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Survey of Prison Inmates, 2016

Parents in Prison and Their Minor Children

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An estimated 684,500 state and federal prisoners were parents of at least one minor child in 2016 (**figure 1, table 1**). About 626,800 (47%) males and 57,700 (58%) females in state or federal prison were parents with minor children. Prisoners reported having an estimated 1,473,700 minor children.

Statistics in this report are based on self-reported data collected through face-to-face interviews with a national sample of state and federal prisoners age 18 or older in the 2016 Survey of Prison Inmates (SPI). (See *Methodology*.) The SPI provides national statistics on prisoner characteristics across a variety of topics, including parental status.

In this report, "parents" refers to those prisoners who had either biological or adopted children. Because the SPI did not ask about stepchildren, estimates of parents do not include prisoners who only had stepchildren and estimates of children do not include stepchildren.

FIGURE 1
Estimated number of all parents in state or federal prison with a minor child and number of minor children, 2016

Note: See table 1 for counts, percentages, and standard errors.
[a]Includes prisoners who reported having a biological or adopted child age 17 or younger at the time of the interview.
[b]Includes biological or adopted children age 17 or younger at the time of the interview.
Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

Highlights

- Nearly half of state prisoners (47%) and more than half of federal prisoners (57%) reported having at least one minor child.
- In state prison, about 58% of females were parents with minor children, compared to 46% of males.
- Nearly 3 in 5 females (58%) and males (57%) in federal prison were parents with minor children.
- Nearly 1.5 million persons age 17 or younger had a parent who was in state or federal prison in 2016.
- Parents in state or federal prison had an average of two minor children each.
- An estimated 19% of minor children with a parent in state prison and 13% with a parent in federal prison were age 4 or younger.

Other key findings

- Parents in state prison had 1,252,100 minor children, and parents in federal prison had 221,600 minor children **(table 2)**.
- In state prison, fathers reported 1,133,800 minor children and mothers reported 118,300.
- In federal prison, fathers reported 208,200 minor children and mothers reported 13,400.
- Among state prisoners, an estimated 3 in 5 white (60%) and Hispanic (62%) females and about 1 in 2 black (50%) females were mothers with minor children **(table 3)**.
- In state prison, 48% of black males, 51% of Hispanic males, and 40% of white males reported having a minor child.
- Nearly 7 in 10 Hispanic (67%) females in federal prison were mothers with minor children, compared to about 1 in 2 white (49%) and black (54%) females.
- Among federal prisoners, about 3 in 5 black (64%) and Hispanic (64%) males and 3 in 10 white (34%) males were fathers with minor children.
- The average age of a minor child among parents in state prison was 9 years old **(table 4)**.
- Among minor children of parents in state prison, 1% were younger than age 1, about 18% were ages 1 to 4, and 48% were age 10 or older.
- The average age of a minor child among parents in federal prison was 10 years old.
- An estimated 13% of minor children of federal prisoners were age 4 or younger, and 20% were ages 15 to 17.

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TABLE 1

Estimated number and percent of all parents in state or federal prison with a minor child and number of minor children, 2016

	Number	Standard error	Percent	Standard error
Parents in prison with a minor child[a]	684,500	8,800	48.1%	0.62%
Fathers	626,800	8,700	47.4	0.65
Mothers	57,700	1,300	57.7	1.26
Minor children reported by parents in prison[b]	1,473,700	24,200	~	~

Note: Numbers are rounded to the nearest 100. Parental status was unknown for 1.3% of state and federal prisoners. Adjustments were made for item non-response and counts represent estimates for the total number of prisoners in 2016. See appendix table 1 for prisoner estimates.

~Not applicable.

[a]Includes prisoners who reported having a biological or adopted child age 17 or younger at the time of the interview.

[b]Includes biological or adopted children age 17 or younger at the time of the interview.

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

TABLE 2

Percent of state and federal prisoners with a minor child and estimated number of minor children, by sex of prisoner, 2016

	Prisoners with a minor child[a]		Minor children of prisoners[b]	
Sex of prisoners	**Percent**	**Standard error**	**Number**	**Standard error**
State				
Total	46.9%	0.66%	1,252,100	23,300
Male*	46.1	0.70	1,133,800	22,800
Female	57.7 †	1.37	118,300	4,400
Federal				
Total	57.0%	1.43%	221,600	6,400
Male*	57.0	1.51	208,200	6,400
Female	57.9	2.47	13,400	800

Note: Numbers are rounded to the nearest 100. Parental status was unknown for 1.2% of state and 1.8% of federal prisoners. Adjustments were made for item non-response and counts represent estimates for the total number of prisoners in 2016. See appendix table 1 for prisoner estimates.

*Comparison group.

†Difference with the comparison group is significant at the 95% confidence level.

[a]Includes prisoners who reported having a biological or adopted child age 17 or younger at the time of the interview.

[b]Includes biological or adopted children age 17 or younger at the time of the interview.

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

TABLE 3

Percent of state and federal prisoners with a minor child, by race or ethnicity of prisoner, 2016

	Male prisoners with a minor child[a]		Female prisoners with a minor child[a]	
Race/ethnicity	Percent	Standard error	Percent	Standard error
State prisoners				
White[b]*	39.8%	1.03%	60.4%	1.40%
Black[b]	48.5 †	1.04	50.1 †	2.68
Hispanic	51.2 †	1.22	61.8	3.05
American Indian/ Alaskan Native[b]	47.0	4.31	59.1	6.86
Asian/Native Hawaiian/Other Pacific Islander[b]	35.6	6.02	48.3	11.07
Two or more races[b]	46.4 †	1.43	55.0 †	2.67
Federal prisoners				
White[b]*	33.6%	3.10%	49.1%	3.24%
Black[b]	63.5 †	1.57	53.8	2.50
Hispanic	64.2 †	1.41	67.4 †	3.40
American Indian/ Alaskan Native[b]	56.7 †	5.62	68.4	13.78
Asian/Native Hawaiian/Other Pacific Islander[b]	56.6 †	5.78	45.2 !	12.70
Two or more races[b]	52.2 †	3.56	60.9 †	5.08

Note: See appendix table 1 for prisoner estimates.

*Comparison group.

†Difference with the comparison group is significant at the 95% confidence level.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

[a]Includes prisoners who reported having a biological or adopted child age 17 or younger at the time of the interview.

[b]Excludes persons of Hispanic origin (e.g., "white" refers to non-Hispanic whites and "black" refers to non-Hispanic blacks).

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

TABLE 4

Age of minor children of parents in state and federal prison at time of interview, by sex of parent, 2016

Age of minor children at time of interview (in years)	Age distribution of minor children with a parent in—					
	State prison			Federal prison		
	Total	Male	Female	Total	Male	Female
Younger than 1	1.0%	1.0%	0.9%	0.2%	0.2%	0.2% !
1-4	18.2	18.5	15.5	12.7	12.8	11.2
5-9	32.8	32.9	31.4	31.1	31.1	30.9
10-14	30.5	30.2	33.6	35.6	35.6	35.7
15-17	17.5	17.4	18.6	20.3	20.2	22.0
Mean age	9.2 yrs.	9.2 yrs.	9.7 yrs.	10.1 yrs.	10.1 yrs.	10.3 yrs.

Note: Details may not sum to totals due to rounding. A minor child is defined as a biological or adopted child age 17 or younger at the time of the interview. See appendix table 2 for standard errors.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

Methodology

Findings are based on self-reported data collected through face-to-face interviews with a national sample of state and federal prisoners in the 2016 Survey of Prison Inmates (SPI), produced by the Bureau of Justice Statistics. The 2016 SPI included confinement and community-based facilities but excluded special facilities such as those operated by or holding prisoners exclusively for the U.S. military, U.S. Immigration and Customs Enforcement, the U.S. Marshals Service, and correctional authorities in Indian country. Facilities in every state and the Federal Bureau of Prisons were eligible. The 2016 SPI was a stratified two-stage sample design in which prisons were selected in the first stage and prisoners within sampled facilities were selected in the second stage. The SPI sample was selected from a universe of 2,001 unique prisons (1,808 state and 193 federal). A total of 364 prisons (306 state and 58 federal) participated in the 2016 SPI out of 385 selected (324 state and 61 federal). The first-stage response rate (i.e., the response rate among selected prisons) was 98.4% (98.1% among state prisons and 100% among federal prisons).[1]

A total of 24,848 prisoners (20,064 state and 4,784 federal) participated in the 2016 SPI, based on a sample of 37,058 prisoners (30,348 state and 6,710 federal).[2] The second-stage response rate (i.e., the response rate among selected prisoners) was 70.0% (69.3% among state prisoners and 72.8% among federal prisoners).[3]

Standard errors and tests of significance

When national estimates are derived from a sample, as with the SPI, caution must be used when comparing one estimate to another or when comparing estimates over time. Although one estimate may be larger than another, estimates based on a sample rather than a complete enumeration of the population have some degree of sampling error. The sampling error of an estimate depends on several factors, including the size of the estimate, the number of completed interviews, and the intracluster correlation of the outcome within prisons. When the sampling error around an estimate is taken into account, estimates that appear different may not be statistically different.

One measure of the sampling error associated with an estimate is the standard error. The standard error may vary from one estimate to the next. Generally, an estimate with a smaller standard error provides a more reliable approximation of the true value than an estimate with a larger standard error. Estimates with relatively large standard errors have less precision and reliability and should be interpreted with caution.

For complex sample designs, there are several methods that can be used to generate standard errors around a point estimate (e.g., mean, percentage, count, etc.). In this report, Taylor Series Linearization (TSL) methods were used to estimate the standard errors for percentages and means. The TSL method directly estimates variances through a linearized function by combining variance estimates from stratum and primary sampling units (PSU) used to sample prisoners. In the SPI, the design parameters used for computing TSL variances are V1571 (geography stratum), V1572 (sex stratum), and V1573 (PSU). Readers should note that these design parameters appear on the 2016 SPI restricted use file only (for confidentiality and disclosure protection reasons), which is archived at the Inter-university Consortium for Political and Social Research (ICPSR), study number 37692.

For counts in this report, Jackknife Repeated Replication (JRR) methods were used to estimate standard errors. To employ JRR methods, the SPI sample was broken into subsamples, called replicates, yielding a total number of replicates equivalent to the number of participating prisons (i.e., 364) in the survey. For each replicate, starting with the base weight, all of the same weighting adjustments performed to produce the final SPI weight (V1585) were independently performed for each replicate, including nonresponse and poststratification adjustments.[4] The JRR method directly estimates variances by computing the parameter of interest from each of the replicates and then calculating the variance of the full SPI sample estimate from the variability

[1] A total of 15 prisons (12 state and 3 federal) that were sampled were deemed ineligible for the 2016 SPI. For more information, see *Methodology: Survey of Prison Inmates, 2016* (NCJ 252210, BJS, July 2019).

[2] There were 10,661 sampled prisoners who were eligible for the survey but did not participate. Another 1,549 sampled prisoners were deemed ineligible for the survey. For more information, see *Methodology: Survey of Prison Inmates, 2016* (NCJ 252210, BJS, July 2019).

[3] For more detailed information on the 2016 SPI, see *Methodology: Survey of Prison Inmates, 2016* (NCJ 252210, BJS, July 2019).

[4] See *Methodology: Survey of Prison Inmates, 2016* (NCJ 252210, BJS, July 2019) for more information on the 2016 SPI weighting adjustments.

between the replicate estimates. In the SPI, the replicate weights used for computing JRR variances of the counts in this report are V1856-V1949. These replicate weights are included on both the public and restricted use files of the 2016 SPI that are available at ICPSR.

Prior to this report, a comparison of results yielded from both the TSL and JRR approaches was conducted to better understand the appropriate variance method(s) to use for the 2016 SPI based on the statistics of interest. While it is expected that different variance methods and different statistical software packages can yield slightly different results, the analyses performed on the 2016 SPI demonstrated that relatively large differences (i.e., more than a 10% difference) between the TSL and JRR methods were observed for the estimates of counts broken out by the poststrata variables (i.e., geography and sex) and constructs related to those poststrata variables, such as sexual orientation and gender identity. Both methods produced similar (i.e., less than a 10% difference) standard errors for the estimates of the counts that do not involve the breakdowns by the poststrata variables, and for means and percentages.

The results of these analyses suggest that TSL overestimates the variance of a limited set of statistics of interest from the 2016 SPI, in particular, the counts broken out by jurisdiction (i.e., state vs. federal) or by sex. A limitation of the TSL approach compared to the JRR approach is that as implemented in most statistical software, TSL fails to fully account for variance contributions of the various weighting adjustments, such as nonresponse adjustments and calibration to the known population control totals.[5,6,7] In particular, the overestimation of the standard errors results from the inability of TSL to account for the precision gained from poststratification. In addition, the TSL approach is not the ideal method to use to generate variances of complex nonlinear estimators, whereas with JRR methods, once the replicate weights are created to independently account for all weighting adjustments, the variance of all forms of estimators can be computed. Users of the 2016 SPI data should be aware of these differences when determining the most appropriate variance method(s) to employ to generate accurate standard errors for their statistics of interest.

Readers may use the estimates and standard errors of the estimates provided in this report to generate a 95% confidence interval around the estimates as a measure of the margin of error. Typically, multiplying the standard error by 1.96 and then adding or subtracting the result from the estimate produces the confidence interval. This interval expresses the range of values within which the true population parameter is expected to fall 95% of the time if the same sampling method is used to select different samples.

For small samples and estimates close to 0%, the use of the standard error to construct the 95% confidence interval may not be reliable. Therefore, caution should be used when interpreting the estimates. Caution should also be used if constructing a 95% confidence interval, which would include zero in these cases, because the estimate may not be distinguishable from zero.

The standard errors have been used to compare selected groups of prisoners that have been defined by demographic characteristics. Differences in the estimates for subgroups in tables 2 and 3 in this report have been tested and notated for significance at the 95% level of confidence. Readers should reference the tables for testing on specific findings. Unless otherwise noted, findings described in this report as higher, lower, or different passed a test at the 0.5 level of statistical significance (95% confidence level).

Measurement of parental status

To determine whether prisoners were parents of a minor child at the time of the interview, all prisoners were asked if they had any biological or adopted minor children. Those who answered yes were then asked the number of biological or adopted children and the age of each child. Information on up to 20 children was collected. Estimates in this report include only those parents with at least one biological or adopted child age 17 or younger.

[5]Chowdhury, S. (2013). *A Comparison of Taylor Series Linearization and balanced repeated replication methods for variance estimation in Medical Expenditure Panel Survey* (Working Paper No. 13004). Agency for Healthcare Research and Quality. https://meps.ahrq.gov/data_files/publications/workingpapers/wp_13004.pdf

[6]Valliant, R. (2004). The effect of multiple weighting steps on variance estimation. *Journal of Official Statistics, 20*(1), 1-18. https://www.scb.se/contentassets/ca21efb41fee47d293bbee5bf7be7fb3/the-effect-of-multiple-weighting-steps-on-variance-estimation.pdf

[7]Heeringa, S. G., West, B. T., & Berglund, P. A. (2017). *Applied survey data analysis* (2nd ed.). CRC Press.

Parental status was unknown for about 1.3% of state and federal prisoners. To estimate the number of parents and minor children, adjustments were made for item non-response. Counts of parents and minor children presented in this report were estimated by weighting the known number of each to the total number of prisoners in 2016.

APPENDIX TABLE 1

Estimated number of state and federal prisoners, by race or ethnicity of prisoner, 2016

Race/ethnicity	Total	Male	Female
All prisoners	1,421,700	1,321,800	99,900
State prisoners	1,248,300	1,159,100	89,200
White*	391,800	350,100	41,700
Black*	415,500	398,200	17,300
Hispanic	254,700	240,400	14,200
American Indian/ Alaskan Native*	17,600	16,000	1,600
Asian/Native Hawaiian/ Other Pacific Islander*	11,400	10,800	600
Two or more races*	138,600	126,200	12,400
Federal prisoners	173,400	162,700	10,700
White*	35,900	32,400	3,400
Black*	55,000	52,800	2,200
Hispanic	63,500	59,800	3,700
American Indian/ Alaskan Native*	2,800	2,700	200
Asian/Native Hawaiian/ Other Pacific Islander*	2,600	2,500	100
Two or more races*	11,200	10,100	1,000

Note: Numbers are rounded to the nearest 100. Details may not sum to totals due to rounding and missing data. Counts are weighted to totals from the 2015 National Prisoner Statistics Program. See *Methodology: Survey of Prison Inmates, 2016* (NCJ 252210, BJS, July 2019).

*Excludes persons of Hispanic origin (e.g., "white" refers to non-Hispanic whites and "black" refers to non-Hispanic blacks).

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

APPENDIX TABLE 2

Standard errors for table 4: Age of minor children of parents in state and federal prison at time of interview, by sex of parent, 2016

Age of minor children at time of interview (in years)	Age distribution of minor children with a parent in—					
	State prison			Federal prison		
	Total	Male	Female	Total	Male	Female
Younger than 1	0.14%	0.16%	0.23%	0.08%	0.08%	0.11%
1-4	0.53	0.58	0.78	0.62	0.65	1.11
5-9	0.46	0.51	0.60	0.58	0.61	1.46
10-14	0.51	0.56	0.72	0.81	0.86	0.96
15-17	0.54	0.59	0.66	0.76	0.80	1.08
Mean age	0.08 yrs.	0.09 yrs.	0.10 yrs.	0.08 yrs.	0.09 yrs.	0.13 yrs.

Source: Bureau of Justice Statistics, Survey of Prison Inmates, 2016.

The Bureau of Justice Statistics of the U.S. Department of Justice is the principal federal agency responsible for measuring crime, criminal victimization, criminal offenders, victims of crime, correlates of crime, and the operation of criminal and civil justice systems at the federal, state, tribal, and local levels. BJS collects, analyzes, and disseminates reliable statistics on crime and justice systems in the United States, supports improvements to state and local criminal justice information systems, and participates with national and international organizations to develop and recommend national standards for justice statistics. Doris J. James is the acting director.

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