THE RESPONSE OF THE CRIMINAL JUSTICE SYSTEM TO PRISON OVERCROWDING: RECIDIVISM PATTERNS AMONG FOUR SUCCESSIVE PAROLEE COHORTS

WILLIAM R. KELLY
SHELDON EKLAND-OLSON

Over the past decade crowded prison conditions became the subject for lawsuits across the country, resulting in restrictions on the "capacity" of prison systems in a number of states. These restrictions produced pressures throughout the criminal justice system, from arrest to release on parole. The question addressed in this research is whether these restrictions and pressures affected the probability and pattern of return to prison among parolees. Data were collected at yearly intervals from four successive cohorts of parolees in Texas. Each cohort was followed for thirty-six months to determine the pattern and probability of returning to prison. Four alternative explanations for shifts in recidivism probabilities are explored using "survival analysis" techniques. Evidence is found for reduced deterrence in addition to effects from cohort composition and administrative discretion.

INTRODUCTION

In the early 1980s, prison crowding was flagged as "the most critical administrative problem facing the United States criminal justice system" (Blumstein 1983:229). While debates emerged as the decade unfolded over what criteria should be used to document the meaning of "crowding" (Sherman and Hawkins 1981; Gaes 1985), concern with crowded conditions occupied more policymaking time for the criminal justice system than any other single issue in the 1980s. By mid-decade, all but eleven states had at least one prison considered "overcrowded" by some court-defined standard. California embarked on a crash construction program that dwarfed all previous efforts (Zimring 1990). In the closing years of the decade, under substantial court pressure, Texas enacted sweeping

criminal justice reform legislation, including a statewide restructuring of administrative control and a large-scale construction effort (Ekland-Olson and Kelly 1989). Parallel efforts occurred nationwide.

Faced with burgeoning prison populations and limited resources, states increasingly turned to the "backdoor" solution of parole release. Between 1977 and 1988, supervised releases from state prisons increased by 183 percent, from 89,636 in 1977 to 253,646 in 1988 (Bureau of Justice Statistics 1990). This dramatic rise in parole releases significantly increased the parole population. In the last half of the 1980s alone, the number of persons under parole supervision in the United States increased by 52 percent, from 300,203 to 456,797 (ibid.).

Like other major shifts in criminal justice policy, this large-scale rapid transformation of criminal justice may have been responsible for a variety of unanticipated consequences (e.g., Merton 1936; Hegel 1953; Schneider 1971). In particular, we consider how the changes in imprisonment and release patterns affected the rate at which persons return to prison once they are released on parole.

THE TEXAS PRISON CROWDING CRISIS

The growth in the prison population in the Texas Department of Corrections (TDC) exemplifies the national trend. In the early to mid-1970s, the prison population hovered between 16,000 and 20,000. By 1981, it had increased to more than 30,000, and by 1989, even with stringent population "caps" in place, it was just over 40,000. Texas also followed the national trend of increasing parole releases. Between 1980 and 1989, parole and mandatory supervision releases increased by 320 percent, from 7,180 in 1980 to 30,102 in 1989 (Texas Department of Corrections 1988). Increases in admissions to TDC were in part a function of rising crime. Total index crimes increased by nearly 175 percent during the 1970s and 1980s. Predictably, arrests also rose, by about 70 percent. Convictions were up as well (by about 57 percent) but not at the same rate as arrests (see Ekland-Olson and Kelly (in press) for a more detailed discussion of the evolution of the crowding problem at TDC).

In addition to the increased demands placed on the prison system from rising crime, arrests, and convictions, there was a higher likelihood that, once convicted, individuals would be sentenced to prison. Between 1976 and 1989, the ratio of incarcerations to convictions rose by more than 35 percent. Moreover, between 1976 and 1989, the percentage of those with no prior confinement in TDC rose from 76 percent to 85 percent (Texas Department of Corrections, various years). Thus, an increasingly prevalent "get tough policy" contributed to the prison population problem. The result was that the primary source of the rise in the on-hand prison population during the 1980s was increased admissions (see Table 1),

indicated by the ratio of new admissions to the total on-hand population, which rose from a low of .47 in 1973 to a high of .94 in 1990.

In summary, the prison crowding problem in Texas began with increasing crime. It was exacerbated by the increased tendency to sentence convicted offenders to prison, including those with no prior prison time in TDC. As the prison population began to climb, the courts began to intervene in prison conditions cases, in Texas as well as elsewhere.

Table 1. Total On-Hand Prison Population and the Ratio of Total Received to Total On-Hand Population; Texas, 1972–1990

Year	Total On-Hand Population	No. Received	Ratio
1972	16,171	7,725	.48
1973	16,689	7,780	.47
1974	16,956	8,217	.49
1975	18,151	9,358	.52
1976	20,976	10,554	.50
1977	20,862	11,077	.53
1978	24,615	12,894	.52
1979	25,164	13,041	.52
1980	28,543	14,176	.50
1981	30,315	15,702	.52
1982	34,393	18,837	.55
1983	36,769	22,870	.62
1984	35,772	23,058	.64
1985	37,320	25,365	.68
1986	38,246	30,471	.80
1987	39,652	35,007	.88
1988	39,664	33,816	.85
1989	41,626	33,303	.80
1990	49,157	46,290	.94

SOURCE: Texas Department of Corrections, *Fiscal Year Statistical Report* 1972–89.

In *Ruiz v. Estelle* (1980), the federal court held that the entire Texas prison system was unconstitutional, due primarily to crowded conditions. (See Martin and Ekland-Olson 1987 and Ekland-Olson and Kelly 1989 for detailed discussions of the *Ruiz* case.) Beginning in 1981, court-imposed population "caps" were placed on the TDC. These restrictions forced the state to develop solutions to the prison population crisis.

The legislature responded to the *Ruiz* decision by implementing expanded good-time allowances and passing, in 1983, the Prison Management Act (PMA), which effectively shifted the responsibility for managing the prison population to the Board of Pardons and Paroles. Among other things, the PMA clarified the capacity standard by which the state was in violation of the *Ruiz* decision, defining the system's capacity in terms of space and facilities available and setting the upper limit at 95 percent of capacity. When the inmate population reached 95 percent of capacity, the PMA triggered the application of more liberal good-time allowances as well

as the advancement of parole eligibility in thirty-day increments, up to a total of ninety days.

The impact of this legislation was immediate. In 1980, 7,180 inmates were released with continued supervision. In 1985, this figure had risen to 21,192. In 1989, it reached 30,102. The dramatic rise in parole release was accomplished through an equally dramatic increase in the percentage of parolees released after their initial parole hearing. In 1983, about 40 percent of inmates were released on parole after their first hearing. By the end of the decade, this had increased to nearly 80 percent (see Fig. 1).
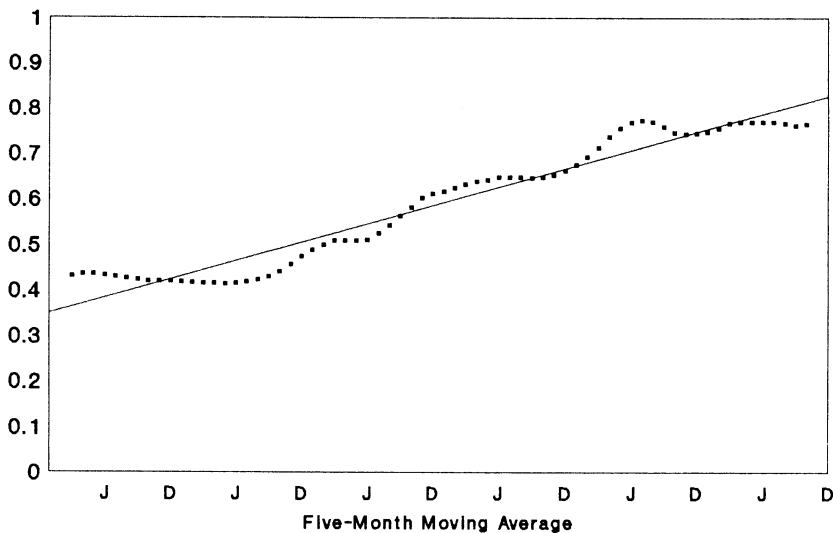

Figure 1. Proportion of parolees released at initial hearing, January 1983–December 1988

One important consequence of this increasing reliance on parole release was a significant decline in the proportion of sentences served by TDC inmates. In 1980 (pre-*Ruiz*) the typical inmate served 37 percent of his/her sentence, for an average length of incarceration of 2.39 years. By 1989, the average percentage of sentence served dropped to 21 percent and the average length of incarceration dropped to 1.70 years.

Another consequence of rising parole releases was the increase in the relative size of the parole population compared to the total adult population. Table 2 presents the rate of parolees per 100,000 population for Texas and the nation as a whole for the years 1983–89. In every year, Texas ranked second in the nation in terms of the relative size of the parole population, second only to Washington D.C. But even more telling is the comparison of the relative increase in the Texas rate and the national rate over this five-year period. Between 1983 and 1988, the national parole rate

increased by 84 percent, to 248 per 100,000 population. The rate for Texas increased by 160 percent, to 758 per 100,000 adults.

Table 2. Number of Parolees Per 100,000 Adult Population, 1983–1989

Year	U.S.	Texas
1983	135	290
1984	155	362
1985	158	410
1986	184	489
1987	201	570
1988	213	657
1989	248	758

SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, *Source Book of Criminal Justice Statistics.*

These dramatic changes show a prison system in conflict over enforcement demands and due process constraints. In this research we examine recidivism probabilities and patterns among parolees to assess the consequences of these major transformations for crime control. Our primary analytic strategy is to compare the three-year survival patterns (i.e., 1 minus the reincarceration rates) of four parole cohorts released from the TDC between 1984 and 1987. The design is longitudinal, providing for the evaluation over time of inmates released in a given year as well as the assessment of changes across cohorts of parolees. Thus, our focus is on both the shifting patterns and overall probabilities (levels) of reincarceration during this period of rapid change in the criminal justice system in Texas. Because, as we have shown elsewhere (Ekland-Olson and Kelly in press), the patterns of recidivism for 1984 and 1985 are similar to the patterns found nationally for 1983, we will use 1984 and 1985 as a baseline against which to examine changes in the patterns for the 1986 and 1987 cohorts.

At least four mechanisms have been suggested to explain how the increasing use of parole to regulate the prison population might affect reincarceration. The first is a "composition" explanation. As parole releases increase, the composition of the parole eligible population may change. For example, the pool of parolees may become increasingly "high risk," primarily due to the high volume of release. This change alone could produce an increase in the probability of returning to prison. The second is the "strained resources" argument. The volume of parole release may affect the ability of the parole officers to monitor releasees, producing a decrease in detection of violations and/or an increase in violations due to reduced monitoring. For example, in 1982, the average caseload per parole officer was 67. By 1986, it had risen to 93 parolees per officer, and then declined to 90 in 1987 and 74 in 1988. The third explanation is a reduced deterrence effect. Fear of punishment, the central variable in deterrence theory, is linked to the

perceived certainty and severity of punishment (Gibbs 1975; Ekland-Olson, Lieb, and Zurcher 1984). As prisons become crowded and prison officials become more liberal in awarding good-time credits, and as parole boards become increasingly likely to release inmates, the perception of the severity and certainty of imprisonment may decline, and with it the deterrent effect of punishment.

Finally, there is what might be called the "administrative discretion" influence. Reincarceration rates may reflect changing practices on the part of the parole board and parole officers. The decision whether to revoke parole for a technical violation gives the parole officer wide discretion. It is reasonable to assume that technical parole violation revocations are most likely to be used on releasees with the most serious criminal records, providing a way to keep high-risk offenders off the streets without a large investment in court time. Pressure from the media and/or the legislature may have altered the parole officers' revocation practices by providing a quick and procedurally simpler means for controlling the parole population. As a result, as the proportion of high-risk parolees increases, we might expect to observe increases in technical violation revocations.

DATA AND RESEARCH DESIGN

Records provided by the Texas Board of Pardons and Paroles, the Texas Department of Public Safety, and the Texas Department of Corrections were used to compile data on four cohorts of parolees released in February 1984, 1985, 1986, and 1987. The 1984 cohort consists of 1,435 parolees, the 1985 cohort contains 1,119, the 1986 cohort consists of 1,671 parolees, and the 1987 cohort contains 2,063. The design allows for a thirty-six-month follow-up on all four cohorts as well as a monthly tracking of these parolees to determine not only if they were reincarcerated but if so, how long after release they were returned to prison.

Data on the parolees' characteristics include prior incarceration offense (release offense), age, gender, race/ethnicity, assessed risk, and reincarceration offense (return offense). Prior incarceration offense and reincarceration offense categories consist of murder, sexual assault, robbery, burglary, larceny/theft, motor vehicle theft, fraud/forgery, drug offenses, assault, and traffic/DWI. For return offenses we also coded technical violations. Age is categorized into 18–22, 23–27, 28–32, 33–37, 38–42, and 43+ years. Race/ethnicity includes Anglo, Black, and Hispanic. Assessed risk, based on the multidimensional Salient Factor Score (see Appendix A), was collapsed into high (scores of 0–4), medium (5–10), and low (11–15). This scale was used by the parole board to assess the likelihood that parolees would return to prison.

We use survival analysis (Brown et al. 1979) to assess changes across cohorts because the variable of interest is the time interval

between an initial event (in this case, release from prison) and a subsequent, terminal event (reincarceration). Survival times are measured in monthly intervals, permitting the computation of monthly survival trajectories for each cohort. Two related survival functions are used. The first is the survival probability, which is the cumulative proportion surviving at the end of a specified time interval. It is 1 minus the proportion who have been reincarcerated by that time, that is, 1 minus the recidivism rate. The second is the hazard rate, which is the probability that a person not reincarcerated at the beginning of a specified time interval (month) will be reincarcerated during that interval.

Trends in Reincarceration

Figure 2 presents the monthly survival probabilities for the thirty-six-month follow-up periods for the four cohorts. Two parallel yet distinct trends are evident: The 1984 and 1985 cohorts are virtually identical. The trends in the survival probabilities for the 1986 and 1987 cohorts are nearly parallel to the two previous years but show a lower rate of survival and differ in some important ways in the follow-up periods. Approximately five months following release, parolees in the 1986 cohort have somewhat lower survival probabilities. This trend continues until about the thirteenth month of release. Thereafter, parolees in the 1987 cohort have slightly lower survival probabilities.
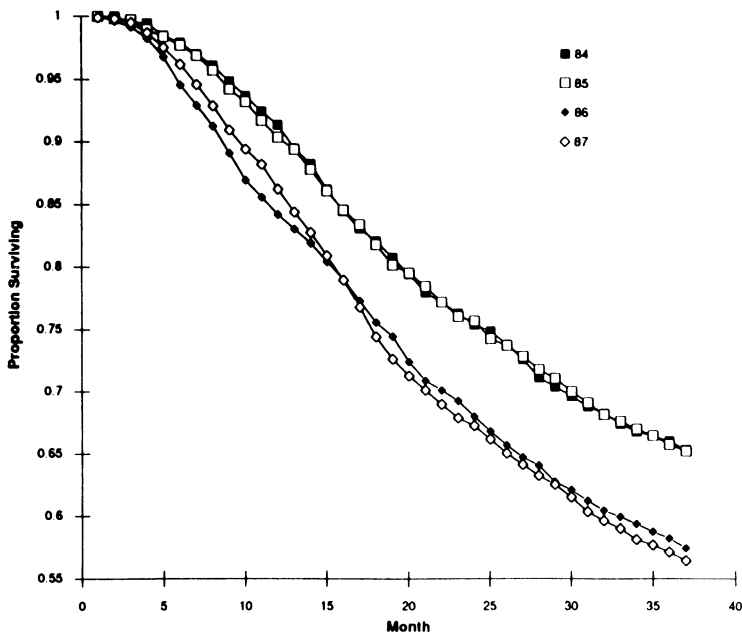

Figure 2. Cumulative proportion surviving for the 1984–1987 cohorts

Table 3 presents the cumulative percentage surviving in each cohort at twelve-, twenty-four-, and thirty-six-month intervals. After twelve months the proportions surviving among all parolees in the 1984 and 1985 cohorts were identical—89.5 and 89.4, respectively. Members of the 1986 and 1987 cohorts were less likely to survive to the end of the first year—83.1 percent and 84.4 percent, respectively.

The survival rates after twenty-four months demonstrate a similar pattern. The 1984 and 1985 cohorts had survival rates that again are virtually identical—74.9 and 74.3. Consistent with the pattern for the first twelve months of release, the 1986 and 1987 cohorts exhibit a lower survival rate. As a whole, about one-third of 1986 and 1987 parolees were reincarcerated after twenty-four months, compared to about 25 percent for the 1984 and 1985 cohorts.

These trends continue during the third year of release. The percentage surviving from the 1984 and 1985 cohorts is essentially identical (about one-third were returned to TDC by the end of the third year). The rates for the 1986 and 1987 cohorts are quite similar as well, although the failure rate is considerably higher in these later cohorts (about 44 percent were returned after thirty-six months).

The differences across cohorts become clearer when we examine the six-month moving average for monthly hazard rates in Figure 3. Moving averages were computed to obtain a trend undistorted by month-to-month fluctuations. The data indicate quite similar rates for the first two cohorts, with an increase in the first twelve months, a leveling off at the maximum rates for a period of a few months, a gradual decline, and then a second leveling off.

In comparison, the hazard rates for the 1986 cohort increased faster and peaked sooner than those for the other cohorts. There was then a decline and a second increase at about fifteen months, tracking the peak for the earlier cohorts. Thus, not only is the overall *level* of reincarceration higher for the 1986 cohort, but this cohort also exhibits a distinctive *pattern* of reincarceration. Note that level and pattern differences do not reflect precisely the same underlying phenomena. Fluctuations in the *pattern*, what has been called the basic "transition curve," seem to be most directly linked with administrative actions and plea-bargain decisions. At least some shifts in the *level* of reincarceration appear to reflect a reduced deterrent effect. Supporting data follow.

The hazard rate trends for the 1987 cohort are different from the trends for the other cohorts. The patterns for the 1984, 1985, and 1987 parolees all show rates that increase monotonically up to about the twelfth to fourteenth month and then gradually decline as the release period increases. What distinguishes the 1987 cohort from the rest is the level of the probability that persons would be returned to prison within a given time frame. The peak rates for

Table 3. Survival Probabilities by Selected Characteristics for the 1984–1987 Release Cohorts

|	12 Months				24 Months				36 Months			
	1984	1985	1986	1987	1984	1985	1986	1987	1984	1985	1986	1987
Total	89.5	89.4	83.1	84.4	74.9	74.3	66.9	66.2	65.3	65.2	57.5	56.4
Release offense												
Murder	93.2	90.4	94.4	89.5	86.4	78.9	86.1	75.0	77.7	75.0	81.9	63.0
Rape	100.0	81.0	72.4	70.6	76.3	76.2	51.7	41.2	63.2	57.1	48.3	35.3
Robbery	89.1	92.3	84.2	82.1	75.5	72.1	66.5	62.5	64.1	59.7	53.1	47.8
Burglary	85.3	85.2	76.2	82.3	67.4	65.4	57.6	63.6	57.1	56.2	48.9	54.4
Larceny	88.1	90.7	85.2	88.1	75.7	79.0	66.4	66.6	64.5	71.6	59.2	54.7
MVT	84.1	83.0	79.0	77.5	61.9	64.2	61.8	53.9	47.6	52.8	51.3	42.2
Forgery	90.2	93.2	87.0	81.8	77.7	78.4	74.8	62.5	72.3	67.1	60.0	55.7
Drug	98.5	95.7	88.4	87.7	89.3	81.7	75.7	71.3	77.1	71.3	64.7	63.7
Assault	92.0	91.8	85.0	82.5	74.0	81.6	65.0	63.8	68.0	79.3	60.0	63.7
Traffic/DWI	88.9	90.9	88.8	83.8	72.2	85.5	73.8	76.3	63.9	78.2	66.3	71.3
Gender												
Male	89.2	88.7	82.7	83.7	74.2	73.4	66.0	65.1	64.2	63.8	56.8	55.5
Female	92.7	98.7	88.6	91.1	83.6	87.0	78.7	76.8	78.2	84.4	66.7	65.3
Age												
18–22	83.9	86.4	75.9	74.1	65.1	66.9	57.7	54.2	55.4	56.5	51.4	43.9
23–27	89.0	88.3	79.5	82.1	74.4	74.1	64.5	64.1	65.1	64.5	53.4	52.4
28–32	92.4	90.9	84.9	85.4	76.0	71.5	68.7	63.3	63.9	61.6	56.9	54.5
33–37	91.4	89.1	83.8	87.8	79.2	75.6	65.8	71.4	72.4	65.4	55.8	61.8
38–42	91.1	92.3	91.2	93.6	74.2	76.9	74.8	77.6	61.3	71.4	68.7	71.8
43+	88.2	90.8	89.8	90.9	80.9	85.5	74.9	78.9	73.7	79.4	69.5	69.7
Race/Ethnicity												
White	91.3	90.6	86.8	86.5	77.6	79.3	71.3	69.3	70.2	72.0	67.5	62.0
Black	88.0	86.7	82.3	81.5	72.0	69.1	65.6	60.9	61.8	58.6	54.1	48.5
Hispanic	88.7	91.9	76.7	85.4	75.3	73.3	60.1	69.3	61.8	63.3	54.0	59.2
Assessed Risk												
High	78.4	83.5	74.1	77.7	62.1	59.0	53.7	53.4	48.4	51.8	43.1	42.2
Medium	89.1	88.4	82.1	83.0	73.3	73.0	66.4	63.4	63.0	62.9	56.9	53.1
Low	94.7	94.5	92.4	91.4	83.6	84.6	78.1	79.4	77.0	76.8	69.7	71.9
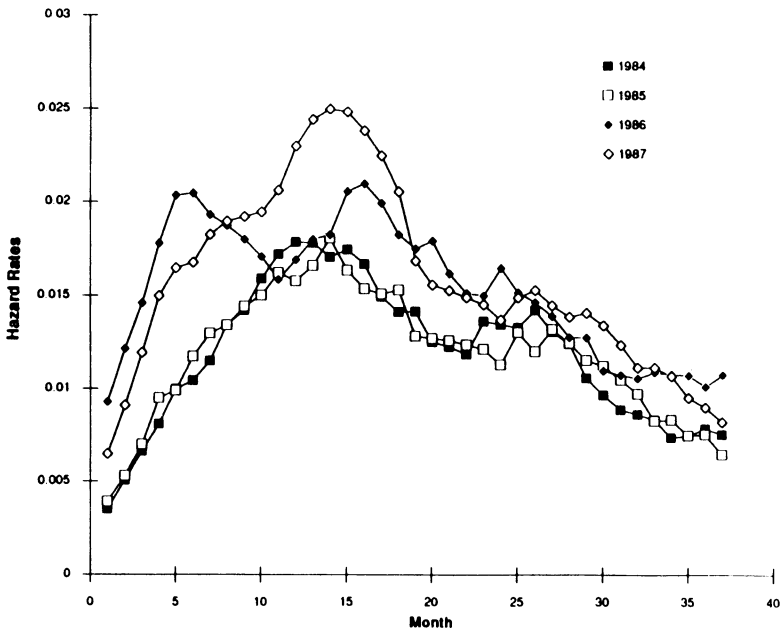
Figure 3. Hazard rates for the 1984–1987 cohorts

the 1987 cohort, while occurring at about the same time as the other cohorts, are considerably higher than the others.

It is clear that the 1986 and 1987 cohorts depart from the 1984–85 baseline, but in different ways. The 1986 cohort produced the early peak in the hazard rates, followed by a decline and then a second peak. In contrast, the pattern of hazard rates for the 1987 cohort followed the 1984 and 1985 pattern, but the level was considerably higher. These departures from the baseline years of 1984 and 1985 provide evidence that the changes occurring in the administration of criminal justice during these years were, indeed, associated with shifts in both the pattern and level of reincarceration among those released on parole in 1986 and 1987. We now evaluate the potential explanations for these trends.

CORRELATES OF RECIDIVISM DIFFERENCES ACROSS COHORTS

Our central question here is whether the large-scale, rapid change in the criminal justice system produced changes in the patterns and probabilities that persons would end up back in prison after being released on parole. For persons released in the early years (1984 and 1985), the answer to this question is a clear no. In both years, the three-year patterns of return reflect the often-noted "transition curve" (e.g., Irwin 1970; Minor and Courlander 1979; Rossi, Berk, and Lenihan 1980; Ekland-Olson, Supancic, Campbell, and Lenihan 1983). These patterns are quite consistent

with national data for the same time frame (Ekland-Olson and Kelly 1989). In this sense, it can be said that the broad-based changes in the criminal justice system, precipitated by the federal court intervention in *Ruiz*, had little if any impact on recidivism among these parolees.

In contrast, persons released on parole in 1986 and 1987 had higher return rates. The 1986 cohort also departed from the basic transition curve with a bimodal distribution and an accelerated return early in the release period.

We have suggested several potential explanations for these patterns. Of these explanations, the administrative discretion and compositional change alternatives appear most likely to explain the unique pattern of return in the 1986 cohort. On the other hand, an altered deterrent effect from the criminal sanctioning process and administrative discretion appear as more likely explanations for the 1987 pattern.

We first consider the extent to which the 1986 cohort differs compositionally from the prior cohorts and thus the extent to which such differences may account for its distinctive survival and hazard rate trends. Table 4 presents the percentage distributions for each cohort, broken down by prior incarceration offense, gender, age, race/ethnicity and assessed risk.[1]

While there are some relatively minor differences between the 1986 and earlier cohorts (e.g., a higher percentage of parolees with a prior incarceration offense of burglary), the most important compositional shift is the increase in 1986 in the proportion of parolees assessed as high risk. It is quite likely that the increase in high-risk parolees contributed to the overall lower survival rates for the 1986 cohort (see Table 3). However, this cannot be the entire explanation. If the lower survival probabilities and higher hazard rates for the 1986 cohort are solely due to compositional shifts, we would not expect to see lower survival probabilities *within* risk categories. That is, the fact that high-risk parolees in 1986 experienced lower survival rates compared to 1984 and 1985 is not due to the compositional changes evident in Table 4.

It is possible that another, more subtle, compositional change occurred. Those within the high-risk category in the 1986 cohort may have been riskier than their counterparts in other cohorts. To assess this possibility, we computed mean risk scores for each category of assessed risk for each cohort and found essentially no difference. Thus, on balance, we conclude that the trends in survival and hazard rates for 1986 are only in part a function of the increased proportion of high-risk parolees.

In the case of the 1987 cohort, the compositional explanation

---

[1] Region of the state to which persons were paroled was also examined but made no discernable difference, and was therefore not included in further analyses.

Table 4. Percentage Distributions by Selected Characteristics for the 1984–1987 Cohorts

	Cohorts			
	1984 (N=1,435)	1985 (N=1,119)	1986 (N=1,671)	1987 (N=2,073)
Release offense				
Murder	7.2	4.6	4.3	3.7
Rape	2.6	1.9	1.7	0.8
Robbery	13.4	11.5	9.8	8.9
Burglary	29.9	30.2	32.9	27.6
Larceny	14.6	14.5	13.3	13.4
MVT	4.4	4.7	4.5	4.9
Forgery	7.8	7.9	6.9	8.5
Drug	9.1	10.3	11.8	17.7
Assault	3.5	4.4	3.6	3.9
Traffic/DWI	2.5	4.8	4.8	3.9
Gender				
Male	92.3	93.1	93.2	90.8
Female	7.7	6.9	6.8	9.2
Age				
18–23	13.0	13.8	13.2	14.6
24–27	32.3	30.0	29.1	26.9
28–32	20.1	23.5	23.3	24.3
33–37	15.4	13.9	14.4	16.6
38–42	8.6	8.1	8.8	7.6
43+	10.6	11.7	11.2	10.1
Ethnicity/race				
White	41.7	42.7	40.7	41.7
Black	39.0	38.4	40.2	37.6
Hispanic	19.2	18.8	18.7	20.1
Assessed risk				
High	10.7	12.4	16.4	12.1
Medium	61.7	61.4	61.5	62.8
Low	27.6	26.1	22.1	25.1

fails almost entirely. Table 4 indicates that on most dimensions, the 1987 cohort was quite similar to the 1985 cohort. Moreover, based on the differential distribution of other characteristics in the 1987 cohort, we would expect that the survival probabilities would, if anything, be lower for the 1987 cohort. Specifically, compared to the 1985 cohort, the 1987 cohort had proportionally fewer parolees with incarceration offenses of burglary and larceny; had relatively more parolees with a prior incarceration offense involving drug trafficking; had relatively more females; was relatively older; and had proportionately fewer high-risk parolees.

Turning to the administrative discretion explanation, we note that during the time frame of this research the parole system found itself in a double bind. On the one hand, there was pressure to manage the crowding-induced crisis in the Texas prison system. This meant that prison beds and parole revocations had to be treated like precious resources. On the other hand, there was what came to be known as the "Willie Horton" factor in the national presidential campaign of 1987 and 1988. In Texas, as elsewhere, there was increased media attention and consequent political pres-

sure and public concern over the release of dangerous felons and more generally over the "revolving prison door." In Texas, instead of the weekend furlough of Willie Horton, newspapers carried stories about the early release of the "Choker Rapist" and "Animal."

As discussed elsewhere (Ekland-Olson and Kelly in press), publicity and political pressure surrounding the release of convicted felons reached a peak in 1986 and 1987. It was also during this basic time frame that the number of persons released from TDC increased by about 40 percent (from 23,333 in 1985 to 33,370 in 1987). The resulting political and administrative pressures corresponded to the months of heightened "hazard rates" among members of the 1986 parole cohort. It is plausible, therefore, that the early peak in hazard rates for members of the 1986 cohort resulted when parole officers responded to the heightened public concern through increased use of technical violations when parolees appeared to be getting into trouble or committing new offenses.

Some evidence suggests that this was indeed the case. Among persons paroled in the 1986 cohort, 20 percent of those revoked on technical grounds returned to prison within the first six months. The corresponding percentages for the 1984 and 1985 cohorts were 5 and 6 percent, respectively, or about one quarter of the first-six-month rate of the 1986 cohort.

While technical violations are a more efficient way to return persons to prison, they are also more likely to fill the prison to capacity, producing a double bind for the parole system. Legislation responding to the impact of parole decisions on the prison crowding side of the double bind came in 1985 (Senate Bill 1167) and took effect just prior to the release of the persons included in our 1986 cohort. The explicit purpose of S.B. 1167 was to reduce prison crowding due to violations of the administrative conditions of parole. In particular, it allowed prison officials to reinstate "good-time" credits (after ninety days of satisfactory institutional adjustment) accumulated during the returning individual's previous stay in prison. This resulted in substantially shortened lengths of stay for those returned for "technical" reasons. Thus, for the parolee who had committed a new crime, there were benefits in securing a technical revocation rather than a new conviction. In the process, the legislative intent of reducing prison crowding resulted in aggravation of what came to be called the revolving door of release and return.

The patterns of technical violations reveal the use of selective discretion by parole officers. As political pressures rose to get high-profile persons off the streets, the proportion of technical parole violations rose. When concerns about crowded cellblocks took over and convicted felons began backing up in local jails, technical violations began to fall. This roller-coaster pattern is evidenced by the finding that technical violations were more likely to be used early in the 1986 cohort, but over the total period of the study they

were less likely to be applied than in the 1985 cohort. By the time the 1987 cohort had been in the community for three years, the rate of technical violations had returned to the level of the 1984 cohort.

To explore the extent to which the early use of technical violations in the 1986 cohort might explain the differences between reincarceration rates across cohorts, we removed from each cohort those parolees who were returned to prison during the first six months of release for a technical violation and recomputed hazard rate curves. These are presented in Figure 4. As is readily apparent, early technical revocations alone do not explain the noted differences across cohorts.
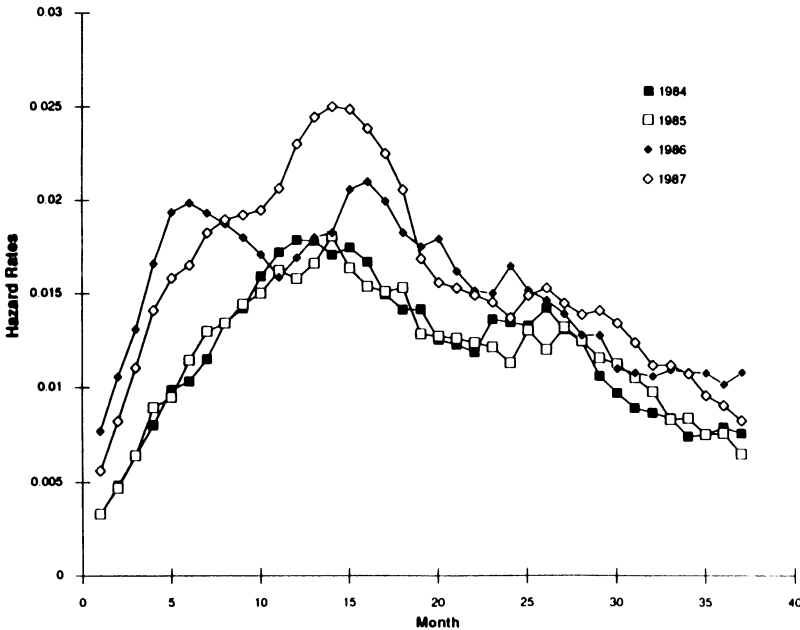

Figure 4. Hazard rates for the 1984–1987 cohorts, omitting early technical revocations

While the curves become somewhat more parallel, they do not begin to overlap. "Technicalities" alone do not generally send persons back to prison, especially when the receiving prisons are already full. Rather, technical revocations are generally used for more expeditious handling of high-profile cases where the person charged is suspected of committing another crime and where the parole offense is more serious than the new charge.

A technical revocation is the major tool parole officers have for controlling potentially high-profile cases. Thus, among those who returned to prison, persons on parole for murder, sexual assault, and assault charges were the most likely to receive a techni-

cal revocation. In the 1986 cohort, 40 percent of those on parole for a sentence of murder who returned to prison were returned on a technical revocation. The comparable percentage for sexual assault and assault offenders was 30 percent. By contrast, only 13 percent of the recidivist burglars returned to prison following a technical revocation. This basic pattern held across cohorts.

This difference, as illustrated in Table 4, may be due to an overall higher rate of reincarceration among these individuals in the 1986 and 1987 cohorts. The most dramatic difference in characteristic-specific survival patterns across cohorts is among those released on parole after serving time for sexual assault (rape). At the end of thirty-six months, in the 1986 and 1987 cohorts, only 48 and 35 percent of these parolees, respectively, were still in the community. This is the lowest three-year survival percentage of any category.

The question becomes whether this increased recidivism was due to a rise in criminal activity (possibly a reduced deterrent effect) or to heightened administrative sensitivity to these high-profile offenders. The possibility of a reduced deterrent effect among this subcategory of parolees is made less likely, though not eliminated, by the finding that the percentage returning for reconviction on repeat violent offense charges remained at a relatively constant 35–40 percent across the four cohorts. This does not suggest a reduced deterrent effect. This pattern of repetitious offending patterns is not the same across other types of offenses.

A contrasting pattern is found in the *overall* tendency between 1984 and 1987 for persons who were returned to prison to come back for the same crime for which they were released. This is evidenced in Table 5. When specific crime categories are compared, the percentage of persons returning to prison for the same crime (e.g., released after serving a sentence for robbery and returned for another robbery conviction) rose from 27 to 40 percent. Aggregated percentages of those who returned to prison for their release offense (e.g., released property offenders returned for another property offense) rose from 45 to 58 percent, comparing the 1984 and 1987 cohorts.

This pattern of increased repetitious offending is most evident among property offenders and, in particular, the chances that recidivist burglars returned to prison on a new burglary charge. Among persons returning to prison for repetitious burglary convictions, the percentage with new burglary or larceny/stolen property offenses rose from 39 percent to 49 percent between 1984 and 1986. This, then is the first evidence we find indicating a possible reduction in the deterrent influence (defined by repetitious offenses) from an overburdened criminal justice system.

Given these findings, we decided to remove from each of the cohorts early-returning (within the first nine months) technical violators, as well as those on parole for sexual assault and burglary.

Table 5. Cross-Tabulation of Prior Incarceration Offense by Return Offense by Release Cohort

Prior Incarceration Offense	Return Offense		
	Violent	Property	Drug
		1984	
Violent	35%	23%	9%
Property	15	52	8
Drug	23	20	30
		1985	
Violent	36%	26%	7%
Property	12	60	9
Drug	22	24	46
		1986	
Violent	40%	25%	5%
Property	13	59	14
Drug	8	23	53
		1987	
Violent	36%	33%	11%
Property	10	70	10
Drug	5	33	54

By so doing we hoped to assess the most obvious combined effects of administrative decision, composition, and possibly reduced deterrence across cohorts. The resulting hazard rate curves for each cohort are presented in Figure 5.

As is apparent, the variation in the *pattern* of return across cohorts is thereby greatly reduced, although the increased *level* of return is not totally eliminated. It is also apparent that as members of the 1985 cohort entered the middle of their second year of release, the months corresponding to the heightened return rates in the 1986 cohort, the probability of persons returning to prison began to rise. This further underscores the already-noted administrative effect stemming from heightened public and political concern during these months. Thus, it appears that the differential timing of return to prison, characteristic of the 1986 cohort, was primarily a function of administrative action combined with the sentence benefits of S.B. 1167 for defendants, cohort composition, and perhaps the reduced deterrent effect among property offenders.

This leaves the reincarceration patterns for the 1987 cohort. We have already seen that compositional differences do not account for the heightened recidivism among these individuals. There is little evidence to suggest that the administrative-discre-
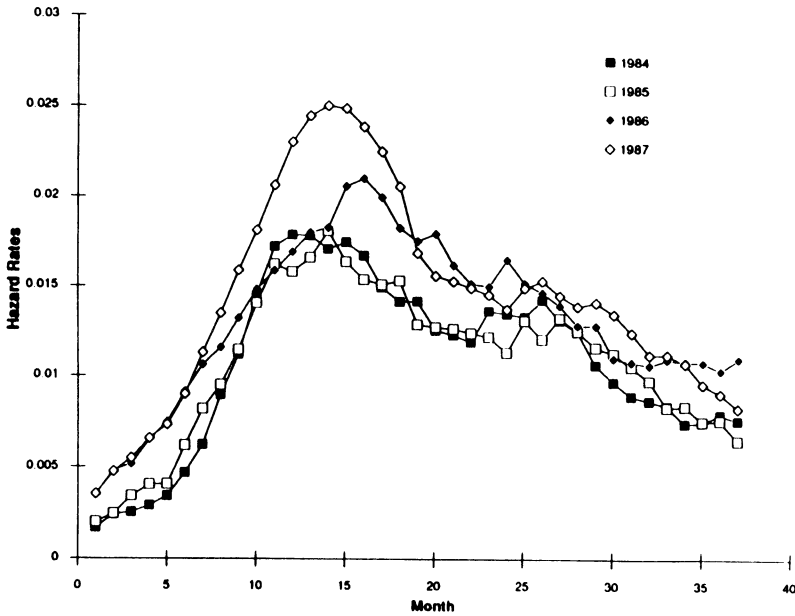
Figure 5. Hazard rates for the 1984–1987 cohorts, omitting parolees with technical violations, sexual assaults, and burglary offenses who returned within the first nine months.

tion/sentence-benefits explanation is as relevant as it was for the 1986 cohort. Figures 3 and 4 indicate that the pattern of return among those released in 1987 is essentially unaffected by the adjustments for early technical revocations, property offenses, and sexual assault incarceration offenses.

Nor does the "strained resources" explanation appear to account for the 1987 patterns. Data from the Texas Board of Pardons and Paroles (various years) indicate that parole officer caseloads were in fact declining in 1987 and 1988. The ratio of parolees to officers was considerably lower in 1988 (74:1) than in 1984 (81:1), 1985 (92:1), 1986 (93:1), and 1987 (90:1).

What we are left with, then, is how changes taking place in the administration of criminal justice during these years might have affected the estimates of the certainty and severity of punishment among offenders. While we do not have direct perceptual measures, and are thus unable to test the strict versions of the deterrence doctrine (Gibbs 1975), we do find evidence across cohorts that persons released on parole returned to prison on charges close or identical to their earlier offense.

As is clear from Table 5, this increase over previous cohorts is most marked among property offenders. This pattern, of course, is consistent with the idea that property offenses, more than other crimes, are linked to the rational calculations implied by deter-

rence explanations of crime. The same pattern occurred among persons released and then reconvicted on drug trafficking charges. In the 1984 cohort, 30 percent of those released after serving a sentence for a drug-trafficking charge returned after a conviction for a similar offense. This return rate rose to 54 percent in 1987, an 80 percent increase. While this increase in repetitions offending, especially among property offenders, is intriguing, it occurred in the context of a sharp downturn in the state's economy (Ekland-Olson and Kelly in press) and thus, as always, we are left with some empirical loose ends to be tied up in subsequent research.

SUMMARY AND CONCLUSIONS

During the 1980s the administration of criminal justice in Texas, like many other states, underwent dramatic restructuring, due largely to pressure from the federal court. It was widely charged that this restructuring resulted in a seriously flawed criminal justice system. Allegedly, those making sentencing decisions were reacting to crowded conditions in the prisons rather than to the nature of the offense charged. Likewise, it was noted that due to variation in sentencing and release decisions over the years, dangerous and otherwise high-risk individuals were being released before their time and then returning through revolving prison doors.

Attempts to reform the criminal justice system may have produced the ironic consequence of heightened return rates to prison. This, of course, would not be the first time that unintended consequences have emerged from actions taken by judicial and legislative policymakers. For example, it was Hegel (1953:35) who wrote, "human actions in history produce additional results, beyond their immediate knowledge and desire." Indeed, such ironies have been noted over several decades in the social science literature (e.g., Merton 1936; Schneider 1971). The research we have reported was designed to evaluate policy shifts in light of offender behavior based on data collected from four successive cohorts of parolees in Texas. There is some indication that the composition of these cohorts did change over the time period covered. Proportionately more parolees assessed as high risk in terms of their likelihood of returning to prison were released. There is also evidence that recidivism rates rose in the 1986 and 1987 cohorts.

We first suspected that the unique pattern of hazard rates for the 1986 cohort was due primarily to high-risk offenders and those reincarcerated for technical violations. However, when these subgroups were omitted from the samples, the early "spike" remained.

We then plotted the hazard rates for specific prior incarceration offenses and discovered that the offense categories contributing most were burglary (about one-third of the sample) and sexual

assault (a small number but very high early hazard rates). Other offense categories had hazard-rate trends consistent with the earlier overall patterns. When the cohorts were equated in terms of early-returning burglary, sexual assault, high-risk, and technical revocations, the survival curves and hazard-rate *patterns* came closer together, but the 1986 and 1987 cohorts remained more likely to return to prison than those in the earlier years.

Parolees with new offenses cannot be processed through the system and return to prison in five to six months if a trial is held. Thus, the most plausible explanation for these early returns is that these parolees, rather than being processed through the court system, elected to plead guilty to a technical violation. Why? First, the courts were crowded. Thus, prosecutors and judges were motivated to accept such pleas. Second, in 1985, the Texas legislature passed legislation giving parolees returned to TDC on a technical violation the good time they had accumulated during their prior incarceration. Thus, parolees could plead guilty to a technical violation and begin their sentence with a dramatic head start on when he or she would be released.

The consequence of this law, designed to accelerate the release time of those with prior incarcerations, actually fed the prison-crowding problem as well as the administrative burden of prison officials by encouraging the quick return of offenders and reducing the amount of time between admission and release. This also may have produced a reduced deterrent effect. S.B. 1167 may very well have reduced the deterrent effect of reincarceration by reducing or minimizing the punishment associated with the commission of a new offense. Evidence for this possibility comes from heightened rates of repetitious offending, especially among property and drug offenders. The remaining competing explanation is whether this increased repetitious offending was influenced by economic changes taking place in the state at this same time (e.g., Ekland-Olson and Kelly in press).

What produced the decreased survival rates in the 1986 and 1987 cohorts? It appears that it was the commingling of several factors, all simultaneous responses to prison crowding, affecting not only the pattern of reincarceration but also the overall level of return. These factors include changes in the composition of the parole cohorts, public pressure that encouraged the early revocation of parole, and legislation that unintentionally increased the incentives for "technical" revocations and a possible reduction in deterrence. Combined, these factors ironically contributed to increased reincarceration rates at a time of maximum pressure on the capacity of the Texas Department of Corrections.

REFERENCES

BLUMSTEIN, Alfred (1983) "Prisons: Population, Capacity and Alternatives," in J. Q. Wilson (ed.), *Crime and Public Policy*. San Francisco: ICS Press.

BROWN, B. W., H. WALKER, M. SCHIMEK, and P. T. WRIGHT (1979) "A Life Table Package for SPSS," 33 *American Sociological Review* 225.

BUREAU OF JUSTICE STATISTICS (1990) "Probation and Parole 1989," *Bureau of Justice Statistics Bulletin* (U.S. Department of Justice).

EKLAND-OLSON, Sheldon, Michael SUPANCIC, James CAMPBELL, and Kenneth LENIHAN (1983) "Post Release Depression and the Importance of Familial Support," 21 *Criminology* 253.

EKLAND-OLSON, Sheldon, and William KELLY (1989) "Justice under Pressure: Implications for Deterrence." Presented at American Society of Criminology meetings, Reno, Nevada, 9–10 Nov.

——— (in press) *Justice under Pressure*. New York: Springer-Verlag.

EKLAND-OLSON, Sheldon, John LIEB, and Louis ZURCHER (1984) "The Paradoxical Impact of Criminal Sanctions: Some Microstructural Findings," 18 *Law & Society Review* 159.

GAES, Gerald (1985) "The Effects of Overcrowding in Prison," in M. Tonry and N. Morris (eds.), *Crime and Justice: Annual Review of Research*. Chicago: University of Chicago Press.

GIBBS, Jack P. (1975) *Crime, Punishment, and Deterrence*. New York: Elsevier.

HEGEL, G. W. F. (1953) *Reason in History* New York: Liberal Arts Press.

IRWIN, John (1970) *The Felon*. Englewood Cliffs, NJ: Prentice-Hall.

MARTIN, Steve J., and Sheldon EKLAND-OLSON (1987) *Texas Prisons*. Austin: Texas Monthly Press.

MERTON, Robert K. (1936) "The Unanticipted Consequences of Purposive Social Action," 1 *American Sociological Review* 894.

MINOR, W. W., and M. COURLANDER (1979) "The Post-Release Trauma Thesis: A Reconsideration of the Rise of Early Parole Failure," 16 *Journal of Research in Crime and Delinquency* 273.

ROSSI, Peter H., Richard A. BERK, and Kenneth J. LENIHAN (1980) *Money, Work, and Crime: Experimental Evidence*. New York: Academic Press.

SCHNEIDER, Louis (1971) "Dialectic in Sociology," 36 *American Sociological Review* 667.

SHERMAN, Michael, and Gordon HAWKINS (1981) *Imprisonment in America: Choosing the Future*. Chicago: University of Chicago Press.

TEXAS BOARD OF PARDONS AND PAROLES (Various Years) "Annual Statistical Report." Austin: Texas Board of Pardons and Paroles.

TEXAS DEPARTMENT OF CORRECTIONS (Various Years) "Fiscal Year Statistical Report." Austin: Texas Department of Corrections.

ZIMRING, Franklin E. (1990) "Correctional Growth in Context." Presented at Growth and Its Influence on Correctional Policy—Perspectives on the Report of the Blue Ribbon Commission, Clark Kerr Campus, University of California, Berkeley, 10–11 May.

CASE CITED

Ruiz v. Estelle, 503 F.Supp. 1265 (1980)

STATUTES CITED

Restoration of Good Conduct Time, Tex. Crim. Proc. sec. 497.004(d) (1985).

Texas Prison Management Act, Tex. Rev. Civ. Stat. Ann. art. 6184 (Vernon 1983).