# **Compliance and Sanctions in the Community:**

# Felony Probation in Hawaii

1996-1999





Prepared by

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&

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Crime Prevention & Justice Assistance Division
Department of the Attorney General

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# Felony Probation in Hawaii 1996-1999



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# **Executive Summary**

The purpose of this report is to provide a statistical portrait of the adult felony probation caseload in the State of Hawaii, to determine the proportion who do not succeed in complying with the conditions of probation, and to identify predictors of that non-compliance. The study is based on analysis of case records of adults sentenced to probation in all four court circuits during FY1995-96 and a validation sample of cases sentenced in FY1996-97. An analysis of factors predicting violation was done using probationers' case records for 36 months from the start of their probation in FY1995-96. The findings were replicated on different cases entering probation in FY1996-97 and tracked for a 24-month exposure. In addition to case analysis, interviews were held with probation officers concerning a special sample of cases to explore decision making about supervision and revocation. Another comparison was made between probation violation in the 1995-96 year and data from a previous study of parole survival and revocation in that same year.

This report addresses the following questions:

- What are the characteristics of probationers?
- What is the extent of compliance with the requirements of probation?
- What characteristics predict compliance and sanctions on probation?
- How does probation compare with parole on common measures of success?

#### The Probation Caseload

Most persons sentenced to probation receive 60 months of supervision following a conviction for a Felony C level, but with a substantial minority on *deferred acceptance of a plea of guilty* or *nolo contendere* (DAG or DANC, see definition on page 9) because they appear to the court to have a good chance for successfully completing probation. There are also probation cases arising from jury trial convictions for misdemeanor charges. Two-thirds of the regular probation cases have no previous felony conviction, and while many have been sentenced for crimes against persons (28 percent), the majority have been sentenced for property or drug offenses (36.8 and 26.7 percent, respectively).

Twenty percent of the regular felony probationers are women, and an even higher percentage of DAG/DANC cases (27 percent) are women. The average age of probationers is 33, with about one-quarter age 25 or younger and, on the upper end, about one-quarter age 40 or above. Based upon Hawaii's population distribution, some ethnic groups are over-represented among probationers: Hawaiians compose nearly one-third of the cases, and African American, Hispanics and Samoans about five percent each. Caucasians and Asians are under-represented.

#### Compliance with Court Requirements

Nearly 7 out of 10 probationers are not arrested while on probation, 20 percent are arrested on misdemeanor or petty misdemeanor charges only, and 11 percent are arrested on felony charges, again mostly Felony C.

The violation rate varies (see below), but for all felony cases it is 34.6 percent, and for felony cases on regular probation it is 42 percent in a 36-month period following sentencing to community supervision. The violation rate for DAG/DANC felony cases and misdemeanor cases is 12 percent and 16 percent, respectively.

#### Characteristics Predicting Compliance and Violation

This report presents both summary measures for risk of reoffending (based on the Adult Probation Division's Risk Scale total and Need Scale total used as standard assessment instruments; see Appendix B) and also identifies several individual components of risk, derived from empirical multivariate methods of factor analysis and survival analysis. The findings, based on the FY95-96 felony probation cases, were replicated independently on the cases sentenced the following year (FY96-97). The results show that:

- The probability of being subject to probation violation, or the more severe sanction within that, prison, in either a 24- or a 36-month period of exposure, increases with corresponding increases in measured risk levels.
- The examination of specific risk factors independent of other risk factors reveals that the seriousness and extent of <u>prior criminal record</u> (chiefly prior felony conviction, first adjudication or conviction at an early age, and previous probation), the <u>absence of regular</u>, <u>legal employment and stable residence</u>, and assessed <u>psychological and attitudinal problems</u>, nearly doubles the odds of probation revocation. <u>Chemical dependency</u> is also a significant contributor to the probability of revocation, but in a caseload where alcohol and drug use is very high, it is not *per se* a sensitive predictor. The <u>lack of educational and vocational skills</u> also contributes to the probability of violation, but not as much as the aforementioned factors.
- DAG/DANC defendants have much lower probation violation rates than do regular felony
  probationers, and, similarly, the small number of cases convicted in a jury trial on
  misdemeanor charges have very low violation rates.

#### Comparison of Probation with Parole

Outcome comparisons between probation and parole must be done within risk level since parolees generally have more extensive criminal records. They are also much more likely to have been sentenced for a serious crime (Felony A or B), while persons on probation are mostly convicted on Felony C charges. Comparisons within levels of five components of risk show that high risk offenders are more likely to violate parole (on two risk components the violation rates are nearly identical, on three risk components parolees violate at a higher rate). Low risk offenders, on each of the five risk components, are less likely to violate on probation than on parole.

#### **Implications**

The implications are ultimately for decision makers, rather than researchers, to make, but seem to be:

- Risk assessment at sentencing is very useful and, given supervision constraints (characterized by high caseloads per officer), should be given serious weight in anticipating probation survival. However, the frequency of prediction errors shown in this report should also be given due consideration.
- Lower risk felons would appear to be suitable for probation, where they adjust satisfactorily in greater numbers than they do after prison on parole. The felony re-arrest rate for probationers is currently quite low, hence probation appears to be a reasonable sentence for many felony cases without undue threat to public safety. However, any increase in probation officer caseloads or supervision demands resulting from diversion of offenders from prison would likely require expanded personnel resources, and increased referral options for probation officers supervising drug offenders and persons with serious employability problems.

# **Acknowledgments**

The researchers enjoyed the full cooperation of Mr. Ronald Hajime, Administrator, Adult Probation Division, Circuit Court of the First Circuit, who provided orientation to the operations of the division, clarified some matters of terminology and provided authorization for us to interview probation officers and supervisors. We also wish to express our appreciation to Sonny Lim, Data Processing Support Technician, and to the probation officers who took time in their work day to answer our questions.

# **Problems for this Inquiry**

Probation is a "court ordered dispositional alternative through which an adjudicated offender is placed under the control, supervision and care of a probation staff member in lieu of imprisonment, so long as the probationer meets certain standards of contact." (Petersilia, 1997:149, quoting the American Correctional Association) Under Chapter 706 of the Hawaii Revised Statutes (HRS), anyone convicted of a crime may be sentenced to probation unless the crime is murder, a Class A felony other than a drug offense, or falls under the provisions of HRS 706-606.5 defining a "repeat offender" or a felony firearm offender under 706-660.1 (2).

Probation is, nationally and in Hawaii, the largest single sentencing category employed for felons. It is used more often than prison (Bonczar and Glaze, 1999), yet less is known about probation than most other correctional alternatives. The purpose of the present study is to describe the salient characteristics of the adult felony probation caseload in the State of Hawaii, to determine the proportion who do not succeed in complying with the conditions of probation, to identify predictors of that non-compliance, and to offer recommendations on this important sentencing option. The findings are directly relevant to the stated mission of the Adult Probation Division: "To enhance the safety of our community through efficient crime reduction and prevention services and activities that assist and guide offenders in their rehabilitation" (Adult Probation, First Circuit, Judiciary, State of Hawaii, January 31, 1997: 1).

This report addresses the following questions:

- What are the characteristics of probationers?
- What is the extent of compliance with the requirements of probation?
- What characteristics predict compliance and sanctions on probation?
- How does probation compare with parole on common measures of success?

# Methodology

The study is based primarily on information from the Adult Probation Division's case files maintained in a proprietary relational database providing a basic information system across all four court circuits in the state. These data consist of cases admitted to supervision in the state between July 1, 1995 and June 30, 1996 (designated FY96). For replication of findings a second series was drawn consisting of all cases admitted between July 1, 1996 and June 30, 1997 (designated FY97). These case data were supplemented by interviews held with a sample of probation officers and supervisors in the First Circuit. The focus of the interviews was on caseload supervision, frequency and type of contact with probationers, information used in deciding on revocation or continuance, and perceived problems in case supervision. The third source of data was the report Survival on Parole: A Study of Post-Prison Adjustment and the Risk of Returning to Prison in the State of Hawaii (Department of the Attorney General, 1999), based on cases released from prison to parole in the state in FY96. The parole and probation data have many differences but contain identical measures of risk and offense. This permits comparison of case characteristics in parole

as compared with probation, and of the frequency of revocation in each, within several estimates of risk and criminal background.

# **Requirements for Persons on Probation**

Probation is distinctive among the sentence options for felony crime in that the sanctioning, monitoring and supervision take place continuously in the same social context that gave rise to the development and commission of criminal offenses. That is, while on probation the offender is, to varying degrees, in contact with his or her family, peers, community and culture. Probation does not preclude the offender from employment. Thus, probation can utilize social supports in an open community, rather than in an artificial institutional setting. Costs are consequently lower than imprisonment, and the problem of reintegrating the offender into the community does not exist in the same degree that it does with prison and parole. On the other hand, some offenders have never had legitimate employment nor have they a viable family affiliation. In the wider community drugs are easily available and crimes can be committed, and since probation surveillance is limited, opportunities for relapse and recidivism (as well as for recovery and resilience) are present in every probation case. Probation does not have the institutional control and wide range of tangible and coercive sanctions of prison. With limited sanctions and abundant opportunities for law breaking by probationers, probation supervision is not simple. It seeks to regulate adult behavior while the subjects are at liberty in a free environment, and this is an inevitably difficult prospect.

Even its ultimate sanction, revocation of probation, is limited. In the event a probation officer (PO) and his or her supervisor concur in the decision that serious non-compliance exists, and to withdraw the probationer from the conditional liberty to which he or she was sentenced, the PO must prevail in a due process court hearing before a judge and with defense counsel for the probationer. The PO must depend on the deputy prosecutor to voice the argument for revocation. The PO must invest time preparing for testimony and cross-examination from the defense lawyer in the hearing and be prepared to spend several hours of work time in court.

Probation has power because the probationer is under court order to comply with both mandatory and discretionary conditions as defined in HRS 706-624.

Mandatory conditions. The court shall provide, as an explicit condition of a sentence of probation, that the defendant: (a) does not commit another federal or state crime during the term of probation; (b) reports to a probation officer as directed by the court or the probation officer; (c) remains within the jurisdiction of the court, unless granted permission to leave by the court or a probation officer; (d) notifies a probation officer prior to any change in address or employment; (e) notifies a probation officer promptly if arrested or questioned by a law enforcement officer; and (f) permits a probation officer to visit the defendant at the defendant's home or elsewhere as specified by the court.

*Discretionary conditions*. The court may provide, "as further conditions of a sentence of probation," that the defendant fulfill any of a number of special conditions, listed in Appendix A.

Probation is thus a potentially formidable point of leverage in bringing about offender change because of specific court orders and the option of revoking probation as a sanction in the event of persistent non-compliance. But despite the range of conditions of probation being very wide, there are judicial limits on what may be required. Conditions must serve a legitimate purpose, and must be clear and explicit, reasonable, and constitutional (Petersilia, 1997:164; Klein, 1997).

The balance of this report provides information on the problems of probation supervision gathered from a review of computerized case files and from interviews with probation officers and supervisors. Files are analyzed from adult cases admitted to probation in all circuits in FY96 (July 1, 1995 through June 30, 1996) and for comparison purposes in FY97 (July 1, 1996 through June 30, 1997). For FY96, base files were linked with arrest records over a period of 36 months from the date an individual was admitted to probation. The findings are replicated on a 24-month follow-up of cases from FY97. In addition, a 24-month follow-up from probation experience in FY96 is compared to identical data from a series of FY96 cases sentenced to parole and followed a minimum of 24 months (see Department of the Attorney General, 1999).

# Probation Supervision and Decisions about Revocation: Interviews with Probation Officers

To explore the issues related to supervision and decisions about revocation, individual interviews were held with a small sample of First Circuit probation officers. A sample of cases was drawn where felony arrests while on probation were recorded. A series of structured questions were followed but the responses were open-ended. The interviews were confidential and details regarding specific cases selected by the researchers were discussed. In some of the instances where details were sought about a particular case the same officer was interviewed twice.

#### **Caseload Management**

As a general rule, probationers are assigned to probation officers (POs) on the basis of rotation assignment. Once a person has been committed to probation, s/he is required to report to the assigned PO on the same day as sentencing, unless the court requires jail time. If jail time is required, the officer may visit the probationer in jail. Upon initial contact, the PO obtains basic demographic information from the probationer, explains the rules of probation, provides written copies of court orders and other documents, and obtains the probationer's signature. In addition, the PO reviews the draft of the court ordered probation, paying particular attention to both the general and the specific conditions of probation.

The intensity of supervision is, in part, determined by the probationer's score on the Risk and Needs assessments, which are scales consisting of standardized items administered usually in the Pre-Sentence Investigation (PSI) interview. These assessments provide a classification level and are conducted twice during the first year of supervision and once each subsequent year. (Under the discretion of the PO, though, these classifications can be conducted at any time deemed necessary.) Cases classified at a *Maximum* level of supervision are required to report to the

supervising PO twice a month, *Moderate* cases once a month, and *Minimum* cases once every three months. The majority of probationers are classified as either Maximum or Moderate cases.

The PO's supervision of the probationer takes place primarily in the office. At these office visits, the PO takes information that demonstrates the probationer's compliance on probation. This information includes such things as pay stubs, urinalysis testing, and evidence of ongoing drug treatment, restitution payments, and/or community service. The current caseload of a PO averages 181 probationers but sometimes reaches in excess of 250. This type of caseload does not provide the opportunity for supervision beyond the contact requirements. When asked how they manage to fit even this quota into a month, POs reply, "It is difficult." The large caseloads undoubtedly account for the heavy reliance on office visits as a means of supervision.

For example, one PO interviewed had a caseload of 185, plus another 30 cases with outstanding bench warrants that were in the Administrative Risk Management Section. As the Honolulu Police Department picked up these cases, they were immediately transferred back to the officer's caseload. Roughly 25 percent of this officer's load were Maximum level cases, with most of the remainder being Moderate level. Hence, the quota of contacts for this officer would be twice a month for 48 probationers (96), plus once per month for 137, for a total of 233 contacts in an average work month of 20 or 21 days.

#### **Problems in Probation and Revocation Decisions**

Probation officers cited the most common problems with adjustment on probation as failure to report (e.g, missed appointments, not answering phone calls), substance abuse problems, and refusal to enter into or stay in a treatment program. Substance abuse problems are believed by officers to be associated with other problems in supervision. For example, if a probationer has substance abuse problems, s/he may stop working, stop reporting, and stop paying restitution. Such combinations of events often alert POs to the use of drugs.

In several interviews, POs stated that clients with serious substance abuse problems (alcohol, and especially crystal methamphetamine) who have relapsed consume a large amount of officer time. These cases need to be placed in drug treatment programs as soon as possible. One officer had, on the week of the interview, spent almost two hours trying to get a client into a treatment center the same day as the relapse was noted. Only two treatment centers were reported capable of making such an accommodation. Quest and other HMOs will approve (pay for) placement in a drug treatment center only if the client has used drugs in the past 30 days. To avoid going into treatment the probationer may say he or she has not used drugs in the past month. The PO may counter by requiring the probationer to attend "12-step" programs or similar meetings, usually twice a week, and conducting urine testing. HMOs accept a record of positive urine as evidence of recent drug use. In the interviews there was some frustration expressed that even after multiple technical violations, the court, after weighing information from all parties, may not approve a motion to revoke and instead continue the client on probation, sometimes up to an additional term of 60 months of supervision. So, the PO who initially sought the revocation may instead have the client for an extended period of time.

Probation revocation is a potential outcome of a court hearing upon the motion of the probation officer, the prosecutor, the defendant, or the court on its own motion. The PO's decision to file a motion for revocation is based on several contextually dependent factors. A single violation of a condition of probation does not necessarily lead to a motion for revocation. If a probationer is willing to work with the PO to become compliant on probation, the PO will often continue to supervise the probationer within the community. However, any supervision decisions are weighed against potential threats to public safety. If there is a perceived public safety threat, the PO must file a motion for revocation. Due to workload time conflicts and/or the need to process a motion internally and through the prosecuting attorney, four to six months of non-reporting may take place before the revocation process begins. The most common reasons cited for probation revocation are: 1) arrests coupled with other violations; 2) general non-compliance coupled with an unwillingness to change; 3) continual failure to report; and 4) non-compliance with drug and alcohol abuse requirements. As a general rule, each PO has the discretion to decide the need to file for a revocation of probation.

The discretion for revocation filing is removed from the PO in cases of new felony convictions while on probation. According to HRS 706-625, subsection 4, "...the court shall revoke probation if the defendant...has been convicted of a felony." A felony arrest in and of itself does not constitute grounds for revocation. However, a conviction on a felony arrest will result in a revocation. Thus, a new felony conviction allows the prosecutor to automatically file for revocation. This is typically done in court after the defendant has pled guilty, or, if the case has gone to trial, after conviction and prior to the sentencing hearing.

The official revocation process begins when a PO files an affidavit outlining all of the violations, including specific dates of non-compliance, with the appropriate county's Department of the Prosecuting Attorney. The notice of violation is also sent to the defense attorney and the probationer. The prosecutor has the authority to either deny or accept the motion for revocation. If the motion is accepted, the prosecutor will typically issue a warrant or subpoena for the probationer. If the motion is granted, a bench warrant is issued and sent to the police. This may take two weeks. The police do not actively search for the individual unless a serious crime is alleged, but instead wait for him or her to be picked up on some other cause (e.g., an arrest for a crime, a traffic stop, sometimes an ID check), or to be seen by a police officer in a familiar neighborhood. At a formal revocation hearing, the assigned judge can choose to dismiss the motion and continue probation, modify the terms of probation, or revoke probation and incarcerate the offender. The probationer has the right to be represented by counsel at the revocation hearing, and to oppose the stated violations.

### **Probation Case Characteristics**

In FY1996 nearly 1,995 persons were sentenced to adult probation in Hawaii, of whom 302 had incomplete data on risk and need scales. Crosstabulation of the cases with missing values showed they were not distinctive of any given group, although they were more frequently cases received from out of state. These cases were removed from further study. One hundred thirty-five (135) probationers had demanded a jury trial and were convicted of a misdemeanor in Circuit

Court. Except for reporting some case characteristics and the overall violation rate, these misdemeanor cases are not further examined. Fifty-one cases were removed because they were conditional release cases, and thus supervised differently than regular probationers. An additional 42 cases were removed from analysis because they were sentenced to an earlier probation period. The remaining cases constitute the focus of the present study. These were 1,465 persons convicted of a felony and sentenced to Regular Probation, or convicted of a felony and disposed under *deferred acceptance of guilty* or *deferred acceptance of nolo contendere* (DAG/DANC) pleas.<sup>1</sup>

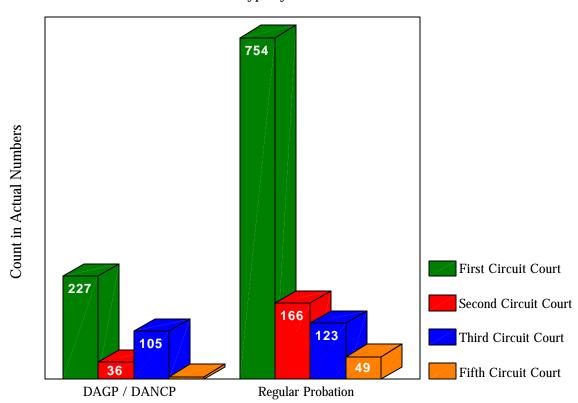
There were 373 DAG/DANC cases (107 women and 266 men) and 1,092 Regular Probation cases (226 women and 866 men). About two-thirds (67 percent) were from the First Circuit (City & County of Honolulu). The Second Circuit (Maui County) and Third Circuit (Hawaii County) contributed 15.6 and 13.8 percent, respectively, and the Fifth Circuit (Kauai County), 3.7 percent; the relatively small number of neighbor islands cases are combined in the remainder of this report. Table 1 and Chart 1 show these data.

<sup>&</sup>lt;sup>1</sup>The Deferred Acceptance of a Guilty (DAG) plea and Deferred Acceptance of a Nolo Contendere (DANC) plea are special types of sentences authorized by HRS 853. Upon a guilty plea submitted prior to trial, where it appears to the court that the defendant is not a likely repeat offender, and where the ends of justice do not require imposition of the penalty for the offense charged, the court may defer proceedings for any period of time up to the maximum provided for conviction of the offense charged. Upon satisfactory completion of the period imposed and any other condition ordered, the court may dismiss the charges. The defendant may also apply for expungement of the charges under HRS 831-3.2. Thus, such cases are under different terms and conditions than regular probation and will be discussed separately from the regular probation cases.

Table 1: DAG/DANC and regular probation cases in FY 1996 by circuit court

	DAG/DANC		Regular Probation		Circuit Total w/in State	
Circuit	Count	%	Count	%	Count	%
First	227	23.1	754	76.9	981	67.0
Second	36	17.8	166	82.2	202	13.8
Third	105	46.8	123	53.9	228	15.6
Fifth	5	9.3	49	90.7	54	3.7
All Circuits	373	25.5	1092	74.5	1465	100.0

Chart 1: Breakdown of Sentence Type by Circuit Court



Approximately 21 percent of regular probation cases are women and about 79 percent are men. Comparatively more DAG/DANC cases are female (nearly 29 percent) and they are more often convicted on a Felony C level than are regular probationers (80.7 percent versus 64.4 percent, respectively). Only 6 percent of DAG/DANC cases, as compared to 32 percent of regular probationers, had prior felony convictions. Tables 2, 3 and 4 show these data.

Table 2: Gender of probationer by type of sentence (Percent)

Sentence Given	Female	Male
DAG/DANC	28.7	71.3
Probation	20.7	79.3
Total	22.7	77.3

Table 3: Severity of charge by type of sentence (Percent)

Sentence Given	Felony A or B	Felony C
DAG/DANC	19.3	80.7
Probation	35.6	64.4
Total	31.5	68.5

Table 4: Prior felony conviction by type of sentence (Percent)

Sentence Given	None	One	Two or More
DAG/DANC	94.1	3.0	3.0
Probation	67.9	14.1	18.0
Total	74.5	11.3	14.2

However, DAG/DANC defendants were often sentenced for committing serious crimes. Theft, motor vehicle theft, forgery, and credit card crime are the largest general category (36.7 percent of DAG/DANC). Burglary accounted for 7.2 percent, 6.4 percent had been convicted of terroristic threatening, 7.0 percent were convicted of firearms violations, and 29.2 percent were sentenced for drug offenses. Compared to regular probationers, DAG/DANC cases were less frequently sentenced for violent offenses (13.1 versus 28.2 percent, respectively), and more often sentenced for property crimes (46.1 versus 36.8 percent) or drug offenses (29 versus 26.7 percent) (Table 5).

**Table 5: Offense for which sentenced by type of sentence (Percent)** 

Sentence Given	Person	Property	Drug	Other
DAG/DANC	13.1	46.1	29.2	11.5
Probation	28.2	36.8	26.7	8.2
Total	24.4	39.2	27.4	9.1

# **Measures of Probation Compliance and Individual Risk of Non-Compliance**

Because of the large numbers of convicted offenders who are sentenced to probation in the U.S. (2 million felons in 1998 were under supervision of state and federal probation agencies; see Bonczar and Glaze, 1999), there have been several studies of probation revocation and success. The most common definitions and measures of failure are derived from revocation (an agency and court action) or arrests (a police action). Estimates of the probation failure rate vary widely. A recent review shows failure ranging from 16.4 percent to 55 percent (Geerken and Hayes, 1998). Revocation, consequent to a filing by a probation officer and concurrence by the court, is taken as the primary measure of compliance in the present report.

Two other measures are also combined with information on revocation: whether the probationer was arrested while on probation, and whether revocation was followed by a sentence to prison.

Section 706-625 of the Hawaii Revised Statutes states that the court, on "application by a probation officer, the prosecuting attorney, the defendant or on its own motion, may revoke probation." The court "shall" revoke probation if the offender has been convicted of a felony, and it "may" revoke if the offender is convicted for a crime other than a felony. Given that there is typically a lag between arrest and conviction, and that there may be a gap between the court revoking on a motion from the prosecutor and data entry into the court database, it is quite possible that an arrest is recorded for someone not classified as revoked. Thus, the data may (and do) on occasion show a felony arrest but no motion to revoke, which may be either because the

disposition was at the time unknown (the process may take months for a felony) or because the arrest was dismissed or the case not prosecuted, and the agency decided in the light of the circumstances that revocation was not necessary. Only in the event of a felony conviction is a revocation mandatory; in other cases it is at the discretion of the agency and the court.

Two variables were used for the measure of probation outcome. The first is a record of whether a violation report was filed and the probation revoked. The second is whether there were any arrests recorded during the probation period. This produced four categories in the outcome measure. The first is "no violation and no arrests," while the second is "no violation but a report of one or more arrests" — together these represent "No Violation." The third level is "a violation, either with modification of the terms of supervision or simply reinstatement of probation for another term." Table 6 shows the extent of probation compliance and violation within 36 months for the FY96 cases of regular felony probation, DAG/DANC pleas to felony charges, and regular probation for misdemeanor convictions.

Probation violation may be divided into technical violations (failure to comply with probation requirements imposed by the court) and violations for convictions for new criminal offenses. The former are much more frequent than the latter. For DAG/DANC cases 73.9 percent are technical violators; the figure for regular probationers is 77.7 percent.

The violation rate for all felony cases is 34.6 percent. For felony cases on regular probation the rate is higher, 42.2 percent. The DAG/DANC cases have lower revocation rates than regular probation (12.4 percent). Only 8.6 percent of DAG/DANC, cases, but 27.7 percent of regular probationers, were revoked and continued on community supervision. Another 3.8 percent of DAG/DANC cases, but 14.5 percent of regular probationers, were revoked and sent to prison. The third component of the table consists of 135 persons on regular probation following conviction of a misdemeanor. This group has revocation rates in between regular probation and DAG/DANCs, but very few (1.5 percent) go to prison if revoked.

Table 6: Probation outcome by type of sentence, 36 months follow-up (Percent)

Most Serious Disposition After 36 Months	Regular Probation (Felony)	Regular Probation (Misdemeanor)	DAG/DANC, Plea to Felony
No Violation / No Arrest	45.5	71.9	75.3
No Violation / Arrest	12.3	11.9	12.3
Subtotal No Violation	57.8	83.8	87.6
Violation / Probation	27.7	14.8	8.6
Violation / Prison	14.5	1.5	3.8
Subtotal Violation	42.2	16.3	12.4

# **Variables Predicting Probation Compliance and Violation**

Morgan (1993) reviewed a number of studies of factors influencing probation outcome and highlighted the following: previous criminal convictions, first arrested or adjudicated at an early age, lack of regular employment prior to sentence to probation, a history of alcohol or drug use problems, and poor marital or family ties. Benedict and Huff-Corzine (1997) also report that a history of drug abuse, being younger when admitted to probation, and having a long sentence on probation are related to recidivism. The importance of alcohol and drug dependence is stressed by Mumola in a Special Report issued by the U.S. Bureau of Justice Statistics. The report shows that over two-thirds of probationers with a history of drug use problems, and one-third reporting a history of "binge" drinking, violate probation (Mumola 1998:1).

In the present study, the variables consistently shown in these reviews to be related to probation violation were available in the Risk and Need scale items that are part of the presentence investigation or the intake interview. The complete Risk and Need scales are reproduced in Appendix B. Table 7 summarizes the crosstabulation of 36-month outcome status for regular probation cases against each of the 18 items from the Risk and Need scales (detailed tables appear in Appendix C). The "Item" column is the Risk or Need scale item identification, which if desired can be compared with the details in Appendix C. The third column is a verbal summary of the crosstabulation. Each of the associations between the risk or need item and probation outcome reported in Table 7 were significantly different from chance expectations, as measured by the chi-square test (i.e., it is highly unlikely that the results are due to chance).

Table 7: Risk and Need items by 36-month follow-up of FY 1996 probation cases

Risks/Needs	Item	Difference on Outcome
	Alcohol Problems	Probationers with alcohol problems more likely to be revoked
	Drug Problems	Probationers with drug problems (other than marijuana) more likely to be revoked
	Address Changes Prior 12 Months	Probationers with frequent address changes more likely to be revoked
	Percent Time Employed Prior 12 Months	Probationers employed less than 60% of the year prior to probation more likely to be revoked
RISKS	Motivation to Change	Probationers rated as "not motivated to change" more likely to be revoked
MSKS	Age at First Conviction	Probationers first adjudicated or convicted at an early age more likely to be revoked
	Prior Probation or Parole	Probationers with previous probation or parole experience more likely to be revoked
	Prior Revocation, Probation or Parole	Probationers with prior probation or parole revocations more likely to be revoked
	Felony Convictions	Probationers with prior felony convictions more likely to be revoked
	Property Convictions	Probationers with prior convictions for burglary, theft, or auto theft more likely to be revoked
	Quality of Employment	Probationers with "satisfactory" or "secure" employment less likely to be revoked
	Educational and Vocational Skills	Probationers rated as having adequate educational or vocational skills less likely to be revoked
	Financial Management	Probationers rated high on financial management skills less likely to be revoked
NEEDS	Emotional Stability and Adjustment	Probationers rated good on emotional stability at sentencing less likely to be revoked
NEEDS	Reasoning and Intellectual Ability	Probationers high on intellectual level less likely to be revoked
	Physical Health	Probationers rated to be in sound physical health less likely to be revoked
	Marital/Family Relations	Probationers rated as having good relations with spouse or family less likely to be revoked
	Psychological Needs	Probationers rated in low or moderate need of psychological services less likely to be revoked

Overall, each of these variables predicts a high probability of violation for persons scoring at the high risk end of each item.

#### **Data Reduction**

The separate associations of the items with probation outcome, as shown in Table 7 and Appendix C, are unlikely to each independently contribute to the prediction of probation violation because the risk/need items are themselves closely interrelated. Thus, an unknown number of persons with poor employment histories are also persons with serious drug abuse problems, and so on, so each item does not make an independent contribution to prediction. A simple sum total of all risk/need items on the other hand does not show which components contribute to prediction. A combination score is needed, which would represent the common patterns underlying some items but keep separate those that do not belong together. Such a set of summary scores would represent the several components of risk but in fewer than the original number of items, and without the spurious association due to inter-correlation.

Fortunately, there are techniques for accomplishing this. One is factor analysis. This technique is briefly described in Appendix D. Factor analysis identifies underlying measures that explain the pattern of correlations within a given set of variables. A factor analysis was done on the 18 items in question, resulting in the five summary factors shown in Table 8. (Details for each factor component are displayed in Appendix D.)

**Table 8: Five revocation predictor factors and their components** 

Conventional Life Style	Criminal Record	Chemical Dependency	Psychological Status	Human Capital
percent time employed in year before sentence	prior felony convictions	drug use problems	marital, family relationships	educational and vocational skills
quality of employment	prior probation or parole	alcohol use problems	emotional stability	reasoning and intellectual skills
personal financial management skill	prior probation or parole revocations	physical health	office rating of client needs	
number address changes in year	age at first conviction or adjudication		attitude toward personal change	
	prior conviction selected property offenses			

Conventional Life Style is made up of ratings on the item recording percentage of time the offender was employed in the year before conviction for the offense leading to probation; the quality of that employment; the offender's rating on personal financial management skills; and the number of address changes in the year before conviction for the offense leading to probation.

*Criminal Record* is made up of items identifying the offender who has served a prior term of probation or parole; has had a term of probation revoked; has had a prior felony conviction; was convicted or adjudicated for any of a list of selected property offenses; and/or was first convicted or adjudicated at a young age.

*Chemical Dependency* consists of the items identifying drug use problems; alcohol use problems; and/or health problems.

*Psychological Status* is made up of items measuring the quality of the offender's marital or natal family relationships; emotional stability; willingness to attempt personal change; and the probation officer's rating of overall client psychological services needs.

*Human Capital* is composed of two items: educational and vocational skills and reasoning and intellectual skills.

#### **Multivariate Analysis**

With a set of only five predictor factors, a multivariate analysis of probation violation was able to be accomplished. Multivariate analysis is a more sophisticated analysis than bivariate analysis because it allows the researcher to control for the effects of more than one variable at the same time. For example, it is possible to simultaneously look at the impact that employment, prior criminal history, and chemical dependency have on the violation rate.

The multivariate analysis must suit the features of the data under study. The two important characteristics of the probation data that must be addressed are, first, that probation violation occurs throughout a three year span of time, at the end of which more than half of the cases have not terminated (either successfully or unsuccessfully); and, second, that the outcome to be predicted is a dichotomy of violated/not violated. Ordinary multiple regression does not adequately handle either problem. As in an earlier study of parole, the demographer's technique of "survival analysis" offers a reasonable solution (Department of the Attorney General, 1999: Retherford and Choe, 1993). Survival analysis is a family of techniques used to examine the rate at which cases, exposed to risks over a period of time, experience a "terminal event" such as death, or recurrence of symptoms or, in this study, probation violation. "Cox regression," a form of survival analysis, tests the contribution that a set of predictor variables makes to the accuracy of accounting for variation in time to the terminal event in the study. In this instance the terminal event is probation violation within 36 months and the predictors are the five risk factors plus some other possible predictors to be tested (offense on which sentenced to probation and, in a second analysis model, three demographic variables: sex, age and ethnicity.) Offense is represented in three "dummy" variables: Violent offenses versus all others (coded "1" if sentenced on a violent

offense, "0" if sentenced on anything else), Property Offense versus all others (coded "1" if sentenced on a property offense, "0" if anything else), and Drug Offense (coded "1" if sentenced on a drug offense, "0" if anything else).

**Table 9: Survival analysis using Cox regression (Model 1)** 

Predictor	B Coefficient	Standard Error	Significance	Odds for Violation, High Risk to Low Risk Probationers
Conventional Life Style	.617	.115	.000	1.85 to 1
Criminal History	.559	.100	.000	1.75 to 1
Chemical Dependency	.230	.101	.023	1.26 to 1
Psychological Status	.472	.107	.000	1.60 to 1
Human Capital	.207	.099	.037	1.23 to 1
Violent Offense	207	.205	.313	0.81 to 1
Property Offense	.225	.189	.234	1.25 to 1
Drug Offense	.185	.197	.350	1.20 to 1

The "B coefficient" is an estimate of the contribution of a predictor net of the other predictors. The larger the absolute value of B the larger is the contribution of the predictor. The "standard error" is used to determine the likelihood that a result of this size could occur by chance. "Significance" is the probability that the association could occur by chance; a value of .05, or no more than five chances out of one hundred, is the level employed as the minimum to be considered "statistically significant" in this study. "Odds for violation" is a calculation of the likelihood that a probationer with a high risk score will violate compared to one with a low risk score. In the first row of Table 9, a person with a high risk score on Conventional Life Style, is 1.85 times more likely to violate probation than is a person assessed as low risk. If either outcome were equally likely the odds value would be 1.0 (i.e., "one to one"). Odds of less than 1.0 indicate a reverse influence, i.e., that high risk scorers are less likely to violate. The odds value of .813 for offenders sentenced to probation for a violent offense means that such persons are somewhat less likely than are non-violent offenders to violate probation, other factors being equal.

In Table 9, each of the five risk factors makes a significant contribution to accounting for probation violation, but Conventional Life Style, Criminal History, and Psychological Status are more influential than are Chemical Dependency or Human Capital. The three measures for violent, property, and drug offenses are not significant predictors. So, the data shown in Table

9 suggest that persons with an unconventional life style (e.g., without regular legal employment and a stable residence), or who have a criminal record, psychological problems, and, to a lesser extent, drug or alcohol use problems, or who are poorly prepared in terms of marketable skills, are more likely to violate probation. Each of these predictor sets has an independent effect on the probability of violation. Note that the analysis is based on all who have been convicted of a felony and are on regular probation. The same measures on a sample of the general population, or even of all persons under supervision in the community, would not necessarily predict criminal offenses in the same way that these factors contribute to predicting probation violation among the study population. Chart 2 displays the cumulative violation rate with the five predictor variables set at their respective average values; this is "Model 1."

70%
60%
60%
40%
30%
10%
0%
00
1.0
2.0
3.0
4.0

Chart 2: Probation Revocation & Elapsed Time Since Sentence to Probation

Elapsed Time Since Sentence to Probation (years)

<u>Model 2</u> The same analysis was run with the addition of three demographic variables: the offender's sex, age at onset of probation, and ethnicity. Ethnicity was coded into three major ethnic groups: Asian (meaning Chinese, Japanese, Korean, Filipino), Hawaiian (including any part Hawaiian) and Others.

Table 10: Survival analysis using Cox regression, with age, sex, and ethnicity (Model 2)

Predictor	B Coefficient	Standard Error	Significance	Odds for Violation, High Risk to Low Risk Probationers
Conventional Life Style	.569	.116	.000	1.77 to 1
Criminal History	.493	.103	.000	1.67 to 1
Chemical Dependency	.240	.102	.019	1.27 to 1
Psychological Status	.481	.108	.000	1.62 to 1
Human Capital	.163	.100	.105	1.18 to 1
Violent Offense	286	.209	.171	0.75 to 1
Property Offense	.171	.191	.372	1.19 to 1
Drug Offense	.213	.199	.285	1.24 to 1
Male Probationer	.090	.121	.456	1.09 to 1
Young Age at Admission	019	.006	.000	0.98 to 1
Asian	.222	.156	.155	1.25 to 1
Hawaiian	.154	.135	.254	1.17 to 1
Other Non-Caucasian	.310	.146	.033	1.36 to 1

Table 10 shows that little is changed by adding gender, age and ethnicity. Younger offenders are significantly more likely than older offenders to violate probation, but the overall effect is very small, with odds approaching unity. The ethnic category "other" is significant; this category includes Samoans, African-American and non-Hawaiian mixed ancestry and they are somewhat more likely to violate. Caucasian is the excluded, reference category.

One more variant was tested by adding whether the probationers were arrested while on the current probation sentence. This variable (coded "0" if the subject was not arrested and "1" if arrested one or more times) makes a significant contribution net of the other predictors. However, arrest on probation is obviously not known at the outset of the sentence, so it is not useful as a predictor. Its contribution does demonstrate that arrests raise the odds that a case will be found in violation of probation. As a result, the arrest variable should be viewed as a contributing factor to the increased likelihood of revocation once a person is sentenced to probation, but it is not useful as a predictor.

Arrest is also not useful partly because many are dismissed or are not prosecuted, partly because, as stated earlier, there is legal discretion as to how an arrest is interpreted, and partly because it is relatively infrequent and highly skewed. Of the felony probationers followed for 36 months in this study, 68.8 percent had no arrests of any kind (Table 11). The remainder, 31.2 percent (341 individuals), were arrested. Of those arrested, 37.8 percent were arrested once, 23.8 percent were arrested twice, 9.7 percent were arrested three times, 8.2 percent had four arrests, and the remainder, nearly 20 percent, were arrested between 5 and 20 times.

**Table 11: Number of arrests while on probation** 

Number of Arrests	Number of Probationers	% Total Probationers n= 1092	% Arrested Probationers n= 341
None	751	68.8	
One	129	11.8	37.8
Two	81	7.4	23.8
Three	33	3.0	9.7
Four	28	2.6	8.2
Five or more	70	6.4	20.5

Arrests, as can be seen in Table 12, were mostly for alleged misdemeanors, petty misdemeanors or ordinance violations (218, or 20 percent of all probationers). Another 83 were arrested on a Felony C level (7.6 percent of probationers), and fewer than 4 percent were arrested for the most serious crimes, Felony A or B.

Table 12: Severity level of arrests while on probation

Arrest Severity	Number of Probationers	% Total Probationers n= 1092	% Arrested Probationers n=341
Felony A or B	40	3.7	11.7
Felony C	83	7.6	24.3
Misdemeanor or below	218	20.0	63.9

A variant of survival analysis, known as Kaplan-Meier analysis, permits the display of differences in the terminal event (in this case, probation violation) over time for cases classified by one of the predictor factors. Charts 3 through 7 display Kaplan-Meier curves for the probation cases. The horizontal axis shows elapsed time on probation, to the measured limit of 36 months, plus a statistical estimate out to 48 months. The vertical axis shows the cumulative probability of

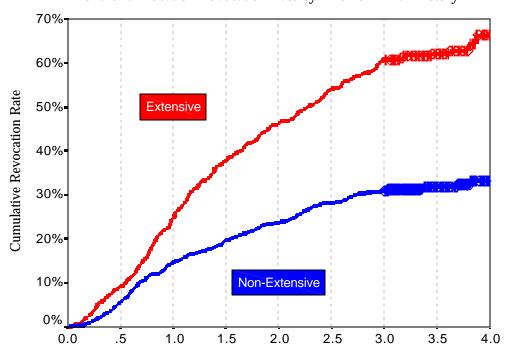
revocation. Note that the point in time where a violation is recorded represents the final date when an order sustaining the motion to violate probation is affirmed by the court. There are delays due to getting the motion filed in court, waiting for disposition of an arrest (if there is an arrest involved), and awaiting appearance of the case on the court calendar. With this caveat however, the curves suggest that differences in the two risk groups begin to appear in the six months, and are quite apparent by the end of 12 months.

70% 60% Cumulative Revocation Rate 50% Unconventiona 40% 30% 20% 10%-Conventiona 0% 1.0 1.5 2.0 2.5 3.0 0.0 .5 3.5 4.0

Chart 3: Probation Revocation Rate by Conventional Life Style

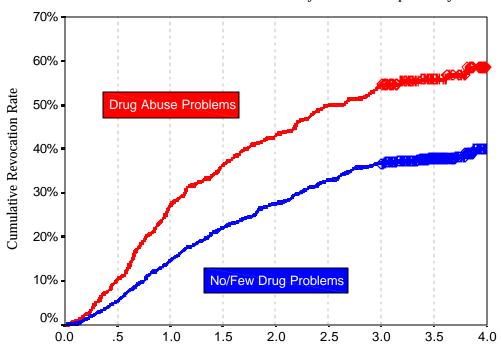
Elapsed Time Since Sentenced to Probation (years)

Chart 4: Probation Revocation Rate by Prior Criminal History



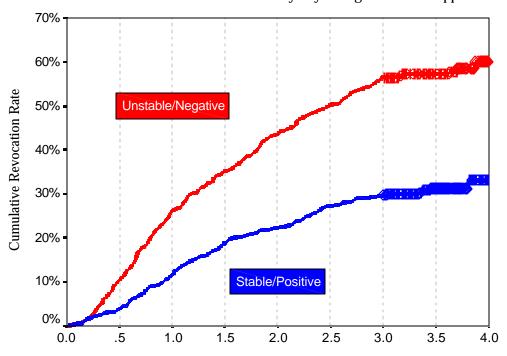
Elapsed Time Since Sentenced to Probation (years)

Chart 5: Probation Revocation Rate by Chemical Dependency



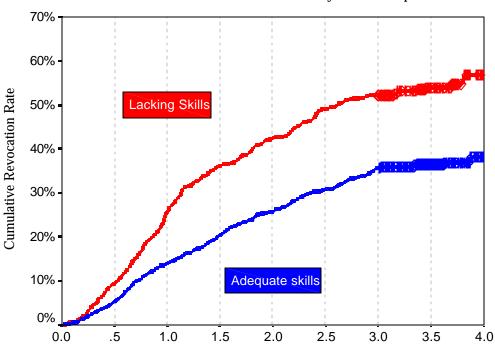
Elapsed Time Since Sentenced to Probation (years)

Chart 6: Probation Revocation Rate by Psychological Status/Support



Elapsed Time Since Sentenced to Probation (years)

Chart 7: Probation Revocation Rate by Human Capital



Elapsed Time Since Sentenced to Probation (years)

#### False Negatives and False Positives — A Cautionary Note

While the risk factors certainly provide a basis for anticipating violation, they cannot be used themselves as cutting points for making quick decisions about sentencing. Using the same risk factors as in the survival (Cox regression) analysis, a logistic regression was done on the 36-month outcome data. The same factors emerged as predictors but the output from the analysis showed the errors of prediction. The model recognized 58.6 percent of those who actually violated probation, and 78.2 percent of those who did not. On the other hand, it erroneously included 41.4 percent of the violators as not likely to violate (false negatives), and 21.8 percent of the non-violators as likely to violate (false positives). The model's overall prediction accuracy was 69.75%.

Table 13: Accuracy of probation violation prediction from logistic regression (Percent)

Actual Outcome	Predicted No Violation	Predicted Violation
No Violation	78.2	21.8
Violation	41.4	58.6

#### Replicating the analysis on FY97

The analysis of probation violation among the cases entering probation during FY96 was repeated on cases entering probation during FY97. The same selection criteria were applied. However, only a 24-month exposure could be used for the FY97 cohort, as the last of these probationers to enter toward the end of June 1997 would only have been at risk until the data set was assembled in mid-1999. For comparison purposes, the FY96 cohort was re-analyzed using 24-month outcome data. The summary factors derived from the FY96 data were used for FY97. The results of the Cox regression in survival analysis are displayed in Table 14.

Table 14: Comparison of Cox regression coefficients, significance levels and odds of violation within 24 months, for felony probation FY96 (upper figure) and FY97 (lower figure)

Predictor	B Coefficient	Standard Error	Significance	Odds for Violation, High Risk to Low Risk Probationers
Conventional Life Style	.5552	.1335	.0000	1.74 to 1
	.5854	.1396	.0000	1.80 to 1
Criminal History	.5201	.1135	.0000	1.75 to 1
	.5760	.1198	.0000	1.78 to 1
Chemical Dependency	.2383	.1012	.0385	1.27 to 1
	.2558	.1151	.0396	1.29 to 1
Psychological Status	.4869	.1234	.0001	1.63 to 1
	.6129	.1331	.0000	1.85 to 1
Human Capital	.3181	.1127	.0048	1.37 to 1
	.0015	.1214	.9898	1.00 to 1
Violent Crime	2944	.2327	.2058	0.74 to 1
	4127	.2349	.0789	0.66 to 1
Property Crime	.1129	.2140	.5978	1.12 to 1
	0122	.2126	.9543	0.99 to 1
Drug Crime	.0949	.2227	.6699	1.10 to 1
	.2621	.2205	.2345	1.30 to 1

As can be seen, the FY96 analysis in most aspects is replicated in the second year. In both FY96 and FY97, with different individuals entering probation, the first two factors (Conventional Life Style and Criminal History) are quite similar in value. Psychological Status is important as a predictor in each year. Chemical Dependency contributes appreciably less to prediction accuracy in each year. The odds for high risk cases violating are very similar in each year, for each of the first four risk factors. The two years are quite discrepant on the Human Capital factor, however. In neither year is Violent/Property/Drug Offense important as a predictor. The results support the view that the findings from FY96 are reasonably stable if applied to other probation cohorts.

## Comparison of Probation and Parole Caseloads on 24-Month Follow-up

It is of interest to raise the question of whether probation would be a reasonable sentence for some offenders who are sentenced to prison. To compare survival or revocation on parole with probation, the cases must be compared within risk levels since parole has more cases with prior

criminal histories and other higher measured risk. To illustrate, one-third of parolees were sentenced on a Class C felony, while two-thirds of felony probationers were Felony C. Nearly half (47.9 percent) of parolees were sentenced on a Felony B, compared with 35.6 percent of probationers, and 14.8 percent of the parolees were sentenced on Felony A, while virtually none of the probationers were Felony A offenders (excluding a handful of Felony A drug offenders, now eligible for probation). Nearly 68 percent of probationers have no prior felony convictions; the same is true for only 37.8 percent of parolees. Almost half (49.1 percent) of parolees have two or more prior felony convictions, while only 18.0 percent of probationers have that many (see Table 15). Thus, comparisons must be made within risk levels.

Table 15: Comparison of probation and parole cases on selected characteristics

Variable	Category	Probationers n=1092	Parolees n= 598
	Male	79.3	92.4
Gender	Female	20.7	7.6
	18-25 years	23.2	11.7
A see at A levitorion	26-32	26.0	29.5
Age at Admission	33-39	27.2	35.1
	40 and older	23.7	23.7
	Violent	28.2	30.7
Ct	Property	36.8	35.0
Sentence Offense	Drug	26.7	21.9
	Other	8.2	12.4
	Felony A		14.8
Severity of Offense	Felony B	35.6	47.9
	Felony C	64.4	34.0 <sup>2</sup>
	None	67.9	37.8
Prior Felony Convictions	One	14.1	13.1
	Two or more	18.0	49.1

<sup>&</sup>lt;sup>2</sup>Four percent were classified under the Youthful Offender provision of HRS 706-667.

The 1996 survival analysis regression used five risk factor scores to demonstrate that the probability of revocation of probation was to some degree predictable from risk measures at the time of sentence. The dichotomized counts were crosstabulated with percent violations in parole and probation cases. Table 16 shows percentages violated in low- and high-risk cases.

In each of the five factors more high risk cases violated, and differences between probation and parole in handling high risk cases were not always large. In two of the dimensions the percentages of high risk cases in probation and parole violated were nearly identical; in the other three significantly more violated on parole. Differences were greater on low risk cases, where violations were far more common among parolees in each of the five comparisons.

Table 16: Probation and parole violations at 24 months by risk level for 5 factors (Percent Violated)

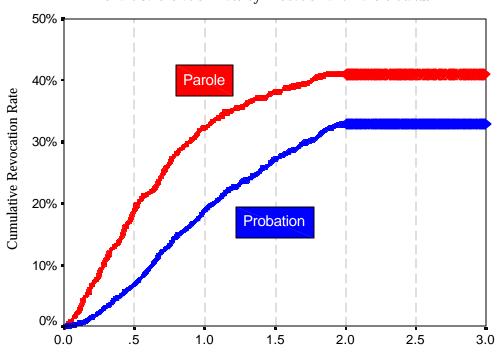
Risk Factor	Risk Level	Probation	Parole
	Low	19.4	36.5
Conventional Life Style	High	42.7	49.6
D. G. LIV.	Low	24.2	22.3
Prior Criminal History	High	47.6	47.4
	Low	24.3	36.6
Chemical Dependency	High	40.1	50.9
D 11 1 10 1	Low	24.6	38.0
Psychological Status	High	40.4	48.7
и с и	Low	26.2	41.7
Human Capital	High	43.9	43.8

To compare probation and parole cases under supervision, the files were combined into a single case data set of 1,690 persons. A total of 76 cases were deleted because of missing data. On the remaining 1,614 cases, survival analysis was conducted using Cox regression. The five risk factors used in previous analyses of probation were used, plus a new variable dichotomized "0" for a probation case and "1" for a parole case. The results of this analysis were quite similar to previous analyses of probation outcome at 36 months and the replication of the FY96 findings on FY97 cases. Four factors each made significant contributions to the prediction of violation or survival on community supervision. *Human Capital* differed in the two agency caseloads. Net of the risk components measured by these five factors, parole has a higher violation rate than probation. (For definitions of terms and measurements used in Table 17, see the text under Table 9, page 19.)

**Table 17: Survival on probation and parole (Cox Regression)** 

Variable	B Coefficient	Standard Error	Significance	Odds for Violation, High Risk to Low Risk Probationers
Conventional Life Style	.5031	.0933	.0000	1.7 to 1
Prior Criminal History	.6604	.0969	.0000	1.9 to 1
Chemical Dependency	.2970	.0886	.0008	1.3 to 1
Psychological Status	.2485	.0887	.0051	1.3 to 1
Human Capital	.1206	.0902	.1811	1.1 to 1
Probation/Parole	.3419	.0950	.0003	1.4 to 1

Chart 8: Violation Rate by Probation and Parole Status



Elapsed Time Since Sentence to Probation or Release to Parole (years)

Chart 8 shows the curve of violation separately for Parole (the upper line) and Probation (the lower line). It can be seen that parolees violate more often, and earlier, than do probationers.

This may be for several reasons, reflecting differences in offenders, staff caseloads, violation detection abilities and practices, or requirements for revocation in the two agencies. The greater offense severity and more extensive criminal record of the parolees may be the most important factor, but the multivariate analysis to some extent takes differences in criminal background into account. The parole officer has a caseload usually one-fourth the size of that of a probation officer, and conducts more urine testing. The motion to revoke probation must prevail in the courtroom, whereas a recommendation to revoke parole goes before the Paroling Authority, not a judge. The data in this report do not permit a resolution to the question, "why do cases violate more often on parole than on probation?" yet the data do indicate that, holding major components of risk constant, parole has a higher violation rate than does probation.

#### **Conclusions**

In the beginning of the report four questions were posed, which now may be answered.

#### What are the characteristics of probationers?

Twenty percent of people sentenced to probation for felony convictions are women and eighty percent are men, mainly for property and drug offense convictions, but also 28.2 percent for violent offenses. These statistics are not very different from those for parolees, except that the severity level is quite different. Most probationers are Felony C offenders (64.4 percent), while most parolees are Felony A and B offenders (62.7 percent). Only one-third of probationers have prior felony convictions. A majority has substance abuse problems and marginal employment histories.

#### What is the extent of compliance with the requirements of probation?

Among probation cases is a small percentage of persons convicted of misdemeanors in jury trials. These cases have very low probation revocation rates. There is a larger number of cases disposed under DAG/DANC pleas. They have been convicted of felony crimes but do not have prior criminal histories and are considered good risks, and have shorter periods of supervision and low violation rates. The bulk of regular probation cases are felony property and felony drug offenders, who have a wide range of risk levels and a variable violation rates which average about 42 percent within 36 months. Violations are distributed widely throughout this period, but case processing influences time to an official finding/ruling of violation/revocation.

Probation violations are more often for technical infractions against court order requirements than they are for new convictions. Prison is not an automatic consequence of violation since the court frequently continues cases on probation.

#### What characteristics predict compliance and sanctions on probation?

A probationer's likelihood to fail on probation (i.e., be revoked) is greatly increased if s/he has a prior criminal history, has generally been without regular, legal employment and a stable

residence, and/or has assessed psychological and attitudinal problems. Chemical dependency is also a significant contributor to the probability of revocation, but in a caseload where alcohol and drug use is very high, it is not *per se* a sensitive predictor. The lack of educational and vocational skills also contributes to the probability of violation, but not as much as the aforementioned factors.

A measurement of these factors allows reasonably accurate prediction of the majority of persons who will or will not subsequently violate probation. However, sizable errors, both false positives (cases predicted to violate but who do not) and false negatives (cases predicted to succeed but who do not) make categorical criteria and rules unsatisfactory as a sentencing formula.

#### How does probation compare with parole on common measures of success?

Comparisons of probation and parole survival must take into account criminal history and risk levels, as probationers generally score far better on each of these factors. Still, the same risk factors are useful in predicting violation in both agency caseloads. The violation rate for low risk offenders is higher for parole, and the violation rates for high risk offenders in both agencies are equal in two out of five comparisons, and greater for parole in the other three. Net of the effect of differences in risk level, parole is more likely than probation to be revoked. Parole has a lower tolerance threshold for non-compliance and it has less difficulty revoking its clients and sending them to confinement.

#### **Recommendations**

Probation is, both nationally and in the state of Hawaii, the most frequently imposed sentence for convicted felons. On any criteria, probation is much less costly than prison. Recently the *Honolulu Advertiser* assessed that, "It costs \$72 a day to house an inmate at ... Halawa Correctional Facility...[but] when construction and all other expenses are figured in, it costs more than \$100 a day to house inmates in Hawaii" (1/5/00: A1). An estimate provided by the Adult Probation Division places the annual cost of probation at an average of six hundred dollars per person. But what level of supervision is available on probation, and what is the violation rate for felony probationers? This report offers some information relevant to these policy questions.

Prior criminal record, poor employment history and alcohol and drug use problems drive probation revocation. All call for early intervention. The need for prevention, treatment, and training programs in the community, comprehensive services promoting school retention of at-risk youth, and employment development in economically depressed areas continue to be indicated as they were in the 1998 analysis of factors predicting parole survival.

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State may lease new prison in Oklahoma. (January 5, 2000). Honolulu Advertiser, p. A1.

#### **Appendix A: Special Conditions of Probation**

- (2) Discretionary conditions. The court may provide, as further conditions of a sentence of probation, to the extent that the conditions are reasonably related to the factors set forth in section 706-606 and to the extent that the conditions involve only deprivations of liberty or property as are reasonably necessary for the purposes indicated in section 706-606(2), that the defendant
- (a) Serve a term of imprisonment not exceeding one year in felony cases, and not exceeding six months in misdemeanor cases; provided that notwithstanding any other provision of law, any order of imprisonment under this subsection that provides for prison work release shall require the defendant to pay thirty per cent of the defendant's gross pay earned during the prison work release period to satisfy any restitution order. The payment shall be handled by the adult probation division and shall be paid to the victim on a monthly basis;
- (b) Perform a specified number of hours of services to the community as described in section 706-605(1)(e);
- (c) Support the defendant's dependents and meet other family responsibilities;
- (d) Pay a fine imposed pursuant to section 706-605(1)(b);
- (e) Make restitution as specified in section 706-605(1)(d);
- (f) Work conscientiously at suitable employment or pursue conscientiously a course of study or vocational training that will equip the defendant for suitable employment;
- (g) Refrain from engaging in a specified occupation, business, or profession bearing a reasonably direct relationship to the conduct constituting the crime or engage in the specified occupation, business, or profession only to a stated degree or under stated circumstances;
- (h) Refrain from frequenting specified kinds of places or from associating unnecessarily with specified persons, including but not limited to the victim of the crime, any witnesses, regardless of whether they actually testified in the prosecution, law enforcement officers, co-defendants, or other individuals with whom contact may adversely affect the rehabilitation or reformation of the person convicted;
- (i) Refrain from use of alcohol or any use of narcotic drugs or controlled substances without a prescription;
- (j) Refrain from possessing a firearm, destructive device, or other dangerous weapon;
- (k) Undergo available medical, psychiatric, or psychological treatment, including treatment for drug or alcohol dependency, and remain in a specified institution if required for that purpose;

- (l) Reside in a specified place or area or refrain from residing in a specified place or area;
- (m) Submit to periodic urinalysis or other similar testing procedure;
- (n) Satisfy other reasonable conditions as the court may impose;
- (o) Refrain from entering specified geographical areas without the court's permission; or
- (p) Refrain from leaving the person's dwelling place except to go to and from the person's place of employment, the office of the person's physician or dentist, the probation office or as may be granted by the person's probation officer pursuant to court order. As used in this paragraph, "dwelling place" includes the person's yard or, in the case of condominiums, the common elements.

# Appendix B: Risk and Needs Scales

#### THE JUDICIARY ADULT PROBATION DIVISION, DF5 STATE OF HAWAII

### INITIAL ASSESSMENT OF CLIENT RISK

CLIENT LAST NAME	FIRST	M.I.	SID#	
DATE	OFFICER		PO CODE	

Select the appropriate answer and enter the associated weight in the score column. Total all scores to arrive at the risk assessment score.

				SCORE
1.	Alcohol Usage Problems:	2	No interference with functioning Occasional abuse; some disruption of functioning Frequent abuse; serious disruption; needs treatment	
2.	Other Drug Usage Problems:	1	No interference with functioning Occasional abuse; some disruption of functioning Frequent abuse; serious disruption; needs treatment	
3.	Number of Address Changes in Last 12 Months:		None One Two or more	
4.	Percentage of Time Employed in Last 12 Months:	1	60% or more (MORE THAN 7 MONTHS) 40% - 59% (5-7 MONTHS) Under 40% (UNDER 5 MONTHS) Not applicable	
5.	Attitude:	0 3 5	Motivated to change; receptive to assistance Dependent or unwilling to accept responsibility Rationalizes behavior; negative; not motivated to change	
6.	Age at First Conviction:		24 or older 20 - 23 19 or younger	
7.	Number of Prior Periods of Probation/Parole Supervision: (Adult or Juvenile)	0 4	_	
8.	Number of Prior Probation/Parole Revocations:		None One or more	
9.	Number of Prior Felony Convictions:	0 2 4	None One Two or more	
10.	Convictions or Juvenile Adjudications for:	2	None Burglary, theft, auto theft, or robbery Worthless checks or forgery	
11.	Conviction or Juvenile Adjudication for: (Assaultive Offense within Last Five Years:		Yes No	

TOTAL RISK

#### THE JUDICIARY ADULT PROBATION DIVISION, DF5 STATE OF HAWAII

### INITIAL ASSESSMENT OF CLIENT NEEDS

CLIENT LAST NAME	FIRST	M.I.	SID#	
DATE	OFFICER		PO CODE	

Select the appropriate answer and enter the associated weight in the score column. Total all scores. Higher numbers indicate more severe problems.

Alcohol Usage	0	No today for your and the formation to you					
		No interference with functioning	+4	Occasional abuse some disruption of functioning	+7	Frequent abuse serious disruption needs treatment	
Other Drug Usage	0	No interference with functioning	+4	Occasional substance abuse, some disruption of functioning	+7	Freq. substance abuse serious disruption, needs treatment	
Employment  Satisfactory employment for one year or more	0	Secure employment no difficulties reported or homemaker, student, retired	+4	Unsatisfactory employment or unemployed but has adequate job skills	+7	Unemployed or virtually unemployable, needs training	
Education/Vocational Skills  1 High School or above skill level	0	Adequate skills able to handle every day req.	+3	Low skill level causing minor adjustment problems	+6	Minimal skill level, causing serious adj. prob.	
Financial Management  1 Long standing pattern of self sufficiency, good credit rating	0	No current difficulties	+3	Situational or minor difficulties	+5	Severe difficulties may include garnishment, bad checks or bankruptcy	
Emotional Stability  1 Exceptionally well adjusted, accepts responsibilities	0	No symptoms of emotional instability appropriate emotional responses	+4	Symptoms limit but do not prohibit adequate functioning excessive anxiety	+7	Sypmtoms prohibit adequate functioning, lashes out or retreats into self	
Reasoning/Intellectual Ability	0	Able to function independently	+4	Some need for assistance, potential for adequate adjustment	+7	Deficiencies severely limit independent functioning	
Physical Health	0	Sound physical health, seldom ill	+2	Handicap or illness interferes with functioning on a recurring basis	+4	Serious handicap or chronic illness needs frequent medical care	
Marital/Family Relationships  1 Relationships and support exceptionally strong	0	Relatively stable relationships	+3	Some disorganization or stress but potential for improvement	+6	Major disorganization or stress	
Companions  Good support and influence	0	No adverse relationships	+3	Associations with occasional negative results	+5	Associations almost completely negative	
Residence	0	Suitable living arrangements	+3	Transitional residence problems, halfway house	+6	Chronic residence problems, nomadic lifestyle	
Fransportation	0	Has mobility to meet court obligations	+3	No adequate means of transportation			
		Low	+2	Medium	+4	High	
	Employment 1 Satisfactory employment for one year or more Education/Vocational Skills 1 High School or above skill level Einancial Management 1 Long standing pattern of self sufficiency, good credit rating Emotional Stability 1 Exceptionally well adjusted, accepts responsibilities Reasoning/Intellectual Ability Physical Health  Marital/Family Relationships 1 Relationships and support exceptionally strong Companions 1 Good support and influence Residence  Transportation	Employment 1 Satisfactory employment for one year or more Education/Vocational Skills 1 High School or above skill level 0 Einancial Management 1 Long standing pattern of self sufficiency, good credit rating Emotional Stability 1 Exceptionally well adjusted, accepts responsibilities Reasoning/Intellectual Ability 0 Physical Health 0 Marital/Family Relationships 1 Relationships and support exceptionally strong 0 Companions 1 Good support and influence 0 Residence 0 Fransportation 0 Officer's Impression of Client's Needs	Employment 1 Satisfactory employment for one year or more  Education/Vocational Skills 1 High School or above skill level 2 Adequate skills able to handle every day req.  Financial Management 1 Long standing pattern of self sufficiency, good credit rating  Emotional Stability 1 Exceptionally well adjusted, accepts responsibilities  Reasoning/Intellectual Ability  Physical Health  Marital/Family Relationships 1 Relationships and support exceptionally strong  Companions 1 Good support and influence  O No adverse relationships  Residence  O Suitable living arrangements  O Has mobility to meet court obligations  Officer's Impression of Client's Needs	Employment 1	Employment 1 Satisfactory employment for one year or more 2 Secure employment no difficulties reported or homemaker, student, retired 3 Satisfactory employment for one year or more 4 Unsatisfactory employment or unemployed but has adequate job skills 5 High School or above skill level 5 Adequate skills able to handle every day req. 5 No current difficulties 6 No current difficulties 7 No current difficulties 8 Situational or minor difficulties 9 No symptoms of emotional instability appropriate emotional responses 9 Able to function independently 1 Some need for assistance, potential for adequate adjustment 9 Sound physical health, seldom iii 1 Companions 1 Relationships and support exceptionally strong 9 No adverse relationships 1 Relationships and support exceptionally strong 9 No adverse relationships 1 Good support and influence 1 O Suitable living arrangements 1 O Suitable living arrangements 1 O Has mobility to meet court obligations 1 O Adequate means of transportation 1 Officer's Impression of Client's Needs	Employment 1 Satisfactory employment for one year or more 1 Satisfactory employment for one year or more 2 Secure employment no difficulties reported or homemaker, student, retired 3 Satisfactory employment for one year or more 3 Secure employment no difficulties reported or homemaker, student, retired 4 Unsatisfactory employment or unemployed but has adequate job skills 1 High School or above skill level 3 Adequate skills able to handle every day req. 4 Low skill level causing minor adjustment problems 4 Situational or minor difficulties 4 Situational or minor difficulties 4 Symptoms limit but do not prohibit adequate functioning excessive anxiety 4 Some need for assistance, potential for adequate adjustment 4 Some need for assistance, potential for adequate adjustment 4 Some need for assistance, potential for adequate adjustment 4 Some need for assistance, potential for adequate adjustment 5 Physical Health 6 Sound physical health, seldom ill 7 Alarital/Family Relationships 1 Relationships and support exceptionally strong 8 Companions 1 Good support and influence 9 Suitable living arrangements 4 Associations with occasional negative results 5 Associations with occasional negative results 6 Associations with occasional negative results 7 Associations with occasional negative results 8 Associations with occasional negative results 8 Associations with occasional negative results 9 Associations with occasional negative results 1 Associations with o	Employment 1 Satisfactory employment for one year or more 2 Secure employment no difficulties year or more 3 Secure employment no difficulties year or more 3 Secure employment no difficulties year or more 4 Unsettisfactory employment or unemployed but has adequate job skills 1 High School or above skill level 4 Unsettisfactory employment or unemployed but has adequate job skills 1 High School or above skill level 4 Unsettisfactory employment or unemployed but has adequate job skills 1 High School or above skill level 4 Unsettisfactory employment or unemployed but has adequate job skills 1 High School or above skill level 4 Unsettisfactory employment or unemployable, needs training skills 1 High School or above skill level 4 Secure in the skill level 5 Severe difficulties may include garnishment, bad rheets or destraining still level, causing serious adjusted. 2 No current difficulties 3 Situational or minor difficulties 4 Symptoms limit but do not prohibit adequate functioning accessive amovely appropriate emotional responses 8 Reasoning/Intellectual Ability 6 Abile to function independently 7 Abile to function independently 8 Osund physical health, seldom ill 9 Sound physical health, seldom ill 1 Capital Pallity Relationships 1 Relationships and support exceptionally strong 1 Relationships and support exceptionally strong 1 Good support and influence 1 O Suttable living arrangements 2 O Suttable living arrangements 3 No adequate means of transportation 4 Associations with occasional negative results 4 Transitional residence problems, narrangements 4 Transitional residence problems, narrangements 4 No adequate means of transportation  Officer's Impression of Client's Needs

TOTAL NEEDS

THE JUDICIARY ADULT PROBATION DIVISION, DF5 STATE OF HAWAII	☐ INITIAL CODING SHEET ☐ CHANGE CODING SHEET
CLIENT LAST NAME FIRST M.I. SID#	
DATE PO CODE	
	Entry by
Adult Probation Services Requested  1. Court Ordered Supervision (COS)  2. Intrastate  3. Interstate  4. Monitoring Only  5. OTI  6. COS After Revocation	SCORE Score
Sentence Given 1. DAGP 3. Cond. Discharge 5. Cond. Release 7. Suspended Sentence 2. DANCP 4. Probation (Conviction) 6. Monitoring 8. Other	ALCOHOL ALCOHOL
Re-Sentence Date (to be used with 6. COS after revocation)	DRUG
Expiration Date 2nd Exp Dte 3rd Exp Dte	DRUG EMPLOY.
NEXT REASSESSMENT DATE	ADDRESS
COURT ORDERED SPECIAL CONDITIONS	CHANGE EDUC./VOC.
Jail Time Ordered (Not Suspended) Specify No. Days	
Monetary  Restitution 1. To be determined	FINANCE % EMPLOYED
Fine	
Contributions	EMOTION
Reimbursements/Reparations	ATTITUDE REASON INTELLECT
Fees	INTELLECT
Community Service Hours  Residential Treatment Program (Spell Treatment Facility Name)	AGE HEALTH
Traffic	FAMILY
	PRIOR SUPERV.
Mental Health 0. Not Ordered 1. Ordered	COMPANIONS
Alcohol Treatment (Non Residential)  0. Not Ordered  1. Ordered	NUMBER REVOC.
Drug Treatment (Non Residential)  0. Not Ordered 1. Ordered  Voc/Edu/Employ (Non Residential)  0. Not Ordered 1. Ordered	RESIDENCE
Voc/Edu/Employ (Non Residential)  0. Not Ordered  1. Ordered  Home Detention  0. Not Ordered  1. Ordered	TRANSPORT-
Area Restriction 0. Not Ordered 1. Ordered	PRIOR ATION CONVIC.
Search & Seizure 0. Not Ordered 1. Ordered	IMPRESSIONS
Drug & Alcohol Testing 0. Not Ordered 1. Ordered	SPECIFIC
Classification  1. Admin. Compact/Courtesy Sup.  2. Adm. Non Compact/Court. Sup.  3. Adm. Res. Prog.  4. Admin. Jail  5. Adm. BW  8. Maximum  9. Conditional Release	TOTAL NEEDS  ASSAULT
Override Classification Supervisors Approval	
CMC Strategy  0. None Conducted 2. Selective Intervention (Trt) 4. Environmental Structure 1. Selective Intervention (Sit) 3. Casework Control 5. Limit Setting	TOTAL RISK
TRANSFER OF JURISDICTION: Date of Transfer To Circuit or State	

REV. 5/97

#### Appendix C: Probation Outcomes Based on Various Risk/Need Items

Table C-1: Probation outcome by level of alcohol usage problems (Percent)

Alcohol Usage Problems	No Violation/ No Arrest	No Violation/ Arrest	Violation (with or without arrest)	Violation/ Prison	Total Count
No Interference	52.0	9.3	23.2	15.6	410
Occasional	43.6	11.9	33.1	11.3	335
Frequent Abuse; Serious Disruption: Needs Treatment	39.8	13.0	30.5	16.7	347
Total	45.5	11.3	28.6	14.7	1092

p # .01

Table C-2: Probation outcome by level of drug usage problems (Percent)

Other Drug Problems	No Violation/ No Arrest	No Violation/ Arrest	Violation (with or without arrest)	Violation/ Prison	Total Count
No Life Disruption	66.4	11.8	16.6	5.2	271
Some Life Disruption	46.4	15.5	25.0	13.2	220
Serious Life Disruption	35.5	9.5	35.5	19.6	598
Total	45.4	11.3	28.7	14.7	1089

Table C-3: Probation outcome by address change (Percent)

Number of Address Changes in Last 12 Months	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
None	57.7	10.7	21.5	10.1	298
One	51.5	11.0	24.8	12.7	363
Two or More	31.9	11.9	36.7	19.5	598
Total	45.5	11.3	28.6	14.7	1089

p # .001

Table C-4: Probation outcome by percentage of time employed in last 12 months (Percent)

Percentage of Time Employed in Last 12 Months	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
60%+	68.0	9.6	16.5	5.9	272
40% - 59%	52.6	16.8	21.1	9.5	95
Under 40%	36.0	11.2	34.2	18.7	723
Total	45.4	11.3	28.6	14.7	1090

Table C-5: Probation outcome by level of motivation to change (Percent)

Attitude	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Motivated to Change	55.7	11.4	23.4	9.5	612
Unwilling to Accept Responsibility	30.5	13.4	34.5	21.6	328
Negatively or Not Motivated	35.8	5.4	37.8	20.9	148
Total	45.4	11.2	28.7	14.7	1088

p # .001

Table C-6: Probation outcome by age at first conviction (Percent)

Age at First Conviction	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
24 or Older	51.9	10.6	27.3	10.2	528
20 -23	44.4	14.2	26.7	14.7	232
19 or Younger	36.0	10.4	32.3	21.3	328
Total	45.5	11.3	28.7	14.5	1088

p # .001

Table C-7: Probation outcome by prior supervision (Percent)

Number of Prior Periods of Probation/ Parole Supervision	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
None	59.1	10.5	19.1	11.3	550
One or More	31.4	11.9	38.5	18.2	538
Total	45.4	11.2	28.7	14.7	1088

p # .001

**Table C-8:Probation outcome by prior revocations (Percent)** 

Number of Prior Probation/Parole Revocations	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
None	55.8	11.8	18.5	13.9	813
One or More	15.0	9.5	59.1	16.4	274
Total	45.5	11.2	28.7	14.5	1087

p # .001

Table C-9: Probation outcome by prior felony convictions (Percent)

Number of Prior Felony Convictions	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
None	50.9	10.7	24.4	14.0	737
One	34.6	16.3	34.6	14.4	153
Two or More	34.7	9.7	37.8	17.9	196
Total	45.7	11.3	28.3	14.7	1086

Table C-10: Probation outcome by selected juvenile adjudication or adult conviction for selected offenses (Percent)

Convictions or Juvenile Adjudications	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
None	56.0	10.9	23.5	9.5	514
Burglary, Theft, Auto Theft, or Robbery	35.4	10.5	32.6	21.5	466
Worthless Checks or Forgery	45.2	16.1	35.5	3.2	31
Multiple Theft or Robbery	40.0	10.0	40.0	10.0	10
Theft/Robbery and Forgery	35.7	17.1	34.3	12.9	70
Total	45.5	11.3	28.6	14.7	1091

p # .001

Table C-11: Probation outcome by nature of employment record (Percent)

Employment	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Satisfactory Employment for One Year or More	74.3	14.3	11.4		35
No Difficulties	58.2	13.4	21.1	7.4	299
Marginally Adequate Skills	41.4	9.8	32.3	16.5	582
Unemployable	31.8	11.9	32.4	23.9	176
Total	45.5	11.3	28.6	14.7	1092

Table C-12: Probation outcome by level of educational, vocational skill (Percent)

Educational/ Vocational Skills	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	<b>Total Count</b>
High School or Above	58.6	7.1	23.2	11.1	198
Adequate Skills —Able to Handle Every Day Requirements	47.9	12.8	27.0	12.3	578
Low Skill Level with Minor Adjustment Problems	32.6	11.5	34.8	21.1	279
Minimal Skill Level Causing Serious Adj. Problems	35.1	8.1	35.1	21.6	37
Total	45.5	11.3	28.6	14.7	1092

p # .001

Table C-13: Probation outcome by financial management ability (Percent)

Financial Management	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Lengthy record of good credit	100.0				3
No Current Difficulties	64.6	13.5	15.2	6.8	237
Situational or Minor Difficulties	45.0	12.1	27.9	14.9	462
Severe Difficulties	33.6	9.0	38.0	19.4	387
Total	45.4	11.3	28.7	14.7	1089

Table C-14: Probation outcome by level of emotional stability (Percent)

Emotional Stability	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Exceptionally Well Adjusted	100.0				1
Appropriate Emotional Responses	51.8	13.2	23.2	11.7	469
Limited but Able to Function	41.7	11.0	30.5	16.8	465
Symptoms Prohibit Adequate Functioning	37.8	5.8	39.1	17.3	156
Total	45.6	11.2	28.6	14.7	1091

p # .001

Table C-15: Probation outcome by level of intellectual ability (Percent)

Reasoning / Intellectual Ability	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Able to Function Independently	47.5	11.6	28.1	12.9	887
Some Need for Assistance	38.0	9.9	30.2	21.9	192
Severe Deficiencies	37.5		25.0	37.5	8
Total	45.7	11.2	28.4	14.6	1087

Table C-16: Probation outcome by level of physical health (Percent)

Physical Health	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Sound Physical Health	61.1	13.4	16.8	8.8	388
Handicap or Illness	37.2	10.9	34.2	17.8	433
Serious Handicap or Chronic Illness Needs Frequent Medical Care	36.5	8.9	36.5	18.1	271
Total	45.5	11.3	28.6	14.7	1092

p # .001

Table C-17: Probation outcome by quality of marital and family relations (Percent)

Marital / Family Relationships	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Exceptionally Strong	100.0				5
Relatively Stable Relationships	56.3	12.1	20.6	11.0	373
Some Disorganization or Stress	39.0	11.5	32.6	16.8	487
Major Disorganization or Stress	40.5	9.7	33.5	16.3	227
Total	45.5	11.3	28.6	14.7	1092

Table C-18: Probation outcome by personal association (Percent)

Companions	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Good Support and Influence	100.0				1
No Adverse Relationships	53.8	12.7	22.5	11.1	552
Associations with Occasional Negative Results	37.8	11.3	33.5	17.3	415
Associations Almost Completely Negative	34.1	4.9	39.0	22.0	123
Total	45.6	11.3	28.5	14.7	1091

p # .001

Table C-19: Probation outcome by quality of residence (Percent)

Residence	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Suitable Living Arrangements	53.2	11.0	24.4	11.4	634
Transitional Residence Problems	38.4	12.8	32.7	16.0	281
Chronic Residence Problems	29.0	9.7	36.9	24.4	176
Total	45.5	11.3	28.6	14.7	1091

Table C-20: Probation outcome by adequacy of personal transportation (Percent)

Transportation	No Violation/ No Arrest	No Violation/ Arrest	Violation (w/ or w/o arrest)	Violation/ Prison	Total Count
Has Mobility to Meet Court Obligations	46.1	10.7	27.8	15.4	992
No Adequate Means of Transportation	38.8	17.3	36.7	7.1	98
Total	45.4	11.3	28.6	14.7	1090

#### **Appendix D: Factor Analysis - Rotated Loadings**

An example of factor analysis is the determination of underlying attitudes that lead people to respond as they do to the questions on a political survey. Examining the correlations (i.e., associations) among the survey items reveals that there is significant overlap among various subgroups of items **n**questions about taxes tend to correlate with each other, questions about military issues correlate with each other, and so on. With factor analysis, one can investigate the individual underlying factors and, in many cases, identify what the factors represent conceptually.

Each of the 18 items summarized in Table 7 (page 16) was related to the outcome measure of probation violation. The relationships among the 18 individual items were to various degrees either overlapping or distinct. Factor analysis was used to identify the items, or factors, that explain the pattern of common association, or relationships between items, within this set of items. As an example from the current study of probation, then, the individual items of drug use problems, alcohol use problems, and physical health are highly associated (refer to Table D-1, next page; notice shaded area in "chemical dependency" column). A value of +1.0 indicates a perfect positive relationship, meaning that as one variable increases another variable increases the same amount or strength. A value of -1.0 indicates a perfect negative relationship, meaning that as one variable increases another variable decreases congruently. A value of 0.0 indicates that there is no statistical relationship between the variables. Respectively, the factor loadings (i.e., values) of .665, .697, and .629, represent a correlation between the variables of drug use problems, alcohol use problems, and physical health, and suggest to the researcher a conceptual factor (i.e., chemical dependency).

The factor loadings also indicate the amount of variation that can be explained in the factor by the specific item; for example, drug use has a coefficient value of .665, indicating that 66.5% of the variation in chemical dependency overall is positively related with drug problems (e.g., if a probationer encounters more drug abuse problems, these problems are associated with more chemical dependency problems in general). The items with the strongest relationship with a particular factor (i.e., those shown in grey in Table D-1) were summed and the sum divided by the number of items, to produce the factor score for each of the five factors, for each probationer. Generally speaking, the relationship "values" of the items with the factors, or correlation coefficients, are  $\pm$  .500 or greater (i.e., they are associated with 50% of the factor's variation). Thus, these 18 items, in light of the statistically high correlations, were used to conceptualize and construct 5 factors: conventional life style, criminal record, chemical dependency, psychological status, and human capital.

Table D-1: Data reduction — components of risk factor scores (Factor loadings)

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RISK/NEED ITEM	Conventional Life Style	Criminal Record	Chemical Dependency	Psychological Status	Human Capital	
Percent of time employed year prior to conviction	.783	.107	.104	002	.108	
Quality of employment; employability	.776	.007	.008	.009	.297	
Financial management skill	.686	.119	.000	.261	.003	
Number of address changes in year prior to conviction	.449	.009	.170	.242	253	
Prior Probation	.005	.785	.141	.182	001	
Prior Felony Convictions	.007	.624	.194	.003	.003	
Prior Probation Revocation	.006	.626	.002	.386	126	
Age at first conviction	.126	.571	.242	220	.188	
Prior conviction for selected property offenses	.111	.543	164	006	.006	
Drug Use Problems	.365	.151	.665	.000	.004	
Alcohol Use Problems	104	.007	.697	.004	.005	
Physical Health	.260	.006	.629	.258	.004	
Marital-family Relations	.152	.002	.009	.725	002	
Emotional Stability	007	003	.458	.491	.276	
Officer Rating of Client Needs	.332	.209	.364	.502	.231	
Attitude Toward Personal Change	.158	.104	.003	.509	.262	
Educational / Vocational Skills	.281	.006	.169	004	.682	
Reasoning / Intellectual Skills	001	.004	.009	.203	.738	

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