Individual Crime Rates of Colorado Prisoners

December, 1987

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Division of Criminal Justice

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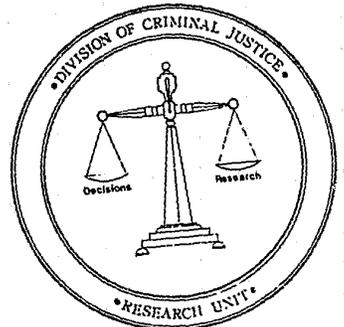
INDIVIDUAL CRIME RATES

OF COLORADO PRISONERS

by

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PREFACE

In the last decade, significant progress has been made toward understanding criminal careers. Empirical findings repeatedly support the theory that a small number of offenders are responsible for committing a disproportionate amount of crime. The findings presented here, too, reveal that, while half of the sample of recently sentenced felons reports committing fewer than five or six offenses per year, a small group commits crimes at a very high rate.

Gathering self-report offense rate data from inmates is bold and controversial. What better way exists to increase our understanding of offending patterns than to directly ask offenders what they do while they are on the street? Yet this method is problematic. Data reliability problems are significant: memory decay and distortion; concealment and exaggeration of behavior; conceptual difficulties on the part of survey respondents. Sampling problems exist: the likelihood of overrepresenting good readers and high rate offenders. Data analysis problems occur: how best to handle missing and ambiguous responses; how to account for "crime spurts" and periods of inactivity during an offender's street time. These and other issues continue to challenge researchers who are trying to tap this piece of social life.

Despite the fact that significant accomplishments have been made toward tackling the methodological problems, criminal career research is indeed in the exploratory stages. But, whatever methodological issues hang in the air, one thing is clear: there is considerable consistency in the research findings from inmate samples in the four study states (California, Michigan, Texas and now Colorado). The vast majority of offenders report committing very few crimes. Of the ten crime types covered by the survey, drug offenses are by far the most frequent criminal act, followed by theft. Violent offenses are rare events. Assaulters and robbers generally report committing fewer than two offenses per year.

The number of crimes committed by high rate offenders varies from state to state. In Colorado and Texas, the number of crimes committed by high rate offenders is somewhat less than the number of crimes committed by similar offenders in California and Michigan. A plausible explanation can be found in the demographic differences in the state populations and the policy/practice differences among the criminal justice systems operating in the four study states.

Further development in the area of reliable data collection methods is central to the study of criminal careers, particularly for estimating individual offending rates. Hence, the issue of the quality of the data obtained

from inmate self-reports deserves thorough review. Close inspection of the quality of the self-report data collected in Colorado reveals patterns similar to those found in Texas, California and Michigan. Importantly, it appears this data is not systematically biased.

Finally, beyond academic discussion, criminal career research holds promise for the management of escalating correctional populations, timely correctional intervention strategies and the prediction of future criminal behavior. Information about the onset, duration, frequency and seriousness of criminal careers could be used in the development of criminal justice policy and programming. In the end, such knowledge may be used to prevent the onset of criminal careers and make the most efficient use of finite criminal justice resources.

EXECUTIVE SUMMARY

Background

The survey instrument used to gather the data analyzed
in this report was previously administered to prisoners in
three states: California, Michigan and Texas. This project
adds Colorado to the list of states for which we now have
amassed a significant amount of self-report data about
criminal offending rates and patterns. In 1986, 313 male
inmates in Colorado were surveyed in groups of 15 to 30 to
obtain information about their behavior during the two year
period they were on the street prior to their arrest for
their current commitment crime. Over 90 percent of the
inmates we asked to participate in this project agreed to do
so, representing an unusually high response rate for this
type of research.

The major findings from this analysis, discussed in
detail later in the report, are summarized as follows:

1. In Colorado, as in the three other study states,
the data reveal that individual crime rates vary
considerably among prisoners and among crime types. Indeed,
for the ten crime types studied, many offenders serving
prison sentences in Colorado commit fewer than five or six
offenses per year. On the average (as measured by the

median), violent crimes (assaults and robberies) are committed at a rate of fewer than two annually; thefts are committed at an average rate of six per year. Drug offenses show the highest rate of activity with only five percent of the drug offenders reporting fewer than two offenses per year. This level of activity also suggests that drug offending is a "lifestyle" crime. While the other three study states also found the greatest activity by those who reported drug offenses, the Colorado data reflect an average annual drug crime rate of at least twice that of the other three states, suggesting that perhaps there have been changes in drug crime patterns and criminal justice policies relating to drug crimes over (1) differing geographical areas, and (2) time (the data from the other three states were collected in 1977).

2. The most active ten percent of the sample (referred to as "high rate offenders") is examined to obtain specific crime rate activity among this group. The most active auto thieves report stealing vehicles at least 120 times per year; high rate forgers report committing at least 169 offenses per year. Once again, violent offenses are committed at a much lower rate than other offenses, suggesting that violent offenses are much rarer events than property or drug crimes. Nevertheless, the minimum of 40 robberies per year reported by high rate robbers reflects considerable activity indeed. However, both California and Michigan high rate offenders reported committing at least

155 robberies per year; Texas data indicated this group commits at least 22 robberies per year. Overall, the annual offending rates reported in the four states reflect very similar patterns of activity.

3. Nearly half of the prisoners who report activity during the study period commit burglary; theft and drug offenses are also committed by nearly half of the group reporting activity. Nearly one-quarter of the active offenders report robbery activity. Nearly one-third of those reporting activity during their time on the street report forgery offenses; less than fifteen percent of the active group report fraud offenses.

4. Closer inspection of the group of offenders who commits crimes above the average rate (more than seven offenses per year, excluding drug crimes) reveals that this group differs from the lower rate offenders according to, among other things, the following factors: they engaged in juvenile theft, they got into crime "for the reputation," "for excitement," because "friends got me into it," and "to get money for drugs;" they have a previous conviction for the same crime; they used drugs during their time on the street; they were not married or living with a girlfriend during their time on the street; and they were locked up for a month or more during the "window" of time studied.

5. Self-report data provide rich information about the group that commits crimes at an above-average rate whereas

official record data is much less useful. Using a discriminant analysis, self-report data items (some of which are listed in the above paragraph), explain nearly 40 percent of the variance between the two groups of offenders (those who commit crimes below the average and those who commit crimes above the average). Official record items, however, provide limited information; only 15.7 percent of the variance between the two groups is explained with data obtained from the prison file.

6. The Seven Point Scale, an additive risk prediction scale developed from the self-report data of California burglars and robbers, received considerable attention in the criminal justice field for its simplicity and ease of application. It was with the development of this scale that the imprisonment concept of "selective incapacitation" gained momentum. However, this analysis finds that the Seven Point Scale predicts incorrectly for 54 to 58 percent of the Colorado burglars and robbers, indicating that this tool is not useful for Colorado.

7. The quality of inmate self-report data varies among respondents, but race, education, age and other particularly important issues are not statistically related to quality of the data. Individuals who describe themselves as "family men" tend to have a higher quality of self-report data; individuals who consider themselves "drunks" tend to have poorer self-report data. Those with an extensive criminal

history are more likely to provide inconsistent responses when compared to official records, but this may reflect the difficulty of capturing, for inclusion in official records, all revelant data items pertaining to very active criminal careers. When ten specific self-report data items are compared to official records indicators, the degree of consistency is disappointing except for demographic variables. Yet, when 23 (seven percent) of the respondents are retested, the degree of consistency between their answers at Time One and Time Two is very high (alpha is .88 and above), suggesting the source of measurement error is in the official record (there may be recording errors or juvenile record information may have been sealed or destroyed) or in the wording of the questionnaire item (respondents may consider a first police contact to be an arrest when it may not have been, for example), or both. This issue deserves further attention in future research efforts of this type.

The primary concern regarding this type of self-report research is the extent to which the quality of the data affects the individual crime rate statistics. Importantly, then, when the Colorado sample is divided into two groups, one with fairly consistent data and one with fairly inconsistent data, the crime rate estimates vary only moderately. This finding concurs with the findings from the other three study states.

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Introduction

Context of the Present Research

The United States prison population has increased dramatically in the past fifteen years. The rate of incarceration rose fifty percent in the 1970s, going up from 98 per 100,000 in 1970 to 147 per 100,000 in 1981 (U.S. Department of Justice, 1982). Currently, the inmate population appears to be rising at a rate of approximately 12% per year, passing the half-million mark (503,506 inmates) on December 31, 1985 (Washington Crime News Service, 1986).

The popularity of "get tough" incapacitation policies, which focus on lengthy prison terms rather than rehabilitation, ensures the continuation of this trend until the end of the decade. For states with growing young populations, particularly in the Southern and Western United States (including Colorado), prison populations will continue to increase during the 1990s (Blumstein, Cohen and Miller, 1980).

Building prisons to accommodate this phenomenon is an expensive and lengthy undertaking. It costs between $60,000 and $80,000 per cell to build maximum security facilities and the average construction time is two and one half years.

Consequently, the nation's prison populations are forcing prisoner backlogs into county jails, creating a crisis in federal, state and local criminal justice systems.

Some criminal justice critics are seeking solutions to burgeoning prison populations by evaluating sentencing and release policies. Vito (1983:69) argues that the trouble with "get tough" incapacitation policies is that policymakers "fail to recognize that prison space is a finite resource and cannot expand without the expenditure of tax funds." Thus, he recommends prisons be "targeted for use with dangerous offenders who cannot be handled in any other way" (ibid.). What is needed, then, is a policy that is both tough on crime and fiscally responsible--without sacrificing public safety.

Policymakers generally favor this conservative approach to managing expanding prison populations. However, realizing this objective requires information about the dimensions and correlates of criminal careers. It also requires the ability to prospectively determine an offender's risk and/or rate of reoffending. Recent criminal career research has found encouraging evidence that empirically derived knowledge about criminal careers may indeed assist criminal justice decisionmakers in their quest to use limited prison space efficiently.

Criminal Career Research

The development of effective selective incapacitation policies requires reliable information about the nature of individual criminality. Individual criminal activity is characterized as a "criminal career." The concept does not imply that criminals derive their livelihoods primarily from crime but rather that their criminal behavior can be studied as an integrated and bounded activity (Petersilia, 1980).

Criminologists have been studying deviant behavior for decades. But rather than targeting career patterns as the subject of inquiry, early criminal career research developed case studies of individual offenders. These efforts are exemplified by Healy's The Individual Delinquent (1915), Sutherland's The Professional Thief (1937) and Shaw's The Jack Roller: A Deliquent Boy's Own Story (1930). In a landmark departure from case study methodology, the Gluecks' (for example, 1930, 1934, 1943, 1950) attempted a systematic study of juvenile offenders using samples as opposed to case studies.

Modern criminal career research focuses on the onset, duration, frequency and seriousness of criminal activity (Blumstein, et.al., 1986). Of particular interest is persistent criminality, that is, criminal behavior engaged in over time. Longitudinal studies indicate half of the male population will experience police contact before their 30th birthday for non-traffic offenses (Wolfgang, et. al. ,

1972; Collins, 1973; Shannon, 1978, 1983; Elliott, 1980), yet only a fraction of these will continue to be arrested for persistent criminal activity. In reviewing the findings of recent cohort studies, Petersilia (1980:321) concludes that, "only five percent of the population will demonstrate the beginnings of a sustained criminal career, but once three contacts with police have been recorded, the probability of another will be very high." It is this group that absorbs most of society's criminal justice resources and so it is this group that is of particular interest to researchers and policymakers.

Significant contributions have been made recently in the area of criminal career research, inspired in large part by Wolfgang, Figlio and Sellin's (1972) important work which found that half of all crimes and two-thirds of the violent crimes are committed by six percent of the Philadelphia birth cohort they studied. Other research on both juvenile and adult offenders has reached similar conclusions: a small group of offenders (generally between five and ten percent) commit a disproportionate amount of serious crime (West and Farrington, 1977; Strasburg, 1978; Hindelang, Hirschi and Wies, 1981; Peterson, Braiker and Polich, 1981; Chaiken and Chaiken, 1982; Shannon, 1978, 1983). Some of this research also indicates that these serious, high rate offenders generally commit a greater variety of crimes than low rate, less serious offenders.

These empirical findings piqued the interest of researchers and policymakers alike. Hence, in the mid 1970s, as Martinson's "Nothing Works" (1975) article about the ineffectiveness of rehabilitation programs reverberated through the criminal justice system, academic discussion favoring selective incapacitation strategies as a method of crime control intensified (Marsh and Singer, 1972; Avi-Itzhak and Shinnar,1973; Clarke, 1974; Greenberg, 1975; Shinnar and Shinnar, 1975). This logical approach of incarcerating the high rate offenders as a method of both crime control and prison population management has mass appeal as well, and the concept has captured the attention of the public press (for example, Wilson, 1975a, 1975b, 1977; Van Den Haag, 1975).

Yet, actually implementing incapacitation strategies requires reliable information not about population prevalence rates but about individual crime incidence rates and about where an offender may be in the course of a career. Specifically, this objective requires accurate prospective identification of high risk and low risk offenders so correctional intervention decisions may be adjusted accordingly.

Thus, the fundamental criminological inquiry is: Can we obtain reliable information about the offense patterns of criminals, that is, information that might assist decisionmakers to differentiate between low and high rate offenders? If this is possible, how would selectively

incarcerating (for longer periods of time) the high rate offenders impact crime in the community?

The most useful data sources for developing estimates of offense rates for active adult offenders have been obtained from official records and inmate self-reports.(1) Official arrest data, from which individual frequency rates can be inferred, have been analyzed for large samples using FBI rap sheet information (Blumstein and Cohen, 1979; Cohen, 1981, 1983). This method includes a wide range of offending patterns since the sample is not limited to the comparatively more serious groups sampled in incarcerated populations. However, this method suffers sampling biases due to differential arrest probabilities.

Asking a specific sample of offenders about their criminal activity is the most direct data-gathering method available to researchers interested in offending rates and patterns. However, data generated from self-reports is subject to criticism regarding the possibility of measurement error (Gold, 1966; Farrington, 1973; Reiss, 1973), not the least of which is the possibility of intentional misrepresentation of criminal behavior via exaggeration or concealment (Blackmore and Welsh, 1983; von Hirsch and Gottfredson, 1984). In discussing this skepticism, Hindelang, Hirschi and Weis (1981:17) note, "If people lie, cheat and steal, those using a method based on the assumption that they do can hardly claim that they do not."

However, research findings have not substantiated concerns about the quality of self reports. Marquis and Ebener (1981) and Hindelang, Hirschi and Weis (1981) have found variations between self-reports and official records but few that systematically biased the data or distorted the analysis. In a recent review of the literature regarding the reliability and validity of self-reports, Weis (1986:11-14) concludes that evidence shows the data to be "very reliable" overall although there is variability among certain subgroups of offenders (Chaiken and Chaiken (1982) found Blacks, less educated offenders, and those with records of drug and alcohol abuse produced less reliable self-report data). According to Weis (1986), the correlational validity of self-reports when compared to official record data appear fairly sound with coefficients in the .8 range.

The Rand Self-Report Studies

Embarking on the task of obtaining self-reports of criminal activity from adult inmates(2), researchers at the Rand Corporation pioneered a method of surveying incarcerated male offenders to obtain estimates of crimes they committed during a specific window period. The first Rand study of this genre consisted of structured interviews with 49 California prison inmates convicted of armed robbery who were serving at least their second prison term (Petersilia, Greenwood and Lavin, 1977). Although the sample is too small to make generalizations, they find that

one-third of those interviewed are highly active and others are intermittent offenders. The aggregate crime rate for this serious group (individual crime rates are not analyzed) is calculated to be a mean of four offenses per month of active street time. However, the crime rates for this study are likely underestimated because the analysis does not include offenders who are not criminally active in specific age periods (Cohen, 1986).

Rand's next self-report project was the First Inmate Survey. This work involves 624 inmates surveyed at five California prisons. From these data, researchers estimate an average offense rate of five offenses per year during the measurement period, but most offenders report committing zero or only one crime per offense type while a few respondents report offending at a very high rate. The sample overrepresents serious offenders, so offense rates may be higher for this group than for inmates generally. Also, problems with the survey questions regarding crime frequencies lead the authors to question the reliability of the offense rates (Peterson and Braiker, 1980). Finally, this survey was administered anonymously, so there is no way to check responses against official records.

The Second Inmate Survey was designed to compensate for some of the survey design and sampling limitations of the previous survey. The sample consists of 2190 male inmates housed in California, Texas and Michigan jails and prisons. The self-reports are compared to official records to check

for data quality. The results of the Second Survey support the findings of the earlier projects: offense rates are highly skewed to the right with most offenders committing crimes at a very low rate and a small group committing crimes at a very high rate (Chaiken and Chaiken, 1982).

There are also problems with this study. Younger inmates are overrepresented, poor readers are underrepresented. Also, the sample is drawn from a population cohort weighted to resemble an incoming cohort, extending the recall period for inmates who had long been institutionalized. For this project, the nonresponse rate averages 51 percent in California and Michigan prisons; for Texas prisoners, the nonresponse rate averages 18 percent (Peterson, et.al., 1982). This nonresponse rate may create an unknown bias in the sample. Aside from sampling problems, there are reliability problems associated with the questionnaire format in which the questions for high frequency offenders are considerably more complicated and, hence, subject to missing and ambiguous data (Visher, 1986).

Also, the survey design may lead to overestimates of offense rates (Cohen, 1983; Visher, 1986). When Chaiken and Rolph (1987) adjust for activity variation throughout the year, offending rates are generally reduced by approximately 25 percent. Yet, even these adjusted rates reveal a small group of offenders who commit crimes at exceptionally high rates.

Greenwood (1982:xiii) focuses on robbery and burglary rates obtained by the Second Inmate Survey to demonstrate that "selective incapacitation is a way of increasing the amount of crime prevented by a given level of incarceration." Among the offenders reporting robbery as a crime committed during the two year window period, Greenwood used figures that indicate half the group commit fewer than 5 crimes per year while the most active ten percent commit more than 87 per year. Among those committing burglary, half report fewer than six offenses per year while ten percent commit more than 230.(3)

From the self-report data generated by these two groups of offenders in the three states, Greenwood developed a simple additive scale (using correlations and sensitivity tests) consisting of seven binary variables to distinguish between low, medium and high rate burglars and robbers. Cohen's (1983) recalculation of the numbers Greenwood used in his selective incapacitation analysis concludes that, with eight year sentences imposed for high rate offenders in California, a 13 percent reduction in crime could be acheived with an 8 percent decrease in the prison populations. In contrast, in Texas where the offense rates for prison inmates were lowest among the three sample states, selective incapacitation policies would likely be cost prohibitive: "For robbers it would require a 30 percent increase in the incarceration level to achieve a 10 percent reduction in crime. For burglars, a 15 percent

increase in incarceration would be required to achieve a 10 percent reduction in crime" (ibid.).

In sum, the results of the Rand Second Inmate Survey that are relevant for this report are (1) the highly skewed distribution of individual offending rates (Chaiken and Chaiken, 1982), and (2) the development of the Seven Point Scale to identify high rate offenders for the purpose of selective incapacitation as a method of crime control (Greenwood, 1982).

Purpose of the Present Project

The Rand Studies, particularly the Second Inmate Survey, contribute greatly to the study of criminal careers. The work of Rand researchers in the identification and description of high rate offenders through self-report data has raised ethical and methodological concerns in both academic and legal communities (Blackmore and Welsh, 1983; Cohen, 1983; Blumstein, 1983; von Hirsch and Gottfredson, 1984; Visher, 1986; Cohen, 1986). This concern has developed in part because of the important policy implications expressed in Greenwood's Selective Incapacitation (1982).(4) In spite of the policy implications inherent in findings which reveal unequal distributions of offense rates, the findings from the Second Inmate Survey can only be generalized to male inmates in the three states in the study: Texas, Michigan and California. The offense rate patterns, particularly for high rate offenders, varies

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substantially among the three states, as did the robustness of the incapacitation effects calculated by Greenwood (1982), reflecting the sensitivity of the findings to the population under study. Therefore, it is necessary to replicate the project on a separate validation sample.

This report contains the findings of the Colorado Rand Replication Project. The Second Inmate Survey instrument was administered in 1986 to an intake cohort of 313 male inmates recently sentenced to the Colorado Department of Corrections. The analysis involves estimates of individual annual offending frequencies, observations of offense rate distributions and an examiniation of the usefulness of applying the Seven Point Scale on Colorado burglars and robbers. With this information, it is possible to discuss the impact of selective incapacitation policies in Colorado.

The following chapter of this report explains the study's methology; the next chapter presents the findings from analysis of offense frequencies. The fourth chapter focuses on validation of the Seven Point Scale, and the impact of a selective incapacitation policy in Colorado. The final chapter is concerned with the quality of the self-report data and the impact of poor quality cases on offense frequencies.

FOOTNOTES--CHAPTER ONE

(1)   Other data sources include reports of personal
victimization, direct observations and informant reports.
These are less useful because they are more indirect
measures than official records and self-reports, and they
generally suffer from sampling biases (Weis, 1986).

(2) Prior to the Rand studies, Hindelang, Hirschi and Weis
(1979) report that the administration of surveys had been
limited to students and longitudinal studies of the general
population.

(3) These rates have been recalculated by Rolph and Chaiken
(1987). The 90th percentile annual rate for robbery is 58;
the median is 3.8.   The 90th percentile annual rate for
burglary is 187; the median is 4.8.

(4)   There is also concern about methodological issues
including data reliability and the analytical treatment of
missing and ambiguous data. These issues will be discussed
in Chapter Three.

CHAPTER TWO

Methodology

Description of the Second Survey

The survey is 44 pages in length and takes most respondents about 45 to 60 minutes to complete.(1) The first section of the survey, Part A, focuses primarily on juvenile and criminal history, including age at onset of criminal activity. This section also asks about substance abuse history. The next section focuses on beliefs and attitudes about crime and the criminal justice system and the respondents' predictions of their own future criminal behavior. Part C contains questions central to the calculation of individual offending rates: the specific months the respondent was free to commit crimes during the two year period immediately preceding the arrest for the instant offense, and the frequency (crime count) of criminal activity for nine crime types. This section also collects, specifically for the measurement period, social demographic data, substance abuse information, and self-concept measures. The next section requests information about the two two-year periods preceding the measurement period. Finally, Part E collects current social demographic data. A copy of the survey is included as Appendix A.(2)

Measuring Street Time and Crime Counts

Estimating an individual's annual offense rate (lambda) is the most fundamental purpose of the survey. Naturally, it is essential to collect reliable information on the street time and crime count variables.

The arrest leading to the current incarceration marks the most recent calendar year in the window period; the year preceding the arrest year is the earlier calendar year in the window period. The respondent identifies the month in which the current arrest occurs and includes it in the months that follow to the end of the most recent calendar year. The measurement period, then, varies from 13 to 24 months, depending upon when in the twelve month period the current arrest occurs. Months incarcerated or hospitalized are noted by the inmate and subtracted from the measurement period to yield street months, the opportunity time available to the inmate for criminal activity. Street months range from 1 to 24 months.

This window period was selected by Rand researchers to minimize data collection problems associated with retrospective surveys, particularly problems of recall. Memory decay and distortion (specifically, the telescoping phenomenon that involves collapsing into brief time periods events that occurred over a long time period) are more likely to occur over greater passages of time. Therefore, for most respondents the window period references the most

recent time-limited period the offender was on the street
before being arrested for the current offense.

Figure One on the following page is a copy of the
calendar inmates used to identify the observation period.
The calendar was slightly modified for the Colorado
Replication by adding a "time line" to assist recall.
Instructions for completing the calendar begin on page 11 of
the survey (Appendix A).

To ascertain crime counts, a series of questions were
asked about ten types of crimes:

BURGLARY--During the street months on the calendar did
you do any burglaries? (Count any time that you broke
into a house or a car or a business in order to take
something.)

ROBBERY--During the street months on the calendar did
you rob any businesses: That is did you hold up a
store, gas station, bank, taxi or other business?

PERSON ROBBERY--During the street months on the
calendar did you rob any persons, do any muggings,
street robberies, purse snatches, or hold-ups in
someone's house or car? (Do not include any business
robberies or hold-ups during a burglary that you
already mentioned.)

ASSAULT DURING ROBBERY--During the street months on the
calendar, did you ever hurt or kill someone during a
burglary (break-in) or a robbery.

OTHER ASSAULT--The questions on this page DO NOT
include things that happened during a robbery or
burglary. Even if no one was hurt, did you assault
someone, threaten someone with a weapon, shoot at
someone, try to cut someone, or beat or strangle
someone?

THEFT--During the street months on the calendar did you
do any theft or boosting? That is did you steal from a
till or cash register, shoplift or pick pockets, or
take something from someone without their knowledge?
(Do not include car theft.)

FIGURE 1

INSTRUCTIONS FOR USING THIS CALENDAR ARE INCLUDED IN THE SURVEY.

	Winter			Spring			Summer			Fall		
	January	February	March	April	May	June	July	August	September	October	November	December
YEAR BEFORE ARRESTED												
	January	February	March	April	May	June	July	August	September	October	November	December
YEAR ARRESTED												

STREET MONTHS
ON THE CALENDAR ➜

1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986--this year

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AUTO THEFT--During the street months on the calendar
did you steal any cars, trucks or motorcycles?

FORGERY--During the street months on the calendar did
you ever forge something, use a stolen or bad credit
card, or pass a bad check?

FRAUD--During the street months on the calendar did you
do any frauds or swindles (illegal cons) of a person,
business, or the government?

DRUG DEALING--During the street months on the calendar
did you ever deal in drugs? That is, did you make,
sell, smuggle or move drugs?

Questions involving the numbers of crimes reported for
each crime type differ for inmates who committed less than
ten offenses and those who committed 11 or more of a
particular crime. The low frequency offender (committing
ten or less) is asked to report the exact number of
offenses; the high frequency offender (committing greater
than ten offenses) is asked to choose a time category
(either monthly, weekly or daily) that best describes the
frequency of activity and then report the exact number of
offenses he committed in that unit of time. For offenders
who did not commit a particular crime, the survey instructs
the respondent to skip to the next question set.

The Sample

The sample for this study is an incoming cohort of 313
males sentenced to the Colorado Department of Corrections
(DOC). The respondents include inmates housed at the
Reception and Diagnostic Unit (DU) located at Territorial
Prison in Canon City, and DOC inmates who were backlogged in

county jails due to prison crowding. The backlogged inmates were awaiting transfer to the DU.(3) The two jail sites are Denver County and Adams County jails. These jails were selected for several pragmatic reasons. The Denver County Jail holds the greatest number of backlogged inmates from which to draw a sample. This jail also has space available to administer surveys. The Adams County Jail is a new facility and has adequate space to accommodate the survey administration; this was not the case for other nearby jails holding backlogged inmates. These facilities are generally considered to serve urban areas, but the backlogged population is composed of offenders from across the state.

The following table illustrates the composition of the sample according to facility:

Table 2.1

Location of Respondents	
Facility	Number of Respondents
Diagnostic Unit	253
Denver County Jail	40
Adams County Jail	20
TOTAL	313

At the prison, the sample was selected in two different fashions. First, the correctional officers transported to the survey area the first 25-30 inmates on an alphabetical list of inmates housed in the DU cellblock who were not scheduled for prison evaluations or medical treatment. Since the correctional staff was generally shorthanded, a

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less intrusive method was soon undertaken in which correctional officers took all inmates from the most convenient cellblock and escorted them to the survey area (the prison cafeteria). Inmates are randomly assigned to cells in the DU and there does not appear to be any bias introduced by this sampling method (the issue of sampling bias is discussed in greater detail below).

At the jails, the survey groups were systematically selected from a list, compiled daily, of backlogged inmates waiting to be transported to the DU.(4) The jail administrator or his designee arranged for selected inmates to be transported to the survey area (in Adams county, the survey area was a classroom; in Denver County, the survey area was the visiting room).

For inmates who could not read, surveys were administered in a one-to-one fashion. There were a total of twelve (four percent) one-on-one surveys administered. On two occasions, respondents were willing to take the survey but did not speak English and so were unable to participate. The original survey was also available in Spanish to respondents in the Rand three-state sample.

To determine if the selection process created a sampling bias, the survey sample is compared to data from another sample of incoming prisoners. The comparison sample is generated from an annually updated database managed by the Division of Criminal Justice which consists of a 10 to 20 percent statewide sample of felony filings. These data

include social demographic, instant offense, criminal history and disposition information.

Once the fiscal year 1984-85 cases with a sentence disposition of prison were selected, 211 cases were available for comparison to official record data from the survey sample. The data on the following page reflects the results of this comparison.

Generally, it appears the two samples are fairly similar with the exception of education: 32 percent of the court sample have high school degrees, GED certificates or higher, compared to to 56 percent of the survey sample. The fact that the survey was only available to English-speaking offenders may introduce an unknown bias. The data in the first two columns for education were derived from presentence investigation reports (PSIRs). Social demographic information contained in PSIRs is often derived from offender self-reports.

Because these two groups vary greatly on this measure, and because it is surprising that a prison intake cohort would contain so many high school graduates, an additional variable (available only for the survey group) was examined. This variable, the data from which are reflected in the third column for education, is the educational level the respondent achieved in scholastic tests administered during the evaluation period in the prison's Reception and Diagnostic Unit. Only 14 percent of the survey group tested at a level equivlent to completing high school.

Table 2.2

Sample Representativeness

The comparison group was selected from a 20 percent sample of fiscal year 1984-85 felony filings in representative district courts in Colorado. Of the 1,216 cases in the sample, 211 were sentenced to prison. The survey sample is compared below to the 211 cases.

		COURT (1984-85)	SURVEY (1986)
Most Serious Felony Class Charged:			
	Class 1	2%	5%
	Class 2	4%	9%
	Class 3	49%	38%
	Class 4	39%	35%
	Class 5	6%	13%
	TOTAL	100%	100%
Most Serious Felony Class at Conviction:			
	Class 1	1%	1%
	Class 2	2%	7%
	Class 3	20%	18%
	Class 4	44%	35%
	Class 5	30%	39%
	Misd.	3%	0%
	TOTAL	100%	100%
Current Offense is Violent:			
	Violent	41%	43%
	Non-Violent	59%	57%
	TOTAL	100%	100%
Prior Prison Sentence:			
	Yes	61%	74%
	No	39%	26%
	TOTAL	100%	100%
Prior Violent Adult Conviction:			
	Yes	36%	21%
	No	64%	79%
	TOTAL	100%	100%
Marital Status:			
	Never Married	48%	39%
	Married	27%	33%
	Not Married	25%	28%
	TOTAL	100%	100%
Ethnicity:			
	Anglo	54%	56%
	Black	22%	20%
	Hispanic	22%	23%
	Other	2%	<1%
	TOTAL	100%	100%
Age:			
	17 or younger	0%	<1%
	18-20	12%	11%
	21-25	31%	27%
	26-30	19%	26%
	31-35	15%	16%
	35+	23%	19%
	TOTAL	100%	100%

Education:	COURT	SURVEY	DOC TEST
Grades 1-6	2%	1%	19%
Grades 7-9	25%	16%	49%
Grades 10-11	41%	28%	20%
High School Degree	17%	47%	6%
Some College	12%	5%	4%
College Degree	2%	3%	4%
Graduate Degree	1%	<1%	0%
TOTAL	100%	100%	100%

The disparity between the educational achievement for the two groups raises several unanswerable questions about data reliability. At minimum, the two groups do not appear similar in terms of education.

However, the groups appear similar on the other social demographic variables. Also, current offense information reveals that the proportion of offenders whose current offense is violent is very similar (41 percent of the court sample compared to 43 percent of the survey sample). A slightly higher proportion of the survey group was charged with more serious offenses, class one and two felonies (14 percent compared to 6 percent). Also, a slightly higher proportion of the sample was convicted of class one and two felonies (8 percent compared to 3 percent). Regarding criminal history, a higher proportion of the survey group had been in prison before (74 percent compared to 61 percent), but a smaller percentage had a prior adult conviction for a violent offense (21 percent compared to 36 percent). In sum, from these comparisons, the data suggest that the survey sample represents the population of incoming prisoners fairly well.

Field Procedures

Because this is a replication project, the five Colorado surveyors received 20 hours of training by one of the original Rand surveyors. The training focused on (1) the logistics of the survey administration, (2) frequently

asked questions, and (3) the on-site survey administration to inmates in a local county jail.

The data collection occurred over a four-month period by the same team of surveyors although the number of surveyors present at each group varied from four to five. Three of the surveyors were present at every group.

The night before surveys were scheduled, inmates were given the "Notice to Inmates" form (Appendix B) and were informed that they would receive $5.00 credited to their account if they completed the survey. At the survey site, researchers read aloud the Informed Consent Form (Appendix C), after which inmates either signed the form or requested to return to their cell. Inmates were reminded that they could refuse to participate at any time during the survey process. These are the same forms and procedures used by Rand researchers.

Surveys were administered to groups of 16 to 32 inmates. The size of the group depended on the number of surveyors present and the number of inmates who agreed to participate. As with the Rand study, each group began by introducing the surveyors and describing the project. Group instructions for filling out the form were given to those who agreed to participate.

The administration of the survey was scheduled during periods that did not compete with other inmate activities. For inmates in the DU who had been evaluated and were awaiting housing assignments (this number ranges between 60

and 80 inmates) there were virtually no daytime activities
except yard time. However, the need to avoid scheduling
survey groups during yard time was made apparent early in
the data collection process when one group was inadvertently
scheduled during the daily recreation period. Forty percent
of that group refused to participate because, as one inmate
stated, "we only get to go outside for one hour a day. I'd
rather have that than $5.00." After this experience,
daytime groups were not scheduled during recreation periods.
Most of the survey groups were scheduled in the evenings
when no other activities or meetings (such as Bible groups,
visiting, etc.) occurred.

The overall participation rate for this project was 91
percent. For nearly one-third of the groups, the
participation rate was 100 percent. This participation rate
is notably higher than the rate for the Rand Studies
(Peterson, et.al., (1982) notes the response rate for Rand
varied from 49 percent to 94 percent per group). There are
several possible explanations for this unusually high
participation rate. First, these inmates simply had nothing
else to do. They were either waiting in the county jail to
be transported to the Diagnostic Unit, or they were in the
Diagnostic Unit waiting to receive a housing assignment or
they had nothing scheduled for the evenings the data
collection occurred. They were not involved in work
projects or treatment programs. This was not the case for
the Rand researchers who surveyed a population sample.

The Rand survey often competed with other inmate activities. Also, Colorado inmates were recently sentenced to the DOC. They had not had the opportunity to form cliques whose leaders might infuence respondents to refuse to participate, a situation that was occasionally encountered by Rand researchers who were working with inmates in the facility population. Finally, the correctional staff of all three facilities involved in this project were extremely accommodating and their attitudes about the research were very positive. It is possible that a negative attitude on the part of staff could have dissuaded some inmates from participating.

Of those inmates who refused to participate, some explained they had charges pending, some did not believe the confidentiality assurances. Most did not give an explanation.

In general, the respondents had little trouble completing the survey.(5) However, one section of the survey is particularly confusing: establishing the correct window period during which the respondent is to report his criminal activity. This section generated the greatest number of questions from Rand survey participants, according to one of the original Rand surveyors (Robert King, personal communication, 1986). Peterson, et.al., (1982) also refer to the number of questions respondents had regarding filling out the calendar (Figure One) and determining the correct reference period. Data reliability is a particular concern

in self report research and the analysts' decisions regarding the handling of missing data in the Rand Second Survey have been criticized on this point (Cohen, 1983, 1986; Visher, 1986; Von Hirsch and Gottfredson, 1984). Visher (1986:175), in her reanalysis of the Rand data, found that 30 percent of the inmates in the sample either filled out the calendar incorrectly or reported dissimilar numbers for street months on the calendar versus questionnaire items, leading her to conclude that this section of the survey "appeared to have been a complicated cognitive task for many respondents."

This confusion among respondents in the Rand sample was paralleled in the Colorado sample. Most inmates had trouble understanding the survey instructions and some inmates had difficulty conceptualizing time in reverse. Many who had pinpointed the correct reference period had difficulty understanding how to correctly add their street months, and some had trouble transferring their answers ("year arrested") from the calendar to the survey.

This confusion was apparent at the pretest stage, yet most inmates did not ask for assistance. Because the problems associated with missing and ambiguous data in the Rand project were documented at the time of this study, and because the accurate measurement of street time is essential for reliable estimates of offending rates, Colorado surveyors slightly modified the administration of the survey in an attempt to improve data reliability.

At the point of instructing the group about how to fill
out the survey (the types of questions, following skip
patterns, etc.) a discussion was added which specifically
stated that the instructions for the calendar were
confusing, but that it must be completed accurately because
it collected essential information. This greatly increased
the numbers of questions asked by inmates when they got to
that section of the survey. Also, surveyors directly asked
inmates who appeared to be having problems with the calendar
if they needed assistance. Finally, when inmates completed
the questionnaire, a researcher scanned the survey to check
for obvious data problems (such as "How much did you earn
per month?" "$4.55") and to double check that the calendar
represented the correct measurement period. Inmates who
identified the wrong period were instructed to answer
survey questions concerning the measurement period again,
with the correct time frame in mind. As a result of this
modification, the problem of ambiguous or missing data for
window period variables was greatly reduced, as will be
discussed in Chapter Three of this report.

It is not clear how much this procedure actually
differed from the activities of the Rand surveyors, for
Peterson, et.al. (1982 :24), note that, "Because of the
complexity of the procedures involved in completing the
calendar card and calculating street months, survey
administrators provided considerable assistance with these
tasks as part of the survey administration routine."

Data Analysis

The purpose of this report is to develop estimates of annualized individual offense rates for this relatively small group of convicted male felons. These findings are used to estimate the impact of selective incapacitation policies for burglary and robbery on Colorado's prison population and crime control efforts.

For the most part, the data analysis follows, where appropriate, the procedures outlined by Chaiken and Chaiken (1982), Greenwood (1982) and Visher (1986). A new formula for estimating offense rates has recently been developed (Rolph and Chaiken, 1987) which accounts for the variation throughout the year of an individual offender's crime commission rate (ranging between quiescent and active states) rather than assumming a stable rate of offending. This model results in reductions of the extremely high annualized rates but does not greatly reduce crime rate measures below the median. In their analysis of high rate offenders, the authors conclude,"...the precise method of calculating crime-commission rates are not important in defining the high rate offender" (ibid:15).

The formula for estimating the annual offending rates, that is, the number of crimes an individual commits per year of free time, can be expressed as the following fraction:

$$\frac{\text{Number of Crimes Committed}}{\text{Time Available to Commit Crimes}}$$

The example used by Chaiken and Chaiken (1982:42) is helpful to describe the calculation of the annualized offense rate for a respondent who reported committing six burglaries and whose measurement period is 14 months, of which 5 months was spent in jail:

$$
\begin{aligned}
\text{Lambda} &= (6 \text{ burglaries}) \times (12 \text{ months/year})/(14-5 \text{ months}) \\
&= 6 \times 12/9 \text{ burglaries/year} \\
&= 8.0 \text{ burglaries/year}
\end{aligned}
$$

Lambdas are estimated for respondents who reported activity in particular crime types during the period under study. Nearly twenty-eight percent (87 respondents) of the Colorado sample (compared to 12.8 percent of the Rand 3-state sample) reported doing none of the ten survey offenses. Half of this group (14 percent of the entire sample) are, according to prison files, convicted of crimes not included in the survey, such as sexual assault, incest, kidnapping and arson. Thus, although the cohort size is 313, it is possible to estimate lambda for 226 active respondents. Since not all offenders commit all crime types, the crime type groups range in size from 29 (fraud) to 106 (theft). Additional scrutiny of high rate offenders, which comprise a small proportion of the crime groups (ten percent, for the purposes of this analysis), is not feasible because the ,sample size is not large enough to permit reliable statistical analysis.

Visher (1986) has shown that self-reported offense rate data are sensitive to decisions regarding the treatment of missing and ambiguous responses. Thus, efforts are made to

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substitute unknown and unclear information with conservative estimates that would least distort the offense rate findings. For the most part, Visher's strategy has been replicated, but specific decisions are described in the relevant portions of this text. The main modification executed by Visher is estimating single rates as opposed to the minimum/maximum approach undertaken by the Rand researchers. The findings presented here are also single rate estimates of lambda.

FOOTNOTES--CHAPTER TWO

(1)   The original Second Rand Survey is about 15 pages longer than the survey administered in Colorado because the final section asks inmates about their current prison experience (programs, etc.).   The Colorado Replication sample includes only male offenders recently sentenced and so the final section of the survey was omitted.

(2) For detailed information about the development of the survey instrument, see Peterson, et.al.(1982).

(3) It is recognized that this sampling process includes a selection bias by overrepresenting inmates who have long criminal histories and those whose instant offense is serious.   Samples of criminal justice clients are unavoidably biased by criminal justice decisionmaking processes.

(4)   The exact proportion of the sample that was systematically selected depended on the number of inmates backlogged the day the survey was administered.   Generally, 60 inmates were selected from a given list.

(5) Peterson, et.al. (1982) note that the inmates treated the survey as if it were a test and that they appeared sincere in their efforts to answer the questions.   This description fits the Colorado respondents, also.

CHAPTER THREE

Annualized Offending Rates

This analysis supports the findings of previous criminal career research discussed earlier in this report: there appears to be an unequal distribution of criminal activity undertaken by respondents in the Colorado sample. Most respondents commit fewer than five offenses per year, while a small number commit 30 to 40 times that number.

There are several issues surrounding the lambda estimates. These include: (1) the criteria for selecting respondents for inclusion in the crime type groups, (2) how the crimes are counted when data are missing or ambiguous; and (3) the impact of the length of a respondent's measurement period (which may vary from 1 to 24 months) on his lambda estimate. These issues are discussed later in this chapter, after the crime frequency findings are presented. The final section of this chapter explores crime combinations, "violent predators" (Chaiken and Chaiken, 1982), and above-average rate Colorado offenders.

Offense Rates

The offending frequencies reported by respondents result in a wide range of rates for each crime type. It is

difficult to summarize the data in a meaningful fashion, for the most relevant measures of central tendency are sensitive to the numbers at the far ends of the range. Chaiken and Chaiken (1982) use the median to describe annualized crime rates and the 90th percentile to describe the tail end of the offending rate distributions. To compare Colorado with the three states examined by Rand and reported in Chaiken and Chaiken (1982), the median and the 90th percentile are used here as well.(1)

Table 3.1 presents the median offense rates for Colorado and the three states studied by Rand. Note, however, that the original Rand calculation of annualized lambdas are averages of the minimum and maximum rates for each offender, the product of a model devised to accomodate the problem of missing and ambiguous data. As Visher (1986) has pointed out, her reestimates of lambda using a single measure (the procedure followed in this report) more closely resemble the minimum estimate calculated by Chaiken and Chaiken (1982). Thus, the Colorado (single) estimates are also likely to be lower than the originally reported Rand estimates. Therefore, because the methods of calculating lambda differ, the medians for Colorado and the three states cannot be compared horizontally across the table but rather may be compared for proportions and trends. Visher's estimates for burglary and robbery are presented in table footnotes.

According to the estimates obtained from the inmate survey, most active respondents in Colorado commit fewer than five offenses per year. For serious offenses such as

TABLE 3.1

Median Annualized Crime Commission Rates: Prisoners in Colorado and the Rand Three-State Sample(a)

Crime Type	Colo.	Calif.	Mich.	Texas
Burglary(b)	5.3	9.8	6.2	3.6
Business Rob	1.3	6.3	4.5	2.8
Person Rob	1.7	5.4	4.5	2.7
Total Robbery(c)	1.7	8.0	5.7	3.2
Assault	1.7	3.6	2.8	1.5
Theft (not auto)	6.0	16.0	7.0	5.7
Auto Theft	3.3	6.0	4.8	2.0
Forgery	4.8	4.8	4.5	4.3
Fraud	3.6	6.9	4.6	4.5
Drug Dealing	361(d)	166	122	36
All but Drugs	6.9	42	17	9
TOTAL RATES	29	135	104	15

(a) The three-state data are obtained from Chaiken and Chaiken (1982:Appendix A).
(b) Visher's (ibid) reestimate of the median for burglary is 6.2 (Calif.), 4.8 (Michigan), 3.1 (Texas).
(c) Visher's (1986:182) reestimate of the median for total robbery is 5.1 (Calif.), 3.5 (Michigan), and 2.5 (Texas).
(d) One drug respondent who reported over 31,700 offense per year was omitted from analysis.

----

assault, respondents report an annualized rate of fewer than two; however, assault during a burglary is reported at a rate of 3.6 per year (data not illustrated). The annualized rate for theft (not including auto theft) in Colorado is reported at 6 per year; the median annualized rate for drug offenses is 361 per year, suggesting that this may be a "lifestyle crime," because the majority of the respondents

participating in drug offenses do so typically at a rate of more than one criminal act per day.

As Table 3.1 shows, the median crime commission rates for Colorado range from 1.3 for business robbery to 361 for drugs. It appears the annualized crime commission rates for violent offenses (business and personal robbery and assault) are generally lower across all four states compared with the rates for property or drug related offenses. The Colorado median for drug related offenses (this offense type does not include simple possession) is higher than the Rand states, even though the Rand estimates are likely inflated because the lambda for each respondent is a product of the average of the low and high estimates. Viewing the Colorado drug median in this relative context, the estimate is surprisingly high. It is difficult to determine if this variation is due to the different places or times of study. Colorado's higher annualized drug rate may reflect a change in the amount of drug use since the Rand data were collected in 1978.

The 90th percentile of annualized crime commission rates, illustrated in Table 3.2, in Colorado is highest for drugs, which is also the case in the other three states. Colorado's theft rate at the 90th percentile is higher than the other states', which is surprising since the lambdas for the three states are likely somewhat inflated. Except for Michigan, theft is the second highest activity offense as measured by the 90th percentile. Also, theft is the most

active crime (other than drugs) for all four states as indicated by the median. Not surprisingly, the lowest annualized activity rate reported for the four states is for the violent crimes of robbery and assault, supporting other criminal justice research findings that violent crime (particularly assault) is a relatively infrequent occurrance when compared with nonviolent criminal activity.

Not surprisingly, the median and 90th percentile estimates for burglary and total robbery for the Colorado sample more closely resemble Visher's (1986) single-estimate lambdas. The results presented here and Visher's results are derived from calculating single estimate lambdas compared to the minimum-maximum estimates figured by Rand.

For the most part, the shape of the annualized offense rate distributions are highly skewed, a finding consistent with previous research. The majority of prisoners commit very few offenses but some offenders in certain crime types are very active, as illustrated by reviewing the 90th percentile estimates in Table 3.2.

The graphs on the following pages present the skewed distributions of offense rates in Colorado (resembling the findings in Chaiken and Chaiken (1982:46-47). Each graph represents the group of offenders who reported committing at least one of that crime type during the measurement period. The graphs on page 40 compare the distributions for burglary in the four states.

LAMBDA DISTRIBUTIONS FOR OFFENDERS WHO REPORTED COMMITTING
THE FOLLOWING STUDY CRIMES:*

These are annual rates; for offenders who reported only one offense
and had a window period of more than one year, their rate will be
less than one per year.

COLORADO ANNUALIZED CRIME RATE *
OVERALL CRIME RATE

N = 219
MEAN = 882.14
MEDIAN = 22.8
RANGE = .52 - 10037.37

CRIMES PER YEAR (x10)

PERCENT OF RESPONDENTS
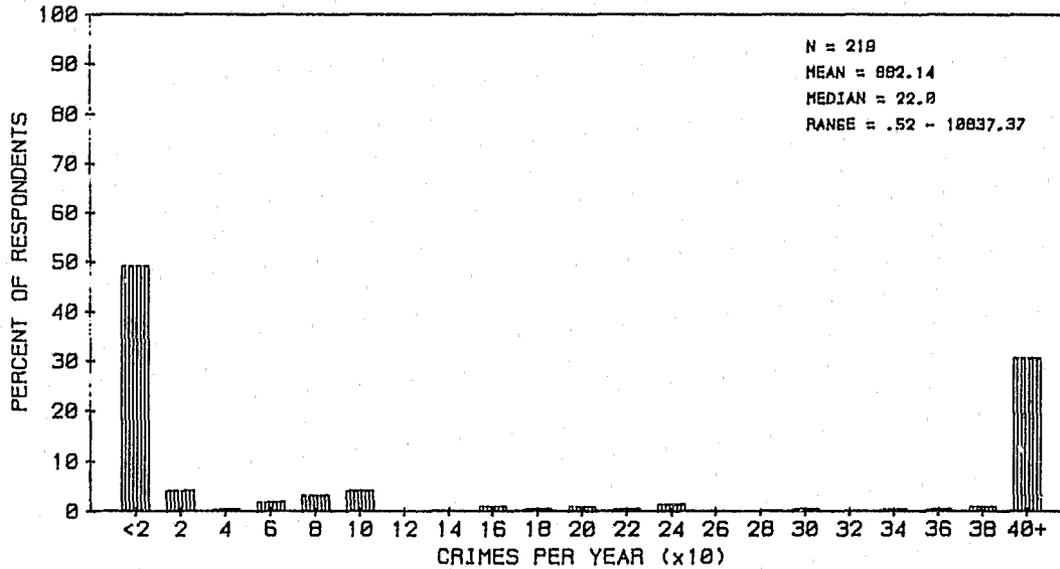
COLORADO ANNUALIZED CRIME RATE *
OVERALL CRIME RATE W/O DRUG DEALING

N = 204
MEAN = 184.93
MEDIAN = 6.36
RANGE = .52 - 67

CRIMES PER YEAR (x10)

PERCENT OF RESPONDENTS
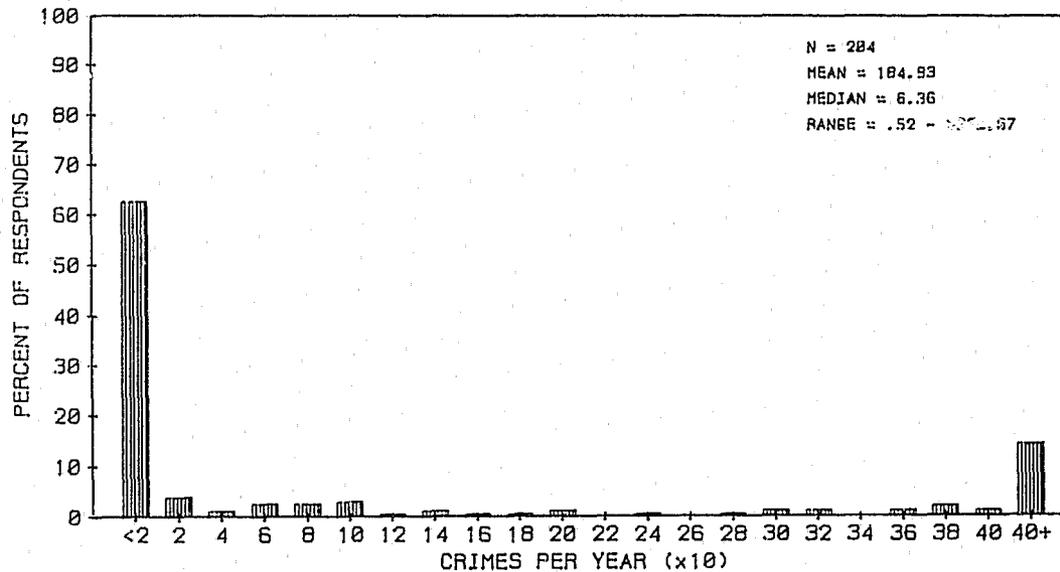
*Note that, on the next five pages, some of the graphs represent
yearly crime rates times 10, i.e., the row numbers for some graphs
marked with (*) must be multiplied by ten to get the actual
distribution.

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COLOARDO ANNUALIZED CRIME RATE
ROBBERY (PERSON)

N = 31
MEAN = 28.45
MEDIAN = 1.71
RANGE = .55 - 464.4

PERCENT OF RESPONDENTS

ROBBERIES PER YEAR
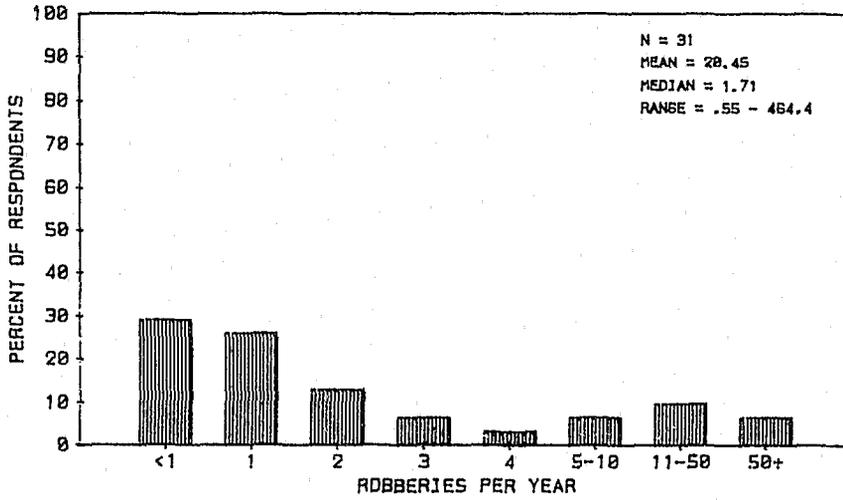
COLORADO ANNUALIZED CRIME RATE
ROBBERY (BUSINESS)

N = 33
MEAN = 41.66
MEDIAN = 1.26
RANGE = .5 - 722.4

PERCENT OF RESPONDENTS

ROBBERIES PER YEAR
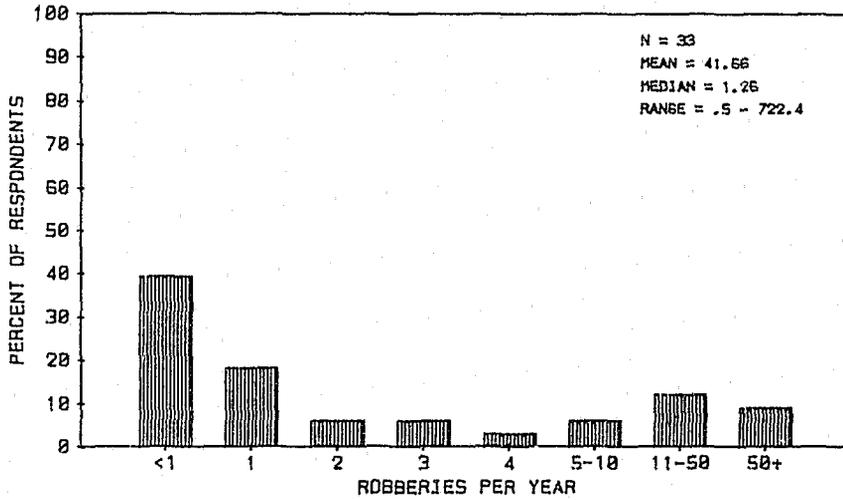
COLORADO ANNUALIZED CRIME RATE
TOTAL ROBBERY

N = 53
MEAN = 37.9
MEDIAN = 1.63
RANGE = .5 - 722.4

PERCENT OF RESPONDENTS

ROBBERIES PER YEAR

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COLORADO ANNUALIZED CRIME RATE*
THEFT

N = 106
MEAN = 192.87
MEDIAN = 6.0
RANGE = .58 - 2167.2

PERCENT OF RESPONDENTS

THEFTS PER YEAR (x10)
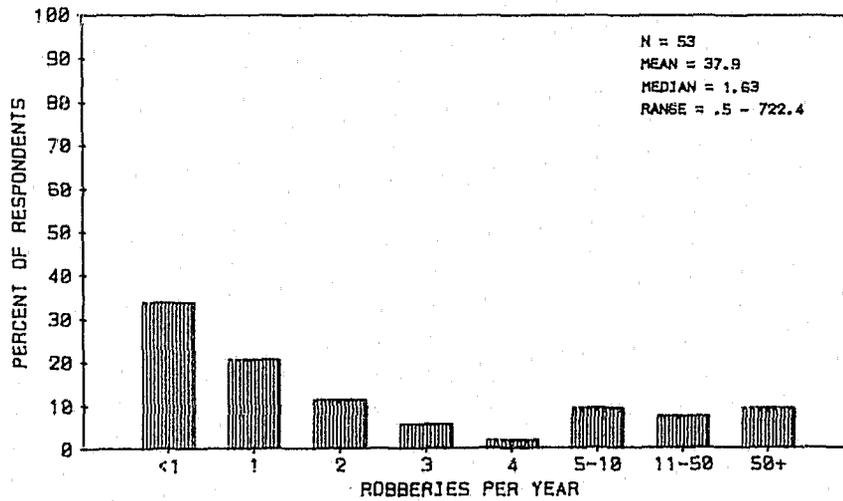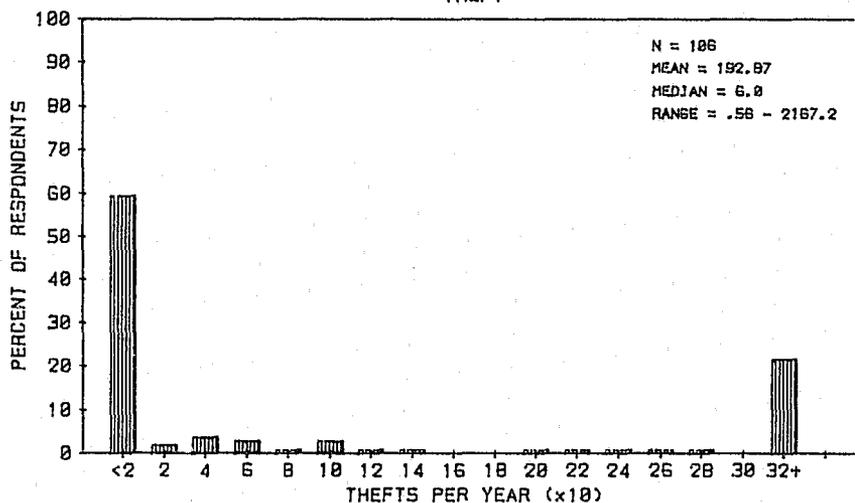
COLCRADO ANNUALIZED CRIME RATE
AUTO THEFT

N = 44
MEAN = 35.83
MEDIAN = 3.27
RANGE = .52 - 530.74

PERCENT OF RESPONDENTS

AUTO THEFTS PER YEAR
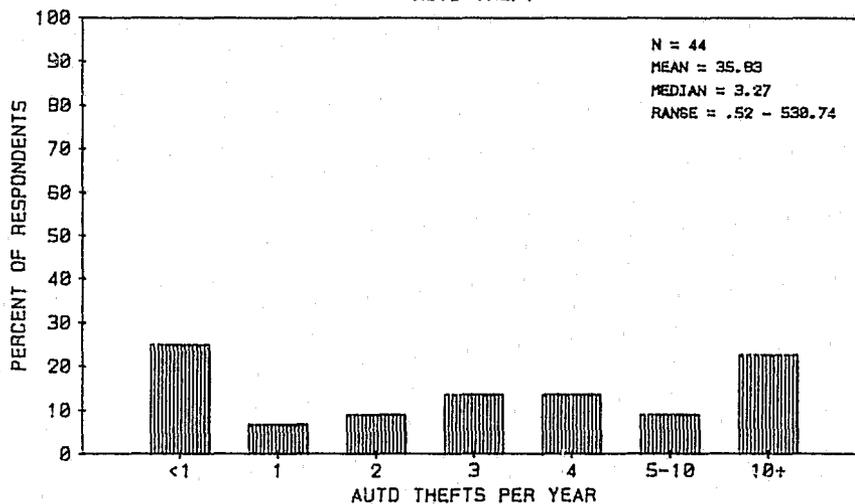
COLORADO ANNUALIZED CRIME RATE*
DRUG DEALING

N = 100
MEAN = 1554.82
MEDIAN = 262.13
RANGE = .67 - 10835.3

PERCENT OF RESPONDENTS

DRUG DEALS PER YEAR (x10)
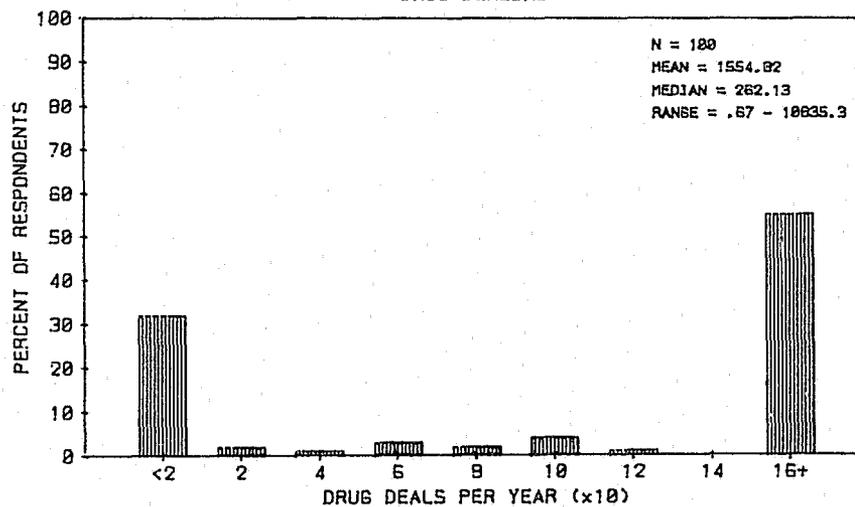
COLORADO ANNUALIZED CRIME RATE
ASSAULT

N = 77
MEAN = 4.33
MEDIAN = 1.94
RANGE = .5 - 42.0

PERCENT OF RESPONDENTS
ASSAULTS PER YEAR
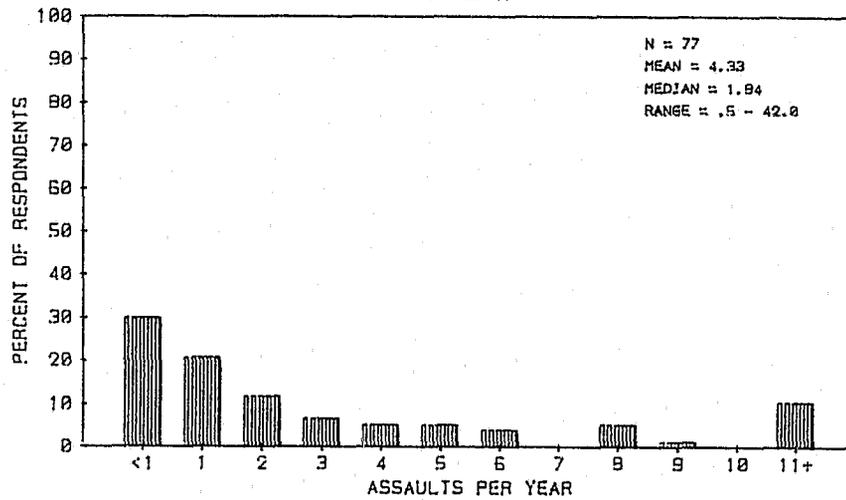
COLOARDO ANNUALIZED CRIME RATE *
FORGERY

N = 61
MEAN = 95.27
MEDIAN = 4.8
RANGE = .5 - 1905.5

PERCENT OF RESPONDENTS
FORGERIES PER YEAR (x10)

COLORADO ANNUALIZED CRIME RATE
FRAUD

N = 30
MEAN = 35.89
MEDIAN = 3.6
RANGE = .5 - 309.1

PERCENT OF RESPONDENTS
FRAUDS PER YEAR
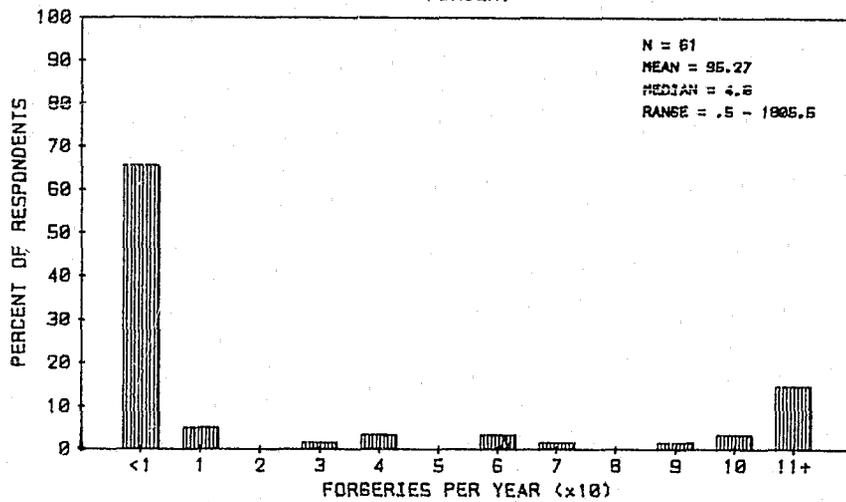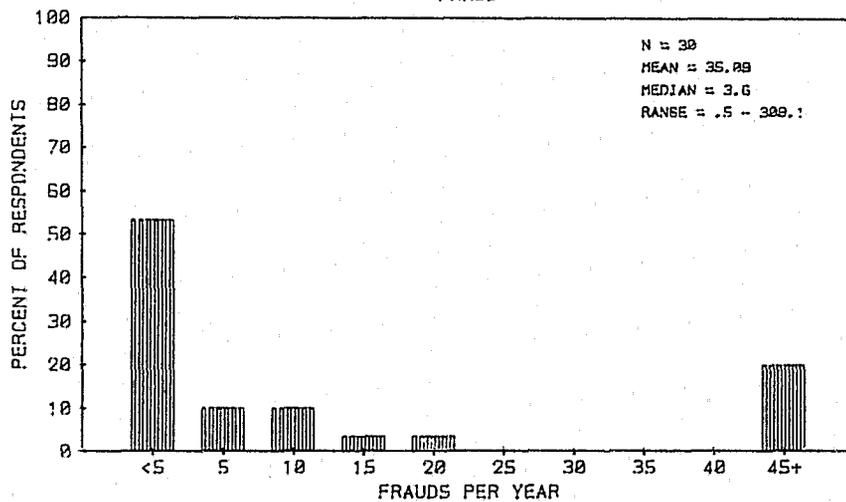
BURGLARY *
CALIFORNIA
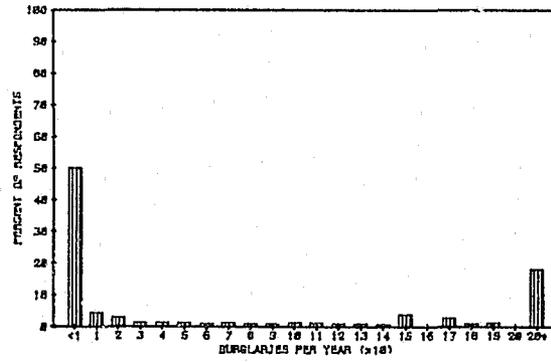
BURGLARY*
MICHIGAN
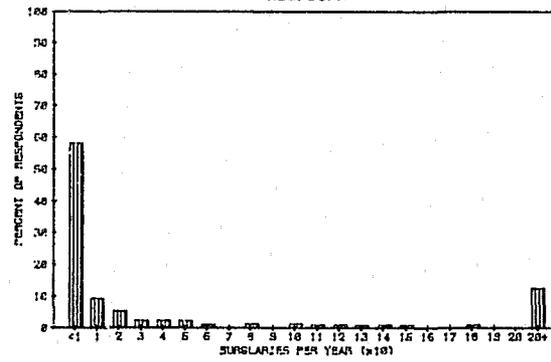
BURGLARY*
TEXAS
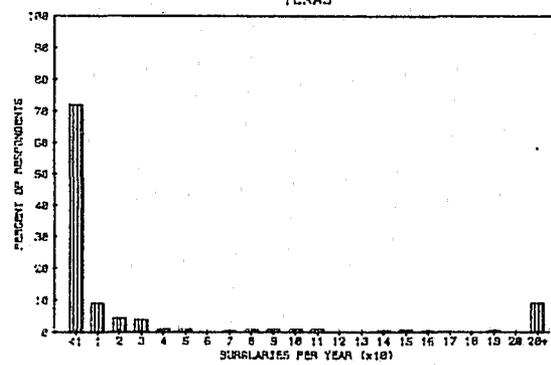
BURGLARY*
COLORADO

44
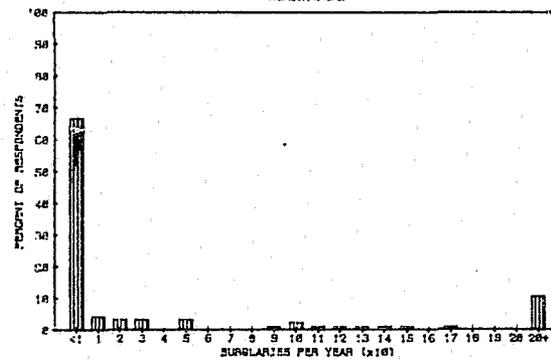
The graphs illustrate, with the exception of auto theft,

the right "tail" of the lambda distributions is most

TABLE 3.2

High Frequency Activity: Annualized Crime Commission
Rates as Measured by the 90th Percentile(a)

Crime Type	Colo.	Calif.	Mich.	Texas
Burglary(b)	258	384	400	122
Business Robbery	175	155	31	20
Person Robbery	32	85	198	11
Total Robbery(c)	94	155	155	22
Assault	10	18	12	8
Theft (not auto)	883	724	296	387
Auto Theft	206	99	413	10
Forgery	516	197	344	110
Fraud	206	268	263	180
Drugs	5418	4013	3612	2508
All but Drugs	857	989	645	338
TOTAL CRIMES	3921	3004	2005	1288

(a) The data for California, Michigan and Texas were obtained from Chaiken and Chaiken (1982:50).
(b) Visher's (1986:182) reestimate of the 90th percentile for burglary is 200 (Calif), 258 (Michigan), and 76 (Texas).
(c) Visher's (ibid.) reestimate of the 90th percentile for total robbery is 107 (Calif.), 86 (Michigan) and 15 (Texas).

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predominant for property offenses. As with the Rand data,

the proportion of high rate offenders represented by the

right tail is very slight for the violent offenses of

robbery and assault. This supports other sources of criminal

justice data that suggest violent crimes are indeed

relatively rare events when compared to nonviolent crimes.

Such rare events are difficult to predict, both as

occurrances in the community and in the life of an offender.

More specifically, of the group of 219 active offenders, forty-three percent (95 respondents) reported committing burglary during the measurement period. While half of these reported offending at a rate of five or fewer per year, the top 25 percent committed over 100 per year.

Nearly one-quarter (24 percent) of the active offenders reported committing robbery. More than half of this group committed two or fewer annually but the most active five percent committed over 100 robberies per year.

The offense most prevalent is theft, with 48 percent (106 prisoners) of the active respondents reporting participation in this crime. Twenty-two percent commit two or fewer thefts per year but the most active 25 percent commit over 300 annually. While 30 percent of the active auto thieves committed fewer than two motor vehicle thefts annually, the most active 18 percent stole over 100 vehicles per year.

Twenty-three percent of the active forgers committed fewer than 2 forgery offenses annually but the most active 30 percent reported committing over 100 forgeries per year of street time. The active offenders who committed fraud comprise the smallest offense group, numbering only 39 (14 percent of the active group). Of this group, the least active 30 percent committed fewer than two frauds per year while the most active 20 percent commmitted over 100 annually.

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Finally, the group of active drug offenders is second only to theft in the number of active theft offenders, with 46 percent (100 respondents) reporting activity in drug related offenses during the measurement period. Clearly, this offense type reflects the most persistent criminal activity, with only 5 percent reporting less than two drug offenses per year. The most active 30 percent report more than 1,800 per year. Further analysis of this group reflects that 12 percent were involved in the sale or manufacture of heroin; only 4 percent used angel dust. Over half (55 percent) sold uppers or downers; 64 percent sold cocaine and 77 percent sold or grew marijuana (data not illustrated).

The volume of criminal activity varies for each crime type. Generally, annual offending rates at the 70th, 80th and 90th percentiles would conceptually be considered very active, or high rate. However, for certain crime types, particulary violent ones, the volume of activity for offenders in the high rate groups is low relative to property crimes. This may reflect a problem with data reliability; some respondents may be reluctant to report all violent activity. Or it may suggest confusion regarding the definition of a violent offense. For example, during the survey, several respondents asked if beating up a family member (spouse, brother, etc.) should be included as an assault.

In sum, the annualized offending rates estimated for the Colorado intake cohort reflect the same distribution observed by previous researchers working with lambda estimates. Activity varies among the crime types, with most respondents reporting three to five offenses per year. Except for drug offenders, whose rate of activity appears to be in a class of its own, thieves report the most activity with a median of 6 thefts annually. Since one-third of the sample, and nearly half of the active offenders, report committing thefts during their time on the street, the overall lambda median ("all except drugs") is over six offenses per year even though most of the other offense rate medians are lower. Also, although the description of rates for the four states are presented together in the above tables, the different methods of computation preclude direct horizontal comparisons. Yet, comparing offense rate trends and proportions among the four states reveal striking similarities in the frequency distributions.

Lambda Estimates and Two Measures of the Denominator

An additional street time measure, discussed in greater detail in the "Measuring Street Time" section of this chapter, is asked of the high frequency offender (one who reports committing 11 or more of a particular crime type). This variable asks, "Look at the total street months on the calendar. During how many of those months did you (do X)?" Table 3.3 illustrates the frequency with which

this variable differed from the street time as calculated from the calendar. Table 3.4 compares the medians and 90th percentile lambda estimates derived for the active sample using the two different denominators (the peak estimate) and using the same measure (the traditional calculation).

The peak estimates, using the single denominator of the calendar period for both the low and high frequency offenders, results in higher or equal medians in every case except auto theft and drug dealing which decreased moderately. Not surprisingly, the difference in the two calculations is most noticeable for high rate ofenders, as illustrated by the 90th percentile comparisons. Fraud is slightly higher, going from 90th percentiles of 206 to 227.

TABLE 3.3
_____
Percent of Cases Where Crime-Specific
Street Months Variable Differs From Calendar Estimates
(High Frequency Offenders)*
_____

Burglary	72%
Business Robbery	83%
Person Robbery	83%
Theft	59%
Auto Theft	83%
Forgery	88%
Fraud	88%
Drugs	62%

*In all cases, the crime specific time period was
less than the window period, as would be expected.
_____

TABLE 3.4

COMPARISION OF TWO LAMBDA ESTIMATES
FOR THE TOTAL COLORADO SAMPLE:
With and Without the Use of the Street Time Measure
For High Frequency Offenders
(n=219)

| Crime Type | Median | | 90th Percentile | |
	Peak Estimate(a)	Traditional Estimate(b)	Peak Estimate	Traditional Estimate
Burglary	5.0	5.3	302	258
Bus. Robbery	2.0	1.3	48	175
Per. Robbery	2.5	1.7	33	32
Assault(c)	2.0	1.7	10	10
Theft	7.0	6.0	806	883
Auto Theft	3.0	3.3	155	206
Forgery	5.0	4.8	212	516
Fraud	4.0	3.6	227	206
Drugs	206	361	5134	5418
All but Drugs	8.0	6.9	635	857

(a) The peak estimate requires using two street months variables (denominators), one for the low frequency offenders (answering "10 or less") and one for the high frequency offenders (answering "11 or more"). The street month period for low frequency offenders is the time calculated from the calendar; for high frequency offenders it is the value reported by the offender in the crime count section of each crime type (during how many of the calendar months did you do one or more burglaries?).

(b) The traditional estimate uses the number of street months as calculated from the calendar period for both low and high rate offenders.

(c) The assault questions do not include the additional street time variable, thus the formula is the same for both estimates.

This variation is expected since the focus of the additional street time variable is to obtain a sub-interval of time which would necessarily decrease the value in the denominator. This suggests that offending rates are

sensitive to different calculations, as Visher (1986) and Rolph and Chaiken (1987) have shown, but the shape of the distribution itself remains fairly stable.

Determining Activity

For inmates to be included in the lambda analysis, they must be considered "active" for at least one of the survey crimes during the time period under study. There are numerous ways activity may be defined because there are several variables that might indicate activity during the time period under study. For example, if a respondent was arrested for a burglary during his time on the street, should he be included in the burglary group? An arrest does not necessarily mean an offender actually committed the crime, so an arrest for a survey crime is not a logical prerequisite for "activity" in that crime type. The same logic applies to conviction offenses. However, some of the redundant questions in the questionnaire, designed to serve as reliability checks, are not all inclusive of the survey crimes. For example, one question (item 14, page 41) includes several assault questions but does not include a question for robbery, theft, auto theft or credit card fraud. Should this question be used for determining activity?

The definition of activity is important because it is necessary to include in each crime group individuals who report doing the crime, and exclude individuals who do not

report doing the crime. Otherwise the lambda estimates obtained could not be generalized to a specific offender type. Further, unless the decisions about activity criteria are somewhat similar among researchers working with lambda data, the research results will not be comparable.(2)

For this research, the respondents included in the crime type groups are characterized as "active" if they meet the criteria described here. In Part C of the survey, the question set for each survey crime begins with, "During the street months on the calendar, did you...?" Answering this question meets a criterion for activity for that offense. The question set continues to ask a number of questions about the exact number of those offenses the offender committed. If a respondent answers these questions (even if he said "no" to the first question), he is considered active in that crime type. Finally, if he answers positively to question 7 on page 39 ("...what crimes, if any do you think you really did?"), he is included in the crime type group.

However, if he answers positively to the question on page 39, but does not indicate the number of offenses he committed in Part C (the crime count section of the survey) he is considered to have committed that crime (he is considered a burglar, for example) but he is considered "inactive" for the duration of the measurement period of the survey. His annual offending rate for that offense type is thus zero.(3)

FIGURE TWO
ACTIVE AND INACTIVE
RESPONDENTS IN THE COLORADO SAMPLE
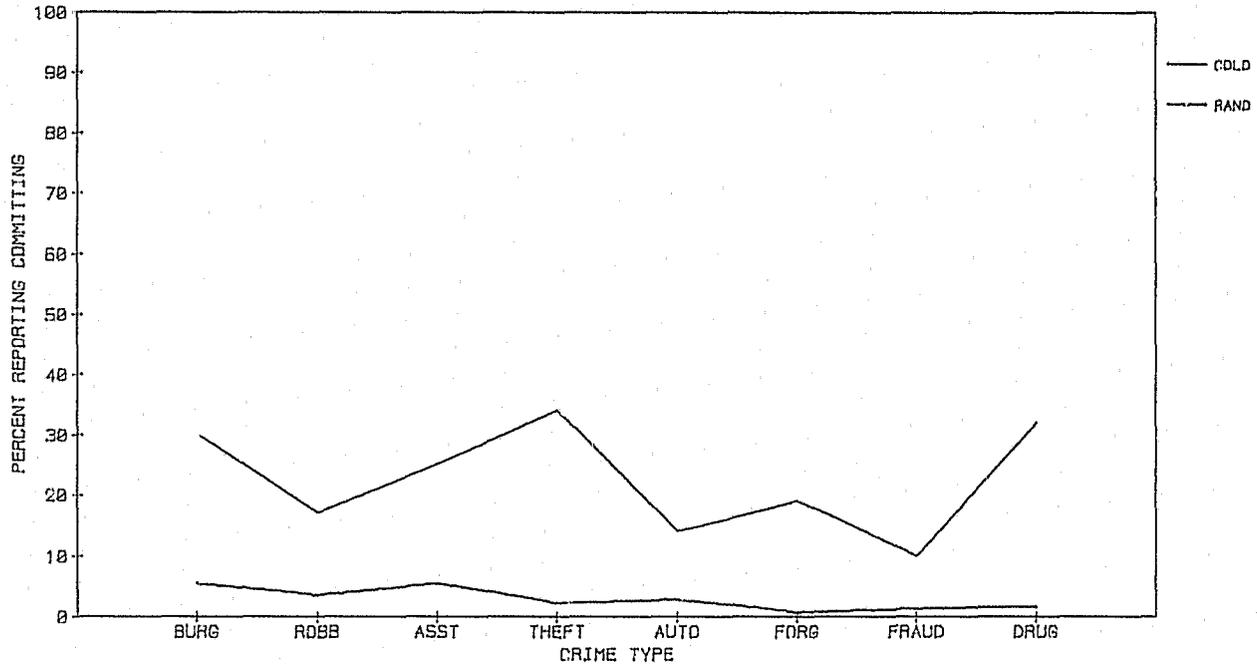
FIGURE THREE
OFFENDERS REPORTING EACH CRIME TYPE
COLORADO AND RAND*
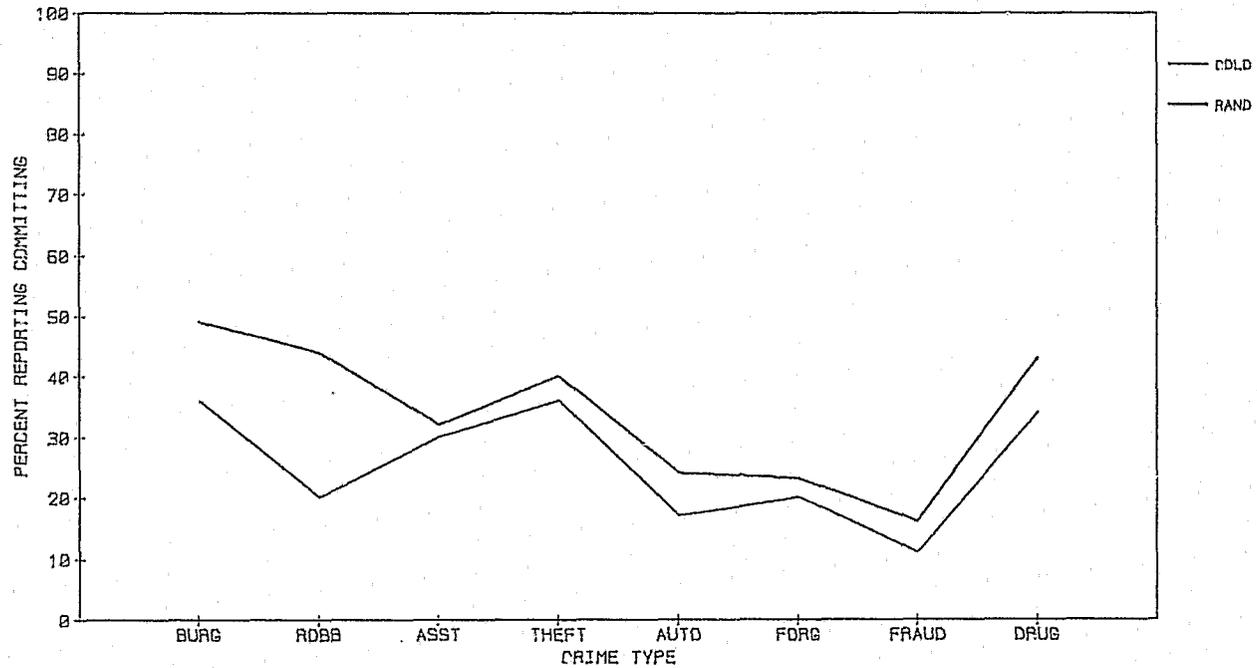
*RAND DATA FROM p.21, TABLE 2.1 OF CHAIKEN AND CHAIKEN, 1982

Figure Two on the preceding page displays the proportion of the lambda analysis respondents who are active and inactive for each crime type. This disparity between admitting activity and not reporting specific counts could be the result of confusion about the time period under study, confusion about whether or not the current offense is to be considered in the measurement period (it is, yet 23 percent of the sample report they do not include it), or it could be intentional concealment of criminal activity. The percent of Colorado respondents who report involvement in each crime type compared with the three-state combined Rand sample is illustrated in Figure Three on the preceding page. Unfortunately, the data were not available to display the proportion of these groups for each of the three states individually.(4) Overall, Colorado has fewer respondents reporting each crime type, but this is due in part to the omission of one activity variable (see Footnote 1) used to place inmates in crime groups. Also, one-third of the Colorado sample did not report committing any of the survey crimes (half of this group was indeed convicted of crimes not covered by the survey).

Colorado appears to have fewer respondents who report committing robbery. This may reflect a problem with data reliability since 24 percent of the respondents who are, according to their official records, convicted of robbery deny committing that crime. However, 24 percent of convicted robbers in the Rand sample also deny committing

robbery. Other than the robbery group, the trend of crime commission groups is very similar for the two samples.

Measuring Street Time

As discussed previously, the arrest leading to the current incarceration marks the most recent calendar year in the window period; the preceding year is then the earlier calendar year in the window period. To identify the specific unit of "opportunity time," that is, time available to commit crimes, the respondent is asked to identify the month in which his current arrest occurred and include it and the months that follow to the end of the calendar year.

As reported in Chapter Two, accurate estimates of street time are essential because this measure essentially serves as the denominator in the formula for lambda (Number of crimes committed/Time available to commit crimes). Overestimates or underestimates of the street months figure can dramatically impact the lambda score because, as in all ratios, the product is very sensitive to changes in the denominator. Another problem is accurate recall of events that occurred during the measurement period. The objective is to capture a period of time that is, first of all, in the offender's recent past, and secondly, not too long as to multiply problems of recall. These issues will be discussed presently.

Critics of retrospective studies have expressed concern about problems of memory decay, telescoping and

other forms of recall distortions. While the time between the survey administration and the recall period vary for the respondents, official record data indicate for just over half of the sample, the instant offense occurred within 18 months of the survey. For 82 percent of the group, their instant arrest occurred within three years of the survey administration. Official records also indicate 74 percent of the sample were convicted of their instant offense within 6 months of the survey administration. Inmates whose recall period is more distant are generally probation or parole violators.

One method of evaluating the street time measure is to compare respondents' answers to several indicators of this period of time:

1. "Count all the blank boxes (on the calendar). How many months was that?" (Question 9, page 12)

2. "You will be asked about these months and about the month you marked 'arrested.' To get the total of these months, add one month...here." (Question 10, page 12)

3. The research editor's estimate of the correct street time, generated by comparing 1 and 2 above PLUS the respondent's calendar.

Over 91 percent of the inmates provided consistent answers (this compares with 78.8 percent of the Rand sample (Visher, 1986:175)). For the 9 percent of cases (n=29) with inconsistent data, the questionnaires were individually examined. In most cases, a window period could be identified (often the respondent added incorrectly). If the inmate provides consistent answers on two of the three

street time variables, the consistent number was used. In the few cases (n=6) where answers were inconsistent, the researchers estimated street time if a logical conclusion could be made from the data. For example, one respondent included on his calendar time spent in the hospital nearly a decade before the window period. There was insufficient data to estimate street months in only one case. For this respondent, the sample mean of 16.2 months was substituted.(5)

For high frequency offenders (those who reported committing 11 or more of a particular crime type), data on an additional variable were collected to calculate peak activity. This variable asks, of the months during the window period that they were on the street and had the opportunity to commit crimes, during how many of these months did they do the crimes they were counting. As Cohen (1986) explains, this variable was included in the survey design to increase the resolution of the crime rates among the high rate offenders. Most high rate offenders reported they were active fewer months for particular crimes than their calendar period reflected. Table 3.3 (discussed previously), illustrates the percentage of high frequency respondents who reported being criminally active during a smaller portion of time compared to the window period, suggesting that these offenders do not spend all their opportunity time engaged in criminal activity.

Visher (1986:184-185) examines the relationship between lambda and street time in the Rand data to determine whether or not burglary and robbery respondents with high rates of offending had small street months measures, that is, smaller denominators in the lambda equation. She found a negative relationship between the two factors, suggesting that high rate offenders (those who commit over 30 offenses per year) have shorter opportunity periods than low rate offenders.

The Colorado data for both active offenders (n=219; data not illustrated) and the entire sample (n=313) support Visher's finding. As illustrated in Table 3.5 below, the group with short street months has higher lambda estimates; the group with longer street months has lower estimates of lambda. This finding by Visher prompted Rolph and Chaiken (1987) to develop a model for estimating crime commission rates that takes the length of the measurement period into consideration.

This finding of a negative relationship between lambda and street time also warrants examination of the survey design for possible modification before it is administered to a new sample of offenders.

In summarizing the discussion of street time, several points should be reiterated. Retrospective studies require respondents to recall events of years past. Three-quarters of the sample report their conviction date to be within six months of the time of the survey; official records reveal

TABLE 3.5

_____

The Relationship Between Street Time and Lambda
(N=313)*

_____

Lambda	Street Months					
estimate	1-6	7-12	13-18	19-24	N	%
less than 2	24%	24%	51%	66%	(164)	52%
2 - 5	16%	12%	16%	12%	(43)	14%
6 - 30	20%	21%	14%	3%	(34)	11%
31 - 99	0	3%	0%	0%	(1)	1%
100 +	40%	41%	19%	18%	(71)	23%
N	(25)	(34)	(116)	(138)	(313)	101%

* Cases with missing lambda scores are coded as zero;
this occurred in two cases.

_____

the instant arrest (marking the beginning of the street time period) occurred within eighteen months of the survey for slightly more than half of the sample. Regarding missing and ambiguous street time data, nine percent of the cases had incomplete or ambiguous responses. When these cases were individually reviewed it was possible to determine street months from survey data except in one case where the mean of 16.2 months was substituted. Also, the additional street time question asked only of high frequency offenders reflects that many of these respondents are criminally active only a portion of the time available to commit crimes. Finally, there does appear to be a negative relationship between Colorado lambda estimates and street time.

Determining Crime Counts

As discussed in the previous chapter, questions involving the numbers of crimes committed for each crime type differ for inmates who committed fewer than ten offenses and those who committed 11 or more of a particular crime. Specifically, the question set for high frequency offenders is more complicated. Consequently the high frequency offenders may be more likely to provide inconsistent information.

Visher (1986) found that indeed high frequency robbers and burglars in the Rand sample are more likely to record ambiguous responses. This is also the case for the Colorado sample. Twenty-one percent of the Colorado respondents followed the "11 or more" question set (drug offenders are excluded from this figure since 75 percent of the drug offenders are high frequency). This 21 percent produced 50 percent of the missing or ambiguous responses. This finding suggests that the question set for offenders following the "11 or more" item may adversely affect data reliability.

When missing or ambiguous data are encountered, substitution rules must be developed. For low frequency offenders who provided incomplete count information, two methods are used to estimate counts. First, a question set is examined which was originally designed to be a reliability check (question 14 on page 41 of the survey: "During the street months on the calendar, altogether how

many times did you do each of the following?"). This question set contains ordinal level responses to crime counts but does not include all crime types. If a respondent did not answer the crime count questions and did answer the question on page 41 (the answers to which contain a range of counts such as 6-10), the midpoint of the range is substituted. If information from both the crime count section and the question on page 41 was not available, the mean count for low rate offenders for that crime type is substituted (this occurred in only one case).

For high frequency offenders, a similar procedure is followed. When offenders provide a range of counts (i.e., 10-15 crimes per week), the midpoint of the range is used. When multiple answers are provided, the responses are averaged. For both high and low frequency offenders, if an early answer is inconsistent with an answer provided later in the survey, the first answer is used (generally the first question was more detailed and specific). For cases where the respondent said "yes" to the first crime type question in Part C and provides no information anywhere in the survey about frequency, the case is omitted from the crime rate analysis (this occurred in one instance only). In the case of high rate offenders, when crime counts are missing and the answer to the ordinal level variable is completed but too vague to provide a precise estimate ("over 100 per year"), the case is omitted from analysis (this occurred in one instance).

Crime Mixtures and Violent Predators

Analysis attempting to determine common combinations of crimes committed by Colorado respondents suggest that offender behavior cannot be meaningfully categorized in this fashion.(6) The offense types do not naturally fall into groups which might be helpful in describing the behavior of the offenders.

Chaiken and Chaiken (1982:Chapter 2) develop a theoretical model for classifying offenders into groups. The model is based on ratio scores in the national survey of crime severity, published by the Center for Studies in Criminology and Criminal Law (1980) which measure public perception of offense seriousness. From these data, a criminal classification system is developed by the Chaikens which includes ten varieties of criminal behavior; six of the varieties account for 62 percent of the inmate sample. The most serious variety, which the Chaiken's call "violent predators," is a composite of the three crime types which received the highest maximum seriousness score: assault, drug dealing and robbery (see Table 2.3 in Chaiken and Chaiken, 1982). Fifteen percent of the Rand sample report activity that characterized them as violent predators (ibid:27).

However, only six percent (n=19) of the Colorado sample meet the criteria for violent predators. As illustrated in Table 3.6 below, only 11 percent report committing three different crime types during the measurement period; over

TABLE 3.6

Number of Crime Types Committed:
Colorado Sample
(N=313)

Number of Crime Types Committed	Percent of Sample
None	28.8%
One	26.4%
Two	15.2%
Three	11.4%
Four	6.7%
Five or more	11.5%
Total	100.0%

half of the sample report committing only one crime type during their time on the street.

However, this small group committing robbery, assault and drug offenses, does not represent a collection of crime types that "naturally" group together. There is no evidence of an empirically defined group of "natural predators" in the Colorado sample. Nevertheless, because the violent predators are a focus in the Rand publication, it is necessary to examine the Colorado sample for the presence of such a group.(7) The small size of the group of "violent predators" and the lack of evidence that the respondents in this group are similar in terms of any underlying dimensions suggests further analysis would be neither reliable nor fruitful.

Offenders Who Report Above Average Crime Rates

     To better describe the group of offenders who commit crimes at above average rates, that is, above the median (seven crimes or more per year), a discriminant analysis was conducted on the Colorado data. Table 3.7 lists the

Table 3.7

A Description of Colorado Offenders Who
Report Committing Crime At Above Average Rates*
(p < .000)

Characteristic	Wilks' Lambda
Engaged in juvenile theft	.83
Crime Reason: For the reputation	.77
Felony conviction in the last five years**	.72
Used drugs during street time	.69
Previously convictd on the same crime	.67
Crime Reason: Excitement	.65
Believes chances are low that he will go straight after this prison term	.64
Did time four to six years before current incarceration	.62
Served time on probation	.61
Locked up for a month or more during street time	.60
Not married or living with a girlfriend during street time	.60
Committed a violent offense as a juvenile	.59
Self-reported cocaine/LSD/psychodelics use as a juvenile	.58
Crime Reason: Other	.57
Crime Reason: Friends got me into it	.57
Crime Reason: To get money for drugs	.56
Serious drug history**	.56
Number of lifetime arrests	.55
Young age at first conviction	.55
Federal incarceration as a juvenile	.55

*This is the group that commits crimes at a rate above the median (seven or more per year).
**These items were obtained from official record data.

----

characteristics that best discriminate between the two groups of offenders. The Wilks' lambda (not to be confused with the annual offending rate lambda) describes the amount of variance that goes unexplained, cumulatively, by each variable. Forty-five percent (45%) of the variance between the two groups of offenders is explained using the above indicators. The last ten factors provide minimal assistance in explaining the variance, yet even these were significant at the .000 level.

Table 3.7 indicates that serious drug involvement and criminal history (particularly juvenile history) are statistically related to very active criminal offending rates. Also, the crime reasons noted above do not indicate that the group with higher-than-average annual offending rates engaged in crime for survival or for material gain (except for drugs).

The data in Table 3.7 was, with two exceptions, obtained directly from inmates. However, when the same analysis is conducted using only official record items, the information becomes quite limited. Table 3.8 presents the official record factors that are significantly (p < .000) related to above-average offending rates.

Official record data does not contain many "personal" pieces of information which makes the self-report data so rich. Even so, the first factor above and the third factor in Table 3.7 (felony conviction in the last five years) is a relatively strong predictor among self-report and official

record data.   The item regarding lack of file information
refers specifically to lack of information about violent
arrest history (i.e., that there is evidence in the file of
violent arrests, but no concrete information) suggesting
that criminal history is an important factor. The previous
offense variable, too, is evidence of the

Table 3.8

A Description of Colorado Offenders Who
Commit Crimes at Above Average Rates:
Official Record Data Only
(p < .000)

Characteristic	Wilks' Lambda
Felony conviction in the last five years	.90
Prison file does not appear to have complete information about offender's violent arrest history	.87
Current age (younger age, higher crime rate)	.86
History of heroin use	.85
Time incarcerated since age 14 (high)	.85
History of drug problem	.84
Previous arrest similar to present offense	.84

----

relationship between above average offending rates and
criminal history. Drug information, while more limited in
official records compared to self-reports, is also
indicative of frequent offending rates. Finally, youthful
current age, an item which is nearly always available in
official records, is statistically related to higher
offending rates.

Descriptions from self-reports and official records provide important information on what Blumstein, et.al. (1986:Vol. 1) call the four dimensions of criminal careers: onset, duration, frequency and seriousness. If the correlates of criminal behavior are to be understood for the purpose of social theory and policy, both official records and self-report data are necessary. The information presented in Tables 3.7 and 3.8 reflect the value of criminal career research for social policy and programming can be developed to address the special needs of this population. At a minimum, these findings suggest the need for early intervention programs and drug education programs. Analysis continues on the Colorado data to obtain essential information about frequent and serious offenders.

FOOTNOTES--CHAPTER THREE

(1) The activity criteria determined by the Rand researchers and the criteria defined by Visher (1986) are similar but not identical. Visher omits two variables used by Rand researchers to reflect activity. Likewise, the criteria used in this report are similar to Rand's and Visher's definition, but deviate with respect to the use of one variable.

Chaiken and Chaiken (1982:186-189) describe the decision rules they used to determine activity. The Colorado analysis follows these rules with one exception. As Visher (1986:173) points out, the Rand rules are different for robbery and burglary because two variables, CK7 (question 7 on page 39: "... what crimes, if any, do you think you really did?") and CK14 (question 14 on page 41 of the survey: "During the street months of the calendar, altogether how many times did you do each of the following?"), used to determine activity for burglary have no equivalent for robbery. For Visher's reanalysis of the Rand burglary and robbery data, Visher follows the Rand procedures except for eliminating these two activity-determining variables (CK7 and CK14). She thus redefines activity and inactivity so that the two groups she studied are defined alike.

This analysis follows Visher's procedures but includes CK7 because this variable includes the crime robbery even though it does not differentiate between personal and business robbery. While the inclusion of this variable will not impact the activity groups (or, consequently, the distribution of the offense frequency rates) when total robbery is discussed, it can be argued that it may introduce a bias when the two groups (business and personal robbery) are discussed separately. However, it is believed that the robbery variable in CK7 is general enough to apply to both types of behavior. This reasoning applies to the assault variables in CK7 also.

Thus, variable CK14 is not used as an indicator of activity for the groups analyzed in this report. Consequently, it is likely that some respondents who may have been included in the crime groups (except robbery) as defined by Rand researchers will not be a part of the analysis. And, because Visher (1986) does not use CK7 or CK14, it is likely that the Colorado groups may include additional respondents which would not have been included in her analysis.

(2) Note that most of the tables illustrating offense rate
data report lambdas only for the active offenders.   Also
note the offense(s) for which they are presently convicted
is not a determining factor for inclusion in a crime type
group.

(3) Information is available on each state for just the
activity groups, however (Chaiken and Chaiken, 1982:Appendix
A).

(4) The mean for the Rand sample is 14.4 months as
calculated by Chaiken and Chaiken (1982) and 14.6 months as
calculated by Visher (1986).

(5) Rand researchers surveyed both jail and prison inmates.
To compare the Colorado results with the three states, the
Rand data presented in this report reflect only prisoner
responses except where noted.

(6) Chaiken and Chaiken (1982:24) use factor analysis to
group crime types. They were able to explain 97 percent of
the variance in the groups with this procedure. Using the
same procedure described in Appendix A of their report, only
40 percent of the variance in the Colorado sample was
explained.

(7) In testing for the feasibility of constructing an index
called "violent predator," the inter-item correlations among
the three offense groups (robbery, assault and drugs) ranged
from .06 to .13; Alpha is .29.

CHAPTER FOUR

Selective Incapacitation

The skewed lambda distributions reported in the previous chapter raise two questions which Greenwood (1982) pursued with data from the three states Rand sampled: (1) Is it possible to identify the high frequency offender and, (2) What would be the impact on prison populations and the crime rate in the community of selectively incarcerating high rate offenders for longer periods of time?

Greenwood (1982) developed a prediction tool, referred to as the Seven Point Scale, to identify the high rate offenders who reported they were convicted of burglary or robbery. The tool is an additive scale of seven variables (six from self reports; one from official records) which he found to be associated with robbery and burglary rates. Greenwood then assessed the scale's usfulness as a tool to direct sentencing decisions and impact the crime rate.

Following Greenwood (1982), the Seven Point Scale is applied to Colorado burglars and robbers and its effectiveness as a decisionmaking tool is assessed. Finally, the feasibility of implementing a selective incapacitation policy in Colorado is examined.

First, the subsample of burglars and robbers, identified by Greenwood (1982), is isolated for this group. Then the Colorado group of burglars and robbers is described

and compared to the Rand analysis group. Next, the scale is applied to the Colorado group and predictive accuracy of the scale is discussed. The final section of this chapter focuses on the impact of applying a selective incapacitation policy in Colorado.

Determining the Subsample

In this analysis, the Seven Point Scale is applied to Colorado respondents who report convictions for robbery or burglary, the same study group Greenwood (1982) specified with the three-state sample.(1) The seven point scale analysis includes offenders who report being convicted of robbery or burglary even if they do not report committing it in the crime count section of the survey (Part C of the survey). If they do not report activity during the measurement period, they have frequency rates of zero and are considered "inactive."

Table 4.1 displays the proportion of inactive and active offenders in the Seven Point Scale analysis for both the Colorado sample and the Rand three-state sample. Visher (1982:173) comments that the percentage of burglars and robbers in her analysis who are inactive in their respective conviction offense "is astonishingly high," with approximately 28 percent of the robbers and 30 percent of the burglars reporting they committed no such offense in the

one to 2 years prior to their current arrest. However, the Colorado data show 32 percent of the burglars and nearly half (47 percent) of the robbers were inactive.

TABLE 4.1

Seven Point Scale Analysis:
Percentage of Active and Inactive Inmates For
Colorado and Rand Three-State Sample*
(n=113)

Crime type	Colo.	Calif.	Mich.	Texas
Burglary				
Active	68%	75%	63%	72%
Inactive	32%	22%	35%	28%
Ambiguous	0%	3%	3%	0%
Total n	(79)	(178)	(150)	(117)
Robbery				
Active	53%	73%	69%	66%
Inactive	47%	26%	32%	34%
Ambiguous	0%	1%	0%	0%
Total n	(34)	(160)	(124)	(203)

*Rand data are from Visher (1986:173).

This may reflect problems with data reliability. The measures for crime counts and the conviction variable are separated in the questionnaire by about 25 pages. On the other hand, a question which immediately follows the conviction question asks: "For those convictions, what crimes, if any, do you think you really did?" When these two questions are compared, less ambiguous responses occur, particularly for burglars. That is, all of those who report burglary convictions answer this question positively for burglary; 76 percent (n=26) of the convicted robbers report they "really did" a robbery.

Visher (ibid.) offers several possible explanations for the disparity she encountered, i.e., the respondents may have been confused, particularly if they pled guilty or were wrongly convicted; they may have also been confused about the measurement period and counting applicable offenses; or they may have concealed information.

In any event, the large proportion of zero lambdas of the inactive offenders lowers any measure of central tendency, particularly for robbery. The low number of robbery cases (n=34) makes it difficult to compensate for the outliers in the range of lambda cases and consequently, as will be discussed later in this chapter, it is not possible to empirically distinguish between the low and high rate robber. As a result, robbers are only included where it is informative to compare descriptions of the study group with the Rand sample. For the analysis regarding selecting cut points for the Seven Point Scale and the impact of selective incapacitation in Colorado, the study group will consist only of burglars.(2)

Description of the Subsample

So that findings from the Colorado data are comparable to findings from the Rand data, respondents who report convictions for both robbery and burglary are treated as robbers when the two groups are analyzed separately. When only burglary is analyzed, the three respondents who report committing both burglary and robbery are included in the

subsample to include all burglars in the study group. Also, following Greenwood's procedures, scale variables with missing data are substituted with zero. This problem is minimal except for the juvenile drug use item, as reflected in Table 4.2 below.

TABLE 4.2

```
--------------------------------------------------------------------
        Number of Cases in Seven Point Scale Analysis
                      With Missing Data
                        (n=110)
--------------------------------------------------------------------
Item:                                        Number Missing:
    Prior Conviction for Instant Offense Type..... 0
    Incarcerated more than 50% of last 2 years.... 0
    Conviction before age 16...................... 1
    Served time in state juvenile facility........ 0
    Drug use in preceding two years............... 0
    Drug use as juvenile ......................... 7
    Employed less than 50% of last 2 years........ 1
--------------------------------------------------------------------
```

Using the scale, each offender receives a score of 0 (none of the seven variables apply) to seven (all of the variables apply). Greenwood then collapses the scores into prediction categories of low, medium and high for offenders who received scores of, 0-1, 2-3 and 4-7, respectively.

One method of comparing the offender groups in each of the four states is to compare the means for each of the seven items. Since each item is scored 1 (characteristic present) or 0 (characteristic not present), the means reflect the percentage of respondents in the subsample for which the characteristic applies. The data in Table 4.3 compare the means for the burglars and robbers in the

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Colorado sample with the means for the Rand sample as calculated by Visher (1986:187, Table 13).

TABLE 4.3

Means for the Seven Variables in the Rand Scale:
Colorado and Rand's Three States

Item(a)	Colorado			Rand 3-state sample(b)		
	Robbery	Burglary	Both	Calif.	Mich.	Texas
Prior Conv.(c)	.50	.62	.59	.34	.16	.44
Incar. +50%	.15	.11	.12	.23	.16	.12
Conv. <16	.44	.35	.38	.43	.28	.26
Juv. Incar.	.38	.35	.36	.35	.24	.20
Recent drugs	.55	.56	.55	.59	.43	.40
Juv. drug use	.41	.47	.46	.58	.44	.33
Unemp. -50%	.53	.65	.60	.60	.62	.42
SUM	(2.90)	(2.81)	(2.86)	(3.12)	(2.33)	(2.17)
N	34	79	113(d)	317	255	312

(a) Complete definitions of these items are in Table 4.2 above.
(b) The data for Calif. and Mich. contain both jail and prison respondents (the Texas sample did not include jail inmates) while the Colorado data contain only prisoners. These figures were obtained from Table 13 in Visher (1986:187).
(c) Data were not available on this variable for jail inmates in Calif. and Mich. Consequently, for these cases, this item was coded 0 (missing), biasing the means downward.
(d) The total includes as robbers three offenders who were convicted of both robbery and burglary.

Table 4.3 reflects the disparity among the four states regarding the proportion of respondents possessing each of the attributes in the seven point scale. Colorado respondents appear to fall into the same range as the other three states for most of the variables. The proportion of inmates who were employed 50 percent or less of the previous two years is similar when compared to the three states in

the Rand sample. Also, the proportion of the Colorado group that has had a previous conviction for an offense similar to the present offense (59 percent) most closely resembles Texas (44 percent), but it is likely that the data for California (34 percent) and Michigan (16 percent) are biased since data were missing for the jail inmates and so was coded 0 for each case. These findings, then, likely reflect the impact of systematically missing data on the original Rand analysis.

Predictive Accuracy

Greenwood partitioned the convicted robbers and burglars into three offense rate groups based on the self-reported lambda estimate calculated for each offender: low (lambda is at or below the median), medium (lambda is between the 50th and 75th percentile) and high (lambda is above the 75th percentile). He also selected scale cut points to predict the low, medium and high frequency offenders: scale scores of 0-1 are predicted to be low frequency offenders; scores of 2-3 are predicted to be medium frequency offenders and scores of four and above are predicted to be high frequency offenders.

When the Colorado data are similarly partitioned, the percent of respondents correctly classified (determined by adding the diagonals in Table 4.4) is 44 percent.

When the scale is applied to only the burglars, the percent classssified correctly is 42 percent; for only

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robbers, it correctly predicts 44 percent (data not illustrated).

TABLE 4.4

Distribution of Colorado Burglars and Robbers:
Predicted and Actual Offense Rates
(n=110)

Predicted offense rate: Score on Seven Point Scale	Self-Reported Offense Rates: Low	Medium	High	Total
Low (0-1)	14.5%	5.5%	.9%	20.9%
Medium (2-3)	22.7%	12.7%	9.1%	44.5%
High (4+)	10.9%	7.3%	16.4%	34.5%
Total	48.2%	25.5%	26.4%	99.9%

In spite of the fact that the scale is expected to predict less well on a validation sample versus a construction sample, the percentage of Colorado respondents correctly classified falls only slightly below the values of correct predictions in the three states as calculated by Visher (1986) and Cohen's recalculation of Greenwood's data (1983) which are 46 percent and 45 percent respectively. Conversely, these results can be interpreted to mean that 54 to 58 percent of these groups are classified incorrectly.

Another commonly used measure of assessing classification accuracy is Relative Improvement Over Chance (RIOC). Defined by Loeber and Dishion (1983), RIOC compares accuracy achieved to maximum accuracy and random accuracy. It measures the proportional improvement over chance of a scale's discriminatory power.(3) The measure is zero for a classification that fails to improve on random accuracy and 1.0 for a rule that achieves maximum accuracy.

Table 4.5 reflects the RIOC computations for the Colorado sample and compares the results to figures calculated by Visher (1986:Table 19,195). For Colorado, the Seven Point Scale improves prediction power over chance by 38 percent for low rate burglars and 42 percent for high rate burglars. For robbery, the scale improves over chance the prediction of low rate robbers by 46 percent and high rate robbers by slightly less (42 percent). However, because of the low number of cases, the Colorado robbery information cannot be considered reliable.

Visher (1986) and Cohen (1983) find the scale predicts better for low rate offenders than high rate offenders. They also find it predicts better for robbery than burglary, as illustrated in the table above. Again, the low number of Colorado robbery cases is not large enough to permit reliable statistical analysis.

For Colorado and Texas burglars, and for the combined group of Colorado burglars and robbers, the scale, with cut points as defined by Greenwood (1982), predicts better for high rate offenders. The scale improves over chance the prediction of high rate burglars and robbers by 52 percent in Colorado compared to 35 percent for the combined three-state sample.(4) The scale predicts with differential accuracy for each of the four states, predicting best for California robbers.

It is not surprising that the scale's discriminatory power varies considerably across the three states in the

TABLE 4.5

Relative Improvement Over Chance (RIOC) Measures
For Colorado and the Rand Three-State Sample*

| ACCURACY RATE: | OFFENDER GROUP: | | | |
Low and High Rate Offenders*	Colo.	Calif.	Mich.	Texas
Burglary				
Low	38%	67%	44%	33%
High	42%	48%	19%	48%
Robbery				
Low	46%	86%	55%	39%
High	42%	57%	21%	38%

	Colo.	Visher	Greenwood**	
Total				
Low	43%	50%	48%	
High	52%	35%	31%	

---

*Data obtained from Visher (1986:195).
**As recalculated by Cohen (1983) and presented in Visher (ibid.).

Rand sample. Greenwood (1982) has been criticized for not developing state-specific scale cut points to improve accuracy, particularly when the lambda distributions (and, hence, the number of high rate offenders) vary greatly among the three states in the sample. For the Colorado sample, cut points are selected which best fit the data to maximize efficient use of the scale for determining the impact of a selective incapacitation policy.

The RIOC measure is helpful for estimating the improvement in prediction, but it does not assist in the decision to set scale cut points (Blumstein, et.al., 1986). This decision, rather, depends on the accuracy of the scale and the relationship between false positives (offenders predicted to be high rate but are actually low rate) and

false negatives (offenders predicted to be low risk who are actually high risk). The acceptable rate of error is dependent upon the social cost of the error: the social and humanitarian cost of long term imprisonment of low rate offenders who were incorrectly predicted to be high rate, and the social cost involving risk to the public of the release or diversion from prison individuals predicted to be low rate who are actually high rate.

In any population of offenders, extreme behavior which criminal justice decisionmakers hope to predict--such as dramatically high offending rates or violent reoffending--are rare events. Unavoidably, all statistical prediction tools identify as "high rate" or "high risk" some offenders who are actually low rate (or low risk). Decisions to increase public safety with instruments which attempt to identify high rate offenders must be weighed to account for the social cost of the inherent error rate.

The cut point in a prediction scale which distinguishes between high and low rate offenders is "the key decision in promoting public safety through prediction" (Clear, 1986). This cut point, called the selection ratio, is that portion of a sample that would be classified as high rate according to the scale. The decision about where the selection ratio should occur in any given scale is in large part a policy choice which takes into account the social cost of prediction errors. The selection ratio determines the error

rate, that is, the number and type of offenders who will be misclassified by the scale.

The base rate is that portion of the group that actually is high rate, in this case, those with high self-reported lambdas. Greenwood (1982) selected a base rate of 25 percent, that is, the high rate offender is defined as the most active 25 percent of the group.(5) To maximize predictive accuracy, the selection ratio should equal the 25 percent base rate. If the selection ratio exceeds the base rate, the number of false positive errors will increase. Conversely, if the base rate exceeds the selection ratio, false negative errors will increase. Thus, the number of errors depends on both the predictive accuracy of the scale and the scale cut point.

Most often in criminal justice research, the base rate is empirically determined by a concrete outcome measure. The outcome measure is typically a measure of recidivism such as a technical violation, felony arrest or violent arrest. While a decision must be made about which of these will constitute the recidivism event, each case clearly has a dichotomous outcome (assuming all the information is present.)

But in the case of individual offense frequency rates, there is no straightforward dichotomy. The decision is primarily policy based: the base rate must be high enough to be of interest to criminal justice practictioners (i.e., there must be a feasible number of offenders who will be

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classified positively to make a prediction tool useful).
Yet a base rate of reasonable proportions, taken together
with the accuracy of a given tool, can result in a high
percentage of misclassified truly low rate offenders.
Rolph and Chaiken (1987:x) developed operational definitions
of the high rate, serious criminal, given information about
their offending rates, but they note their "preferred
definition was a somewhat arbitrary choice." As shall be
illustrated shortly, the Colorado data suggest that
predicting all offenders will be low rate would result in
excellent predictive accuracy.

Selecting the High Rate Group

Because policymakers would use an instrument to make
an in/out decision, the "medium risk" category is omitted in
this analysis so the scale scores distinguish only between
low rate and high rate burglars. Greenwood (1982) uses the
mean to describe the offense rates of offenders classified
by the scale. However, the small subsample of offenders who
report convictions of burglary results in small numbers of
cases falling into classification categories (this is a
problem even when the robbery cases are combined with
burglary). Thus, lambda outliers greatly affect the mean and
render it less useful as a measure of central tendency than
the median. For the Colorado sample, the median better
reflects a natural distinction between high and low rate
offenders at the 5-7 cut point, as illustrated in Table 4.6
below.

Table 4.6

Comparison of the Mean and Median for Each
Cut Point of the Seven Point Scale:
Burglars and Robbers
(n=110)

Scale Cut Point Score	Median	Mean*	(n)
0	0.0	1.1	13
1	.6	21.3	10
2	.6	21.8	25
3	1.2	42.2	24
4	3.3	50.3	20
5	8.5	60.6	12
6	24.0	69.1	5
7	206.4	206.4	1

*Following Greenwood's procedures, the lambda distributions
are truncated at the 90th percentile.

As Table 4.6 illustrates, the median lambda estimates
do a better job of clearly separating the cut point groups.
However, when the two groups of burglary and robbery are
observed, the robbery medians for the low (0-4) and high
(5-7) prediction categories are meaningless in terms of
their power to differentiate between the two categories, as
shown in Table 4.7.

TABLE 4.7

Median Lambda Estimates for
Burglary and Robbery

Scale Classification	Burglary	Robbery
Low (1-4)	1.42	.54
High (5-7)	36.00	.75
Total	(79)	(34)

As previously mentioned, nearly half (47 percent) of
the self reported robbers deny committing any robberies

during the measurement period. These offenders have lambda estimates of zero. The impact of the high proportion of inactive offenders is clearly illustrated in Table 4.7 where the zeros have weighted the median so that the high and low rate groups are indistinguishable. These limitations, thus, allow only the assessment of the impact of a selective incapacitation policy if it were applied to burglars in Colorado.

Using a base rate of 25 percent, Table 4.8 on the following page illustrates the false positive and false negative rates for convicted burglars in the Colorado sample (a similar table reflecting these figures for the combined group of 110 convicted burglars and robbers is located in Appendix D). Unfortunately, the number of burglars in the subsample is too low to produce reliable data. The table will be discussed for comparative purposes only.

The far left column represents the seven scores on the Seven Point Scale; the next two columns denote the actual number of offenders who offended at a rate at or above the 75th percentile (high rate) or below the 75th percentile (low rate). The following columns contain the figures necessary to decide the best scale cut points for predicted high, medium and low rate burglars in Colorado (remember that Greenwood selected 0-1 as the low rate score; 2-3 as the medium rate score and 4 and above for the high rate score). The RIOC is illustrated in the far right column but, as discussed above, this measure gives equal weight to

the two types of errors while the false positive and false
negative rates provide information necessary to weigh the
social costs of errors.

The false positive rate is affected by the percentage
of offenders in the sample who are classified as high rate
according to their self-reported lambda estimates. The
number of false positives can be reduced by making the scale
cut point higher (the selection ratio), but then the number
of false negative errors will increase. For example, as
illustrated in Table 4.8, with a cut point of zero (meaning
all the offenders are classified as high risk), the false
positive rate is necessarily 75 percent, reflecting the
percentage of low rate offenders in the sample and also the
percentage of respondents erroneously classified as high
risk. As the cut point is increased to two, over 66 percent
of the low rate respondents are misclassified as high rate
and 11 percent of the high risk respondents are
misclassified.

In sum, the limited number of cases precludes making
reliable inferences from the Colorado data. However, on the
surface it appears the best prediction method continues to
be the assumption that there are no high rate offenders.
The data in Chapter Three suggest that few offenders
participate in violent offenses and those who do report
committing assault or robbery do so at a rate of less than
twice per year. The lambda estimates indicate violent
offenses occur at a rate that is a fraction of the frequency

TABLE 4.8 *
CLASSIFICATION OF PERFORMANCE
OF 7-POINT SCALE
BURGLARS ONLY
(N=79)

| CUT POINT 7-POINT SCALE | NO. OF OFFENDERS | | SELECTION RATIO FOR HI RATE(%) | FALSE POSITIVE RATE(%) | FALSE NEGATIVE RATE(%) | NUMBER OF ERRORS | | | RIOC ** |
	HI RATE	LO RATE				FALSE POS	FALSE NEG	TOTAL N	
0	0	9	100	75	0	60	0	60	INDETER
1	1	7	89	73	0	51	0	51	100
2	3	15	79	71	6	44	1	45	76
3	2	15	56	66	11	29	4	33	52
4	4	10	34	52	12	14	6	20	52
5	5	4	17	31	15	6	10	16	37
6	4	0	5	0	20	0	15	15	17
7	0	0	0	0	24	0	19	19	0
TOTAL	19	60	---	---	---	---	---	---	---

*Data for Rand burglars and robbers is available in
Blumstein, et.al. (1986:172).

**See text for explanation of RIOC.

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of property offenses. As discussed in this chapter, the number of robbery cases is so small that a meaningful cutpoint between high and low rate offenders cannot be found, as illustrated in Table 4.7. Analysis of the the burglary group is also hampered by the small number of cases, only four of which scored a 6 or 7 on the prediction scale.

FOOTNOTES--CHAPTER FOUR

(1) Because analysis of a prediction scale requires the
relevant group to consist of convicted offenders on whom the
scale might be applied in practice, Greenwood's (1982)
analysis groups necessarily differs from the lambda groups
analyzed in the previous chapter. The study group in
Chapter Three focuses on offenders who report committing any
of the survey crimes during the measurement period.

(2) This problem of extremely low cases for certain crime
types was not anticipated when the sample size was
determined. One-third of the Colorado sample did not report
committing any of the study crimes, which is much higher
than the 12.8 percent in the Rand sample (Chaiken and
Chaiken, 1982:59). Further, for half of the Colorado group
that did not report activity in the survey, their conviction
offense, according to official records, was indeed not
included in the survey. Twenty-four percent of the group of
officially convicted robbers did not report comitting any of
the survey crimes.

(3) The formula for computing Relative Improvement Over
Chance is thus:

$$\text{RIOC} = \frac{\text{Achieved Accuracy} - \text{Random Accuracy}}{\text{Maximum accuracy} - \text{Random Accuracy}}$$

Note that because the predictive accuracy of decision-makers
is generally unknown, this measure reflects the improvement
the scale makes over random accuracy.

(4) Overall RIOC estimates for the individual three states
in the Rand sample was not available for comparison.

(5) For the Colorado data, the natural break in the lambda
distribution for high rate burglars and robbers is the 85th
percentile. That is, the data empirically suggest that
respondents committing over 100 offenses per year are high
rate. However, a base rate of 15 percent designates as "high
rate" a group too small to impact prison populations if
policies highlighting this group were introduced. Such a

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base rate would therefore not provide a practical tool for decision-makers.

Further, the break in the Colorado distribution occurs between the lambdas of 50 and 100. Thus, it could easily be argued that, in spite of the empirical break in the distribution, an offender who reports committing 50 offenses annually is a high rate offender.

CHAPTER FIVE

Data Quality*

Asking a specific sample of offenders about their criminal activity is the most direct data-gathering method available to researchers interested in offending rates and patterns. However, there are concerns about the quality of self-report data, particularly when the topic concerns sensitive information, such as illegal behavior. Memory problems may lead to measurement error. Also, intentional concealment or exaggeration on the part of respondents raise concern. In spite of these obvious problems with self-report data, often researchers take the quality of these data for granted:

> It has become customary, as Hindelang et.al. (1981) note, for researchers employing self-reported offender data to preface their work with a brief review of the research on the reliability and validity of these measures to reach the general conclusion that these measures are reasonably reliable and valid or that at least the reliability and validity of these measures compare favorably with those of other social-science measures. However,...the quality of these measures cannot be taken for granted, nor are the reliabilities and validities sufficiently high that these measures can be used without question (Huizinga and Elliott, 1986:323).

It is essential, then, that studies based on self-report data include assessments of the quality of that

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*By Kim English

data and the impact of cases with poor data quality on estimates of criminal offending rates.

When assessing the quality of self-report data from Colorado inmates, the model used by Rand researchers (Chaiken and Chaiken, 1982: Appendix B) is, where possible, closely followed. Thus, the findings from the two studies may be compared.

Rand researchers divided the data quality analysis into three parts: external reliability (self-reports compared to official records); internal consistency (a reliability measure for similar questions appearing in various parts of the questionnaire are compared); and internal confusion (an examination of nonsensical responses). The last two categories are combined to yield a summary measure of the internal quality of the questionnaire. In this report, the two internal quality measures will be examined separately and, as Rand did, together.

Summary of Findings

Generally, the analyses discussed in this chapter indicate that the quality of the Colorado self-report data is rather high. In terms of the consistency between self-reports and official records, the Colorado data is comparable with the findings obtained by Rand researchers using the three-state data. In a limited test-retest analysis of a Colorado subsample (n=23), the consistency between ten items examined is high with alpha at .88 or

above.   Internal data quality, evaluated via redundant questionnaire items and "illogical responses," is also generally encouraging. While certain subgroups of offenders ("Family Men," "Drunks," for example) have higher or lower data quality scores, there appear to be no particular patterns of responses that systematically bias the data. Among the most important findings are the facts that there is no relationship between a respondent's race and the quality of his questionnaire data, and that the first moment statistics which describe offending rate estimates are minimally affected, for most crime types, by quality of the data.

The Data Quality Score

To evaluate the external reliability and internal quality of the self-report data, each respondent receives a "Data Quality Score." This score represents the percent of inconsistent responses occurring in each case.   Separate scores are tabulated for (1) external reliability (or external validity, as it is customarily referred to in the methodology literature), (2) internal consistency and (3) internal confusion.   The last two categories are then combined into a summary internal quality score. Then, for each quality category (1, 2 and 3 above), the sample is divided into two groups, one consisting of those whose data quality is mostly consistent and one consisting of those whose data quality is mostly inconsistent.   The data are

then analyzed to obtain descriptions of the two groups and assess the impact of data quality on the estimates of lambda.

For each set of indicators, the number of quality indicators that apply to each case varies. For checks with official records, the indicator must be present in the official record to be included in the calculation. For internal consistency and confusion scores, some indicators apply only to subgroups of respondents. In all three sets, if a self-report variable is missing, the indicator is counted as a mismatch. The formula to calculate the score, illustrated below, requires dividing the number of items which do not match with each other by the total number of items which did indeed match for that case:

$$\text{Individual Quality Score} = \frac{\text{Number of Mismatched Indicators}}{\text{Total Number of Valid Indicators}}$$

According to Rand researchers, "the cutoff for 'good' reliability was set in such a way that approximately 20 percent of respondents for whom the summary external reliability indicator could be calculated fail the requirement, and similarly for internal quality" (Chaiken and Chaiken, 1982:247). The raw score distributions for the Colorado sample indicate that a 20 percent cut point for each group is a reasonable--if arbitrary--demarkation, and so this decision will be followed without modification.

Comparing Self-Reports and Official Records

It should be noted at the onset of this discussion that the objective here is not to compare individual crime rates obtained from self-reports with individual crime rates obtained from official record data. It is, of course, the purpose of self-report research to gather data not available from official records, so it is explicitly assumed that crime rate information would not be consistent. Rather, this analysis is concerned with comparing a limited number of criminal history and socio-demographic variables available from both data sources to assess the extent of consistency between particularly salient or objective pieces of information.

Methodological Issues

Rand researchers evaluated what they termed "external relibility" according to 14 indicators (see Table 5.1). However, the official data collection instrument used in the Colorado study differs from the Rand instrument and so several of the criminal history variables used in the Rand analysis are not available for the Colorado analysis. A total of ten self-report items are compared to official records, but because of extremely poor consistency scores for two variables, eight indicators are used in the final version of the Colorado external reliability score. However, prior to presenting the findings of the external reliability analysis, it is important to (1) discuss the

terminology used by Rand researchers and (2) clarify the
assumptions underlying the comparison of official records to
self-reports.

Table 5.1
_____
Fourteen Indicators Used in the Three-State Analysis*
_____

    1. Arrest history
    2. Arrest history of "interesting" crimes**
    3. Current commitment crime
    4. Current commitment crimes (mismatching on
        half or more of "interesting" crimes)
    5. Age at first arrest
    6. Juvenile criminal record
    7. Commitment to juvenile facility
    8. Revocation of probation or parole
    9. Number of prison terms served
    10. Number of felony convictions
    11. Month of current arrest
    12. Age at time of survey
    13. Race
    14. Education

_____

        *From Chaiken and Chaiken (1982:229).

       **"Interesting" means the indicator is coded as an
         inconsistent match if half or more of a large
         number of crime types show a disparity of two
         or more arrests (or convictions) between the
         self-report and the official records.

    Note: Data not available for the Colorado sample for
          items one, two, three, four and six.
_____

     Regarding terminology, Rand researchers compare several
self-report variables with official records to assess the
degree of consistency between the two data sources. The
Rand report refers to this as a check of "external
reliability," but this type of analysis is commonly referred
to in the literature as validity. Reliability refers to the
stability of a measure over time: "Does it obtain consistent
responses?" Validity, on the other hand, is the question of

whether or not an instrument measures what it is intended to measure. If an instrument is not valid, it cannot, by definition, be reliable.

External validity, then, would be assessed by comparing the consistency between self-report items and official record items, in this case, the prison files. External reliability would involve repeated measures of the same variables and comparing the responses across cases for each time period. Twenty-three Colorado respondents were resurveyed within three months of completing the initial questionnaire. Although the Colorado retest group is small, their responses to the items compared to official records are examined at each time period to assess the reliability of these measures.

As Rand researchers did, official records and self-reports are compared for all 313 Colorado respondents to assess the validity of the data. Rand's procedures are first replicated and the description of the test-retest reliability follows. Note, however, that the terminology in this report will follow tradition in that the replication of the Rand work will be termed here "validity" and the analysis of the 23-case test-retest will be termed "reliability."

The procedure which compares self-reports to official records implies that official records represent the "standard of truth." However, problems with the accuracy of official data have been well documented (see O'Brien (1985)

for a recent review). For example, official records are affected by changes in policing practices and policies regarding police reports; changes in citizen reporting patterns; changes in public policy which may impact both of these; and decisions made by both officials and recordkeepers about what data are relevant to record.

To examine the quality of officially recorded information in terms of consistency of information obtained in each official record (not in terms of empirically reliable information) the Colorado official data collection form includes three items which attempt to measure data quality of each offender's files. These items are directed to the data collector and focus on whether or not the file appeared to have complete and consistent information about (1) felony dispositions, (2) probation/parole history and most recent prior arrest data, (3) violent arrests, and (4) substance abuse information. Table 5.2 presents the availability and consistency of data for these three areas of information.

The data presented in Table 5.2 suggest that the people who collected the official data for this project were fairly confident that the prison file contained adequate information. Of course, these findings must be qualified because the data collectors would not necessarily know when certain pieces of information are missing. But criminal justice case file data are often inconsistent; some

Table 5.2

The Availablity of Relevant Data
in Colorado Prison Files

Substantive Area	Percent of Cases Which Appeared to Have Complete Data

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Prior Felony Dispositions	92.3
Probation/Parole History and Most Recent Prior Arrest	95.8
Prior Violent Arrest History	95.8
Substance Abuse History	98.4

---

elements may be referred to yet the file may not contain complete information. For example, missing items of concern include age of an offense, original or final charge or disposition, substance abuse history, or treatment programs. Even aliases with differing dates of birth may cause data collectors to question the quality of the data.

In sum, the limitations of official data must be acknowledged when they are used to assess the honesty and accuracy of a respondent in a self-report study. However, because official records are the only available source of comparison data (without interviewing family, friends, neighbors and victims), and because the positive assessments of the available official record described in Table 5.2, official record data are used, on a case-by-case basis, as the criterion variables for this analysis.

Summary of Items Used to Construct the Score

Ten official record and self-report items are initially examined to assess the consistency between the two data

sources.   For each   case,   an item   is considered   only   if

official record data are available.   This accounts for   the

size of analysis groups totalling less than 313, the   number

of cases in   the sample.   Following Rand's procedures,   if

information is   present   in   the   official   record   and   the

respondent does not   provide self-report data,   the item   is

counted as a mismatch.

Table 5.3   presents   the indicators   which   are

compared and the proportion of   the sample that match or   do

not match on   each item.   Some of the   comparisons allow   a

range of error based on the model used by Rand researchers.

The   first item   in   the table,   current   conviction

offense, is subject   to error based   on offense   terminology

(such as theft versus   burglary) and original arrest   charge

versus conviction charge as in   cases of plea bargaining   or

insufficient crime   evidence.   Also, the   self-report   item

(item 6   on   page 39   of   the   survey) did   not   provide   an

exhaustive list of offenses,   so respondents may have   tried

to select what they considered   to be the offense that   most

closely described   their   conviction   offense.   For   these

reasons,   cases   were   manually   reviewed,   comparing   the

official record arrest   charge and   disposition charge   with

the self-reported conviction charge.

Thus, the matches for Item 1 in Table 5.3 include cases

where the match was close but not necessarily exact. This is

the same procedure undertaken by Rand researchers.   The 27.5

percent error rate for the Colorado sample is similar to the

26 percent error rate found by Rand researchers for Item 1 (Chaiken and Chaiken, 1982:229).

Table 5.3

Comparison of Self-Reports and Official Records

	Percent of Respondents:		
Item	Match	Mismatch	(n)
	(Consistent)	(Inconsistent)	
1. Present commitment offense	72.5	27.5	313
2. Age at first arrest	16.3	83.7	301
2a. Age at first arrest (2 years)*	54.0	46.0	313
3. Age at first conviction	13.6	86.4	294
3a. Age at first conviction (2 years)	43.9	56.1	294
4. Prior probation/parole revocation	76.5	23.5	306
5. Number of prior prison terms	27.8	72.2	285
6. Number of felony convictions	36.1	63.9	200
7. Month arrested for current offense	62.2	37.8	288
7a. Month arrested (1 month)	76.0	24.0	288
8. Date of Birth	92.3	7.7	312
9. Race	88.9	11.1	311
10. Education	53.7	46.3	284
10a.Education (2 categories)	95.4	4.6	284

*"2 years" means the items matched plus or minus two years.

Age at first arrest (exact match) reveals a disappointing 16.3 percent match. This proportion increases to 54 percent when a match within two years is the outcome criterion. Again, this mismatch rate (46 percent) is very similar to that found by Rand researchers for the three-state mismatch rate (43 percent).

Self-reported age at first conviction (exact match) is also poorly correlated with official records, with only 13.6 percent of the cases matching. Age at first conviction, allowing a 2 year variation in both directions, still

matches quite poorly with only 43.9 percent of the cases matching (Rand researchers did not examine this indicator, so it is not possible to compare the Colorado data with the three-state sample).

Items 2 and 3 deserve further attention because the saliency of these events leads one to expect better resolution between self-reports and official records. The error rate for these "milestones" in a criminal career is too high for researchers to place confidence in the data from either source. Regarding Item 2 (age at first arrest), the mean age for the self-report data is 19.9 while the mean age at first arrest according to official record data is one and one-half years younger at 18.4. A T-test reveals there is a statistically significant difference (p = .001) between self-reported age at first arrest and official record age at first arrest. This disparity may indicate the use of different terminology of "arrest" between respondents and police records.

Regarding Item 3 (mean age at first conviction), the age for self-report data is 19.9 years of age while the mean age at first conviction according to official records is seven years higher at 26.8 years of age. There is also a statistically significant difference (p = .000) between self-reported age at first conviction and official record age at first conviction.

The source of the measurement error for Items 2 and 3 remains unknown. Memory problems are one possible source of

error but the age of the offender is not statistically related to these items, suggesting that memory decay due to time since the event is not a factor.

Again, the definition of terms may vary between what the respondent considers an arrest or conviction and what officials recorded in the respondent's file. Juvenile policing practices commonly include "lecture and release" responses to delinquent behavior; a juvenile may interpret this as an arrest. Also, preadjudication decisions may be interpreted by a juvenile as a conviction.

Some researchers (for example, Hindelang et.al., 1981) attempt resolution of self-report and official record data by asking the respondent what he or she thinks the official record will reflect for specific criminal history items. Criminal career self-report research of this sort should include such questions as an attempt to locate the source of measurement error.

For Item 4, number of prior probation or parole revocations, there is agreement in 76.2 percent of the cases. The relatively high degree of consistency may reflect the clear official meaning of the terms, but such an "objective" question might be expected to yield a higher consistency rate. However, it would seem that number of prison terms, Item 5, would reflect that same clarity yet there is agreement in only 27.8 percent of the cases. This error rate likely reflects the fact that item 5 is worded differently the Colorado official record form compared to

the questionnaire items. Also, respondents may be including pre- or post-sentence jail time, even though the questionnaire states "prison terms."

There is a parallel problem with Item 6, number of felony convictions. Again, the Colorado official data collection form words the question of prior felony convictions quite differently compared to the self-report questionnaire. It is also possible that the inmates included misdemeanor or petty offenses in their responses. In any event, because of the high degree of inconsistency associated with Items 5 and 6, both of which rely on official record items which were worded considerably differently from the questionnaire items, these two inidicators are eliminated from the final tabulation of the external validity score for each respondent.

The month of arrest for the current crime, Item 7, is consistent 62.2 percent of the time. When the range of error is increased to one month in either direction, the proportion of cases which agree is increased to 76 percent. This item in the Rand analysis was found to be consistent 85 percent of the time.

Date of birth, Item 8, has the highest percentage of consistency between the two data sources. The error rate for this item is 7.7 percent; the error rate for the Rand three state sample was 9 percent.

Item 9, race, matches 88.9 percent of the time. Among the cases that did not match, there does not appear to be a

particular pattern of error. The questionnaire used by the Colorado respondents listed "Anglo" as one of the response options whereas the Rand researchers used "white." Indeed, the word Anglo generated questions from several participants, leaving the impression that "white" is the preferable term. The Rand participants, using questionnaires with "white" not "Anglo" on this item, matched on race in 97 percent of the cases.

Finally, for Item 10, the match is between education information obtained from self-reports and presentence report information (which is often obtained from self-reports as well). For this item, the direct match rate is fairly poor, with only 53.7 percent of the cases agreeing between the two data sources. However, when the error range is increased to plus or minus one level of response in the categorical measure, the error rate drops to 4.6 percent. Using the same decision rules, the error rate for the three state sample was 13 percent.

It should be noted that for items 6 (number of felony convictions) and 10 (education), categorical variables were used in the survey. Although education matches fairly well when a two-category "range of error" is allowed, the match becomes fairly meaningless when the error range allows for differences up to 5 grades. Consequently, measurement precision is lost for both of these items. Since continuous data is not more difficult to handle analytically, future

survey designs should include categorical data only when necessary.

Validity Scores for Colorado Respondents

As mentioned previously, the number of indicators examined varies for each case, depending on the presence or absence of official record data. Table 5.4 presents the

Table 5.4

Missing Official Record Data:
(N=313)

Number of Items Missing	Percent of Respondents
0	75.1
1	20.1
2	3.5
3	1.0
4	.3
Total	100.0

number of items missing for cases in the sample. For three-quarters (75 percent) of the sample, all official record items are present; 95 percent of the group have seven or more of the eight indicators present. One case in the sample has nearly half (4) of the indicators missing from official record documentation.

Table 5.5 displays the distribution of the validity scores for the Colorado sample and also for the Rand three-state sample (Michigan, Texas and California). Note again that, for the Colorado sample, eight indicators are analyzed while the Rand analysis included 14 indicators.

For nearly 15 percent of the Colorado sample, the official record and the self-report indicators match

consistently. Forty-two percent of the Colorado group matched 80 or more percent of the time (that is, had one or fewer inconsistencies); similarly 41.4 percent of the Rand three-state sample matched 80 or more percent of the time.

Table 5.5
```
-------------------------------------------------------------------
                          Validity Scores for
           Colorado and the the Rand Three-State Sample:
               Percents of Samples Failing to Match on
                 Self-Report and Official Record Items
-------------------------------------------------------------------
                      COLORADO              RAND THREE-STATE*
                      (n=313)                   (n=1380)
-------------------------------------------------------------------
  Percent of    Percent of     Cum.        Percent of      Cum.
 Items Failing    Sample      Percent        Sample      Percent
   To Match

    0.0 %         14.7         14.7           3.9           3.9
   1 - 10%         0.0**       14.7          14.1          18.0
  11 - 20%        27.6         42.3          23.4          41.4
  21 - 30%        27.5         69.8          36.0          77.4
  31 - 40%        17.3         87.1          13.1          90.5
  41 - 50%         2.2         89.3           7.2          97.7
  51 - 60%         7.6         96.8           1.3          99.0
  61 - 70%         2.8         97.7           0.8          99.8
  Over 70%         .3         100.0            .1          99.9
                (100.0)      (100.0)        (100.0)       (100.0)
```

COLORADO:
Range of inconsistent indicators: 4-8 (numerator)
Range of possible indicators: 0-6 (denominator)
Range of validity scores: 0 - 75% "bad"
Mean error rate: 24%
Median error rate: 25%

  *From Chaiken and Chaiken (1982:234).
  **It is not possible for a case to fall into this category
because of the distributions of the numerator and the
denominator.
```
-------------------------------------------------------------------
```

The Colorado and the Rand external data quality appear remarkably similar except for the first two categories which

may be because some of the criminal history indicators used by Rand were not collected for the Colorado sample. The criminal history variables that were collected for the Colorado sample (age at first arrest and age at first conviction) proved to be particulary unreliable.

The similarity of the error distributions presented in Table 5.5 suggest that it may be quite feasible to reduce the number of indicators for the validity check without losing important information.

Relationship of Indicators to Respondent Characteristics

Self-Image: Regarding self-images (measured on page 15 of the survey) and validity scores, there is a weak, negative (p = .010; r = -.1315) relationship between offenders who characterized themselves as a "Family Man" and external validity data quality scores. That is, "Family Men" are more likely to have better data quality scores compared to men who do not consider themselves "Family Men." Rand researchers found that this group had better reliability for arrests reported but there was no such correlation in the Colorado sample.

Offenders who considered themselves a "Drunk" during the measurement period are more likely to have poor external validity data quality. This relationship is weak (p = .002; r = .1628), but somewhat consistent with the Rand finding that "this group did significantly worse than other

respondents on internal reliability" (Chaiken and Chaiken, 1982:243).

Age: There is a significant but weak negative relationship between the offender's age at the time of the survey and external validity error rate (p = .001; r = -.1827). This finding concurs with the Rand three-state data in which "(o)lder respondents had a generally better overall match between their responses and official data than did younger respondents..." (Chaiken and Chaiken, 1982:243.)

Education: There is no relationship between level of education and extent of external validity. This finding concurs with the Rand data: "...respondents with higher levels of education were remarkably similar to less educated respondents in terms of external reliability" (Chaiken and Chaiken, 1982:244).

Race: In the Colorado sample, the race of the respondent is not statistically related to external data

Table 5.6

Validity Scores and Race

Race	Mean Quality Score (Percent of Error)	Minimum – Maximum
Anglo	.2441	.0001 – .2500
Black	.2334	.1429 – .3750
Hispanic	.2395	.1250 – .2500

p = .5661
----

quality, a finding consistent with the three-state analysis by Rand researchers (Chaiken and Chaiken, 1982:244). Table 5.6 presents the relevant data regarding race and external validity.

Criminal History: The most consistent (albeit weak) statitical relationship between offender characteristics and official record/self-report data quality appears to be the extent of prior criminal activity the offender reports. As shown in Table 5.7, as the age at first contact with the

Table 5.7

The Relationship Between Criminal History and
Self-Report/Official Record Data Quality
(Items are Reverse Coded)
(N = 313)

Criminal History Measures:	r
Age at first arrest	-.1394
Age at first conviction	-.1494
Number times arrested	.1812
Number previous jail terms	.2181
Number previous prison terms	.1768

$p < .01.$
----

system decreases, the external validity error rate increases. Also, as the number of prior arrests and jail and prison terms increases, the error score also increases. Greater previous criminal activity, and hence a greater number of incidents requiring accurate recording in official files, increases the probability of error. The "allowable"

range of error" provision (which allows for a variation of plus or minus two occurrances) may compensate for some of the expected error. Nevertheless, these data suggest that an active criminal history is weakly related to either the quality of official record data or self-report data or both.

This finding is consistent with data analyzed by Rand researchers. Texas prisoners had better external validity than Michigan prisoners, who in turn, had better reliability than California prisoners, reflecting the fact that "California prisoners had, on the whole, more extensive criminal careers to report than did the Michigan or especially the Texas prisoners" (Chaiken and Chaiken, 1982:223).

Recency of Measurement Period: The data suggest there is a weak, negative (p = .001; r = -.1827) relationship between the year the offender was arrested for his current imprisonment crime and the quality of the offender's external data reliability (this correlation is not found with internal data quality). This suggests that the more recent the current arrest, the better the consistency of the data when compared across self-report and official record indicators.

Retrospective data collection studies raise concerns about data quality because of the likelihood of forgetting or otherwise distorting the occurrence of past events. This finding supports the common sense approach that the time period of interest should occur as recently as possible for

the study subjects. In the case of this project, the date of the current arrest marks the end of the study period, and the respondent is to report his criminal activity during the months preceding the arrest.

While this finding supports common sense assumptions about memory and recency of events, it may also reflect an improvement in the quality of official record data related to time. The quality of data in official Colorado prison records have, in many instances, improved in recent years, primarily as a consequence of clarified data needs.

Table 5.8
_____
Lambda Scores and Self-Report/Official Record
Data Quality
_____

Offense Type	r	n
Burglary	.1508	96
Robbery	.0518	53
Assault	.1564	77
Theft	.0755	106
Auto Theft	-.0464	44
Forgery	.1197	61
Fraud	-.4271*	30
Drugs	.0789	95
Total except drugs	.0789	204

*Significant at the .01 level.
_____

Self-Reported Crime: Generally, there appears to be no relationship between the annualized offending rates (lambda) obtained from self-reports of criminal activity (see Chapter Three of this report) and data quality. The one exception, as presented in Table 5.8, appears to be among offenders who reported committing fraud during the study period. In this

case, there is a moderate negative relationship between activity level and the extent of consistency between self-report and official record indicators. That is, as fraud activity (as measured by lambda) increases, the data quality scores improve. These findings, however, must be interpreted with caution because of the small number of cases (n = 30) in this subgroup.

Table 5.9
_____

Annual Offending Rates (Lambda)
for Cases with High and Low Validity Scores
_____

Crime Type	Total Group	Group with High Validity	Group with Low Validity
Burglary	5.3	5.0	4.5
Business Rob	1.3	2.0	1.0
Personal Rob	1.7	2.5	2.3
Assault	1.7	2.0	3.0
Theft	6.0	7.0	9.0
Auto Theft	3.3	3.0	2.0
Forgery	4.8	5.0	7.5
Fraud	3.6	5.5	3.0
Drugs	361.2	206.4	348.0

(a) Values represent the median annual offending rate for Colorado offenders reporting activity in these crime types (See Chapter 3 of this report).
(b) Values represent the median annual offending rate for the 80 percent of the Total Group (column one) who have high external data validity scores.
(c) Values represent the median annual offending rate for the 20 percent of the Total Group (column one) who have low external data validity scores.
_____

Table 5.9 compares the median lambda estimates for the entire Colorado sample with the median lambda estimates for the groups that incurred high and low external validity scores. Similar to the Rand finding highlighted above, most

of the lambda estimates for the Colorado group with high
data quality are within a range of two offenses per year.
Lambda estimates vary by as much as three offenses per year
for the group categorized as having low data quality.
Lambda estimates for Colorado respondents who reported
selling or manufacturing drugs during the measurement period
vary considerably across the groups (this was also the case
for the Rand data). This suggests that the lambda estimates
for drug crimes should not be interpreted literally, but
rather should be considered to reflect very frequent
activity. Although the drug medians vary markedly, the
numbers still suggest very frequent (almost daily) activity,
particularly since the median measures the midpoint of the
range.

Reliability for Test-Retest Group:
Twenty-Three Colorado Respondents

As discussed at the beginning of this chapter, 23
Colorado respondents were resurveyed within three months
of the initial survey so that instrument reliability could
be assessed. "Reliability" of the survey instrument refers
simply to "the consistency of the measurement" (Bailey,
1978:57). The question here is: "For the ten items
examined, do respondents provide consistent answers when
tested at Time 1 (the initial survey) and Time 2 (the
retest)?"

The reliability subsample is analyzed here according to the ten data items, discussed at length up to this point, which are used to compare self-reports with official records. These items include socio-demographic questions and a limited number of criminal history variables.

Table 5.10 presents the standardized alpha coefficient and the percent of respondents in the entire Colorado sample (these data are not available for the subsample) who match when their self-report is compared with official data (see Table 5.3). For the second column, the source of the

Table 5.10

Reliability Coefficients for Test-Retest Group(a)
Compared to Consistency Percentages of
the Total Colorado Sample

Item	Standardized Alpha (n=23)	Percent of Colorado Sample Matching With Official Records(b) (n=313)
Present Offense	.9615	72.5
Age 1st Arrest	.9595	16.3
Age 1st Conviction	.9885	54.0
Prior Revos(c)	.8855	76.5
Number Prison Terms	.9347	27.8
Number Felony Conv.	.9330	36.1
Month Arrested	.9733	76.0
Birthdate	1.0000	92.3
Race	.9855	88.9
Education	.9878	53.7

(a) The inmate survey was readministered to 23 respondents within three months of the initial survey.
(b) N = 313; data not available for 23-case subsample.
(c) This refers to prior probation or parole revocations. For most respondents, this was zero.

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error—self-report data, official record data, or both—is unknown, but often researchers assume the official records are accurate (for example, Hindelang et.al., 1981).

The self-report reliability coefficients are high (alpha is between .88 and 1.0), indicating that offenders are consistent over time in their responses to the items in the questionnaire, yet the last column in table 5.10 presents a relatively disappointing rate of consistency (particularly for criminal history items) when the same items are compared to official records. Juvenile history may be difficult to obtain from prison records due to practices of sealing or destroying files. Also, terminology may be a source of error; respondents may interpret first police contact as an arrest whereas the incident may not have even been entered in the file. Conversely, events may have been inaccurately recorded in the file. Whatever the source of the discrepency, this issue clearly deserves further attention in future research efforts of this type.

Note that these data must be interpreted with caution because of the low number of cases available for analysis (n = 23). This number represents seven percent of the Colorado sample; future research of this nature should retest a large enough proportion of the sample so that statistical inferences may be made with reasonable confidence.

Summary: External Validity and Reliability

The consistency between official record and self-report data for the Colorado sample is generally comparable with the extent of consistency found by Rand researchers for the three-state sample. When lambda is calculated for the groups with high data consistency and low data consistency, the median offending rate estimates vary within a factor of two.

Data regarding age at first arrest and age at first conviction, important variables concerning the onset of a criminal career as measured by official criminal justice system response, are particularly inconsistent across self-reports and official records of the Colorado sample, although the source of measurement error is unclear. Test-retest data indicate a high correlation between self-report items obtained at Time One and Time Two (within a three month period), suggesting that each of the 23 respondents in this subsample interpreted the questions similarly from Time One to Time Two and that perhaps the self-report items and the official record items may not be tapping the same reality.

Internal Consistency

Internal Consistency and Internal Confusion

Rand researchers assessed internal data quality by evaluating respondent consistency and confusion within the questionnaire. Consistency and confusion items were sorted by the Rand researchers according to factor analysis, and then each indicator within the categories of consistency and confusion was examined to obtain item by item error rates. Then, the two groups were combined to yield an overall internal data quality score for each respondent. The respondents were then combined into "mostly consistent" and "mostly inconsistent" internal data quality groups and the effect of the quality of data on lambda scores was assessed.

This procedure is followed here as well. First, the internal consistency items are presented and discussed and the error rate for the sample is presented, along with descriptions of characteristics of respondents as they relate to internal consistency. Then, the same outline is followed for the discussion of internal confusion. Finally, the chapter concludes with an assessment of the impact of data quality on lambda scores.

Summary of Items Used to Construct the Score

A total of 36 indicators are examined to assess the extent of the internal consistency or reliability provided by Colorado respondents. Ideally, this assessment would be based on a test-retest method which controlled for time between survey administration. In the absence of such data, however, items within the questionnaire which would be expected to match are examined for consistency.

As in the assessment of external reliability, the number of items relevant for each respondent varies depending upon whether or not the item applies to them. The internal reliability score is calculated for each respondent by dividing the number of items not matching by the number of items which applied to each case.

The indicators used by the Rand researchers are used here except for three items where the face validity (that is, the conditions required for a "consistent" match do not necessarily follow logically) is questionable. Those items omitted from the calculation of the data quality score are included in Table 5.11.

As Table 5.11 indicates, there is a large variation in the failure percentages between the two study groups. Following Rand's procedures, these three indicators apply only to those respondents who answered positively to: "When you described your crimes during the street months on the calendar, did you include any of the crimes you are now

doing time on?" (item 11, p. 40). The instructions for
filling out the calendar inform the respondent that he is

Table 5.11

Items Omitted from Colorado Internal
Consistency Data Quality Score

| Indicator | Percent Failing | |
	Colorado	Three-State Sample*
Current conviction offense is mentioned as a crime for which arrested	50	9
Conviction offense is mentioned as a crime committed	46	5
If conviction offense is a property crime, respondent answers Yes to "Did you do a burglary, robbery ,theft, car theft, forgery, fraud, or swindle?"	63	4

From Chaiken and Chaiken (1982:236).
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indeed to include his current offense in the measurement
period, but only 72 percent of the sample did so (60 percent
of the group that did not report their current offense as a
crime committed during the study period did report criminal
activity; the others—29 cases—reported no activity).
Table B.4 in the Chaiken and Chaiken (1982:236) report
indicates that 56 percent of the three-state sample answered
positively to the filter question.

The disparate failure rates cannot be explained by the
lack of face validity since that issue should affect both
groups equally. The two "filtered" subsamples to which
these questions apply may be different in some way since

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they vary greatly in size. In any event, these three items are excluded from the Colorado internal consistency data quality score because of the high failure rate which may be associated with poor face validity.

Table 5.12 lists the indicators used to assess internal consistency and the proportion of the Colorado sample that matches or does not match on each item. The data will be compared with data from the three-state sample where information on the latter group is available.

Item 1 checks if the current conviction offense is mentioned as a crime for which arrested. Of the eight major crime groups, assault and drug sales or manufacturing had the lowest reliability rate with respondents providing inconsistent answers 24.4 percent and 28 percent, respectively, of the time. The overall "consistency" rate for this item is 81.3 percent. Rates for individual crime types cannot be compared to the Rand findings because this information was not published. However, overall, 91 percent of the three-state group to which this item applied provided consistent responses.

The second group of indicators refers to whether or not all the respondents answered consistently for crime types in Part C and the five crime types listed in categorical fashion on page 41. The range of consistent respondents varies from 68.1 percent for drug sales to 95.5 percent for forgery, considerably lower than the 13 to 2 percent range

Table 5.12

Indicators of Internal Consistency

Indicator	Consistency	Inconsistency	(n)
1. "Yes" to crime in Part C; "really did," p.39 (Applies to those who answered positively to item 11,p.40)			
Assault	75.6	24.4	225
Auto Theft	87.6	12.4	225
Burglary	82.7	17.3	225
Drugs	72.0	28.0	225
Forgery	88.4	11.6	225
Fraud	89.3	10.7	225
Robbery	85.3	14.7	225
Theft	69.3	30.7	225
2. Crime in Part C corresponds to variable on page 41			
Burglary	70.9	29.1	313
Assault	82.4	27.6	313
Forgery	95.5	4.5	313
Auto Theft	86.6	13.4	313
Drugs	68.1	31.9	313
3. Property crime in Part C corresponds to item 5, p.38	78.6	21.4	173
4. Income from crime (p.37) and percent income from crime (p.38) both present	90.1	9.9	313
5. Current age equal or older than age at first crime	98.7	1.3	313
6. Age at first arrest is equal or older than age first got involved in crime	76.7	23.3	313
7. If in juvenile facility, then did juvenile crime	77.3	23.3	313
8. Self-image (p. 15) matches crimes in Part C			
Auto Thief	94.1	5.9	17
Booster	91.7	8.3	24
Drug Dealer	94.0	6.0	50
Thief	76.1	23.9	67
Drug User	63.7	36.2	80
Forger	92.3	7.7	26
Burglar	100.0	0.0	41
Robber	80.0	20.0	20
9. Assault in Part C matches with "Did you hurt or kill anyone..." (p.40)	75.3	24.7	77
10. Arrests in Part C matches with arrest (p. 37)			
Burglary	80.9	19.2	313
Robbery (personal)	89.5	10.5	313
Robbery (business)	83.1	16.9	313
Assault (during burglary)	80.1	19.2	313
Assault (not during burglary)	80.1	19.2	313
Auto Theft	91.1	8.9	313
Theft	79.2	20.8	313
Forgery	93.3	6.7	313
Fraud	92.7	7.3	313
Drugs	92.0	8.0	313

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found in the three state sample.   Table 5.13 compares the

Colorado responses to the Rand three-state sample.

Table 5.13

Internal Consistency of Selected Respondents:
Colorado and Rand Three-State Sample*

Item	Colorado Percent Failing	Three-State Sample Percent Failing
Burglars	29.1	7.0
Assaulters	27.6	13.0
Forgers	4.5	2.0
Auto Thieves	13.4	4.0
Drug Dealers	31.9	2.0
Mean	21.3	6.2

*From Chaiken and Chaiken (1982:236.)

The mean inaccuracy rate for the Colorado sample is
21.3 percent compared to a mean of 6.2 for the three-state
sample. The source of the disparate findings is unknown;
future research of this sort should continue to investigate
this issue.

The "consistency" rate tends to be fairly high at the 75
percent range or above. Item consistencies for offenders
who reported drug crimes during the measurement period tend
to fall a bit below the 75 percent range.

Presumably, Item 8 reflects the association the
respondent feels between his criminal activity and self-
image during the measurment period.   Of the group that
reported a self-image of "Burglar," 100 percent admitted to
committing burglary during the measurement period. However,
of those who considered themselves a "Drug User," only 64

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percent reported committing drug offenses during the measurement period, perhaps reflecting that some drug users do not consider such activity a crime.

Table 5.14 compares the failure rates between the Colorado group and the three-state group on Internal Consistency items when the information was available in Rand publications.

Table 5.14

Comparison of Colorado Sample and Three-State Sample
for Failure on Internal Consistency Items*

| Item** | Percent Failing: | |
	Colorado	Three-State Sample
Property Crime	21.4	15
Income from Crime	9.9	23
Current Age/Age 1st Crime	1.3	1
Age 1st Arrest/Age 1st Involved	23.3	15
Juv. Facility/Juv. Crime	23.3	2
Assault	24.7	13

*From Chaiken and Chaiken (1982:236).
**See Table 5.10 for more complete definitions of items.

As Table 5.14 indicates, the error rates for the Colorado group are higher than the three-state sample except for Income from Crime which looks for income inconsistencies within the questionnaire. The greatest difference is for Item 7 which matches reported juvenile incarceration with reports of juvenile criminal activity. As Rand researchers report, this combination of events is not logically necessary. Colorado offenders may also have misunderstood the question.

Internal Consistency Scores for the
Colorado Sample

Not all of the indicators of internal consistency are relevant to each case. Thus, the internal consistency score (number of items not matching divided by number of items examined) is calculated with a "floating" denominator. As indicated in Table 5.15, the range for the denominator (the number of items examined) in this case is from 20 to 37 items.

Table 5.15 presents the scores for internal inconsistency for the Colorado sample. None of the respondents have fewer than ten percent inconsistent indicators.

Table 5.15

Internal Inconsistency Scores for the
Colorado Sample:
Percent of Inconsistent Indicators

Percent of Items not Matching	Percent of Sample	Cum. Percent
0 - 10%	0.0	0.0
11 - 20%	5.8	5.8
21 - 30%	46.3	52.1
31 - 40%	34.2	86.3
41 - 50%	8.6	94.9
51 - 60%	2.5	97.4
Over 60%	2.6	100.0

Range of inconsistent indicators: 5-19 (numerator)
Range of possible indicators: 20-37 (denominator)
Mean error rate: 32%
Median error rate: 30%

Half of the sample have internal inconsistencies for between 11 and 30 percent of the indicators. Just over five percent

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of the sample have inconsistent responses for over half of the indicators examined.

Relationship Between Offender Characteristics
and the Extent of Internal Consistency

Self-Image: Whereas a self-image of "Family Man" is related to good external validity (discussed previously), a self-image of "Straight" is related to internal consistency ($p = .004$; $r = -.1530$). There is no relationship between other self-images for the Colorado sample, although Rand researchers found those reporting a self-image of "Thief," "Player," or "Alcoholic/Drunk" did significantly worse than other respondents on internal consistency (Chaiken and Chaiken, 1982:243).

Age: Rand researchers found older respondents to have fewer inconsistencies than younger respondents (Ibid.:244). For the Colorado sample, there is no relationship between age and internal consistency.

Education: Although Rand researchers found no relationship between education and external validity, better educated respondents did better on the internal quality measures. No relationship between education and internal consistency exists for the Colorado sample.

Race: The Colorado data indicate that there is no relationship between race of the respondent and internal

consistency. Table 5.16 presents the mean internal consistency error scores, by race, for Colorado respondents.

Table 5.16

Internal Consistency and Race: No Relationship

Race	Mean Quality Score (Percent of Error)	Minimum-Maximum
Anglo	.3984	.2333 - .8000
Black	.3456	.3103 - .3810
Hispanic	.3529	.2857 - .4500

p = .9083

Self-Reported Crime: There was no correlation between lambda rates and internal quality in the three-state sample (Chaiken and Chaiken, 1982:245). This is also the case with the Colorado sample as shown in Table 5.17.

Table 5.17

Annualized Crime Rates (Lambda) and
Internal Consistency: No Relationship

Crime Type	r
Burglary	.2201
Robbery	-.2297
Assault	-.1699
Theft	-.1518
Auto Theft	-.0675
Forgery	-.1976
Fraud	.0404
Drugs	-.1225

$p > .049$

Summary of Items Used to Construct the Score

Internal confusion refers to answering questions in a nonsensical fashion, such as not following the arrows filtering questions, or providing impossible dates for age at first arrest and age at which the respondents first began committing crimes. Twenty-three indicators were developed, following Rand's procedures in part, in an attempt to assess the extent of internal confusion of Colorado respondents.

The experience of surveyors in the field who responded to numerous questions about skip patterns, or question filters, led to the decision to closely track this aspect of the survey design. For this reason, 14 of the internal confusion indicators pertain to skip patterns.

The Inmate Survey contains one page of questions for each of two additional time periods. These time periods are identified as the two year period before the current measurement period, and the two year period before that. The assessment of internal confusion addresses the consistency of information, where available, reported by respondents in these two time frames.

Table 5.18 presents the percentage of cases matching or not on indicators of confusion. The first item examined, which looks for consistency of reported ages at first arrest and age at first committing crimes, does not match for 14.4 percent of the respondents. This error rate is quite high when compared to the Rand findings for the three-state sample (two percent for prisoners, 4 percent for respondents in jail).

Table 5.18

                    Indicators of Internal Confusion

                                         Percent of Respondents:
                                    Consistent Inconsistent (n)

	Consistent	Inconsistent	(n)
1. Said did crimes before age 18 and age first done is 18 or younger	85.6	14.4	188
2. Answers arrest question for crime he says he did	91.7	9.3	216
3. Included current offense in crimes description (item 11, p.40)	74.5	24.6	302
4. Skip pattern followed:			
- for jobs (p. 13)	91.4	8.6	313
- for juvenile property crime (p.3)	99.7	.3	313
- for juvenile violent crime (p.4)	99.0	1.0	313
- for drug use (p.14)	82.8	17.2	128
- for Part C crime types			
Burglary	100.0	0.0	313
Robbery (person)	98.2	1.8	313
Robbery (business)	99.0	1.0	313
Assault (during burg.)	100.0	0.0	313
Assault (not during burg.)	100.0	0.0	313
Theft	99.7	.3	313
Auto Theft	99.0	1.0	313
Forgery	100.0	0.0	313
Fraud	100.0	0.0	313
Drugs	100.0	0.0	313
5. Checks "did none of these crimes" and checks "crimes done" (p. 42)	99.7	.3	313
6. Checks "did none of these crimes" and checks "crimes done" (p. 43)	99.0	1.0	313
7. Dates of Window Period II consistent with Calendar (p.42)	95.2	4.8	313
8. Dates of Window Period III consistent with Calendar (p.43)	94.5	5.1	313
9. Did or did not do time in Window Period II (p.42, p.5)	95.8	4.2	313
10. Did or did not do time in Window Period III (p.43, p.5)	94.9	5.1	313

This error rate is quite high when compared to the Rand findings for the three-state sample (two percent for prisoners, 4 percent for respondents in jail).

Item 2, which checks answers to arrest questions for crime he says he did not do, has weak face validity. While it is possible for individuals to be arrested for crimes they did not do, the probability of this occurring is not known. The low error rate obtained by Rand researchers (3 percent did not match) probably led them to refrain from questioning the face validity of this item. The Colorado error rate of nearly ten percent may reflect confusion on the part of respondents or may reflect accurate, if rare, events.

The third item, which addresses whether or not the respondent included the offense for which he was arrested and is now doing time for, is a particularly important one. The time of this arrest marks the end of the measurement period for each respondent, a critical component in the data required to estimate individual annual offending rates. From the point of arrest for the instant offense, the respondent is to go back from 13 to 24 months (depending upon what month of the year the arrest occurred) to report all his criminal activity as questioned in Part C, the Crime Count Section of the survey. As the above item indicates, one-quarter of the sample did not include their offense leading to the current incarceration when reporting criminal activity in Part C, even though the survey instructs

respondents to include this activity. For these respondents, it may be that the crime rate findings are underestimated, or that the measurement period as defined by the respondent is questionable. This item will be explored further in the following analysis section.

As mentioned at the beginning of the Internal Confusion section, the field experience of the researchers raised doubts about the skip pattern format because of the numerous questions about them from respondents. Surprisingly, the skip patterns which directly relate to the lambda estimates are followed in nearly every case, but the skip patterns relating to juvenile history are not followed as consistently. Interestingly, the two skip patterns examined which relate to lifestyle descriptions (job history and drug use) reflect considerable confusion, particularly when compared to the four percent and 3 percent error rate, respectively, found in the three-state sample. This issue may be related to measurement problems, since job and drug histories are difficult to collect satisfactorily from official documents as well. Also, the skip patterns are not systematically occurring earlier in the survey compared to fairly similar patterns throughout the crime count section. Future research in this area should modify skip patterns so they appear very systematically or are formatted more clearly than the items early in the inmate survey.

Items five through ten, pertaining to criminal activity during the two-year period before the current window period,

and then the two year period before that, suggest a relative lack of confusion for the items examined. Future research of this sort may want to include some of the items in the two latter window periods in a comparison of self-report data with official records.

Internal Confusion Scores for the
Colorado Sample

As indicated by the aggregate data in Table 5.18, respondents tend to not be confused by the format of the questionnaire or the other indicators of confusion examined here. This low error rate is also indicated in Table 5.19. Thirty percent of the sample show no signs of confusion; 70 percent of the sample have a five percent or less error rate.

Table 5.19

Internal Confusion Scores for the Colorado Sample:
Percent of Inconsistent Items

Inconsistent Items	Percent of Sample	Cum. Percent
0.0%	30.0	30.0
1 - 5%	40.3	70.3
6 - 10%	21.1	91.4
11 - 15%	7.3	98.7
16 - 20%	.6	99.4
Over 20%	.6	100.0

Range of inconsistent indicators: 0 - 7 (numerator)
Range of possible indicators: 19 - 22 (denominator)
Mean error rate: 5%
Median error rate: 4.8%

Relationship Between Offender Characteristics
and the Extent of Internal Confusion

Self-Image: As previously mentioned, self-images of
"Family Man" and "Straight" are related to external validity
and internal consistency, respectively. Regarding internal
confusion, self-images of violent behavior and drug dealing
are weakly related statistically to high internal confusion
scores. This suggests that those respondents who have the
strongest violent or drug dealer self-images are more likely
to score poorly on the internal confusion indicators. These
relationships are presented in Table 5.20.

Table 5.20

Self-Image and Internal Confusion

Self-Image	r
Fighter	.1264
Violent Person	.1778
Bad Temper	.1249
Drug Dealer	.1883

p < .01

Rand researchers did not find relationships between the
self-images listed in Table 5.20 and external or internal
reliability.

Age: Rand researchers found the internal quality of
responses by older respondents to be significantly lower
than for younger respondents. The Colorado data, however,
indicate there is no relationship between the age of the
offender and the extent of internal confusion.

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Education: In the three-state sample, better educated respondents had lower error rates for internal confusion. For the Colorado group, however, there is no relationship between education and internal confusion, whether measured by self-reported education or Department of Corrections educational test scores.

Race: The Colorado data indicate there is no relationship between race of the respondent and internal confusion. Rand researchers found black respondents to have significantly poorer internal data quality. Table 5.21 presents the mean internal confusion error scores, by race, for Colorado respondents. The mean error rate varies little

Table 5.21
_____
Internal Confusion and Race: No Relationship
_____

Race	Mean Quality Score (Percent of Error)	Minimum-Maximum
Anglo	.0244	.0000 - .0500
Black	.0750	.0500 - .1000
Hispanic	.0695	.0000 - .1500

p = .3157
_____

among the three groups, from 2.4 percent for Anglo respondents to 7 and 8 percent for Blacks and Hispanics, respectively.

Criminal History: Table 5.22 presents the correlation data between three criminal history variables and internal

confusion. The data indicate there is a significant but weak relationship between extent of criminal history and poor internal confusion. This finding is consistent with results discussed earlier in this chapter regarding the presence of a statistical relationship between external validity and criminal history.

Table 5.22

Internal Confusion is Weakly Related to Criminal History

Criminal History Variable	r
Number of times arrested	.1677
Number of felony convictions	.1552
Number of prior paroles	.1287

$p < .01$

Self-Reported Crime: As shown in Table 5.23, there is no correlation between lambda rates and internal confusion.

Table 5.23

Annualized Crime Rates and Internal Confusion:
No Relationship

Crime Type	r
Burglary	.0974
Robbery	.2334
Assault	.1402
Theft	.0404
Auto theft	-.0786
Forgery	.1123
Fraud	.2871
Drugs	.0738

$p > .046$

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This finding is consistent with the findings from the three-state analysis. Except for the crime of assault, which was significantly related to external validity, Rand researchers report, "...(f)or all the other crime types, the correlations are not significant at the .01 level, and moreover the signs of the correlations are not consistent from one state to another" (Chaiken and Chaiken, 1982:245).

The Analytical Impact of Cases with
Poor Internal Data Quality Scores

For this portion of the analysis, the internal consistency and internal confusion scores are combined to obtain an overall internal data quality summary score. The group is then divided according to the highest 80 percent/lowest 20 percent error scores. Finally, these two groups are examined separately to obtain median offense rates for each crime type, and then the medians for the two groups are compared. Table 5.24 presents the results of this analysis.

According to the information presented in Table 5.24, the estimated annualized offending rates for individuals with high data quality and poor data quality change by a factor of one or less except for theft, forgery and drugs. For theft, the group with high quality reports a median of eight thefts annually compared to a median of six thefts annually for the total group, a difference of two thefts per year.

For forgery, the difference is slightly greater.. The median offending rate estimates for forgers with high internal data quality is seven per year compared to 4.8 per year for the total group. Those with high internal data quality report annualized median offending rates of 206 compared to 249 for those with low quality, and 361 for the entire sample.

Table 5.24

Median Annual Offending Rates (Lambdas) for Cases
With High and Low Internal Data Quality

Crime Type	Total Group(a)	High Quality(b)	Low Quality(c)
Burglary	5.3	5.0	4.5
Business Robbery	1.3	3.0	2.0
Personal Robbery	1.7	2.2	1.0
Assault	1.7	2.0	2.0
Theft	6.0	8.0	5.0
Auto Theft	3.3	3.0	2.5
Fraud	3.6	3.5	4.0
Forgery	4.8	7.0	2.5
Drugs	361	206	249

(a) Values represent the median annual offending rate for Colorado offenders reporting activity in these crime types (see Chapter Three).
(b) Values represent the median annual offending rate for the 80 percent of the Total Group (first column) who have the highest scores.
(c) Values represent the median annual offending rate for the 20 percent of the Total Group who have the lowest internal data quality scores.

It is interesting to note that the lambda medians for forgery and drug offenses for the groups with high and low external validity (discussed earlier in this chapter) also

vary the most. This suggests that offending rates for forgery and drug crimes may be less stable than lambdas for other offense types.

Summary: External and Internal Data Quality

This chapter has focused on the quality of the data obtained from inmate self-reports. Where possible, the model developed by Rand researchers to assess data quality is followed here so that the two studies may be compared. A summary of the findings from the Colorado project is listed below.

External Validity (Self-Report and Official Record Data)

*All official record indicators were present for analysis for 75 percent of the sample.

*Comparing self-report and official records, nearly 70 percent of the sample matched on over 70 percent of the indicators; 77 percent of the Rand sample matched on over 70 percent of the indicators.

*There is a weak statistical relationship between the extent of prior criminal activity and the match between self-reports and official record reliability scores: as past criminal activity increases, error rates increase, a finding consistent with the Rand study.

*Older respondents have a better match with official records than younger respondents, a finding which concurs with the Rand three-state data.

*Respondents who consider themselves a "Family Man" are more likely to have high external reliability data quality.

*There is no relationship between individual annual offending rates (lambda) and external validity.

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*The more recent the current arrest, the higher the consistency between self-report and official record indicators.

*There is no relationship between a respondent's race and his external validity data quality score.

*Median lambda estimates across crime types vary by no more than a factor of 1.9 when offenders with poor external validity data quality are removed from analysis. Drug lambdas, however, vary considerably: when omitting from the calculation offenders with low external reliability scores, the median annual offending rate for drugs is 206 compared to 361 when the entire sample is observed.

*Seven percent (23 cases) of the Colorado respondents were resurveyed within three months of the initial survey. Reliability on the ten items examined is quite high (alpha is .88 or higher), suggesting that the prisoners' responses are generally consistent over time.

Internal Data Quality (Within-Questionnaire Consistency and Confusion)

*Respondents were instructed to include their current incarceration crime in the number of crimes reported during the measurement period. One-fourth of the Colorado sample (25.4 percent) indicate they did not include their current offense when answering the survey questions (this compares to 46 percent of the Rand sample). Sixty percent of this group report activity during the study period, so for this group annualized offending rates are likely underestimated.

*Just over half (52 percent) of the respondents "matched" on 70 percent or more of the internal consistency indicators.

*Seventy percent (70%) of the Colorado respondents had less than a five percent error rate for internal confusion indicators.

*All (100%) of the respondents who describe their self-image as "Burglar" report committing burglary during the measurement period. Of those who consider themselves a "Drug User," 64 percent report committing a drug offense during the measurment period.

*Three criminal history variables--number of prior arrests, number of felony convictions and number of parole releases--are positively related to internal consistency.

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*The "skip pattern" format which requires respondents
to skip one or two pages when survey questions do not
apply is followed nearly 100 percent of the time, in
spite of numerous questions about skip patterns raised
by respondents during the survey process. The greatest
error rate (17 percent) occurred early in the
questionnaire for questions of drug activity (not
counts of specific drug offenses).

*Indicators concerning the two year time period
preceding the window period, and the two year time
period before that, matched for 95 percent of the
respondents.

*Respondents who consider themselves "Straight" are
more likely to have good internal consistency.

*Self-images involving violent behavior and drug
dealing are statistically related to poor internal
confusion.

*Median lambda estimates across crime types vary by no
more than a factor of 2.2 when offenders with poor
internal data quality are removed from the
calculations. Drug lambdas, however, vary
considerably: for the entire sample, the estimated
median drug lambda is 361 offenses per year, but for
those with good internal data quality, the lambda
estimate is 206 and for those with poor internal data
quality the lambda estimate is 249 per year.

*Median lambda estimates for forgery vary more than
other crimes (except drugs) for both the external
reliability and internal reliability analyses,
suggesting that this estimate may be less stable than
those for other crime types. This was also true for
the Michigan respondents in the Rand study (Chaiken and
Chaiken, 1982:249).

*There is no relationship between race and internal
data quality for the Colorado sample although Rand
researchers found that black inmates had significantly
poorer interhal data quality.

*There is no relationship between age, education,
recency of current arrest, self-reported conviction
offenses or annual offending rates (lambda) and
internal data quality.

In sum, the major objective in this assessment of data

quality is the impact of cases with poor data quality on

estimates of lambda. When the 20 percent of the sample with the poorest external validity error rates are excluded from the lambda estimates, the Colorado median rates remain stable within a factor of 1.9 (excluding drugs). When cases with poor internal data quality are excluded from the lambda calculations, the median rates for each crime type remain stable within a factor of 2.2 (excluding drugs). Rand researchers found that, for most crime types, the estimates of lambda when the poor quality cases were removed varied by no more than two crimes per year (Chaiken and Chaiken, 1982:247).

The median lambda estimates for drug offenses vary considerably, with the entire sample median estimated at 361 drug offenses per year. When the sample is separated into subgroups of high and low data quality, the median lambda estimates range from 348 per year (low external data quality) to 206 per year (for both high external data and high internal data). Median drug lambdas for the entire sample and those with good data quality varied more than other offense types for California, Michigan and Texas (they varied by approximately 20 offenses per year) but not to the extent that they do in this analysis. This finding might indicate that high offending frequency rates for Colorado respondents should not be considered in terms of absolute values but rather as "rates over several hundred offenses per year."

Finally, according to this analysis, there appear to be no systematic biases in the data that would cause doubt on the overall quality of inmate self-reports, even though this analysis indicates there are weak statistical relationships between data quality and certain subgroups of offenders (summarized above). Inconsistencies between self-reports and official records may be related to the quality of official records or the truthfulness or memory problems of offenders, but a more likely explanation is that the data items are measuring different events. Future research in the area of data quality of offender self-reports should consider methods to analyze the extent and source of measurement error.

Table 5.25

The Distribution of Annualized Offending Rates
After Removing Cases with Poor External or Internal
Data Quality*

	Mean	Median	25th	75th	90th	(n)
Burglary	91.6	5.0	1.0	51.6	337.9	90
Bus. Robbery	32.9	1.5	1.0	6.5	50.7	30
Per. Robbery	37.5	2.5	1.0	6.0	42.2	25
Assault	5.6	2.0	1.0	5.8	10.0	64
Theft	231.9	7.0	2.0	158.0	790.3	98
Auto Theft	40.6	3.0	1.0	7.0	196.1	40
Forgery	140.0	5.0	2.0	77.4	215.4	58
Fraud	43.4	4.0	2.0	21.9	233.0	28
Drugs	1344.9	193.5	9.0	1827.6	5011.7	86
Total (not drugs)	232.7	8.0	2.0	157.2	668.5	190

The header "Percentiles:" spans the 25th, 75th, and 90th columns.

*Excluded are the 20 percent of each group (external and
internal quality groups) who obtained the poorest quality
scores.

APPENDIX A

Division of Criminal Justice

PRISON/JAIL SURVEY

| INSTRUCTIONS |

THERE ARE DIFFERENT TYPES OF QUESTIONS IN THE SURVEY.

TYPE 1 FOLLOW ANY INSTRUCTIONS OR ARROWS NEXT TO THE ANSWER YOU CHOSE, WHICH TELL YOU TO GO TO ANOTHER QUESTION, OR ANOTHER PAGE.

1. Have you watched a baseball game on T.V. in the last year?

YES [X]   NO [ ] ➡ go on to next page

2. In all, how many baseball games did you watch?

[ ] 11 or more   [X] 1 to 10

                                        How many?

                                        / 8 /

3. During how many months last year did you watch one or more baseball games on T.V.?

_____ Months   go on to next page ➡

4. In the months when you watched baseball games on T.V. how often did you usually watch them?

TYPE 2 CIRCLE ONE ANSWER NEXT TO EACH ITEM LISTED.

Before you were 18, how often did you play the following sports? (Circle one number next to each sport.)

	Often	Sometimes	Just Once or Twice	Never
Baseball...................	3	②	1	0
Basketball...............	③	2	1	0
Football.................	3	2	①	0
Golf.....................	3	2	1	⓪

TYPE 3 FOR MOST QUESTIONS CHOOSE ONE ANSWER FROM THE CHOICES LISTED AND CHECK THE BOX NEXT TO IT. SOME QUESTIONS HAVE INSTRUCTIONS THAT SAY "Check all that apply". FOR THESE CHECK THE BOXES NEXT TO ALL THE ANSWERS THAT APPLY TO YOU.

What sports have you ever watched on T.V.? (Check all that apply.)

[X] Football
[ ] Soccer
[ ] Stock car racing
[X] Baseball
[ ] Boxing
[X] Basketball
[ ] Tennis
[X] Other, what? _horse racing_

PART A

The first questions are about your background. Some of the questions ask you to think back about your life and to remember things that happened. Please really think about the questions and give the most accurate answers you can.

1. How old were you when you were first <u>arrested</u>--that is, officially charged by the police (an adult or juvenile arrest, other than a traffic violation)?

_____Years Old

25
''/

2. How old were you when you were first <u>convicted</u> of a criminal offense (an adult or juvenile conviction, other than a traffic violation)?

_____ Years Old

27
''/

3. What were the <u>main</u> reasons that you first got involved in crime? *(Check all that apply)*

☐₁ For excitement

29/

☐ Friends got me into it

30/

☐ To get money for high living - nice clothes, car, etc.

31/

☐ Lost my temper

32/

☐ To get money for drugs - had a habit

33/

☐ To get money for day to day living - self or family support

34/

☐ For the reputation

35/

☐ Everyone I knew was doing crimes - just a normal way of life

36/

☐ Other, what? _____

37/

4. How old were you at that time?

_____Years Old

38
''/

CARD 01

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5. Were you ever sent to a <u>local or county</u> juvenile facility such as a county youth camp, a home, or a juvenile hall?

NO ☐₁ YES ☐₂ ➡ How many times? _____ Times

6. Were you ever sent to a <u>statewide</u> or <u>federal</u> juvenile institution?

NO ☐₁ YES ☐₂ ➡ How many times? _____ Times

7. <u>Before you were 18</u>, did you ever do anything on this list?

   Broke into someplace
   Stole a car
   Stole something worth more
     than about $100
   Used a stolen credit card
   Forged something

YES ☐₁   NO ☐₂ ➡ **go on to next page** _____ ➡

8. How old were you when you first did any of these things?

   _____ Years Old

9. Before you were 18, how often did you do any of these things?

   ☐₁ Once or twice

   ☐₂ A few times

   ☐₃ Sometimes

   ☐₄ Often

CARD 01

10. <u>Before you were 18</u>, did you ever do anything on this list?

> Robbed someone
> Threatened someone with a gun or
>   knife or other weapon
> Hurt someone with a gun or knife
>   or other weapon
> Beat someone badly
> Raped someone

YES ☐₁   NO ☐₂   *50/*

11. How old were you when you
    first did any of these things?

    _____ Years old   *51*
                                                       ''/

12. <u>Before you were 18</u>, how often
    did you do any of these things?   *53/*

    ☐₁ Once or twice
    ☐₂ A few times
    ☐₃ Sometimes
    ☐₄ Often

13. <u>Before you were 18</u>, how often did you use each of the things on the
    list below? *(Circle one number on each line.)*

	Often	Sometimes	Just Once or Twice	Never	
Marijuana....................	3	2	1	0	*54/*
LSD/Psychedelics/Cocaine....	3	2	1	0	*55/*
Uppers/Downers..............	3	2	1	0	*56/*
Heroin......................	3	2	1	0	*57/*

CARD 01

The next questions are about your whole life, both as an adult and as a juvenile.

14. Altogether in your life, how many times have you been arrested? (Don't count traffic violations.)

- ☐ Once
- ☐ 2-3 times
- ☐ 4-6 times
- ☐ 7-10 times
- ☐ 11-15 times
- ☐ 16-25 times
- ☐ More than 25 times

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15. How many different terms have you served in a <u>local or county jail</u>? (If you are now in jail, include this term in your total count.)

- ☐ None
- ☐ 1-2 terms
- ☐ 3-5 terms
- ☐ 6-10 terms
- ☐ 11-15 terms
- ☐ 16-25 terms
- ☐ More than 25 terms

59/

16. How many times have you been on probation?

_____ Times   (OR)   ☐₀₀ Never

60
''/

17. How many different terms have you served in an <u>adult prison</u>? (If you are now in prison, include this term in your total count. <u>Don't</u> count parole revocations as a different term.)

- ☐ None
- ☐ 1 term
- ☐ 2 terms
- ☐ 3 terms
- ☐ 4 terms
- ☐ 5 terms
- ☐ 6 or more terms

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CARD 01

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18. How many times have you been on parole (count <u>each</u> <u>time</u> you were <u>released</u> on parole)?

           _____ Times   (OR)   ☐₀₀ Never

19. How many times have you had probation or parole revoked?

           _____ Times   (OR)   ☐₀₀ Never

20. Have you ever been committed to a drug treatment program?

      ☐₁ YES   ☐₂ NO

21. Altogether in your life, how many times have you been convicted of a <u>felony</u>?

             ☐ Never
             ☐ Once
             ☐ 2-3 times
             ☐ 4-6 times
             ☐ 7-10 times
             ☐ 11-15 times
             ☐ 16 or more times

PART B

1. Here is a set of statements about the law, prisons, police and men who get involved in crime. Read each statement carefully. Think about your own experience and people you know. Then decide how much you AGREE or DISAGREE with each statement. *(Circle one number next to each statement.)*

6=7/

	Strongly Agree	Agree	Disagree	Strongly Disagree	
Whenever someone gets cut or shot there is usually a good reason.....	1	2	3	4	8/
Men with a record get a bad deal in court............................	1	2	3	4	9/
It is possible to get so good at crime that you'll never get caught.	1	2	3	4	10/
One good thing about crime is the fun of beating the system..............	1	2	3	4	11/
If a man only does one or two crimes a year, chances are good he'll never get caught............	1	2	3	4	12/
You don't learn anything in jail or prison that helps you make it going straight....................	1	2	3	4	13/
No matter how careful you are, you won't always get away with crime...	1	2	3	4	14/
Alot of men would stay out of crime if sentences were longer..........	1	2	3	4	15/
Usually someone who gets cut or shot deserves it..................	1	2	3	4	16/
Committing crime is pretty much a permanent way of life..............	1	2	3	4	17/
If you keep doing crime, you know you will go to prison sometime.....	1	2	3	4	18/
In court, no one really looks out for the defendant's rights.........	1	2	3	4	19/
Men who are really good at crime never seriously think about going straight...........................	1	2	3	4	20/
Because of insurance, no one is really hurt by property crimes.....	1	2	3	4	21/
When you've figured it out, doing prison time is not too hard.......	1	2	3	4	22/
Crime is the easiest way to get what you want.....................	1	2	3	4	23/

2. Here is a list of things that can happen in a person's life. What are the chances each of these things would happen to you from doing crimes? (Circle one number next to each thing listed.)

	No Chance	Low Chance	Even Chance	High Chance	Certain	
Having friends...............	1	2	3	4	5	24/
Being bored..................	1	2	3	4	5	25/
Having money for necessities...............	1	2	3	4	5	26/
Getting arrested.............	1	2	3	4	5	27/
High living.................	1	2	3	4	5	28/
Having worries..............	1	2	3	4	5	29/
Owning expensive things...	1	2	3	4	5	30/
Having hassles..............	1	2	3	4	5	31/
Being my own man...........	1	2	3	4	5	32/
Having people look down on me......................	1	2	3	4	5	33/
Having a lot of money.....	1	2	3	4	5	34/
Going to prison for years.	1	2	3	4	5	35/
Having a family............	1	2	3	4	5	36/
Getting injured or killed....................	1	2	3	4	5	37/
Being happy................	1	2	3	4	5	38/

3. In the past, how many of the good things in the above list happened to you from doing crime?

☐ All of them
☐ Most of them
☐ Some of them
☐ A few of them
☐ None

39/

4. In the past, how many of the bad things in the above list happened to you from doing crime?

☐ All of them
☐ Most of them
☐ Some of them
☐ A few of them
☐ None

40/

CARD 02

154

5. Here is the same list of things that can happen in a person's life. What are the chances each of these would happen to you if you did not do crimes?   (Circle one number next to each thing listed.)

	No Chance	Low Chance	Even Chance	High Chance	Certain	
Having friends..........	1	2	3	4	5	41/
Being bored.............	1	2	3	4	5	42/
Having money for necessities...........	1	2	3	4	5	43/
Getting arrested........	1	2	3	4	5	44/
High living.............	1	2	3	4	5	45/
Having worries..........	1	2	3	4	5	46/
Owning expensive things..	1	2	3	4	5	47/
Having hassles..........	1	2	3	4	5	48/
Being my own man........	1	2	3	4	5	49/
Having people look down on me.................	1	2	3	4	5	50/
Having a lot of money....	1	2	3	4	5	51/
Going to prison for years.................	1	2	3	4	5	52/
Having a family..........	1	2	3	4	5	53/
Getting injured or killed................	1	2	3	4	5	54/
Being happy.............	1	2	3	4	5	55/

6. In the past, how many of the good things in the above list happened to you when you were not doing crime.

☐ All of them
☐ Most of them
☐ Some of them
☐ A few of them
☐ None

56/

7. In the past, how many of the bad things in the above list happened to you when you were not doing crime?

☐ All of them
☐ Most of them
☐ Some of them
☐ A few of them
☐ None

57/

155

CARD 02

8. Overall, in the past, how successful do you think you were in doing crime?

    ☐₁ Very Successful   58/

    ☐₂ Somewhat Successful

    ☐₃ Somewhat Unsuccessful

    ☐₄ Very Unsuccessful

9. What do you think the chances are that you will <u>try</u> to make it going straight when you get out? *(Circle the number that is your answer.)*

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No Chance		Low Chance		Some Chance		Good Chance		High Chance		Completely Certain

    59 '''/

10. What do you think the chances are that you will <u>actually</u> make it going straight on the outside? *(Circle the number that is your answer.)*

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No Chance		Low Chance		Some Chance		Good Chance		High Chance		Completely Certain

    62 ,,,/

11. What do you think the chances are that you will end up back in prison or jail after you get out? *(Circle the number that is your answer.)*

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No Chance		Low Chance		Some Chance		Good Chance		High Chance		Completely Certain

    65 '''/

CARD 02

156

1. The next section will be about the time before you were arrested for
   your present term. There is a blue card with a calendar on it. The
   instructions on this page tell you how to fill it out. Raise your
   hand if you have any trouble filling it out.

2. For the sentence you are now serving, in what <u>year</u> were you arrested?
   (If you were arrested several times for this sentence, use the earliest
   arrest.)

                         Year Arrested: _____   *8*
                                                                              ′ ′ ′ ′/

   Write that year where it says "Year Arrested" on the calendar.

3. In what <u>month of that year</u> was that arrest?

                         Month Arrested: _____   *12*
                                                                              ′ ′/

   Write "arrested" on the calendar in that month (for the "Year
   Arrested" line.)

4. Now, draw a line through all the months <u>after</u> that month (to the
   end of the year).

5. You will not be asked about anything that happened in the months you
   drew the line through.

6. What was the year <u>before</u> you were arrested?

                         Year Before Arrested: _____   *14*
                                                                              ′ ′ ′ ′/

   Write that year on the calendar where it says "Year Before Arrested".

7. During all the months on the calendar <u>before</u> you were arrested
   (including <u>both</u> years) were you ever locked up for a month or more?

        NO ☐₁   YES ☐₂➡ Put X's in all the months when   *18/*
                                you were locked up. (If you
                                can't remember exactly, think
                                about the time of year it was
                                and put X's in the number of
                                months you were locked up
                                around that time of year.)

                                              CARD 03

157

8. Now look at the calendar. All the blank boxes (without X's or lines) are months when you were on the street before you were arrested.

9. Count all.the blank boxes.
    How many months was that? ———————▶ _____ Months   *19*
                                                                     ''/

10. You will be asked about these
    months and <u>also</u> about the month
    you marked "Arrested". To get
    the total of these months, add   **+   1**
    one month and write the total   ————————
    here. ——————————————————————▶ _____ Total Street Months   *21*
                                                                     ''/

11. Write this total number in the box on the calendar where it says
    "STREET MONTHS ON THE CALENDAR". You will need this number in
    answering the next questions.

12. Underneath the month marked "Arrested," write "Include
                                                     this
                                                     month."

    This will remind you to include
    this month in your answers.

                                                                     23/

The next questions are about the STREET MONTHS ON THE CALENDAR (including
the month you were arrested). These are the months on the calendar that
do not have X's or lines in them.

13. Were you in the military service at all during this time?

NO ☐₁   YES ☐₂ ➠ Write "service" on the calendar   33/
                          months when you were in the
                          service.

14. Were you in the hospital for a month or more?

NO ☐₁   YES ☐₂ ➠ How many months was that?   34/

                                        Months   35
                          _____   ''/
                          Write "hospital" on the
                          calendar months when you
                          were in the hospital.

15. Were you going to school regularly during this time?

NO ☐₁   YES ☐₂ ➠ Write "school" on the calendar   37/
                          months when you were going to
                          school.

16. Think about all the different places you lived during the street months
     on the calendar. Did you move from one city or town to another?

NO ☐₁   YES ☐₂ ➠ How many different cities or   38/
                          towns did you live in?

                          _____ cities/towns   39
                                                         ''/

17. During the street months on the calendar did you have any jobs?
     (Include work release jobs.)
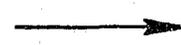
YES ☐₁   NO ☐₂ ➠ **go on to next page** ⟶   41/

18. During how many of
     these months did
     you work?

     _____ Months   42
                            ''/

19. During these months,
     how many different
     jobs did you have?

     _____ Jobs·   44
                          ''/

20. About how much did you make
     per month from these jobs?

     $ _____ Per month   46
                                ''''/

CARD 03

159

Look at the calendar. Remember to answer only for your "street months on the calendar".

21. During how many of the street months on the calendar were you married or living with a girlfriend?

_____ Months

50
''/

22. During these months, did you drink heavily, get drunk often, or have a drinking problem?

☐₁ YES   ☐₂ NO

52/

23. Did you use drugs at all during the months on the street? (Don't count prescribed drugs or marijuana.)

☐₁ YES   ☐₂ NO ➡ go on to next page ————————➤

53/

24. During how many of these months did you use drugs other than marijuana?

☐ Every month

☐ Most months

☐ About half the months

☐ Sometimes, but less than half
    the months

☐ Hardly ever

54/

25. During the months when you were using drugs, how often would you say you usually used each of the drugs listed below? *(Circle one number for each drug.)*

	Did not use at all	A few times a month	A few times a week	Everyday or almost everyday	More than once a day
Heroin/Methadone.......	0	1	2	3	4
Barbiturates/downers/ "reds"...............	0	1	2	3	4
Amphetamines/uppers/ "whites".............	0	1	2	3	4

55/

56/

57/

26. If you used heroin, about how much money did you spend on it in a typical day when you used it? (If you did not use heroin at all, write 0.)

$_____ Per day

58
'''/

27. If you used pills, (uppers or downers) about how many did you take in a typical day when you used them? (If you didn't use pills at all, write 0.)

_____ Pills

61
''/

CARD 03

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28. During the street months on the calendar, which of the following best describe the way you thought of yourself? *(Check all that apply)*

☐₁ Car thief   ☐₁ Family man

☐ Booster   ☐ Drug dealer

☐ Thief   ☐ Drug user/addict

☐ Working man   ☐ Alcoholic/drunk

☐ Misfit   ☐ Forger/check passer

☐ Burglar   ☐ Non criminal/straight

☐ Fighter/street fighter   ☐ Violent person

☐ Conman   ☐ Robber

☐ Gang member   ☐ Bad tempered

☐ Fence   ☐ Player

☐ Problem drinker   ☐ Other, what? _____

_____

8
''/
10
''/
12
''/
14
''/
16
''/
18
''/
20
''/
22
''/
24
''/
26
''/
28
''/

The next questions are also only about the STREET MONTHS ON THE CALENDAR.
Look at the calendar to help you remember what you were doing during these
months. These are months that do not have X's or lines in them.

I. 1. During the STREET MONTHS ON THE CALENDAR did you do any burglaries?
        (Count any time that you broke into a house or a car or a business
        in order to take something.)

                    YES ☐₁   NO ☐₂ ➡ go on to page 18   30/

    2. In all, how many burglaries did you do?

                ☐ 11 OR MORE   ☐ 1 TO 10   31/
                 │   How many?
                 ↓   ↓
    3. Look at the total street   ╱‾‾‾‾‾‾‾╱
        months on the calendar.   ╱   ╱ Burglaries   32
        During how many of those   ╱_____╱   ''/
        months did you do one or
        more burglaries?   go on to next page ─────────➤
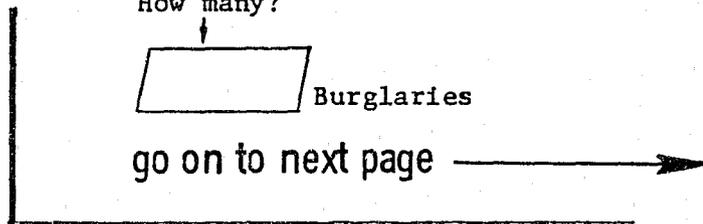
        _____ Months   34
                                                                               ''/

    4. In the months when you did burglaries,
        how often did you usually do them?

                    (CHECK ONE BOX)
                         ⬇   36/
        EVERYDAY OR   How many   ╱‾‾‾‾‾╱ How many days ╱‾‾‾‾‾╱   37
        ALMOST EVERYDAY ☐─per day?   ╱_____╱ ─ a week usually?╱_____╱   ''/
                                                                               39/

        SEVERAL TIMES   How many   ╱‾‾‾‾‾╱   40/
        A WEEK   ☐─per week?   ╱_____╱   41
                                                                               ''/

        EVERY WEEK OR   How many   ╱‾‾‾‾‾╱   43/
        ALMOST EVERY WEEK ☐─per month?   ╱_____╱   44
                                                                               ''/

        LESS THAN   How many   ╱‾‾‾‾‾╱   46/
        EVERY WEEK   ☐─per month?   ╱_____╱   47
                                                                               ''/

5. How many of these burglaries were you arrested for? (Include all of the times you were arrested for doing a burglary even if you were charged with something else.)

_____ Arrests for burglaries

6. How many burglaries were stores or other businesses?

☐ None
☐ A few
☐ Most
☐ All

7. When you entered or broke into places to do a burglary, how often did you carry a gun (real or fake) or knife or other weapon?

☐₁ All the time
☐₂ Most of the time
☐₃ About half the time
☐₄ Some of the time
☐₅ Once
☐₆ Never

8. What kind of weapon did you <u>usually</u> carry? *(Check all that apply)*

☐₁ Never carried weapon
☐ Hand gun
☐ Knife
☐ Rifle/Shotgun
☐ Other, what kind? _____

9. While you were doing a burglary, did you ever run into someone-- that is did you ever find someone inside a place or have someone find you?

NO ☐₁   YES ☐₂ ➡ How many times?_____

II. 1. During the STREET MONTHS ON THE CALENDAR did you rob any businesses?
That is did you hold up a store, gas station, bank, taxi or other
business?

YES ☐₁   NO ☐₂ **→ go on to page 20**   61/

2. In all, how many businesses did you rob?

☐ 11 OR MORE   ☐ 1 TO 10
                              How many?   62/

3. Look at the total street
months on the calendar.
During how many of those
months did you rob one or
more businesses?

/_____/ Business Robberies   63
                                        ''

go on to next page ──────→
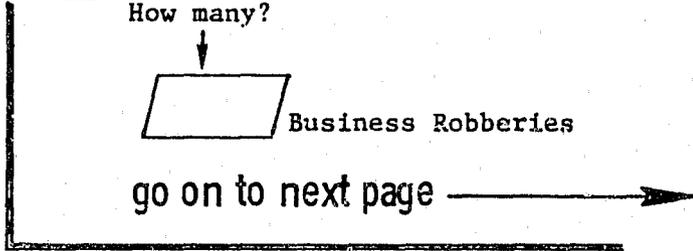
_____ Months   65
                            ''/

4. In the months when you did business
robberies, how often did you usually
do them?

(CHECK ONE BOX)
↓

EVERYDAY OR   How many   /_____/   How many days   /_____/   67/
ALMOST EVERYDAY ☐─→ per *day?*   → a week usually?   68
                                                                              ''/
                                                                              70/

SEVERAL TIMES   How many   /_____/   71/
A WEEK ☐─→ per *week?*   72
                                                                              ''/

EVERY WEEK OR   How many   /_____/   74/
ALMOST EVERY WEEK ☐─→ per *month?*   75
                                                                              ''/

LESS THAN   How many   /_____/   77/
EVERY WEEK ☐─→ per *month?*   78
                                                                              ''/

CARD 04

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5. How many of these robberies were you arrested for? (Include all of
    the times you were arrested for robbing a business even if you
    were charged with something else.)

    _____ Arrests for business robberies

6. When you robbed a business, how often did you carry or use a weapon
    to threaten or injure someone?

    ☐₁ All the time   10/
    ☐₂ Most of the time
    ☐₃ About half the time
    ☐₄ Some of the time
    ☐₅ Once
    ☐₆ Never

7. What kind of weapon did you <u>usually</u> carry or use? *(Check all that apply)*

    ☐₁ Never used weapon   11/
    ☐ Hand gun   12/
    ☐ Knife   13/
    ☐ Rifle/Shotgun   14/
    ☐ Other, what kind? _____   15/

III. 1. During the STREET MONTHS ON THE CALENDAR did you rob any persons, do any muggings, street robberies, purse snatches, or hold-ups in someone's house or car?   (Do not include any business robberies or hold-ups during a burglary that you already mentioned.)

YES ☐₁   NO ☐₂ ➡ **go on to page 22**   *16/*

2. In all, how many robberies did you do?

☐ 11 OR MORE   ☐ 1 TO 10   *17/*
                                   How many?

3. Look at the total street months on the calendar. During how many of those months did you rob someone?

_____ Months

/_____/ Robberies

go on to next page ———————➤

18
' '/

20
' '/

4. In the months when you robbed someone, how *often* did you do it (don't include robbing businesses)?

(CHECK ONE BOX)

EVERYDAY OR ALMOST EVERYDAY	☐ → per *day?*	/_____/ How many days → a week usually? /_____/	*22/* *23* *' '* *25/*
SEVERAL TIMES A WEEK	☐ → per *week?*	/_____/	*26/* *27* *' '/*
EVERY WEEK OR ALMOST EVERY WEEK	☐ → per *month?*	/_____/	*29/* *30* *' '/*
LESS THAN EVERY WEEK	☐ → per *month?*	/_____/	*32/* *33* *' '/*

CARD 05

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5. How many of these robberies were you arrested for? (Include all of the times you were arrested for robbing a person even if you were charged with something else.)

_____ Arrests for robbing people 35
〔〈/

6. When you robbed someone, how often did you carry a weapon or use a weapon to threaten or injure someone?

☐₁ All the time 37/
☐₂ Most of the time
☐₃ About half the time
☐₄ Some of the time
☐₅ Once
☐₆ Never

7. What kind of weapon did you <u>usually</u> carry or use? *(Check all that apply)*

☐₁ Never used a weapon 38/
☐ Hand gun 39/
☐ Knife 40/
☐ Rifle/Shotgun 41/
☐ Other, what kind? _____ 42/

IV. 1. During the STREET MONTHS ON THE CALENDAR, did you ever hurt or kill someone during a burglary (break-in) or a robbery?

YES ☐₁   NO ☐₂➡ go on to, page 24   43/

2. Altogether during these months how many people did you hurt or kill during a burglary or robbery?

_____ People   44
'''/'

3. What kind of weapon did you use to hurt or kill these people?
(Check all that apply)

☐₁ No weapon/Bare hands   46/
☐ Hand gun   47/
☐ Knife   48/
☐ Rifle/Shotgun   49/
☐ Other, what kind? _____   50/

4. Do you think that any of the people you injured might have died? If so, how many?

YES ☐₁➡ How many? _____ People   51/
52
'''/'

NO ☐₂

CARD 05

168

This page blank;

go on to next page ──────────────▶

V.   The questions on this page DO NOT include things that happened during a robbery or burglary.   Look at the calendar.   Remember to answer for the STREET MONTHS ON THE CALENDAR.

1.   Even if no one was hurt, during the STREET MONTHS ON THE CALENDAR did you assault someone, threaten someone with a weapon, shoot at someone, try to cut someone, or beat or strangle someone?

YES ☐₁   NO ☐₂ ➡ go on to page 26   *54/*

2.   Altogether, during those months how many times did you do these things?   (Not during a burglary or robbery)

_____ Times   *55*
                                                                             '' /

3.   How many people did you injure or kill?   (Not during a burglary or robbery)

_____ People   *57*
                                                                             '' /

4. How many times were you arrested when you assaulted, threatened, shot at, tried to cut, or beat or strangled someone?

_____ Arrests

5. When you did any of these things, how often did you use a weapon?

☐₁ All the time
☐₂ Most of the time
☐₃ About half the time
☐₄ Some of the time
☐₅ Once
☐₆ Never

61/

6. What kind of weapon did you use? *(Check all that apply)*

☐₁ No weapon/Bare hands
☐ Hand gun
☐ Knife
☐ Rifle/Shotgun
☐ Other, what kind? _____

62/
63/
64/
65/
66/

7. Do you think that any person you hurt might have died? If so, how many persons?

YES ☐₁ ➡ How many? _____ People

NO ☐₂

67/
68
''/

VI. 1. During the STREET MONTHS ON THE CALENDAR did you do any theft or boosting? That is, did you steal from a till or cash register, shop lift, or pick pockets, or take something from someone without their knowledge? (Do not include car theft.)

YES ☐₁   NO ☐₂ → go on to page 28   8/

2. In all, how many thefts did you do?

☐ 11 OR MORE   ☐ 1 TO 10   9/
                              How many?

3. Look at the total street months on the calendar. During how many of those __months__ did you do one or more thefts?

‗‗‗‗‗‗ Thefts   10 ''/

go on to next page

_____ Months   12 ''/

4. In the months when you did thefts, how __often__ did you usually do them?

(CHECK ONE BOX)

EVERYDAY OR ALMOST EVERYDAY	☐ → per *day?*	‗‗‗	How many days a week usually?	‗‗‗	14/ 15 ''/ 17/
SEVERAL TIMES A WEEK	☐ → per *week?*	‗‗‗			18/ 19 ''/
EVERY WEEK OR ALMOST EVERY WEEK	☐ → per *month?*	‗‗‗			21/ 22 ''/
LESS THAN EVERY WEEK	☐ → per *month?*	‗‗‗			24/ 25 ''/

5. How many of these thefts were you arrested for? (Include all of the times you were arrested for doing a theft even if you were charged with something else.)

_____ Arrests for Thefts

CARD '06

VII. 1. During the STREET MONTHS ON THE CALENDAR did you steal any cars, trucks or motorcycles?

YES ☐₁   NO ☐₂ ➡ go on to page 30   29/

2. In all, how many times did you steal a vehicle (a car, truck or motorcycle)?

☐ 11 OR MORE   ☐ 1 TO 10   30/
                                   How many?
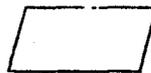
3. Look at the total street
    months on the calendar.
    During how many of those   ╱‾‾‾‾‾‾╱ Vehicle Thefts   31
    months did you steal one   ╱_____╱   ''/
    or more vehicles?
                                 go on to next page ————————➤
    _____ Months   33
                                                                   ''/

4. In the months when you stole a vehicle,
    how often did you usually steal one?

                    (CHECK ONE BOX)
                                                                   35/
EVERYDAY OR   ⬇   How many   ╱‾‾‾‾‾╱ How many days ╱‾‾‾‾‾╱   36
ALMOST EVERYDAY   ☐ ➡ per day?   ╱_____╱ ➡ a week usually? ╱_____╱ ''/
                                                                   38/
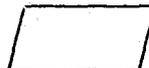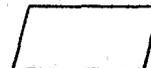
                                                                   39/
SEVERAL TIMES   How many   ╱‾‾‾‾‾╱   40
A WEEK   ☐ ➡ per week?   ╱_____╱   ''/

                                                                   42/
EVERY WEEK OR   How many   ╱‾‾‾‾‾╱   43
ALMOST EVERY WEEK ☐ ➡ per month?   ╱_____╱   ''/

                                                                   45/
LESS THAN   How many   ╱‾‾‾‾‾╱   46
EVERY WEEK   ☐ ➡ per month?   ╱_____╱   ''

CARD 06

174
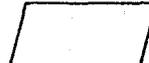
5. How many of these vehicle thefts were you arrested for? (Include all of the times you were arrested for stealing a vehicle, even if you were charged with something else.)

_____ Arrests for vehicle thefts   *48*
                                             ''/

6. When you stole vehicles did you <u>usually</u> sell the vehicle or its parts?

        YES ☐ 1   NO ☐ 2   ·   *50/*

CARD 06

VIII. 1. During the STREET MONTHS ON THE CALENDAR did you ever forge something, use a stolen or bad credit card, or pass a bad check?

YES ☐₁   NO ☐₂ ➡ go on to page 32   51/

2. In all, how many times did you forge something, use a bad credit card, or pass a bad check?

☐ 11 OR MORE   ☐ 1 to 10   52/
                                  How many?

3. Look at the total street months on the calendar. During how many of those months did you forge something, use a bad credit card, or pass a bad check?

_____ Forgeries/Cards/Checks   53 ''/

go on to next page ⟶

_____ Months   55 ''/

4. In the months when you did forgeries, used bad cards or passed bad checks, how often did you usually do these things?

(CHECK ONE BOX)

EVERYDAY OR   ☐⟶ How many   ⟋____⟋ How many days   ⟋____⟋   57/
ALMOST EVERYDAY   per day?   ⟶ a week usually?   58 ''/
                                                                         60/

SEVERAL TIMES   ☐⟶ How many   ⟋____⟋   61/
A WEEK   per week?   62 ''/

EVERY WEEK OR   ☐⟶ How many   ⟋____⟋   64/
ALMOST EVERY WEEK   per month?   65 ''/

LESS THAN   ☐⟶ How many   ⟋____⟋   67/
EVERY WEEK   per month?   68 ''/

CARD 06

176

5. How many of these forgeries, bad checks or credit cards were you
    arrested for? (Include all of the times you were arrested for doing
    one of these things even if you were charged with something else.)

    _____ Arrests

Page 32

IX. 1. During the STREET MONTHS ON THE CALENDAR did you do any frauds or swindles (illegal cons) of a person, business, or the government?

YES ☐₁   NO ☐₂ ⟶ go on to page 34   8/

2. In all, how many frauds or swindles did you do?

☐ 11 OR MORE   ☐ 1 TO 10   9/
                           How many?

3. Look at the total street months on the calendar. During how many of those <u>months</u> did you do one or more frauds or swindles?

_____ / Frauds or Swindles   10 ''/

go on to next page ⟶
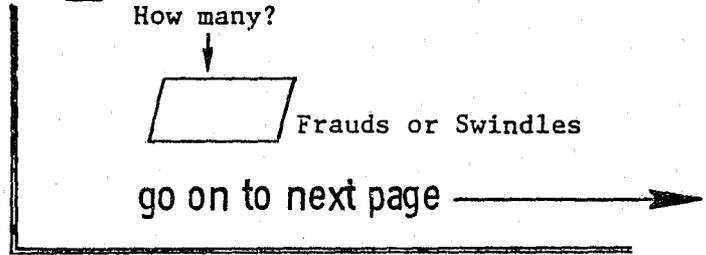
_____ Months   12 ''/

4. In the months when you did a fraud or swindle, how <u>often</u> did you usually do them?

(CHECK ONE BOX)

EVERYDAY OR ALMOST EVERYDAY ☐ ⟶ How many per *day?* _____ / ⟶ How many days a week usually? _____ /   14/ 15 ''/ 17/

SEVERAL TIMES A WEEK ☐ ⟶ How many per *week?* _____ /   18/ 19 ''/

EVERY WEEK OR ALMOST EVERY WEEK ☐ ⟶ How many per *month?* _____ /   21/ 22 ''/

LESS THAN EVERY WEEK ☐ ⟶ How many per *month?* _____ /   24/ 25 ''/

CARD 07

178

5. How many of these frauds or swindles were you arrested for? (Include all of the times you were arrested for doing a fraud or swindle even if you were charged with something else.)

_____ Arrests for frauds or swindles

27
''/

CARD 07

X. 1. During the STREET MONTHS ON THE CALENDAR did you ever deal in drugs? That is, did you make, sell, smuggle or move drugs?

YES ☐₁   NO ☐₂➡ go on to page 35   29/

2. In all, how many drug deals did you do?

☐ 11 OR MORE   ☐ 1 TO 10   30/
                           How many?

3. Look at the total street months on the calendar. During how many of those <u>months</u> did you do one or more drug deals?

_____ / Drug Deals   31
                                            ''/

go on to next page ————————➡

_____ Months   33
                          ''/

4. In the months when you did drug deals how <u>often</u> did you usually do them?

(CHECK ONE BOX)

⬇

EVERYDAY OR ALMOST EVERYDAY	☐ ➝	How many per *day?*	____	➝ How many days a week usually?	____

35/
36
''/
38/

SEVERAL TIMES A WEEK   ☐ ➝ How many per *week?*   ____   39/
40
''/

EVERY WEEK OR ALMOST EVERY WEEK   ☐ ➝ How many per *month?*   ____   42/
43
''/

LESS THAN EVERY WEEK   ☐ ➝ How many per *month?*   ____   45/
46
''/

CARD 07

5. How many of these drug deals were you arrested for?

_____ Arrests for drugs

6. What kind of drugs did you deal? *(Check all that apply.)*

☐₁ Heroin   50/

☐ Methadone   51/

☐ Uppers   52/

☐ Downers   53/

☐ Cocaine   54/

☐ Marijuana   55/

☐ PCP/Angel Dust   56/

☐ Other, what? _____   57/

CARD 07

XI. 1. This is a list of reasons men have given for doing crimes. <u>Go through</u> <u>the whole list</u> and show how important <u>each</u> reason was for the crimes you did during the STREET MONTHS ON THE CALENDAR. *(Circle a number for each reason.)*

	Did Not Happen/Does Not Apply	Not Important At All	Slightly Important	Somewhat Important	Very Important	
Losing your job......	0	1	2	3	4	58/
Heavy debts..........	0	1	2	3	4	59/
Good opportunity.....	0	1	2	3	4	60/
Couldn't get a job...	0	1	2	3	4	61/
Revenge or anger.....	0	1	2	3	4	62/
Excitement and kicks.	0	1	2	3	4	63/
To get money for good times and high living.............	0	1	2	3	4	64/
Friends' ideas.......	0	1	2	3	4	65/
To get money for drugs..............	0	1	2	3	4	66/
To get money for rent, food, self support...........	0	1	2	3	4	67/
Just felt nervous and tense..........	0	1	2	3	4	68/
Blew up--lost your cool...............	0	1	2	3	4	69/
Because you had taken drugs........	0	1	2	3	4	70/
Because you had been drinking..........	0	1	2	3	4	71/

2. Again look at the calendar. During the STREET MONTHS ON THE CALENDAR how much of your total income came for crime?

72/

☐₀ 0%

☐₁ Less than 10%

☐₂ 10% to 25%

☐₃ 25% to 50%

☐₄ More than half

CARD 07

182

3. In a typical month during the STREET MONTHS ON THE CALENDAR, about how much money did you make from all your crimes?

$ _____ per month

8
''''/

4. Look at the calendar. During the STREET MONTHS ON THE CALENDAR, how many times were you arrested for each of the following crimes? Count an arrest even if you did not actually do the crime you were arrested for. (Check NONE *if not arrested for that crime.*)

BURGLARY   _____ arrests (OR) NONE ☐co   12
''/

ROBBERY OR
ARMED ROBBERY   _____ arrests (OR) NONE ☐   14
''/

ASSAULT,
AGGRAVATED ASSAULT OR
ASSAULT WITH A DEADLY WEAPON   _____ arrests (OR) NONE ☐   16
''/

MURDER OR
MANSLAUGHTER   _____ arrests (OR) NONE ☐   18
''/

AUTO THEFT,
MOTOR VEHICLE THEFT   _____ arrests (OR) NONE ☐   20
''/

THEFT, GRAND THEFT,
LARCENY OR GRAND LARCENY   _____ arrests (OR) NONE ☐   22
''/

FORGERY,
USE OF A STOLEN OR
BAD CREDIT CARD
OR BAD CHECK PASSING   _____ arrests (OR) NONE ☐   24
''/

FRAUD   _____ arrests (OR) NONE ☐   26
''/

SELLING DRUGS,
POSSESSING DRUGS FOR SALE,
OR TRANSPORTING DRUGS   _____ arrests (OR) NONE ☐   28
''/

CARD 08

183

5. The questions on this page are only for men who did a burglary (break-in),
    robbery, theft, car theft, forgery, fraud or swindle during the STREET
    MONTHS ON THE CALENDAR. Did you do any of these crimes during these
    months?

    YES ☐₁   NO ☐₂ ➡ go on to next page ————————➤   30/

When you did these crimes, how often did you do each of the following
things? (Circle one number next to each line listed.)

	Never	Sometimes	Usually	Always	
Worked out a plan for the crime before you went out to do it.......	0	1	2	3	31/
Found places or persons with a lot of money.......................	0	1	2	3	32/
Learned about alarms, hours, or money transfers...................	0	1	2	3	33/
Decided to do the crime on the spot..	0	1	2	3	34/
Worked out an escape plan before doing the crime...................	0	1	2	3	35/
Got special equipment such as burglary tools.....................	0	1	2	3	36/
Worked with partners.................	0	1	2	3	37/
Lined up a fence or buyer before the crime..........................	0	1	2	3	38/
Used tips to line places up..........	0	1	2	3	39/
Only cased a place or person just before the crime..................	0	1	2	3	40/
Stole a car or got a gun that could not be traced................	0	1	2	3	41/
Followed a person to a safe place to do the crime....................	0	1	2	3	42/

CARD 08

6. These questions are only about the crime(s) for which you are now serving a sentence. What charge(s) were you <u>convicted</u> of that you are serving time for <u>now</u>? *(Check <u>all</u> that apply.)*

☐₁ Assault/ADW — 43.
☐ Auto Theft/Vehicle Theft — 44.
☐ Burglary — 45.
☐ Drug Possession — 46.
☐ Drug sales — 47.
☐ Forgery/Bad check/Bad credit card — 48.
☐ Fraud or Swindle — 49.
☐ Kidnapping — 50.
☐ Murder/Manslaughter — 51.
☐ Possession or receiving stolen property — 52.
☐ Rape — 53.
☐ Robbery — 54.
☐ Sex offense (other than rape) — 55.
☐ Theft/Grand theft/Larceny — 56.
☐ Weapons charge — 57.
☐ Other, what? _____ — 58.

7. For these convictions, what crimes, if any, do you think you really did? *(Check <u>all</u> that apply.)*

☐₁ Assault/ADW — 59.
☐ Auto Theft/Vehicle Theft — 60.
☐ Burglary — 61.
☐ Drug Possession — 62
☐ Drug sales — 63.
☐ Forgery/Bad check/Bad credit card — 64.
☐ Fraud or Swindle — 65.
☐ Kidnapping — 66.
☐ Murder/Manslaughter — 67.
☐ Possession or receiving stolen property — 68.
☐ Rape — 69.
☐ Robbery — 70.
☐ Sex offense (other than rape) — 71.
☐ Theft/Grand theft/Larceny — 72.
☐ Weapons charge — 73.
☐ Other, what? _____ — 74.
☐ Did <u>no</u> crime — 75.

185

CARD 08

8. Do you think you could do the same crime(s) again without getting caught?

        NO ☐₁   YES ☐₂➡ How many times?   *8/*

                               _____ times   *9*
                                                ' ' '/

9. Did you have a weapon during the crime(s)?

        NO ☐₁   YES ☐₂➡ What weapon?   *12/*
                                  (Check all that apply)

                               ☐₁ Hand gun   *13/*
                               ☐ Knife   *14/*
                               ☐ Rifle/shotgun   *15/*
                               ☐ Other, what? _____   *16/*

                               _____

10. Did you hurt or kill anyone during the crime(s)?

                                                17/
        NO ☐₁   YES ☐₂➡ How many? _____ Persons   *18*
                                                  ' '/

11. When you described your crimes during the STREET MONTHS ON THE CALENDAR, did you include any of the crimes you are now doing time on?

                       ☐₁ Yes   *20/*
                       ☐₂ No
                       ☐₃ Some but not all

12. How long have you served on your present sentence?

           _____ Years   and/or   _____ Months   *21*
                                                  ' ' ' ' '/

13. How long do you think you have left to serve on your present sentence?

           _____ Years   and/or   _____ Months   *26*
                                                  ' ' ' ' '/

14. Again look at the calendar. During the STREET MONTHS ON THE CALENDAR, <u>altogether</u> how many times did you do each of the following:

a. Beat or physically hurt someone badly.

0 ☐₀   1-2 ☐₁   3-5 ☐₂   6-10 ☐₃   More than 10 ☐₄   31/

b. Hustled or conned someone.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   32/

c. Cut someone with a knife or shot someone with a gun.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   33/

d. Burglary--broke into a home or business in order to take something.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   34/

e. Threatened to hurt someone with a gun, knife or other weapon.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   35/

f. Tried to kill someone.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   36/

g. Forged a check or other paper.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   37/

h. Stole a car.

0 ☐   1-2 ☐   3-5 ☐   6-10 ☐   More than 10 ☐   38/

i. Sold hard drugs.

0 ☐   Less than 10 ☐   Less than 50 ☐   Less than 100 ☐   More than 100 ☐   39/

CARD 09

187

The questions on this page are about a different time period, the two years just before the calendar.

1. Look at the calendar again. What was the earliest year you wrote on the calendar (the year before you were arrested)?

19____

2. In the box on this page write the two years just before that year:——▶

| 19____ and 19____ |

3. The next questions are about the two years you just wrote in the box. Think about what you were doing during those two years as you answer the next questions.

4. How old were you at the beginning of these two years?

_____Years Old

5. Did you do any time in a prison, jail or juvenile institution during these years?

☐₀ Did no time   (OR)   ☐ 1-6 months

☐ 7-12 months

☐ 13-18 months

☐ 19-23 months

☐ all 24 months

6. At any time during these years were you married or living with a girlfriend for more than a month?

☐₁ YES   ☐₂ NO

7. During these years did you have a job for more than a month?

☐₁ YES   ☐₂ NO

8. Did you use drugs (other than marijuana)?

☐₁ YES   ☐₂ NO

9. During these years did you do any of the following crimes? (Check all that apply)

☐₁ Burglary   ☐₁ Theft

☐ Robbery of businesses ☐ Car theft

☐ Robbery of persons   ☐ Forgery (Credit Cards/ Checks)

☐ Assault during a robbery ☐ Fraud or Swindle
   or burglary

☐ Assault/ADW   ☐ Drug deals

                         ☐ Did none of these crimes
52
' '/
54
' '/
56
' '/
58
' '/
60
' '/
62/

CARD 09

The questions on this page are about an even earlier time period, the
two years <u>before</u> those you described on the last page.

10. Look at the BOX you filled in on the page just before this. What is
    the earliest year in that box?

<div align="center">19____</div>

11. In the box <u>on this page</u> write
    the two years just before that year:———➤ | 19____ and 19____ |

12. Now think about what you were doing during these two years as you
    answer the next questions.

13. How old were you at the beginning of these two years?

<div align="center">_____ Years Old</div>

14. Did you do any time in a prison, jail, or juvenile institution during
    these years?

    ☐₀ Did no time   (OR)   ☐ 1-6 months

                                ☐ 7-12 months
                                ☐ 13-18 months
                                ☐ 19-23 months
                                ☐ all 24 months

15. At any time during these years were you married or living with a
    girlfriend for more than a month?

    ☐₁ YES   ☐₂ NO

16. During these years did you have a job for more than a month?

    ☐₁ YES   ☐₂ NO

17. Did you use drugs (other than marijuana)?

    ☐₁ YES   ☐₂ NO

18. During these years did you do any of the following crimes? *(Check all
    that apply.)*

    ☐ Burglary   ☐ Theft

    ☐ Robbery of businesses ☐ Car theft

    ☐ Robbery of persons   ☐ Forgery (Credit Cards/
                                  Checks)

    ☐ Assault during a robbery ☐ Fraud or Swindle
        or burglary

    ☐ Assault/ADW

                             ☐ Drug deals

                             ☐ Did none of these crimes

CARD 10

Page 44

PART E

1. What is your date of birth? _ _ / _ _ / _ _
                                 Mo   Day   Year

2. What is your race?

☐ 1 Black
☐ 2 Hispanic/Mexican-or Spanish-American
☐ 3 Anglo
☐ 4 Other

3. What is the highest grade you finished in school?

☐ 0 No schooling
☐ 1 6th grade or less
☐ 2 7th - 9th grade
☐ 3 10th - 11th grade
☐ 4 High school graduate
☐ 5 Some college
☐ 6 College graduate
☐ 7 Post graduate study

4. At the present time, are you: (check one)

☐ 1 Married
☐ 2 Widowed
☐ 3 Divorced
☐ 4 Separated
☐ 5 Never married

5. How many times have you been married?

☐ 00 Never   (OR)   _____ Times

CARD 10

190

APPENDIX B

This form describes the DCJ Jail/Prison Survey. It is also the form which you use to indicate that you agree to take the survey. If you agree to participate in the survey, print your name in the space on this form.

I agree to participate in a survey being conducted by Colorado Division of Criminal Justice (DCJ). I understand that DCJ is a State agency that does research on public policy issues. I understand further that the purpose of the survey is to collect information from men who have been recently convicted and sentenced to the Colorado Department of Corrections to find out our opinions and experiences with the criminal justice system, and what are our opinions, past activities, and experiences in doing crime.

I understand that I will be given a booklet of questions to answer. The booklet has a number on it but I do not need to print my name on this booklet. I agree to print my name in the space provided on this form which has the same number as the booklet. My name may be retained for followup research but my name will be kept in a separate place from my answers.

I understand that DCJ will use the numbered sheet to combine my answers with information about my arrests, classification, and treatment by the criminal justice system. Researchers will collect this information from records kept by criminal justice agencies--such as police, courts, jails, and prisons.

I understand that DCJ will use my answers to questions in the survey booklet and the information they collect from criminal justice agencies only for the purposes of research. Federal law requires that my answers and all of the other information collected by the researchers be kept strictly confidential. The law provides that copies of my answers are immune from legal process and cannot be admitted as evidence in any judicial or administrative proceeding without my written consent.* This means that unless I agree, no court, police department, jail or prison can get copies of my answers from the researchers. However, I understand that the law makes no mention of legislative proceedings and may not protect this information from a legislative subpoena.

I understand that my participation is completely voluntary. I do not have to participate in the survey and I do not have to give permission to DCJ to obtain information about my arrests, classification, and treatment by criminal justice agencies. By answering the questions in the survey I am agreeing to participate and to permit DCJ to obtain such information from criminal justice agencies. I can refuse to answer the questions either now or after I have seen the survey booklet. The only benefits to me from answering all the questions are that I will receive a payment of $5.00 and that I may later be asked to volunteer to participate in another survey, for which I will also be paid.

FIRST	LAST	Survey Number

---

* 42 U.S. Code 3771(a) says:

"No officer or employee of the Federal Government, nor any recipient of assistance under the provisions of this chapter shall use or reveal any research or statistical information furnished under this chapter by any person and identifiable to any specific private person for any purpose other than the purpose for which it was obtained in accordance with this chapter. Copies of such information shall be immune from legal process, and shall not, without the consent of the person furnishing such information, be admitted as evidence or used for any purpose in any action, suit, or other judicial or administrative proceedings."

APPENDIX C

Notice to Inmates

The Division of Criminal Justice, a state agency that does
research on criminal justice issues in Colorado, will be
doing a survey of men in this facility. This is part of a
statewide survey of men recently sentenced to the Department
of Corrections. You will be scheduled for a meeting where
the researchers will explain the survey. You may then choose
whether or not to take the survey. If you choose to take the
survey, it will be given at that meeting. The survey will
take about one hour and you will receive $5.00 to your account.

APPENDIX D
CLASSIFICATION OF PERFORMANCE
OF 7–POINT SCALE:
BURGLARS AND ROBBERS
(N=110)

CUT POINT 7-POINT SCALE	MEAN	NO. OF OFFENDERS		SELECTION RATIO FOR HI RATE(%)	FALSE POSITIVE RATE(%)	FALSE NEGATIVE RATE(%)	NUMBER OF ERRORS			RIOC
		HI RATE	LO RATE				FALSE POS	FALSE NEG	TOTAL N	
0	1.01	0	13	100	75.5	0	83	0	83	INDETER
1	16.0	1	9	88.2	72.2	0	70	0	70	100
2	13.2	3	22	79.1	70.1	4.5	61	1	62	82.3
3	30.0	5	19	56.4	62.9	8.3	39	4	43	66.0
4	27.0	6	14	34.6	52.6	12.5	20	9	29	49.6
5	37.4	7	5	16.4	33.4	16.3	6	15	21	33.6
6	45.6	4	1	5.5	16.7	21.2	1	22	23	13.8
7	153.1	1	0	.9	0	23.6	0	26	26	2.9
TOTAL		27	83	----	----	----	----	----	----	----

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APPENDIX E
COLORADO
CRIME RATES

	BURG	BUS ROBB	PERS ROBB	TOTAL ROBB	ASSLT	THEFT	AUTO	FORG	FRAUD	DRUGS	TOTAL W/O DRUGS	TOTAL
% ACTIVE	29	11	10	17	25	34	14	20	10	32	65	67
25TH %	1.55	.70	.80	.75	.80	2.19	.99	2.0	1.63	8.84	1.58	3.0
MEDIAN	4.92	1.26	1.71	1.63	1.84	6.00	3.27	4.0	3.6	252.13	6.36	22.0
75TH%	36.43	6.57	4.17	5.51	5.34	236.5	6.38	56.43	18.9	2412.3	114.84	745.37
90TH%	206.4	51.68	22.28	39.82	10	724.22	120.4	168.56	127.71	5418	587.56	3259.8
MEAN	67.47	41.62	20.45	37.90	4.33	192.87	35.83	95.27	35.09	1554.82	184.83	882.14

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