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Prevalence of Imprisonment in the U.S. Population, 1974-2001

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At yearend 2001 there were 1,319,000 adults confined in State or Federal prison and an estimated 4,299,000 living former prisoners. A total of 5,618,000 U.S. adult residents, or about 1 in every 37 U.S. adults, had ever served time in prison. Estimates of the prevalence of imprisonment in the U.S. population, presented here for the first time, are based on a demographic model incorporating rates of mortality and first incarceration in prison.

Between 1974 and 2001, the prevalence of imprisonment increased by nearly 3.8 million. This included a 1.1 million increase in the number of adults in prison (up from 216,000) and a nearly 2.7 million increase in the number of living former prisoners (up from 1,603,000).

If rates of first incarceration remain unchanged, 6.6% of all persons born in the United States in 2001 will go to State or Federal prison during their lifetime, up from 5.2% in 1991, and 1.9% in 1974. Unlike the prevalence of ever having gone to prison, which estimates the extent of past experiences, the lifetime likelihood of going to prison is an estimate of the chances of future incarceration, given unchanged rates of first incarceration and mortality.

Highlights

At yearend 2001 over 5.6 million U.S. adults had ever served time in State or Federal prison

U.S. residents ever incarcerated	Number			Percent of adult U.S. residents		
	1974	1991	2001	1974	1991	2001
Total	1,819,000	3,437,000	5,618,000	1.3%	1.8%	2.7%
Male	1,677,000	3,142,000	5,037,000	2.3	3.4	4.9
White	837,000	1,395,000	1,978,000	1.4	1.9	2.6
Black	595,000	1,181,000	1,936,000	8.7	12.0	16.6
Hispanic	94,000	392,000	911,000	2.3	4.9	7.7
Female	142,000	295,000	581,000	0.2%	0.3%	0.5%
White	86,000	139,000	225,000	0.1	0.2	0.3
Black	51,000	109,000	231,000	0.6	0.9	1.7
Hispanic	8,000	30,000	86,000	0.2	0.4	0.7

- Of adults in 2001 who had ever served time in prison, nearly as many were black (2,166,000) as were white (2,203,000). An estimated 997,000 were Hispanic.
- The rate of ever having gone to prison among adult black males (16.6%) was over twice as high as among adult Hispanic males (7.7%) and over 6 times as high as among adult white males (2.6%).
- U.S. residents ages 35 to 39 in 2001 were more likely to have gone to prison (3.8%) than any other age group, up from 2.3% in 1991.
- An estimated 22% of black males ages 35 to 44 in 2001 had ever been confined in State or Federal prison, compared to 10.0% of Hispanic males and 3.5% of white males in the same age group.

If incarceration rates remain unchanged, 6.6% of U.S. residents born in 2001 will go to prison at some time during their lifetime

	Percent ever going to prison during lifetime, born in —		
	1974	1991	2001
Total	1.9%	5.2%	6.6%
Male	3.6%	9.1%	11.3%
White	2.2	4.4	5.9
Black	13.4	29.4	32.2
Hispanic	4.0	16.3	17.2
Female	0.3%	1.1%	1.8%
White	0.2	0.5	0.9
Black	1.1	3.6	5.6
Hispanic	0.4	1.5	2.2

- About 1 in 3 black males, 1 in 6 Hispanic males, and 1 in 17 white males are expected to go to prison during their lifetime, if current incarceration rates remain unchanged.
- For women, the chances of going to prison were 6 times greater in 2001 (1.8%) than in 1974 (0.3%); for men, the chances of going to prison were over 3 times greater in 2001 (11.3%) than in 1974 (3.6%).

4.3 million U.S. residents in 2001 were former prisoners

Of the estimated 5.6 million adults in the United States who had been incarcerated in State or Federal prison at some time before yearend 2001, nearly 4.3 million were no longer in prison (table 1). Former prisoners accounted for 77% of all adult residents who had ever been confined in prison.

Persons ages 35 to 44 comprised the largest age group, accounting for 3 out of 10 former prisoners at yearend 2001 (1,280,000). Former prisoners were older than those currently in State or Federal prison, with 49% of former

prisoners age 45 or older compared to 13% of persons confined on December 31, 2001. Current prisoners outnumbered former prisoners only among those ages 18 to 24 (254,000 compared with 155,000).

Age	Number of adults with prison experience, 2001	
	Former inmates	Current inmates
Total	4,299,000	1,319,000
18-24	155,000	254,000
25-34	775,000	511,000
35-44	1,280,000	385,000
45-54	1,002,000	130,000
55-64	509,000	30,000
65 or older	578,000	9,000

Note: See *Methodology* for estimation procedures.

More than two-thirds of former prisoners no longer under correctional supervision

At yearend 2001 former prisoners included 731,147 persons on parole, an estimated 437,000 persons on probation who had either served part of their current sentence in prison or been confined in prison on a previous sentence, and an estimated 166,000 jail inmates who had served a previous sentence in prison. An estimated 3 million former prisoners were no longer under correctional supervision as of yearend 2001.

	Former State and Federal prisoners, 2001	
	Number	Percent
Total	4,299,000	100.0%
Under supervision	1,334,000	31.0
Parole	731,147	17.0
Probation	437,000	10.2
Jail	166,000	3.9
Not under supervision	2,965,000	69.0

Note: Estimates rounded to nearest 1,000.

Table 1. Prevalence of incarceration in a State or Federal prison, by current and former prisoners, 1974-2001

	Current and former prisoners ever incarcerated in a State or Federal prison—					
	1974	1979	1986	1991	1997	2001
Number incarcerated						
Total	1,819,000	2,100,000	2,667,000	3,437,000	4,652,000	5,618,000
Current	216,000	302,000	524,000	788,000	1,171,000	1,319,000
Former	1,603,000	1,798,000	2,143,000	2,649,000	3,481,000	4,299,000
Ever incarcerated rate*						
Total	1,251	1,308	1,516	1,828	2,336	2,673
Current	149	188	298	419	588	628
Former	1,102	1,120	1,218	1,409	1,748	2,045

Note: Numbers of current adult prisoners from National Prisoner Statistics data series. Former prisoner statistics based on inmate survey data. Estimates were rounded to the nearest 1,000. See *Methodology* for estimation procedures.

*The number ever incarcerated per 100,000 adult U.S. residents.

Demographic techniques used to create prevalence estimates

Estimates of the prevalence of ever having gone to prison were derived from generation life table techniques. The prevalence of ever having gone to prison includes adults currently in prison and living former prisoners.

One-day counts of the number of adults in prison are available through the National Prisoner Statistics program (NPS). Collected annually since 1926, the NPS provides a count at yearend of persons held in Federal and State prisons.

To obtain the number of persons who had ever gone to prison, separate generation life tables were prepared for persons alive between 1974 and 2001. These tables model the first incarceration and mortality experience of each birth cohort as it proceeded through life. Estimates were made of the number of persons going to prison for the first time, by year of age, and the number who had been incarcerated and survived to each later age.

Rates of first incarceration during a 12-month period were developed from prison inmate surveys conducted in 1974, 1979, 1986, 1991, and 1997, a period during which admission

rates increased after many years of relative stability.

Prevalence estimates for selected calendar years represent a sum of the contribution of each birth cohort to the total number of adults alive who had ever gone to prison. The number of former prisoners was obtained by subtracting the number of prisoners at yearend (NPS) from the total.

Estimates exclude admissions to local jails, due to the absence of data needed to calculate first admissions to jail. (See *Methodology* for estimation procedures and limitations.)

1 in 37 adult U.S. residents in 2001 had ever served time in prison

The 5.6 million adult U.S. residents who were current and former prisoners, represented an increase of 3.8 million since 1974. At yearend 2001, 2,673 persons per 100,000 adult U.S. residents had ever gone to prison, up from 1,251 per 100,000 adult residents in 1974. Overall, approximately 1 in 37 adult residents in 2001 had ever served time in a State or Federal prison.

As a percent of all adults who had ever gone to a State or Federal prison, the number of former prisoners has steadily declined (from 88% in 1974 to 77% in 2001). The decline occurred as the number of adults confined in prison at yearend grew by 1.1 million — a 6-fold increase. Over the 27-year period the number of adult prison inmates rose from 216,000 to 1,319,000. By yearend 2001, there were 628 prison inmates per 100,000 adult residents, up from 149 in 1974.

Between 1974 and 2001 the number of former prisoners living in the United States more than doubled, from 1,603,000 to 4,299,000. Relative to the adult population, the number of former prisoners totaled 2,045 per 100,000 adult U.S. residents in 2001, up from 1,102 per 100,000 in 1974. At yearend 2001, 1 in every 49 adults in the United States was a former prisoner.

Two-thirds of the increase in number ever incarcerated due to rise in first incarceration rates

Nearly two-thirds of the 3.8 million increase in the number of adults ever incarcerated in prison between 1974 and 2001 occurred as a result of an increase in the rates of first incarceration. In 1974 the number of persons admitted to prison for the first time totaled 44 per 100,000 adult residents. By 2001 the rate had nearly tripled, reaching 129 first admissions per 100,000 adults.

Over 40% of the total increase in first incarceration rates occurred between

First incarceration rates rose sharply among persons under age 45

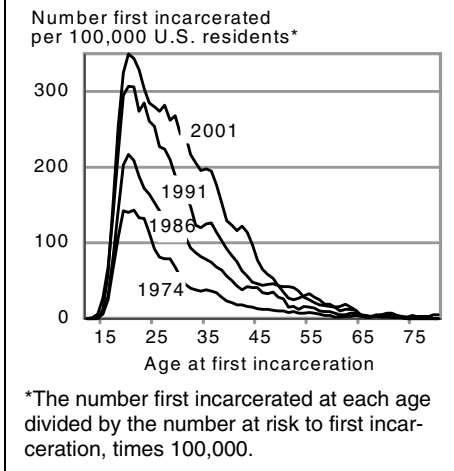


Figure 1

1986 and 1991. First incarceration rates increased from 73 per 100,000 in 1986 to 111 in 1991.

About a third of the 3.8 million increase in the number ever incarcerated occurred as a result of growth in the U.S. resident population. Based on estimates from the U.S. Census Bureau, the number of residents 18 and older increased from 145 million in 1974 to 210 million in 2001. Had the rates of first incarceration remained stable at 1974 levels, the number of adults who had ever gone to prison would have increased by an estimated 1.3 million.

In every year, the rates of first incarceration varied by age (figure 1). In 2001 sharply higher first incarceration rates were found for each older birth cohort up to a peak of 350 per 100,000 at age 20. These rates then dropped steadily with each older age category.

Between 1974 and 2001 the rate of first incarceration rose in nearly every age-specific category. The largest increases occurred among younger age cohorts — those that already had high first incarceration rates. The peak incarceration rate increased by over 200 persons per 100,000 (from 143 at age 21 in 1974, to 350 at age 20 in 2001). Rates increased even among persons age 45 or older.

In 2001, 3 out of 10 adults ever incarcerated were age 35 to 44

Persons between ages 35 and 44 accounted for the largest number of current and former prisoners at yearend 2001 (table 2). Born between 1957 and 1966, these persons turned 18 in the late 1970s and early 1980s when first incarceration rates began to climb. Between 1974 and 2001, the number ever incarcerated in this age group rose from 324,000 to 1.67 million.

Among persons between ages 25 and 34, the number ever incarcerated nearly quadrupled (from 343,000 in 1974 to 1.29 million in 2001). While persons in this age group also experienced rising first incarceration rates, they were subject to these rates for a smaller portion of their lifespan than those ages 35 to 44.

As a percent of those ever incarcerated, persons ages 35 to 44 increased from 18% in 1974 to 30% by 2001; persons age 25 to 34 increased from 19% in 1974 to 23% in 2001.

Table 2. Prevalence of incarceration in a State or Federal prison, by age, 1974-2001

	Number of adults ever incarcerated in a State or Federal prison					
	1974	1979	1986	1991	1997	2001
Total	1,819,000	2,100,000	2,667,000	3,437,000	4,652,000	5,618,000
18-24	150,000	201,000	244,000	303,000	366,000	409,000
25-34	343,000	458,000	697,000	957,000	1,195,000	1,286,000
35-44	324,000	369,000	553,000	852,000	1,343,000	1,665,000
45-54	361,000	354,000	379,000	481,000	786,000	1,132,000
55-64	303,000	332,000	351,000	354,000	414,000	539,000
65 or older	338,000	386,000	442,000	490,000	548,000	587,000

Note: Based on separate generation life tables that incorporate first incarceration and mortality rates for each age group. Estimates were rounded to the nearest 1,000. See *Methodology* for description of estimation procedures.

Prevalence rates up sharply among persons under age 50

Between 1974 and 2001, the rise in first incarceration rates had the largest effects on younger age groups. The percent of persons ever incarcerated tripled among persons ages 25 to 29 (from 1.0% in 1974 to 3.1% in 2001) and more than doubled among persons ages 30 to 34 (from 1.3% to 3.7%) and persons ages 35 to 39 (from 1.4% to 3.8%) (table 3).

In contrast, the rise in the percents ever incarcerated was more modest among persons 50 or older. Although these age groups also experienced rising first incarceration rates, they were exposed at older ages when first incarceration rates are low. Persons age 65 and older were the least affected by the increases in first incarceration rates, with percents ever incarcerated rising from 1.5% in 1974 to 1.7% in 2001.

These changes in the percents ever incarcerated by age reflect rising rates of first incarceration and the age of each of these birth cohorts when the increases occurred. In the future, the percents ever incarcerated will rise among older age groups as more recent cohorts experience the full impact of current levels of first incarceration rates throughout their lifetimes (figure 2).

Table 3. Percent of adult population ever incarcerated in a State or Federal prison, by age, 1974-2001

Age	Percent of adult population ever incarcerated in a State or Federal prison					
	1974	1979	1986	1991	1997	2001
Total	1.3%	1.3%	1.5%	1.8%	2.3%	2.7%
18-19	0.3	0.3	0.4	0.5	0.6	0.6
20-24	0.7	0.8	1.0	1.3	1.8	1.8
25-29	1.0	1.2	1.6	2.1	2.7	3.1
30-34	1.3	1.3	1.8	2.3	3.2	3.7
35-39	1.4	1.4	1.7	2.3	3.1	3.8
40-44	1.5	1.5	1.7	2.1	2.9	3.6
45-49	1.5	1.5	1.7	1.9	2.5	3.2
50-54	1.5	1.5	1.7	1.8	2.2	2.6
55-59	1.5	1.6	1.6	1.8	2.0	2.2
60-64	1.5	1.5	1.6	1.6	1.9	2.0
65 or older	1.5	1.5	1.5	1.6	1.6	1.7

Note: Percents by age were based on intercensal resident population estimates from the U.S. Census Bureau. See *Methodology* for data sources.

Table 4. Number of adults ever incarcerated in a State or Federal prison, by gender, race, and Hispanic origin, 1974-2001

	Number of adults ever incarcerated in a State or Federal prison					
	1974	1979	1986	1991	1997	2001
Gender						
Male	1,677,000	1,934,000	2,449,000	3,142,000	4,205,000	5,037,000
Female	142,000	165,000	217,000	295,000	447,000	581,000
Race/Hispanic origin						
White*	922,000	1,052,000	1,286,000	1,533,000	1,909,000	2,203,000
Male	837,000	958,000	1,173,000	1,395,000	1,724,000	1,978,000
Female	86,000	94,000	113,000	139,000	185,000	225,000
Black*	646,000	766,000	963,000	1,290,000	1,784,000	2,166,000
Male	595,000	704,000	881,000	1,181,000	1,615,000	1,936,000
Female	51,000	62,000	82,000	109,000	170,000	231,000
Hispanic	102,000	125,000	234,000	422,000	721,000	997,000
Male	94,000	116,000	217,000	392,000	664,000	911,000
Female	8,000	10,000	17,000	30,000	57,000	86,000

Note: Estimates were based on separate generation life tables that incorporate first incarceration and mortality rates for each age group. Estimates were rounded to the nearest 1,000. See *Methodology* for estimation procedures.

*Excludes persons of Hispanic origin.

Younger age groups experience rising rates of imprisonment

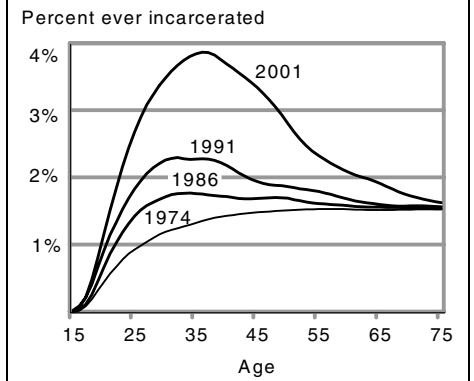


Figure 2

More males than females and more blacks and Hispanics than whites had ever served time in prison

Nearly 9 times as many men (5,037,000) as women (581,000) had ever been incarcerated in a State or Federal prison at yearend 2001 (table 4). As a percentage of all persons ever confined in prison, women increased from 7.8% in 1974 to 10.3% in 2001.

At yearend 2001 nearly as many blacks (2,166,000) as whites (2,203,000) had ever served time in prison; Hispanics numbered about half of either group (997,000). Together, blacks (39%) and Hispanics (18%) constituted a majority of those who had ever served time in prison in 2001. Whites accounted for 39% of all those ever incarcerated in 2001, down from 51% in 1974.

Over the 27-year period, the share of those who are black and Hispanic among persons ever incarcerated increased. The number of Hispanics rose nearly 10-fold (up from 102,000 in 1974) and the number of blacks more than tripled (up from 646,000), while the number of whites more than doubled (up from 922,000). As a result, blacks rose from 36% to 39% of all persons ever incarcerated, while Hispanics rose from 6% to 18%.

Nearly 17% of adult black males had ever served time in prison

In 2001 an estimated 16.6% of adult black males were current or former State or Federal prisoners — a rate that was twice that of Hispanic males (7.7%), and 6 times that of white males (2.6%) (table 5).

Female rates, though significantly lower, reveal similar racial and ethnic disparities. Adult black females were nearly 2½ times more likely than adult Hispanic females and 5½ times more likely than adult white females to have ever served time in State or Federal prison.

Among adult residents in 2001, an estimated 1.7% of black females, 0.7% of Hispanic females and 0.3% of white females had ever been incarcerated in a prison.

Among both men and women who had ever been confined in prison in 2001, blacks outnumbered whites in each age category under age 45; whites outnumbered blacks in nearly every age category 45 or older (table 6). The percentage of blacks declined steadily

among each older age group (dropping from 44% among those ages 18 to 24 to 29% among persons 65 or older). The percentage of Hispanics also declined among older age groups (dropping from 24% among those ages 18 to 24 to 8% among those age 65 or older). In contrast, at yearend 2001 the percentage white among all adults ever incarcerated increased from 27% of those ages 18 to 24 to 52% among persons age 65 or older.

Table 5. Percent of adult population ever incarcerated in a State or Federal prison, by gender, race, and Hispanic origin, 1974-2001

	Percent of adult population ever incarcerated in a State or Federal prison					
	1974	1979	1986	1991	1997	2001
Gender						
Male	2.3%	2.4%	2.8%	3.4%	4.3%	4.9%
Female	0.2	0.2	0.2	0.3	0.4	0.5
Race/Hispanic origin						
White*	0.8%	0.8%	0.9%	1.1%	1.3%	1.4%
Male	1.4	1.5	1.7	1.9	2.3	2.6
Female	0.1	0.1	0.1	0.2	0.2	0.3
Black*	4.5%	4.6%	5.2%	6.2%	7.9%	8.9%
Male	8.7	8.9	9.9	12.0	15.0	16.6
Female	0.6	0.7	0.8	0.9	1.3	1.7
Hispanic	1.3%	1.4%	2.0%	2.7%	3.8%	4.3%
Male	2.3	2.6	3.6	4.9	6.7	7.7
Female	0.2	0.2	0.3	0.4	0.6	0.7

Note: Percents were based on intercensal resident population estimates from the U.S. Census Bureau. See *Methodology* for data sources.

*Excludes persons of Hispanic origin.

Table 6. Number ever incarcerated in State or Federal prison, by gender, race, Hispanic origin, and age, 2001

	Number of adults ever incarcerated in a State or Federal prison, by age –					
	18-24	25-34	35-44	45-54	55-64	65 or older
Gender						
Male	385,000	1,157,000	1,460,000	1,014,000	492,000	529,000
Female	24,000	129,000	205,000	118,000	47,000	59,000
Race/Hispanic origin						
White*	112,000	391,000	628,000	497,000	271,000	304,000
Male	104,000	351,000	555,000	452,000	248,000	269,000
Female	8,000	41,000	73,000	45,000	23,000	35,000
Black*	181,000	567,000	681,000	406,000	162,000	169,000
Male	172,000	509,000	597,000	361,000	146,000	151,000
Female	9,000	58,000	84,000	45,000	16,000	18,000
Hispanic	99,000	295,000	309,000	181,000	69,000	46,000
Male	93,000	271,000	279,000	165,000	63,000	41,000
Female	6,000	24,000	30,000	16,000	6,000	5,000

Note: Estimates were rounded to the nearest 1,000. See *Methodology* for estimation procedures.

*Excludes persons of Hispanic origin.

Regardless of gender, race or Hispanic origin, prevalence rates highest among persons age 35 to 44

Although there was wide variation by race, Hispanic origin, and gender, within each subgroup, persons ages 35 to 44 had the highest percents ever incarcerated in 2001. Among men, the percent ever incarcerated rose for each age group to a peak of 6.5% of those ages 35 to 44 and then declined to 3.1% of those age 65 or older (table 7).

There was a similar pattern among women, though the percents were lower than for men. An estimated 0.9% of women ages 35 to 44 had ever been in prison, compared to 0.2% for women ages 18 to 24 and age 65 or older.

When rates were estimated separately by race and Hispanic origin, the variations among age groups remained unchanged. In every gender and racial/ethnic group in 2001, the percent of ever having been incarcerated was lowest among the youngest group (those ages 18 to 24) and the oldest age group (age 65 or older).

Among persons ages 35 to 44, more than 22.0% of black males had ever been incarcerated in prison, over twice as high as Hispanic males (10.0%), and over 6 times higher than white males (3.5%). In this same age group, black women (2.8%) were over twice as likely as Hispanic women (1.1%), and nearly 6 times as likely as white women (0.5%) to have been in prison.

Impact of rising first incarceration rate varies by birth cohort

Persons born prior to 1940 were nearly unaffected by the rising first incarceration rates of the 1980's and 1990's. At younger ages (up to the age of 40), the prevalence rates at 5-year age intervals were the same for persons born in 1935 as in 1910 (table 8). The rising rates of first incarceration increased the prevalence of incarceration among those born in 1935 as they reached age 45. Similarly, the prevalence rates rose for those born in 1930 as they reached age 50.

Among persons born after 1935, the effects of rising first incarceration rates occurred at increasingly younger ages. Persons born in 1955 were the first to record higher prevalence rates at all ages, compared to persons born in prior years. At age 45 the percent ever having been in prison reached 3.2% for persons born in 1955 — more than double the percent at that age among persons born in 1930 or earlier.

The greatest rise occurred in the percents having been incarcerated among the most recent cohorts. For persons born in 1975, 2.6% had been to prison by age 25, nearly equal to the percent among persons born in 1950 who had been to prison by age 50 (2.7%).

Projections for years after 2001 indicate the percent ever incarcerated will rise at an accelerated pace. If rates of first incarceration remain at 2001 levels, 5.4% of persons born in 1965 are expected to have gone to prison by age 75, more than three times the 1.7% of persons born in 1930.

The projected rise in the percent ever incarcerated slows among persons in later cohorts. Of those born in 1970, 6.0% are expected to have been in prison by age 75, compared to 6.5% of those born in 1975, and 6.6% of those born in 1980.

Table 7. Percent of adult population ever incarcerated in a State or Federal prison, by gender, race, Hispanic origin, and age, 2001

	Percent of adult population ever incarcerated in a State or Federal prison, by age —					
	18-24	25-34	35-44	45-54	55-64	65 or older
Gender						
Male	2.7%	6.0%	6.5%	5.3%	4.0%	3.1%
Female	0.2	0.7	0.9	0.6	0.3	0.2
Race/Hispanic origin						
White*	0.6%	1.6%	2.0%	1.7%	1.4%	1.1%
Male	1.1	2.8	3.5	3.1	2.5	2.0
Female	0.1	0.3	0.5	0.3	0.2	0.2
Black*	4.4%	10.9%	12.1%	9.5%	6.7%	5.9%
Male	8.5	20.4	22.0	17.7	13.0	11.6
Female	0.4	2.1	2.8	1.9	1.1	0.9
Hispanic	2.2%	5.1%	5.8%	5.2%	3.6%	2.2%
Male	4.0	9.0	10.0	9.5	6.6	4.1
Female	0.3	0.8	1.1	0.9	0.6	0.3

Note: Percents were based on intercensal resident population estimates from the U.S. Census Bureau. See *Methodology* for data sources.

*Excludes persons of Hispanic origin.

Table 8. Percent of adults ever incarcerated in State or Federal prison, by year of birth and age

Year born	Percent of adults ever incarcerated in a State or Federal prison, by age —											
	20	25	30	35	40	45	50	55	60	65	70	75
1910	0.4 %	0.9%	1.2%	1.3 %	1.4 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5%
1915	0.4	0.9	1.2	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.6
1920	0.4	0.9	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6
1925	0.4	0.9	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.6
1930	0.4	0.9	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7
1935	0.4	0.9	1.2	1.3	1.4	1.6	1.7	1.8	1.8	1.9	1.9	1.9
1940	0.4	0.9	1.2	1.3	1.5	1.7	1.8	2.0	2.0	2.1	2.1	2.1
1945	0.4	0.9	1.2	1.4	1.7	1.9	2.1	2.3	2.3	2.4	2.4	2.4
1950	0.4	1.0	1.4	1.7	2.1	2.4	2.7	2.8	2.9	2.9	2.9	2.9
1955	0.5	1.1	1.7	2.2	2.7	3.2	3.4	3.6	3.6	3.7	3.7	3.7
1960	0.6	1.4	2.1	2.9	3.5	4.0	4.3	4.4	4.4	4.5	4.5	4.5
1965	0.7	1.7	2.8	3.7	4.4	4.9	5.2	5.3	5.3	5.3	5.4	5.4
1970	0.9	2.2	3.4	4.4	5.1	5.6	5.8	5.9	6.0	6.0	6.0	6.0
1975	1.1	2.6	3.9	4.9	5.7	6.1	6.4	6.5	6.5	6.5	6.5	6.5
1980	1.2	2.7	4.0	5.0	5.7	6.2	6.4	6.5	6.6	6.5	6.6	6.6

Note: Based on constant age-specific first incarceration rates after 2001 (bolded type).

3.4% of adults projected to have served time in prison by 2010

The prevalence of having been to prison will rise among the U.S. adult population as more birth cohorts experience the full impact of current levels of first incarceration. Assuming that current age-specific rates of first incarceration remain at 2001 levels, the number of adults having ever served time in prison is projected to rise to 7.7 million by 2010. A total of 3.4% of the adult population (1 in 29 persons age 18 or older) is expected to have served time in prison.

Year	Projected prevalence of having gone to State or Federal prison*	
	Number	Percent
2001	5,618,000	2.7%
2002	5,856,000	2.8
2003	6,095,000	2.8
2004	6,332,000	2.9
2005	6,568,000	3.0
2006	6,804,000	3.1
2007	7,040,000	3.1
2008	7,275,000	3.2
2009	7,511,000	3.3
2010	7,745,000	3.4

*Based on prevalence estimates for exact ages through 2001 and projections for exact ages from 2002 through 2010. See *Methodology* for estimation procedures.

Lifetime likelihood estimates of going to prison differ from current prevalence estimates

The lifetime likelihood of going to prison is an estimate of the percentage of all persons in a birth cohort expected to go to prison over the course of a lifetime. In contrast, the prevalence of ever having gone to prison is an estimate of the percentage who have ever gone to prison among just the surviving members of all birth cohorts over a specific period.

Estimates of the lifetime likelihood of going to prison project the percentage of persons at birth expected to go to prison, if the entire cohort were subject to a fixed set of rates of first admission to prison and mortality

over an entire lifetime. In calculating these estimates, incarceration and mortality rates are fixed at the time of "birth" of the cohort.

Standard life table techniques were used to prepare estimates of the lifetime likelihood of going to prison based on rates of first incarceration during a 12-month period derived from inmate surveys conducted in 1974, 1979, 1986, 1991, and 1997. (See *Lifetime Likelihood of Going to State or Federal Prison*, NCJ 160092, March 1997, for a description of previous estimates.)

6.6% of persons born in 2001 will go to prison, if current rates of first incarceration remain unchanged

If rates of first incarceration and mortality in 2001 remain unchanged, nearly 1 in 15 persons born in 2001 (6.6%) will go to State or Federal prison during their lifetime (figure 3).

Unlike the yearend 2001 prevalence rate of 2.7%, which represents the

cumulative result of the past incarceration experiences of the living adult population, the lifetime likelihood is a hypothetical projection of the future if a birth cohort were to experience a fixed set of rates of first incarceration and mortality over a lifetime.

Between 1974 and 2001, the lifetime chances of going to State or Federal prison for U.S. residents overall increased from 1.9% to 6.6%. Each estimate summarized the effects of first incarceration and mortality during a 12-month period in 1974, 1986, 1991, and 2001. The estimates do not take into account changes in rates of first incarceration or mortality that occur after the "birth" of the hypothetical cohort. As a result of steadily rising rates of first incarceration from 1974 to 2001, the lifetime chances of going to prison for persons born in 1974 will be higher than 1.9%. Based on rates of first incarceration through 2001, an estimated 2.6% of persons born in 1975 had already been incarcerated by age 25.

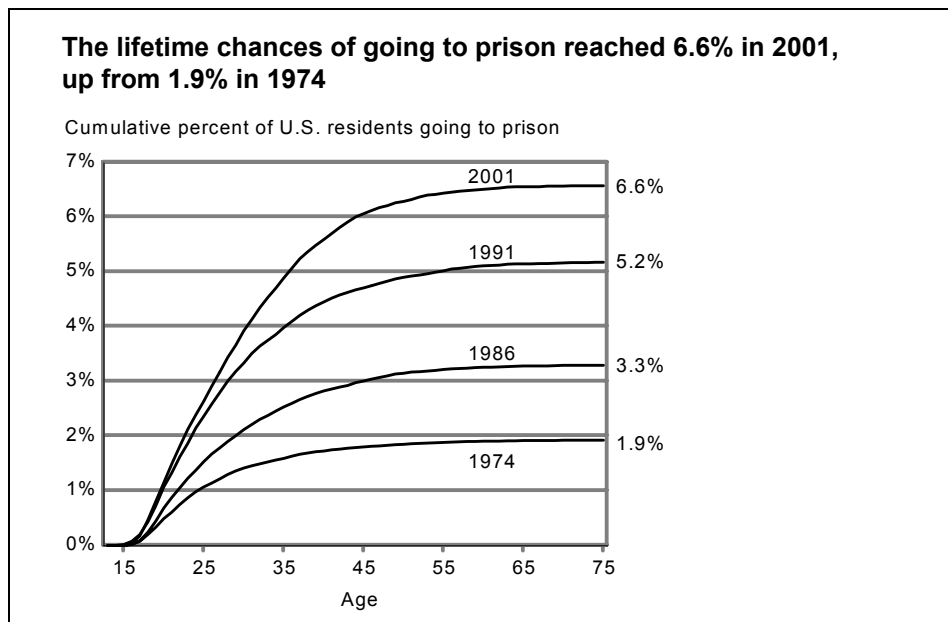


Figure 3

6 times higher lifetime chance of going to prison in 2001 for men than for women

Based on rates of first incarceration in 2001, the lifetime chances for men of going to prison are 6 times greater than those for women (table 9). A male has a 11.3% (or 1 in 9) chance in his lifetime of going to prison, while a female has a 1.8% (or 1 in 56) chance. An estimated 9.6% of men and 1.5% of women are expected to go to prison by age 40, as first incarceration rates rise

rapidly, then decline with advancing age (figures 4 and 5).

In 2001, the chances of going to prison were highest among black males (32.2%) and Hispanic males (17.2%) and lowest among white males (5.9%). The lifetime chances of going to prison among black females (5.6%) were nearly as high as for white males. Hispanic females (2.2%) and white females (0.9%) had much lower chances of going to prison.

As a result of changes in first incarceration and mortality rates between 1974 and 2001, black males experienced a greater increase in the chances of going to prison over the course of a lifetime than any other group (from 13.4% in 1974 to 32.2% in 2001). Hispanic males experienced the second largest increase (from 4.0% in 1974 to 17.2% in 2001). White males experienced a smaller increase (from 2.2% in 1974 to 5.9% in 2001).

The lifetime chances of going to prison increased more rapidly for black females (from 1.1% in 1974 to 5.6% in 2001) than for white males. Hispanic females (from 0.4% in 1974 to 2.2% in 2001) and white females (from 0.2% in 1974 to 0.9% in 2001) had smaller increases in their lifetime chances of going to prison.

At every age men have higher chances of going to prison than women, and blacks and Hispanics have higher chances than whites. Based on current rates of first incarceration, an estimated 6.7% of black males will enter State or Federal prison by the time they are age 20, compared to 3.0% of Hispanic males and 0.8% of white males.

Table 9. Lifetime chances of going to State or Federal prison for the first time, by gender, race, and Hispanic origin, 1974-2001

	Percent of resident population expected to go to State or Federal prison, by year—					
	1974	1979	1986	1991	1997	2001
Gender						
Male	3.6%	4.1%	6.0%	9.1%	10.6%	11.3%
Female	0.3	0.4	0.6	1.1	1.5	1.8
Race/Hispanic origin						
White*	1.2%	1.4%	2.0%	2.5%	3.1%	3.4%
Male	2.2	2.5	3.6	4.4	5.4	5.9
Female	0.2	0.2	0.3	0.5	0.7	0.9
Black*	7.0%	7.2%	9.3%	16.5%	17.7%	18.6%
Male	13.4	13.4	17.4	29.4	31.0	32.2
Female	1.1	1.4	1.8	3.6	4.9	5.6
Hispanic	2.2%	3.3%	6.2%	9.5%	10.5%	10.0%
Male	4.0	6.0	11.1	16.3	18.0	17.2
Female	0.4	0.4	0.9	1.5	2.2	2.2

Note: Percents represent the chances of being admitted to State or Federal prison during a lifetime. Estimates were obtained by applying age-specific first incarceration and mortality rates for each group to a hypothetical population of 100,000 births. See *Methodology*.

*Excludes persons of Hispanic origin.

Nearly 1 in 3 black males likely to go to prison based on constant 2001 incarceration rates

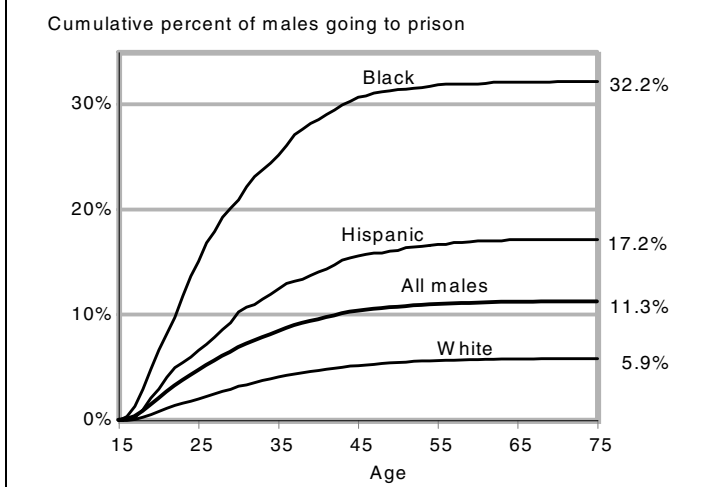


Figure 4

1 in 19 black females compared with 1 in 118 white females likely to go to prison

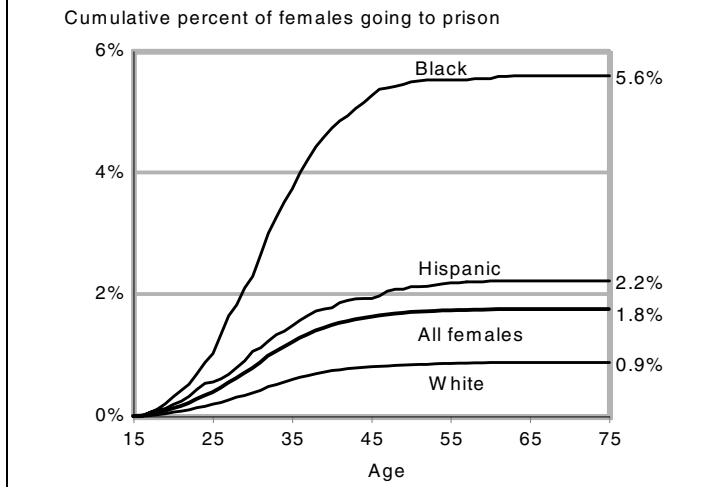


Figure 5

Methodology

Life table techniques

Life table techniques previously used to illustrate the implications of prevailing incarceration rates in 1991 have been extended to model the incarceration experience of actual generations of U.S. residents. (See *Lifetime Likelihood of Going to State or Federal Prison*, NCJ 160092, March 1997.) These generation life tables provide the data needed to estimate the number of living persons who have ever been incarcerated.

A generation life table traces a birth cohort of 100,000 persons through their entire lives, subjecting them to the observed age-specific mortality and incarceration rates which they encountered in each subsequent calendar year of life. The procedure is known as a double-decrement life table because there are two forms of exit from the initial 100,000 birth cohort. The procedure yields estimates of the number of persons in the birth cohort who are incarcerated for the first time each year or who die.

At each year of age, the estimated number of living persons ever incarcerated is equal to the number of persons identified as a prisoner for the first time that year plus the number of surviving members of the birth cohort who were prisoners in prior years. The age-specific prevalence rate for members of the birth cohort is obtained by dividing the surviving number of persons ever incarcerated by the number of members of the 100,000 birth cohort who have survived to the current age (including both those never incarcerated and those ever incarcerated).

To model the incarceration experience of the adult resident population in 2001, a separate generation life table was needed for each birth cohort born from 1901 to 1983. For example, of those born in 1980 and alive in 2001, an estimated 1.510% had ever gone to prison (Appendix table 1, column 2). Multiplying by 4,140,721 U.S. residents age 21 in 2001 (column 1), produced an estimate of 63,000 persons, age 21 in 2001, who had ever been incarcerated (column 3).

Similarly, the generation life table for the 1970 birth cohort produced an estimated prevalence of 3.584% among those age 31 in 2001. Multiplying by 4,032,301 U.S. residents age 31 in 2001 resulted in an estimated 145,000 persons age 31 in 2001 who had ever been incarcerated. The estimated 5,618,000 adults ever incarcerated in 2001 was obtained by summing the number of persons ever incarcerated, age 18 or older. Dividing by the adult resident population of 210,207,901 yielded an estimated prevalence of ever having gone to prison of 2.673% in 2001.

Appendix table 1. Calculating the number of persons ever incarcerated in State or Federal prison, 2001

Year of birth	Age in 2001	U.S. resident population 2001 ^a (1)	Prevalence of ever going to prison, 2001	
			Percent ^b (2)	Number ^c (3)
1983-1901	18 or older	210,207,901	2.673 %	5,618,000
2001-1988	0-13	56,557,383	0.000	0
1987	14	4,063,179	0.000	0
1986	15	4,071,585	0.000	0
1985	16	4,083,677	0.036	1,000
1984	17	4,117,221	0.174	7,000
1983	18	4,022,021	0.453	18,000
1982	19	4,327,407	0.794	34,000
1981	20	4,264,552	1.146	49,000
1980	21	4,140,721	1.510	63,000
1979	22	3,985,452	1.845	73,000
1978	23	3,756,052	2.155	81,000
1977	24	3,766,377	2.428	91,000
1976	25	3,643,765	2.676	97,000
1975	26	3,572,926	2.911	104,000
1974	27	3,579,019	3.082	110,000
1973	28	3,386,129	3.252	110,000
1972	29	3,876,011	3.360	130,000
1971	30	3,989,205	3.506	140,000
1970	31	4,032,301	3.584	145,000
1969	32	3,993,019	3.689	147,000
1968	33	3,899,282	3.764	147,000
1967	34	4,057,246	3.824	155,000
1966	35	4,110,892	3.857	159,000
1965	36	4,182,093	3.895	163,000
1964	37	4,416,302	3.887	172,000
1963	38	4,265,440	3.840	164,000
1962	39	4,826,377	3.778	182,000
1961	40	4,725,422	3.692	174,000
1960	41	4,634,371	3.641	169,000
1959	42	4,597,285	3.563	164,000
1958	43	4,518,648	3.507	158,000
1957	44	4,668,310	3.439	161,000
1956	45	4,464,137	3.356	150,000
1955	46	4,227,667	3.267	138,000
1954	47	4,192,570	3.180	133,000
1953	48	3,863,432	3.068	119,000
1952	49	4,131,847	2.953	122,000
1951	50	3,838,209	2.819	108,000
1950	51	3,595,173	2.688	97,000
1949	52	3,516,992	2.584	91,000
1948	53	3,497,820	2.475	87,000
1947	54	3,668,994	2.397	88,000
1946	55	3,180,818	2.341	74,000
1945	56	2,746,790	2.280	63,000
1944	57	2,788,492	2.220	62,000
1943	58	2,665,273	2.173	58,000
1942	59	2,710,967	2.131	58,000
1941	60	2,398,614	2.086	50,000
1940-1931	61-70	19,778,402	...	377,000
1930-1901	71 or older	23,755,091	...	384,000

^aThe number of U.S. residents on December 31, 2001, by age, were based on projections for July 1, 2000, and July 1, 2001. (See *Projections of the Resident Population by Age, Sex, Race, and Hispanic Origin: 1999 to 2100*, U.S. Census Bureau, NP-D1-A, middle series.) The data were adjusted for the undercount in the 1990 decennial census.

^bBased on separate generation life tables starting in the year of birth of the persons at each year of age. (See Appendix tables 2 and 3 for calculations for selected years of birth.)

^cEstimates were calculated by multiplying column (1) by column (2) and rounded to the nearest 1,000.

...Not shown, because all calculations were based on rates for single years of age.

Estimating prevalence of imprisonment in the United States

To illustrate the application of generation life table techniques resulting in the 1.510% rate of ever having gone to prison among persons born in 1980, consider the following calculations:

1. Estimates of the number of persons in a population of 100,000 born in 1980 who died during each age interval were obtained by multiplying the age-specific mortality rate (Appendix table 2, column 2) by the number of persons alive and not previously incarcerated at each age (column 1).

- For example, among persons who reached age 21 without having been previously incarcerated, a total of 92 were estimated to have died (column 3) before reaching age 22 (that is, 96,607 times the mortality rate of 0.000955).

2. The number of persons in the 1980 cohort who were at risk to incarceration during an age interval was then calculated by subtracting the number dying

from the number of persons who were alive and not previously incarcerated at the beginning of the age interval (column 1 minus column 3).

- An estimated 96,515 of the persons who survived to age 21 without being incarcerated were at risk to first incarceration at age 21.

3. The number of persons in the original 100,000 population estimated to have been admitted to prison at each age (column 5) was then obtained by multiplying the age-specific first admission rates (column 4) by the number of persons alive and not previously incarcerated.

- Among persons born in 1980 who had not been previously incarcerated by age 21, 343 were estimated to have been incarcerated before they reached age 22 (that is, 96,515 times the first incarceration rate of .003557).

4. The number of living persons at each age who had ever gone to prison was then calculated by summing the number going to prison for the first time

during that year of age (column 5) plus the number of members of the 1980 birth cohort who previously went to prison and survived until the next year of age (column 6 times the survival rate, not shown).

- Of the 1,132 persons who had gone to prison and reached age 20, 1,131 survived to reach age 21. An additional 343 persons were expected to be incarcerated for the first time before reaching age 22 (for a cumulative total of 1,474).

5. The percent of persons at each specific age who had ever gone to prison (column 7) was then calculated by dividing the number of persons who had ever gone to prison and were still alive (column 6) by all persons who were still alive (including persons never incarcerated plus ever incarcerated).

- Among persons age 21, the prevalence rate was 1.510%, obtained by dividing 1,474 (column 6) by 97,646 (column 1 minus columns 3 and 5, plus 1,474), times 100%.

Appendix table 2. Estimating the prevalence of imprisonment in the U.S. population for persons born in 1980

		Population of 100,000 births, 1980, reduced by mortality and incarceration in each successive year of age						
Age at first admission	Year	Number alive and not incarcerated at beginning of age interval (1)	Number dying per 100,000 (2)	Expected number of deaths ^a (3)	Rate of first admission to State or Federal prison per 100,000 (4)	Expected number of first admissions ^b (5)	Surviving cumulative number of first admissions ^c (6)	Prevalence percent ^d (7)
0 - 13	1980-93	100,000	...	1,732	0	0	0	0.000 %
14	1994	98,268	44	43	1	1	1	0.001
15	1995	98,224	57	56	5	5	6	0.006
16	1996	98,163	73	72	39	38	44	0.045
17	1997	98,053	84	83	135	132	176	0.180
18	1998	97,838	93	91	283	277	453	0.462
19	1999	97,470	93	91	346	337	789	0.806
20	2000	97,043	94	91	355	344	1,132	1.158
21	2001	96,607	96	92	356	343	1,474	1.510

Note: Calculations for ages 0 to 13 were based on data for each single year of age and then grouped for presentation.

...Not shown, because calculations were based on rates for single years of age.

^aTo estimate the number expected to die at each year of age, age-specific mortality rates (column 2) were multiplied by the number of persons alive and not previously incarcerated (column 1).

^bTo estimate the number expected to go to prison at each year of age, age-specific first admission rates (column 4) were multiplied by the number of persons surviving (column 1 minus column 3).

^cTo estimate the surviving number of first admissions, the number of first admissions from the x-th year of age (column 5) were added to the number of surviving first admissions from the x-1 year of age. Mortality rates for ex-prisoners by age were based on mortality rates in the general population and adjusted to reflect higher ex-prisoner mortality.

^dTo estimate the prevalence percent, the surviving number of persons ever incarcerated (column 6) was divided by the total number of surviving persons never incarcerated (column 1 minus both columns 3 and 5) and persons ever incarcerated (column 6), times 100%.

Prevalence rates for other birth cohorts were calculated using similar procedures. For example, to estimate the percent of persons age 31 in 2001 who had ever gone to prison, the calculations were applied to the 1970 birth cohort. However, the rates of first incarceration (column 4) and mortality (column 2) used in the calculations were unique to the birth cohort. (Note the differences between Appendix tables 2 and 3.)

Limitations

1. The data in this report are restricted to incarcerations in State or Federal prison. Excluded are prior incarcerations in local jails and juvenile facilities because of the lack of data needed to estimate the number of first admissions to these forms of correctional supervision.

2. Estimates of the number of first admissions are subject to sampling and nonsampling errors. Because the numbers of first admissions are based on a sample rather than a complete

enumeration, the estimated number of first admissions may vary depending on the size of the estimate and the base population for each demographic group.

Nonsampling error can be attributed to many sources, such as nonresponse, differences in interpretation of questions, recall difficulties, and processing errors. Among inmates, the number of first admissions may be slightly overestimated because of underreporting of criminal histories. The full extent of nonsampling error is unknown.

3. No comparable inmate survey was conducted prior 1974 to enable the calculation of first incarceration rates prior to this date. First incarceration rates in 1970 and earlier were estimated to be 80% of each age-specific rate of first incarceration in 1974.

If first incarceration rates in 1970 and earlier had averaged 90% of each age-specific first incarceration rate in 1974, the estimated number of adults alive in 2001 who had ever gone to

prison would have been 1.9% higher (5,723,000). Alternatively, if earlier first incarceration rates had averaged 70% of 1974 rates, the estimated number of persons ever to have been incarcerated in 2001 would have been -1.9% lower (5,513,000).

4. Mortality rate schedules for prisoners were not available. Compared with the general population, mortality rates for prisoners were estimated to be 20% higher for adults under age 65, and the same for those age 65 and older. The estimate was based on the lower overall educational attainment of prisoners, and longitudinal studies documenting the relationship between mortality and educational attainment.

If mortality rates for adults ever incarcerated, under age 65 were instead 40% higher than that of the general population, the estimated prevalence of ever having gone to prison in 2001 would be 5,567,000 (-0.9% less). If mortality rates for prisoners had been equal to that of the general population, the estimated prevalence would have been 0.9% higher in 2001 (5,670,000).

Appendix table 3. Estimating the prevalence of imprisonment in the U.S. population for persons born in 1970

		Population of 100,000 births, 1970, reduced by mortality and incarceration in each successive year of age						
Age at first admission	Year	Number alive and not incarcerated at beginning of age interval (1)	Number dying per 100,000 (2)	Expected number of deaths ^a (3)	Rate of first admission to State or Federal prison per 100,000 (4)	Expected number of first admissions ^b (5)	Surviving cumulative number of first admissions ^c (6)	Prevalence percent ^d (7)
0 - 13	1970-83	100,000	...	2,099	0	0	0	0.000 %
14	1984	97,901	49	48	1	1	1	0.001
15	1985	97,852	62	61	0	0	1	0.001
16	1986	97,791	73	71	24	23	24	0.025
17	1987	97,697	86	84	74	73	97	0.099
18	1988	97,539	96	94	186	181	278	0.285
19	1989	97,265	102	99	265	258	535	0.549
20	1990	96,907	107	103	331	320	855	0.878
21	1991	96,484	110	107	266	257	1,110	1.142
22	1992	96,121	113	109	305	293	1,402	1.444
23	1993	95,719	111	106	272	260	1,660	1.711
24	1994	95,353	108	103	279	266	1,924	1.985
25	1995	94,984	104	99	230	218	2,139	2.210
26	1996	94,668	100	94	232	219	2,356	2.436
27	1997	94,354	100	94	217	205	2,558	2.648
28	1998	94,055	97	92	257	241	2,796	2.897
29	1999	93,722	102	95	218	204	2,997	3.108
30	2000	93,422	104	97	275	257	3,250	3.374
31	2001	93,068	110	102	218	203	3,448	3.584

Note Calculations for ages 0 to 13 were based on data for each single year of age and then grouped for presentation.

...Not shown, because all calculations were based on rates for single years of age.

^{a,b,c,d}See Appendix table 2.

5. Comparable mortality rates prior to 1976 were not available. However, there is minimal effect of declining mortality rates since 1900 on the estimated number of persons ever incarcerated. Prevalence rates are only affected to the extent that there may have been a different decline in mortality among those ever incarcerated (the numerator) compared with all surviving members of a birth cohort (the denominator). Furthermore, prevalence rates were applied to estimates of the U.S. resident population (which fully reflect declines in mortality).

6. Age-specific incarceration rates do not incorporate a forecast of future rates of imprisonment, which may be affected by changes in criminal behavior, law enforcement, and in sentencing policies. Consequently, the lifetime likelihood of incarceration, 2001, and projected prevalence rates for 2002 and beyond may be different.

A fuller description of the methodological techniques used in preparing this report is available upon request from the author.

This report in portable document format and in ASCII, its tables, and related statistical data are available at the BJS World Wide Web Internet site:
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The Bureau of Justice Statistics is the statistical agency of the U.S. Department of Justice. Lawrence A. Greenfeld is director.

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