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THE NATIONAL COUNCIL ON CRIME
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The NCCD Prison Population Forecast: the Growing Imprisonment of America



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ACQUISITIONS

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HIGHLIGHTS

Since 1850, the rate of imprisonment in the United States has increased by almost 800 percent.

The nation's prison populations are expected to continue to increase despite considerable efforts by states to lessen the impact of recently passed criminal justice legislation designed to send more people to prison for longer periods.

California, with 67,000 prisoners, will continue to lead the country in prison population growth. It will become the first state to house over 100,000 prisoners within the next five years unless sentencing policies are modified.

The principal factor fueling prison population growth over the next five years for most states is an increasing length of stay resulting from numerous laws adopted by states to "get tough" with criminals.

Despite anticipated increases in prison populations, crime rates are not expected to decline.

The nation's parole populations will increase more quickly than the prison population as states are forced to accelerate use of parole due to prison crowding.

Black and Hispanic males are being imprisoned at rates three to 12 times the rate of

white males. These rates will continue, or possibly increase, over the next decade.

If prison populations continue to escalate, the following consequences will unfold for correctional officials:

1. An aging inmate population requiring increased medical services and housing in correctional "senior citizen" rest homes;
2. Increasing numbers of Black and Hispanic males sentenced to prison;
3. Increasing funding for correctional agencies which will greatly exceed rates of increased funding of other state services;
4. Chronic shortages of middle-management staff to operate the growing number of prisons.

INTRODUCTION

The past decade has witnessed the greatest rise in the use of imprisonment in the United States' history. Over a century ago, the first national census of federal and state prisoners was completed. In 1850, approximately 6,737 people were found in the nation's newly emerging prison system. This population translated into a per capita imprisonment rate of only 29 inmates per 100,000 population (Calahan, 1986). Shortly thereafter, the imprisonment rate increased then remained fairly stable with a rate of between 75 and 125 prisoners per 100,000. However, since 1970 the rate of imprisonment has

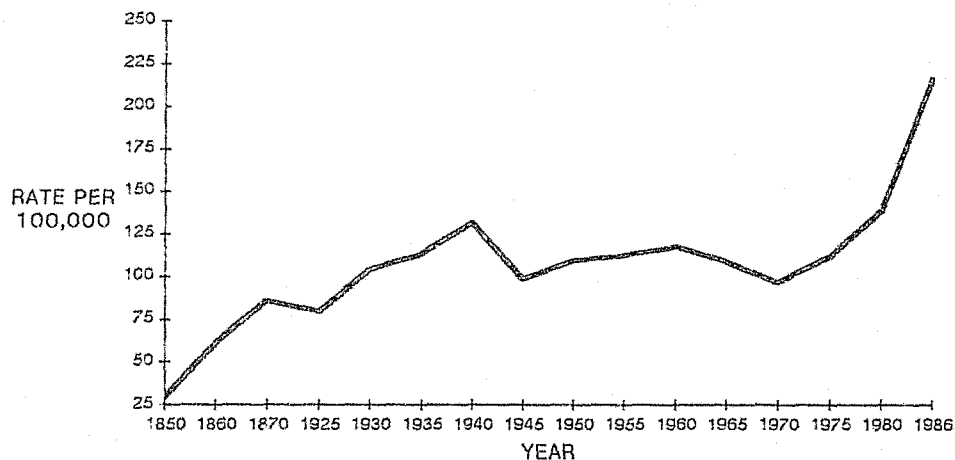
more than doubled with no relief in sight (see Exhibit A). By June 30, 1987, the nation's prison population reached 570,519 and thus established an unprecedented imprisonment rate of approximately 220 per 100,000 (Bureau of Justice Statistics, 1987). In other words, the nation's use of imprison-

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More alarming is that there is little evidence that the use of imprisonment will soon recede. Instead, prison populations may continue to rise well into the next century which will perpetuate the chronic crowding situation now plaguing the majority of state and federal prison systems. According to the Bureau of Justice Statistics, only 10 state prison systems operated below design capacities in 1986 (BJS, 1987).

The recent prison population increases have either caught state correctional agencies by surprise and/or found them ill-equipped to handle their rapidly ballooning populations. Whatever the reasons, many states now find their prison systems severely overcrowded

EXHIBIT A: U.S. PRISON INCARCERATION RATES, 1850-1986

and under litigation for violation of legal standards surrounding adequate levels of prisoner care.

One major reason for the nation's prison crowding problem can be traced to the inability of state agencies to accurately project the size of future prisoner populations. Projections depend upon criminal justice policy which seems to be in a constant state of flux, making accurate projections difficult if not impossible. The size of any prison population is wholly determined by two principle factors—the number of people admitted and their length of stay.

During the past decade, many states have altered their parole systems, implemented new sentencing guidelines, or modified existing "good time" statutes. But all have passed literally hundreds of amendments in the name of "getting tough" on crime, which serve to either increase prison admissions and/or lengths of stay. It is incumbent upon correctional agencies to estimate the impact of reforms on correctional populations—a task that requires a greater level of sophistication with each piece of legislation.

Toward the latter part of the 1970s, William Pannell, then with the California Department of Corrections (CDC), pioneered a new

methodology for estimating the future size of the state's prison and parole populations. The methodology was unlike traditional time-series models, which relied upon historical data to forecast future growth, or demographic sensitive models, which un-

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derestimated the influence of correctional policy in determining prison admissions and lengths of stay. These shortcomings were especially important in 1977 as California

was then in the process of dismantling its indeterminate sentencing and replacing it with a determinate sentencing structure.

This simulation model allows one to accurately mimic the flow (and length of stay) of individual cases through prison and other correctional populations such as parole, jail and probation, based on current sentencing and release practices. In technical terms, the model is an example of what are sometimes called "stochastic entity simulation models." It is stochastic, or probabilistic, in the sense that random numbers are used in the process, and an entity simulation in the sense that the model is conceptually designed around the movement of individuals through the prison and parole populations. The model also is generally an example of the "Monte Carlo simulation technique" because random numbers are used to simulate the entire correctional system. Since 1977, the model has been adopted by the CDC to routinely project its prison and parole populations. More importantly, it is frequently relied upon to project the likely impact of proposed crime control legislation.

Since 1982, the National Council on Crime and Delinquency (NCCD) has worked with nine states in developing correctional projection models similar to the one developed by Pannell to accurately forecast adult prison and parole populations (see Table 1). (NCCD has also developed a juvenile model for Illinois and is now developing juvenile models for Tennessee, Ohio and Orange County, California.)

As illustrated in Table 1, these states represent one third of the nation's entire prisoner population and 27 percent of the nation's parole population. They also encompass a diverse array of geographical regions, demographic populations and criminal justice sentencing systems. For example, California, Illinois and Florida have abolished discretionary parole release systems and replaced them with determinate sentencing schemes. Ohio uses a bifurcated sentencing system which allows for relatively short and determinate sentences for property and first offenders and much longer indeterminate sentences for repeat offenders and those

TABLE 1: 1986 PRISON AND 1985 PAROLE POPULATIONS

State	Year Adopted NCCD Model	Prison	Parole	Sentencing Structure
Western States				
California	1977	59,484	33,983	Determinate
Nevada	1982	4,505	1,313	Indeterminate
Midwestern States				
Illinois	1984	19,456	11,421	Determinate
Ohio	1985	22,463	6,509	Both
Southern States				
Tennessee	1985	7,182	7,499	Indeterminate
Louisiana	1986	14,580	3,718	Indeterminate
Florida	1986	32,228	4,214	Determinate
Virginia	1987	12,930	5,641	Indeterminate
Oklahoma	1987	9,596	1,625	Indeterminate
NCCD State Total		182,424	75,923	
National Total		546,659	277,438	
% of National Total		33.4%	27.4%	

convicted of violent crimes. The latter are released at the discretion of the parole board. The remaining states also use such an indeterminate sentencing system for the vast majority of their prisoners. All of the states use a wide variety of good time measures which serve to reduce the inmate's original sentence length. The only area of the country that is not represented in NCCD's prison population projections is the Northeast, although NCCD will be conducting projections for Massachusetts in 1988 (Oregon and Michigan have also contracted with NCCD for projections).

The nine states now using a standardized projection methodology can serve as a guide for anticipating the future size of the nation's prisoner population as well as identifying those demographic and policy factors that fuel the projections. This report provides an overview of the current prisoner and parole population forecasts for each of the nine states. Where relevant, a brief explanation

is also presented on why some states are expected to grow at an ever increasing rate while others will grow at a far slower pace.

It is important to note that these projections assume that current criminal justice policies will remain constant—an assumption that is unlikely to be validated. The projections are generally used to show the consequences if current policies continue over the next few years. Once these projections are known, the states begin to make adjustments in criminal justice policy to curb population growth commensurate with the state's fiscal abilities to imprison.

The projections shown here make it clear that the nation's use of imprisonment will continue to escalate unless moderate shifts in policies are quickly adopted. Only by understanding this phenomenon can we begin to understand how to better control population growth in the future.

PROJECTED NEW ADMISSIONS

As indicated above, a major factor in population projections is estimating the number of offenders expected to be admitted to prison each year. Technically, prison admissions are composed of three major groups:

1. *New Court Commitments* — Those convicted in court and sentenced to prison who are not on parole supervision at the time of sentencing;
2. *Parole Violators with New Sentences* — Those who are convicted of new crimes while under parole supervision; and
3. *Parole Violators with Technical Violations* — Those who have been returned to prison for violating the conditions of their parole status.

The NCCD model is designed to make a 10-year projection. Only California does not publish its 10-year estimates as officials prefer to issue a five-year forecast every six months. Consequently, 10 years' worth of new court commitments are needed to "load" this component of the model.

New court commitments are largely based on a formula developed by Blumstein et al., (1980) which takes into account state demographic projections for what is referred to as the "at-risk populations." Specifically, new court commitment rates are calculated for sex, age, and ethnic groups based upon the number of such people committed to prison each year. These rates are then extrapolated to the projected size of each sex, age and ethnic-specific demographic group. It is possible to insert into the formula any expected changes in law enforcement (felony arrest rates) and court (court disposition rates) policies. However, this is rarely done simply because such data are rarely available. Therefore, the new court admission estimates listed in Table 2 assume that arrest and court policies have stabilized and that new court admissions will be driven by demographic trends.

The other two sources of prison admissions (parole violators with and without new felony sentences) are generated internally by the simulation model itself largely based on parole policies. These include the length of

TABLE 2: PROJECTED NEW COURT COMMITMENTS*, 1988-1995

YEAR	CALIFORNIA	FLORIDA	ILLINOIS	LOUISIANA	NEVADA	OHIO	OKLAHOMA	TENNESSEE	VIRGINIA	TOTAL
1988	28,235	18,877	7,577	4,114	1,972	10,005	4,631	3,966	5,871	85,248
1989	30,290	19,200	7,643	4,197	2,051	10,135	4,656	4,002	5,965	88,139
1990	30,995	19,372	7,688	4,264	2,133	10,135	4,680	4,042	6,061	89,370
1991	31,665	19,479	7,733	4,306	2,218	10,050	4,715	4,031	6,079	90,276
1992	32,275	19,621	7,779	4,349	2,307	9,959	4,729	4,023	6,091	91,133
% Change 1988-1992	14	4	3	6	17	0	2	1	4	7
1993	na	19,739	7,824	4,393	2,399	9,880	4,754	4,015	6,103	na
1994	na	19,824	7,870	4,437	2,495	9,795	4,779	4,011	6,121	na
1995	na	19,725	7,873	4,481	2,595	9,710	4,804	4,006	6,134	na
% Change 1988-1995	na	4	4	9	32	(3)	4	1	4	na

* New court commitments consist of people sentenced to prison excluding those returned to prison while on parole status as technical violators or violators with new prison sentences.

parole supervision, the parole violation rate and the proportion of violators who will return as violators with new court sentences.

Using demographic-based estimates, new court admissions are expected to increase by 7 percent over the next five years. This increase is dominated by California (14 percent) and Nevada (17 percent) which are also two of the nation's fastest growing Western states. States from the Midwest and the South show very minimal rates of growth reflecting the decline in the 21 to 35 age groups. These are also the age groups most likely to be imprisoned. The rates would be even lower if it were not for differential incarceration rates for Hispanic and Black males. As shown in Exhibit B, prison commitment rates by race for Illinois and California show that Black males have imprisonment rates eight times higher and Hispanic males four times higher than white males. These extraordinary incarceration rates for Blacks and especially Hispanics are significant in that these populations are not expected to experience the population declines anticipated for the White male young

adult population. Hence, we can expect increasing numbers of minorities in the nation's prison system over the next decade.

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It should also be noted that the parole revocation rates which determine the number of released offenders who will return to prison as technical violators or as violators with a new sentence, have been increasing across most of the states. While it is true that the return rates are still relatively low (15-30 percent) even moderate increases in parole

failure add to the demographic-based new court commitment estimates. California leads the states and probably the nation with a parole failure rate well above 50 percent (Austin, 1987).

PROJECTED PRISONER POPULATION GROWTH

Despite the 7 percent projected increase in new court commitments, prison populations for the nine states are expected to increase by 21 percent over the next five years (Table 3). Among the states, California and Nevada (which already have the nation's highest rates of imprisonment) will increase the greatest by 39 percent and 35 percent respectively. Both of these states have been leaders in terms of demographic and prison population growth for the past several years. California is obviously the dominate state representing one-third of the nine-state prison population. And, it will become the first state to exceed 100,000 prisoners under current criminal justice policies. California also has the nation's largest jail population which may exceed 100,000 over the next five years (Austin and Pannell, 1986).

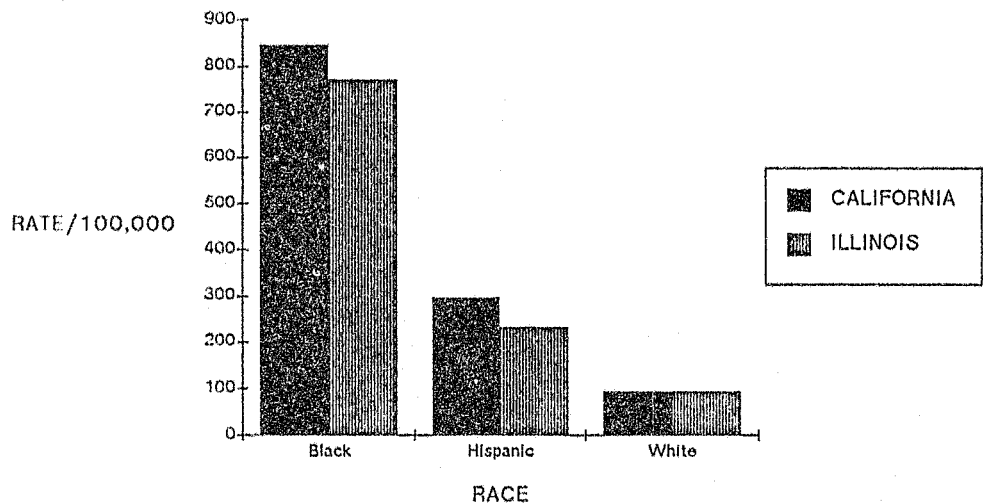
Only Tennessee is expected to experience a slight decline and that projection assumes an indefinite continuation of court imposed emergency release measures (i.e., accelerated parole eligibility) plus restrictions on prison admissions that is forcing more inmates into local jails.* Four other state projections (Oklahoma, Louisiana, Illinois, and Florida) also assume indefinite continuation of administrative and court imposed policies to reduce prison terms. But despite these emergency efforts, their prison populations will continue to grow, albeit at a slower pace than would occur if population control strategies were not in place. Consequently, even more extreme measures will have to be implemented to keep populations under control.

It should also be noted that these estimates must be viewed as *conservative* as some officials believe that law enforcement and court policies have *not* stabilized. For example, many states have placed increased attention on arresting and prosecuting drug offenders (users and distributors). Furthermore, new innovations in law enforcement methods such as computer generated fingerprint systems are expected to increase the number of felons arrested each year in Florida, Illinois and California. With better evidence, the courts may be less reluctant to recommend a non-prison sentence. Whether or not these new developments actually produce higher admissions and thus higher population projections remains to be seen.

PAROLE POPULATION GROWTH

Parole populations will increase at a rate faster than prison populations —30 percent over the next five years (Table 4). This is true even though Florida has abolished parole supervision and will eventually have no parole supervision population. The increases obviously are being fueled by the general increase in the prison population. However, the accelerated use of good-time and increasing parole rates to temper prison population growth are more significant forces underpinning these projections. In other words, efforts to control prison population

**EXHIBIT B: PRISON COMMITMENT RATES BY RACE
CALIFORNIA AND ILLINOIS**



growth are leading to an overloading of the parole system as offenders are released in greater numbers, and, more importantly, are spending longer periods of time on parole supervision.

Efforts to control prison population growth are leading to an overloading of the parole system as offenders are released in greater numbers, and, more importantly, are spending longer periods of time on parole supervision.

These increases are occurring at a time when some states are ill-equipped to handle a growing parole population. For example, Illinois has been forced to virtually eliminate its parole supervision staff due to an across-the-board cut back in state budget. Ironically, the parole division (technically

referred to as community supervision) was hit especially hard since prison population growth has forced most of the cuts to be taken from the parole portion of the total state corrections budget. The single positive development from declining parole supervision staff may be associated declines in the number of technical parole violator returns. However, these declines may be offset by increases in parolees more frequently committing more serious crimes which would again add to the total prison intake rate.

POLICY IMPLICATIONS

These correctional population trends are likely to have important consequences for the characteristics of the resident prison population which will pose unique challenges for correctional officials.

1. *Aging Prison Population:* Longer prison terms translate into an aging prison population. This will be especially true for those states which have greatly extended the concept of "life imprisonment." For example, a significant number of the NCCD states report over 10 percent of their average daily

* This projection is now being increased due to change in parole and good time policies which occurred in 1987.

TABLE 3: PRISON POPULATION PROJECTIONS, 1988-1995

YEAR	CALIFORNIA	FLORIDA*	ILLINOIS*	LOUISIANA*	NEVADA	OHIO	OKLAHOMA*	TENNESSEE*	VIRGINIA	TOTAL
1988	71860	34271	20403	16150	4484	24349	11360	9012	13378	205267
1989	80975	35329	21013	16120	4809	25308	11813	9148	13990	218505
1990	88100	36415	21513	16385	5155	25717	12249	9008	14537	229079
1991	94560	37279	21880	16947	5639	25773	12636	8923	15068	238705
1992	100000	38437	22312	17277	6043	26210	13055	8811	15600	247745
% Change 1988-1992	39	12	9	7	35	8	15	-2	17	21
1993	na	39024	22710	17149	6425	26545	13258	8737	16025	na
1994	na	39943	23123	18174	6775	27149	13498	8758	16418	na
1995	na	40343	23534	18618	7146	27243	13883	8743	16816	na
% Change 1988-1995	na	18	15	15	59	12	22	-3	26	na

* Reflects those states presently using a variety of emergency release or sentence reduction strategies.

population as having life prison terms with no release possible. This specific prisoner population will continue to grow at an ever faster rate unless sentencing laws are modified.

2. *Geriatric Prisons:* Also associated with the aging prisoner, one can anticipate a greater level of medical services and facilities to care for the aging inmates. Because of extreme sentence lengths many of these inmates must die in prison unless their sentences are commuted or sentencing reforms are enacted. Due to the aging effect many of these new facilities should be low security institutions as these "senior citizen" inmates will pose few problems to correctional officials.
3. *Minimal impact on crime:* Despite the continued growth in prison populations, there is little reason to expect an associated decline in crime rates. Prisons will increasingly be filled with people who are no longer active criminals which will negate the potential

impact of incapacitation. Furthermore, projected demographic trends indicate an upturn in crime rates resulting from the "echo" baby boom, plus, increased levels in the number of youth born into and raised in poverty stricken homes. (Currie, 1987; Gibbons, 1987; Duster, 1987; Greenwood and Turner, 1987)

4. *Increasing proportions of Hispanic and Black Prisoners:* Since 1925, the proportion of Blacks sentenced to prison has doubled from 25 percent to nearly 50 percent (Austin and Irwin, 1987). This trend is expected to continue. The number of Hispanics is also expected to increase at an even faster rate. This will be caused by the demographic trend of the Hispanic population plus a concentration of law enforcement resources on drug abuse—a phenomenon which disproportionately affects Black and Hispanic males.
5. *Escalating Prison Budgets:* Correctional budgets will continue to increase at

a faster pace than other state agencies. These costs will be less for construction and more for operational costs associated with the urgent need to hire massive numbers of additional staff. As these costs increase there will be an associated impact on educational, health, transportation and other vital state services which will heighten the debate on criminal justice policy.

6. *Unknown Consequences of Prison Violence:* Many state prison systems will continue to be chronically overcrowded over the next five to 10 years. With overcrowding comes escalated levels of prison violence directed against inmates and staff. The two countervailing forces to prison violence will be 1) the aging affect of the prisoner population already noted above, and 2) the construction of new state-of-the-art facilities which will provide added levels of security for difficult-to-manage prisoners.

TABLE 4: PAROLE POPULATION PROJECTIONS, 1988-1995

YEAR	CALIFORNIA	FLORIDA	ILLINOIS	LOUISIANA	NEVADA	OHIO	OKLAHOMA	TENNESSEE	VIRGINIA	TOTAL
1988	47,605	1,735	11,798	4,865	4,742	3,602	8,719	8,284	7,443	91,350
1989	52,760	1,163	12,214	5,210	5,019	3,807	9,650	9,046	8,284	98,869
1990	59,690	863	12,164	5,329	5,027	4,019	10,791	9,899	9,046	107,782
1991	64,570	665	12,451	4,775	5,007	4,151	12,001	9,838	9,899	113,458
1992	68,585	487	12,669	4,737	4,955	4,263	13,260	10,216	9,838	119,172
% Change 1988-1992	44	(72)	7	(3)	4	18	52	23	32	30
1993	na	354	12,773	4,866	5,195	4,369	14,454	10,740	10,216	na
1994	na	262	12,912	5,036	5,176	4,462	15,294	11,066	10,740	na
1995	na	215	13,029	5,070	5,225	4,441	15,991	11,338	11,066	na
% Change 1988-1995	na	(88)	10	4	10	23	83	37	49	

* Reflects those states presently using a variety of emergency release or sentence reduction strategies.

7. *Shortage of Experienced Correctional Staff:* As prison systems expand, additional staff will be required. However, the greatest need will be middle-management staff to operate newly opened prisons. For local correctional officials (e.g., county jails, probation, etc.), there will also be a loss of staff to better paying jobs with superior benefits provided by state correctional agencies.

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