sup>3</sup> Items (b), (c), and (d) reflect results obtained from a data set which considered all of the defendants for whom interview data were available. This secondary data set was required to fulfill the objective of determining the level at which the risk classification instrument was functioning.

<sup>&</sup>lt;sup>4</sup> We have chosen to refer to crimes "known to have been committed" or crimes "known to the police" because, as with any area of criminal justice, those are the only offenses which are documented and about which data are available. Any discussion of other undetected or unreported crimes believed to have been committed by pretrial defendants would be purely speculative.

much as \$14 million after PTSA operating costs were recovered (page 29).

Of the more than 18,000 interviewed defendants who were not released from jail before trial, the data suggest that another 3,200 low-risk defendants could have been released on personal bond without increasing the personal bond misconduct rate. If desired or necessary to manage the jail population, such an action could have vacated an additional 346 inmate beds and provided potential savings of as much as \$5.7 million with minimal risk (page 29).

#### The Original Bail Classification Profile Project

The first Bail Classification Profile Project (hereafter "Project '93") was a risk classification study funded by Harris County and the State Justice Institute. Project '93 was an attempt to develop an instrument that could aid judicial officers in making pretrial release decisions by distilling *known extralegal information* about a given defendant into a single piece of information. To that end, we believed the contemplated framework should:

"(a) permit decisionmakers to estimate the degree of risk involved in the release of a defendant, with particular attention to the risk that the defendant would not appear in court as scheduled (failure-to-appear, or FTA) or that the defendant [would] engage in further criminal activity; (b) enable policymakers to balance the competing concerns of public safety, public opinion, court mandates, costeffective use of system resources, and justice; and (c) establish an ongoing, automated evaluation process to continue the classification instrument as a quality, low-cost decision tool responsive to the ever-changing context of criminal justice" (Cuvelier and Potts, 1993:xi).

The central issue underlying the original Project (Project '93) was whether the existing predictive tool or an empirically-derived instrument would offer the consumer courts greater predictive accuracy in making pretrial release decisions. It was conceived solely as a way to develop and evaluate an empirically-validated predictive tool through the combined use of paper files and automated data.

Project '93 introduced a classification instrument that was noticeably different from its predecessor, an instrument adapted for use from a point scale developed by the Vera Institute of Justice. The change was believed warranted because our analysis of the adapted instrument found that although it had a lengthy history and intuitive appeal, it had little predictive capability.<sup>5</sup> The new instrument, introduced on January 1, 1993, offered the ability to classify defendants according to their risk of misconduct on the basis of past experience. Judicial officers could look

<sup>&</sup>lt;sup>5</sup> The factors employed in the Vera-adapted scale awarded 1 point each for: (a) residing in Harris County; (b) having a telephone in the residence; (c) living with parents, spouse, and/or children; (d) living at the same residence for one year or more; (d) full-time employment, disability, or homemaker status; and (e) having one prior misdemeanor conviction or no prior convictions. It deducted a point for every prior felony or misdemeanor conviction after the first misdemeanor conviction, without limit, and one or more prior failures to appear. The lowest observed point total for 1990 was -22.

with confidence at the classification score and know the relative risk of misconduct for a given defendant.

#### The 1996 Bail Classification Profile Project

The 1996 Bail Classification Profile Project update (hereafter "Project '96") was requested by the Harris County Pretrial Services Agency (PTSA), the Harris County judiciary, and by the Commissioners' Court in an effort to determine whether there had been a change in the Harris County defendant population that would necessitate a change in the PTSA's approach to classifying that population according to their risk of misconduct.<sup>6</sup> The effort was a prudent administrative move because the accuracy of the instrument could have been influenced by changes in defendant population demographics and by changes in defendant responses to the criminal justice process. The classification instrument had been in use for three years, and certainly a comparison study should indicate whether either of those factors were exerting an influence that would adversely affect the instrument's accuracy.

At the same time, Project '96 offered an opportunity to determine whether a new instrument might provide better classification results, thus necessitating the replacement of the current instrument. The matter of "retooling" is significant in light of the time and costs in mainframe programming and training necessary to put a new instrument into operation.

#### The Data

In revisiting the results of Project '93, we wanted to again apply techniques utilizing automated data to evaluate the accuracy and utility of the instrument as it entered its fourth year of use. As before, we knew that the relative infrequency of failure-to-appear and reoffense events would demand that a large number of cases be examined across a wide range of variables. We also believed that the methodological path marked by Project '93 would permit a reevaluation that would require lesser time and resources. Happily, that has been the case.

The data for Project '96 were drawn from the population of felony and Class A and B misdemeanor cases filed in Harris County during calendar year 1995, using data provided by the Harris County Justice Information Management System (JIMS). The reassessment study dataset, assembled from the provided data, began with approximately 83,000 cases, representing 42,299 released defendants and 25,056 detained defendants. Of those, 32,589 released defendants with sufficient available interview data were included in the reassessment analysis.

In comparison to Project '96, the Project '93 instrument was constructed using 6,796 incidents drawn from 1990 filings, and was validated using 4,710 incidents drawn from the first

<sup>&</sup>lt;sup>6</sup> "Misconduct," as used throughout this document, refers to both: (a) events of failure-to-appear; and (b) events involving the commission of a new offense by the bailed defendant. Although they are distinct types of misconduct (many incidents of FTA prove to be unintentional), their grouping in this manner under a single term reflects a general concern for the conservation of court resources and for community safety.

quarter of 1993 case filings. Effectively, Project '96 approaches the task with the power of a greater number of cases, and represents one of the largest datasets used to assess pretrial release risk classification.

#### The Analysis

For Project '96, the central question to be addressed was whether the risk classification instrument implemented in 1993 was continuing to provide a valid measure of risk over an extended period of time. The answer to that question appears to be both solid and affirmative.

The overall misconduct rate for interviewed defendants across all types of measured release (cash bail, surety bail, and PTSA-supervised personal bonds) was found to be 10.64% in 1993, and 11.02% in 1995. These figures affirm that released defendants in Harris County engage in misconduct at a relatively low rate, and certainly at a rate below what national figures would suggest.<sup>7</sup>

The breakout of the 1995 figures into Project '93 risk classification categories indicated that the Project '93 instrument continues to serve its intended function well. There were slight increases in risk noted in the low risk categories above a score of "1," but the increase was not adjudged significant and no change in the current instrument was found to be needed. Separate analyses were conducted to determine whether risk classification could be improved by reweighting the current items, or by totally redesigning the scale using the more recent 1995 data. Neither analysis offered improvement in risk classification sufficient to warrant the time and expense of implementation.

The analysis did not reveal any bias attributable to sex or race/ethnicity, and we did not observe major shifts in defendant population demographics. As in Project '93, income continues to be associated with type and likelihood of release. Defendants who remained in jail awaiting trial reported a median income of \$900 per month, compared to \$1,040 for personal bond releasees and \$1,300 for both cash and surety bail releasees.

#### Summary and Conclusions

This study of Harris County criminal cases filed in 1995 offered a number of insights into local pretrial release practices and outcomes. Certainly, the most basic issue was that of pretrial misconduct, as measured by failure-to-appear and reoffense rates. We found that the overall misconduct rate for released defendants, regardless of interview status, was 9.82%. Within that figure, we found that the misconduct rates for cash bail and PTSA personal bond release were comparable at 7.11% and 8.61%, respectively. The misconduct rate for all surety bail releases

<sup>&</sup>lt;sup>7</sup> *Pretrial Release of Felony Defendants, 1992*, released by the Bureau of Justice Statistics, indicated that 25% of defendants who were released prior to trial by any release method failed to appear for at least one scheduled appearance, and 14% were rearrested for a new offense while out on bail. When the data are examined without regard to interview status, the disparity between Harris County data and national figures remains great, with a failure-to-appear rate of 7.42% and a reoffense rate of 2.40%.

was 25% higher, at 10.74%, and the rate experienced by county-licensed bail bondsmen was higher still, at 10.83%. The data for interviewed defendants further established that the misconduct rates for PTSA personal bond releases were lower than those for surety bail releases in each risk category. A more detailed examination of this aspect, one that considered failure-to-appear and reoffense rates individually, yielded similar results.

Based on data for interviewed defendants, approximately 5% of all released defendants were known to have committed a new offense while out on bail. Four out of five such defendants committed a new misdemeanor offense. Of the remaining felony incidents, nearly half involved a state jail felony. From another perspective, at least two-thirds of the new offenses committed while out on bail were misdemeanor drug or alcohol charges, misdemeanor theft, or other misdemeanor charge (a generic category). Fewer than 12% of the new offenses were classifiable as violent offenses.

An examination of the relative value of maintaining the PTSA indicated that the County realized savings in inmate housing costs - perhaps as much as \$14 million after PTSA operating expenses were recovered. As well, the number of defendants placed under PTSA supervision effectively vacated 1,100 county jail beds. Had the need arisen, the data point to another 3,200 interviewed defendants who could have been released without increased risk - a move that could have vacated another 346 jail beds and saved up to an additional \$5.7 million.

Project '93 attempted to provide a quality, low-cost decision support tool to the Harris County judiciary that would enable judicial officers to assess the degree of risk associated with any given defendant release and help them balance the competing concerns involved in pretrial releases. The risk classification instrument that was implemented in January 1993 is performing its functions well. Not only did it stand as an improvement over the previous classification instrument, but it has demonstrated an ability to do so over a three-year period. In that light, we would again conclude that the instrument should be applied widely as a credible information source in making bail decisions.

Full Text of the Final Report

# Section 1 Introduction

#### Scope of this Report

This document is a product of the Bail Classification Profile Project, 1996 (hereafter called "Project '96"), prepared for the Harris County Pretrial Services Agency (PTSA), located in Houston, Texas. This report is divided into four sections. The first and second sections, respectively, provide background information about the Agency and this study and about the study methodology. The third section reassesses the current classification instrument's performance after its third year of use, having been designed and implemented as part of the original Bail Classification Profile Project, concluded in 1993 (hereafter called "Project '93"). The final section investigates a number of issues recently raised in Harris County regarding pretrial performance. Also, the impact and performance of classification on selected defendant groups will be examined.

#### The 1993 Bail Classification Profile Project

The genesis of Project '93 was manifold. The PTSA was providing release information to Harris County judges using an instrument which was based on the original Vera point scale. For some time, PTSA administrators had been concerned since this instrument had never been validated, and its worth as a predictive tool had not been established, with no known effort to examine its applicability across regional differences or decades of use. At the same time, officials were also concerned about a serious jail overcrowding problem which, while primarily due to state prison backlogs, was exacerbated by a substantial pretrial population and the underutilization of pretrial release options.

To address those concerns, the PTSA, the County, and the State Justice Institute cooperated to examine the value of the risk instrument. The central issue underlying Project '93 was whether the existing predictive tool or an empirically-derived instrument would offer judicial officers greater predictive accuracy in making pretrial release decisions. To that end, the Project was conceived solely as a way to develop and evaluate an empirically-validated predictive tool through the combined use of paper files and automated data.

Our approach was rooted in the knowledge that pretrial misconduct is a relatively infrequent event and that large numbers of cases would be necessary to achieve stable results. More traditional methods of data collection and analysis, which would have expended great amounts of time and money to pursue, seemed impractical. Instead, we sought to use data from the defendant interviews that had been maintained in the county's information management system since the Agency automated its interview process in 1989. We believed that proper handling of those data could streamline processing, and that larger numbers of cases could be examined across a wider range of variables than would be possible by other means. We also believed that the effective use of automated data would provide a path for future evaluations, which would require less time and resources than would traditional evaluation methods.

In simplest terms, Project '93 was an effort to use existing, county-maintained, automated data to develop a framework for policy decisions pertaining to the pretrial release of Harris County criminal defendants.<sup>8</sup> Optimally, we believed such a framework would:

"(a) permit decisionmakers to estimate the degree of risk involved in the release of a defendant, with particular attention to the risk that the defendant would not appear in court as scheduled (failure-to-appear, or FTA) or that the defendant [would] engage in further criminal activity; (b) enable policymakers to balance the competing concerns of public safety, public opinion, court mandates, costeffective use of system resources, and justice; and (c) establish an ongoing, automated evaluation process to continue the classification instrument as a quality, low-cost decision tool responsive to the ever-changing context of criminal justice" (Cuvelier and Potts, 1993:xi).

The central issue underlying the original Project (Project '93) was whether the existing predictive tool or an empirically-derived instrument would offer the consumer courts greater predictive accuracy in making pretrial release decisions. It was conceived solely as a way to develop and evaluate an empirically-validated predictive tool through the combined use of paper files and automated data. From the outset, it was important to establish a framework not as an incursion into judicial responsibilities, but an aid to judicial officers in making certain decisions. The intended product was a decision support tool that would distill for the court's concise information about *extralegal* factors which appeared to have substantive or statistical relevance to the decision making process.

Project '93 introduced a classification instrument that was noticeably different from its predecessor, an instrument that was adapted for use from a point scale developed by the Vera Institute of Justice. The change was believed warranted because our analysis of the adapted

<sup>&</sup>lt;sup>8</sup> The term *defendant* was favored over the term *arrestee* because no person arrested in Harris County is eligible for release on bail unless he or she has been officially charged with a criminal offense.

instrument found that although it had a lengthy history and intuitive appeal, it had little predictive capability.<sup>9</sup>

#### The 1996 Bail Classification Profile Project

Project '96 was requested by the PTSA in an effort to determine whether there had been a change in the Harris County defendant population that would necessitate a change in the PTSA's approach to classifying that population according to their risk of misconduct.<sup>10</sup> The effort was a prudent administrative move because the accuracy of the instrument could have been influenced over time by changes in defendant population demographics, by judicial practices, and/or by changes in defendant responses to contact with the criminal justice process. The classification instrument had been in place for more than three years, and PTSA administrators were appropriately eager for an evaluation of its performance over an extended period of time. Certainly, similar concern for valid performance over time was one of the factors that led to the original Project '93 study. Project '96 also offered an opportunity to determine whether scale adjustment was needed, or an alternative instrument might provide better classification results. If the latter proved to be true, the mainframe programming and staff training needed to implement a new scale would mean costly, but necessary, changes for the PTSA.

#### Background

#### Bail and Pretrial Release in Harris County

The practice of having an accused person provide surety for appearance before some type of tribunal has a history extending backward for more than a millennium. Bail generally aided the functions of the courts by assuring that a defendant will appear to answer charges. In Texas, this purpose has been codified and permits surety in the form of both *bail bonds* and *personal bonds*.<sup>11</sup>

Under Texas law, the term *bail bond* includes what are commonly termed *cash bonds* and *surety bonds*. A *cash bond* is a form of surety submitted by a defendant in the form of valid

<sup>&</sup>lt;sup>9</sup> The factors employed in the Vera-adapted scale awarded 1 point each for: (a) residing in Harris County; (b) having a telephone in the residence; (c) living with parents, spouse, and/or children; (d) living at the same residence for one year or more; (d) full-time employment, disability, or homemaker status; and (e) having one prior misdemeanor conviction or no prior convictions. It deducted a point for every prior felony or misdemeanor conviction after the first misdemeanor conviction, without limit, and one or more prior failures to appear. The lowest observed point total for 1990 was -22.

<sup>&</sup>lt;sup>10</sup> See note 6, page x.

<sup>&</sup>lt;sup>11</sup> Article 17.01, Texas Code of Criminal Procedure.

United States currency (cash bond), which is refundable to the person who provided the bail upon the defendant's satisfactory compliance with the conditions of release, and upon order of the court.<sup>12</sup> Alternatively, bail also may be posted by one or more persons on behalf of the defendant in a form referred to as a *surety bond*. This type of bail usually is posted by a commercial bail bondsman with whom the defendant - or his or her agent - has executed an agreement.<sup>13</sup> Such agreements generally take the form of a nonrefundable fee in conjunction with a written agreement to indemnify the bondsman in the event of the defendant's nonappearance. Under either circumstance, the defendant or surety executes a written agreement to pay the principal amount - plus expenses - if the defendant violates the contractual obligations of his or her bond.

By contrast, a *personal bond* is a discretionary instrument available to judicial officers that permits the release of a defendant in return for his or her written promise to appear in court. If approved for release in this manner, a defendant is required to sign a form giving assurance of his or her appearance at the appointed date and time, and promising to pay the full amount of the bail - plus expenses - if he or she fails in that obligation. These personal bonds may be handled through the approving court, but Texas law also provides for the establishment of personal bond offices to gather and review information to be presented to the appropriate court.<sup>14</sup> In Texas, personal bonds, which are often spoken of as equivalent to release on recognizance, or ROR, are more appropriately equated with an unsecured financial bond. Personal bond release is accompanied by a set bail amount and by a statutorily set bond fee.<sup>15</sup> Fees, which are minimal compared to those of commercial bail bondsmen, are to be used solely to defray the expenses of the personal bond office.

Each of these types of bail serves the same function by allowing a defendant to be released from jail, but the rapidity of that freedom can be affected by Harris County's use of a *bail schedule*. The schedule, which effectively speeds cash and surety bail releases from jail, sets forth a fixed bail amount based on the type of offense charged and the defendant's number of prior convictions. The scheduled amount applies as soon as the defendant is formally charged with an offense. This arrangement permits some defendants to post bail at outlying facilities and to avoid transfer to the county jail, thus removing them from the process at an early stage and inconveniencing them for a shorter period than those defendants who cannot arrange immediate release by financial means.

<sup>&</sup>lt;sup>12</sup> Article 17.02, Texas Code of Criminal Procedure.

<sup>&</sup>lt;sup>13</sup> Texas law also permits such bonds to be made by an attorney in instances where the attorney is representing the bailed defendant.

<sup>&</sup>lt;sup>14</sup> Article 17.42(1), Texas Code of Criminal Procedure.

<sup>&</sup>lt;sup>15</sup> Article 17.42(4), Texas Code of Criminal Procedure. The court may assess the greater of twenty dollars or three percent of the bond amount, or the fee may be decreased or waived for cause.

Prior to November, 1993, misdemeanants who could not make bail were transferred to the county jail, where they were afforded bail review and probable cause determination during weekday business hours by the judge in the court to which their case was assigned, or after business hours and on weekends by a magistrate at hearings scheduled throughout the night. Felons who were unable to post bail were held until the following morning, when they were taken before a district court judge for bail review and a probable cause hearing.

In November, 1993 the probable cause hearings were extended to provide probable cause determination and bail review by a hearing officer, around the clock, to both felons and misdemeanants. Ostensibly, the consolidation of all probable cause and bail review functions in one location would allow the judges of the 22 District Courts Trying Criminal Cases and the 14 County Criminal Courts at Law to focus on their respective dockets. But by November 17, 1993, 8 of the 22 District Court Judges had rescinded the hearing officers' authority to grant personal bond release at the probable cause hearings. By April, 1997, the number of district court judges who had rescinded that authority had grown to 18, and three of the 15 county court judges<sup>16</sup> had placed restrictions on personal bond consideration at the hearings.

The current bail process utilizing a bail schedule and probable cause hearings provides certain benefits to the public and the County. It lessens the number of prisoners transferred to the county jail, thus allowing some defendants to return to their normal activities at an early point, and it eases the strain on jail facilities and crowded court dockets. However, the process also has less attractive qualities. Defendants who make bail prior to their appearance before a judge return to the community without judicial review of the circumstances of the offense and with little or no pretrial supervision or assistance. Further, because the scheduled bail amounts are based on the instant offense(s) and the defendant's prior criminal history, and because the presence of those factors is perceived to correlate with increased risk, an environment exists in which defendants who may present a significant risk to the community can be set free simply because they can financially afford their release while defendants who present little or no risk can - for lack of money - be detained.<sup>17</sup>

#### Pretrial Services and Alberti

In Harris County, a small number of personal bonds are handled solely by the approving courts, but most are effected with the assistance of the PTSA. The Agency began its existence in the late 1960's as a by-product of a Ford Foundation grant to the Criminal Division of the Houston

<sup>&</sup>lt;sup>16</sup> County Criminal Court at Law 15 began operation in 1995.

<sup>&</sup>lt;sup>17</sup> The use of a bail schedule has been questioned because Texas law requires that the determination of bail amounts must take into account the circumstances of the offense and the ability of the defendant to make bail. The use of a standardized schedule that sets bail amounts without consideration of these points is at variance with the controlling statute (see Art. 17.15 C.Cr.P. for factors to be considered in setting bail, and Texas Attorney General's Opinion No. DM-57, dated November 19, 1991, regarding the use of preset bail amounts by a magistrate).

Legal Foundation. At that time, the Pretrial Release Program (as it was then named) focused only on determining eligibility for indigent defendants who were charged with a limited range of offenses. The initial funding source lasted until mid-1970, after which the Program disappeared. In early 1972, the Program reappeared in stronger form under funding from the Commissioners' Court and the Law Enforcement Assistance Administration (LEAA), through the Texas Criminal Justice Council. Finally, in 1974, the Program became an official, funded county agency, but the PTSA flourished because of judicial intervention.

While the PTSA was struggling for renewed funding in the early 1970's, Harris County jail inmates were filing an action in federal district court (hereafter *Alberti*),<sup>18</sup> "alleging numerous violations of their constitutional and statutory rights as a result of [the Sheriff's and the Commissioners Courts'] operation and maintenance of county detention facilities."<sup>19</sup> This litigation resulted not only in the opening of new jail facilities,<sup>20</sup> but also in oversight of the Harris County facilities by the United States District Court for the Southern District of Texas.

Among other things, the court found that the jail facilities were operating at over twice their designed capacity, and that nearly 70 percent of the inmates were pretrial detainees. Further, the Pretrial Release Program, which was supposed to be helping to relieve the problem, had been effectively shut out from the city jail which supplied most of the county arrestees. The Agency had been established, but had received little further support because, in the words of the federal court, "the agency is politically unattractive to the Commissioners Court."<sup>21</sup> It further lacked credibility with the local judiciary, and the federal court opined that the Agency's subjective approach to interviewing defendants held too much potential for interviewer bias in determining release eligibility. In short, the federal court found that the agency and its staff were underfunded, poorly trained and supervised, poorly managed, inefficient, and harassed by commercial bail bondsmen.<sup>22</sup>

To address the deficiencies regarding the Pretrial Release Agency, the federal district judge left fiscal control of the Agency with the Commissioners' Court, but transferred administrative control to the district judges. The Agency was ordered to develop an objective

<sup>&</sup>lt;sup>18</sup> Alberti, et al. v. Sheriff of Harris County, 406 F.Supp. 649 (1975). This case was originally filed on August 14, 1972.

<sup>&</sup>lt;sup>19</sup> Id., at 654. The Commissioners' Court is the governing board of the county, and its members are elected from precincts within the county. In this instance, they were alleged to be responsible for the underfunding of county detention facilities that permitted conditions to deteriorate.

<sup>&</sup>lt;sup>20</sup> The conditions challenged were those of the jail located at 301 San Jacinto; the current main facility, located at 1301 Franklin, was a product of the inmates' action. Although no longer the primary facility, "301" is still in use. In the downtown area, these two jails have been supplanted by another facility at 701 N. San Jacinto ("701") and the Inmate Processing Center (IPC), located at 1201 Commerce. At this writing, the federal court has issued final orders in *Alberti*, but is maintaining jurisdiction.

<sup>&</sup>lt;sup>21</sup> *Alberti*, 406 F.Supp., at 664.

<sup>&</sup>lt;sup>22</sup> Id., at 666.

point system for determining release eligibility and to move quickly to reevaluate all pretrial detainees then being held in Harris County facilities. The Commissioners' Court was directed to provide adequate county office space for the Agency, and to enter into discussions with Houston city officials to obtain adequate space in the city jail to conduct interviews and to integrate the interview into the routine processing of arrestees. Further, the Agency's role and staffing was to be set at a level which would maximize the number of defendant interviews, and extend its services to all defendants - not simply the indigent.

#### The PTSA Today

As of this writing, the Harris County Pretrial Services Agency employs 100 persons in four sections: Administration, Court Services, Defendant Monitoring, and Computer Applications.<sup>23</sup> The Court Services Section is the Agency's largest, and it is the section responsible for the interview of defendants at the earliest possible time after booking, for the processing, verification and presentation of applications, and for the filing of approved personal bonds as directed by the court. With the filing of an approved personal bond, the Defendant Monitoring Section (DMS) steps in to maintain contact with defendants who have been released to the Agency's supervision. The DMS monitors and reports defendant compliance with court-imposed conditions attached to their release,<sup>24</sup> provides community service referrals to defendants for whom needs have been identified, and attempts to locate defendants who were released to the Agency's supervision and who have subsequently failed to appear for court. The remaining section, Computer Applications, serves a quality control function by reviewing manual and automated interviews for error, acts as the PTSA's liaison with the Harris County Justice Information Management System, and maintains the Agency's internal network of Macintosh OS-based desktop computers and servers.<sup>25</sup>

Under most circumstances, Court Services personnel contact defendants at the three primary locations into which a defendant may be booked. The PTSA assigns staff to both the Houston Police Department (HPD) Central and Southeast facilities, which account for more than 60% of the 55,000 plus defendant interviews completed each year. Persons arrested by

<sup>&</sup>lt;sup>23</sup> For the purposes of this report, we are limiting this discussion to those sections that deal directly with the collection and correction of data, and with the supervision of defendants: Court Services, Defendant Monitoring, and Computer Applications. Agency administration comprises the Director and Assistant Director, as well as personnel who provide clerical and support functions for all sections.

<sup>&</sup>lt;sup>24</sup> The DMS supervises all defendants released on personal bonds through the PTSA, but the division also provides "courtesy supervision" at the request of individual courts for defendants released through cash or surety bail.

<sup>&</sup>lt;sup>25</sup> Manual interviews are forms which permit employees to write interview information by hand, and they resemble their automated counterpart in both layout and purpose. They are particularly useful when the county information management system is out of service, or when circumstances require an employee to gather information in locations not served by the system.

agencies other than HPD are usually first contacted by PTSA staff at the county's Inmate Processing Center.

After inmate contact has been initiated, the resulting interviews are transferred to the Probable Cause Hearing Room (PCH), where they are prepared for presentation to hearing officers who - in around-the-clock hearings held approximately every four hours - conduct probable cause inquiry and bail review for each defendant.<sup>26</sup> If a personal bond is approved, the defendant is provided with initial reporting instructions for DMS intake, and the approved bond is delivered to a Deputy Clerk of Court who also is officed in the PCH area.

Defendants who are released on personal bond are directed to report to the DMS within 24 hours of their release. On arrival, they are asked to provide updated contact information, they receive more direct instruction about their expected behavior while on bond, and they are screened regarding their need for community services that might provide stability and enhance their adherence to their release conditions. If required, arrangements are made for connection of electronic monitoring equipment or urinalysis, as required by the approving court. Each defendant is assigned a reporting officer, and that officer supervises the defendant for the length of time he or she is under PTSA supervision. When a defendant under supervision fails to appear in court as scheduled and a capias warrant is issued for that reason, the defendant's case file is transferred to a separate unit within the DMS where officers attempt to locate the defendant and arrange for the warrant to be executed. For that purpose, the Harris County Sheriff's Department assigns two deputies to work with PTSA staff, and those deputies are officed within the DMS.

#### Conclusion

You now may understand a bit about the Agency, its origins, and some of the events that have shaped its development. Ultimately, the PTSA continues to perform its most basic functions as a data collector and an information provider. It fulfills that role through the elaborate interview and presentation process, and through periodic reports such as the one you are now reading.

The remainder of this report details the methodology used to develop classification instruments, descriptive data from the 1995 defendant population, reassessment of the Project '93 instrument, and a bit about issues related to pretrial performance. We understand that reports can sometimes be a bit tedious in their detail, so we have placed many of the data tables in appendices at the end of this report. For those readers who are more interested in the results of the study than in a discussion of the study methodology and descriptive data, please feel free to skip to page 20.

<sup>&</sup>lt;sup>26</sup> As indicated previously, not all courts permit the hearing officers to approve personal bond release (see page 5).

# Section 2 Methods

#### The Data

The data for Project '96 were drawn from the population of felony and Class A and B misdemeanor cases filed in Harris County during calendar year 1995, using data provided by the Harris County Justice Information Management System (JIMS). The reassessment study dataset, assembled from the provided data, began with approximately 83,000 cases, representing 42,299 released defendants and 25,056 detained defendants. Of those, case data on all 42,299 released defendants were used to analyze overall failure-to-appear and reoffense rates, and 32,589 released defendants with sufficient available interview data were included in the reassessment analysis.<sup>27</sup>

#### Design

This study was constructed to address two fundamental issues. The first was to assess the current performance of the classification instrument designed and implemented during Project '93. The second issue was to empirically test the assumptions and allegations made regarding the performance of personal bonds compared to other forms of pretrial release. This section will address the methodological issues as they apply to the reassessment analysis.

The instrument reassessment, reported in Section 3, was conducted in two steps. First, all defendants released in 1995 with available classification and outcome information were cross-tabulated by risk categories and pretrial outcomes. This result was then compared to the range of outcomes predicted using the findings of Project '93.

In a second step, the dataset was randomly divided into two parts. Using one part as a calibration sample, the existing items on the classification instrument were evaluated to determine whether or not the instrument required recalibration, or adjustment, of the scores

<sup>&</sup>lt;sup>27</sup> Because the risk classification scale is based in part on extralegal factors available only through the interview process, any analysis of that scale must be based on available interview data.

assigned for the items comprising the instrument. New items then were tested to determine whether a revised instrument with new items would perform the classification tasks more efficiently.

The unused portion of the data was then used to test and compare the performance of the current, recalibrated, and new instruments. This enabled us to examine the performance of all three instruments on the same dataset, but one that was not used to produce any of the instruments. This provided as fair an examination as possible of how the instruments would perform under actual field conditions.

#### **Statistical Procedures**

The statistical procedures used for this study are largely the same as those applied during Project '93. Calculating the outcome of the classification models was accomplished by applying the criteria for the model to the interview data for each incident. This produced a score representing the risk group for each defendant. Grouping the defendants by classification score, those who either failed to appear or were rearrested were identified as *failures*. The failures for each classification level was divided by the total number of interviewed defendants who were classified at that level, producing a proportion of defendant failures. The Classification Efficiency Score (CES) was calculated for these data using the procedures outlined below. The CES reflects the degree to which uncertainty inherent in the data is overcome by the classification instrument.

Establishing the weights applied to classification items to make an additive scale is accomplished using logistic regression. Logistic regression is a statistical technique that establishes the unique contribution made by individual variables (called independent or predictor variables) in predicting the outcome of a categorical measure. "Success" or "misconduct" represent dichotomous categories representing potential outcomes for pretrial defendants.

#### Assessing Classification Efficiency

Assessment of the predictive power of an instrument has commonly relied upon the Mean Cost Rating (MCR) measure, developed by Duncan, Ohlin, Reiss and Stanton (1953). The MCR measure varies from 0 to 1, ranging from 0 when all classification groups have the same rate of failure (totally non-predictive) to 1 when the instrument perfectly predicts outcome. The MCR may be considered a proportion by which the use of the instrument improves prediction beyond the base rate.

The MCR holds an advantage over other measures of predictive accuracy in that it is less sensitive to the base rate than is Phi (Hays, 1963), relative improvement over chance (RIOC), Loeber and Dishion (1983), or point-biserial coefficients (Gottfredson and Gottfredson, 1986).

Fischer (1985:10) further suggests that a MCR value of 0.25 be attained to show utility for classification, that a score of 0.35 or greater indicates significant improvement over existing clinical techniques, and that a MCR of 0.40 has rarely ever been exceeded in predicting recidivism and violence.

The formula for the mean cost rating is shown in Fischer (1985) as . . .

$$MCR = \sum_{i=1}^{k} C_{i}U_{i-1} - \sum_{i=1}^{k} U_{i}C_{i-1}$$

where:

i = each of the risk levels taken in succession from high risk to low

k = the number of risk levels

C<sub>i</sub> = the cumulative relative frequency of successes at the ith level

 $U_i$  = the cumulative relative frequency of failures at the ith level

The  $C_i$  figures represent the cost of selecting the first to the ith category for retention as high risks. These represent the false positives. The  $U_i$  figures represent the utility of selecting the first through the ith category for retention as high risks. These are the true positives.

Table 1 shows the performance characteristics of a classification model. The classification scores are followed by the frequency of cases, their proportion and cumulative proportion in each class. This is the typical presentation of a frequency distribution. The remaining columns do the same for the successes and failures, showing the frequency, proportion and cumulative proportion of each.

 Table 1. Frequency Distribution of a Classification Model

Score	Freq	Prop	Cum Prop	Freq Success	Freq Failure	Prop Success	Prop Failure	Cum Prop	Cum Prop
								Success	Failure
-4	636	0.022	0.025	318.000	318.000	0.013	0.068	0.013	0.068
-3	1,161	0.041	0.063	719.820	441.180	0.030	0.095	0.043	0.163
-2	2,104	0.074	0.136	1,359.180	744.820	0.057	0.160	0.100	0.322
-1	3,696	0.129	0.265	3,004.850	691.150	0.125	0.148	0.225	0.470
0	5,359	0.187	0.452	4,442.610	916.390	0.185	0.196	0.411	0.666
1	6,231	0.218	0.670	5,396.050	834.950	0.225	0.179	0.636	0.845
2	4,855	0.170	0.839	4,364.650	490.360	0.182	0.105	0.818	0.950
3	3,237	0.113	0.952	3,046.020	190.980	0.127	0.041	0.945	0.991
4	1,365	0.048	1.000	1,322.690	42.320	0.055	0.009	1.000	1.000

The cumulative proportion of successes and failures in the right-hand columns become the focus for MCR calculation. Each cell in the success column is multiplied by the cell diagonally above it in the failure column. Each cell in the failure column is multiplied by the cell diagonally above it in the success column. The sum of the failure x success is subtracted from the sum of success \* failure to produce the MCR. The results of these calculations are shown in Table 2.

0.013	х	0.000	0.068	х	0.000
0.043	х	0.068	0.163	х	0.013
0.100	х	0.163	0.322	х	0.043
0.225	х	0.322	0.470	х	0.100
0.411	х	0.470	0.666	х	0.225
0.636	х	0.666	0.845	х	0.411
0.818	х	0.845	0.950	х	0.636
0.945	х	0.950	0.991	х	0.818
1.000	х	0.991	1.000	х	0.945
Sum		3.288			2.919

Table 2. Computations for MCR

MCR = 0.387

The MCR coefficient reflects the false and true positives that result from selecting each class as a potential cut point. It represents the instrument's overall improvement over chance (base rate). In the case of the example given above, the instrument improves prediction over the base rate. According to Fischer (1985:10), this would reflect a substantial improvement that would exceed the capability of clinical prediction, and would be comparable to one of the better classification instruments developed in criminal justice.

But the MCR has limitations. No statistical test is available that will directly identify a level of predictive accuracy as being significant or not. Furthermore, the interpretation of the MCR does not represent proportions. The MCR score of 0.387 does *not* mean that the instrument improves prediction 38.7% over the base rate. These issues we address in introducing the CES.

The CES is computationally similar to the MCR, but incorporates several key features designed to overcome limitations in the MCR. Conceptually, the CES is based upon notions of information theory in which a classification instrument serves as a communication channel between the attributes and outcomes of subjects. The clearer the connection between attributes and outcomes, the more efficient an instrument is adjudged. Likewise, with sufficient numbers of observations, studies show that analyzing the significance of an instrument's classification efficiency may be conducted using a form of analysis of variance (Cuvelier, 1995). Table 3 shows the calculation of classification efficiency based upon the same numbers used to demonstrate

MCR above. The predicted number of failures reflect the base rate of 0.157 applied to the total number of subjects in each risk group. The absolute difference represents the degree of change attributable to the use of the risk instrument when compared to the base rate. The classification efficiency measure is computed by dividing the sum of the absolute differences (2150.82) by 2 times the total number of cases (28444), times the base rate (0.157), times 1 minus the base rate (0.843). The resulting score of 0.285 is the classification efficiency score.

Fail	Succeed	Total	Predicted	Abs. Diff					
318	318	636	99.926	218.074					
441	720	1161	182.411	258.589					
745	1359	2104	330.572	414.428					
691	3005	3696	580.700	110.300					
916	4443	5359	841.983	74.017					
635	5396	6031	947.565	312.565					
490	4365	4855	762.797	272.797					
191	3046	3237	508.584	317.584					
42	1323	1365	214.463	172.463					
4469	23975	28444	4469	2150.82					
Base	Base Rate 0.157								
Classifica	ation Efficie	ency Score		0.285					

**Table 3: Classification Efficiency Calculation** 

Classification efficiency can be scaled to be comparable to MCR. By applying what Kaufman (1975:35) calls "algebraic summation," we can combine the base rate with the classification efficiency score in a way that assures that the total will not exceed 1.00.

$$\hat{a+b} = a+b-(a*b)$$

Plugging the base rate (0.157) and the classification efficiency score (.285) into a and b producing the following result.

$$0.157 + 0.285 - (0.157 * 0.285) = 0.397$$

This is comparable to the MCR (0.387) computed in Table 2, above. The major advantage of this statistic is that the CES actually reflects the proportion of error reduced through the application of the classification instrument. This has the qualities of a PRE (Proportionate Reduction of Error) measure (Hagan, 1997:371).

Beside providing a measure of proportionate reduction in error, the CES opens the door to a test of statistical significance. Table 4 shows the computation of variance estimates for the deviations between and within classification groups.

**Table 4. Variance Estimates** 

Cases	Prop Cases	Failure Rate	Failures	Successes	Within SS	Between SS
000	0.00000	0.5	040	04.0	450	450
636	0.02668	0.5	318	318	159	159
1161	0.0487	0.37984	441	720	273.488	167.512
2104	0.08825	0.35409	745	1359	481.205	263.795
3696	0.15502	0.18696	691	3005	561.811	129.189
5359	0.22477	0.17093	916	4443	759.43	156.57
6031	0.25296	0.10529	635	5396	568.141	66.8587
4855	0.20363	0.10093	490	4365	440.546	49.4542
23842	1	0.17767	4236	19606	3243.62	992.378

Ideally, all members of a given group will be maximally similar in attributes and outcomes. When variation exists within a risk group we are measuring error. The following formula shows the calculation of within groups error shown in Table 4.

$$\sum \left(F - \frac{F^2}{N}\right)$$
 = Within Groups SS

where F is the number of failures per risk group and N is the number of cases per risk group

The deviations between groups should be maximized. Therefore, the significance of the analysis will be directly focusing upon this measure. The following formula shows the calculation procedures for between group variations.

$$\sum \left(\frac{F^2}{N}\right) - \frac{\left(F\right)^2}{\left(\sum N\right)}$$
 = Between Groups SS

where F is the number of failures per risk group and N is the number of cases per risk group

Finally, the total sum of squares can be calculated by adding between and within sums of squares or by the following formula.

BR\*(1-BR)\*N = Total SS

where BR is the base rate for all observations and N is the number of cases per risk group Table 5 represents an analysis of variance table, based upon the sum of squares computations shown above. The degrees of freedom for between groups, represents the number of risk groups (8) minus 1. The degrees of freedom for the within groups represents the number of subjects minus the number of groups minus 1. The mean square calculations (MS) represent the sum of squares (SS) divided by the degrees of freedom (Df). Finally, the F value represents the MS between divided by the MS within. The significance level (Sig) shows that this model separates defendants into significantly different (distinct) groups according to risk. Here, a value of less than 0.05 will be considered significant.

Source	SS	Df	MS	F	Sig.
Between	239.769	7	34.25271	251.6877	0.0000
Within	3243.62	23834	0.136092		
Total	3483.39				

Table 5. ANOVA Table

In sum, the CES measure represents a proportionate reduction of error (PRE) measure, enabling the research to identify the proportion of decision error that can be eliminated using the instrument. The use of a form of analysis of variance (ANOVA) enhances the utility of this measure by providing a test of statistical significance. Finally, the CES measure can be translated and compared to the MCR, connecting it to a large body of evaluation literature.

#### Logistic Regression

Suppose we want to estimate a measured quantity, such as a person's weight. Applying a common form of statistical analysis such as regression, we may seek to explain variations in the weight measures between people, based upon a set of a independent variables such as height, sex, age, and others. Estimates based upon these common statistics express our expectations of the dependent variable's value, given known values of a set of independent variables.

Now consider the comparison of defendants on their successful or unsuccessful completion of pretrial release. How can we express our expectations that a given defendant will be in one group or the other? Here the problem has changed somewhat. No longer are we measuring the degree to which expected values change, but rather how expected probabilities change. As we incorporate information about the defendant, such as age, offense level, or number of prior offenses, we want to adjust our expectations of outcome to reflect the known information. To assess these changes in the expectations, we apply logistic regression. Logistic

regression has been designed specifically to assess the change in the likelihood of outcome (expressed as odds) for unit changes in a set of independent variables.

Logistic regression coefficients represent the weight assigned to an independent variable that indicates the degree to which the odds of success or failure change, given a unit change in that independent variable. For example, if the number of prior offenses is found to impact the odds of failure on pretrial release and has a computed coefficient (weight) of 0.03, for each prior offense we find in a defendant's criminal history, we would increase our expectations (odds) of the defendant failing on pretrial release by 0.03.

#### **Converting Coefficients into Weights**

We can use the logistic regression coefficients to establish scores that may be summed up, and the total then used to assign a defendant to a risk category. This is how it is done. First, we calculate the difference between each coefficient and the mean of all coefficients in the logistic regression model. This centers the distribution of the coefficients around the value of zero. Next, the standard deviation is calculated from the centered scores, defining what may be considered the average distance between all the coefficients. Each of the centered coefficients are divided by the average distance and the result is rounded to the nearest whole number. This is the weight used by the classification instrument in assigning defendants to risk scores.

Table 6 shows the output of a logistic regression model. The column marked "B" contains the logistic regression coefficients. Note that all items in the model are statistically significant, indicated by the "Sig" (significance) value of less than .05.

Variable	В	S.E.	Wald	df Sig		R	Exp(B)
AUTO1	-0.2686	0.0566	22.5483	1	0.0000	-0.0433	0.7644
PHONE1	-0.4983	0.0664	56.3419	1	0.0000	-0.0705	0.6075
PFTA1	0.9135	0.0928	96.8423	1	0.0000	0.0931	2.4931
PFEL1	0.5502	0.0823	44.7456	1	0.0000	0.0625	1.7336
PMISD1	0.3989	0.0632	39.8762	1	0.0000	0.0588	1.4902
FTWORK1	-0.2425	0.0596	16.5523	1	0.0000	-0.0365	0.7847
NUCLEAR1	-0.2423	0.057	18.0648	1	0.0000	-0.0383	0.7848
UNDER21N	0.1742	0.0696	6.2629	1	0.0123	0.0197	1.1903
Constant	-1.5046	0.0826	331.8987	1	0.0000		

Table 6. Computed Results of a Logistic Regression Model

Table 7 shows the computation of weights which are incorporated in the risk instrument to assign defendants to categories. The average of the regression coefficients ("B") is subtracted from each coefficient and recorded in the "Dev" column. The standard deviation is computed from this column and is then used to divide each of the "Dev" scores. The result is rounded to the nearest integer value, which becomes the weight for an independent variable.

Variable	В	Dev	Dev/StDev	Weight	
	0.0696	0.26674	0 74602	4	
AUTOT	-0.2000	-0.30074	-0.74692	1	
PHONE1	-0.4983	-0.59644	-1.21473	1	
PFTA1	0.9135	0.815363	1.660607	-2	
PFEL1	0.5502	0.452063	0.920692	-1	
PMISD1	0.3989	0.300763	0.612548	-1	
FTWORK1	-0.2425	-0.34064	-0.69376	1	
NUCLEAR1	-0.2423	-0.34044	-0.69335	1	
UNDER21N	0.1742	0.076063	0.154913	0	
	0.098138	0.491003			

Table 7. Computation of Weights for a Risk Assessment Instrument

The weight of each affirmative response is added together to form a risk score. Using the weights in Table 7, let us classify a person who (1) owns an auto, (2) has a telephone, (3) has no prior FTA, (4) has no prior felony, (5) has 2 prior misdemeanors, (6) works part-time, (7) lives with a spouse and (8) is over the age of 21. This defendant would score one point for items 1, 2, and 7 for a total of 3, and one point would be deducted for item 5. In total, the defendant would be classified a 2. According to the experience of 1995, shown in Table 2, this defendant is grouped with defendants who experience a 11.46% rate of failure.

# Section 3

# **Reassessing the Bail Classification Instrument**

#### The Present Instrument's Performance

The main purpose of Project '96 was to assess the performance of the classification instrument that was implemented in January 1993. While a three-month follow-up study showed the instrument to be working well, we could not be sure that the instrument would continue to perform well over an extended period of time. Discussions with PTSA administrators and other pretrial professionals stressed that periodic examination of the instrument would be necessary to assure continued satisfactory performance.

Taking a quick backward glance, one of the major reasons for implementing a new instrument was the poor performance of its predecessor. The adapted Vera scale ran from a high of 7 points to a low determined by the defendants' prior criminal history. During Project '93, those scores were observed to range from 7 to -22. Scores of 4 or higher were considered eligible for presentation to judicial officers as potential candidates for personal bond release. The implication was that defendants who scored 4 points or more were better release risks than defendants whose score was less than four points.

The problems accompanying use of the adapted Vera scale were numerous. The central problem was that there was no balance between factors that were more influential and those that were less so; all factors were weighted equally in arriving at a total score. Because there was no balance between factors, the scale did not adequately differentiate cases on the basis of risk. As the graphic in Figure 1 indicates, only the group believed to represent the lowest risk fell clearly below the average failure rate for all groups. All other groups included the average as part of their respective confidence intervals. That problem of differentiation of risk only exacerbated problems associated with application of the scale in the courtroom. In many instances, the relationship between scores and associated risks was uncertain, and therefore consumers usually relied on the score - a label that had little practical significance.



Figure 1. Failure Rates by Defendant Classification: The Adapted Vera Instrument

Implementation of the new scale in 1993 clarified the process of risk classification. As Figure 2 indicates, Project '93 results offered a classification scale that met two basic criteria. The first criterion was that the instrument should produce different failure rates for each classification level and the rates should change in stairstep fashion across classification levels. The Project '93 instrument provided for homogeneous categories that were clearly differentiated on the basis of perceived risk. The second criterion was that failure rates would be *somewhat* consistent over time. A classification instrument that was overly-sensitive to minor variations in conditions or practices would be of limited use to the Agency.



Figure 2. Failure Rates by Defendant Classification: The Project '93 Instrument.

Moving back to the present, the issue is what available data suggest about the long-term performance of the Project '93 instrument. In short, it appears that the Project '93 instrument exhibited good and stable performance through its first three years of use. A comparison of the failure rates by score category (Table 2) reflects little difference in misconduct rates within individual scale categories. The table indicates general adherence to the two criteria cited earlier; though Project '96 rates are different for each level, they change monotonically, and they appear

	19	93	19	995					
	Misconduct Rate	isconduct Percent of Rate Population		Percent of Population					
4	3.76%	18.62%	5.12%	21.14%					
3	7.65%			24.85%					
2	10.56%	22.12%	11.46%	21.23%					
1	14.49%	15.97%	13.25%	18.41%					
0	16.17%	12.87%	17.05%	9.67%					
<-1	27.59%	1.23%	31.21%	1.37%					
-1	25.00%	3.65%	23.00%	3.34%					
Overall Misconduct Rates									
	10.64%		11.02%						

 Table 2. Pretrial Misconduct Rates by Bail Classification

 Level for 1993 and 1995

to be somewhat consistent over time.

Figure 3 is a graphical representation of the Project '93 instrument's performance, which overlays Project '96 misconduct rates the on 1993 results the from validation sample. The slight difference in rates is visible, but the figure demonstrates that after three years results generally fall within the original expected confidence intervals.

Figure 3. Overlay of the 1993 Misconduct Rate Estimates and the Observed Rates for 1995.



#### The Reweighted and Alternative Instruments

To provide a more complete picture of the current instrument's performance, it was appropriate to reevaluate the instrument's design. This was done by dividing the available 1995 data into two samples: a *construction sample* and a *validation sample*, followed by the execution of each of two different bifurcated exercises. The first exercise assumed that appropriate factors were used and involved recalibrating, or reweighting, the current instrument items using the construction sample. The purpose of the exercise was to determine each factor's current relative importance in predicting pretrial misconduct without changing the scale items used. The recalibration altered only two items: defendants under the age of 21 years would receive a zero for that item instead of a -1, and the weight accorded one or more prior failures-to-appear would increase from -1 to -2. As before the scale would range from +4 to -4.

The second exercise, development of an alternative instrument, was carried out on the assumption that the factors employed in the scale were inappropriate to the task. The purpose of the alternative exercise was to determine whether the construction sample would provide a somewhat different set of factors that would be more predictive of pretrial misconduct. Under the alternative instrument defendants would receive 1 point each for residence in Harris County, "married" marital status, and having a phone in their place of residence; they would have 1 point deducted for one or more prior felony convictions, and 2 points deducted for one or more prior failures-to-appear. The scale for the alternative instrument would range from +3 to -3.

# Comparing the Present, Reweighted, and Alternative Instruments' Performances

Once the recalibration and alternative scale exercises were completed using the 1995 construction sample, the remaining performance-evaluation task was to apply the current scale, the recalibrated scale, and the alternative scale to the validation sample, which was also drawn from the 1995 dataset.

The current scale (from Project '93) performed within acceptable limits, with misconduct rates in each level only slightly higher than were exhibited when the scale was applied to the entire dataset. Its Classification Efficiency Score (CES) was 0.184877, meaning that it reduces the level of uncertainty inherent in decisionmaking by about 18%. The recalibrated scale evinced a CES of 0.195277, but that slightly better efficiency did not translate into either statistical significance or substantial change. Its misconduct rates were slightly higher at each risk level, when compared to the current model. The alternative model offered lower misconduct rates in the +3 and +2 score categories, but at the cost of differentiation between risk levels. This made the alternative model far less attractive since the emphasis on release decisions focuses

attention on higher risk cases. The alternative scale had a high score of only +3 and grouped over 77% of the defendants in the two lowest-risk categories. The CES for the alternative model was lower than that for either of the other two scales at 0.156088.

Ultimately, the results of the exercises led to the conclusion that the alternative scale would not offer better performance than the current scale. Further, we concluded that the minimal increase in performance offered by the recalibrated scale was not established to be an actual (non-random) difference, nor - if it was an actual difference - was it sufficient to warrant the expenditures of time and money necessary to implement it. At this time, it is our opinion that the Agency and its consumers are receiving satisfactory performance from the present classification instrument, and it should remain in use until its replacement is recommended by further study.

# Section 4

# **Examining Issues in Pretrial Performance**

#### **Comparing Misconduct Rates by Type of Bond**

Literature in the pretrial field and past experience led us to believe that we would likely detect differences in misconduct rates from one type of pretrial release to another. There are a variety of opinions as to why such a phenomenon might occur; the most often heard, it seems, suggests that defendants who are released by financial means (such as cash or surety bail) are more responsible and will exhibit lower rates of misconduct than defendants released through nonfinancial means. If that is true of the local situation, one then would expect that defendants released under surety or cash bail. While this assumption may seem logical, and may even be accompanied by persuasive arguments, it is in fact an empirical issue that can be addressed by examining the data.

Our examination of all pretrial releases for 1995 showed that cash-bailed defendants evinced the lowest overall misconduct rate, at 7.11%. These defendants are those who can readily access cash in sufficient quantity to post the entire bail amount. The next lowest overall misconduct rate is that for PTSA-supervised personal-bonded defendants, at 8.61%. The highest overall misconduct rate is that for surety-bailed defendants, at 10.74% - 25% higher than that for PTSA-supervised personal-bonded defendants. But surety bonds may be written by defense attorneys, out-of-town bondsmen, or local bondsmen who are licensed to conduct such a business in Harris County. To better examine the commercial bail industry performance, we isolated the rate for County-licensed bail bondsmen by filtering out the relatively low number of defendants bailed by out-of-county entities or the defendants' attorneys. The resulting misconduct rate for County-licensed bail bondsmen was higher still, at 10.83% (see Table 1, page vii).

These results strongly suggest that any assumptions regarding a nexus between a defendant's ability to afford financial release, whether cash bail or surety bail, and characterizations that such defendants are "more responsible" than persons released on personal bonds are false. As we noted earlier, the "responsibility argument" would lead one to

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expect that defendants released on personal bond would have higher misconduct rates than defendants released under either surety or cash bail, and it would follow that cash- and suretybailed defendants would exhibit similarly lower rates of misconduct. The data, however, indicated: (a) disparity between cash bail and surety bail misconduct rates, with the personal bond misconduct rate falling between the two; (b) disparity in rates between surety-bailed defendants released by County-licensed bail bondsmen and those released by other sureties; and (c) disparity in rates between surety-bailed defendants released prior to interview and those who remained jailed long enough to be interviewed. Although we do not discount the significance of individual responsibility in how defendants respond to the criminal justice process, these results lead us to believe that only the most elastic reasoning could continue to offer up financial means as the defining characteristic of individual responsibility.

Commercial bail representatives have also suggested that they are disadvantaged by *adverse selection of risk*, an insurance industry term that refers to the disadvantage of being forced by circumstance to select from a pool of higher-risk defendants.<sup>28</sup> In Harris County, for example, it has been suggested that the PTSA "releases" most low-risk defendants, leaving the bondsmen to select from the remaining higher-risk defendants. But the standard procedure, which affords defendants an opportunity to arrange for cash or surety bail well ahead of their opportunity for personal bond release, does not support this conclusion, and neither is this conclusion supported by the data. The data speak to this matter from two vantage points: those defendants who were released on surety bail and those who were detained awaiting trial.

Reasoning that persons lacking interview data most likely were released from custody prior to contact with PTSA interviewers, we compared the misconduct rates from two data sets: one data set containing data on interviewed defendants, and a second data set containing data on all released defendants. The second data set added approximately 10,000 defendants for whom no interview data were available, including approximately 7,500 surety releasees. We found that the addition of these defendants drove the surety misconduct rate downward, from 12.27% to 10.78%. Because the additional non-interviewed defendants drove the rate downward, the data strongly suggest that (a) those defendants represented a lower-than-average risk for misconduct; and (b) bondsmen already had first access to a large number of low-risk defendants, and were releasing them in substantial numbers.

As for the defendants who were not released, study data on interviewed defendants revealed 3,200 low-risk defendants (<10% predicted misconduct rate) who remained in jail awaiting trial. Of that number, 90% had no prior failure-to-appear history; 40% had no prior convictions, and over half of those defendants were being detained solely on a misdemeanor

<sup>&</sup>lt;sup>28</sup> As we have seen it used, this argument offers a win-win outcome for the bondsman. If his or her misconduct rates are higher, it is because he or she was disadvantaged. If they are lower, the claimant maintains that superior performance permitted him or her to prevail, despite the disadvantageous situation.

charge. If anything, the jails appeared to contain a captive pool of low-risk defendants who, if released, could have contributed at least \$300,000 in additional revenues for local commercial bail interests. But the data also suggest why those defendants did not get out on surety bail. Regardless of the risk level to which they were assigned, detained defendants reported a median income that fell between \$100 and \$500 below the median reported for persons who were released on surety bail at the same risk level (see Figure 4).





On balance, the "adverse selection" argument was found wanting because there was no evidence to support a claim that personal bond releases exhausted the available pool of low-risk defendants.<sup>29</sup>

One interesting phenomenon was observed with what are called "courtesy supervision" cases. This term refers to defendants who achieved some form of financial release (in this case, surety bail), but who were ordered under PTSA supervision by the court. Courtesy defendants, as a group, exhibited a misconduct rate somewhat lower than that of surety-bailed defendants as a whole, but that observation is made cautiously. At this time, the relatively low number of cases will not support firm conclusions regarding the misconduct rate. As more data are gathered, the

<sup>&</sup>lt;sup>29</sup> Even if "adverse selection" were operative in the process, the bail industry was never guaranteed anything more than the *opportunity* to write bail bonds; they were never guaranteed a monopoly on access to low-risk or non-indigent defendants, and it is hardly the business of government to engineer such access. Risk is inherent in the bail bond business, and bail bondsmen choose whether to accept the risks associated with the release of a given defendant. Bondsmen have the ability to limit their exposure to known risk by simply choosing not to do business with a given defendant, but their need for business income encourages acceptance of increased exposure. Data from interviewed defendants indicate that over 17% of surety bond "failures" came from risk groups <u>expected</u> to exhibit a misconduct rate of greater than 15%; by comparison fewer than 7% of all cash bailees and fewer than 2% of all PTSA releasees come from these risk groups.

misconduct rate should stabilize, providing a clearer assessment of the influence of courtesy supervision on surety-bailed defendants.

#### **Reoffending Patterns**

Another point of concern also often expressed is that of the "dangerousness" of pretrial defendants who are released into the community; that is, the public's fear that the defendants will commit new criminal offenses. The truth is that pretrial releasees, regardless of the method of release, will commit new crimes while on bail. It is equally true, however, that the crimes likely will be few in proportion to the number of defendants released, and the incidence of such crimes is less than many might imagine. For example, our examination of all 42,299 releases revealed that the observed reoffense rate did not exceed 3%; cash-bailed and personal-bonded defendants exhibited a rate of approximately 1.7%, and surety-bailees experienced a rate of 2.74%.

The type of offense committed by a defendant while on bail was predominantly a misdemeanor. Persons who were on bail for misdemeanor assaultive offenses, misdemeanor drug- or alcohol-related offenses, or misdemeanor thefts, and who committed a new offense were most likely to commit a similar offense. Aside from those defendants, the offense types for which defendants were rearrested were diverse. Based on the study data, it remains difficult, if not impossible, to predict the majority of future offenses.

#### Cost Analysis of the Pretrial Services Agency

In recent months, much has been made of the PTSA's budget, which exceeds \$4 million dollars annually. The Agency, at times, is portrayed as one that provides "criminal welfare" to the defendant community, without particular attention to the notion that many persons can be released with minimal risk, or the likelihood that the Agency represents a prudent, fiscally conservative approach to dealing with the pretrial population.

In 1995, the year from which the data for this study were drawn, the state and Harris County paid approximately \$4.5 million to fund the Agency, and the data indicate that 6,675 defendants were released on personal bond under Agency supervision. To determine the Agency's impact on County expenditures, whether positive or negative, we calculated the number of bed/days that would have been expended in housing the 6,675 defendants had they remained in jail instead of receiving personal bonds. Recognizing that the length of time to disposition of pending cases might be related to the risk of misconduct a given defendant represents, we calculated the average length of time from bond date to disposition date at each risk level, or group. The number of bed/days for each group was then calculated by multiplying the average

length of case by the number of defendants in that group. The number of bed/days for each group was then multiplied by the average daily housing cost (\$45.24/day in 1995) as determined by the Office of Management Services, for a total of \$18,561,549.46. In our opinion, the County benefited in two separate ways. First, after subtracting the Agency's budgeted amount from the housing figure, the County may have experienced a savings of as much as \$14 million. A secondary benefit is the possibility that the number of bed/days saved by utilizing the PTSA effectively vacated as many as 1,100 jail beds.

Continuing the premise that the 6,675 PTSA-supervised defendants did not receive personal bonds, it still is likely that a number of defendants would have secured a surety bond release if personal bond release to Agency supervision had not been available. To present a conservative estimate of bed space savings, we recalculated the costs based on two assumptions: (a) fully 50% of the defendants would have been released through surety bonds; and (b) those defendants who were unable to make bail were in jail for a lesser period than their released counterparts (about one-third fewer days).<sup>30</sup> After observing those assumptions, and subtracting the Agency's budgeted costs, the potential savings to the County still could have exceeded \$2.5 million and vacated as many as 370 jail beds.

As inviting as the potential savings sound, it may be that the savings could have been greater. In the dataset, more than 18,000 defendants remained in jail awaiting trial, and over 3,200 of those defendants fell into the *two lowest-risk groups*. Had those defendants been released on personal bonds, the County could have saved as much as an additional \$5.7 million, and vacated as many as 345 additional jail beds. Would those defendants have represented a greater danger to the community? In the aggregate, it appears that their potential risk would have been no greater than that of typical PTSA-supervised defendants.

From the 1995 data, we know that:

- approximately 40% of the over 3,200 low-risk defendants presented with no prior convictions at all;
- about 25% of the over 3,200 defendants were misdemeanants with no prior convictions; and
- approximately 11% of the defendants were filtered out of the system through acquittal or dismissal, and another 37% were detained prior to disposition only to be sentenced to community supervision.

Based on the 1995 data, we might expect that:

<sup>&</sup>lt;sup>30</sup> This figure is based upon the difference in average time to case disposition observed for persons who did not make bail and those who were released to PTSA supervision.

- about 190 of the over 3,200 defendants would have been named in a capias based on their failure to appear in court, or would have committed a new offense known to the police;
- of those 190 defendants, approximately 75% were at risk for failure-to-appear, with the remaining 25% (around 47 defendants) at risk for commission of a new criminal offense;
- of those at risk for commission of a new offense, the data indicate that about 80% (approximately 38 defendants) likely would have committed a new misdemeanor offense that would have become known to the police; and
- an additional 10% (5 to 6 defendants) likely would have committed a new offense that would become known to the police, and that would have been punishable as a state jail felony.

#### Summary

The misconduct rates for cash-bailed defendants and defendants released to PTSA supervision are comparable, while the misconduct rate for surety-bailed defendants is 25% higher. The data do not provide any evidence to support the claim that defendants who are released under Agency supervision are less responsible, engage in failure-to-appear activity, or commit new criminal offenses at a greater rate than persons released on surety bail. To the contrary, the data indicate lower misconduct, failure-to-appear, and reoffense rates for PTSA-supervised defendants at every risk level. Further the data continue to reflect that failure-to-appear remains a relatively rare event, and known reoffense is rarer still.

The data also fail to support any claim that the Agency represents a drain on County coffers. In fact, it may be that the savings achieved in housing costs and jail bed construction could range from \$2.5 million to around \$14 million after recovery of PTSA operating costs. It may also be that when one considers the numbers of low-risk defendants who are unable to make bail and who therefore remain in jail, that as many as 3,200 more defendants could be supervised in the community without greater likelihood of risk than is already present.

# Section 5 Conclusions

#### The Bail Classification Instrument

The primary purpose of this report was to determine whether the current risk classification instrument used by the PTSA was performing satisfactorily three years after implementation. In short, the answer is that the instrument is performing within acceptable limits, and no change is recommended at this time. Neither recalibration of the instrument, nor redesign of the instrument based on factors for which data are available, would provide improvement sufficient to warrant replacement of the current scale.

#### Cash, Surety and Personal Bonds

There was little difference in the rates of misconduct for defendants released on cash bail or released to Agency supervision, at 7.11% and 8.61%, respectively. The misconduct rate for all types of surety bail was 25% higher, at 10.74%, and the rate for Harris County-licensed bail bondsmen was higher still, at 10.83%.

Claims have been made regarding the relative performance of defendants released on surety bond and defendants released on personal bond, and it is reasonable to assume that the data would resolve the issue. We have examined the data and found no empirical evidence to support a claim that surety-bailed defendants "fail-to-appear" less often and commit fewer offenses while on bond than persons released on personal bond to PTSA supervision in Harris County. To the contrary, the data indicate that surety-bailed defendants have higher failure-to-appear and reoffense rates than do PTSA-supervised defendants at every risk level.

#### Pretrial Release and Community Safety

The 1995 data indicate that the likelihood of a pretrial release committing a new offense known to the police was less than 3%, regardless of the release type. Having said that, the data

also indicate that defendants released to PTSA supervision generally exhibited that conduct to a lesser extent than surety-bailed defendants. According to interview data across all release types, 8 out of 10 new offenses known to the police involved a new misdemeanor offense; one out of 10 was an offense punishable as a state jail felony, and another 1 out of 10 was classifiable as a violent offense. Taken in its broadest meaning, the most predictable new offenses, misdemeanor drug or alcohol-related offenses, and misdemeanor theft offenses, and who committed a new offense of a similar type.

#### The Cost and Benefits of Personal Bond Release

Some PTSA costs are offset by defendant fees, but the PTSA is a government agency that primarily is paid for by tax dollars; of that there is no question. But questions have been raised about whether the county government should fund an agency that is primarily depicted as a welfare source for the criminal element. We think there is ample reason to fund the Agency as a cost-effective means of achieving legitimate governmental objectives.

In 1995, the Agency had a budget of about \$4.5 million, including approximately \$750,000 in state funds. For that amount the County received demographic, social, financial and criminal history information on approximately 90% of the defendants charged with a criminal offense of Class B or greater. But the County also received supervision services that greatly lessened the cost of handling pretrial defendants. Our estimates indicate that the value of housing costs avoided by releasing persons to PTSA supervision in 1995 may have ranged from \$2.5 million to \$15 million after recovery of PTSA operating costs, and the number of jail beds vacated could have been as great as 1,100. Further, the data suggest that as many as 3,200 other similarly-situated, low-risk defendants remained in jail awaiting trial, and that greater savings could have been achieved through personal bond release of some or all of those defendants.

#### Summary

The risk classification scale currently in use by the Harris County Pretrial Services Agency appears to be providing reliable risk classification information to its consumer courts. The Agency is continuing to perform its assigned functions, and it is providing cost savings to Harris County that far exceed the expense of operating the Agency.

# **BIBLIOGRAPHY**

- Cuvelier, S. & D. Potts, (1993). Bail Classification profile project, Harris County, Texas: Final report.
- Duncan, O., Ohlin, L., Reiss, A., Jr. and H. Stanton, (1953). Formal devices for making selection decisions. American Journal of Sociology, 58(6), 573-584
- Fischer, D. (1985) *Prediction and Incapacitation: Issues and Answers.* Des Moines, IA: Statistical Analysis Center, Iowa Office for Planning and Programming.
- Gottfredson, S., and D. Gottfredson, (1986) "Accuracy of Prediction Models." In A. Blumstein, J.
   Cohen, J. Roth & C. Visher (Eds.), *Criminal Careers and "Career Criminals."* Volume II.
   Washington, DC: National Academy Press.
- Hagan, F. E. (1997) *Research Methods in Criminal Justice and Criminology.* 4<sup>th</sup> ed. Boston. Allyn and Bacon.
- Hays, W. (1963). Statistics for Psychologists. New York: Holt, Rinehart, & Winston.
- Kaufmann, A. (1975). *Introduction to the Theory of Fuzzy Subsets*. Vol I . New York, Academic Press.
- Loeber, R., and T. Dishion, (1983). "Early Predictors of Male Delinquency: A Review." *Psychology Bulletin*, 94, 68-69.
- Reaves, B. & J. Perez, (1994). Pretrial release of felony defendants, 1992 (NCJ 148818).
   Washington, DC: U.S. Department of Justice, Ofice of Justice Programs, Bureau of Justice Statistics.

Appendix A

Descriptive Tables Desegregated by Bond Type

The following tables contain data from defendant interviews conducted by PTSA personnel with defendants who eventually were included in this study. With the exception of the "Total" columns on the far right, percentage figures contained in these tables are read across the rows; the "Total" columns are read top to bottom. In the first table, for example, we see that 42.49% of defendants 15 to 19 years old remained in jail awaiting case disposition, while 32.66% of defendants in that age group were able to secure surety bail. Moving to the far right, we also see that defendants in that age group represented 16.59% of all defendants in this study.

In the main, interview and case data were available for 57,529 defendants. But in some instances - for a variety of reasons, including the failure of a defendant to provide a response - the totals shown in the tables do not sum to 57,529. The data are included herein with that caveat to provide the reader with a sense of the number of responses upon which some conclusions were based.

	Detained		Ca	sh	Pers	onal	Sur	ety	Т	otal
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
15 to 19	4054	42.49%	549	5.75%	1823	19.11%	3116	32.66%	9542	16.59%
20 to 24	4996	40.78%	884	7.22%	1583	12.92%	4788	39.08%	12251	21.30%
25 to 29	4392	43.36%	857	8.46%	998	9.85%	3881	38.32%	10128	17.61%
30 to 34	4451	47.09%	759	8.03%	829	8.77%	3413	36.11%	9452	16.43%
35 to 39	3524	48.17%	560	7.66%	608	8.31%	2623	35.86%	7315	12.72%
40 to 44	1949	45.56%	390	9.12%	376	8.79%	1563	36.54%	4278	7.44%
45 to 49	952	40.89%	252	10.82%	238	10.22%	886	38.06%	2328	4.05%
50 to 54	403	36.27%	126	11.34%	117	10.53%	465	41.85%	1111	1.93%
55 to 59	152	27.69%	76	13.84%	79	14.39%	242	44.08%	549	0.95%
60 to 64	91	31.06%	33	11.26%	34	11.60%	135	46.08%	293	0.51%
64+	86	31.62%	28	10.29%	59	21.69%	99	36.40%	272	0.47%
Total	25050	43.55%	4514	7.85%	6744	11.72%	21211	36.88%	57519	100.00%

#### Age of Defendants at Interview, by Release Status and Type

#### Defendant Race/Ethnicity, by Release Status and Type

	Deta	Detained		Cash		Personal		ety	Total	
	Ν	%	Ν	%	Ν	%	Ν	%	N	%
African-Am.	11466	51.70%	478	2.16%	2606	11.75%	7628	34.39%	22178	38.55%
Hispanic	6820	45.19%	1622	10.75%	1860	12.32%	4791	31.74%	15093	26.24%
White	6605	34.16%	2045	10.58%	2179	11.27%	8505	43.99%	19334	33.61%
Other	165	17.86%	370	40.04%	99	10.71%	290	31.39%	924	1.61%
Total	25056	43.55%	4515	7.85%	6744	11.72%	21214	88%	57529	100.00%

#### Defendant Sex, by Release Status and Type

	Deta	Detained		Cash		sonal	Sur	ety	Total	
	N %		Ν	%	N %		Ν	%	N	%
F	4064	37.73%	821	7.62%	1801	16.72%	4084	37.92%	10770	18.72%
М	20992	44.89%	3694	7.90%	4943	10.57%	17130	36.63%	46759	81.28%
Total	25056	82.63%	4515	15.52%	6744	27.29%	21214	74.55%	57529	100.00%

### Employment Status, by Release Status and Type

	Deta	Detained		sh	Pers	sonal	Sur	ety	Т	otal
	Ν	%	Ν	%	Ν	%	Ν	%	N	%
Unknown	1743	44.52%	286	7.31%	642	16.40%	1244	31.78%	3915	6.81%
Full Time	10168	34.13%	3111	10.44%	3497	11.74%	13015	43.69%	29791	51.78%
Part Time	3021	45.42%	418	6.28%	900	13.53%	2312	34.76%	6651	11.56%
Unemp.	10124	58.96%	700	4.08%	1705	9.93%	4643	27.04%	17172	29.85%
Total	25056	43.55%	4515	7.85%	6744	11.72%	21214	36.88%	57529	100.00%

### Income, Monthly Reported, by Release Status and Type

	Deta	ained	Ca	ash	Per	sonal	Su	rety	Т	otal
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
0	2007	57.08%	154	4.38%	389	11.06%	966	27.47%	3516	11.65%
0+ to 499	1868	54.33%	159	4.62%	441	12.83%	970	28.21%	3438	11.39%
500 to 999	170	46.58%	22	6.03%	37	10.14%	136	37.26%	365	1.21%
1000 to 1499	3913	37.93%	907	8.79%	1271	12.32%	4225	40.96%	10316	34.17%
1500 to 1999	1623	31.31%	517	9.97%	566	10.92%	2478	47.80%	5184	17.17%
2000 to 2499	665	23.34%	377	13.23%	298	10.46%	1509	52.97%	2849	9.44%
2500 to 2999	260	21.16%	176	14.32%	113	9.19%	680	55.33%	1229	4.07%
3000 to 3499	199	20.06%	147	14.82%	107	10.79%	539	54.33%	992	3.29%
3500 to 3999	44	14.24%	60	19.42%	25	8.09%	180	58.25%	309	1.02%
4000 to 4499	96	17.81%	101	18.74%	50	9.28%	292	54.17%	539	1.79%
4500 to 4999	29	21.64%	20	14.93%	15	11.19%	70	52.24%	134	0.44%
5000+	310	23.57%	198	15.06%	148	11.25%	659	50.11%	1315	4.36%
Total	11184	37.05%	2838	9.40%	3460	11.46%	12704	42.09%	30186	100.00%

### Marital Status: Living in a Nuclear Family, by Release Status and Type

	Detained		Cash		Pers	sonal	Sure	ety	Total		
	N	%	Ν	%	Ν	%	Ν	%	Ν	%	
No	15214	49.98%	1855	6.09%	3516	11.55%	9858	32.38%	30443	52.94%	
Yes	9830	36.32%	2660	9.83%	3227	11.92%	11348	41.93%	27065	47.06%	
Total	25044	43.55%	4515	7.85%	6743	11.73%	21206	36.87%	57508	100.00%	

	Deta	ined	Ca	sh	Pers	onal	Sur	ety	Тс	otal
	N	%	Ν	%	Ν	%	Ν	%	Ν	%
0	9376	33.15%	3077	10.88%	5923	20.94%	9911	35.04%	28287	49.35%
1	5383	46.44%	811	7.00%	540	4.66%	4858	41.91%	11592	20.22%
2+	10240	58.71%	600	3.44%	240	1.38%	6361	36.47%	17441	30.43%
Total	24999	43.61%	4488	7.83%	6703	11.69%	21130	36.86%	57320	100.00%

### Number of Prior Misdemeanors, by Release Status and Type

# Number of Prior Felonies, by Release Status and Type

	Detained		Ca	Cash		Personal		ety	Total	
	N %		Ν	N %		N %		%	Ν	%
0	13876	34.88%	4082	10.26%	6425	16.15%	15404	38.72%	39787	69.42%
1	5583	59.41%	269	2.86%	209	2.22%	3336	35.50%	9397	16.40%
2+	5535	68.06%	137	1.68%	71	0.87%	2389	29.38%	8132	14.19%
Total	24994	43.61%	4488	7.83%	6705	11.70%	21129	36.86%	57316	100.00%

# Prior Failures to Appear, by Release Status and Type

	Detained		Ca	Cash		sonal	Su	rety	Total		
	N	%	Ν	%	Ν	%	Ν	%	N	%	
N	22689	42.47%	4381	8.20%	6638	12.42%	19718	36.91%	53426	93.39%	
Y	2256	59.64%	102	2.70%	63	1.67%	1362	36.00%	3783	6.61%	
Total	24945	43.60%	4483	7.84%	6701	11.71%	21080	36.85%	57209	100.00%	

	Detair	ned	Cas	h	Perso	onal	Sure	ety	Tota	al
	N	%	Ν	%	Ν	%	Ν	%	Ν	%
ACQUITTED	59	23.23%	35	13.78%	38	14.96%	122	48.03%	254	0.44%
DEFERRED ADJUDICATION	1649	18.85%	992	11.34%	2142	24.48%	3966	45.33%	8749	15.21%
DISMISSED	2941	34.49%	783	9.18%	804	9.43%	3998	46.89%	8526	14.82%
DISMISSED (QUASHED)	0	0.00%	0	0.00%	3	75.00%	1	25.00%	4	0.01%
DISMISSED (REDUCED TO MISD)	11	40.74%	1	3.70%	1	3.70%	14	51.85%	27	0.05%
DISMISSED (TRANS JUV COURT)	2	66.67%	1	33.33%	0	0.00%	0	0.00%	3	0.01%
FINE	26	12.94%	25	12.44%	32	15.92%	118	58.71%	201	0.35%
JAIL	13248	68.44%	511	2.64%	861	4.45%	4736	24.47%	19356	33.65%
JAIL, FINE	1790	24.03%	973	13.06%	1334	17.91%	3353	45.01%	7450	12.95%
NO BILLED	101	34.95%	9	3.11%	30	10.38%	149	51.56%	289	0.50%
OPEN CASE	29	38.67%	2	2.67%	2	2.67%	42	56.00%	75	0.13%
PRETRIAL INTERVENTION	0	0.00%	0	0.00%	0	0.00%	1	100.00%	1	0.00%
PRISON	1927	83.64%	6	0.26%	24	1.04%	347	15.06%	2304	4.01%
PRISON, FINE	179	79.20%	1	0.44%	4	1.77%	42	18.58%	226	0.39%
PROBATION	1	25.00%	0	0.00%	1	25.00%	2	50.00%	4	0.01%
PROBATION, FINE	0	0.00%	0	0.00%	2	66.67%	1	33.33%	3	0.01%
PROBATION, FINE, JAIL	289	5.82%	1085	21.85%	1145	23.06%	2446	49.26%	4965	8.63%
PROBATION, FINE, PRISON	485	47.88%	19	1.88%	37	3.65%	472	46.59%	1013	1.76%
PROBATION, FINE, STATE JAIL	1616	57.20%	30	1.06%	187	6.62%	992	35.12%	2825	4.91%
PROBATION, JAIL	81	27.09%	31	10.37%	44	14.72%	143	47.83%	299	0.52%
PROBATION, PRISON	175	57.76%	3	0.99%	22	7.26%	103	33.99%	303	0.53%
PROBATION, STATE JAIL	442	68.53%	8	1.24%	31	4.81%	164	25.43%	645	1.12%
STATE JAIL	4	66.67%	0	0.00%	0	0.00%	2	33.33%	6	0.01%
Total	25055		4515		6744		21214		57528	100.00%

# Case Disposition, by Release Status and Type