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DRAFT FINAL REPORT

The Timing of First and Later Incarcerations

by

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THE TIMING OF FIRST AND LATER INCARCERATIONS
DRAFT REPORT

1. INTRODUCTION

This report examines adult incarceration histories of men who were inmates in state correctional facilities in 1979 to describe factors associated with entering prison for the first time or returning to prison after release from a prior incarceration. The incarceration histories are restricted here to incarcerations for more serious offenses for which the men were sentenced as adults and exclude incarcerations for juvenile offenses and public order offenses or offenses for which the inmate was sentenced as a juvenile. Survival analysis and event-history analysis techniques are used to examine the timing of first and later incarcerations and factors accounting for variation in that timing. These factors include sociodemographic characteristics, criminal justice history, and substance use. The methodological approach and substantive findings have important implications for the study of the criminal career and incarceration histories.

The methodological approach used in this study suggests new ways to conceptualize and analyze the criminal career and incarceration histories. Incarcerations are conceptualized here as events that occur in time and analyses examine factors accounting for variation in the timing of events. Criminal offense histories and incarceration histories have not been studied in a multivariate, event-based framework. Survival analysis techniques that are used in this study to describe incarceration histories have been used in several prior studies to examine the length of time between two events, such as prison release and recidivism, and subgroup differences in the length of time between the two events. Despite its descriptive utility, survival analysis can only accommodate bivariate relationships such as between the timing of recidivism and specific sociodemographic characteristics.

The capabilities of survival analyses are complemented by and expanded in this study with event-history analysis techniques. Event-history analysis techniques enable the consideration of timing issues within a multivariate framework and also allow the testing of alternative models of variation in the rate of occurrence of events and the examination of the impact of changes in independent variables over time. Event-history analysis techniques may be particularly appropriate for analysis of dependent variables such as rates of recidivism that have been shown to vary over time.

Analyses described in this report thus utilize survival analysis and event-history techniques to examine incarceration histories in an event-based framework. This approach may also be useful for the study of the criminal career, but the substantive findings regarding incarceration histories may not be directly applicable to offense histories. The timing of incarceration events and factors affecting the timing of incarceration may differ from those factors affecting the commission of offenses, and not all offenses result in incarcerations. Thus, these findings concern the incarceration career rather than the criminal career.

Substantive findings from this study may, however, have implications for prison and community programs that are designed to decrease recidivism or deter imprisonment. Findings regarding processes associated with entering prison for the first time or returning to prison may suggest policies and programs that increase the length of time to the first incarceration or between incarcerations. Because the population being studied here includes only those who have been incarcerated, the findings cannot be generalized to provide information on those factors that prevent incarceration. Those who have been successful in avoiding incarceration are not included and, therefore, comparison of those who have and have not been incarcerated is not possible. If, however, a factor is found to be related to a slower rate of first or later incarceration, policies and programs might be directed toward that factor. For instance, if having a juvenile record is found to be related to the rate of incarceration,

school-based and community-based anti-delinquency programs might be intensified. Similarly, if the rate of incarceration is closely tied to a history of substance use, particularly an early age of onset, policies and programs directed toward preventing or delaying substance abuse may have positive effects. If the rate of incarceration is related to the number of years spent in prison, other things being equal, the findings might argue for shorter or longer prison terms.

This report describes prior related studies of recidivism and the criminal career, presents substantive findings from survival analyses and event-history analyses, and discusses the implications of the methodological approach and substantive findings for subsequent studies of criminal histories and incarceration histories.

2. STUDIES OF THE CRIMINAL CAREER AND RECIDIVISM

This section describes the substantive and methodological research literature relevant to the analyses reported here: prior studies of the criminal career that are largely based on offense histories and prior studies of incarceration histories and recidivism following incarceration. Several measurement issues relevant to the study of incarceration histories and offense histories are also discussed.

A. Criminal Career

Concern for the criminal career has burgeoned over the past decades, largely in response to attempts to better understand ways to prevent and intervene in the course of criminal activity over an individual's life span. The criminal career refers to the length of the criminally active period, age of initiation, and the type and severity of criminal involvement. Criminal careers vary in the length and intensity of involvement, from single offenses to sustained serious activity over a long period of time. The criminal career has been studied from a variety of perspectives and utilizing a variety of methodologies, as discussed in Petersilia, Greenwood and Lavin (1978), Petersilia (1980), and Farrington (1979).

Studies of the criminal career employ self-reported and official data in both retrospective and prospective research designs. They include studies of the birth cohorts traced by Wolfgang, Figlio, and Sellin (1972) in Philadelphia and by Shannon (1978, 1982) in Racine, Wisconsin; retrospective studies of prison populations conducted by The Rand Corporation (Petersilia, Greenwood, and Lavin 1978; Peterson, Braiker, and Polich 1980); and analyses of FBI criminal history data by Blumstein and others (Blumstein and Cohen 1979). Most of the studies have attempted to trace the evolution of criminal careers from the time of commission of the first offense (often measured by first arrest) to the time at which the offender has matured out of crime (or spent a long time without arrest). Some attention has been devoted to the probable effects of arrest or incarceration on the criminal career.

Analyses of these data have been of three major types. First, most studies have simply described the average age at which criminal events such as offense commission, arrest, or incarceration have occurred or the average length of the criminal career (see reviews in Petersilia 1980; Farrington 1979; Collins 1981; and Greenwood et al. 1976). Second, typologies have been used to describe the type of offenses committed (Glaser 1974; Gibbons 1968) or the timing of criminal events during the career (Cline 1980; Marsden and Meade 1980). Third, transition probabilities have been used to describe movement among offense types as the criminal career progresses (Wolfgang et al. 1972; Bursik 1980; Figlio 1981). Although some attempts at modeling criminal involvement have been made (Chaiken and Chaiken 1982), these studies have also not examined changes in criminal activity throughout the criminal career or factors accounting for those changes.

1. Structure of the Criminal Career

Most information about the criminal career thus concerns the structure of the criminal career, that is, such issues as the average age of onset, length of the criminal career, offense specialization, and progression in seriousness. Less frequently considered are process issues, that is, how the structure of the criminal career is produced. The result is that much knowledge about the criminal career is descriptive rather than analytical. A brief review of current knowledge concerning the structure of the criminal career is provided below.

Age of onset. Individuals typically become involved in criminal acts during the early to middle teens, while the peak age of arrests is in the middle to late teens. Petersilia, Greenwood, and Lavin (1978:13) for instance, report the average age of the first offense of their sample of incarcerated armed robbers as 14. Similarly, Wolfgang, Figlio, and Sellin (1972:130) found the mean age of onset to be 14, but their figure is based on first arrest rather than self-reported commission of offenses. Wolfgang et al. (1972:112) also find that the number of offenses committed peaks at age 16. Langan and Greenfeld (1983) find the average age at first admission to prison for their sample of over-40 inmates to be 25.

Length of the criminal career. The average length of the criminal career is probably 10 years, although limitations in research design preclude the gathering of accurate information about the length of a completed career. Involvement in crime increases until the early 20s, then declines and typically terminates about age 30. Petersilia, Greenwood, and Lavin (1978:14) estimate the average length of the criminal career to be 18 years, while Collins (1977:66) estimates it to be 8 years. Other estimates range from 5 and 1/2 years to 15 years (see reviews in Petersilia 1980:362; Farrington 1979:298-300). Langan and Greenfeld (1983) estimate the average career length within their sample of over-40 inmates to be 23 years. The divergence of findings on career length estimates is probably a function of the samples studied. For example, career length estimates based on general population samples are likely to produce comparatively low estimates. Studies of incarcerated prison populations are likely to produce high estimates. Prison populations almost surely overrepresent those with lengthy criminal careers.

A number of researchers find that offenders "mature out" of crime, that is, that criminal careers decline in the mid- to late 20s and are extinguished near age 30. Shannon (1978:137) shows that peak involvement is during the late teens and minimal by age 22. Collins (1980:171-172), reporting data from the Philadelphia cohort sample, shows a similar decline in offense commission by age 30, as measured by arrests.

Offense specialization. Criminal careers tend to be characterized by diversity in specific types of offenses, but there is some evidence of offense specialization by broad categories of offenses (see review in Petersilia 1980:352-353). Wolfgang et al. (1972:188), however, note the considerable difficulties in assessing the evidence concerning offense specialization. Bursik (1980), in reexamining transition matrices of Wolfgang et al. suggests there is definite evidence for specialization. Recent unpublished evidence from the second (1958) Philadelphia birth cohort shows there is an elevated probability that serious delinquents will commit robberies (Piper 1983).

Progression in seriousness. Little evidence has been found to support the assumption of a progression in seriousness throughout the adult criminal career (Shannon 1982; see review in Farrington 1979). However, those who are involved in serious crimes as juveniles are most likely to be involved in crimes as adults (Shannon 1982) and there is some evidence of a progression in seriousness during the juvenile career (Wolfgang et al. 1972:115). Offense seriousness scores for the 1945 Philadelphia birth cohort were found to increase monotonically with ages of arrest from 14 to 30 (Collins 1981:180).

2. Process Considerations

Although most information on the criminal career concerns the structure of the criminal career, that is, the timing and character of events within the offender's career, some information is available to describe factors that affect that structure. The following factors have been found to affect the length of the criminal career, the initiation into criminal activity, or continuation in criminal involvement. Each of these factors focuses more on process issues or how the criminal career takes form.

Involvement as a juvenile. Numerous researchers have documented the fact that involvement in criminal activity during the juvenile years, particularly early involvement, increases the likelihood of such activity as an adult and thus the length of the criminal career (Peterson, Braiker, and Polich 1980; Shannon 1982; see review in Petersilia 1980). The Bureau of Justice Statistics (1982) reports on the basis of its 1979 Survey of Inmates of State Correctional Facilities that 64 percent of current inmates had a prior incarceration and 30 percent had a prior juvenile incarceration.

Unemployment. Unemployment may not affect the initiation into criminal involvement but does affect the probability of continuing (Petersilia, Braiker, and Polich 1980; Petersilia, Greenwood, and Lavin 1978). Thornberry and Christenson (1984) find support for reciprocal causal

influences between crime and unemployment over the life span. Langan and Greenfeld (1983) find that those inmates with criminal involvement throughout their life cycle were most likely to have been unemployed preceding the commission of their imprisonment offense.

Drug and alcohol use. An extensive literature has recently developed regarding the relation of drug use and crime, but the relationship is complex. Drug use and criminal involvement may occur together, the result of a lifestyle that condones each, or drug use may cause criminal involvement (see Research Triangle Institute 1976). Ball et al. (1981) find a close relation between drug use and crime such that during periods of addiction, the number of crimes committed increased approximately six times but decreased during periods of nonaddiction. Inmates involved with both drugs and alcohol tend to be the most serious offenders and users of only alcohol less serious (Peterson, Braiker, and Polich 1980). Langan and Greenfeld (1983) similarly find more drug and alcohol use among those involved in crime throughout their life cycle. Of current inmates of state correctional facilities in 1979, the Bureau of Justice Statistics (1982) reports that over half had been regular users of drugs or alcohol during their lives and about half drank daily or almost daily in the year prior to the current incarceration. Almost one-third were under the influence of an illegal drug when they committed the crime for which they were incarcerated (Bureau of Justice Statistics 1983). Recent evidence reviewed by Gropper (1984) suggests that drug abuse is implicated in violent crime and that crime rates are elevated during periods of active addiction.

Race. Most researchers find a considerably higher level of involvement in crime and an earlier age-of-onset among minorities than among whites (Wolfgang et al. 1979:109; Shannon 1978). Minority offenders are more likely than whites to be given prison sentences and longer sentences but the discrepancy disappears when the higher level of criminal involvement is considered (Petersilia 1983).

Sanctions. A considerable literature exists on the deterrent effect of sanctions but there is disagreement over the appropriate timing of sanctions. A review of the literature by Petersilia (1980:367-368) finds that sanctions may actually increase the likelihood and severity of later involvement. Cohen (1983) examines the case for collective and selective incapacitation, citing the modest benefits of collective incapacitation and the considerable ethical and empirical problems in estimating selective incapacitation effects.

Most current knowledge about the criminal career thus concerns the structure of the criminal career, including the average timing of criminal career events such as offense commission, arrests, or incarcerations or the average length of that career. Some information has been gathered about offense specialization and the progression in seriousness during the criminal career. Less is known about process issues such as factors that affect the length of the criminal career. For instance, little is known about how certain background factors act to slow criminal involvement as the offender ages or the most effective length and timing of incarceration. Little is known about differences in involvement among age cohorts of offenders such as the changing structure of criminal careers or effect of background factors on that structure. Although some information is available about the initiation of criminal careers, the effect of schooling, employment, and drug and alcohol use has not been fully studied.

Some of the gaps in knowledge are due to the lack of data with which to describe the timing of events in the criminal career, for instance, the length of the average career or the specific points at which offenders "mature out" of crime. Others are related to the fact that the methodologies and techniques used to study the criminal career have provided only partial answers to questions regarding the timing of events. Causal models of the criminal career that incorporate information on background factors such as life events, prior criminal history, or demographic status, and that are based on longitudinal designs can address some of these issues.

B. Recidivism

A sizeable body of research has examined the likelihood of recidivism and factors affecting recidivism, for measures of recidivism ranging from the commission of new criminal acts to subsequent arrests or imprisonment after initial arrests or imprisonment. Some of the substantive issues, such as the impact of sociodemographic characteristics on recidivism, were reviewed above in the discussion of factors affecting the criminal career. Other studies (see reviews in Lipton, Martinson and Wilks 1975; Greenberg 1977; Adams 1977) examine the impact of criminal justice programs and policies on subsequent criminal activity and imprisonment. While this substantive literature is too extensive to be reviewed in any detail here, this section provides an overview of methodological issues in the study of recidivism and a review of factors affecting the timing of recidivism. Methodological issues concern the measurement of recidivism and the nature of factors affecting the timing of recidivism. Most of this discussion focuses on the return to prison.

1. Measurement and Modeling of Recidivism

Many studies of recidivism and the return to prison base their analyses on simple failure rates. The major measure of prison effectiveness or other program impact is frequently the percentage who recidivate or fail by a given point in time such as 1 year after release from prison. Simple failure rates do not account for variations in the timing of recidivism that may in themselves be highly important data regarding program effect. For instance, it is of interest that some former prisoners fail early after release while others remain free for longer periods. The more effective program is the one with longer periods of restraint from criminal activity. Simple failure rates are also subject to difficulties in interpretation because of variations in definitions and followup periods employed (Hoffman and Stone-Meierhoefer 1980).

Several recent studies have examined the timing of recidivism in models that avoid some of the disadvantages of simple failure rates. Maltz and McCleary (1977) conceptualize recidivism in terms of the rate of failure, arguing that conventional measures such as the failure rate assume that all fail at the same rate with respect to time. Conventional measures consider recidivism as a binomial process of failure/nonfailure at one point in time, while more refined measures consider that some fail at faster or slower rates, perhaps related to prison program participation. Analyses of the rate of failure explicitly consider time and enable a more meaningful examination of program impact. This method of considering the differential failure rates of high and low recidivist groups was also advocated by Greenberg (1978). Wainer (1981) suggests a revision of the Maltz-McCleary model to consider three groups--those who do not recidivate, those who do so almost immediately, and those who do so after a period of time. Harris, Kaylan and Maltz (1981) further refine failure rate models of recidivism to differentiate early failure from those who never fail. Barton and Turnbull (1981) consider the application of regression methods in failure rate analysis to examine the impact of background factors on variation in the rate of failure.

These refinements encompass such methods as survival analysis and failure rate analyses such as the Cox model and event-history analysis. They reconceptualize recidivism as a process that occurs in time and that can be explained by background factors such as sociodemographic characteristics and criminal history. The research literature reports findings utilizing several of these models, as described below.

2. Timing of Recidivism

Two Bureau of Justice Statistics publications describe the timing of recidivism and the relation to selected background factors while other researchers employ various methods to examine variations in timing.

Wallerstedt (1984) examines the recidivism rates of the prison systems of 14 states in terms of reincarceration. Across the states the recidivism rates are quite similar--a mean of about 15 percent return during the first year, 25 percent within 2 years, and 31 percent within 3 years. The highest risk of recidivism appears to occur during the second 6 months after release and the risk of reincarceration decreases over time. Property offenders are somewhat more likely (median of 37 percent) to return than are violent offenders (32 percent). The risk of reincarceration also increases with the number of prior incarcerations and the length of time served and decreases with age. Rates of recidivism were lower for whites and higher for males.

Greenfeld (1985) examines the likelihood and timing of recidivism by studying the 1979 Survey of State Prison Inmates. Of those males admitted to prison in 1979, 61 percent were recidivists--they had prior incarcerations as juveniles or adults or both. Calculations on this admissions sample reveal that nearly 49 percent of prisoners of state facilities return to prison within 20 years after release. Most of the recidivism, however, occurs within the first few years after release--29 percent of those who will recidivate do so within the first year, 48 percent within 2 years, and 60 percent within 3 years. The rate of return within the first year after treatment is higher for younger offenders. The median number of months to return was substantially lower for property offenders (21.9 months) than violent offenders (27.9 months) or drug offenders (37.0 months). Recidivists and first-timers were similar with respect to race, educational attainment, marital status, and alcohol use at the time of the offense. Recidivists were more likely to be older, unemployed, have a family member who had been incarcerated, to have used illegal drugs, and to have received an unacceptable discharge or a sentence to confinement during prior military service.

Schmidt and Witte (1980) examine the length of time after release from prison until reimprisonment and factors affecting that timing. Using a truncated lognormal model, they find that those who are likely to return to prison soonest are young, single, uneducated, with many previous

convictions and rule violations, and crimes other than against the person. Problems with alcohol or drug abuse, marital status, and crimes against the person were unrelated to the length of time until return.

Flanagan (1982) utilizes survival analysis to examine the comparative performance of three groups of offenders released from a state prison system and followed for 5 years after release--those released to parole supervision, those who were conditionally released, and those discharged without supervision after the expiration of the maximum sentence. Additional analyses examined characteristics associated with early versus late failure. The comparison of survival distributions showed that parolees failed at a slower pace than inmates released by conditional release or by the maximum expiration of the term. Using risk scores based on offender characteristics most closely associated with post-release outcome, low-risk parolees were found to fail at the slowest pace, followed by medium-risk and high-risk offenders. Survival analysis was also used by Collins, Usher, and Williams (1984) to examine the relative success rates of supervised, unsupervised, and community service probation strategies in Maryland.

These studies of the timing of recidivism reveal the time dependence of recidivism--offenders who recidivate after prison are most likely to do so early after release and the rate of recidivism decreases over time. This finding argues for failure rate analysis models that can accommodate variations in the rate of failure over time. Research findings also indicate that several background factors are important determinants of variation in the timing of recidivism, notably younger age, unemployment, lower educational status, prior criminal history, and release status. These tendencies suggest that programs to delay the return to prison can effectively be targeted at certain types of offenders and that parole does delay the return to prison.

3. Factors Affecting First and Later Incarcerations

A sizeable body of research has examined the likelihood of incarceration and factors associated with incarceration, particularly the return to incarceration, but few studies of prison populations have differentiated first-timers and recidivists. Langan and Greenfeld (1985) find a lifetime prevalence estimate of imprisonment in adult state prisons ranging from 1.7 percent to 2.7 percent. That is, 1.7 to 2.7 percent of the population is estimated to experience one or more prison episodes within the lifetime, the estimate varying according to source of data on which the estimates were based (see also Greenfeld 1981). Substantially higher rates of imprisonment are expected for males (3.2 to 5.1` percent) than females (0.2 to 0.4 percent) and black males (11.6 to 18.7 percent) than white males (2.0 to 3.3 percent). Greenfeld (1985) finds that of those admitted to prison in 1979, 61 percent were recidivists (than were previously incarcerated as a juvenile or adult or both).

Greenfeld (1985) compares sociodemographic characteristics and criminal histories of inmates who are first-timers and recidivists. No significant differences between first-timers and recidivists were found for the following variables: race, educational attainment, marital status and alcohol use at the time of the offense. First-timers and recidivists were differentiated according to age at admission, employment record, family member incarceration history, and drug use. The recidivists were older at admission, more likely to be unemployed, have a family member who had been incarcerated, and to have used illegal drugs. Although recidivists were no more likely than first-timers to have served in the military, they were more likely to have received an unacceptable discharge or sentence to confinement.

More attention has been given to factors affecting recidivism or the return to prison. There is some disagreement on the impact of race but more agreement on the impact of other factors. Wallerstedt (1984), for instance, finds that blacks are more likely than whites to be rearrested and returned to prison; Greenfeld (1981) and Boudouris (1983) find no differences in the recidivism rates of whites and blacks.

Several studies find that age is negatively related to the likelihood of being returned to prison. The younger the offender at the time of release, the more likely will he return to prison (Wallerstedt 1984; Clarke and Crum 1985; U.S. Federal Justice Research Program 1982). Part of this age difference may, however, be a reflection of maturation processes, as the older offender "matures out" of crime. Socioeconomic status and family cohesiveness have also been found to be related to recidivism. The lower the socioeconomic status, the lower the economic stability during parole and the greater the likelihood of returning to prison (Fairweather 1980; Rogers 1981). The lower the degree of family cohesiveness (Rogers 1981) or being unmarried (Greenfeld 1985), the greater the likelihood of returning to prison.

The type of admission crime is also related to the likelihood of returning to prison. Property offenders are more likely than violent offenders to return to prison (Clarke and Crum 1985; Boudouris 1983; van der Werth 1978; Wallerstedt 1984; U.S. Federal Justice Research Program 1982). Recidivism rates were found to be highest for the property crimes of burglary, followed by robbery and theft. The nature of offenses committed after release also affects the likelihood of return. Those committing violent offenses, thefts, forgeries and drug crimes after release are especially likely to return to prison.

Prior record has been found to be related to recidivism (Illinois Criminal Justice Information Authority 1985; Clarke and Crum 1985; Boudouris 1983; U.S. Federal Justice Research Program 1982; Fairweather 1980). The longer the criminal career, the greater the number of prior arrests, the greater the number of convictions and prior incarcerations, and the longer the term of incarceration previously served, the greater the likelihood of returning to prison.

Finally, alcohol and drug abuse have been linked to recidivism (U.S. Federal Justice Research Program 1982; Boudouris 1983; Fairweather 1980). Those with a drug problem during parole and heavy alcohol users are more likely than others to return to prison.

C. Measurement Issues

These studies regarding the nature of the criminal career and the timing of recidivism yield several conclusions about the measurement of recidivism and the investigation of the criminal career. Perhaps most important to the study of recidivism is the distinction between the "failure rate" and the "rate of failure." While earlier studies tended to use an aggregate binary measure of success/failure which does not consider when during a given period the individuals failed, more recent studies have begun to consider the timing of failure or rate of failure within a given period. These more recent studies (see National Academy of Sciences, forthcoming) are individual-based and depict the criminal career in terms of processual and timing dimensions. Aggregate failure rates are generally reported in the former type of study, while event-based techniques such as survival analysis and event-history analysis are more appropriate to the latter type of issue.

This change in methodology from descriptive to analytical statistics, reflects a broader shift from concerns with structure to concerns with process in studies of the criminal career.

3. METHODOLOGY

Analyses described in this report rest on survival analyses and event-history analyses of the incarceration histories of prisoners in state correctional facilities in 1979, contained in the Survey of Inmates of State Correctional Facilities, 1979, conducted for the Bureau of Justice Statistics. This section describes the data set and statistical techniques used in these analyses.

A. Data Set

The Survey of Inmates of State Correctional Facilities, 1979, was conducted for the Bureau of Justice Statistics, U.S. Department of Justice, by the U.S. Bureau of the Census during October and November 1979. The survey was conducted in a personal interview with a random sample of 11,397 men and women in 215 state correctional facilities representing a total of approximately 275,000 inmates. Information on the data file and variables is included in a codebook (BJS 1981) and an overview of the data for the total sample is available in a Bureau of Justice Statistics Bulletin, Prisons and Prisoners (BJS 1982). Analyses of criminal career paths are presented in a Bureau of Justice Statistics Special Report, Career Patterns in Crime (Langan and Greenfeld 1983). Similar surveys were conducted in 1974 and 1981.

The 1979 survey gathered indepth information about the circumstances surrounding the current incarceration and more limited information on up to 13 prior incarcerations. The data present a picture of the incarceration histories of men and women confined in state correctional facilities in 1979. The following types of information are available:

- respondent information (sex, age, marital status, race/ethnicity)
- current institutionalization
- prior institutionalizations

- communications with outside during current incarceration
- activities during current incarceration
- military service history
- education and training history
- employment history
- income at time of current incarceration
- family history
- medical status
- drug use history and use at the time of the current offense
- drug abuse treatment history
- alcohol use in the year before the current offense and at the time of the current offense
- alcohol treatment history
- counseling during the current incarceration.

The following types of information are available for each incarceration, including the current incarceration:

- offenses for which the inmate was sentenced (one to four offenses)
- date first admitted to serve that sentence
- whether sentenced as a juvenile or adult
- where sentence was served (local jail, state prison, military prison, or federal facility)
- length of time served in jail or prison before being released or getting new sentences.

These data represent incarceration histories of men and women in state correctional facilities in 1979, including both juvenile and adult incarcerations and incarcerations in a variety of types of correctional facilities. These incarcerations were for the complete range of offense types, including:

- violent offenses
- offenses against property
- drug-related offenses
- offenses against public order

These data enable analyses reported in this report of the factors related to incarceration for first and subsequent incarcerations. The construction of the analysis file and statistical techniques are described below.

B. Analysis File

Analyses presented here are based on the incarceration histories of adult males who were incarcerated for more serious offenses in state correctional facilities in 1979. Because the offenses and factors affecting the commission of offenses and incarceration differ for males and females and for juveniles and adults, the decision was made to examine the incarceration histories of adult males. Accordingly the sample of 11,397 men and women was reduced to 9,142 men and the sample was further reduced by omitting from analyses those who were sentenced as juveniles for the current incarceration. The decision was also made to consider only those incarcerations involving offenses other than traffic offenses, vagrancy or drunkenness or juvenile offenses. Missing data on variables such as the date of sentencing or offense types or inconsistencies in dates within the incarceration histories further reduced the number of cases. Based on these decisions and data constraints, the analyses reported here rest on data for 7,379 adult males.

Because more complete data on factors related to incarceration are available for the current incarceration, the decision was made to make the current incarceration (the term being served in 1979 when the survey was

conducted) the focal point for all analyses. That is, information is available for factors such as drug and alcohol use, employment, and marital status for the time at which the offense(s) were committed that resulted in the current incarceration, where less information is available about the circumstances surrounding prior incarcerations. Accordingly, two types of analyses were conducted:

1. factors affecting the first incarceration, where the current incarceration was the first incarceration, and

2. factors affecting the return to incarceration, where the current incarceration represented a return to incarceration.

Based on the above selection criteria and the availability of data, the 9,142 adult males in the dataset reduced to 7,369 in the analysis file. Analyses describing the first incarceration rest on 3,724 cases and those describing subsequent incarcerations rest on 3,645 cases. Weighted, these men represent 104,964 inmates who were in prison for serious offenses for the first time in 1979 and 100,479 inmates who were returnees. Missing data and inaccurate or inconsistent data reported for the dates of occurrence of incarcerations reduced the size of the first incarceration sample by eight cases and the return to incarceration sample by 267 cases.

C. Statistical Techniques

Two major types of analyses were conducted to examine the timing of the first and later incarcerations and factors accounting for variation in timing. First, survival analyses were conducted to examine the overall timing of the incarcerations, the relationship with single independent variables, and to assist in selection of the specific event history model. Event-history analyses were then conducted to examine in a multivariate framework the independent and combined influence of a set of independent variables on the timing of first and later incarcerations.

1. Survival Analysis

Survival analyses are based on life table functions and describe the timing of events from a starting event to a termination event. Within this study the timing of the first incarceration is described in terms of the number of months from exposure to risk of committing adult offenses and becoming incarcerated, taken here to be age 16, and the date of entering a correctional facility for the first time. Although age 14 may constitute a conservative age of exposure to risk, in that many youth that age would be treated as juveniles, it does mark a lower boundary of criminal liability. The termination point in this case is the date at which the inmate entered the current incarceration, if that incarceration was the first incarceration in the inmate's life for a serious offense for which he/she was sentenced as an adult. The timing of subsequent incarcerations is described in terms of the number of months between the current incarceration and the last prior incarceration, for those for whom the current incarceration is not the first.

Survival analyses were conducted with the SURVIVAL procedure in SPSS^X (SPSS Inc. 1983). The SURVIVAL procedure produces life tables, plots of the survival functions, and tests of the differences between the survival functions of subgroups. The procedure analyzes the time interval between a starting event and an ending event and calculates three survival functions, the:

- cumulative proportion of cases surviving at the end of the time interval between the two events,
- probability density, or the estimated probability per unit time of the event occurring during the interval, and
- hazard rate, or an estimate of the probability per unit time that cases entering the interval will experience the event during the interval.

The SURVIVAL procedure produces a median survival time to enable comparison of the average experience across groups and a statistic D calculated on the basis of an algorithm of Lee and Desu to examine the significance of subgroup differences. The D statistic tests the null

hypothesis that the subgroups are samples from the same survival distribution.

These survival analyses are informative about the overall shape of the survival distributions and are used as an important first step in examining the timing of incarcerations. They are also informative about the nature of time dependence of the survival distribution. For analyses presented here, the cumulative survival distribution was plotted on a linear scale and a logarithmic scale for the total sample and selected subgroups. If the overall distribution is highly nonlinear, there is good evidence that the occurrence of the event is highly time dependent. If the distributions of the subgroups differ, there is evidence that the occurrence of the event is related to subgroup status. If the distributions of the subgroups remain nonlinear after being plotted on a logarithmic scale, the evidence for time dependence or population heterogeneity is stronger (Carroll 1983). These findings regarding time dependence and subgroup differentiation were used to aid in model selection for the RATE analyses.

Survival analyses include information for both censored and uncensored observations in calculating survival times. Censoring occurs because the termination event has not occurred for that case by the time of the study, because the case withdraws from the study for some reason or because complete information about a case is not available when the time interval under consideration begins or ends. Censoring does not apply to the data analyzed here because all cases have a terminal event, i.e., they all enter the current incarceration (defined as either a first or later incarceration, and all have a starting event, i.e., in the case in which the current incarceration is the first incarceration, all have reached age 16 and in the case in which the current incarceration marks a return to incarceration, all have a prior incarceration. Those cases with incomplete data are treated as missing data rather than censored cases.

2. Event-History Analysis

Subsequent to the survival analyses described above, event-history analyses are conducted using the RATE program developed by Tuma of Stanford University (1980). At the time of these analyses, Version 2 of RATE was available.

Event-history analyses incorporate information on the number, sequence, and timing of events occurring during a period of time, such as the incarceration events under consideration here. Event-history analysis techniques are described in Tuma and Hannan (1984), Carroll (1983), Tuma (1982), Allison (1982), Flinn and Heckman (1982), Coleman (1981), Hannan and Carroll (1981), and Tuma, Hannon and Groeneveld (1979).

Event-history analysis incorporates a varied set of techniques by which the rate of transition between states over time is studied and the effects of explanatory variables on the rate of change may be examined. The methods use a probability model (either maximum likelihood or partial likelihood) to estimate the rate of change and can be adapted to accommodate data concerning either continuous time (exact dates) or discrete time (intervals) (see discussion in Allison 1982); repeated events (Allison 1982; Tuma 1982); and models in which the explanatory variables themselves change over time (Tuma, Hannan and Groeneveld 1979). The choice of model depends on assumptions regarding the behavior of the phenomenon under study as well as certain data constraints.

Event-history techniques have been developed to examine processes of change observed in event histories. An event is a transition from one state to another such as moving from employment to unemployment. Event histories include information on the occurrence of events during an individual's lifetime (or the life of a firm or other unit) in terms of event counts (how many events occur within a specified period of time), event sequences (the order of occurrence of events), and event timing (when events occur). Such event histories may be associated with explanatory data that may account for the number, sequencing, and timing of events.

Event-history analyses are based, first, on a description of the state (Y), occupied by an individual at time t. (This discussion is drawn from Carroll 1983). In the case to be analyzed here, an individual may occupy one of two states at any given time: not incarcerated (j) or incarcerated (k). Based on these two states, two types of probabilities may be calculated. State probabilities describe the probability of occupying either state at time t, while transition probabilities describe the probability of moving between two states across time, or the probability of entering one state at time 2 given that another state was occupied at time 1. The dependent variable in most event-history analyses is then the instantaneous transition rate, defined as

$$r_{jk}(t) = \lim_{\Delta t \to 0} \frac{q_{jk}(t,t+\Delta t)}{\Delta t}$$

where q_{jk} is the transition probability. The rate may be estimated by (1-G(t)), where G(t) is the survivor function. The Kaplan-Meier nonparametric estimator of the survivor functions provides good estimates of most rate models. The effect of explanatory variables may be introduced by specifying the transition rate as a function of a number of independent variables (X(t)):

$$\log r_{jk}(t) = \alpha_0 + \alpha_1 X_1(t) + \alpha_2 X_2(t) + \ldots . \alpha_n X_n(t)$$

in the most typical loglinear specification. Loglinear models are usually employed to avoid the problem of negative predicted rates possible within linear models. For each transition, then, there is information on origin and destination states, the exact starting and ending times, and the values of certain independent variables. The value of each independent variable is typically measured at the starting point of an episode or spell, that is, prior to the specific transition or event. The significance of effects of independent variables may be determined by examination of standard errors or by χ^2 tests of nested models.

4. FINDINGS

This section describes findings regarding the timing of first and later incarcerations based on adult incarceration histories of male inmates in state correctional facilities in 1979. The analyses consider two cases--the case in which the current incarceration is the first incarceration and the case in which the current incarceration marks a return to incarceration. Sociodemographic characteristics and criminal histories of the two groups are first described, followed by a description of criminal histories and substance use at the time the offenses were committed. Findings from the survival analyses and event-history analyses of the timing of first and later incarcerations are then discussed.

A. Characteristics of Inmates in First and Later Incarcerations in 1979

Inmates in first and later incarcerations as adults in 1979 were similar on a variety of sociodemographic characteristics, as shown in table 1. The two groups were similar on race, educational status at admission, employment status at admission, and prior military service. About 50 percent of either group were white and slightly fewer were black; about one-fourth had a high school education (slightly lower for those in later incarcerations); about three-fourths were employed; and about one-fourth had military service. Inmates in later incarcerations were older on average than those incarcerated for the first time (29.4 compared to 25.7 percent), as expected, and partially as a function of their older age status, those in later incarcerations were likely to be married or once married. Consistent with the older average age, more of those in later incarcerations in 1979 were in earlier birth age cohorts; the cohort measure is introduced here because birth cohort is used as a variable in subsequent analyses.

Table 1

Sociodemographic Characteristics of Men in First and Later Incarcerations in 1979

	First Incarceration (percent)	Later Incarceration (percent)
Age at Admission (Mean)	25.7	29.4
≤18	10.5	1.2
19-24	50.1	32.4
25-29	18.3	27.5
30-34	8.4	16.6
35+	12.8	22.3
Race		
White	50.3	51.4
Black	47.3	46.4
Other	2.4	2.2
Marital Status		
Never married	55.4	42.5
Married	21.5	26.9
Widowed, divorced, separated	23.2	30.6
Education at Admission		
Less than high school	73.0	76.5
High school graduate	27.0	23.5
Employment Status at Admission		
Employed	75.1	70.3
Military Service		
Ever served	26.4	26.2
Cohort		
1930s or earlier	10.7	18.1
1940s	18.6	34.4
1950s or later	70.7	47.4

The juvenile records of those in first and later incarcerations in 1979 were similar on several points and the adult records of those entering later incarcerations in 1979 were more serious, as expected relative to their prior incarceration history. These comparisons are shown in table 2. Over one-half of the first and later incarceration groups had experienced a juvenile probation and more than one in five had been sentenced for less serious offenses as a juvenile. Forty percent of those returning to incarceration had been sentenced as a juvenile for more serious offenses. Those in later incarcerations were more likely to have ever been on probation as an adult (80.4 percent compared to 65.9 percent), sentenced to a less serious offense as an adult (94.5 percent compared to 89.3 percent), and sentenced to a more serious offense as an adult (reported by 97.5 percent compared to 0.2 percent).

The number of prior incarcerations among those for whom the current incarceration marks a return to incarceration is also presented in table 2. As noted earlier, these data include information on the current incarceration and up to 13 prior incarcerations. In addition to the current incarceration, most inmates had one prior incarceration (36 percent) or two (25 percent). Relatively few had more incarcerations in their careers up to the time of the survey in 1979.

Table 2

Offense Histories of Men in First and Later Incarcerations in 1979

	First Incarceration (percent)	Later Incarceration (percent)
Juvenile Record		
Ever juvenile probation	54.6	59.4
Number of times (mean)	0.8	1.0
Ever sentenced for less serious offenses as juvenile	22.7	21.9
Number of times (mean)	0.6	0.6
Ever sentenced for more serious offenses as juvenile	-	40.2
Number of times (mean)	-	0.8
Adult Record		
Ever adult probation	65.9	80.4
Number of times (mean)	0.8	1.2
Ever sentenced for less serious offenses	89.3	94.5
Number of times (mean)	2.5	3.6
Ever sentenced for more serious offenses	0.2	97.5
Number of times (mean)	0.0	2.1
Number of Prior Incarcerations		
1	NA	36.2
2		25.3
3		15.3
4		9.5
5		5.4
6		3.0
7		1.3
8		1.1
9		0.9
10		1.0
11		0.5
12		0.2
13		0.1

The type of current offense and whether drugs or alcohol were used at the time of the current offense are presented in table 3 for those in first and later incarcerations in 1979. Almost two-thirds of those in the first incarceration in 1979 were sentenced for violent offenses compared to slightly over one-half of those in later incarcerations. About one-fourth of the first incarcerations and one-third of the later incarcerations involved sentences for property offenses. Drug offenses, offenses against the public order, and other offenses were less common. Note, however, that these offense distributions are partially a function of decisions regarding the analysis file. The incarceration histories analyzed here omit juvenile offenses and most offenses against public order. Within these constraints, violent offenses appear to be a less important cause of sentencing, and property offenses a more important cause, for those in later incarcerations compared to those in first incarcerations.

Table 3

Current Offenses of Men in First and Later Incarcerations in 1979

	First Incarceration (percent)	Later Incarceration (percent)
Current Offense		
Violent offenses	64.5	53.7
Property offenses	24.2	35.9
Drug offenses	7.7	7.3
Offenses against public order	3.2	2.8
Other, not available	0.4	0.3
Drug Use at Time of Offense	40.1	34.0
Alcohol Use at Time of Offense	56.7	60.1

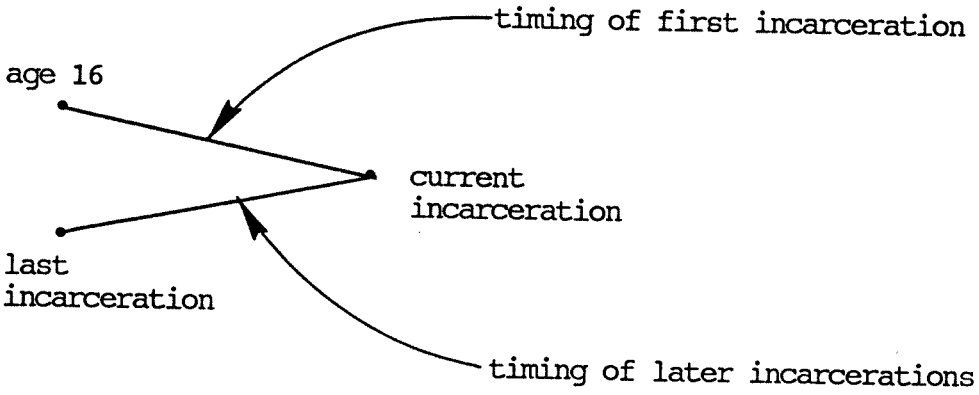
Drugs were used at the time of the offense by 40 percent of those incarcerated for the first time and 34 percent of those incarcerated for later incarcerations in 1979. About 57 percent of those in first incarcerations and 60 percent in later incarcerations reported having used alcohol at the time of the offense. While these figures suggest a decreasing role of drugs and increasing role of alcohol in incarceration histories from first to later incarcerations, they may also reflect the age status of those incarcerated for first and later incarcerations. Drug use may be associated with the younger average age of those incarcerated for the first time in 1979.

B. Survival Analyses

Prior to conducting event-history analyses of the timing of first and later incarcerations, survival analyses were conducted to provide an overview of the nature of the distributions and to aid in selection of the event-history models. Results of these survival analyses are described separately below for the timing of the first incarceration and later incarcerations for the total samples and for subgroups.

1. Survival Functions and Survival Curves for First and Later Incarcerations

Survival analyses were used to describe the timing of first and later incarcerations of adult males for serious offenses, where the timing of the first incarceration was defined as the length of time from age 16 to the current incarceration (for those with no prior incarcerations) and the timing of later incarcerations was defined as the length of time between the last incarceration and the current incarceration (for those with prior incarcerations). These two types of timing variables are depicted below:



For both of these timing variables, survival functions were computed for all males and for subgroups.

a. First Incarceration. The timing of the first incarceration, from age 16 to the current incarceration, is highly nonlinear as shown in figure 1. The vertical axis in the graph is the probability of "surviving," or remaining not incarcerated, while the horizontal axis is the number of months after age 16. The graph suggests an increasing rate of incarceration over time, during the 20s, and a leveling off of the rate during the 30s. Thus, there is a gradually decreasing likelihood with age of being incarcerated.

The life table functions for the survival curve for the first incarceration are presented in table 4. This table shows a median survival time of 83.58 months or 6.96 years past age 16. Thus, based on data on the current incarceration, the first incarceration occurred for these inmates on average at age 23.

The figures presented in table 4 also demonstrate the ages of highest risk of incarceration and the proportion "surviving" at certain ages. The interval start time column of the table presents the number of months since age 16 and, because the interval is 12 months, may be interpreted as single years of age since age 16. Thus, the interval with starting time of "0" refers to the 16th year, the interval with starting time of "12" refers to

Figure 1. Graph of Survival Function for Male Inmates in the First Incarceration in 1979

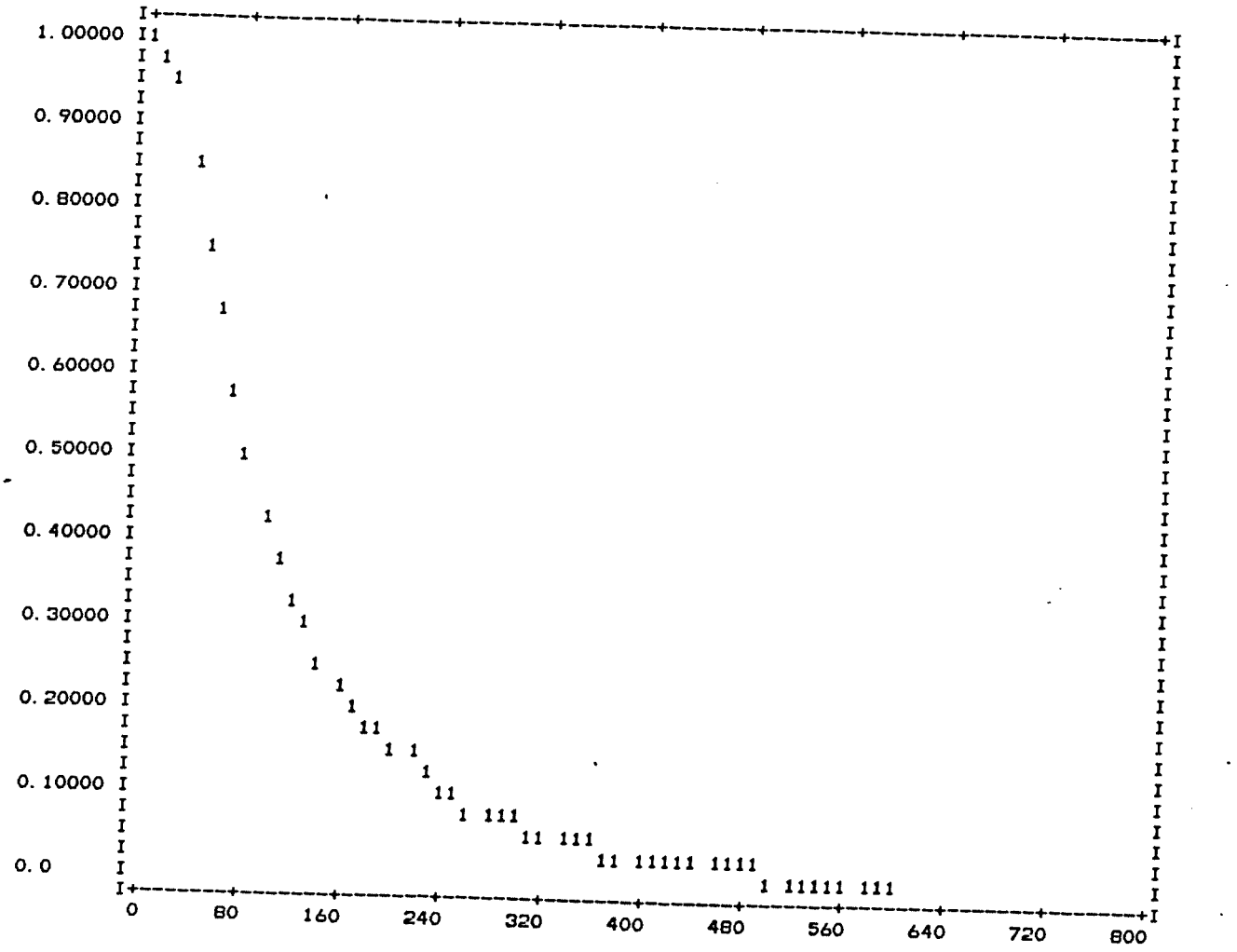


Table 4

Life Table for Male Inmates in the First Incarceration in 1979

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	104964.0	0.0	104964.0	1368.0	0.0130	0.9870	0.9870	0.0011	0.0011	0.000	0.000	0.000
12.0	103596.0	0.0	103596.0	4595.0	0.0444	0.9556	0.9432	0.0036	0.0038	0.001	0.000	0.000
24.0	99001.0	0.0	99001.0	9429.0	0.0952	0.9048	0.8534	0.0075	0.0083	0.001	0.000	0.000
36.0	89572.0	0.0	89572.0	9684.0	0.1081	0.8919	0.7611	0.0077	0.0095	0.001	0.000	0.000
48.0	79888.0	0.0	79888.0	10119.0	0.1267	0.8733	0.6647	0.0080	0.0113	0.001	0.000	0.000
60.0	69769.0	0.0	69769.0	9369.0	0.1343	0.8657	0.5754	0.0074	0.0120	0.002	0.000	0.000
72.0	60400.0	0.0	60400.0	8205.0	0.1358	0.8642	0.4973	0.0065	0.0121	0.002	0.000	0.000
84.0	52195.0	0.0	52195.0	7113.0	0.1363	0.8637	0.4295	0.0056	0.0122	0.002	0.000	0.000
96.0	45082.0	0.0	45082.0	5673.0	0.1258	0.8742	0.3755	0.0045	0.0112	0.001	0.000	0.000
108.0	39409.0	0.0	39409.0	5250.0	0.1332	0.8668	0.3254	0.0042	0.0119	0.001	0.000	0.000
120.0	34159.0	0.0	34159.0	3714.0	0.1087	0.8913	0.2901	0.0029	0.0096	0.001	0.000	0.000
132.0	30445.0	0.0	30445.0	3468.0	0.1139	0.8861	0.2570	0.0028	0.0101	0.001	0.000	0.000
144.0	26977.0	0.0	26977.0	2709.0	0.1004	0.8996	0.2312	0.0022	0.0088	0.001	0.000	0.000
156.0	24268.0	0.0	24268.0	2606.0	0.1074	0.8926	0.2064	0.0021	0.0095	0.001	0.000	0.000
168.0	21662.0	0.0	21662.0	2177.0	0.1005	0.8995	0.1856	0.0017	0.0088	0.001	0.000	0.000
180.0	19485.0	0.0	19485.0	1805.0	0.0926	0.9074	0.1684	0.0014	0.0081	0.001	0.000	0.000
192.0	17680.0	0.0	17680.0	1991.0	0.1126	0.8874	0.1495	0.0016	0.0099	0.001	0.000	0.000
204.0	15689.0	0.0	15689.0	1158.0	0.0738	0.9262	0.1384	0.0009	0.0064	0.001	0.000	0.000
216.0	14531.0	0.0	14531.0	1508.0	0.1038	0.8962	0.1241	0.0012	0.0091	0.001	0.000	0.000
228.0	13023.0	0.0	13023.0	1223.0	0.0939	0.9061	0.1124	0.0010	0.0082	0.001	0.000	0.000
240.0	11800.0	0.0	11800.0	869.0	0.0736	0.9264	0.1041	0.0007	0.0064	0.001	0.000	0.000
252.0	10931.0	0.0	10931.0	1779.0	0.1627	0.8373	0.0872	0.0014	0.0148	0.001	0.000	0.000
264.0	9152.0	0.0	9152.0	1233.0	0.1347	0.8653	0.0754	0.0010	0.0120	0.001	0.000	0.000
276.0	7919.0	0.0	7919.0	0.0	0.0	1.0000	0.0754	0.0	0.0	0.001	0.0	0.0
288.0	7919.0	0.0	7919.0	787.0	0.0994	0.9006	0.0679	0.0006	0.0087	0.001	0.000	0.000
300.0	7132.0	0.0	7132.0	667.0	0.0935	0.9065	0.0616	0.0005	0.0082	0.001	0.000	0.000
312.0	6465.0	0.0	6465.0	910.0	0.1408	0.8592	0.0529	0.0007	0.0126	0.001	0.000	0.000
324.0	5555.0	0.0	5555.0	0.0	0.0	1.0000	0.0529	0.0	0.0	0.001	0.0	0.0
336.0	5555.0	0.0	5555.0	519.0	0.0934	0.9066	0.0480	0.0004	0.0082	0.001	0.000	0.000
348.0	5036.0	0.0	5036.0	662.0	0.1315	0.8685	0.0417	0.0005	0.0117	0.001	0.000	0.000
360.0	4374.0	0.0	4374.0	572.0	0.1308	0.8692	0.0362	0.0005	0.0117	0.001	0.000	0.000
372.0	3802.0	0.0	3802.0	0.0	0.0	1.0000	0.0362	0.0	0.0	0.001	0.0	0.0
384.0	3802.0	0.0	3802.0	368.0	0.0968	0.9032	0.0327	0.0003	0.0085	0.001	0.000	0.000
396.0	3434.0	0.0	3434.0	608.0	0.1771	0.8229	0.0269	0.0005	0.0162	0.000	0.000	0.001
408.0	2826.0	0.0	2826.0	419.0	0.1483	0.8517	0.0229	0.0003	0.0133	0.000	0.000	0.001
420.0	2407.0	0.0	2407.0	0.0	0.0	1.0000	0.0229	0.0	0.0	0.000	0.0	0.0
432.0	2407.0	0.0	2407.0	300.0	0.1246	0.8754	0.0201	0.0002	0.0111	0.000	0.000	0.001
444.0	2107.0	0.0	2107.0	203.0	0.0963	0.9037	0.0181	0.0002	0.0084	0.000	0.000	0.001
456.0	1904.0	0.0	1904.0	191.0	0.1003	0.8997	0.0163	0.0002	0.0088	0.000	0.000	0.001
468.0	1713.0	0.0	1713.0	0.0	0.0	1.0000	0.0163	0.0	0.0	0.000	0.0	0.0
480.0	1713.0	0.0	1713.0	381.0	0.2224	0.7776	0.0127	0.0003	0.0209	0.000	0.000	0.001
492.0	1332.0	0.0	1332.0	85.0	0.0638	0.9362	0.0119	0.0001	0.0055	0.000	0.000	0.001
504.0	1247.0	0.0	1247.0	179.0	0.1435	0.8565	0.0102	0.0001	0.0129	0.000	0.000	0.001
516.0	1068.0	0.0	1068.0	0.0	0.0	1.0000	0.0102	0.0	0.0	0.000	0.0	0.0
528.0	1068.0	0.0	1068.0	213.0	0.1994	0.8006	0.0081	0.0002	0.0185	0.000	0.000	0.001
540.0	855.0	0.0	855.0	117.0	0.1368	0.8632	0.0070	0.0001	0.0122	0.000	0.000	0.001
552.0	738.0	0.0	738.0	145.0	0.1965	0.8035	0.0056	0.0001	0.0182	0.000	0.000	0.001
564.0	593.0	0.0	593.0	0.0	0.0	1.0000	0.0056	0.0	0.0	0.000	0.0	0.0
576.0	593.0	0.0	593.0	196.0	0.3305	0.6695	0.0038	0.0002	0.0330	0.000	0.000	0.002
588.0	397.0	0.0	397.0	28.0	0.0705	0.9295	0.0035	0.0000	0.0061	0.000	0.000	0.001
600.0+	369.0	0.0	369.0	369.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 83.58

the 17th year and so on. The 20th year is the age of highest risk for the first incarceration, judging by the number of terminal events or incarcerations occurring in that year. Age 20 is closely followed by ages 19, 18, and 21 as high risk years, consistent with the median age of 23 for the first incarceration. Judging by the proportion terminating during each interval, the early 20s also mark a high proportion of those at risk (those remaining not incarcerated) becoming incarcerated.

The cumulative proportion surviving at the end of the interval illustrates the percent remaining not incarcerated at each age. By age 17, 94.32 percent remain not incarcerated; that is, about 6 percent have become incarcerated before age 18. Similarly, 24 percent of those who are incarcerated for the first time in 1979 will have become incarcerated for the first time by age 20, 62 percent by age 25, and 79 percent by age 30. Thus, only about 20 percent become incarcerated for the first time at age 30 or later. Looking at the cumulative proportion surviving at the end of each interval also indicates that, prior to age 23, almost 50 percent of those who will become incarcerated for the first time have done so.

Although the graph of the survival function presented in figure 1 was nonlinear, suggesting time dependence of the rate of first incarceration, the logarithmic survival plot of the survival function presented in figure 2 is somewhat more linear. The fact that it remains nonlinear continues to suggest that the rate of first incarceration decreases with age. This nonlinearity, however, may be a function of population heterogeneity or subgroup differentiation, a possibility which is investigated more fully below in section (2).

b. Later Incarcerations. The timing of entry to the second or later incarceration, that is, the return to incarceration, is highly nonlinear. The graph of the survival function for male inmates serving time for later incarcerations in 1979 is presented in figure 3. The shape of the distribution is similar to that occurring for the first incarceration and indicates a decreasing rate of returning to incarceration over time. This decreasing slope may be interpreted to mean that, in the period immediately after release from incarceration, the likelihood of return to incarceration is relatively high but levels off over time as the length of time since release increases.

Figure 2. Log Scale Graph of Survival Function for Male Inmates in the First Incarceration in 1979

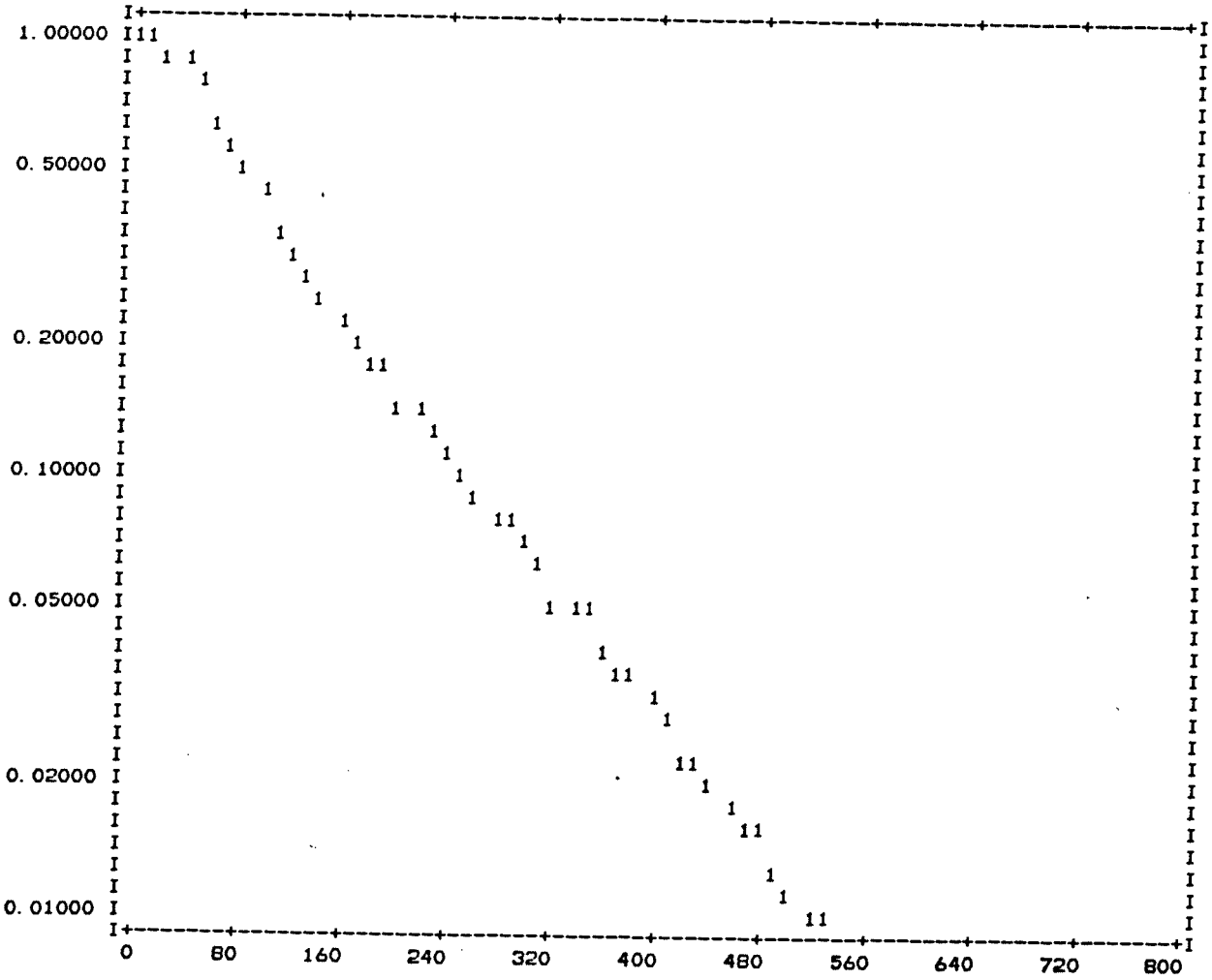
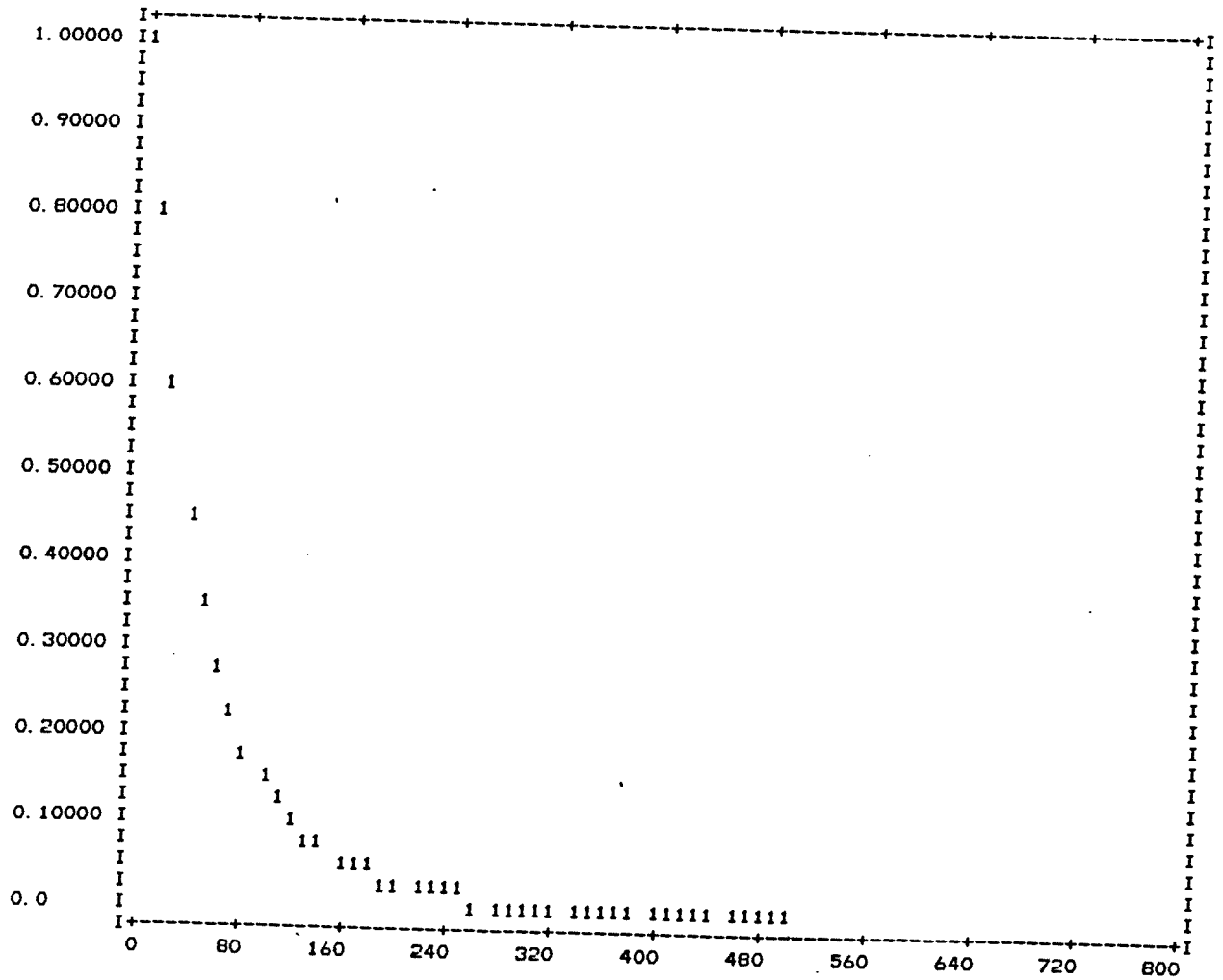


Figure 3. Graph of Survival Function for Male Inmates in Later Incarcerations in 1979



The life table functions for the survival curve for the second or later incarceration are presented in table 5. This table shows a median survival time of 31.98 months or 2.66 years past the time of release from prior incarceration. Thus, on average, those who are released from incarceration return after 2.66 years; alternatively, 50 percent of those who will return to prison do so within the first 2.66 years after release.

Figures presented in table 5 also indicate the periods of highest risk of becoming reincarcerated after release. The "number of terminal events" column indicates that the early period after release is the period of highest risk; the number of inmates returning to incarceration is highest for the year after release and steadily decreases over time since release from a prior incarceration for the first 23 years after release. Similarly, the proportion terminating within each year after release tends to decrease over the years after release. Within the first year, 20 percent of releasees return; within the second and third years, almost 25 percent of those remaining not incarcerated return each year. In years 4 through 7, approximately 20 to 21 percent of those remaining not incarcerated return each year.

The "cumulative proportion surviving at end" column indicates the overall proportion remaining not incarcerated in the years after release from incarceration. In the first year, only 80 percent of those who will return to incarceration remain free; in the second year, less than 60 percent; in the third year, about 45 percent; and in the fourth year, about 35 percent. Thus, those who return to incarceration do so quickly. Note, however, that these figures illustrate the timing of return only for those who return to incarceration. They are based on interviews with inmates of state correctional facilities and exclude from consideration those releases who never return to prison. However, similar findings would be expected if data were available on all releases, not just those who are incarcerated on a certain date; the releasee population is highly recidivistic.

Table 5

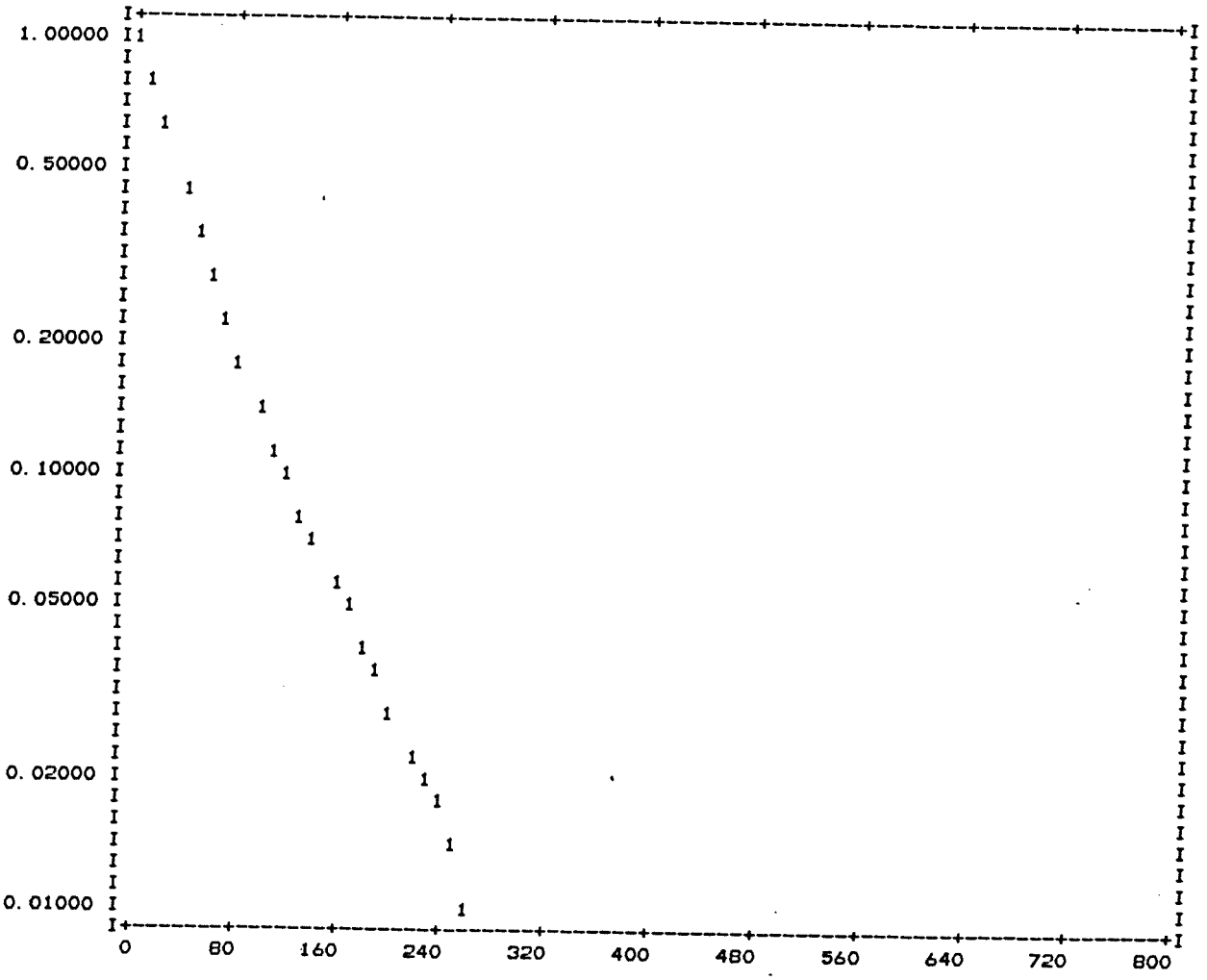
Life Table for Male Inmates in Later Incarcerations in 1979

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	100479.0	0.0	100479.0	20537.0	0.2044	0.7956	0.7956	0.0170	0.0190	0.001	0.000	0.000
12.0	79942.0	0.0	79942.0	19924.0	0.2492	0.7508	0.5973	0.0165	0.0237	0.002	0.000	0.000
24.0	60018.0	0.0	60018.0	14700.0	0.2449	0.7551	0.4510	0.0122	0.0233	0.002	0.000	0.000
36.0	45318.0	0.0	45318.0	10286.0	0.2270	0.7730	0.3486	0.0085	0.0213	0.002	0.000	0.000
48.0	35032.0	0.0	35032.0	6924.0	0.1976	0.8024	0.2797	0.0057	0.0183	0.001	0.000	0.000
60.0	28108.0	0.0	28108.0	5953.0	0.2118	0.7882	0.2205	0.0049	0.0197	0.001	0.000	0.000
72.0	22155.0	0.0	22155.0	4447.0	0.2007	0.7993	0.1762	0.0037	0.0186	0.001	0.000	0.000
84.0	17708.0	0.0	17708.0	3151.0	0.1779	0.8221	0.1449	0.0026	0.0163	0.001	0.000	0.000
96.0	14557.0	0.0	14557.0	2773.0	0.1905	0.8095	0.1173	0.0023	0.0175	0.001	0.000	0.000
108.0	11784.0	0.0	11784.0	2032.0	0.1724	0.8276	0.0971	0.0017	0.0157	0.001	0.000	0.000
120.0	9752.0	0.0	9752.0	1508.0	0.1546	0.8454	0.0820	0.0013	0.0140	0.001	0.000	0.000
132.0	8244.0	0.0	8244.0	1190.0	0.1443	0.8557	0.0702	0.0010	0.0130	0.001	0.000	0.000
144.0	7054.0	0.0	7054.0	1108.0	0.1571	0.8429	0.0592	0.0009	0.0142	0.001	0.000	0.000
156.0	5946.0	0.0	5946.0	1021.0	0.1717	0.8283	0.0490	0.0008	0.0157	0.001	0.000	0.000
168.0	4925.0	0.0	4925.0	702.0	0.1425	0.8575	0.0420	0.0006	0.0128	0.001	0.000	0.000
180.0	4223.0	0.0	4223.0	661.0	0.1565	0.8435	0.0355	0.0005	0.0142	0.001	0.000	0.001
192.0	3562.0	0.0	3562.0	663.0	0.1861	0.8139	0.0289	0.0005	0.0171	0.001	0.000	0.001
204.0	2899.0	0.0	2899.0	573.0	0.1977	0.8023	0.0231	0.0005	0.0183	0.000	0.000	0.001
216.0	2326.0	0.0	2326.0	366.0	0.1574	0.8426	0.0195	0.0003	0.0142	0.000	0.000	0.001
228.0	1960.0	0.0	1960.0	226.0	0.1153	0.8847	0.0173	0.0002	0.0102	0.000	0.000	0.001
240.0	1734.0	0.0	1734.0	365.0	0.2105	0.7895	0.0136	0.0003	0.0196	0.000	0.000	0.001
252.0	1369.0	0.0	1369.0	397.0	0.2900	0.7100	0.0097	0.0003	0.0283	0.000	0.000	0.001
264.0	972.0	0.0	972.0	257.0	0.2644	0.7356	0.0071	0.0002	0.0254	0.000	0.000	0.002
276.0	715.0	0.0	715.0	0.0	0.0	1.0000	0.0071	0.0	0.0	0.000	0.0	0.0
288.0	715.0	0.0	715.0	143.0	0.2000	0.8000	0.0057	0.0001	0.0185	0.000	0.000	0.002
300.0	572.0	0.0	572.0	100.0	0.1748	0.8252	0.0047	0.0001	0.0160	0.000	0.000	0.002
312.0	472.0	0.0	472.0	142.0	0.3008	0.6992	0.0033	0.0001	0.0295	0.000	0.000	0.002
324.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0033	0.0	0.0	0.000	0.0	0.0
336.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0033	0.0	0.0	0.000	0.0	0.0
348.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0033	0.0	0.0	0.000	0.0	0.0
360.0	330.0	0.0	330.0	56.0	0.1697	0.8303	0.0027	0.0000	0.0155	0.000	0.000	0.002
372.0	274.0	0.0	274.0	0.0	0.0	1.0000	0.0027	0.0	0.0	0.000	0.0	0.0
384.0	274.0	0.0	274.0	97.0	0.3540	0.6460	0.0018	0.0001	0.0358	0.000	0.000	0.004
396.0	177.0	0.0	177.0	34.0	0.1921	0.8079	0.0014	0.0000	0.0177	0.000	0.000	0.003
408.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0014	0.0	0.0	0.000	0.0	0.0
420.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0014	0.0	0.0	0.000	0.0	0.0
432.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0014	0.0	0.0	0.000	0.0	0.0
444.0	143.0	0.0	143.0	28.0	0.1958	0.8042	0.0011	0.0000	0.0181	0.000	0.000	0.003
456.0	115.0	0.0	115.0	31.0	0.2696	0.7304	0.0008	0.0000	0.0260	0.000	0.000	0.005
468.0	84.0	0.0	84.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
480.0	84.0	0.0	84.0	29.0	0.3452	0.6548	0.0005	0.0000	0.0348	0.000	0.000	0.006
492.0	55.0	0.0	55.0	28.0	0.5091	0.4909	0.0003	0.0000	0.0569	0.000	0.000	0.010
504.0	27.0	0.0	27.0	27.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 31.98

The logarithmic survival plot of the survival function presented in figure 4 is somewhat more linear than the plot presented in figure 3 but remains nonlinear. The fact that the plot is not highly linear continues to provide evidence for a time dependent rate of reincarceration (or subgroup differentiation in rates). These alternative explanations are investigated in analyses discussed below for subgroups and in variations of event-history models.

Figure 4. Log Scale Graph of Survival Function for Male Inmates in Later Incarcerations in 1979



2. Subgroup Differentiation

Survival analyses were also conducted for the timing of the first incarceration and later incarcerations for selected sociodemographic and offense history characteristics. These findings are summarized in table 6 which reports the average age at first incarceration for the total sample and selected subgroups. The table also reports for those incarcerated more than once, the average number of years since the prior incarceration. These averages are calculated from median survival times. For ease of comparison, most of the variables are dichotomized. Significantly different survival plots for the subgroups are indicated by asterisks. Survival curves and life tables for the timing of the first and later incarcerations by race, marital status, educational status, and employment status are included as an appendix to this report. Note in these tables and figures that the variables are dichotomized; "1" refers white and "2" to nonwhite; "1" refers to married and "2" to nonmarried; "1" refers to less than high school education and "2" refers to high school or more; and "1" refers to not employed and "2" refers to employed.

a. First Incarceration. For those serving time for a first incarceration in 1979, the average age at incarceration was 23.0, as shown in table 6. Note that these data are based on the current incarceration, for the case in which it was the first incarceration in the individual's life. There was some variation in the average age at admission to the first incarceration, and most of the subgroup comparisons were statistically significant. On average, the following inmate groups became incarcerated at earlier ages than their counterparts: nonwhites, unmarried, less well educated, those not employed, those using drugs at the time of the offense, those with no military service, and those in more recent birth cohorts. There was no significant difference in the survival plots of those who had and had not been using alcohol at the time of the offense. These findings suggest substantial subgroup differentiation in the timing of the first incarceration for those incarcerated in 1979 for the first time.

Table 6

Average Age at First Incarceration and Number of Years Since Prior Incarceration for Subgroups

	Average Age at First Incarceration (percent)	Number of Years Since Last Incarceration (percent)
Total	23.0	2.7
Race		
White	23.6*	2.6*
Nonwhite	22.5	2.8
Marital Status		
Not married	22.3*	2.4*
Married	26.5	3.6
Education at Admission		
Less than high school	22.2*	2.6*
High school graduate	24.7	2.8
Employment Status at Admission		
Not employed	21.7*	2.3*
Employed	23.5	2.8
Military Service		
No	21.9*	2.6*
Yes	27.0	2.9
Cohort		
1930s or earlier	42.9*	7.5*
1940s	30.6	3.6
1950s or later	21.3	1.7
Drug Use at Time of Offense		
No	22.5*	2.6*
Yes	21.5	2.1
Alcohol Use at Time of Offense		
No	23.2	2.9*
Yes	23.1	2.6

*Survival plots of subgroups are significantly different according to the Lee-Desu statistic.

The survival curves of the subgroups are nonlinear and are similar in shape to that reported for the total sample serving time for the first incarceration in 1979 (see figure 1). The survival curves suggest a decreasing rate of incarceration past age 16, with a median survival age of 23.0. The logarithmic plots of the survival functions for the subgroups are more linear but remain nonlinear (not presented here). This suggests that the rates of becoming incarcerated for the first time differ among subgroups and that models of the rate of incarceration must fully account for subgroup differentiation.

b. Later Incarcerations. For those for whom the current incarceration marked a return to incarceration, the average number of years after release from the immediately prior incarceration was 2.7. As with the timing of the first incarceration, subgroup variation in the timing of later incarcerations was apparent. The following groups returned to incarceration earlier on average: whites, those not married, those with less than a high school education, those not employed at the time of the offense, those using drugs or alcohol at the time of the offense, those with no military service, and those from more recent birth cohorts. Each of these subgroups comparisons was significant.

The survival curves of the subgroups are nonlinear and are similar in shape to that reported for the total sample serving time in 1979 for a second or later incarceration (see figure 3). The survival curves suggest a decreasing rate of return to incarceration as the time increases since last release. The logarithmic plots of the survival functions for the subgroups are more linear but remain nonlinear (not presented here). These findings suggest that the rates of returning to incarceration differ among subgroups and that models of the rate of incarceration must fully account for subgroup differentiation.

The findings of survival analyses of the timing of first and later incarcerations, thus, suggest that the timing of both events is time dependent and dependent on subgroup variation. Models of the timing of first and later incarcerations should incorporate time dependence and population heterogeneity.

C. Event-History Analyses

Survival analyses reported here suggested that the timing of first and later incarcerations is time dependent and characterized by subgroup differentiation. Analyses revealed significant subgroup differentiation for both the first and later incarcerations according to race, marital status, education at admission, employment status at admission, military service, cohort, and drug use at time of offense; alcohol use at time of offense was significant only for the timing of later incarcerations. Overall, the timing of first or later incarcerations was faster for those who were not married, less well educated, not employed, who were using drugs or who had not had military service. Younger cohorts appear to be entering prison at earlier ages and more quickly returning to incarceration. Nonwhites enter incarceration for the first time at earlier ages than whites, but the return time for whites is slightly shorter than for nonwhites. These findings are, however, indicative only of bivariate relationships between the timing variables and selected demographic and criminal history variables.

A series of event-history analyses was conducted to examine these relationships in a multivariate context. The RATE program used here allows testing of four alternative types of event-history models that specify the nature of time dependence of the rate of occurrence of events and the relationship to independent variables. In the first model, transition rates are assumed to depend only on a set of independent variables and not on t; the independent variables do not themselves vary over time. In the second model, transition rates are assumed to depend on a set of independent variables and not on t; the independent variables can vary over time and an error term is incorporated. In the third model, transition

rates are assumed to vary both with the independent variables and over time. In the fourth model, transition rates are assumed to decline exponentially over time until some nonzero assymptote is reached.

Analyses reported here are based on the first model, although additional analyses are being conducted that examine more complex rate models and incorporate explanatory variables that more fully elaborate observed variation in the timing of first and later incarcerations.

Estimates of parameter effects on the rate of first incarceration are presented in table 7. This analysis incorporates variables considered in the survival analyses described earlier and suggests that several of the bivariate relationships observed for the survival analyses are not apparent in multivariate models when the effects of other variables are controlled. Notably, the effects of race and employment status present in bivariate analyses do not hold in multivariate analyses. The following subgroups entered the first incarceration at a faster rate, or earlier ages, than their counterparts: those who were not married, those with less than a high school education, those with juvenile probations or incarcerations, those using drugs or alcohol at the time of offense for which they were incarcerated, and those with no military service; those with dependents entered incarceration at a slower rate than those with none. Note that the relationship for employment status differed in sign from that in the bivariate analyses; the estimate was not, however, statistically significant.

Table 7

Estimates of Parameter Effects on Rate of First Incarceration
(Standard Errors in Parentheses)

	Parameter Estimate	Standard Error
Constant	-5.123	(.041)
Race (Nonwhite)	-0.013	(.009)
Employment Status (not employed)	-0.111	(.009)
Marital Status (not married)	0.120	(.010)
Dependents (yes)	-0.143	(.005)
Education (less than high school)	0.127	(.010)
Juvenile probation (yes)	0.040	(.006)
Juvenile incarceration (yes)	0.063	(.003)
Drugs at time of offense (yes)	0.080	(.009)
Alcohol at time of offense (yes)	0.022	(.009)
Military service (no)	0.079	(.011)

Some differences were apparent when the transition rates for varied offense types were considered. Parameter estimates for the effects of selected variables on the rate of first incarceration, where the first incarceration was for a violent offense, property offense, drug offense, or selected public order offenses are presented in table 8. The independent variables considered here are not consistently related to the rate of first incarceration across all the offenses, and some of the relationships differ in direction across the types of offenses. The rate of incarceration for violent offenses was slower for nonwhites, those with dependents, and those with less than a high school education. The rate of incarceration for property offenses was faster for those with less than a high school education, those who were using drugs at the time of the offense and those with no military service. The rate of incarceration for drug offenses was faster for nonwhites, those who had juvenile probation or who were using alcohol at the time of the current offense and slower for those who were not married. The rate of incarceration for public order offenses (recall that only a subset of these offenses is considered here) was faster for nonwhites, those with juvenile probations or incarcerations, or those using drugs at the time of the current offense and slower for those with dependents. Other relationships were not statistically significant.

These analyses suggest that background factors act to speed or slow the rate of incarceration in different ways, depending on the type of offense committed. The impact of race and education on the rate of incarceration in particular varies by offense type. In contrast to other types of offenses, violent offenses appear to result in incarceration more quickly for whites and those with a high school education or greater. The effects of having dependents, having a juvenile record, or using drugs or alcohol at the time of the current offense are more predictable for those cases in which the results are statistically significant.

Table 8

Estimates of Parameter Effects on Rate of First Incarceration for Offense Types (Standard Errors in Parentheses)

	Violent Offenses	Property Offenses	Drug Offenses	Public Order Offenses
Constant	-7.456 (.014)	-1.300 (.042)	-9.284 (.059)	-5.196 (.045)
Race (Nonwhite)	-.052 (.003)	-.092 (.084)	.053 (.013)	.037 (.010)
Employment status (not employed)	-.016 (.030)	.010 (.080)	.029 (.015)	-.010 (.010)
Marital status (not married)	.022 (.035)	-.026 (.070)	-1.196 (.013)	.012 (.012)
Dependents (yes)	-.043 (.015)	.021 (.043)	-.037 (.066)	-.017 (.005)
Education (less than high school)	-.072 (.033)	.091 (.011)	.023 (.015)	.013 (.011)
Juvenile probation (yes)	.013 (.020)	.022 (.050)	.026 (.008)	.016 (.006)
Juvenile incarceration (yes)	.012 (.007)	.013 (.016)	-.015 (.049)	.035 (.003)
Drugs at time of offense (yes)	.029 (.029)	1.159 (.080)	-.065 (.013)	.067 (.010)
Alcohol at time of offense (yes)	.020 (.030)	.009 (.079)	1.014 (.015)	.001 (.010)
Military Service (no)	.034 (.038)	.082 (.012)	-.016 (.014)	.004 (.012)

5. IMPLICATIONS

Event-history analyses conducted for this research shift attention from investigation of the likelihood of incarceration and from bivariate relationships to a consideration of the timing of incarceration within a multivariate framework. The analyses suggest background factors that may increase or slow the rate of incarceration, for first or later incarcerations, rather than simply factors that increase or decrease the likelihood of incarceration.

The shift from bivariate analyses such as those reported for the survival analyses toward a multivariate framework suggests that some relationships found in the simpler analyses are more complex than at first apparent. Some significant bivariate relationships were not significant within a multivariate framework. Other relationships were found to be dependent on the nature of the transition, i.e., the type of the offense committed. These findings suggest that certain well established research findings regarding the likelihood of incarceration, or how background factors affect incarceration, may not hold true when timing issues are considered and when alternative origin and destination states are considered.

Event-history analyses presents a methodological approach that can broaden the base of knowledge about criminal careers and incarceration histories by expanding considerations of timing issues within a multivariate framework.

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APPENDIX

Survival Curves and Life Tables for Subgroups for First and Later Incarcerations

Figure A.1. Graph of Survival Function for Male Inmates in First Incarceration in 1979, by Race

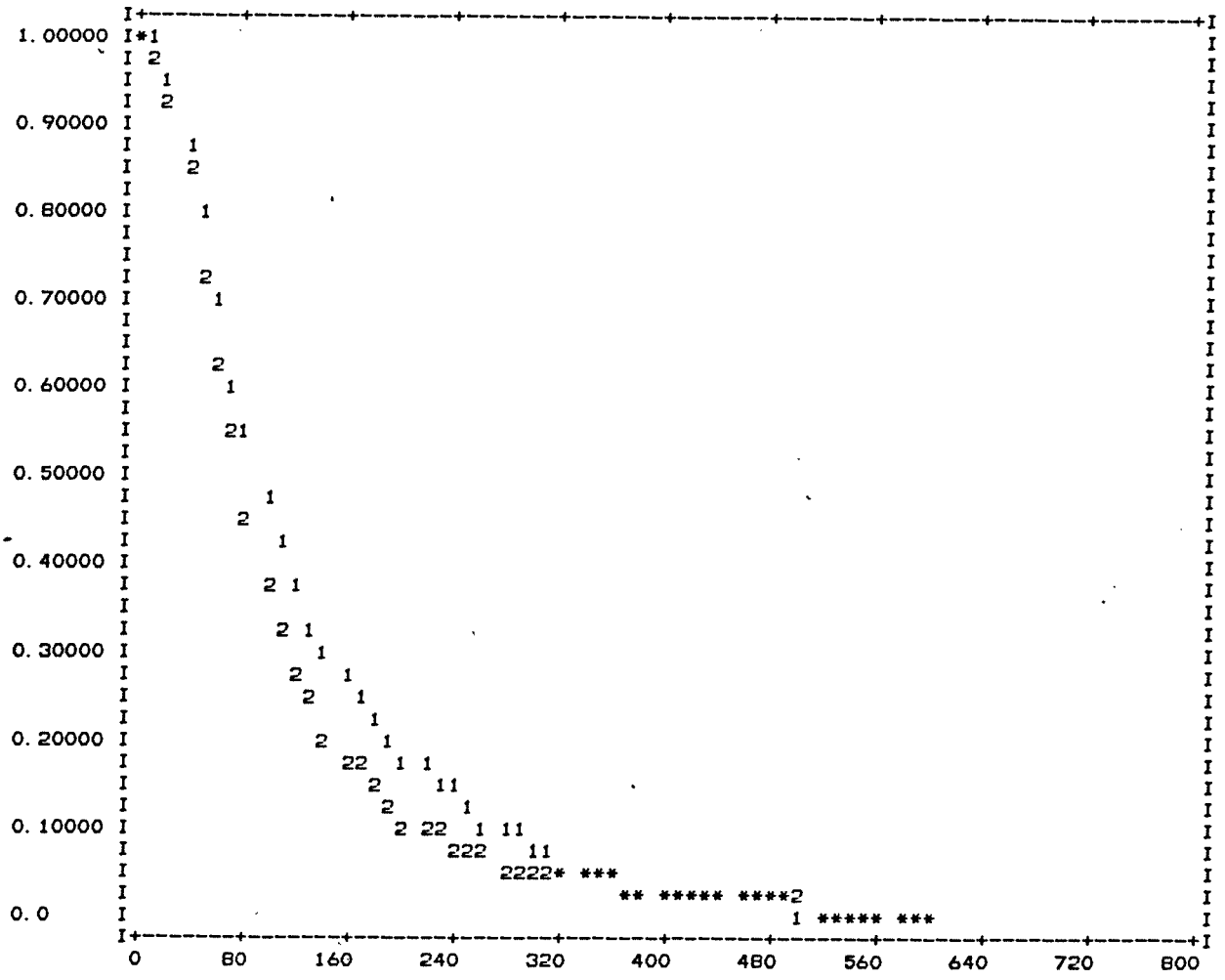

Table A.1

Life Table for Male Inmates in First Incarceration in 1979, by Race

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	52786.0	0.0	52786.0	356.0	0.0067	0.9933	0.9933	0.0006	0.0006	0.000	0.000	0.000
12.0	52430.0	0.0	52430.0	2047.0	0.0390	0.9610	0.9545	0.0032	0.0033	0.001	0.000	0.000
24.0	50383.0	0.0	50383.0	4651.0	0.0923	0.9077	0.8664	0.0073	0.0081	0.001	0.000	0.000
36.0	45732.0	0.0	45732.0	4119.0	0.0901	0.9099	0.7883	0.0065	0.0079	0.002	0.000	0.000
48.0	41613.0	0.0	41613.0	4676.0	0.1124	0.8876	0.6997	0.0074	0.0099	0.002	0.000	0.000
60.0	36937.0	0.0	36937.0	4613.0	0.1249	0.8751	0.6124	0.0073	0.0111	0.002	0.000	0.000
72.0	32324.0	0.0	32324.0	3928.0	0.1215	0.8785	0.5379	0.0062	0.0108	0.002	0.000	0.000
84.0	28396.0	0.0	28396.0	3397.0	0.1196	0.8804	0.4736	0.0054	0.0106	0.002	0.000	0.000
96.0	24999.0	0.0	24999.0	2904.0	0.1162	0.8838	0.4186	0.0046	0.0103	0.002	0.000	0.000
108.0	22095.0	0.0	22095.0	2510.0	0.1136	0.8864	0.3710	0.0040	0.0100	0.002	0.000	0.000
120.0	19585.0	0.0	19585.0	1775.0	0.0906	0.9094	0.3374	0.0028	0.0079	0.002	0.000	0.000
132.0	17810.0	0.0	17810.0	1576.0	0.0885	0.9115	0.3075	0.0025	0.0077	0.002	0.000	0.000
144.0	16234.0	0.0	16234.0	1630.0	0.1004	0.8996	0.2767	0.0026	0.0088	0.002	0.000	0.000
156.0	14604.0	0.0	14604.0	1422.0	0.0974	0.9026	0.2497	0.0022	0.0085	0.002	0.000	0.000
168.0	13182.0	0.0	13182.0	1225.0	0.0929	0.9071	0.2265	0.0019	0.0081	0.002	0.000	0.000
180.0	11957.0	0.0	11957.0	953.0	0.0797	0.9203	0.2085	0.0015	0.0069	0.002	0.000	0.000
192.0	11004.0	0.0	11004.0	1146.0	0.1041	0.8959	0.1868	0.0018	0.0092	0.002	0.000	0.000
204.0	9858.0	0.0	9858.0	727.0	0.0737	0.9263	0.1730	0.0011	0.0064	0.002	0.000	0.000
216.0	9131.0	0.0	9131.0	933.0	0.1022	0.8978	0.1553	0.0015	0.0090	0.002	0.000	0.000
228.0	8198.0	0.0	8198.0	850.0	0.1037	0.8963	0.1392	0.0013	0.0091	0.002	0.000	0.000
240.0	7348.0	0.0	7348.0	757.0	0.1030	0.8970	0.1249	0.0012	0.0091	0.001	0.000	0.000
252.0	6591.0	0.0	6591.0	1161.0	0.1761	0.8239	0.1029	0.0018	0.0161	0.001	0.000	0.000
264.0	5430.0	0.0	5430.0	695.0	0.1280	0.8720	0.0897	0.0011	0.0114	0.001	0.000	0.000
276.0	4735.0	0.0	4735.0	0.0	0.0	1.0000	0.0897	0.0	0.0	0.001	0.0	0.0
288.0	4735.0	0.0	4735.0	534.0	0.1128	0.8872	0.0796	0.0008	0.0100	0.001	0.000	0.000
300.0	4201.0	0.0	4201.0	520.0	0.1238	0.8762	0.0697	0.0008	0.0110	0.001	0.000	0.000
312.0	3681.0	0.0	3681.0	594.0	0.1614	0.8386	0.0585	0.0009	0.0146	0.001	0.000	0.001
324.0	3087.0	0.0	3087.0	0.0	0.0	1.0000	0.0585	0.0	0.0	0.001	0.0	0.0
336.0	3087.0	0.0	3087.0	434.0	0.1406	0.8594	0.0503	0.0007	0.0126	0.001	0.000	0.001
348.0	2653.0	0.0	2653.0	395.0	0.1489	0.8511	0.0428	0.0006	0.0134	0.001	0.000	0.001
360.0	2258.0	0.0	2258.0	311.0	0.1377	0.8623	0.0369	0.0005	0.0123	0.001	0.000	0.001
372.0	1947.0	0.0	1947.0	0.0	0.0	1.0000	0.0369	0.0	0.0	0.001	0.0	0.0
384.0	1947.0	0.0	1947.0	192.0	0.0986	0.9014	0.0332	0.0003	0.0086	0.001	0.000	0.001
396.0	1755.0	0.0	1755.0	286.0	0.1630	0.8370	0.0278	0.0005	0.0148	0.001	0.000	0.001
408.0	1469.0	0.0	1469.0	261.0	0.1777	0.8223	0.0229	0.0004	0.0162	0.001	0.000	0.001
420.0	1208.0	0.0	1208.0	0.0	0.0	1.0000	0.0229	0.0	0.0	0.001	0.0	0.0
432.0	1208.0	0.0	1208.0	170.0	0.1407	0.8593	0.0197	0.0003	0.0126	0.001	0.000	0.001
444.0	1038.0	0.0	1038.0	56.0	0.0539	0.9461	0.0186	0.0001	0.0046	0.001	0.000	0.001
456.0	982.0	0.0	982.0	136.0	0.1385	0.8615	0.0160	0.0002	0.0124	0.001	0.000	0.001
468.0	846.0	0.0	846.0	0.0	0.0	1.0000	0.0160	0.0	0.0	0.001	0.0	0.0
480.0	846.0	0.0	846.0	171.0	0.2021	0.7979	0.0128	0.0003	0.0187	0.000	0.000	0.001
492.0	675.0	0.0	675.0	85.0	0.1259	0.8741	0.0112	0.0001	0.0112	0.000	0.000	0.001
504.0	590.0	0.0	590.0	137.0	0.2322	0.7678	0.0086	0.0002	0.0219	0.000	0.000	0.002
516.0	453.0	0.0	453.0	0.0	0.0	1.0000	0.0086	0.0	0.0	0.000	0.0	0.0
528.0	453.0	0.0	453.0	126.0	0.2781	0.7219	0.0062	0.0002	0.0269	0.000	0.000	0.002
540.0	327.0	0.0	327.0	117.0	0.3578	0.6422	0.0040	0.0002	0.0363	0.000	0.000	0.003
552.0	210.0	0.0	210.0	30.0	0.1429	0.8571	0.0034	0.0000	0.0128	0.000	0.000	0.002
564.0	180.0	0.0	180.0	0.0	0.0	1.0000	0.0034	0.0	0.0	0.000	0.0	0.0
576.0	180.0	0.0	180.0	122.0	0.6778	0.3222	0.0011	0.0002	0.0854	0.000	0.000	0.007
588.0	58.0	0.0	58.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
600.0+	58.0	0.0	58.0	58.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 91.08

Table A.1 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	52178.0	0.0	52178.0	1012.0	0.0194	0.9806	0.9806	0.0016	0.0016	0.001	0.000	0.000
12.0	51166.0	0.0	51166.0	2548.0	0.0498	0.9502	0.9318	0.0041	0.0043	0.001	0.000	0.000
24.0	48618.0	0.0	48618.0	4778.0	0.0983	0.9017	0.8402	0.0076	0.0086	0.002	0.000	0.000
36.0	43840.0	0.0	43840.0	5565.0	0.1269	0.8731	0.7335	0.0089	0.0113	0.002	0.000	0.000
48.0	38275.0	0.0	38275.0	5443.0	0.1422	0.8578	0.6292	0.0087	0.0128	0.002	0.000	0.000
60.0	32832.0	0.0	32832.0	4756.0	0.1449	0.8551	0.5381	0.0076	0.0130	0.002	0.000	0.000
72.0	28076.0	0.0	28076.0	4277.0	0.1523	0.8477	0.4561	0.0068	0.0137	0.002	0.000	0.000
84.0	23799.0	0.0	23799.0	3716.0	0.1561	0.8439	0.3849	0.0059	0.0141	0.002	0.000	0.000
96.0	20083.0	0.0	20083.0	2769.0	0.1379	0.8621	0.3318	0.0044	0.0123	0.002	0.000	0.000
108.0	17314.0	0.0	17314.0	2740.0	0.1583	0.8417	0.2793	0.0044	0.0143	0.002	0.000	0.000
120.0	14574.0	0.0	14574.0	1939.0	0.1330	0.8670	0.2422	0.0031	0.0119	0.002	0.000	0.000
132.0	12635.0	0.0	12635.0	1892.0	0.1497	0.8503	0.2059	0.0030	0.0135	0.002	0.000	0.000
144.0	10743.0	0.0	10743.0	1079.0	0.1004	0.8996	0.1852	0.0017	0.0088	0.002	0.000	0.000
156.0	9664.0	0.0	9664.0	1184.0	0.1225	0.8775	0.1625	0.0019	0.0109	0.002	0.000	0.000
168.0	8480.0	0.0	8480.0	952.0	0.1123	0.8877	0.1443	0.0015	0.0099	0.002	0.000	0.000
180.0	7528.0	0.0	7528.0	852.0	0.1132	0.8868	0.1279	0.0014	0.0100	0.001	0.000	0.000
192.0	6676.0	0.0	6676.0	845.0	0.1266	0.8734	0.1118	0.0013	0.0113	0.001	0.000	0.000
204.0	5831.0	0.0	5831.0	431.0	0.0739	0.9261	0.1035	0.0007	0.0064	0.001	0.000	0.000
216.0	5400.0	0.0	5400.0	575.0	0.1065	0.8935	0.0925	0.0009	0.0094	0.001	0.000	0.000
228.0	4825.0	0.0	4825.0	373.0	0.0773	0.9227	0.0853	0.0006	0.0067	0.001	0.000	0.000
240.0	4452.0	0.0	4452.0	112.0	0.0252	0.9748	0.0832	0.0002	0.0021	0.001	0.000	0.000
252.0	4340.0	0.0	4340.0	618.0	0.1424	0.8576	0.0713	0.0010	0.0128	0.001	0.000	0.001
264.0	3722.0	0.0	3722.0	538.0	0.1445	0.8555	0.0610	0.0009	0.0130	0.001	0.000	0.001
276.0	3184.0	0.0	3184.0	0.0	0.0	1.0000	0.0610	0.0	0.0	0.001	0.0	0.0
288.0	3184.0	0.0	3184.0	253.0	0.0795	0.9205	0.0562	0.0004	0.0069	0.001	0.000	0.000
300.0	2931.0	0.0	2931.0	147.0	0.0502	0.9498	0.0534	0.0002	0.0043	0.001	0.000	0.000
312.0	2784.0	0.0	2784.0	316.0	0.1135	0.8865	0.0473	0.0005	0.0100	0.001	0.000	0.001
324.0	2468.0	0.0	2468.0	0.0	0.0	1.0000	0.0473	0.0	0.0	0.001	0.0	0.0
336.0	2468.0	0.0	2468.0	85.0	0.0344	0.9656	0.0457	0.0001	0.0029	0.001	0.000	0.000
348.0	2383.0	0.0	2383.0	267.0	0.1120	0.8880	0.0406	0.0004	0.0099	0.001	0.000	0.001
360.0	2116.0	0.0	2116.0	261.0	0.1233	0.8767	0.0356	0.0004	0.0110	0.001	0.000	0.001
372.0	1855.0	0.0	1855.0	0.0	0.0	1.0000	0.0356	0.0	0.0	0.001	0.0	0.0
384.0	1855.0	0.0	1855.0	176.0	0.0949	0.9051	0.0322	0.0003	0.0083	0.001	0.000	0.001
396.0	1679.0	0.0	1679.0	322.0	0.1918	0.8082	0.0260	0.0005	0.0177	0.001	0.000	0.001
408.0	1357.0	0.0	1357.0	158.0	0.1164	0.8836	0.0230	0.0003	0.0103	0.001	0.000	0.001
420.0	1199.0	0.0	1199.0	0.0	0.0	1.0000	0.0230	0.0	0.0	0.001	0.0	0.0
432.0	1199.0	0.0	1199.0	130.0	0.1084	0.8916	0.0205	0.0002	0.0096	0.001	0.000	0.001
444.0	1069.0	0.0	1069.0	147.0	0.1375	0.8625	0.0177	0.0002	0.0123	0.001	0.000	0.001
456.0	922.0	0.0	922.0	55.0	0.0597	0.9403	0.0166	0.0001	0.0051	0.001	0.000	0.001
468.0	867.0	0.0	867.0	0.0	0.0	1.0000	0.0166	0.0	0.0	0.001	0.0	0.0
480.0	867.0	0.0	867.0	210.0	0.2422	0.7578	0.0126	0.0003	0.0230	0.000	0.000	0.002
492.0	657.0	0.0	657.0	0.0	0.0	1.0000	0.0126	0.0	0.0	0.000	0.0	0.0
504.0	657.0	0.0	657.0	42.0	0.0639	0.9361	0.0118	0.0001	0.0055	0.000	0.000	0.001
516.0	615.0	0.0	615.0	0.0	0.0	1.0000	0.0118	0.0	0.0	0.000	0.0	0.0
528.0	615.0	0.0	615.0	87.0	0.1415	0.8585	0.0101	0.0001	0.0127	0.000	0.000	0.001
540.0	528.0	0.0	528.0	0.0	0.0	1.0000	0.0101	0.0	0.0	0.000	0.0	0.0
552.0	528.0	0.0	528.0	115.0	0.2178	0.7822	0.0079	0.0002	0.0204	0.000	0.000	0.002
564.0	413.0	0.0	413.0	0.0	0.0	1.0000	0.0079	0.0	0.0	0.000	0.0	0.0
576.0	413.0	0.0	413.0	74.0	0.1792	0.8208	0.0065	0.0001	0.0164	0.000	0.000	0.002
588.0	339.0	0.0	339.0	28.0	0.0826	0.9174	0.0060	0.0000	0.0072	0.000	0.000	0.001
600.0+	311.0	0.0	311.0	311.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 77.57

Figure A.2. Graph of Survival Function for Male Inmates in First Incarceration in 1979, by Marital Status

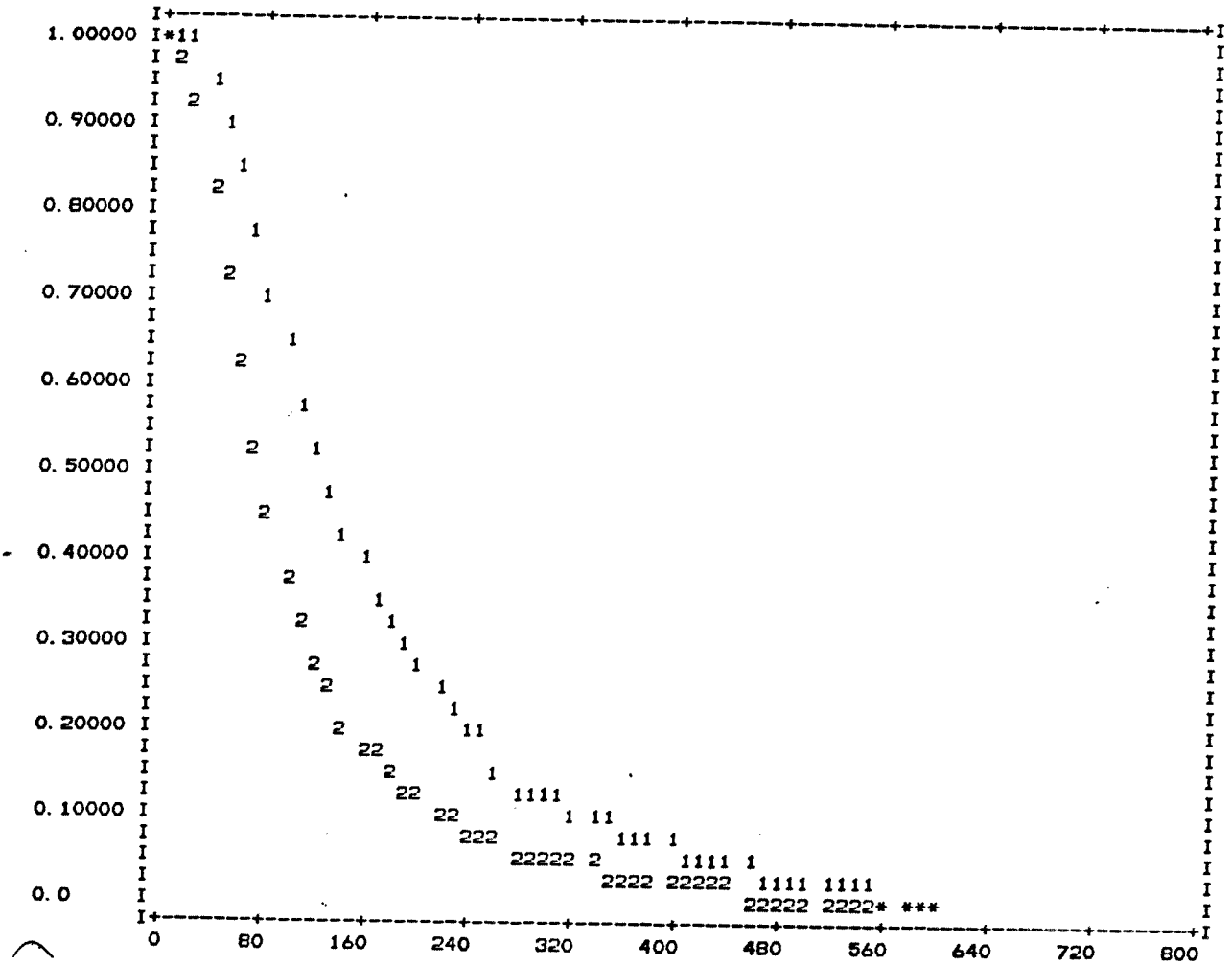

Table A.2

Life Table for Male Inmates in First Incarceration in 1979, by Marital Status

1

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	22538.0	0.0	22538.0	56.0	0.0025	0.9975	0.9975	0.0002	0.0002	0.000	0.000	0.000
12.0	22482.0	0.0	22482.0	199.0	0.0089	0.9911	0.9887	0.0007	0.0007	0.001	0.000	0.000
24.0	22283.0	0.0	22283.0	816.0	0.0366	0.9634	0.9525	0.0030	0.0031	0.001	0.000	0.000
36.0	21467.0	0.0	21467.0	989.0	0.0461	0.9539	0.9086	0.0037	0.0039	0.002	0.000	0.000
48.0	20478.0	0.0	20478.0	1557.0	0.0760	0.9240	0.8395	0.0058	0.0066	0.002	0.000	0.000
60.0	18921.0	0.0	18921.0	1644.0	0.0869	0.9131	0.7666	0.0061	0.0076	0.003	0.000	0.000
72.0	17277.0	0.0	17277.0	1412.0	0.0817	0.9183	0.7039	0.0052	0.0071	0.003	0.000	0.000
84.0	15865.0	0.0	15865.0	1456.0	0.0918	0.9082	0.6393	0.0054	0.0080	0.003	0.000	0.000
96.0	14409.0	0.0	14409.0	1368.0	0.0949	0.9051	0.5786	0.0051	0.0083	0.003	0.000	0.000
108.0	13041.0	0.0	13041.0	1244.0	0.0954	0.9046	0.5234	0.0046	0.0083	0.003	0.000	0.000
120.0	11797.0	0.0	11797.0	1030.0	0.0873	0.9127	0.4777	0.0038	0.0076	0.003	0.000	0.000
132.0	10767.0	0.0	10767.0	940.0	0.0873	0.9127	0.4360	0.0035	0.0076	0.003	0.000	0.000
144.0	9827.0	0.0	9827.0	887.0	0.0903	0.9097	0.3967	0.0033	0.0079	0.003	0.000	0.000
156.0	8940.0	0.0	8940.0	827.0	0.0925	0.9075	0.3600	0.0031	0.0081	0.003	0.000	0.000
168.0	8113.0	0.0	8113.0	730.0	0.0900	0.9100	0.3276	0.0027	0.0079	0.003	0.000	0.000
180.0	7383.0	0.0	7383.0	525.0	0.0711	0.9289	0.3043	0.0019	0.0061	0.003	0.000	0.000
192.0	6858.0	0.0	6858.0	693.0	0.1010	0.8990	0.2735	0.0026	0.0089	0.003	0.000	0.000
204.0	6165.0	0.0	6165.0	424.0	0.0688	0.9312	0.2547	0.0016	0.0059	0.003	0.000	0.000
216.0	5741.0	0.0	5741.0	577.0	0.1005	0.8995	0.2291	0.0021	0.0088	0.003	0.000	0.000
228.0	5164.0	0.0	5164.0	569.0	0.1102	0.8898	0.2039	0.0021	0.0097	0.003	0.000	0.000
240.0	4595.0	0.0	4595.0	365.0	0.0794	0.9206	0.1877	0.0013	0.0069	0.003	0.000	0.000
252.0	4230.0	0.0	4230.0	619.0	0.1463	0.8537	0.1602	0.0023	0.0132	0.002	0.000	0.001
264.0	3611.0	0.0	3611.0	568.0	0.1573	0.8427	0.1350	0.0021	0.0142	0.002	0.000	0.001
276.0	3043.0	0.0	3043.0	0.0	0.0	1.0000	0.1350	0.0	0.0	0.002	0.0	0.0
288.0	3043.0	0.0	3043.0	142.0	0.0467	0.9533	0.1287	0.0005	0.0040	0.002	0.000	0.000
300.0	2901.0	0.0	2901.0	330.0	0.1138	0.8862	0.1141	0.0012	0.0101	0.002	0.000	0.001
312.0	2571.0	0.0	2571.0	402.0	0.1564	0.8436	0.0962	0.0015	0.0141	0.002	0.000	0.001
324.0	2169.0	0.0	2169.0	0.0	0.0	1.0000	0.0962	0.0	0.0	0.002	0.0	0.0
336.0	2169.0	0.0	2169.0	144.0	0.0664	0.9336	0.0898	0.0005	0.0057	0.002	0.000	0.000
348.0	2025.0	0.0	2025.0	348.0	0.1719	0.8281	0.0744	0.0013	0.0157	0.002	0.000	0.001
360.0	1677.0	0.0	1677.0	171.0	0.1020	0.8980	0.0668	0.0006	0.0090	0.002	0.000	0.001
372.0	1506.0	0.0	1506.0	0.0	0.0	1.0000	0.0668	0.0	0.0	0.002	0.0	0.0
384.0	1506.0	0.0	1506.0	61.0	0.0405	0.9595	0.0641	0.0002	0.0034	0.002	0.000	0.000
396.0	1445.0	0.0	1445.0	200.0	0.1384	0.8616	0.0552	0.0007	0.0124	0.002	0.000	0.001
408.0	1245.0	0.0	1245.0	100.0	0.0803	0.9197	0.0508	0.0004	0.0070	0.001	0.000	0.001
420.0	1145.0	0.0	1145.0	0.0	0.0	1.0000	0.0508	0.0	0.0	0.001	0.0	0.0
432.0	1145.0	0.0	1145.0	86.0	0.0751	0.9249	0.0470	0.0003	0.0065	0.001	0.000	0.001
444.0	1059.0	0.0	1059.0	116.0	0.1095	0.8905	0.0418	0.0004	0.0097	0.001	0.000	0.001
456.0	943.0	0.0	943.0	109.0	0.1156	0.8844	0.0370	0.0004	0.0102	0.001	0.000	0.001
468.0	834.0	0.0	834.0	0.0	0.0	1.0000	0.0370	0.0	0.0	0.001	0.0	0.0
480.0	834.0	0.0	834.0	205.0	0.2458	0.7542	0.0279	0.0008	0.0234	0.001	0.000	0.002
492.0	629.0	0.0	629.0	58.0	0.0922	0.9078	0.0253	0.0002	0.0081	0.001	0.000	0.001
504.0	571.0	0.0	571.0	95.0	0.1664	0.8336	0.0211	0.0004	0.0151	0.001	0.000	0.002
516.0	476.0	0.0	476.0	0.0	0.0	1.0000	0.0211	0.0	0.0	0.001	0.0	0.0
528.0	476.0	0.0	476.0	27.0	0.0567	0.9433	0.0199	0.0001	0.0049	0.001	0.000	0.001
540.0	449.0	0.0	449.0	86.0	0.1915	0.8085	0.0161	0.0003	0.0177	0.001	0.000	0.002
552.0	363.0	0.0	363.0	85.0	0.2342	0.7658	0.0123	0.0003	0.0221	0.001	0.000	0.002
564.0	278.0	0.0	278.0	0.0	0.0	1.0000	0.0123	0.0	0.0	0.001	0.0	0.0
576.0	278.0	0.0	278.0	73.0	0.2626	0.7374	0.0091	0.0003	0.0252	0.001	0.000	0.003
588.0	205.0	0.0	205.0	28.0	0.1366	0.8634	0.0079	0.0001	0.0122	0.001	0.000	0.002
600.0+	177.0	0.0	177.0	177.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 126.15

Table A.2 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	82426.0	0.0	82426.0	1312.0	0.0159	0.9841	0.9841	0.0013	0.0013	0.000	0.000	0.000
12.0	81114.0	0.0	81114.0	4396.0	0.0542	0.9458	0.9308	0.0044	0.0046	0.001	0.000	0.000
24.0	76718.0	0.0	76718.0	8613.0	0.1123	0.8877	0.8263	0.0087	0.0099	0.001	0.000	0.000
36.0	68105.0	0.0	68105.0	8695.0	0.1277	0.8723	0.7208	0.0088	0.0114	0.002	0.000	0.000
48.0	59410.0	0.0	59410.0	8562.0	0.1441	0.8559	0.6169	0.0087	0.0129	0.002	0.000	0.000
60.0	50848.0	0.0	50848.0	7725.0	0.1519	0.8481	0.5232	0.0078	0.0137	0.002	0.000	0.000
72.0	43123.0	0.0	43123.0	6793.0	0.1575	0.8425	0.4408	0.0069	0.0142	0.002	0.000	0.000
84.0	36330.0	0.0	36330.0	5657.0	0.1557	0.8443	0.3721	0.0057	0.0141	0.002	0.000	0.000
96.0	30673.0	0.0	30673.0	4305.0	0.1404	0.8596	0.3199	0.0044	0.0126	0.002	0.000	0.000
108.0	26368.0	0.0	26368.0	4006.0	0.1519	0.8481	0.2713	0.0041	0.0137	0.002	0.000	0.000
120.0	22362.0	0.0	22362.0	2684.0	0.1200	0.8800	0.2387	0.0027	0.0106	0.001	0.000	0.000
132.0	19678.0	0.0	19678.0	2528.0	0.1285	0.8715	0.2081	0.0026	0.0114	0.001	0.000	0.000
144.0	17150.0	0.0	17150.0	1822.0	0.1062	0.8938	0.1860	0.0018	0.0093	0.001	0.000	0.000
156.0	15328.0	0.0	15328.0	1779.0	0.1161	0.8839	0.1644	0.0018	0.0103	0.001	0.000	0.000
168.0	13549.0	0.0	13549.0	1447.0	0.1068	0.8932	0.1468	0.0015	0.0094	0.001	0.000	0.000
180.0	12102.0	0.0	12102.0	1280.0	0.1058	0.8942	0.1313	0.0013	0.0093	0.001	0.000	0.000
192.0	10822.0	0.0	10822.0	1298.0	0.1199	0.8801	0.1155	0.0013	0.0106	0.001	0.000	0.000
204.0	9524.0	0.0	9524.0	734.0	0.0771	0.9229	0.1066	0.0007	0.0067	0.001	0.000	0.000
216.0	8790.0	0.0	8790.0	931.0	0.1059	0.8941	0.0953	0.0009	0.0093	0.001	0.000	0.000
228.0	7859.0	0.0	7859.0	654.0	0.0832	0.9168	0.0874	0.0007	0.0072	0.001	0.000	0.000
240.0	7205.0	0.0	7205.0	504.0	0.0700	0.9300	0.0813	0.0005	0.0060	0.001	0.000	0.000
252.0	6701.0	0.0	6701.0	1160.0	0.1731	0.8269	0.0672	0.0012	0.0158	0.001	0.000	0.000
264.0	5541.0	0.0	5541.0	665.0	0.1200	0.8800	0.0592	0.0007	0.0106	0.001	0.000	0.000
276.0	4876.0	0.0	4876.0	0.0	0.0	1.0000	0.0592	0.0	0.0	0.001	0.0	0.0
288.0	4876.0	0.0	4876.0	645.0	0.1323	0.8677	0.0513	0.0007	0.0118	0.001	0.000	0.000
300.0	4231.0	0.0	4231.0	337.0	0.0797	0.9203	0.0472	0.0003	0.0069	0.001	0.000	0.000
312.0	3894.0	0.0	3894.0	508.0	0.1305	0.8695	0.0411	0.0005	0.0116	0.001	0.000	0.001
324.0	3386.0	0.0	3386.0	0.0	0.0	1.0000	0.0411	0.0	0.0	0.001	0.0	0.0
336.0	3386.0	0.0	3386.0	375.0	0.1108	0.8892	0.0365	0.0004	0.0098	0.001	0.000	0.001
348.0	3011.0	0.0	3011.0	314.0	0.1043	0.8957	0.0327	0.0003	0.0092	0.001	0.000	0.001
360.0	2697.0	0.0	2697.0	401.0	0.1487	0.8513	0.0279	0.0004	0.0134	0.001	0.000	0.001
372.0	2296.0	0.0	2296.0	0.0	0.0	1.0000	0.0279	0.0	0.0	0.001	0.0	0.0
384.0	2296.0	0.0	2296.0	307.0	0.1337	0.8663	0.0241	0.0003	0.0119	0.001	0.000	0.001
396.0	1989.0	0.0	1989.0	408.0	0.2051	0.7949	0.0192	0.0004	0.0190	0.000	0.000	0.001
408.0	1581.0	0.0	1581.0	319.0	0.2018	0.7982	0.0153	0.0003	0.0187	0.000	0.000	0.001
420.0	1262.0	0.0	1262.0	0.0	0.0	1.0000	0.0153	0.0	0.0	0.000	0.0	0.0
432.0	1262.0	0.0	1262.0	214.0	0.1696	0.8304	0.0127	0.0002	0.0154	0.000	0.000	0.001
444.0	1048.0	0.0	1048.0	87.0	0.0830	0.9170	0.0117	0.0001	0.0072	0.000	0.000	0.001
456.0	961.0	0.0	961.0	82.0	0.0853	0.9147	0.0107	0.0001	0.0074	0.000	0.000	0.001
468.0	879.0	0.0	879.0	0.0	0.0	1.0000	0.0107	0.0	0.0	0.000	0.0	0.0
480.0	879.0	0.0	879.0	176.0	0.2002	0.7998	0.0085	0.0002	0.0185	0.000	0.000	0.001
492.0	703.0	0.0	703.0	27.0	0.0384	0.9616	0.0082	0.0000	0.0033	0.000	0.000	0.001
504.0	676.0	0.0	676.0	84.0	0.1243	0.8757	0.0072	0.0001	0.0110	0.000	0.000	0.001
516.0	592.0	0.0	592.0	0.0	0.0	1.0000	0.0072	0.0	0.0	0.000	0.0	0.0
528.0	592.0	0.0	592.0	186.0	0.3142	0.6858	0.0049	0.0002	0.0311	0.000	0.000	0.002
540.0	406.0	0.0	406.0	31.0	0.0764	0.9236	0.0045	0.0000	0.0066	0.000	0.000	0.001
552.0	375.0	0.0	375.0	60.0	0.1600	0.8400	0.0038	0.0001	0.0145	0.000	0.000	0.002
564.0	315.0	0.0	315.0	0.0	0.0	1.0000	0.0038	0.0	0.0	0.000	0.0	0.0
576.0	315.0	0.0	315.0	123.0	0.3905	0.6095	0.0023	0.0001	0.0404	0.000	0.000	0.004
588.0	192.0	0.0	192.0	0.0	0.0	1.0000	0.0023	0.0	0.0	0.000	0.0	0.0
600.0+	192.0	0.0	192.0	192.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 75.37

Figure A.3. Graph of Survival Function for Male Inmates in First Incarceration in 1979, by Education

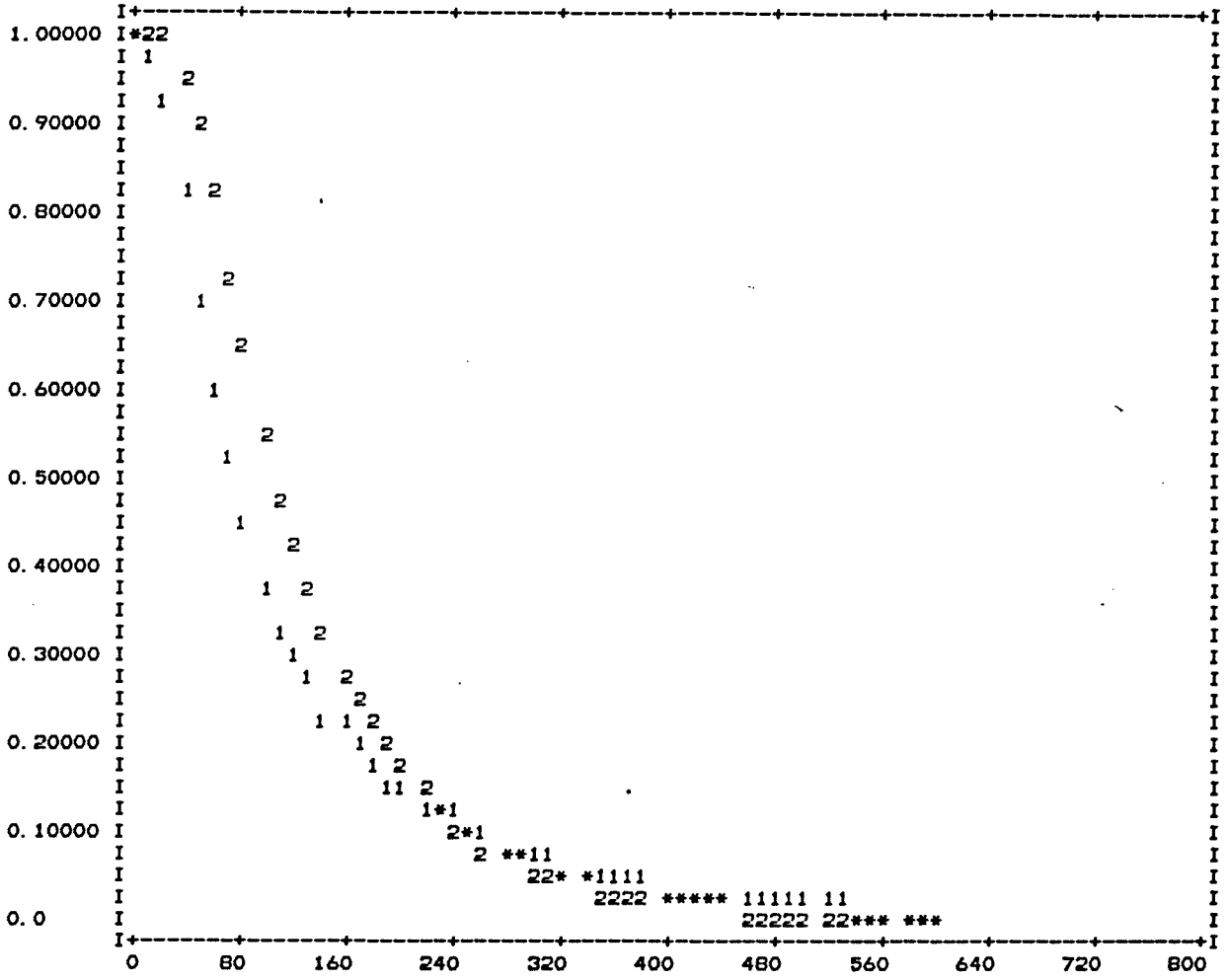

Table A.3

Life Table for Male Inmates in First Incarceration in 1979, by Education

1

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	76603.0	0.0	76603.0	1257.0	0.0164	0.9836	0.9836	0.0014	0.0014	0.000	0.000	0.000
12.0	75346.0	0.0	75346.0	4483.0	0.0595	0.9405	0.9251	0.0049	0.0051	0.001	0.000	0.000
24.0	70863.0	0.0	70863.0	8465.0	0.1195	0.8805	0.8146	0.0092	0.0106	0.001	0.000	0.000
36.0	62398.0	0.0	62398.0	8024.0	0.1286	0.8714	0.7098	0.0087	0.0115	0.002	0.000	0.000
48.0	54374.0	0.0	54374.0	7812.0	0.1437	0.8563	0.6078	0.0085	0.0129	0.002	0.000	0.000
60.0	46562.0	0.0	46562.0	6840.0	0.1469	0.8531	0.5185	0.0074	0.0132	0.002	0.000	0.000
72.0	39722.0	0.0	39722.0	5623.0	0.1416	0.8584	0.4451	0.0061	0.0127	0.002	0.000	0.000
84.0	34099.0	0.0	34099.0	4650.0	0.1364	0.8636	0.3844	0.0051	0.0122	0.002	0.000	0.000
96.0	29449.0	0.0	29449.0	3672.0	0.1247	0.8753	0.3365	0.0040	0.0111	0.002	0.000	0.000
108.0	25777.0	0.0	25777.0	3501.0	0.1358	0.8642	0.2908	0.0038	0.0121	0.002	0.000	0.000
120.0	22276.0	0.0	22276.0	2135.0	0.0958	0.9042	0.2629	0.0023	0.0084	0.002	0.000	0.000
132.0	20141.0	0.0	20141.0	2109.0	0.1047	0.8953	0.2354	0.0023	0.0092	0.002	0.000	0.000
144.0	18032.0	0.0	18032.0	1638.0	0.0908	0.9092	0.2140	0.0018	0.0079	0.001	0.000	0.000
156.0	16394.0	0.0	16394.0	1677.0	0.1023	0.8977	0.1921	0.0018	0.0090	0.001	0.000	0.000
168.0	14717.0	0.0	14717.0	1453.0	0.0987	0.9013	0.1732	0.0016	0.0087	0.001	0.000	0.000
180.0	13264.0	0.0	13264.0	1030.0	0.0777	0.9223	0.1597	0.0011	0.0067	0.001	0.000	0.000
192.0	12234.0	0.0	12234.0	1406.0	0.1149	0.8851	0.1414	0.0015	0.0102	0.001	0.000	0.000
204.0	10828.0	0.0	10828.0	722.0	0.0667	0.9333	0.1319	0.0008	0.0057	0.001	0.000	0.000
216.0	10106.0	0.0	10106.0	832.0	0.0823	0.9177	0.1211	0.0009	0.0072	0.001	0.000	0.000
228.0	9274.0	0.0	9274.0	620.0	0.0669	0.9331	0.1130	0.0007	0.0058	0.001	0.000	0.000
240.0	8654.0	0.0	8654.0	561.0	0.0648	0.9352	0.1056	0.0006	0.0056	0.001	0.000	0.000
252.0	8093.0	0.0	8093.0	1312.0	0.1621	0.8379	0.0885	0.0014	0.0147	0.001	0.000	0.000
264.0	6781.0	0.0	6781.0	909.0	0.1341	0.8659	0.0767	0.0010	0.0120	0.001	0.000	0.000
276.0	5872.0	0.0	5872.0	0.0	0.0	1.0000	0.0767	0.0	0.0	0.001	0.0	0.0
288.0	5872.0	0.0	5872.0	494.0	0.0841	0.9159	0.0702	0.0005	0.0073	0.001	0.000	0.000
300.0	5378.0	0.0	5378.0	509.0	0.0946	0.9054	0.0636	0.0006	0.0083	0.001	0.000	0.000
312.0	4869.0	0.0	4869.0	602.0	0.1236	0.8764	0.0557	0.0007	0.0110	0.001	0.000	0.000
324.0	4267.0	0.0	4267.0	0.0	0.0	1.0000	0.0557	0.0	0.0	0.001	0.0	0.0
336.0	4267.0	0.0	4267.0	287.0	0.0673	0.9327	0.0520	0.0003	0.0058	0.001	0.000	0.000
348.0	3980.0	0.0	3980.0	518.0	0.1302	0.8698	0.0452	0.0006	0.0116	0.001	0.000	0.001
360.0	3462.0	0.0	3462.0	427.0	0.1233	0.8767	0.0396	0.0005	0.0110	0.001	0.000	0.001
372.0	3035.0	0.0	3035.0	0.0	0.0	1.0000	0.0396	0.0	0.0	0.001	0.0	0.0
384.0	3035.0	0.0	3035.0	307.0	0.1012	0.8988	0.0356	0.0003	0.0089	0.001	0.000	0.001
396.0	2728.0	0.0	2728.0	497.0	0.1822	0.8178	0.0291	0.0005	0.0167	0.001	0.000	0.001
408.0	2231.0	0.0	2231.0	307.0	0.1376	0.8624	0.0251	0.0003	0.0123	0.001	0.000	0.001
420.0	1924.0	0.0	1924.0	0.0	0.0	1.0000	0.0251	0.0	0.0	0.001	0.0	0.0
432.0	1924.0	0.0	1924.0	184.0	0.0956	0.9044	0.0227	0.0002	0.0084	0.001	0.000	0.001
444.0	1740.0	0.0	1740.0	116.0	0.0667	0.9333	0.0212	0.0001	0.0057	0.001	0.000	0.001
456.0	1624.0	0.0	1624.0	139.0	0.0856	0.9144	0.0194	0.0002	0.0075	0.000	0.000	0.001
468.0	1485.0	0.0	1485.0	0.0	0.0	1.0000	0.0194	0.0	0.0	0.000	0.0	0.0
480.0	1485.0	0.0	1485.0	324.0	0.2182	0.7818	0.0152	0.0004	0.0204	0.000	0.000	0.001
492.0	1161.0	0.0	1161.0	57.0	0.0491	0.9509	0.0144	0.0001	0.0042	0.000	0.000	0.001
504.0	1104.0	0.0	1104.0	125.0	0.1132	0.8868	0.0128	0.0001	0.0100	0.000	0.000	0.001
516.0	979.0	0.0	979.0	0.0	0.0	1.0000	0.0128	0.0	0.0	0.000	0.0	0.0
528.0	979.0	0.0	979.0	182.0	0.1859	0.8141	0.0104	0.0002	0.0171	0.000	0.000	0.001
540.0	797.0	0.0	797.0	117.0	0.1468	0.8532	0.0089	0.0001	0.0132	0.000	0.000	0.001
552.0	680.0	0.0	680.0	118.0	0.1735	0.8265	0.0073	0.0001	0.0158	0.000	0.000	0.001
564.0	562.0	0.0	562.0	0.0	0.0	1.0000	0.0073	0.0	0.0	0.000	0.0	0.0
576.0	562.0	0.0	562.0	196.0	0.3488	0.6512	0.0048	0.0002	0.0352	0.000	0.000	0.002
588.0	366.0	0.0	366.0	28.0	0.0765	0.9235	0.0044	0.0000	0.0066	0.000	0.000	0.001
600.0+	338.0	0.0	338.0	338.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 75.03

Table A.3 (Continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	28361.0	0.0	28361.0	111.0	0.0039	0.9961	0.9961	0.0003	0.0003	0.000	0.000	0.000
12.0	28250.0	0.0	28250.0	112.0	0.0040	0.9960	0.9921	0.0003	0.0003	0.001	0.000	0.000
24.0	28138.0	0.0	28138.0	964.0	0.0343	0.9657	0.9581	0.0028	0.0029	0.001	0.000	0.000
36.0	27174.0	0.0	27174.0	1660.0	0.0611	0.9389	0.8996	0.0049	0.0053	0.002	0.000	0.000
48.0	25514.0	0.0	25514.0	2307.0	0.0904	0.9096	0.8183	0.0068	0.0079	0.002	0.000	0.000
60.0	23207.0	0.0	23207.0	2529.0	0.1090	0.8910	0.7291	0.0074	0.0096	0.003	0.000	0.000
72.0	20678.0	0.0	20678.0	2582.0	0.1249	0.8751	0.6381	0.0076	0.0111	0.003	0.000	0.000
84.0	18096.0	0.0	18096.0	2463.0	0.1361	0.8639	0.5512	0.0072	0.0122	0.003	0.000	0.000
96.0	15633.0	0.0	15633.0	2001.0	0.1280	0.8720	0.4807	0.0059	0.0114	0.003	0.000	0.000
108.0	13632.0	0.0	13632.0	1749.0	0.1283	0.8717	0.4190	0.0051	0.0114	0.003	0.000	0.000
120.0	11883.0	0.0	11883.0	1579.0	0.1329	0.8671	0.3633	0.0046	0.0119	0.003	0.000	0.000
132.0	10304.0	0.0	10304.0	1359.0	0.1319	0.8681	0.3154	0.0040	0.0118	0.003	0.000	0.000
144.0	8945.0	0.0	8945.0	1071.0	0.1197	0.8803	0.2776	0.0031	0.0106	0.003	0.000	0.000
156.0	7874.0	0.0	7874.0	929.0	0.1180	0.8820	0.2449	0.0027	0.0104	0.003	0.000	0.000
168.0	6945.0	0.0	6945.0	724.0	0.1042	0.8958	0.2194	0.0021	0.0092	0.002	0.000	0.000
180.0	6221.0	0.0	6221.0	775.0	0.1246	0.8754	0.1920	0.0023	0.0111	0.002	0.000	0.000
192.0	5446.0	0.0	5446.0	585.0	0.1074	0.8926	0.1714	0.0017	0.0095	0.002	0.000	0.000
204.0	4861.0	0.0	4861.0	436.0	0.0897	0.9103	0.1560	0.0013	0.0078	0.002	0.000	0.000
216.0	4425.0	0.0	4425.0	676.0	0.1528	0.8472	0.1322	0.0020	0.0138	0.002	0.000	0.001
228.0	3749.0	0.0	3749.0	603.0	0.1608	0.8392	0.1109	0.0018	0.0146	0.002	0.000	0.001
240.0	3146.0	0.0	3146.0	308.0	0.0979	0.9021	0.1001	0.0009	0.0086	0.002	0.000	0.000
252.0	2838.0	0.0	2838.0	467.0	0.1646	0.8354	0.0836	0.0014	0.0149	0.002	0.000	0.001
264.0	2371.0	0.0	2371.0	324.0	0.1367	0.8633	0.0722	0.0010	0.0122	0.002	0.000	0.001
276.0	2047.0	0.0	2047.0	0.0	0.0	1.0000	0.0722	0.0	0.0	0.002	0.0	0.0
288.0	2047.0	0.0	2047.0	293.0	0.1431	0.8569	0.0618	0.0009	0.0128	0.001	0.000	0.001
300.0	1754.0	0.0	1754.0	158.0	0.0901	0.9099	0.0563	0.0005	0.0079	0.001	0.000	0.001
312.0	1596.0	0.0	1596.0	308.0	0.1930	0.8070	0.0454	0.0009	0.0178	0.001	0.000	0.001
324.0	1288.0	0.0	1288.0	0.0	0.0	1.0000	0.0454	0.0	0.0	0.001	0.0	0.0
336.0	1288.0	0.0	1288.0	232.0	0.1801	0.8199	0.0372	0.0007	0.0165	0.001	0.000	0.001
348.0	1056.0	0.0	1056.0	144.0	0.1364	0.8636	0.0322	0.0004	0.0122	0.001	0.000	0.001
360.0	912.0	0.0	912.0	145.0	0.1590	0.8410	0.0270	0.0004	0.0144	0.001	0.000	0.001
372.0	767.0	0.0	767.0	0.0	0.0	1.0000	0.0270	0.0	0.0	0.001	0.0	0.0
384.0	767.0	0.0	767.0	61.0	0.0795	0.9205	0.0249	0.0002	0.0069	0.001	0.000	0.001
396.0	706.0	0.0	706.0	111.0	0.1572	0.8428	0.0210	0.0003	0.0142	0.001	0.000	0.001
408.0	595.0	0.0	595.0	112.0	0.1882	0.8118	0.0170	0.0003	0.0173	0.001	0.000	0.002
420.0	483.0	0.0	483.0	0.0	0.0	1.0000	0.0170	0.0	0.0	0.001	0.0	0.0
432.0	483.0	0.0	483.0	116.0	0.2402	0.7598	0.0129	0.0003	0.0227	0.001	0.000	0.002
444.0	367.0	0.0	367.0	87.0	0.2371	0.7629	0.0099	0.0003	0.0224	0.001	0.000	0.002
456.0	280.0	0.0	280.0	52.0	0.1857	0.8143	0.0080	0.0002	0.0171	0.001	0.000	0.002
468.0	228.0	0.0	228.0	0.0	0.0	1.0000	0.0080	0.0	0.0	0.001	0.0	0.0
480.0	228.0	0.0	228.0	57.0	0.2500	0.7500	0.0060	0.0002	0.0238	0.000	0.000	0.003
492.0	171.0	0.0	171.0	28.0	0.1637	0.8363	0.0050	0.0001	0.0149	0.000	0.000	0.003
504.0	143.0	0.0	143.0	54.0	0.3776	0.6224	0.0031	0.0002	0.0388	0.000	0.000	0.005
516.0	89.0	0.0	89.0	0.0	0.0	1.0000	0.0031	0.0	0.0	0.000	0.0	0.0
526.0	89.0	0.0	89.0	31.0	0.3483	0.6517	0.0020	0.0001	0.0351	0.000	0.000	0.006
540.0	58.0	0.0	58.0	0.0	0.0	1.0000	0.0020	0.0	0.0	0.000	0.0	0.0
552.0	58.0	0.0	58.0	27.0	0.4655	0.5345	0.0011	0.0001	0.0506	0.000	0.000	0.009
564.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
576.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
588.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
600.0+	31.0	0.0	31.0	31.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 104.71

Figure A.4. Graph of Survival Function for Male Inmates in First Incarceration in 1979, by Employment

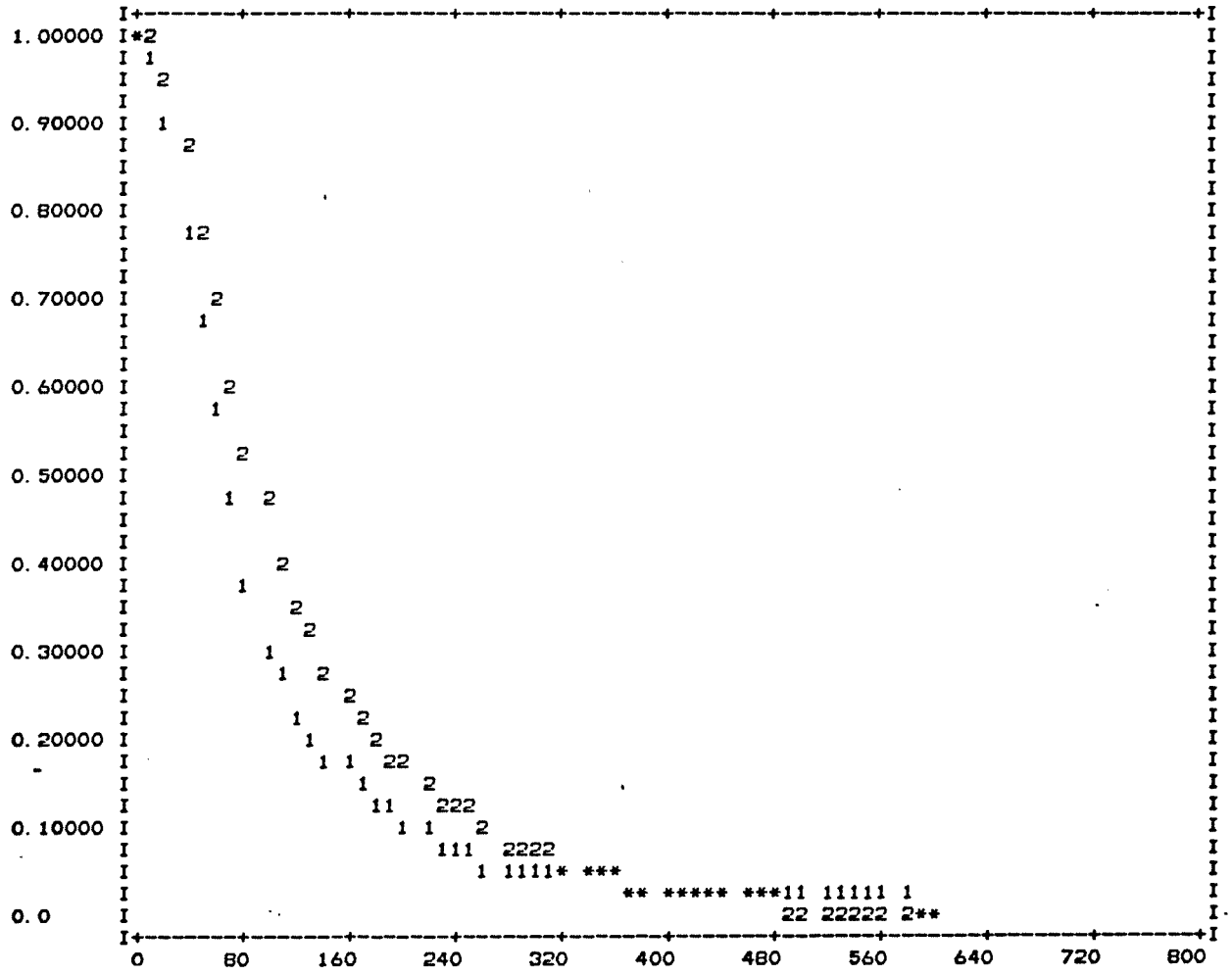

Table A.4

Life Table for Male Inmates in First Incarceration in 1979, by Employment

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	26074.0	0.0	26074.0	696.0	0.0267	0.9733	0.9733	0.0022	0.0023	0.001	0.000	0.000
12.0	25378.0	0.0	25378.0	1815.0	0.0715	0.9285	0.9037	0.0058	0.0062	0.002	0.000	0.000
24.0	23563.0	0.0	23563.0	3103.0	0.1317	0.8683	0.7847	0.0099	0.0117	0.003	0.000	0.000
36.0	20460.0	0.0	20460.0	2634.0	0.1287	0.8713	0.6837	0.0084	0.0115	0.003	0.000	0.000
48.0	17826.0	0.0	17826.0	3116.0	0.1748	0.8252	0.5642	0.0100	0.0160	0.003	0.000	0.000
60.0	14710.0	0.0	14710.0	2396.0	0.1629	0.8371	0.4723	0.0077	0.0148	0.003	0.000	0.000
72.0	12314.0	0.0	12314.0	2349.0	0.1908	0.8092	0.3822	0.0075	0.0176	0.003	0.000	0.000
84.0	9965.0	0.0	9965.0	1845.0	0.1851	0.8149	0.3114	0.0059	0.0170	0.003	0.000	0.000
96.0	8120.0	0.0	8120.0	1144.0	0.1409	0.8591	0.2675	0.0037	0.0126	0.003	0.000	0.000
108.0	6976.0	0.0	6976.0	842.0	0.1207	0.8793	0.2353	0.0027	0.0107	0.003	0.000	0.000
120.0	6134.0	0.0	6134.0	872.0	0.1422	0.8578	0.2018	0.0028	0.0128	0.002	0.000	0.000
132.0	5262.0	0.0	5262.0	507.0	0.0964	0.9036	0.1824	0.0016	0.0084	0.002	0.000	0.000
144.0	4755.0	0.0	4755.0	419.0	0.0881	0.9119	0.1663	0.0013	0.0077	0.002	0.000	0.000
156.0	4336.0	0.0	4336.0	409.0	0.0943	0.9057	0.1506	0.0013	0.0082	0.002	0.000	0.000
168.0	3927.0	0.0	3927.0	455.0	0.1159	0.8841	0.1332	0.0015	0.0102	0.002	0.000	0.000
180.0	3472.0	0.0	3472.0	427.0	0.1230	0.8770	0.1168	0.0014	0.0109	0.002	0.000	0.001
192.0	3045.0	0.0	3045.0	478.0	0.1570	0.8430	0.0985	0.0015	0.0142	0.002	0.000	0.001
204.0	2567.0	0.0	2567.0	247.0	0.0962	0.9038	0.0890	0.0008	0.0084	0.002	0.000	0.001
216.0	2320.0	0.0	2320.0	177.0	0.0763	0.9237	0.0822	0.0006	0.0066	0.002	0.000	0.000
228.0	2143.0	0.0	2143.0	339.0	0.1582	0.8418	0.0692	0.0011	0.0143	0.002	0.000	0.001
240.0	1804.0	0.0	1804.0	80.0	0.0443	0.9557	0.0661	0.0003	0.0038	0.002	0.000	0.000
252.0	1724.0	0.0	1724.0	177.0	0.1027	0.8973	0.0593	0.0006	0.0090	0.001	0.000	0.001
264.0	1547.0	0.0	1547.0	87.0	0.0562	0.9438	0.0560	0.0003	0.0048	0.001	0.000	0.001
276.0	1460.0	0.0	1460.0	0.0	0.0	1.0000	0.0560	0.0	0.0	0.001	0.0	0.0
288.0	1460.0	0.0	1460.0	26.0	0.0178	0.9822	0.0550	0.0001	0.0015	0.001	0.000	0.000
300.0	1434.0	0.0	1434.0	111.0	0.0774	0.9226	0.0507	0.0004	0.0067	0.001	0.000	0.001
312.0	1323.0	0.0	1323.0	170.0	0.1285	0.8715	0.0442	0.0005	0.0114	0.001	0.000	0.001
324.0	1153.0	0.0	1153.0	0.0	0.0	1.0000	0.0442	0.0	0.0	0.001	0.0	0.0
336.0	1153.0	0.0	1153.0	31.0	0.0269	0.9731	0.0430	0.0001	0.0023	0.001	0.000	0.000
348.0	1122.0	0.0	1122.0	124.0	0.1105	0.8895	0.0383	0.0004	0.0097	0.001	0.000	0.001
360.0	998.0	0.0	998.0	27.0	0.0271	0.9729	0.0372	0.0001	0.0023	0.001	0.000	0.000
372.0	971.0	0.0	971.0	0.0	0.0	1.0000	0.0372	0.0	0.0	0.001	0.0	0.0
384.0	971.0	0.0	971.0	101.0	0.1040	0.8960	0.0334	0.0003	0.0091	0.001	0.000	0.001
396.0	870.0	0.0	870.0	138.0	0.1586	0.8414	0.0281	0.0004	0.0144	0.001	0.000	0.001
408.0	732.0	0.0	732.0	29.0	0.0396	0.9604	0.0270	0.0001	0.0034	0.001	0.000	0.001
420.0	703.0	0.0	703.0	0.0	0.0	1.0000	0.0270	0.0	0.0	0.001	0.0	0.0
432.0	703.0	0.0	703.0	26.0	0.0370	0.9630	0.0260	0.0001	0.0031	0.001	0.000	0.001
444.0	677.0	0.0	677.0	29.0	0.0428	0.9572	0.0249	0.0001	0.0036	0.001	0.000	0.001
456.0	648.0	0.0	648.0	56.0	0.0864	0.9136	0.0227	0.0002	0.0075	0.001	0.000	0.001
468.0	592.0	0.0	592.0	0.0	0.0	1.0000	0.0227	0.0	0.0	0.001	0.0	0.0
480.0	592.0	0.0	592.0	142.0	0.2399	0.7601	0.0173	0.0005	0.0227	0.001	0.000	0.002
492.0	450.0	0.0	450.0	0.0	0.0	1.0000	0.0173	0.0	0.0	0.001	0.0	0.0
504.0	450.0	0.0	450.0	68.0	0.1511	0.8489	0.0147	0.0002	0.0136	0.001	0.000	0.002
516.0	382.0	0.0	382.0	0.0	0.0	1.0000	0.0147	0.0	0.0	0.001	0.0	0.0
528.0	382.0	0.0	382.0	0.0	0.0	1.0000	0.0147	0.0	0.0	0.001	0.0	0.0
540.0	382.0	0.0	382.0	28.0	0.0733	0.9267	0.0136	0.0001	0.0063	0.001	0.000	0.001
552.0	354.0	0.0	354.0	27.0	0.0763	0.9237	0.0125	0.0001	0.0066	0.001	0.000	0.001
564.0	327.0	0.0	327.0	0.0	0.0	1.0000	0.0125	0.0	0.0	0.001	0.0	0.0
576.0	327.0	0.0	327.0	104.0	0.3180	0.6820	0.0086	0.0003	0.0315	0.001	0.000	0.003
588.0	223.0	0.0	223.0	0.0	0.0	1.0000	0.0086	0.0	0.0	0.001	0.0	0.0
600.0+	223.0	0.0	223.0	223.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 68.38

Table A.4 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	78614.0	0.0	78614.0	672.0	0.0085	0.9915	0.9915	0.0007	0.0007	0.000	0.000	0.000
12.0	77942.0	0.0	77942.0	2755.0	0.0353	0.9647	0.9564	0.0029	0.0030	0.001	0.000	0.000
24.0	75187.0	0.0	75187.0	6326.0	0.0841	0.9159	0.8759	0.0067	0.0073	0.001	0.000	0.000
36.0	68861.0	0.0	68861.0	7050.0	0.1024	0.8976	0.7863	0.0075	0.0090	0.001	0.000	0.000
48.0	61811.0	0.0	61811.0	7003.0	0.1133	0.8867	0.6972	0.0074	0.0100	0.002	0.000	0.000
60.0	54808.0	0.0	54808.0	6973.0	0.1272	0.8728	0.6085	0.0074	0.0113	0.002	0.000	0.000
72.0	47835.0	0.0	47835.0	5828.0	0.1218	0.8782	0.5343	0.0062	0.0108	0.002	0.000	0.000
84.0	42007.0	0.0	42007.0	5243.0	0.1248	0.8752	0.4677	0.0056	0.0111	0.002	0.000	0.000
96.0	36764.0	0.0	36764.0	4501.0	0.1224	0.8776	0.4104	0.0048	0.0109	0.002	0.000	0.000
108.0	32263.0	0.0	32263.0	4380.0	0.1358	0.8642	0.3547	0.0046	0.0121	0.002	0.000	0.000
120.0	27883.0	0.0	27883.0	2842.0	0.1019	0.8981	0.3185	0.0030	0.0089	0.002	0.000	0.000
132.0	25041.0	0.0	25041.0	2901.0	0.1159	0.8841	0.2816	0.0031	0.0102	0.002	0.000	0.000
144.0	22140.0	0.0	22140.0	2290.0	0.1034	0.8966	0.2525	0.0024	0.0091	0.002	0.000	0.000
156.0	19850.0	0.0	19850.0	2197.0	0.1107	0.8893	0.2246	0.0023	0.0098	0.001	0.000	0.000
168.0	17653.0	0.0	17653.0	1722.0	0.0975	0.9025	0.2026	0.0018	0.0085	0.001	0.000	0.000
180.0	15931.0	0.0	15931.0	1378.0	0.0865	0.9135	0.1851	0.0015	0.0075	0.001	0.000	0.000
192.0	14553.0	0.0	14553.0	1513.0	0.1040	0.8960	0.1659	0.0016	0.0091	0.001	0.000	0.000
204.0	13040.0	0.0	13040.0	911.0	0.0699	0.9301	0.1543	0.0010	0.0060	0.001	0.000	0.000
216.0	12129.0	0.0	12129.0	1331.0	0.1097	0.8903	0.1374	0.0014	0.0097	0.001	0.000	0.000
228.0	10798.0	0.0	10798.0	884.0	0.0819	0.9181	0.1261	0.0009	0.0071	0.001	0.000	0.000
240.0	9914.0	0.0	9914.0	763.0	0.0770	0.9230	0.1164	0.0008	0.0067	0.001	0.000	0.000
252.0	9151.0	0.0	9151.0	1602.0	0.1751	0.8249	0.0960	0.0017	0.0160	0.001	0.000	0.000
264.0	7549.0	0.0	7549.0	1118.0	0.1481	0.8519	0.0818	0.0012	0.0133	0.001	0.000	0.000
276.0	6431.0	0.0	6431.0	0.0	0.0	1.0000	0.0818	0.0	0.0	0.001	0.0	0.0
288.0	6431.0	0.0	6431.0	761.0	0.1183	0.8817	0.0721	0.0008	0.0105	0.001	0.000	0.000
300.0	5670.0	0.0	5670.0	556.0	0.0981	0.9019	0.0651	0.0006	0.0086	0.001	0.000	0.000
312.0	5114.0	0.0	5114.0	740.0	0.1447	0.8553	0.0556	0.0008	0.0130	0.001	0.000	0.000
324.0	4374.0	0.0	4374.0	0.0	0.0	1.0000	0.0556	0.0	0.0	0.001	0.0	0.0
336.0	4374.0	0.0	4374.0	488.0	0.1116	0.8884	0.0494	0.0005	0.0098	0.001	0.000	0.000
348.0	3886.0	0.0	3886.0	538.0	0.1384	0.8616	0.0426	0.0006	0.0124	0.001	0.000	0.001
360.0	3348.0	0.0	3348.0	545.0	0.1628	0.8372	0.0357	0.0006	0.0148	0.001	0.000	0.001
372.0	2803.0	0.0	2803.0	0.0	0.0	1.0000	0.0357	0.0	0.0	0.001	0.0	0.0
384.0	2803.0	0.0	2803.0	267.0	0.0953	0.9047	0.0323	0.0003	0.0083	0.001	0.000	0.001
396.0	2536.0	0.0	2536.0	470.0	0.1853	0.8147	0.0263	0.0005	0.0170	0.001	0.000	0.001
408.0	2066.0	0.0	2066.0	390.0	0.1888	0.8112	0.0213	0.0004	0.0174	0.001	0.000	0.001
420.0	1676.0	0.0	1676.0	0.0	0.0	1.0000	0.0213	0.0	0.0	0.001	0.0	0.0
432.0	1676.0	0.0	1676.0	274.0	0.1635	0.8365	0.0178	0.0003	0.0148	0.000	0.000	0.001
444.0	1402.0	0.0	1402.0	174.0	0.1241	0.8759	0.0156	0.0002	0.0110	0.000	0.000	0.001
456.0	1228.0	0.0	1228.0	135.0	0.1099	0.8901	0.0139	0.0001	0.0097	0.000	0.000	0.001
468.0	1093.0	0.0	1093.0	0.0	0.0	1.0000	0.0139	0.0	0.0	0.000	0.0	0.0
480.0	1093.0	0.0	1093.0	239.0	0.2187	0.7813	0.0109	0.0003	0.0205	0.000	0.000	0.001
492.0	854.0	0.0	854.0	85.0	0.0995	0.9005	0.0098	0.0001	0.0087	0.000	0.000	0.001
504.0	769.0	0.0	769.0	111.0	0.1443	0.8557	0.0084	0.0001	0.0130	0.000	0.000	0.001
516.0	658.0	0.0	658.0	0.0	0.0	1.0000	0.0084	0.0	0.0	0.000	0.0	0.0
528.0	658.0	0.0	658.0	213.0	0.3237	0.6763	0.0057	0.0002	0.0322	0.000	0.000	0.002
540.0	445.0	0.0	445.0	89.0	0.2000	0.8000	0.0045	0.0001	0.0185	0.000	0.000	0.002
552.0	356.0	0.0	356.0	118.0	0.3315	0.6685	0.0030	0.0001	0.0331	0.000	0.000	0.003
564.0	238.0	0.0	238.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
576.0	238.0	0.0	238.0	64.0	0.2689	0.7311	0.0022	0.0001	0.0259	0.000	0.000	0.003
588.0	174.0	0.0	174.0	28.0	0.1609	0.8391	0.0019	0.0000	0.0146	0.000	0.000	0.003
600.0+	146.0	0.0	146.0	146.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 90.18

Table A.4 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	78614.0	0.0	78614.0	672.0	0.0085	0.9915	0.9915	0.0007	0.0007	0.000	0.000	0.000
12.0	77942.0	0.0	77942.0	2755.0	0.0353	0.9647	0.9564	0.0029	0.0030	0.001	0.000	0.000
24.0	75187.0	0.0	75187.0	6326.0	0.0841	0.9159	0.8759	0.0067	0.0073	0.001	0.000	0.000
36.0	68861.0	0.0	68861.0	7050.0	0.1024	0.8976	0.7863	0.0075	0.0090	0.001	0.000	0.000
48.0	61811.0	0.0	61811.0	7003.0	0.1133	0.8867	0.6972	0.0074	0.0100	0.002	0.000	0.000
60.0	54808.0	0.0	54808.0	6973.0	0.1272	0.8728	0.6085	0.0074	0.0113	0.002	0.000	0.000
72.0	47835.0	0.0	47835.0	5828.0	0.1218	0.8782	0.5343	0.0062	0.0108	0.002	0.000	0.000
84.0	42007.0	0.0	42007.0	5243.0	0.1248	0.8752	0.4677	0.0056	0.0111	0.002	0.000	0.000
96.0	36764.0	0.0	36764.0	4501.0	0.1224	0.8776	0.4104	0.0048	0.0109	0.002	0.000	0.000
108.0	32263.0	0.0	32263.0	4380.0	0.1358	0.8642	0.3547	0.0046	0.0121	0.002	0.000	0.000
120.0	27883.0	0.0	27883.0	2842.0	0.1019	0.8981	0.3185	0.0030	0.0089	0.002	0.000	0.000
132.0	25041.0	0.0	25041.0	2901.0	0.1159	0.8841	0.2816	0.0031	0.0102	0.002	0.000	0.000
144.0	22140.0	0.0	22140.0	2290.0	0.1034	0.8966	0.2525	0.0024	0.0091	0.002	0.000	0.000
156.0	19850.0	0.0	19850.0	2197.0	0.1107	0.8893	0.2246	0.0023	0.0098	0.001	0.000	0.000
168.0	17653.0	0.0	17653.0	1722.0	0.0975	0.9025	0.2026	0.0018	0.0085	0.001	0.000	0.000
180.0	15931.0	0.0	15931.0	1378.0	0.0865	0.9135	0.1851	0.0015	0.0075	0.001	0.000	0.000
192.0	14553.0	0.0	14553.0	1513.0	0.1040	0.8960	0.1659	0.0016	0.0091	0.001	0.000	0.000
204.0	13040.0	0.0	13040.0	911.0	0.0699	0.9301	0.1543	0.0010	0.0060	0.001	0.000	0.000
216.0	12129.0	0.0	12129.0	1331.0	0.1097	0.8903	0.1374	0.0014	0.0097	0.001	0.000	0.000
228.0	10798.0	0.0	10798.0	884.0	0.0819	0.9181	0.1261	0.0009	0.0071	0.001	0.000	0.000
240.0	9914.0	0.0	9914.0	763.0	0.0770	0.9230	0.1164	0.0008	0.0067	0.001	0.000	0.000
252.0	9151.0	0.0	9151.0	1602.0	0.1751	0.8249	0.0960	0.0017	0.0160	0.001	0.000	0.000
264.0	7549.0	0.0	7549.0	1118.0	0.1481	0.8519	0.0818	0.0012	0.0133	0.001	0.000	0.000
276.0	6431.0	0.0	6431.0	0.0	0.0	1.0000	0.0818	0.0	0.0	0.001	0.0	0.0
288.0	6431.0	0.0	6431.0	761.0	0.1183	0.8817	0.0721	0.0008	0.0105	0.001	0.000	0.000
300.0	5670.0	0.0	5670.0	556.0	0.0981	0.9019	0.0651	0.0006	0.0086	0.001	0.000	0.000
312.0	5114.0	0.0	5114.0	740.0	0.1447	0.8553	0.0556	0.0008	0.0130	0.001	0.000	0.000
324.0	4374.0	0.0	4374.0	0.0	0.0	1.0000	0.0556	0.0	0.0	0.001	0.0	0.0
336.0	4374.0	0.0	4374.0	488.0	0.1116	0.8884	0.0494	0.0005	0.0098	0.001	0.000	0.000
348.0	3886.0	0.0	3886.0	538.0	0.1384	0.8616	0.0426	0.0006	0.0124	0.001	0.000	0.001
360.0	3348.0	0.0	3348.0	545.0	0.1628	0.8372	0.0357	0.0006	0.0148	0.001	0.000	0.001
372.0	2803.0	0.0	2803.0	0.0	0.0	1.0000	0.0357	0.0	0.0	0.001	0.0	0.0
384.0	2803.0	0.0	2803.0	267.0	0.0953	0.9047	0.0323	0.0003	0.0083	0.001	0.000	0.001
396.0	2536.0	0.0	2536.0	470.0	0.1853	0.8147	0.0263	0.0005	0.0170	0.001	0.000	0.001
408.0	2066.0	0.0	2066.0	390.0	0.1888	0.8112	0.0213	0.0004	0.0174	0.001	0.000	0.001
420.0	1676.0	0.0	1676.0	0.0	0.0	1.0000	0.0213	0.0	0.0	0.001	0.0	0.0
432.0	1676.0	0.0	1676.0	274.0	0.1635	0.8365	0.0178	0.0003	0.0148	0.000	0.000	0.001
444.0	1402.0	0.0	1402.0	174.0	0.1241	0.8759	0.0156	0.0002	0.0110	0.000	0.000	0.001
456.0	1228.0	0.0	1228.0	135.0	0.1099	0.8901	0.0139	0.0001	0.0097	0.000	0.000	0.001
468.0	1093.0	0.0	1093.0	0.0	0.0	1.0000	0.0139	0.0	0.0	0.000	0.0	0.0
480.0	1093.0	0.0	1093.0	239.0	0.2187	0.7813	0.0109	0.0003	0.0205	0.000	0.000	0.001
492.0	854.0	0.0	854.0	85.0	0.0995	0.9005	0.0098	0.0001	0.0087	0.000	0.000	0.001
504.0	769.0	0.0	769.0	111.0	0.1443	0.8557	0.0084	0.0001	0.0130	0.000	0.000	0.001
516.0	658.0	0.0	658.0	0.0	0.0	1.0000	0.0084	0.0	0.0	0.000	0.0	0.0
528.0	658.0	0.0	658.0	213.0	0.3237	0.6763	0.0057	0.0002	0.0322	0.000	0.000	0.002
540.0	445.0	0.0	445.0	89.0	0.2000	0.8000	0.0045	0.0001	0.0185	0.000	0.000	0.002
552.0	356.0	0.0	356.0	118.0	0.3315	0.6685	0.0030	0.0001	0.0331	0.000	0.000	0.003
564.0	238.0	0.0	238.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
576.0	238.0	0.0	238.0	64.0	0.2689	0.7311	0.0022	0.0001	0.0259	0.000	0.000	0.003
588.0	174.0	0.0	174.0	28.0	0.1609	0.8391	0.0019	0.0000	0.0146	0.000	0.000	0.003
600.0+	146.0	0.0	146.0	146.0	1.0000	0.0	0.0	**	**	0.0	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 90.18

Figure A.5. Graph of Survival Function for Male Inmates in Later Incarcerations in 1979, by Race

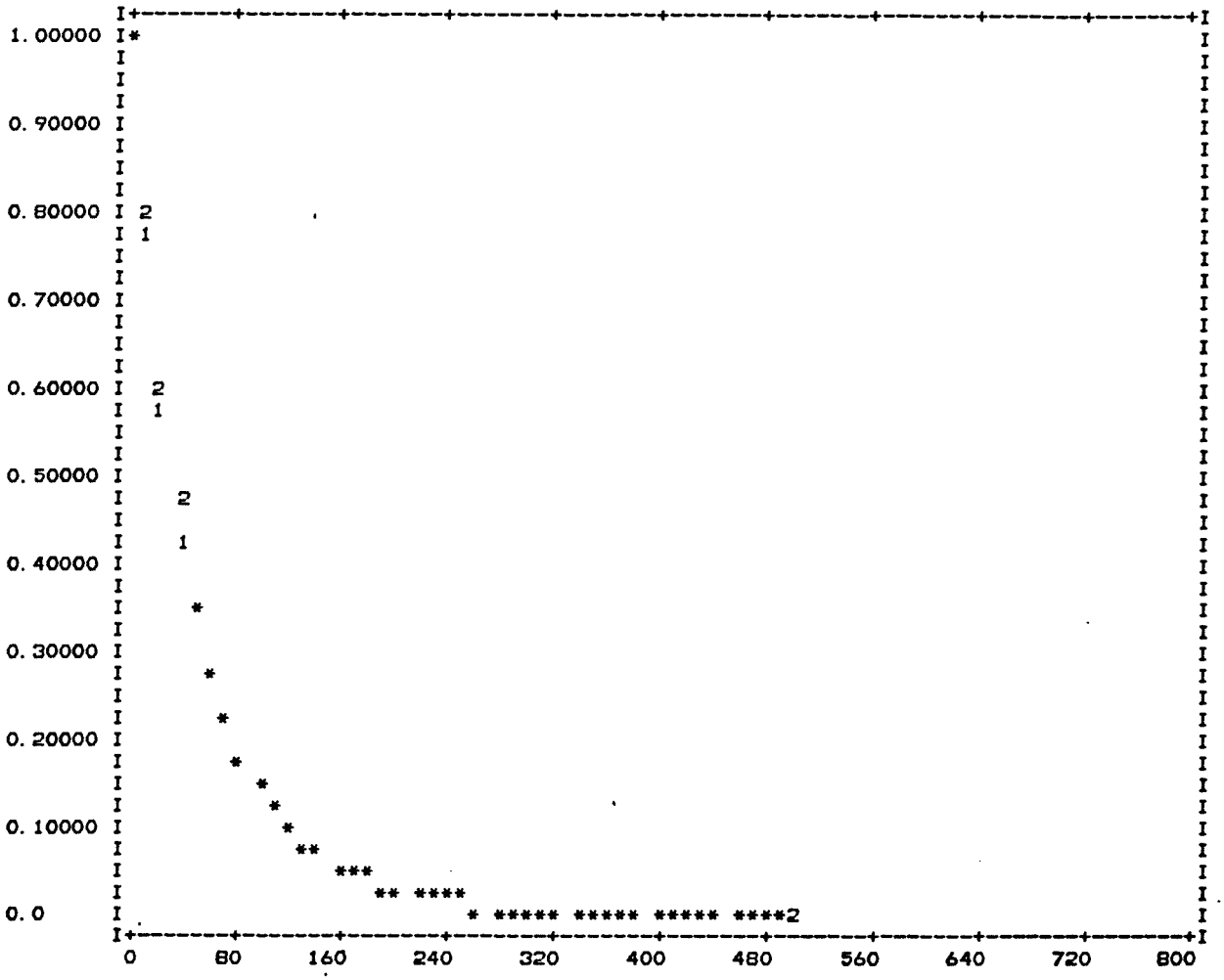

Table A.5

Life Table for Male Inmates in Later Incarcerations in 1979, by Race

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	51607.0	0.0	51607.0	11007.0	0.2133	0.7867	0.7867	0.0178	0.0199	0.002	0.000	0.000
12.0	40600.0	0.0	40600.0	10447.0	0.2573	0.7427	0.5843	0.0169	0.0246	0.002	0.000	0.000
24.0	30153.0	0.0	30153.0	7590.0	0.2517	0.7483	0.4372	0.0123	0.0240	0.002	0.000	0.000
36.0	22563.0	0.0	22563.0	4469.0	0.1981	0.8019	0.3506	0.0072	0.0183	0.002	0.000	0.000
48.0	18094.0	0.0	18094.0	3515.0	0.1943	0.8057	0.2825	0.0057	0.0179	0.002	0.000	0.000
60.0	14579.0	0.0	14579.0	3095.0	0.2123	0.7877	0.2225	0.0050	0.0198	0.002	0.000	0.000
72.0	11484.0	0.0	11484.0	2200.0	0.1916	0.8084	0.1799	0.0036	0.0177	0.002	0.000	0.000
84.0	9284.0	0.0	9284.0	1537.0	0.1656	0.8344	0.1501	0.0025	0.0150	0.002	0.000	0.000
96.0	7747.0	0.0	7747.0	1652.0	0.2132	0.7868	0.1181	0.0027	0.0199	0.001	0.000	0.000
108.0	6095.0	0.0	6095.0	1078.0	0.1769	0.8231	0.0972	0.0017	0.0162	0.001	0.000	0.000
120.0	5017.0	0.0	5017.0	773.0	0.1541	0.8459	0.0822	0.0012	0.0139	0.001	0.000	0.000
132.0	4244.0	0.0	4244.0	830.0	0.1956	0.8044	0.0662	0.0013	0.0181	0.001	0.000	0.001
144.0	3414.0	0.0	3414.0	420.0	0.1230	0.8770	0.0580	0.0007	0.0109	0.001	0.000	0.001
156.0	2994.0	0.0	2994.0	545.0	0.1820	0.8180	0.0475	0.0009	0.0167	0.001	0.000	0.001
168.0	2449.0	0.0	2449.0	340.0	0.1388	0.8612	0.0409	0.0005	0.0124	0.001	0.000	0.001
180.0	2109.0	0.0	2109.0	216.0	0.1024	0.8976	0.0367	0.0003	0.0090	0.001	0.000	0.001
192.0	1893.0	0.0	1893.0	403.0	0.2129	0.7871	0.0289	0.0007	0.0199	0.001	0.000	0.001
204.0	1490.0	0.0	1490.0	310.0	0.2081	0.7919	0.0229	0.0005	0.0194	0.001	0.000	0.001
216.0	1180.0	0.0	1180.0	254.0	0.2153	0.7847	0.0179	0.0004	0.0201	0.001	0.000	0.001
228.0	926.0	0.0	926.0	109.0	0.1177	0.8823	0.0158	0.0002	0.0104	0.001	0.000	0.001
240.0	817.0	0.0	817.0	155.0	0.1897	0.8103	0.0128	0.0003	0.0175	0.000	0.000	0.001
252.0	662.0	0.0	662.0	139.0	0.2100	0.7900	0.0101	0.0002	0.0195	0.000	0.000	0.002
264.0	523.0	0.0	523.0	83.0	0.1587	0.8413	0.0085	0.0001	0.0144	0.000	0.000	0.002
276.0	440.0	0.0	440.0	0.0	0.0	1.0000	0.0085	0.0	0.0	0.000	0.0	0.0
288.0	440.0	0.0	440.0	85.0	0.1932	0.8068	0.0069	0.0001	0.0178	0.000	0.000	0.002
300.0	355.0	0.0	355.0	57.0	0.1606	0.8394	0.0058	0.0001	0.0145	0.000	0.000	0.002
312.0	298.0	0.0	298.0	116.0	0.3893	0.6107	0.0035	0.0002	0.0403	0.000	0.000	0.004
324.0	182.0	0.0	182.0	0.0	0.0	1.0000	0.0035	0.0	0.0	0.000	0.0	0.0
336.0	182.0	0.0	182.0	0.0	0.0	1.0000	0.0035	0.0	0.0	0.000	0.0	0.0
348.0	182.0	0.0	182.0	0.0	0.0	1.0000	0.0035	0.0	0.0	0.000	0.0	0.0
360.0	182.0	0.0	182.0	26.0	0.1429	0.8571	0.0030	0.0000	0.0128	0.000	0.000	0.003
372.0	156.0	0.0	156.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
384.0	156.0	0.0	156.0	69.0	0.4423	0.5577	0.0017	0.0001	0.0473	0.000	0.000	0.005
396.0	87.0	0.0	87.0	0.0	0.0	1.0000	0.0017	0.0	0.0	0.000	0.0	0.0
408.0	87.0	0.0	87.0	0.0	0.0	1.0000	0.0017	0.0	0.0	0.000	0.0	0.0
420.0	87.0	0.0	87.0	0.0	0.0	1.0000	0.0017	0.0	0.0	0.000	0.0	0.0
432.0	87.0	0.0	87.0	0.0	0.0	1.0000	0.0017	0.0	0.0	0.000	0.0	0.0
444.0	87.0	0.0	87.0	28.0	0.3218	0.6782	0.0011	0.0000	0.0320	0.000	0.000	0.006
456.0	59.0	0.0	59.0	31.0	0.5254	0.4746	0.0005	0.0001	0.0594	0.000	0.000	0.010
468.0	28.0	0.0	28.0	0.0	0.0	1.0000	0.0005	0.0	0.0	0.000	0.0	0.0
480.0	28.0	0.0	28.0	0.0	0.0	1.0000	0.0005	0.0	0.0	0.000	0.0	0.0
492.0	28.0	0.0	28.0	28.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 30.88

Table A.5 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	48872.0	0.0	48872.0	9530.0	0.1950	0.8050	0.8050	0.0162	0.0180	0.002	0.000	0.000
12.0	39342.0	0.0	39342.0	9477.0	0.2409	0.7591	0.6111	0.0162	0.0228	0.002	0.000	0.000
24.0	29865.0	0.0	29865.0	7110.0	0.2381	0.7619	0.4656	0.0121	0.0225	0.002	0.000	0.000
36.0	22755.0	0.0	22755.0	5817.0	0.2556	0.7444	0.3466	0.0099	0.0244	0.002	0.000	0.000
48.0	16938.0	0.0	16938.0	3409.0	0.2013	0.7987	0.2768	0.0058	0.0186	0.002	0.000	0.000
60.0	13529.0	0.0	13529.0	2858.0	0.2112	0.7888	0.2183	0.0049	0.0197	0.002	0.000	0.000
72.0	10671.0	0.0	10671.0	2247.0	0.2106	0.7894	0.1724	0.0038	0.0196	0.002	0.000	0.000
84.0	8424.0	0.0	8424.0	1614.0	0.1916	0.8084	0.1393	0.0028	0.0177	0.002	0.000	0.000
96.0	6810.0	0.0	6810.0	1121.0	0.1646	0.8354	0.1164	0.0019	0.0149	0.001	0.000	0.000
108.0	5689.0	0.0	5689.0	954.0	0.1677	0.8323	0.0969	0.0016	0.0153	0.001	0.000	0.000
120.0	4735.0	0.0	4735.0	735.0	0.1552	0.8448	0.0818	0.0013	0.0140	0.001	0.000	0.001
132.0	4000.0	0.0	4000.0	360.0	0.0900	0.9100	0.0745	0.0006	0.0079	0.001	0.000	0.000
144.0	3640.0	0.0	3640.0	688.0	0.1890	0.8110	0.0604	0.0012	0.0174	0.001	0.000	0.001
156.0	2952.0	0.0	2952.0	476.0	0.1612	0.8388	0.0507	0.0008	0.0146	0.001	0.000	0.001
168.0	2476.0	0.0	2476.0	362.0	0.1462	0.8538	0.0433	0.0006	0.0131	0.001	0.000	0.001
180.0	2114.0	0.0	2114.0	445.0	0.2105	0.7895	0.0342	0.0008	0.0196	0.001	0.000	0.001
192.0	1669.0	0.0	1669.0	260.0	0.1558	0.8442	0.0288	0.0004	0.0141	0.001	0.000	0.001
204.0	1409.0	0.0	1409.0	263.0	0.1867	0.8133	0.0234	0.0004	0.0172	0.001	0.000	0.001
216.0	1146.0	0.0	1146.0	112.0	0.0977	0.9023	0.0212	0.0002	0.0086	0.001	0.000	0.001
228.0	1034.0	0.0	1034.0	117.0	0.1132	0.8868	0.0188	0.0002	0.0100	0.001	0.000	0.001
240.0	917.0	0.0	917.0	210.0	0.2290	0.7710	0.0145	0.0004	0.0216	0.001	0.000	0.001
252.0	707.0	0.0	707.0	258.0	0.3649	0.6351	0.0092	0.0004	0.0372	0.000	0.000	0.002
264.0	449.0	0.0	449.0	174.0	0.3875	0.6125	0.0056	0.0003	0.0401	0.000	0.000	0.003
276.0	275.0	0.0	275.0	0.0	0.0	1.0000	0.0056	0.0	0.0	0.000	0.0	0.0
288.0	275.0	0.0	275.0	58.0	0.2109	0.7891	0.0044	0.0001	0.0196	0.000	0.000	0.003
300.0	217.0	0.0	217.0	43.0	0.1982	0.8018	0.0036	0.0001	0.0183	0.000	0.000	0.003
312.0	174.0	0.0	174.0	26.0	0.1494	0.8506	0.0030	0.0000	0.0135	0.000	0.000	0.003
324.0	148.0	0.0	148.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
336.0	148.0	0.0	148.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
348.0	148.0	0.0	148.0	0.0	0.0	1.0000	0.0030	0.0	0.0	0.000	0.0	0.0
360.0	148.0	0.0	148.0	30.0	0.2027	0.7973	0.0024	0.0001	0.0188	0.000	0.000	0.003
372.0	118.0	0.0	118.0	0.0	0.0	1.0000	0.0024	0.0	0.0	0.000	0.0	0.0
384.0	118.0	0.0	118.0	28.0	0.2373	0.7627	0.0018	0.0000	0.0224	0.000	0.000	0.004
396.0	90.0	0.0	90.0	34.0	0.3778	0.6222	0.0011	0.0001	0.0388	0.000	0.000	0.006
408.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
420.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
432.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
444.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
456.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
468.0	56.0	0.0	56.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
480.0	56.0	0.0	56.0	29.0	0.5179	0.4821	0.0006	0.0000	0.0582	0.000	0.000	0.010
492.0	27.0	0.0	27.0	0.0	0.0	1.0000	0.0006	0.0	0.0	0.000	0.0	0.0
504.0	27.0	0.0	27.0	27.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 33.16

Figure A.6. Graph of Survival Functions for Male Inmates in Later Incarcerations in 1979, by Marital Status

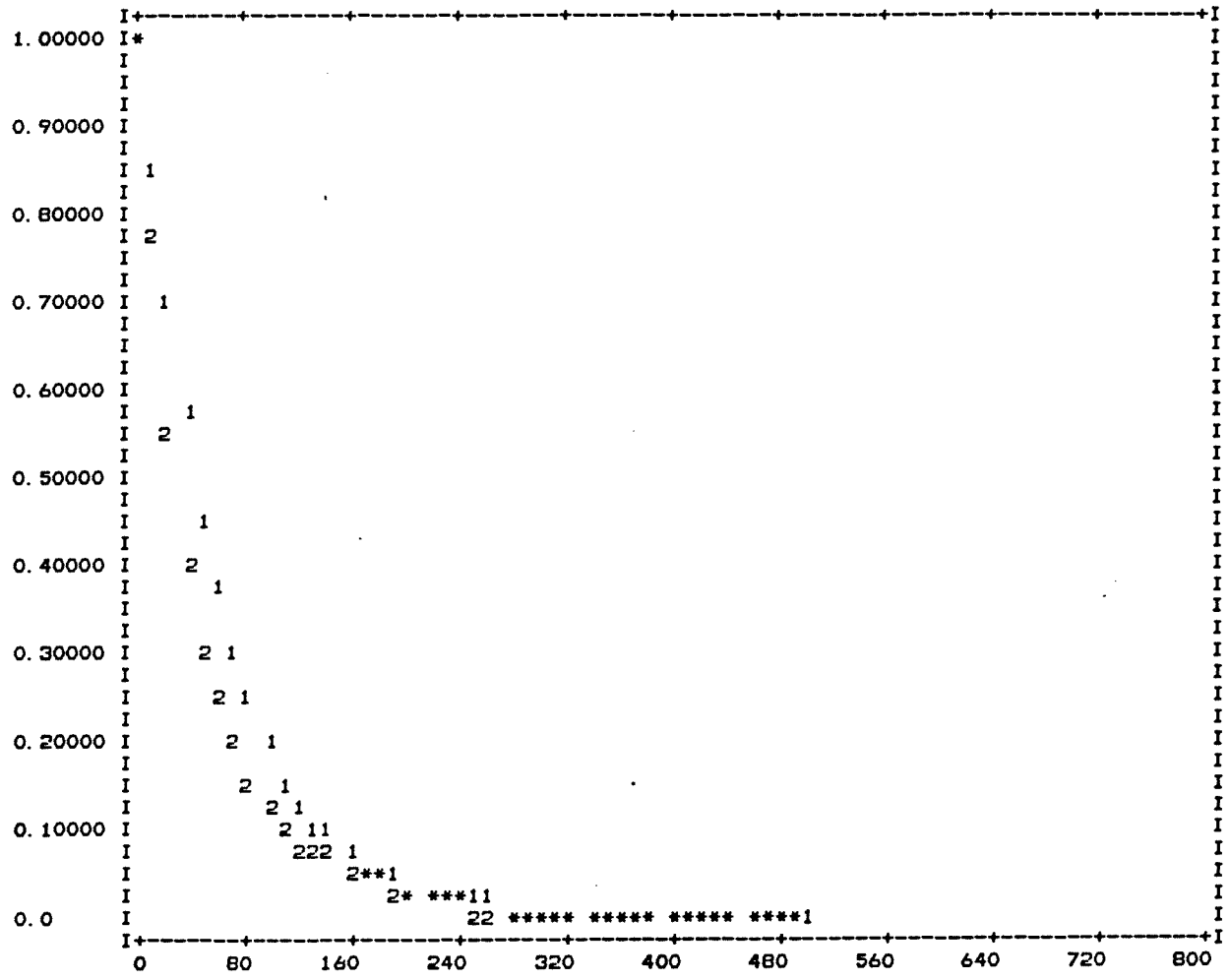

Table A.6

Life Table for Male Inmates in Later Incarcerations in 1979, by Marital Status

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	26998.0	0.0	26998.0	3886.0	0.1439	0.8561	0.8561	0.0120	0.0129	0.002	0.000	0.000
12.0	23112.0	0.0	23112.0	4240.0	0.1835	0.8165	0.6990	0.0131	0.0168	0.003	0.000	0.000
24.0	18872.0	0.0	18872.0	3313.0	0.1756	0.8244	0.5763	0.0102	0.0160	0.003	0.000	0.000
36.0	15559.0	0.0	15559.0	3357.0	0.2158	0.7842	0.4520	0.0104	0.0202	0.003	0.000	0.000
48.0	12202.0	0.0	12202.0	2196.0	0.1800	0.8200	0.3706	0.0068	0.0165	0.003	0.000	0.000
60.0	10006.0	0.0	10006.0	1745.0	0.1744	0.8256	0.3060	0.0054	0.0159	0.003	0.000	0.000
72.0	8261.0	0.0	8261.0	1647.0	0.1994	0.8006	0.2450	0.0051	0.0185	0.003	0.000	0.000
84.0	6614.0	0.0	6614.0	1214.0	0.1836	0.8164	0.2000	0.0037	0.0168	0.002	0.000	0.000
96.0	5400.0	0.0	5400.0	1152.0	0.2133	0.7867	0.1573	0.0036	0.0199	0.002	0.000	0.001
108.0	4248.0	0.0	4248.0	826.0	0.1944	0.8056	0.1268	0.0025	0.0179	0.002	0.000	0.001
120.0	3422.0	0.0	3422.0	509.0	0.1487	0.8513	0.1079	0.0016	0.0134	0.002	0.000	0.001
132.0	2913.0	0.0	2913.0	547.0	0.1878	0.8122	0.0876	0.0017	0.0173	0.002	0.000	0.001
144.0	2366.0	0.0	2366.0	338.0	0.1429	0.8571	0.0751	0.0010	0.0128	0.002	0.000	0.001
156.0	2028.0	0.0	2028.0	391.0	0.1928	0.8072	0.0606	0.0012	0.0178	0.001	0.000	0.001
168.0	1637.0	0.0	1637.0	265.0	0.1619	0.8381	0.0508	0.0008	0.0147	0.001	0.000	0.001
180.0	1372.0	0.0	1372.0	165.0	0.1203	0.8797	0.0447	0.0005	0.0107	0.001	0.000	0.001
192.0	1207.0	0.0	1207.0	196.0	0.1624	0.8376	0.0374	0.0006	0.0147	0.001	0.000	0.001
204.0	1011.0	0.0	1011.0	61.0	0.0603	0.9397	0.0352	0.0002	0.0052	0.001	0.000	0.001
216.0	950.0	0.0	950.0	170.0	0.1789	0.8211	0.0289	0.0005	0.0164	0.001	0.000	0.001
228.0	780.0	0.0	780.0	86.0	0.1103	0.8897	0.0257	0.0003	0.0097	0.001	0.000	0.001
240.0	694.0	0.0	694.0	182.0	0.2622	0.7378	0.0190	0.0006	0.0252	0.001	0.000	0.002
252.0	512.0	0.0	512.0	114.0	0.2227	0.7773	0.0147	0.0004	0.0209	0.001	0.000	0.002
264.0	398.0	0.0	398.0	143.0	0.3593	0.6407	0.0094	0.0004	0.0365	0.001	0.000	0.003
276.0	255.0	0.0	255.0	0.0	0.0	1.0000	0.0094	0.0	0.0	0.001	0.0	0.0
288.0	255.0	0.0	255.0	85.0	0.3333	0.6667	0.0063	0.0003	0.0333	0.000	0.000	0.004
300.0	170.0	0.0	170.0	29.0	0.1706	0.8294	0.0052	0.0001	0.0155	0.000	0.000	0.003
312.0	141.0	0.0	141.0	27.0	0.1915	0.8085	0.0042	0.0001	0.0176	0.000	0.000	0.003
324.0	114.0	0.0	114.0	0.0	0.0	1.0000	0.0042	0.0	0.0	0.000	0.0	0.0
336.0	114.0	0.0	114.0	0.0	0.0	1.0000	0.0042	0.0	0.0	0.000	0.0	0.0
348.0	114.0	0.0	114.0	0.0	0.0	1.0000	0.0042	0.0	0.0	0.000	0.0	0.0
360.0	114.0	0.0	114.0	0.0	0.0	1.0000	0.0042	0.0	0.0	0.000	0.0	0.0
372.0	114.0	0.0	114.0	0.0	0.0	1.0000	0.0042	0.0	0.0	0.000	0.0	0.0
384.0	114.0	0.0	114.0	28.0	0.2456	0.7544	0.0032	0.0001	0.0233	0.000	0.000	0.004
396.0	86.0	0.0	86.0	0.0	0.0	1.0000	0.0032	0.0	0.0	0.000	0.0	0.0
408.0	86.0	0.0	86.0	0.0	0.0	1.0000	0.0032	0.0	0.0	0.000	0.0	0.0
420.0	86.0	0.0	86.0	0.0	0.0	1.0000	0.0032	0.0	0.0	0.000	0.0	0.0
432.0	86.0	0.0	86.0	0.0	0.0	1.0000	0.0032	0.0	0.0	0.000	0.0	0.0
444.0	86.0	0.0	86.0	28.0	0.3256	0.6744	0.0021	0.0001	0.0324	0.000	0.000	0.006
456.0	58.0	0.0	58.0	31.0	0.5345	0.4655	0.0010	0.0001	0.0608	0.000	0.000	0.010
468.0	27.0	0.0	27.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
480.0	27.0	0.0	27.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
492.0	27.0	0.0	27.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
504.0	27.0	0.0	27.0	27.0	1.0000	0.0	0.0	0.0001	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 43.36

Table A.6 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	73481.0	0.0	73481.0	16651.0	0.2266	0.7734	0.7734	0.0189	0.0213	0.002	0.000	0.000
12.0	56830.0	0.0	56830.0	15684.0	0.2760	0.7240	0.5600	0.0178	0.0267	0.002	0.000	0.000
24.0	41146.0	0.0	41146.0	11387.0	0.2767	0.7233	0.4050	0.0129	0.0268	0.002	0.000	0.000
36.0	29759.0	0.0	29759.0	6929.0	0.2328	0.7672	0.3107	0.0079	0.0220	0.002	0.000	0.000
48.0	22830.0	0.0	22830.0	4728.0	0.2071	0.7929	0.2463	0.0054	0.0193	0.002	0.000	0.000
60.0	18102.0	0.0	18102.0	4208.0	0.2325	0.7675	0.1891	0.0048	0.0219	0.001	0.000	0.000
72.0	13894.0	0.0	13894.0	2800.0	0.2015	0.7985	0.1510	0.0032	0.0187	0.001	0.000	0.000
84.0	11094.0	0.0	11094.0	1937.0	0.1746	0.8254	0.1246	0.0022	0.0159	0.001	0.000	0.000
96.0	9157.0	0.0	9157.0	1621.0	0.1770	0.8230	0.1026	0.0018	0.0162	0.001	0.000	0.000
108.0	7536.0	0.0	7536.0	1206.0	0.1600	0.8400	0.0861	0.0014	0.0145	0.001	0.000	0.000
120.0	6330.0	0.0	6330.0	999.0	0.1578	0.8422	0.0725	0.0011	0.0143	0.001	0.000	0.000
132.0	5331.0	0.0	5331.0	643.0	0.1206	0.8794	0.0638	0.0007	0.0107	0.001	0.000	0.000
144.0	4688.0	0.0	4688.0	770.0	0.1642	0.8358	0.0533	0.0009	0.0149	0.001	0.000	0.001
156.0	3918.0	0.0	3918.0	630.0	0.1608	0.8392	0.0447	0.0007	0.0146	0.001	0.000	0.001
168.0	3288.0	0.0	3288.0	437.0	0.1329	0.8671	0.0388	0.0005	0.0119	0.001	0.000	0.001
180.0	2851.0	0.0	2851.0	496.0	0.1740	0.8260	0.0320	0.0006	0.0159	0.001	0.000	0.001
192.0	2355.0	0.0	2355.0	467.0	0.1983	0.8017	0.0257	0.0005	0.0183	0.001	0.000	0.001
204.0	1888.0	0.0	1888.0	512.0	0.2712	0.7288	0.0187	0.0006	0.0261	0.001	0.000	0.001
216.0	1376.0	0.0	1376.0	196.0	0.1424	0.8576	0.0161	0.0002	0.0128	0.000	0.000	0.001
228.0	1180.0	0.0	1180.0	140.0	0.1186	0.8814	0.0142	0.0002	0.0105	0.000	0.000	0.001
240.0	1040.0	0.0	1040.0	183.0	0.1760	0.8240	0.0117	0.0002	0.0161	0.000	0.000	0.001
252.0	857.0	0.0	857.0	283.0	0.3302	0.6698	0.0078	0.0003	0.0330	0.000	0.000	0.002
264.0	574.0	0.0	574.0	114.0	0.1986	0.8014	0.0063	0.0001	0.0184	0.000	0.000	0.002
276.0	460.0	0.0	460.0	0.0	0.0	1.0000	0.0063	0.0	0.0	0.000	0.0	0.0
288.0	460.0	0.0	460.0	58.0	0.1261	0.8739	0.0055	0.0001	0.0112	0.000	0.000	0.001
300.0	402.0	0.0	402.0	71.0	0.1766	0.8234	0.0045	0.0001	0.0161	0.000	0.000	0.002
312.0	331.0	0.0	331.0	115.0	0.3474	0.6526	0.0029	0.0001	0.0350	0.000	0.000	0.003
324.0	216.0	0.0	216.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
336.0	216.0	0.0	216.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
348.0	216.0	0.0	216.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
360.0	216.0	0.0	216.0	56.0	0.2593	0.7407	0.0022	0.0001	0.0248	0.000	0.000	0.003
372.0	160.0	0.0	160.0	0.0	0.0	1.0000	0.0022	0.0	0.0	0.000	0.0	0.0
384.0	160.0	0.0	160.0	69.0	0.4312	0.5688	0.0012	0.0001	0.0458	0.000	0.000	0.005
396.0	91.0	0.0	91.0	34.0	0.3736	0.6264	0.0008	0.0000	0.0383	0.000	0.000	0.006
408.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
420.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
432.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
444.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
456.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
468.0	57.0	0.0	57.0	0.0	0.0	1.0000	0.0008	0.0	0.0	0.000	0.0	0.0
480.0	57.0	0.0	57.0	29.0	0.5088	0.4912	0.0004	0.0000	0.0569	0.000	0.000	0.010
492.0	28.0	0.0	28.0	28.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 28.64

Figure A.7. Graph of Survival Function for Male Inmates in Later Incarcerations in 1979, by Education

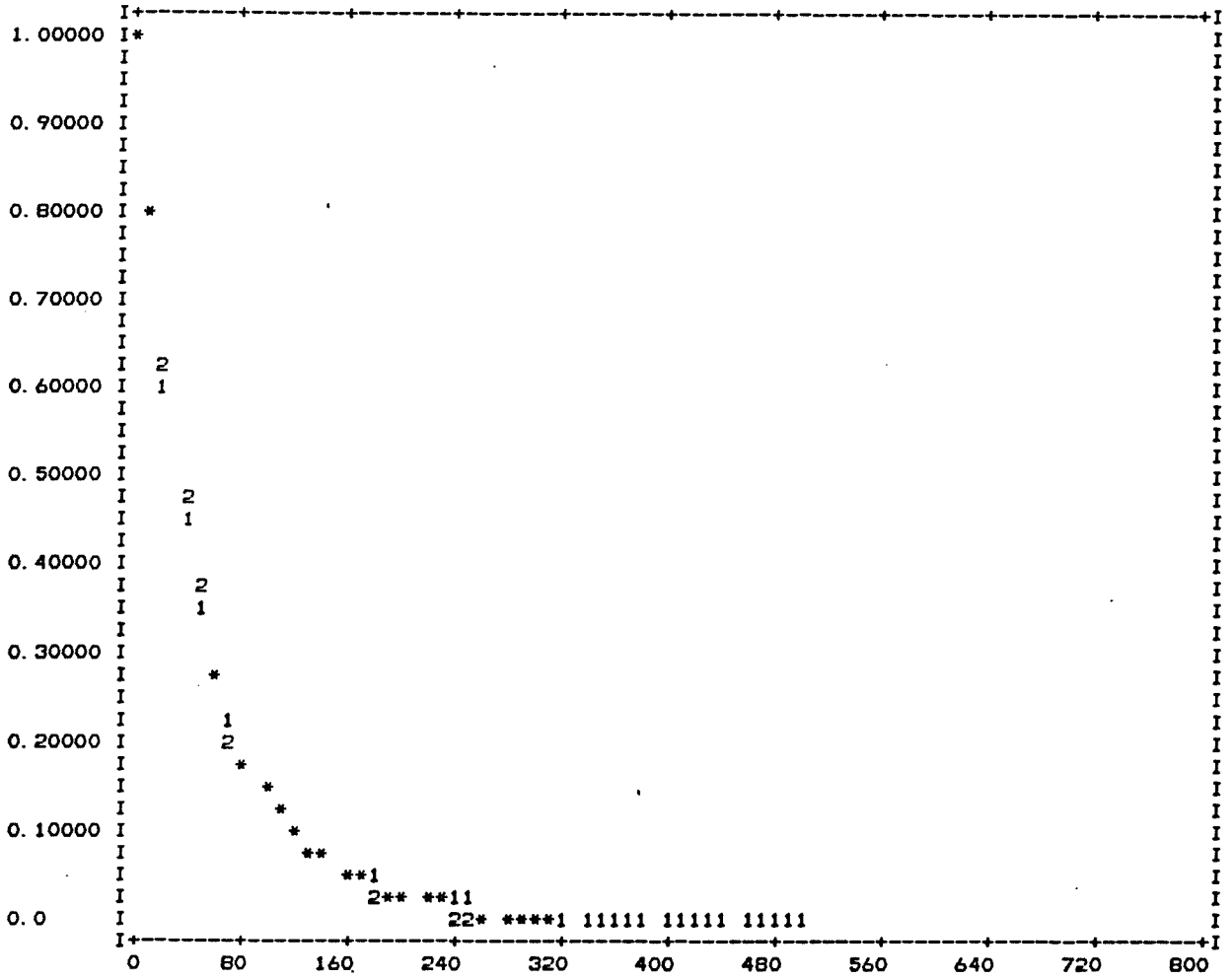

Table A.7

Life Table for Male Inmates in Later Incarcerations in 1979, by Education

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	76842.0	0.0	76842.0	16075.0	0.2092	0.7908	0.7908	0.0174	0.0195	0.001	0.000	0.000
12.0	60767.0	0.0	60767.0	15606.0	0.2568	0.7432	0.5877	0.0169	0.0246	0.002	0.000	0.000
24.0	45161.0	0.0	45161.0	10830.0	0.2398	0.7602	0.4468	0.0117	0.0227	0.002	0.000	0.000
36.0	34331.0	0.0	34331.0	7906.0	0.2303	0.7697	0.3439	0.0086	0.0217	0.002	0.000	0.000
48.0	26425.0	0.0	26425.0	5088.0	0.1925	0.8075	0.2777	0.0055	0.0178	0.002	0.000	0.000
60.0	21337.0	0.0	21337.0	3937.0	0.1845	0.8155	0.2264	0.0043	0.0169	0.002	0.000	0.000
72.0	17400.0	0.0	17400.0	3583.0	0.2059	0.7941	0.1798	0.0039	0.0191	0.001	0.000	0.000
84.0	13817.0	0.0	13817.0	2623.0	0.1898	0.8102	0.1457	0.0028	0.0175	0.001	0.000	0.000
96.0	11194.0	0.0	11194.0	2117.0	0.1891	0.8109	0.1181	0.0023	0.0174	0.001	0.000	0.000
108.0	9077.0	0.0	9077.0	1597.0	0.1759	0.8241	0.0973	0.0017	0.0161	0.001	0.000	0.000
120.0	7480.0	0.0	7480.0	994.0	0.1329	0.8671	0.0844	0.0011	0.0119	0.001	0.000	0.000
132.0	6486.0	0.0	6486.0	991.0	0.1528	0.8472	0.0715	0.0011	0.0138	0.001	0.000	0.000
144.0	5495.0	0.0	5495.0	818.0	0.1489	0.8511	0.0609	0.0009	0.0134	0.001	0.000	0.000
156.0	4677.0	0.0	4677.0	792.0	0.1693	0.8307	0.0506	0.0009	0.0154	0.001	0.000	0.001
168.0	3885.0	0.0	3885.0	502.0	0.1292	0.8708	0.0440	0.0005	0.0115	0.001	0.000	0.001
180.0	3383.0	0.0	3383.0	555.0	0.1641	0.8359	0.0368	0.0006	0.0149	0.001	0.000	0.001
192.0	2828.0	0.0	2828.0	479.0	0.1694	0.8306	0.0306	0.0005	0.0154	0.001	0.000	0.001
204.0	2349.0	0.0	2349.0	459.0	0.1954	0.8046	0.0246	0.0005	0.0180	0.001	0.000	0.001
216.0	1890.0	0.0	1890.0	308.0	0.1630	0.8370	0.0206	0.0003	0.0148	0.001	0.000	0.001
228.0	1582.0	0.0	1582.0	140.0	0.0885	0.9115	0.0188	0.0002	0.0077	0.000	0.000	0.001
240.0	1442.0	0.0	1442.0	297.0	0.2060	0.7940	0.0149	0.0003	0.0191	0.000	0.000	0.001
252.0	1145.0	0.0	1145.0	291.0	0.2541	0.7459	0.0111	0.0003	0.0243	0.000	0.000	0.001
264.0	854.0	0.0	854.0	198.0	0.2319	0.7681	0.0085	0.0002	0.0219	0.000	0.000	0.002
276.0	656.0	0.0	656.0	0.0	0.0	1.0000	0.0085	0.0	0.0	0.000	0.0	0.0
288.0	656.0	0.0	656.0	143.0	0.2180	0.7820	0.0067	0.0002	0.0204	0.000	0.000	0.002
300.0	513.0	0.0	513.0	72.0	0.1404	0.8596	0.0057	0.0001	0.0126	0.000	0.000	0.001
312.0	441.0	0.0	441.0	111.0	0.2517	0.7483	0.0043	0.0001	0.0240	0.000	0.000	0.002
324.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
336.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
348.0	330.0	0.0	330.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
360.0	330.0	0.0	330.0	56.0	0.1697	0.8303	0.0036	0.0001	0.0155	0.000	0.000	0.002
372.0	274.0	0.0	274.0	0.0	0.0	1.0000	0.0036	0.0	0.0	0.000	0.0	0.0
384.0	274.0	0.0	274.0	97.0	0.3540	0.6460	0.0023	0.0001	0.0358	0.000	0.000	0.004
396.0	177.0	0.0	177.0	34.0	0.1921	0.8079	0.0019	0.0000	0.0177	0.000	0.000	0.003
408.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0019	0.0	0.0	0.000	0.0	0.0
420.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0019	0.0	0.0	0.000	0.0	0.0
432.0	143.0	0.0	143.0	0.0	0.0	1.0000	0.0019	0.0	0.0	0.000	0.0	0.0
444.0	143.0	0.0	143.0	28.0	0.1958	0.8042	0.0015	0.0000	0.0181	0.000	0.000	0.003
456.0	115.0	0.0	115.0	31.0	0.2696	0.7304	0.0011	0.0000	0.0260	0.000	0.000	0.005
468.0	84.0	0.0	84.0	0.0	0.0	1.0000	0.0011	0.0	0.0	0.000	0.0	0.0
480.0	84.0	0.0	84.0	29.0	0.3452	0.6548	0.0007	0.0000	0.0348	0.000	0.000	0.006
492.0	55.0	0.0	55.0	28.0	0.5091	0.4909	0.0004	0.0000	0.0569	0.000	0.000	0.010
504.0	27.0	0.0	27.0	27.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 31.47

Table A.7 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	23637.0	0.0	23637.0	4462.0	0.1888	0.8112	0.8112	0.0157	0.0174	0.003	0.000	0.000
12.0	19175.0	0.0	19175.0	4318.0	0.2252	0.7748	0.6285	0.0152	0.0211	0.003	0.000	0.000
24.0	14857.0	0.0	14857.0	3870.0	0.2605	0.7395	0.4648	0.0136	0.0250	0.003	0.000	0.000
36.0	10987.0	0.0	10987.0	2380.0	0.2166	0.7834	0.3641	0.0084	0.0202	0.003	0.000	0.000
48.0	8607.0	0.0	8607.0	1836.0	0.2133	0.7867	0.2865	0.0065	0.0199	0.003	0.000	0.000
60.0	6771.0	0.0	6771.0	2016.0	0.2977	0.7023	0.2012	0.0071	0.0292	0.003	0.000	0.001
72.0	4755.0	0.0	4755.0	864.0	0.1817	0.8183	0.1646	0.0030	0.0167	0.002	0.000	0.001
84.0	3891.0	0.0	3891.0	528.0	0.1357	0.8643	0.1423	0.0019	0.0121	0.002	0.000	0.001
96.0	3363.0	0.0	3363.0	656.0	0.1951	0.8049	0.1145	0.0023	0.0180	0.002	0.000	0.001
108.0	2707.0	0.0	2707.0	435.0	0.1607	0.8393	0.0961	0.0015	0.0146	0.002	0.000	0.001
120.0	2272.0	0.0	2272.0	514.0	0.2262	0.7738	0.0744	0.0018	0.0213	0.002	0.000	0.001
132.0	1758.0	0.0	1758.0	199.0	0.1132	0.8868	0.0660	0.0007	0.0100	0.002	0.000	0.001
144.0	1559.0	0.0	1559.0	290.0	0.1860	0.8140	0.0537	0.0010	0.0171	0.001	0.000	0.001
156.0	1269.0	0.0	1269.0	229.0	0.1805	0.8195	0.0440	0.0008	0.0165	0.001	0.000	0.001
168.0	1040.0	0.0	1040.0	200.0	0.1923	0.8077	0.0355	0.0007	0.0177	0.001	0.000	0.001
180.0	840.0	0.0	840.0	106.0	0.1262	0.8738	0.0311	0.0004	0.0112	0.001	0.000	0.001
192.0	734.0	0.0	734.0	184.0	0.2507	0.7493	0.0233	0.0006	0.0239	0.001	0.000	0.002
204.0	550.0	0.0	550.0	114.0	0.2073	0.7927	0.0184	0.0004	0.0193	0.001	0.000	0.002
216.0	436.0	0.0	436.0	58.0	0.1330	0.8670	0.0160	0.0002	0.0119	0.001	0.000	0.002
228.0	378.0	0.0	378.0	86.0	0.2275	0.7725	0.0124	0.0003	0.0214	0.001	0.000	0.002
240.0	292.0	0.0	292.0	68.0	0.2329	0.7671	0.0095	0.0002	0.0220	0.001	0.000	0.003
252.0	224.0	0.0	224.0	106.0	0.4732	0.5268	0.0050	0.0004	0.0517	0.000	0.000	0.005
264.0	118.0	0.0	118.0	59.0	0.5000	0.5000	0.0025	0.0002	0.0556	0.000	0.000	0.007
276.0	59.0	0.0	59.0	0.0	0.0	1.0000	0.0025	0.0	0.0	0.000	0.0	0.0
288.0	59.0	0.0	59.0	0.0	0.0	1.0000	0.0025	0.0	0.0	0.000	0.0	0.0
300.0	59.0	0.0	59.0	28.0	0.4746	0.5254	0.0013	0.0001	0.0519	0.000	0.000	0.009
312.0	31.0	0.0	31.0	31.0	1.0000	0.0	0.0	0.0001	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 33.42

Figure A.8. Graph of Survival Function for Male Inmates in Later Incarcerations in 1979, by Employment

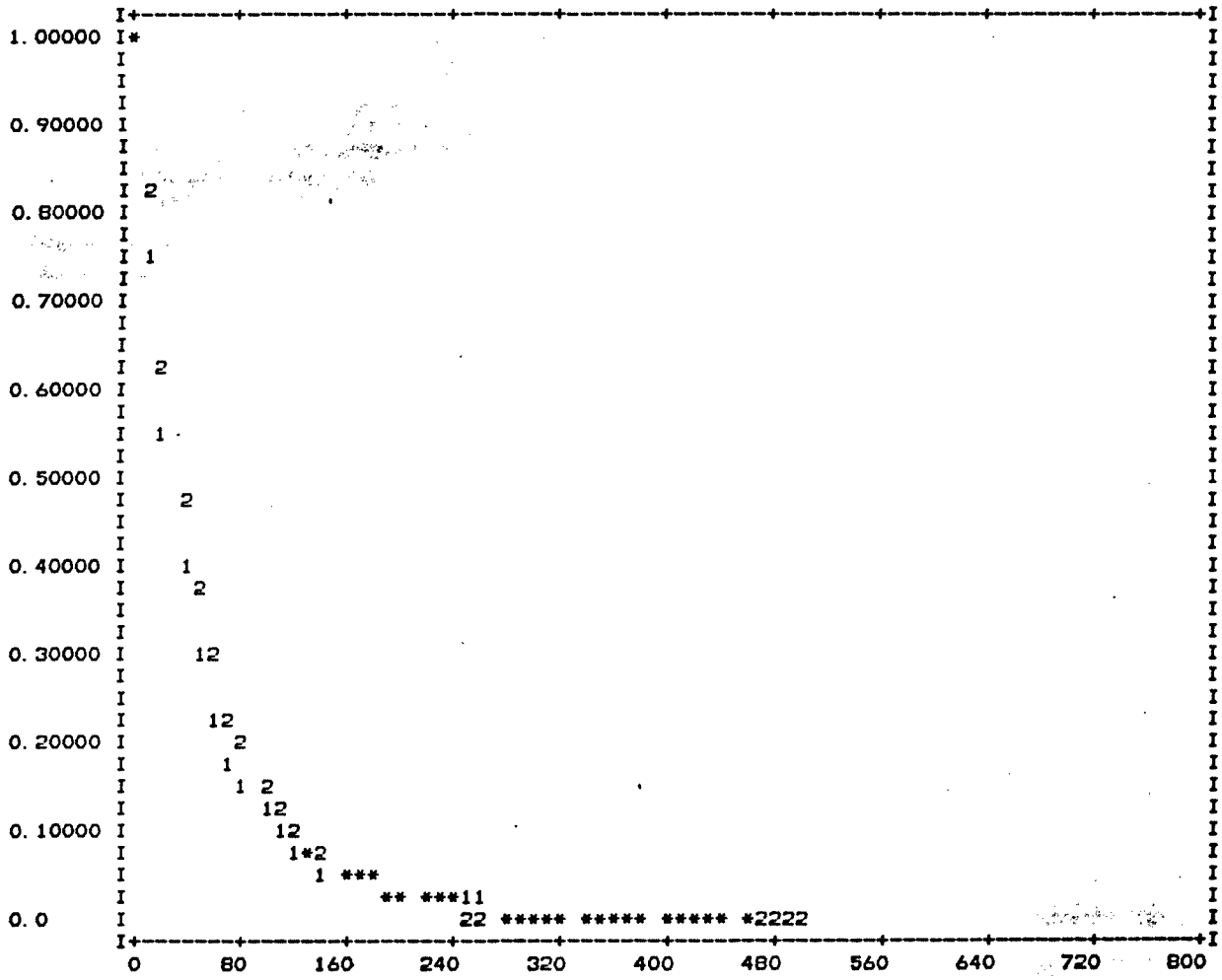

Table A.8

Life Table for Male Inmates in Later Incarcerations in 1979, by Employment

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	29820.0	0.0	29820.0	7389.0	0.2478	0.7522	0.7522	0.0206	0.0236	0.003	0.000	0.000
12.0	22431.0	0.0	22431.0	6247.0	0.2785	0.7215	0.5427	0.0175	0.0270	0.003	0.000	0.000
24.0	16184.0	0.0	16184.0	4558.0	0.2816	0.7184	0.3899	0.0127	0.0273	0.003	0.000	0.000
36.0	11626.0	0.0	11626.0	2780.0	0.2391	0.7609	0.2966	0.0078	0.0226	0.003	0.000	0.000
48.0	8846.0	0.0	8846.0	1936.0	0.2189	0.7811	0.2317	0.0054	0.0205	0.002	0.000	0.000
60.0	6910.0	0.0	6910.0	1395.0	0.2019	0.7981	0.1849	0.0039	0.0187	0.002	0.000	0.000
72.0	5515.0	0.0	5515.0	1167.0	0.2116	0.7884	0.1458	0.0033	0.0197	0.002	0.000	0.001
84.0	4348.0	0.0	4348.0	845.0	0.1943	0.8057	0.1175	0.0024	0.0179	0.002	0.000	0.001
96.0	3503.0	0.0	3503.0	652.0	0.1861	0.8139	0.0956	0.0018	0.0171	0.002	0.000	0.001
108.0	2851.0	0.0	2851.0	453.0	0.1589	0.8411	0.0804	0.0013	0.0144	0.002	0.000	0.001
120.0	2398.0	0.0	2398.0	293.0	0.1222	0.8778	0.0706	0.0008	0.0108	0.001	0.000	0.001
132.0	2105.0	0.0	2105.0	307.0	0.1458	0.8542	0.0603	0.0009	0.0131	0.001	0.000	0.001
144.0	1798.0	0.0	1798.0	239.0	0.1329	0.8671	0.0523	0.0007	0.0119	0.001	0.000	0.001
156.0	1559.0	0.0	1559.0	181.0	0.1161	0.8839	0.0462	0.0005	0.0103	0.001	0.000	0.001
168.0	1378.0	0.0	1378.0	226.0	0.1640	0.8360	0.0386	0.0006	0.0149	0.001	0.000	0.001
180.0	1152.0	0.0	1152.0	56.0	0.0486	0.9514	0.0368	0.0002	0.0042	0.001	0.000	0.001
192.0	1096.0	0.0	1096.0	226.0	0.2062	0.7938	0.0292	0.0006	0.0192	0.001	0.000	0.001
204.0	870.0	0.0	870.0	113.0	0.1299	0.8701	0.0254	0.0003	0.0116	0.001	0.000	0.001
216.0	757.0	0.0	757.0	85.0	0.1123	0.8877	0.0225	0.0002	0.0099	0.001	0.000	0.001
228.0	672.0	0.0	672.0	59.0	0.0878	0.9122	0.0206	0.0002	0.0077	0.001	0.000	0.001
240.0	613.0	0.0	613.0	62.0	0.1011	0.8989	0.0185	0.0002	0.0089	0.001	0.000	0.001
252.0	551.0	0.0	551.0	169.0	0.3067	0.6933	0.0128	0.0005	0.0302	0.001	0.000	0.002
264.0	382.0	0.0	382.0	58.0	0.1518	0.8482	0.0109	0.0002	0.0137	0.001	0.000	0.002
276.0	324.0	0.0	324.0	0.0	0.0	1.0000	0.0109	0.0	0.0	0.001	0.0	0.0
288.0	324.0	0.0	324.0	112.0	0.3457	0.6543	0.0071	0.0003	0.0348	0.000	0.000	0.003
300.0	212.0	0.0	212.0	29.0	0.1368	0.8632	0.0061	0.0001	0.0122	0.000	0.000	0.002
312.0	183.0	0.0	183.0	54.0	0.2951	0.7049	0.0043	0.0002	0.0288	0.000	0.000	0.004
324.0	129.0	0.0	129.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
336.0	129.0	0.0	129.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
348.0	129.0	0.0	129.0	0.0	0.0	1.0000	0.0043	0.0	0.0	0.000	0.0	0.0
360.0	129.0	0.0	129.0	56.0	0.4341	0.5659	0.0024	0.0002	0.0462	0.000	0.000	0.006
372.0	73.0	0.0	73.0	0.0	0.0	1.0000	0.0024	0.0	0.0	0.000	0.0	0.0
384.0	73.0	0.0	73.0	42.0	0.5753	0.4247	0.0010	0.0001	0.0673	0.000	0.000	0.010
396.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
408.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
420.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
432.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
444.0	31.0	0.0	31.0	0.0	0.0	1.0000	0.0010	0.0	0.0	0.000	0.0	0.0
456.0	31.0	0.0	31.0	31.0	1.0000	0.0	0.0	0.0001	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 27.35

Table A.8 (continued)

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE	SE OF CUMUL SURV-IVING	SE OF PROB-ABILTY DENS	SE OF HAZRD RATE
0.0	70461.0	0.0	70461.0	13120.0	0.1862	0.8138	0.8138	0.0155	0.0171	0.001	0.000	0.000
12.0	57341.0	0.0	57341.0	13677.0	0.2385	0.7615	0.6197	0.0162	0.0226	0.002	0.000	0.000
24.0	43664.0	0.0	43664.0	10115.0	0.2317	0.7683	0.4761	0.0120	0.0218	0.002	0.000	0.000
36.0	33549.0	0.0	33549.0	7475.0	0.2228	0.7772	0.3700	0.0088	0.0209	0.002	0.000	0.000
48.0	26074.0	0.0	26074.0	4988.0	0.1913	0.8087	0.2993	0.0059	0.0176	0.002	0.000	0.000
60.0	21086.0	0.0	21086.0	4558.0	0.2162	0.7838	0.2346	0.0054	0.0202	0.002	0.000	0.000
72.0	16528.0	0.0	16528.0	3280.0	0.1985	0.8015	0.1880	0.0039	0.0184	0.001	0.000	0.000
84.0	13248.0	0.0	13248.0	2276.0	0.1718	0.8282	0.1557	0.0027	0.0157	0.001	0.000	0.000
96.0	10972.0	0.0	10972.0	2065.0	0.1882	0.8118	0.1264	0.0024	0.0173	0.001	0.000	0.000
108.0	8907.0	0.0	8907.0	1579.0	0.1773	0.8227	0.1040	0.0019	0.0162	0.001	0.000	0.000
120.0	7328.0	0.0	7328.0	1189.0	0.1623	0.8377	0.0871	0.0014	0.0147	0.001	0.000	0.000
132.0	6139.0	0.0	6139.0	883.0	0.1438	0.8562	0.0746	0.0010	0.0129	0.001	0.000	0.000
144.0	5256.0	0.0	5256.0	869.0	0.1653	0.8347	0.0623	0.0010	0.0150	0.001	0.000	0.001
156.0	4387.0	0.0	4387.0	840.0	0.1915	0.8085	0.0503	0.0010	0.0176	0.001	0.000	0.001
168.0	3547.0	0.0	3547.0	476.0	0.1342	0.8658	0.0436	0.0006	0.0120	0.001	0.000	0.001
180.0	3071.0	0.0	3071.0	605.0	0.1970	0.8030	0.0350	0.0007	0.0182	0.001	0.000	0.001
192.0	2466.0	0.0	2466.0	437.0	0.1772	0.8228	0.0288	0.0005	0.0162	0.001	0.000	0.001
204.0	2029.0	0.0	2029.0	460.0	0.2267	0.7733	0.0223	0.0005	0.0213	0.001	0.000	0.001
216.0	1569.0	0.0	1569.0	281.0	0.1791	0.8209	0.0183	0.0003	0.0164	0.001	0.000	0.001
228.0	1288.0	0.0	1288.0	167.0	0.1297	0.8703	0.0159	0.0002	0.0116	0.000	0.000	0.001
240.0	1121.0	0.0	1121.0	303.0	0.2703	0.7297	0.0116	0.0004	0.0260	0.000	0.000	0.001
252.0	818.0	0.0	818.0	228.0	0.2787	0.7213	0.0084	0.0003	0.0270	0.000	0.000	0.002
264.0	590.0	0.0	590.0	199.0	0.3373	0.6627	0.0055	0.0002	0.0338	0.000	0.000	0.002
276.0	391.0	0.0	391.0	0.0	0.0	1.0000	0.0055	0.0	0.0	0.000	0.0	0.0
288.0	391.0	0.0	391.0	31.0	0.0793	0.9207	0.0051	0.0000	0.0069	0.000	0.000	0.001
300.0	360.0	0.0	360.0	71.0	0.1972	0.8028	0.0041	0.0001	0.0182	0.000	0.000	0.002
312.0	289.0	0.0	289.0	88.0	0.3045	0.6955	0.0029	0.0001	0.0299	0.000	0.000	0.003
324.0	201.0	0.0	201.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
336.0	201.0	0.0	201.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
348.0	201.0	0.0	201.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
360.0	201.0	0.0	201.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
372.0	201.0	0.0	201.0	0.0	0.0	1.0000	0.0029	0.0	0.0	0.000	0.0	0.0
384.0	201.0	0.0	201.0	55.0	0.2736	0.7264	0.0021	0.0001	0.0264	0.000	0.000	0.004
396.0	146.0	0.0	146.0	34.0	0.2329	0.7671	0.0016	0.0000	0.0220	0.000	0.000	0.004
408.0	112.0	0.0	112.0	0.0	0.0	1.0000	0.0016	0.0	0.0	0.000	0.0	0.0
420.0	112.0	0.0	112.0	0.0	0.0	1.0000	0.0016	0.0	0.0	0.000	0.0	0.0
432.0	112.0	0.0	112.0	0.0	0.0	1.0000	0.0016	0.0	0.0	0.000	0.0	0.0
444.0	112.0	0.0	112.0	28.0	0.2500	0.7500	0.0012	0.0000	0.0238	0.000	0.000	0.004
456.0	84.0	0.0	84.0	0.0	0.0	1.0000	0.0012	0.0	0.0	0.000	0.0	0.0
468.0	84.0	0.0	84.0	0.0	0.0	1.0000	0.0012	0.0	0.0	0.000	0.0	0.0
480.0	84.0	0.0	84.0	29.0	0.3452	0.6548	0.0008	0.0000	0.0348	0.000	0.000	0.006
492.0	55.0	0.0	55.0	28.0	0.5091	0.4909	0.0004	0.0000	0.0569	0.000	0.000	0.010
504.0	27.0	0.0	27.0	27.0	1.0000	0.0	0.0	0.0000	0.1667	0.0	0.000	0.000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 34.01