U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Statistics

December 2021, NCJ 300953

Mortality in State and Federal Prisons, 2001–2019 – Statistical Tables

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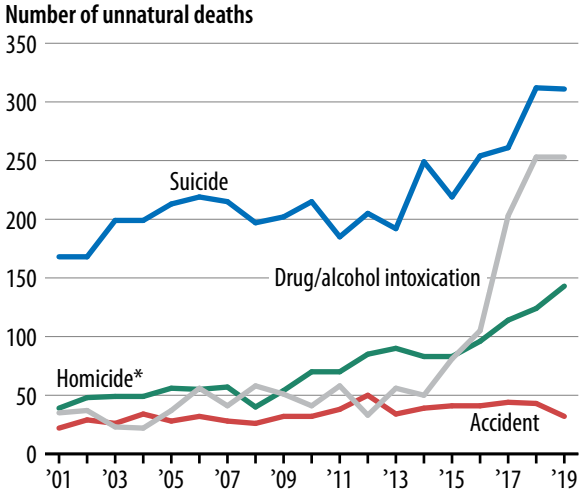
A total of 4,234 persons died in state and federal prisons in 2019, a 6.6% decrease from the 4,515 deaths in 2018 reported to the Bureau of Justice Statistics' (BJS) Mortality in Correctional Institutions (MCI, formerly the Deaths in Custody Reporting Program) data collection. In 2019, the mortality rate in state prisons was 330 per 100,000 state prisoners, while federal prisoners in facilities operated by the Federal Bureau of Prisons (BOP) died at a rate of 259 per 100,000.

The 143 homicides in state prisons in 2019 marked the highest number ever recorded in the MCI's 19-year history and nearly four times the 39 homicides reported in 2001 **(figure 1)**. Other types of unnatural deaths (due to suicide, drug or alcohol intoxication, or accident) also increased during that period. Illness continued to be the leading cause of death for state prisoners, accounting for 79% of all state prison deaths in 2019, down from almost 90% in 2000. State prisoners were less likely to die in 2019 (308 per 100,000) than U.S. residents age 18 or

FIGURE 1
Number of unnatural deaths of state prisoners, by cause of death, 2001–2019



Note: See table 2 for counts.
*Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.
Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019.

Highlights

- In 2019, a total of 3,853 prisoners died in state prisons or private prison facilities under a state contract, a decrease of 284 deaths from 2018.
- The number of federal prisoners who died in the custody of a facility operated by the Federal Bureau of Prisons (BOP) increased from 378 in 2018 to 381 in 2019.
- The mortality rate was higher in state prisons (330 per 100,000 state prisoners) in 2019 than in BOP-operated facilities (259 per 100,000 federal prisoners).
- Almost 87% of the 65,027 state prisoners and 89% of the 7,125 federal prisoners who died in custody from 2001 to 2019 died of illness.
- The number of deaths in state prisons due to drug or alcohol intoxication increased from 35 in 2001 to 253 in 2019.
- In 2019, adult U.S. residents were more than twice as likely as state prisoners to die from alcohol or drug intoxication, while state prisoners were almost three times as likely as U.S. residents to die by homicide.

older (435 per 100,000) when adjusting for population differences in sex, race or ethnicity, and age.[1]

In both 2018 and 2019, more than 90% of prisoner deaths occurred in state prison facilities. Deaths from all causes decreased in state prisons from 2018 to 2019, with the exception of deaths due to drug or alcohol intoxication and homicides. Deaths in prisons operated by the BOP increased from 378 in 2018 to 381 in 2019.[2]

This report describes deaths in state and federal prisons from 2001 to 2019, including cause of death, decedent characteristics, and the mortality rate of prisoners by state. This is the final report on deaths in state and federal prisons from BJS's MCI data collection. When the Deaths in Custody Reporting Act was reauthorized in 2014 (P.L. 113–242), it included additional enforcement and reporting compliance requirements that are incompatible with BJS's authorizing statute as a federal statistical agency. The U.S. Department of Justice (DOJ) determined it would be more appropriate for the Bureau of Justice Assistance to administer the program and collect mortality data for the DOJ starting with the first quarter of fiscal year 2019 (October to December 2019).

Data on mortality in local jails are available in *Mortality in Local Jails, 2000–2019 – Statistical Tables* (NCJ 301368, BJS, December 2021).

Total prison deaths, 2001–2019

- A total of 65,027 state prisoners and 7,125 federal prisoners died while in custody during 2001–19 **(table 1)**.
- During 2001–19, cancer and heart disease accounted for more than 53% of all state prison deaths.
- There were 4,183 deaths by suicide in state prisons and 342 in federal prison facilities operated by the BOP during 2001–19.

[1]The state prison population differed significantly from the adult U.S. resident population in terms of sex, race or ethnicity, and age. To allow for direct comparisons between the two populations, BJS adjusted the U.S. resident population to resemble the sex, race or ethnicity, and age distribution of state prisoners before calculating overall and cause-specific mortality rates. See *Methodology*.

[2]BJS began receiving federal prison mortality data from privately operated facilities that were under a BOP contract in 2015. To preserve the time series back to 2001, the federal mortality data in this report include only deaths in BOP-operated facilities. Nine federal prisoners died in private facilities in 2015, seven in 2016, seven in 2017, five in 2018, and nine in 2019.

Cause of deaths in state prison

- The number of deaths by suicide in state prisons in 2019 (311) was virtually unchanged from 2018 (312), as was the number of drug or alcohol intoxication deaths (253 in both years) **(table 1)**.
- From 2001 to 2019, the number of deaths by drug or alcohol intoxication grew 623% and homicides increased 267%, compared to an increase of 34% for the total number of deaths during this period.
- State prisoner deaths due to illness decreased by 238 (7%) from 2018 to 2019.
- State prisoner deaths caused by AIDS-related illnesses declined from 275 in 2001 to 17 in 2019.
- The portion of state prisoners who died from AIDS-related illnesses declined from 9.6% of all deaths in 2001 to 0.4% in 2019, while the portion who died of liver disease decreased from 10.7% to 3.7% **(table 3)**.
- In 2019, the shares of state prisoners who died from drug or alcohol intoxication (6.6%), homicide (3.7%), and suicide (8.1%) reached their highest levels since the MCI began collecting data on deaths in state prisons.

State prison mortality rates in 2019

- More than 91% of deaths in prisons in 2019 occurred in facilities operated by states or in private prison facilities contracted to state departments of corrections (DOCs), while almost 9% occurred in federally operated prison facilities.
- The mortality rate of state prisoners reached a high of 347 per 100,000 state prisoners in 2018, then dropped to 330 per 100,000 in 2019 **(table 4; figure 2)**.
- In 2019, for every 100,000 prisoners in the custody of state- and privately operated prison facilities, 261 died from illness and 46 died from suicide.
- The mortality rate due to homicide among state prisoners increased from 10 per 100,000 in 2018 to 12 per 100,000 in 2019.

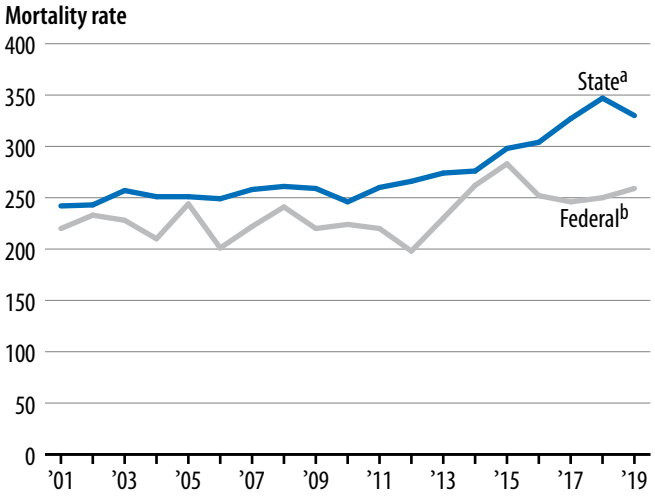
Comparing mortality in state prisons and the U.S. population

- Adult U.S. residents in 2019 (adjusted for sex, race or ethnicity, and age) died at higher rates than state prisoners from all causes of death except suicide, homicide, and cancer **(table 5; figures 3 and 4)**.
- In 2019, adult U.S. residents had an overall adjusted mortality rate of 435 per 100,000, which was 1.4 times the rate for state prisoners.
- The U.S. resident population died of drug or alcohol intoxication at a rate (43 per 100,000) more than twice that of state prisoners (21 per 100,000) in 2019.

Demographic characteristics of state prison decedents

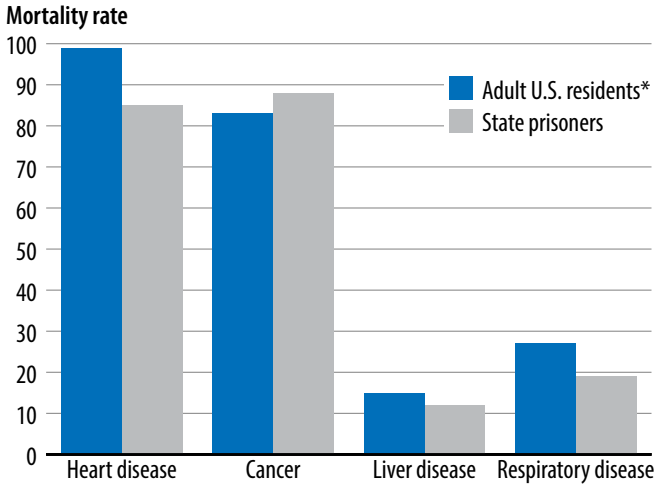
- As in previous years, about 95% of state prisoners who died in 2019 were male and more than 50% were non-Hispanic white **(tables 6 and 7)**.
- The number of female state prisoners who died in 2019 (146) decreased almost 19% from 2018 (180).
- Forty-four non-Hispanic American Indian or Alaska Native state prisoners died in the custody of state DOCs in 2019, down from a high of 52 in 2015.
- Persons age 55 or older accounted for almost twice as many deaths in state prisons in 2019 (63%) as in 2001 (34%).
- The mortality rate of male state prisoners increased more than 36% from 2001 (250 per 100,000 male state prisoners) to 2019 (341 per 100,000), while their total population decreased roughly 3% during the same period **(table 8; appendix table 1)**.
- Mortality rates increased for all racial and ethnic groups between 2009 and 2019 **(figure 5)**.
- Of the 22 state prison decedents age 17 or younger who died from 2001 to 2019, 50% died by suicide **(table 9)**.
- During 2001–19, the rate of deaths due to drug or alcohol intoxication among male state prisoners (7 per 100,000) was more than twice the rate among female state prisoners (3 per 100,000) **(table 10)**.

FIGURE 2
Mortality rate per 100,000 state and federal prisoners, 2001–2019



Note: Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See tables 4 and 11 for rates.
[a]Includes deaths in private state facilities.
[b]Excludes deaths in private federal facilities.
Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019, and National Prisoner Statistics, 2001–2019; and Federal Bureau of Prisons, 2001–2019.

FIGURE 3
Adjusted illness mortality rate per 100,000 U.S. residents, by cause of death, 2019



Note: Excludes persons younger than age 18 and federal prisoners. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See table 5 for crude and adjusted rates.
*Population adjusted to resemble the sex, race or ethnicity, and age distribution of the state prison population.
Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2019, National Prisoner Statistics, 2019, Survey of Inmates in State Correctional Facilities, 2004, and Survey of Prison Inmates, 2016; and Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER online database, Underlying Cause of Death 2019 (released in 2020).

Deaths in federal prisons

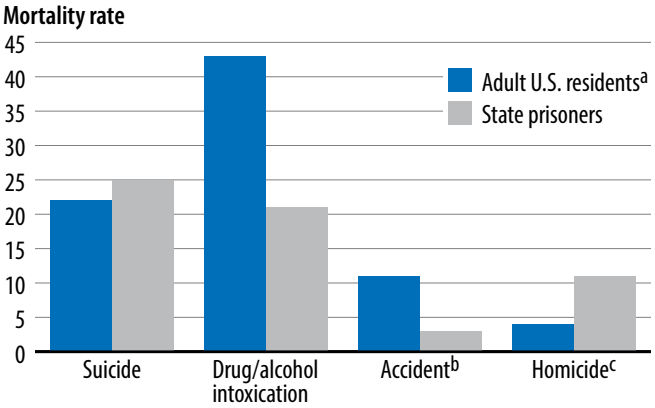
- Federal prisons reported 381 deaths in 2019, a 16% decrease from 2015 (455), the year with the highest number of deaths of federal prisoners.
- In 2019, federal prisoners had an overall mortality rate of 259 per 100,000, up from 250 per 100,000 in 2018 **(table 11)**.
- Federal prisoners in BOP-operated facilities died of suicide at a rate of 20 per 100,000 in 2019.
- In addition to the 381 federal prisoners who died in BOP-operated facilities in 2019, nine died in private prison facilities operating under a BOP contract **(table 12)**.
- Illness accounted for almost 81% of deaths in BOP- and privately operated federal prison facilities in 2019.
- The mortality rate for non-Hispanic whites in BOP- and privately operated federal prisons in 2019 (561 per 100,000) was more than three times the rate for non-Hispanic black federal prisoners (161 per 100,000) and six times the rate for Hispanic prisoners (91 per 100,000) **(table 13)**.
- From 2015 to 2019, fewer than 10 prisoners age 24 or younger held in BOP- and privately operated federal prisons died in any given year.

Jurisdiction-level prison mortality

- In 2019, the states with the three largest prison systems had a combined 1,246 deaths: Texas (448 deaths), Florida (400), and California (398) **(table 14)**. These states had 148 fewer deaths in 2019 than in 2018, an 11% decrease.
- Eight states had fewer than 10 prisoner deaths in 2019.
- Five states had prison mortality rates in 2019 of at least 500 per 100,000 state prisoners: Louisiana, Alabama, Mississippi, Tennessee, and Kentucky **(table 15)**.
- Three states had fewer than 100 prison deaths during 2001–19: North Dakota (21), Vermont (74), and Maine (82) **(table 16)**.
- During 2001–19, the highest stable average annual rate of drug or alcohol intoxication deaths occurred in prisons in Arkansas (20 per 100,000) and Maryland (16 per 100,000), compared to 1 per 100,000 in Georgia and Texas **(table 17)**.

FIGURE 4

Adjusted rate of unnatural deaths per 100,000 U.S. residents, by cause of death, 2019



Note: Excludes persons younger than age 18 and federal prisoners. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See table 5 for crude and adjusted rates.

[a]Population adjusted to resemble the sex, race or ethnicity, and age distribution of the state prison population.

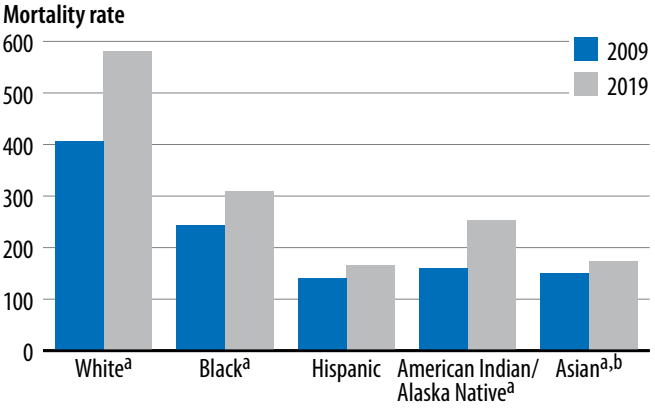
[b]Excludes causes of death that are unlikely to occur in a state prison setting from the mortality rates of both state prisoners and U.S. residents.

[c]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2019, National Prisoner Statistics, 2019, Survey of Inmates in State Correctional Facilities, 2004, and Survey of Prison Inmates, 2016; and Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER online database, Underlying Cause of Death 2019 (released in 2020).

FIGURE 5

Mortality rate per 100,000 state prisoners, by race or ethnicity, 2009 and 2019



Note: Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See table 8 for rates.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

- The highest average annual rate of homicide in state prisons during 2001–19 was in South Carolina (15 per 100,000) and Oklahoma (14 per 100,000), while New Hampshire, North Dakota, Vermont, and Wyoming had no homicides during this period, for a mortality rate of 0.

List of tables

TABLE 1. Deaths of state and federal prisoners, by cause of death, 2001–19

TABLE 2. Number of deaths of state and federal prisoners, by cause of death, 2001–2019

TABLE 3. Percent of deaths of state prisoners, by cause of death, 2001–2019

TABLE 4. Mortality rate per 100,000 state prisoners, by cause of death, 2001–2019

TABLE 5. Crude and adjusted mortality rate per 100,000 U.S. residents, by cause of death, 2019

TABLE 6. Number of deaths of state prisoners, by decedent characteristics, 2001–2019

TABLE 7. Percent of deaths of state prisoners, by decedent characteristics, 2001–2019

TABLE 8. Mortality rate per 100,000 state prisoners, by decedent characteristics, 2001–2019

TABLE 9. Number of deaths of state prisoners, by cause of death and decedent characteristics, 2001–19

TABLE 10. Average annual mortality rate per 100,000 state prisoners within each demographic group, by cause of death and decedent characteristics, 2001–19

TABLE 11. Mortality rate per 100,000 federal prisoners, by cause of death, 2001–2019

TABLE 12. Deaths of federal prisoners in federally and privately operated prison facilities, by cause of death, 2015–2019

TABLE 13. Deaths of federal prisoners in federally and privately operated prison facilities, by decedent characteristics, 2015–2019

TABLE 14. Number of deaths of state and federal prisoners, by jurisdiction, 2001–2019

TABLE 15. Mortality rate per 100,000 state and federal prisoners, by jurisdiction, 2001–2019

TABLE 16. Number of deaths of state and federal prisoners, by cause of death and jurisdiction, 2001–19

TABLE 17. Average annual mortality rate per 100,000 state and federal prisoners, by cause of death and jurisdiction, 2001–19

List of figures

FIGURE 1. Number of unnatural deaths of state prisoners, by cause of death, 2001–2019

FIGURE 2. Mortality rate per 100,000 state and federal prisoners, 2001–2019

FIGURE 3. Adjusted illness mortality rate per 100,000 U.S. residents, by cause of death, 2019

FIGURE 4. Adjusted rate of unnatural deaths per 100,000 U.S. residents, by cause of death, 2019

FIGURE 5. Mortality rate per 100,000 state prisoners, by race or ethnicity, 2009 and 2019

Continued on next page

List of appendix tables

APPENDIX TABLE 1. Estimated number of state and federal prisoners in custody, by prisoner characteristics, 2001–2019

APPENDIX TABLE 2. Illness mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 3. Cancer mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 4. Heart disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 5. Liver disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 6. Respiratory disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 7. Mortality rate due to all other illnesses per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

APPENDIX TABLE 8. Rate of unnatural deaths per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

TABLE 1
Deaths of state and federal prisoners, by cause of death, 2001–19

	State prisoners[a]			Federal prisoners[b]		
Cause of death	Number of deaths	Percent of deaths	Mortality rate per 100,000	Number of deaths	Percent of deaths	Mortality rate per 100,000
All causes	65,027	100%	273	7,125	100%	233
Illness	56,454	86.8%	237	6,359	89.2%	208
Heart disease	16,911	26.0	71	...	...	...
Cancer	17,866	27.5	75	...	...	...
Liver disease	5,543	8.5	23	...	...	...
AIDS-related[c]	1,949	3.0	8	167	2.3	5
Respiratory disease	4,095	6.3	17	...	...	...
All other illnesses[d]	10,090	15.5	42	...	...	...
Suicide	4,183	6.4%	18	342	4.8%	11
Drug/alcohol intoxication	1,493	2.3%	6	...	...	...
Accident[e]	651	1.0%	3	118	1.7%	4
Homicide[f]	1,405	2.2%	6	193	2.7%	6
Other causes	445	0.7%	2	0	0%	0
Missing/unknown	396	0.6%	2	113	1.6%	4

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to rounding. Mortality rates are per 100,000 prisoners held in the custody of state prisons or the Federal Bureau of Prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

...Not available

[a]Includes deaths in private state facilities.

[b]Data on cause of death for federal prisoners were not available for all causes. Excludes deaths in private federal facilities.

[c]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[d]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[e]Includes death by intoxication among federal prisoners.

[f]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–19; and Federal Bureau of Prisons, 2001–19.

TABLE 2
Number of deaths of state and federal prisoners, by cause of death, 2001–2019

Cause of death	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	3,170	3,270	3,498	3,456	3,556	3,561	3,757	3,851	3,793	3,620	3,738	3,707	3,878	3,928	4,163	4,122	4,335	4,515	4,234
Federal[a]	301	335	346	333	388	328	368	399	376	387	387	350	400	444	455	388	381	378	381
State[b]	2,869	2,935	3,152	3,123	3,168	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,478	3,484	3,708	3,734	3,954	4,137	3,853
Illness	2,567	2,616	2,830	2,783	2,817	2,830	2,980	3,036	3,027	2,865	2,979	2,959	3,081	3,032	3,251	3,202	3,273	3,282	3,044
Heart disease	743	803	801	842	835	854	840	845	850	830	854	804	897	896	994	1,029	1,101	1,055	1,038
Cancer	691	681	811	733	805	806	772	907	978	927	1,028	1,024	1,065	1,050	1,125	1,130	1,112	1,139	1,082
Liver disease	307	296	306	283	318	303	316	318	332	288	339	304	355	313	304	261	245	214	141
AIDS-related[c]	275	241	209	147	156	132	120	99	98	73	57	74	52	64	45	31	37	22	17
Respiratory disease	147	163	200	199	213	196	207	251	200	212	205	223	198	238	243	222	253	290	235
All other illnesses[d]	404	432	503	579	490	539	725	616	569	535	496	530	514	471	540	529	525	562	531
Suicide	168	168	199	199	213	219	215	197	202	215	185	205	192	249	219	254	261	312	311
Drug/alcohol intoxication	35	37	23	22	37	56	41	58	51	41	58	33	56	50	81	105	203	253	253
Accident	22	29	26	34	28	32	28	26	32	32	38	50	34	39	41	41	44	43	32
Homicide[e]	39	48	49	49	56	55	57	40	54	70	70	85	90	83	83	96	114	124	143
Other causes	0	0	25	36	17	41	16	95	17	7	12	14	18	10	20	23	28	38	28
Missing/unknown	38	37	0	0	0	0	52	0	34	3	9	11	7	21	13	13	31	85	42

Note: Data may have been revised from previously published statistics. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

[a]Until 2015, federal deaths were submitted as an aggregate count by the Federal Bureau of Prisons (BOP), with limited details regarding cause of death, and excluded deaths in private federal facilities. See table 10 for deaths from 2015 to 2019 in federal prison facilities operated by the BOP or operated privately under a BOP contract.

[b]Includes deaths in private state facilities.

[c]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[d]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[e]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; and Federal Bureau of Prisons, 2001–2019.

TABLE 3

Percent of deaths of state prisoners, by cause of death, 2001–2019

Cause of death	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All causes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Illness	89.5%	89.1%	89.8%	89.1%	88.9%	87.5%	87.9%	87.9%	88.6%	88.6%	88.9%	88.1%	88.6%	87.0%	87.7%	85.8%	82.8%	79.3%	78.9%
Heart disease	25.9	27.4	25.4	27.0	26.4	26.4	24.8	24.5	24.9	25.7	25.5	23.9	25.8	25.7	26.8	27.6	27.8	25.5	26.9
Cancer	24.1	23.2	25.7	23.5	25.4	24.9	22.8	26.3	28.6	28.7	30.7	30.5	30.6	30.1	30.3	30.3	28.1	27.5	28.1
Liver disease	10.7	10.1	9.7	9.1	10.0	9.4	9.3	9.2	9.7	8.9	10.1	9.1	10.2	9.0	8.2	7.0	6.2	5.2	3.7
AIDS-related[a]	9.6	8.2	6.6	4.7	4.9	4.1	3.5	2.9	2.9	2.3	1.7	2.2	1.5	1.8	1.2	0.8	0.9	0.5	0.4
Respiratory disease	5.1	5.6	6.3	6.4	6.7	6.1	6.1	7.3	5.9	6.6	6.1	6.6	5.7	6.8	6.6	5.9	6.4	7.0	6.1
All other illnesses[b]	14.1	14.7	16.0	18.5	15.5	16.7	21.4	17.8	16.7	16.5	14.8	15.8	14.8	13.5	14.6	14.2	13.3	13.6	13.8
Suicide	5.9%	5.7%	6.3%	6.4%	6.7%	6.8%	6.3%	5.7%	5.9%	6.7%	5.5%	6.1%	5.5%	7.1%	5.9%	6.8%	6.6%	7.5%	8.1%
Drug/alcohol intoxication	1.2%	1.3%	0.7%	0.7%	1.2%	1.7%	1.2%	1.7%	1.5%	1.3%	1.7%	1.0%	1.6%	1.4%	2.2%	2.8%	5.1%	6.1%	6.6%
Accident	0.8%	1.0%	0.8%	1.1%	0.9%	1.0%	0.8%	0.8%	0.9%	1.0%	1.1%	1.5%	1.0%	1.1%	1.1%	1.1%	1.1%	1.0%	0.8%
Homicide[c]	1.4%	1.6%	1.6%	1.6%	1.8%	1.7%	1.7%	1.2%	1.6%	2.2%	2.1%	2.5%	2.6%	2.4%	2.2%	2.6%	2.9%	3.0%	3.7%
Other causes	0%	0%	0.8%	1.2%	0.5%	1.3%	0.5%	2.8%	0.5%	0.2%	0.4%	0.4%	0.5%	0.3%	0.5%	0.6%	0.7%	0.9%	0.7%
Missing/unknown	1.3%	1.3%	0%	0%	0%	0%	1.5%	0%	1.0%	0.1%	0.3%	0.3%	0.2%	0.6%	0.4%	0.3%	0.8%	2.1%	1.1%

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to rounding. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

[a]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[b]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[c]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019.

TABLE 4

Mortality rate per 100,000 state prisoners, by cause of death, 2001–2019

Cause of death	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All causes	242	243	257	251	251	249	258	261	259	246	260	266	274	276	298	304	327	347	330
Illness	217	216	231	224	223	218	226	229	229	218	231	234	243	241	261	261	270	275	261
Heart disease	63	66	65	68	66	66	64	64	64	63	66	64	71	71	80	84	91	89	89
Cancer	58	56	66	59	64	62	59	68	74	71	80	81	84	83	90	92	92	96	93
Liver disease	26	24	25	23	25	23	24	24	25	22	26	24	28	25	24	21	20	18	12
AIDS-related[a]	23	20	17	12	12	10	9	7	7	6	4	6	4	5	4	3	3	2	1
Respiratory disease	12	13	16	16	17	15	16	19	15	16	16	18	16	19	20	18	21	24	20
All other illnesses[b]	34	36	41	47	39	42	55	47	43	41	38	42	40	37	43	43	43	47	46
Suicide	14	14	16	16	17	17	16	15	15	16	14	16	15	20	18	21	22	26	27
Drug/alcohol intoxication	3	3	2	2	3	4	3	4	4	3	4	3	4	4	7	9	17	21	22
Accident	2	2	2	3	2	2	2	2	2	2	3	4	3	3	3	3	4	4	3
Homicide[c]	3	4	4	4	4	4	4	3	4	5	5	7	7	7	7	8	9	10	12
Other causes	0	0	2	3	1	3	1	7	1	1 !	1	1	1	1	2	2	2	3	2
Missing/unknown	3	3	0	0	0	0	4	0	3	0 !	1 !	1	1 !	2	1	1	3	7	4

Note: Data may have been revised from previously published statistics. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[b]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[c]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; and National Prisoner Statistics, 2001–2019.

TABLE 5
Crude and adjusted mortality rate per 100,000 U.S. residents, by cause of death, 2019

Cause of death	Crude rate per 100,000 adult U.S. residents	Adjusted rate per 100,000 adult U.S. residents[a]	Rate per 100,000 state prisoners[b]
All causes	1,110	435	308
Illness	1,039	355	248
Heart disease	265	99	85
Cancer	241	83	88
Liver disease	23	15	12
AIDS-related[c]	2	4	1
Respiratory disease	109	27	19
All other illnesses[d]	400	127	43
Suicide	18	22	25
Drug/alcohol intoxication	28	43	21
Accident[e]	23	11	3
Homicide[f]	2	4	11

Note: Includes deaths in private state facilities. Excludes persons younger than age 18 and federal prisoners.

[a]Population adjusted to resemble the sex, race or ethnicity, and age distribution of the state prison population.

[b]Mortality rates may differ from those presented elsewhere in this report due to the removal of state prisoners younger than age 18 from both the numerator (deaths) and denominator (state prison population) and the exclusion of deaths for which cause of death was unknown or missing. These changes were made solely to table 5 to make the mortality rates comparable to those in the U.S. resident population.

[c]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[d]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[e]Excludes causes of death that are unlikely to occur in a state prison setting, including motor vehicle accidents; homicides due to explosives or firearms not related to law enforcement, motor vehicle assault, or neglect; and firearm discharges not related to law enforcement.

[f]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2019, National Prisoner Statistics, 2019, Survey of Inmates in State Correctional Facilities, 2004, and Survey of Prison Inmates, 2016; and Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER online database, Underlying Cause of Death 2019 (released in 2020).

TABLE 6
Number of deaths of state prisoners, by decedent characteristics, 2001–2019

Characteristic	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	2,869	2,935	3,152	3,123	3,168	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,478	3,484	3,708	3,734	3,954	4,137	3,853
Sex																			
Male	2,769	2,816	3,024	2,987	3,025	3,103	3,252	3,289	3,267	3,116	3,208	3,244	3,337	3,330	3,558	3,591	3,822	3,955	3,686
Female	100	119	127	136	143	130	137	163	150	117	143	113	141	154	150	143	131	180	146
Race/ethnicity																			
White[a]	1,340	1,401	1,590	1,546	1,623	1,627	1,719	1,822	1,774	1,680	1,912	1,789	1,901	1,921	2,051	2,065	2,159	2,201	2,144
Black[a]	1,161	1,152	1,200	1,179	1,162	1,148	1,225	1,157	1,199	1,121	1,037	1,113	1,104	1,108	1,204	1,204	1,275	1,350	1,174
Hispanic	322	332	308	332	324	404	383	400	372	359	329	379	402	368	367	382	438	503	419
American Indian/ Alaska Native[a]	25	20	24	29	32	25	34	36	31	36	36	40	37	43	52	51	47	48	44
Asian[a,b]	11	19	15	20	18	10	18	22	24	21	22	24	25	29	25	24	23	29	30
Other[a,c]	5	5	6	16	4	15	2	15	3	4	3	6	8	15	8	5	4	1	15
Age																			
17 or younger	2	1	3	1	1	1	1	3	0	3	2	0	0	2	0	1	1	0	0
18–24	86	62	57	81	78	60	68	67	69	69	50	69	69	56	69	72	60	66	59
25–34	256	248	277	255	243	250	226	222	210	217	200	190	221	221	230	247	308	327	308
35–44	656	662	666	619	599	561	513	468	467	382	397	360	334	335	346	381	412	421	412
45–54	893	908	980	963	1,009	1,061	1,031	1,063	1,039	956	930	876	861	821	804	721	698	776	628
55 or older	972	1,054	1,164	1,202	1,238	1,300	1,550	1,629	1,631	1,606	1,771	1,862	1,993	2,049	2,257	2,300	2,475	2,545	2,441

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019.

TABLE 7

Percent of deaths of state prisoners, by decedent characteristics, 2001–2019

Characteristic	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Sex																			
Male	96.5%	96.0%	95.9%	95.7%	95.5%	96.0%	96.0%	95.3%	95.6%	96.4%	95.7%	96.6%	96.0%	95.6%	96.0%	96.2%	96.7%	95.6%	95.7%
Female	3.5	4.1	4.0	4.4	4.5	4.0	4.0	4.7	4.4	3.6	4.3	3.4	4.1	4.4	4.1	3.8	3.3	4.4	3.8
Race/ethnicity																			
White[a]	46.7%	47.7%	50.4%	49.5%	51.2%	50.3%	50.7%	52.8%	51.9%	52.0%	57.1%	53.3%	54.7%	55.1%	55.3%	55.3%	54.6%	53.2%	55.6%
Black[a]	40.5	39.3	38.1	37.8	36.7	35.5	36.2	33.5	35.1	34.7	31.0	33.2	31.7	31.8	32.5	32.2	32.3	32.6	30.5
Hispanic	11.2	11.3	9.8	10.6	10.2	12.5	11.3	11.6	10.9	11.1	9.8	11.3	11.6	10.6	9.9	10.2	11.1	12.2	10.9
American Indian/ Alaska Native[a]	0.9	0.7	0.8	0.9	1.0	0.8	1.0	1.0	0.9	1.1	1.1	1.2	1.1	1.2	1.4	1.4	1.2	1.2	1.1
Asian[a,b]	0.4	0.7	0.5	0.6	0.6	0.3	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.7	0.8
Other[a,c]	0.2	0.2	0.2	0.5	0.1	0.5	0.1	0.4	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.1	0.1	0	0.4
Age																			
17 or younger	<0.1%	<0.1%	0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	0%	<0.1%	<0.1%	0%	0%	<0.1%	0%	<0.1%	<0.1%	0%	0%
18–24	3.0	2.1	1.8	2.6	2.5	1.9	2.0	1.9	2.0	2.1	1.5	2.1	2.0	1.6	1.9	1.9	1.5	1.6	1.5
25–34	8.9	8.5	8.8	8.2	7.7	7.7	6.7	6.4	6.2	6.7	6.0	5.7	6.4	6.3	6.2	6.6	7.8	7.9	8.0
35–44	22.9	22.6	21.1	19.8	18.9	17.4	15.1	13.6	13.7	11.8	11.9	10.7	9.6	9.6	9.3	10.2	10.4	10.2	10.7
45–54	31.1	30.9	31.1	30.8	31.9	32.8	30.4	30.8	30.4	29.6	27.8	26.1	24.8	23.6	21.7	19.3	17.7	18.8	16.3
55 or older	33.9	35.9	36.9	38.5	39.1	40.2	45.7	47.2	47.7	49.7	52.9	55.5	57.3	58.8	60.9	61.6	62.6	61.5	63.4

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019.

TABLE 8

Mortality rate per 100,000 state prisoners, by decedent characteristics, 2001–2019

Characteristic	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	242	243	257	251	251	249	258	261	259	246	260	266	274	276	298	304	327	347	330
Sex																			
Male	250	249	265	258	258	257	266	267	266	255	267	276	283	285	308	315	341	359	341
Female	131	148	154	158	162	141	146	173	163	128	160	131	159	171	168	161	148	204	171
Race/ethnicity																			
White[a]	333	335	367	353	361	358	385	408	407	390	456	436	464	474	518	536	566	586	581
Black[a]	226	226	241	238	237	230	244	230	243	232	221	245	246	255	286	294	320	347	309
Hispanic	155	153	138	144	139	165	148	156	141	134	126	150	156	143	142	144	166	192	165
American Indian/ Alaska Native[a]	112	94	119	141	158	117	166	180	160	187	200	235	238	249	310	309	275	282	253
Asian[a,b]	34	102	62	123	100	66	86	139	151	130	134	120	112	197	152	129	144	162	174
Other[a,c]	26 !	22 !	19 !	11	11 !	3	9 !	5	4 !	4 !	4 !	7 !	8 !	2	2 !	4 !	1 !	4 !	4
Age																			
17 or younger	68 !	38 !	117 !	45 !	46 !	42 !	41 !	115 !	0	140 !	111 !	0	0	206 !	0	120 !	127 !	0	0
18–24	39	29	26	39	39	31	35	34	35	35	26	38	40	35	47	53	48	58	54
25–34	64	61	68	61	58	58	52	51	48	50	47	46	53	53	56	62	78	85	82
35–44	181	181	182	168	163	151	140	131	136	114	123	113	104	104	107	118	127	129	129
45–54	584	549	557	509	495	482	444	442	427	389	384	368	364	349	350	321	320	365	302
55 or older	2,032	2,010	2,070	1,966	1,855	1,762	1,927	1,859	1,737	1,580	1,632	1,615	1,619	1,563	1,623	1,580	1,637	1,620	1,580

Note: Data may have been revised from previously published statistics. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

TABLE 9

Number of deaths of state prisoners, by cause of death and decedent characteristics, 2001–19

Characteristic	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]				
Total	65,027	16,911	17,866	5,543	1,949	4,095	10,090	4,183	1,493	651	1,405
Sex											
Male	62,379	16,343	17,192	5,342	1,851	3,891	9,541	3,965	1,445	629	1,396
Female	2,623	566	673	201	98	204	548	217	47	22	9
Race/ethnicity											
White[e]	34,265	9,060	9,932	3,100	442	2,358	4,769	2,444	764	372	621
Black[e]	22,273	6,246	6,087	1,233	1,284	1,293	3,829	891	384	174	512
Hispanic	7,123	1,326	1,544	1,063	203	385	1,283	657	284	85	231
American Indian/ Alaska Native[e]	690	155	150	101	11	29	102	69	40	11	15
Asian[e,f]	409	71	94	30	5	15	60	89	14	6	19
Other[e,g]	140	33	33	6	3	9	29	16	5	0	4
Age											
17 or younger	22	2	4	1	0	1	1	11	0	1	1
18–24	1,267	148	78	15	19	63	140	513	79	42	146
25–34	4,656	755	399	88	249	211	577	1,338	389	113	416
35–44	8,991	2,053	1,426	638	745	412	1,364	1,200	472	154	360
45–54	17,018	4,037	4,670	2,369	661	807	2,757	756	369	138	263
55 or older	33,039	9,911	11,285	2,429	275	2,600	5,247	363	184	202	218

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Sex was unknown for 25 prisoners, race or ethnicity for 125, and age for 34.

[a]Includes other causes not specified and missing and unknown causes.

[b]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[c]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

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

[f]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[g]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–19.

TABLE 10

Average annual mortality rate per 100,000 state prisoners within each demographic group, by cause of death and decedent characteristics, 2001–19

		Illness									
Characteristic	All causes[a]	Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
Total	273	71	75	23	8	17	42	18	6	3	6
Sex											
Male	282	74	78	24	8	18	43	18	7	3	6
Female	157	34	40	12	6	12	33	13	3	1	1
Race/ethnicity											
White[e]	433	115	126	39	6	30	60	31	10	5	8
Black[e]	253	71	69	14	15	15	44	10	4	2	6
Hispanic	150	28	33	22	4	8	27	14	6	2	5
American Indian/ Alaska Native[e]	193	43	42	28	3	8	29	19	11	3	4
Asian[e,f]	163	28	37	12	2 !	6	24	35	6	2 !	8
Other[e,g]	8	2	2	<1 !	<1 !	<1 !	2	1	<1 !	0	<1 !
Age											
17 or younger	65	6 !	12 !	3 !	0	3 !	3 !	33	0	3 !	3 !
18–24	38	4	2	0	1	2	4	15	2	1	4
25–34	59	10	5	1	3	3	7	17	5	1	5
35–44	138	32	22	10	11	6	21	18	7	2	6
45–54	414	98	114	58	16	20	67	18	9	3	6
55 or older	1,697	509	580	125	14	134	269	19	9	10	11

Note: Data may have been revised from previously published statistics. Includes deaths in private state facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Includes other causes not specified and missing and unknown causes.

[b]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[c]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

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

[f]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[g]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–19; National Prisoner Statistics, 2001–19; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

TABLE 11

Mortality rate per 100,000 federal prisoners, by cause of death, 2001–2019

Cause of death	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	220	233	228	210	244	201	222	241	220	224	220	198	230	262	283	252	246	250	259
Illness	196	213	217	197	222	188	195	217	198	203	204	182	213	238	249	220	208	190	210
AIDS-related[a]	16	12	9	11	17	7	6	8	4 !	4 !	2 !	3 !	2 !	0	1 !	1 !	4 !	0	0
Suicide	13	12	4 !	7	8	7	11	13	12	6	10	11	8	14	12	12	16	19	20
Accident[b]	4 !	3 !	3 !	4 !	4 !	1 !	0	4 !	3 !	1 !	1 !	2 !	2 !	1 !	10	9	5 !	9	11
Homicide[c]	6 !	2 !	3 !	2 !	9	5 !	7	8	4 !	10	5 !	3 !	7	8	10	9	6	8	7
Other/unknown	0	3 !	1 !	0	0	0	9	1 !	4 !	3 !	1 !	1 !	1 !	0	2 !	2 !	11	24	12

Note: Excludes deaths in private federal facilities. Until 2015, federal deaths were submitted as an aggregate count by the Federal Bureau of Prisons (BOP), with limited details regarding cause of death, and excluded deaths in private federal facilities. See table 10 for deaths from 2015 to 2019 in federal prison facilities operated by the BOP or operated privately under a BOP contract. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of the BOP or private prison facilities contracted to the BOP. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[b]Includes deaths due to drug or alcohol intoxication.

[c]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, National Prisoner Statistics, 2001–2019; and Federal Bureau of Prisons, 2001–2019.

TABLE 12

Deaths of federal prisoners in federally and privately operated prison facilities, by cause of death, 2015–2019

	2015	2016	2017	2018	2019
Number of deaths	464	395	388	383	390
Illness[a]	407	343	323	292	315
AIDS-related[b]	1	1	6	0	0
Suicide	21	19	24	29	29
Accident[c]	16	14	8	14	18
Homicide[d]	16	15	10	12	11
Other/unknown	3	3	17	36	17
Mortality rate per 100,000 federal prisoners	237	210	213	214	224
Illness[a]	209	183	181	163	181
AIDS-related[b]	1 !	1 !	3 !	0	0
Suicide	11	10	13	16	17
Accident[c]	8	7	4 !	8	10
Homicide[d]	8	8	5	7	6
Other/unknown	2 !	2 !	9	20	10

Note: Includes deaths in federal prison facilities operated by the Federal Bureau of Prisons (BOP) or operated privately under a BOP contract. Until 2015, federal deaths were submitted as an aggregate count by the BOP, with limited details regarding cause of death, and excluded private federal facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of the BOP or private prison facilities contracted to the BOP. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Excludes AIDS-related deaths.

[b]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[c]Includes deaths due to drug or alcohol intoxication.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

Source: Bureau of Justice Statistics, National Prisoner Statistics, 2015–2019; and Federal Bureau of Prisons, 2015–2019.

TABLE 13

Deaths of federal prisoners in federally and privately operated prison facilities, by decedent characteristics, 2015–2019

	2015	2016	2017	2018	2019
Number of deaths	464	395	388	383	390
Sex					
Male	449	380	371	373	375
Female	15	15	17	9	15
Race/ethnicity					
White[a]	235	195	194	167	222
Black[a]	135	121	114	130	90
Hispanic	73	60	63	65	56
American Indian/ Alaska Native[a]	14	13	13	16	16
Asian[a,b]	7	6	4	4	6
Age					
17 or younger	0	0	0	0	0
18–24	4	7	1	3	1
25–34	34	20	23	24	13
35–44	49	56	50	62	50
45–54	101	91	73	84	86
55 or older	274	216	239	209	240
Mortality rate per 100,000 federal prisoners	237	210	213	214	224
Sex					
Male	246	216	219	224	231
Female	117	119	137	72 !	122
Race/ethnicity					
White[a]	571	486	494	422	561
Black[a]	215	200	194	224	161
Hispanic	100	87	95	102	91
American Indian/ Alaska Native[a]	430	390	371	449	453
Asian[a,b]	235 !	215 !	147 !	151 !	230 !
Age					
17 or younger	0	0	0	0	0
18–24	42 !	79 !	12 !	38 !	15 !
25–34	60	38	46	49	28
35–44	72	85	79	100	82
45–54	256	236	193	222	230
55 or older	1,250	984	1,089	939	1,055

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Includes deaths in private federal facilities. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of the BOP or private prison facilities contracted to the BOP. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

Source: Bureau of Justice Statistics, National Prisoner Statistics, 2015–2019; and Federal Bureau of Prisons, 2015–2019.

TABLE 14

Number of deaths of state and federal prisoners, by jurisdiction, 2001–2019

Jurisdiction	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Federal[a]	301	335	346	333	388	328	368	399	376	387	387	350	400	444	455	388	381	378	381
State[b]	2,869	2,935	3,152	3,123	3,168	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,478	3,484	3,708	3,734	3,954	4,137	3,853
Alabama	87	85	92	65	66	61	54	75	80	66	104	86	107	102	112	118	116	125	129
Alaska[c]	8	14	4	8	4	6	10	14	7	13	12	11	8	12	15	10	9	11	3
Arizona	64	73	84	66	78	72	61	77	85	85	86	87	95	99	105	126	133	131	114
Arkansas	42	31	39	34	38	37	46	41	50	54	50	43	56	57	54	71	81	76	76
California	287	337	333	348	366	424	395	371	395	414	388	368	365	317	353	334	384	449	398
Colorado	42	51	47	39	54	31	42	38	49	48	37	48	40	35	51	57	41	55	49
Connecticut[d]	30	30	36	33	40	25	27	32	29	21	19	24	20	24	23	17	14	28	19
Delaware[d]	16	15	19	13	19	13	15	15	12	23	15	10	14	18	17	14	10	16	13
Florida	182	183	221	226	244	261	249	291	278	275	297	324	305	346	354	356	428	440	400
Georgia	93	103	126	90	122	103	143	128	125	112	121	103	122	121	131	133	173	163	157
Hawaii[d]	7	13	8	8	8	5	13	14	11	12	6	12	14	8	4	9	4	6	14
Idaho	17	9	12	12	13	18	14	18	13	13	13	9	10	23	18	16	15	22	25
Illinois	86	72	80	97	72	94	104	71	75	94	97	85	78	88	120	90	104	83	94
Indiana	46	49	56	56	45	70	54	70	91	69	74	59	66	70	85	70	68	67	93
Iowa	9	11	13	15	19	12	17	21	14	13	12	20	16	15	19	29	16	19	16
Kansas	21	22	32	30	19	16	20	24	20	22	25	17	28	21	25	35	26	33	35
Kentucky	36	41	45	42	43	46	46	68	57	42	60	55	40	44	60	42	70	50	63
Louisiana	71	78	70	94	89	72	82	117	108	100	108	116	118	118	139	128	127	116	102
Maine	6	7	2	4	0	6	1	2	4	3	5	2	3	7	5	5	4	8	8
Maryland	70	71	67	78	57	61	57	69	56	40	41	46	58	43	62	49	57	57	61
Massachusetts	29	20	30	25	37	39	39	29	29	39	33	42	39	45	34	34	37	42	34
Michigan	114	113	127	138	140	138	117	99	148	93	119	124	124	121	118	106	106	135	116
Minnesota	13	15	13	6	13	9	13	17	12	16	19	14	20	14	11	18	6	6	10
Mississippi	36	33	58	51	61	58	77	54	52	52	47	41	68	50	45	65	76	76	73
Missouri	57	65	65	77	68	66	78	87	81	88	74	71	92	97	106	99	94	106	84
Montana	6	5	12	12	12	5	5	9	3	2	6	11	7	19	13	16	13	5	8
Nebraska	7	8	7	7	8	8	12	6	11	12	17	11	16	13	17	9	16	10	17
Nevada	27	25	24	31	28	23	39	35	35	41	34	37	35	44	47	42	47	29	34
New Hampshire	2	9	6	6	8	6	6	5	9	4	10	5	8	5	8	9	5	8	8
New Jersey	69	60	47	57	60	70	60	66	58	56	66	48	46	50	52	49	39	33	43
New Mexico	11	15	11	16	18	13	22	29	21	16	16	14	17	24	19	16	18	22	18
New York	175	185	198	153	170	131	148	133	142	124	117	115	142	123	115	147	143	138	112
North Carolina	66	59	74	94	69	90	99	117	86	87	71	79	81	94	90	127	104	118	119
North Dakota	3	1	1	1	1	1	0	0	0	1	1	3	1	0	0	4	2	0	1
Ohio	115	113	91	126	121	106	123	101	120	116	111	126	124	111	138	133	149	151	136

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TABLE 14 (continued)

Number of deaths of state and federal prisoners, by jurisdiction, 2001–2019

Jurisdiction	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Oklahoma	51	64	71	53	74	80	98	88	79	60	85	79	87	107	107	93	86	113	100
Oregon	24	33	25	34	37	40	36	31	34	39	40	26	30	31	37	47	25	34	39
Pennsylvania	122	126	147	161	149	124	150	145	165	141	157	157	157	145	166	171	181	166	157
Rhode Island[d]	3	8	8	7	2	8	9	6	7	7	10	6	4	7	5	2	8	5	3
South Carolina	69	45	63	50	75	65	72	83	49	70	55	58	66	66	76	79	105	100	70
South Dakota	4	11	11	5	4	4	8	6	4	8	11	9	6	7	7	5	12	6	12
Tennessee	51	61	97	71	76	84	73	74	69	74	59	84	82	83	94	102	96	121	103
Texas	408	396	383	395	351	443	435	469	426	375	417	462	438	409	418	403	469	505	448
Utah	5	9	10	11	8	7	7	11	17	13	12	15	23	23	16	21	20	17	21
Vermont[d]	3	2	5	1	6	7	1	3	3	5	0	2	8	6	4	7	4	2	5
Virginia	71	69	93	86	84	78	103	86	87	93	99	86	82	90	90	90	93	106	90
Washington	29	30	31	36	45	36	39	35	44	35	21	33	39	38	42	28	40	36	37
West Virginia	17	8	15	13	10	13	19	19	18	20	23	24	26	24	28	26	29	34	28
Wisconsin	48	49	41	40	29	45	43	44	42	25	48	46	43	58	46	66	43	52	49
Wyoming	5	3	2	2	8	3	8	9	7	2	3	4	4	12	7	11	8	6	9

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

[a]Excludes deaths in private federal facilities.

[b]Includes deaths in private state facilities. Includes nine prisoner deaths reported by the District of Columbia in 2001. As of December 30, 2001, sentenced felons from the District of Columbia were the responsibility of the Federal Bureau of Prisons.

[c]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 15 locally operated jails.

[d]Prisons and jails form one integrated system. Data include total prison and jail population.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; and Federal Bureau of Prisons, 2001–2019.

TABLE 15

Mortality rate per 100,000 state and federal prisoners, by jurisdiction, 2001–2019

Jurisdiction	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Federal[a]	220	233	228	210	244	201	222	241	220	224	220	198	230	262	283	252	246	250	259
State[b]	242	243	257	251	251	249	258	261	259	246	260	266	274	276	298	304	327	347	331
Alabama	352	339	333	254	271	253	214	296	294	241	388	321	399	390	444	497	531	588	588
Alaska[c]	175 !	322	89 !	176 !	83 !	119 !	194	280	128 !	242	193	174	157 !	190	286	205	207 !	260	69 !
Arizona	231	249	270	204	234	201	162	195	210	212	215	217	232	235	249	299	317	312	269
Arkansas	366	262	323	270	305	288	347	312	375	380	355	306	392	374	342	448	510	488	483
California	183	211	206	212	218	246	230	217	234	254	263	277	272	236	276	258	299	356	330
Colorado	243	274	242	198	256	141	185	164	216	211	169	236	198	171	256	294	209	275	252
Connecticut[d]	171	160	200	183	223	132	139	161	153	113	106	140	115	143	144	113	103	212	155
Delaware[d]	234	226	287	193	280	185	211	216	182	361	229	149	206	267	264	221	163	287	257
Florida	251	243	278	272	282	289	262	291	274	269	294	325	302	343	356	363	443	460	425
Georgia	202	217	267	176	250	195	264	243	233	212	229	205	250	253	278	275	355	336	316
Hawaii[d]	137 !	256	145 !	144 !	139 !	91 !	238	257	227	227	110 !	227	271	148 !	74 !	174 !	78 !	120 !	292
Idaho	323	165 !	216	208	208	270	198	256	181	180	174	117 !	139	307	249	222	196	280	304
Illinois	194	169	184	220	160	208	230	156	166	194	200	172	160	182	260	206	253	208	246
Indiana	234	241	262	255	198	281	215	265	340	253	270	210	200	251	283	243	266	254	349
Iowa	113 !	131	152	176	217	136	196	241	157	137	132	229	184	170	214	320	178	202	173
Kansas	245	245	349	334	209	181	229	281	231	243	268	179	291	220	262	363	268	332	358
Kentucky	336	354	386	315	289	295	299	446	380	290	429	423	329	363	502	354	583	407	516
Louisiana[e]	361	390	359	483	459	346	401	561	543	526	573	624	628	631	754	850	838	780	678
Maine	358 !	377 !	101 !	199 !	0	288 !	47 !	98 !	193 !	154 !	253 !	101 !	145 !	318 !	228 !	212 !	171 !	338 !	375 !
Maryland	295	294	282	335	253	269	246	298	254	175	178	211	267	202	296	242	288	300	327
Massachusetts	284	202	305	254	358	362	352	260	260	349	288	377	367	431	358	380	422	502	434
Michigan	233	223	257	283	283	268	233	203	325	211	277	284	284	279	277	258	267	348	305
Minnesota	203	219	172	75 !	149	102 !	141	188	126	170	204	149	213	146	115	189	66 !	66 !	113
Mississippi	238	215	366	312	379	354	441	302	302	316	305	260	436	383	322	474	561	572	544
Missouri	199	218	218	251	224	219	262	289	265	288	239	228	292	304	328	305	292	354	327
Montana	215 !	174 !	393	444	425	170 !	172 !	309 !	97 !	64 !	192 !	355	224 !	609	409	500	417	133 !	190 !
Nebraska	179 !	198 !	172 !	169 !	182 !	182 !	273	134 !	245	260	365	233	319	249	331	174 !	317	193	308
Nevada	274	248	227	281	240	180	293	272	278	336	280	294	274	347	355	304	355	217	272
New Hampshire	83 !	364 !	247 !	246 !	330 !	224 !	217 !	175 !	309 !	153 !	413	195 !	305 !	184 !	301 !	346 !	197 !	318 !	325 !
New Jersey	265	228	183	224	234	274	237	266	241	229	279	208	207	234	256	252	203	173	235
New Mexico	194	250	177	250	274	196	342	459	319	240	239	211	251	345	267	231	250	332	271
New York	259	276	303	239	270	206	236	221	243	220	212	213	266	235	223	290	289	295	257
North Carolina	205	179	218	264	188	239	259	293	214	215	179	211	218	252	244	353	284	336	345
North Dakota	276 !	90 !	91 !	88 !	76 !	75 !	0	0	0	71 !	72 !	212 !	63 !	0	0	244 !	126 !	0	57 !
Ohio	256	250	205	285	268	219	247	198	236	224	218	248	240	215	264	255	289	300	270

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TABLE 15 (continued)

Mortality rate per 100,000 state and federal prisoners, by jurisdiction, 2001–2019

Jurisdiction	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Oklahoma	235	291	313	234	323	350	412	372	328	248	358	324	343	404	392	353	315	415	396
Oregon	219	283	205	269	287	303	269	229	248	281	291	184	205	214	252	322	171	231	271
Pennsylvania	324	317	360	397	355	282	329	298	327	293	316	313	314	295	340	354	383	358	346
Rhode Island[d]	89 !	230 !	224 !	221 !	59 !	215 !	240 !	160 !	205 !	222 !	330	197 !	126 !	223 !	168 !	69 !	298 !	194 !	116 !
South Carolina	318	197	275	221	334	283	305	350	207	304	246	265	306	315	372	388	541	539	386
South Dakota	143 !	374	364	164 !	120 !	121 !	244 !	179 !	118 !	236 !	309	250 !	166 !	200 !	198 !	133 !	308	156 !	322
Tennessee	292	333	507	367	394	435	379	382	346	369	298	424	395	399	475	474	436	619	532
Texas	275	260	250	252	223	279	274	295	269	234	261	298	282	265	274	266	311	337	307
Utah	121 !	210 !	216	233	158 !	139 !	136 !	214	324	239	227	283	427	433	331	467	403	327	412
Vermont[d]	214 !	147 !	335 !	51 !	289 !	316 !	47 !	142 !	135 !	241 !	0	98 !	385 !	303 !	229 !	403 !	300 !	117 !	300 !
Virginia	226	223	301	277	273	253	312	264	281	291	324	289	273	300	296	287	313	360	308
Washington	190	184	191	218	268	214	231	204	255	206	123	195	220	221	244	163	226	207	207
West Virginia	500	224 !	396	326	248	298	387	388	356	394	447	450	456	409	473	441	490	583	474
Wisconsin	231	226	185	181	132	199	188	197	189	113	214	205	192	257	201	285	183	221	209
Wyoming	336 !	183 !	123 !	113 !	382 !	147 !	415 !	528 !	402 !	96 !	139 !	183 !	175 !	507	292 !	468	331 !	245 !	378 !

Note: Data may have been revised from previously published statistics. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of state prisons or the Federal Bureau of Prisons (BOP). Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Excludes deaths in private federal facilities.

[b]Includes deaths in private state facilities. Includes nine prisoner deaths reported by the District of Columbia in 2001. As of December 30, 2001, sentenced felons from the District of Columbia were the responsibility of the BOP.

[c]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 15 locally operated jails.

[d]Prisons and jails form one integrated system. Data include total prison and jail population.

[e]In 2019, Louisiana held 52.4% of its prison population in local jails. Since the calculation of mortality rates is based on the custody populations, which exclude prisoners held in local jails, the mortality rates for Louisiana prisoners will be high because the prisoners held in jails are generally healthier according to the Louisiana Department of Corrections.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019, and National Prisoner Statistics, 2001–2019; and Federal Bureau of Prisons, 2001–2019.

TABLE 16

Number of deaths of state and federal prisoners, by cause of death and jurisdiction, 2001–19

Jurisdiction	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]				
Federal[e]	7,125	...	...	...	167	...	6,192	342	...	118	193
State[f]	65,027	16,911	17,866	5,543	1,949	4,095	10,090	4,183	1,493	651	1,405
Alabama	1,730	404	433	137	38	113	306	46	27	17	63
Alaska[g]	179	42	29	17	1	4	24	36	10	9	4
Arizona	1,721	419	455	211	35	96	210	123	87	15	55
Arkansas	976	319	264	65	25	48	100	63	52	14	16
California	7,026	1,183	1,728	656	116	512	1,429	596	402	54	304
Colorado	854	164	178	136	1	61	151	79	39	15	29
Connecticut[h]	491	117	69	69	11	27	99	80	5	6	7
Delaware[h]	287	74	65	25	21	14	36	33	6	1	2
Florida	5,660	1,247	1,654	419	310	366	994	197	186	69	158
Georgia	2,369	780	597	125	83	187	300	145	12	22	89
Hawaii[h]	176	33	46	17	4	8	25	28	4	2	7
Idaho	290	76	73	24	4	13	44	39	5	5	4
Illinois	1,684	487	530	83	65	96	222	137	15	16	18
Indiana	1,258	336	336	106	23	84	180	87	50	18	32
Iowa	306	67	104	16	5	31	40	34	3	1	2
Kansas	471	131	136	51	2	29	67	31	9	8	3
Kentucky	950	323	307	67	30	46	133	25	3	5	6
Louisiana	1,953	611	564	152	110	98	269	42	10	23	9
Maine	82	24	24	6	1	6	8	4	2	1	5
Maryland	1,100	278	232	83	109	48	122	82	66	9	51
Massachusetts	656	186	180	61	10	29	92	61	11	11	4
Michigan	2,296	681	783	170	39	132	245	134	42	25	27
Minnesota	245	51	72	33	1	10	45	27	4	1	1
Mississippi	1,073	390	265	48	24	52	151	58	5	13	33
Missouri	1,555	422	476	159	26	91	227	72	37	9	24
Montana	169	34	46	26	2	10	26	19	3	1	2
Nebraska	212	47	50	27	4	11	22	20	6	3	7
Nevada	657	154	159	46	9	32	131	40	6	4	12
New Hampshire	127	27	47	12	3	7	14	12	5	0	0
New Jersey	1,029	329	244	60	83	62	137	53	25	10	14
New Mexico	336	78	89	56	4	18	41	29	7	1	12
New York	2,711	726	784	197	221	127	246	247	61	34	30
North Carolina	1,724	476	571	131	75	114	220	68	13	26	19

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TABLE 16 (continued)
Number of deaths of state and federal prisoners, by cause of death and jurisdiction, 2001–19

Jurisdiction	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]				
North Dakota	21	4	5	2	1	0	4	4	1	0	0
Ohio	2,311	654	801	120	34	177	316	134	24	8	33
Oklahoma	1,575	424	400	169	30	89	204	92	46	32	65
Oregon	642	136	189	87	7	29	81	37	14	7	10
Pennsylvania	2,887	802	848	244	38	182	531	169	23	16	21
Rhode Island[h]	115	27	21	3	5	5	11	27	5	3	1
South Carolina	1,316	499	281	81	36	54	198	79	17	7	61
South Dakota	140	35	34	18	1	14	13	17	1	4	3
Tennessee	1,554	470	426	158	43	77	201	77	38	13	39
Texas	8,050	2,015	2,039	816	173	632	1,619	527	39	79	83
Utah	266	63	59	20	0	11	48	41	5	4	9
Vermont[h]	74	19	15	11	3	1	11	11	3	0	0
Virginia	1,676	450	565	157	55	87	223	65	28	10	15
Washington	674	153	196	72	9	59	104	48	11	11	8
West Virginia	394	156	104	26	6	17	59	11	3	2	7
Wisconsin	857	244	275	52	11	69	93	88	13	6	1
Wyoming	113	42	18	15	1	9	16	9	2	1	0

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*.

...Not available.

[a]Includes other causes not specified and missing and unknown causes.

[b]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[c]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses. Includes natural and illness-related federal prisoner deaths for which the Federal Bureau of Prisons (BOP) could not provide details.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

[e]Excludes deaths in private federal facilities.

[f]Includes deaths in private state facilities. Includes nine prisoner deaths reported by the District of Columbia in 2001. As of December 30, 2001, sentenced felons from the District of Columbia were the responsibility of the BOP.

[g]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 15 locally operated jails.

[h]Prisons and jails form one integrated system. Data include total prison and jail population.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–19; and Federal Bureau of Prisons, 2001–19.

TABLE 17

Average annual mortality rate per 100,000 state and federal prisoners, by cause of death and jurisdiction, 2001–19

		Illness									
Jurisdiction	All causes[a]	Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
Federal[e]	233	...	...	...	5	...	203	11	...	4	6
State[f]	273	71	75	23	8	17	42	18	6	3	6
Alabama	363	85	91	29	8	24	64	10	6	4	13
Alaska[g]	187	44	30	18	1 !	4 !	25	38	10	9 !	4 !
Arizona	239	58	63	29	5	13	29	17	12	2	8
Arkansas	370	121	100	25	9	18	38	24	20	5	6
California	247	42	61	23	4	18	50	21	14	2	11
Colorado	219	42	46	35	0 !	16	39	20	10	4	7
Connecticut[h]	151	36	21	21	3	8 !	30	25	2 !	2 !	2 !
Delaware[h]	231	60	52	20	17	11	29	27	5 !	1 !	2 !
Florida	319	70	93	24	17	21	56	11	10	4	9
Georgia	250	82	63	13	9	20	32	15	1	2	9
Hawaii[h]	175	33	46	17	4 !	8	25	28	4 !	2 !	7 !
Idaho	220	58	55	18	3 !	10	33	30	4 !	4 !	3 !
Illinois	198	57	62	10	8	11	26	16	2	2	2
Indiana	257	69	69	22	5	17	37	18	10	4	7
Iowa	182	40	62	10	3 !	18	24	20	2 !	1 !	1 !
Kansas	269	75	78	29	1 !	17	38	18	5 !	5 !	2 !
Kentucky	381	129	123	27	12	18	53	10	1 !	2 !	2 !
Louisiana[i]	554	173	160	43	31	28	76	12	3	7	3 !
Maine	208	61	61	15 !	3 !	15 !	20 !	10 !	5 !	3 !	13 !
Maryland	263	67	56	20	26	11	29	20	16	2 !	12
Massachusetts	341	97	94	32	5	15	48	32	6	6	2 !
Michigan	267	79	91	20	5	15	28	16	5	3	3
Minnesota	147	31	43	20	1 !	6	27	16	2 !	1 !	1 !
Mississippi	367	134	91	16	8	18	52	20	2 !	4	11
Missouri	269	73	82	27	4	16	39	12	6	2 !	4
Montana	286	57	78	44	3 !	17	44	32	5 !	2 !	3 !
Nebraska	239	53	56	30	5 !	12	25	23	7 !	3 !	8 !
Nevada	282	66	68	20	4 !	14	56	17	3 !	2 !	5
New Hampshire	259	55	96	24	6 !	14 !	29	24	10 !	0	0
New Jersey	234	75	55	14	19	14	31	12	6	2	3
New Mexico	269	62	71	45	3 !	14	33	23	6 !	1 !	10
New York	250	67	72	18	20	12	23	23	6	3	3
North Carolina	247	68	82	19	11	16	32	10	2	4	3

Continued on next page

TABLE 17 (continued)

Average annual mortality rate per 100,000 state and federal prisoners, by cause of death and jurisdiction, 2001–19

		Illness									
Jurisdiction	All causes[a]	Heart disease	Cancer	Liver disease	AIDS-related[b]	Respiratory disease	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
North Dakota	77	15 !	18 !	7 !	4 !	0	15 !	15 !	4 !	0	0
Ohio	247	70	85	13	4	19	34	14	3	1 !	4
Oklahoma	340	91	86	36	6	19	44	20	10	7	14
Oregon	249	53	73	34	3 !	11	31	14	5	3 !	4
Pennsylvania	331	92	97	28	4	21	61	19	3	2	2
Rhode Island[h]	189	44	35	5 !	8 !	8 !	18	44	8 !	5 !	2 !
South Carolina	319	121	68	20	9	13	48	19	4	2 !	15
South Dakota	216	54	52	28	2 !	22	20	26	2 !	6 !	5 !
Tennessee	415	125	114	42	11	21	54	21	10	3	10
Texas	274	69	69	28	6	22	55	18	1	3	3
Utah	281	67	62	21	0	12	51	43	5 !	4 !	10 !
Vermont[h]	209	54	42	31	8 !	3 !	31	31	8 !	0	0
Virginia	287	77	97	27	9	15	38	11	5	2	3
Washington	209	47	61	22	3 !	18	32	15	3	3	2 !
West Virginia	416	165	110	27	6 !	18	62	12	3 !	2 !	7 !
Wisconsin	201	57	64	12	3	16	22	21	3	1 !	0 !
Wyoming	289	107	46	38	3 !	23 !	41	23 !	5 !	3 !	0

Note: Data may have been revised from previously published statistics. Excludes executions. For execution data, see *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021). See *Methodology*. Mortality rates are per 100,000 prisoners held in the custody of state prisons or the Federal Bureau of Prisons (BOP). Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31.

...Not available.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

[a]Includes other causes not specified and missing and unknown causes.

[b]Includes persons who died of illness and were identified as HIV-positive or having AIDS at the time of death.

[c]Includes other specified illnesses (such as cerebrovascular disease, influenza, and other nonleading natural causes of death) and unspecified illnesses. Includes natural and illness-related federal prisoner deaths for which the BOP could not provide details.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from assaults sustained prior to incarceration.

[e]Excludes deaths in private federal facilities.

[f]Includes deaths in private state facilities. Includes nine prisoner deaths reported by the District of Columbia in 2001. As of December 30, 2001, sentenced felons from the District of Columbia were the responsibility of the BOP.

[g]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 15 locally operated jails.

[h]Prisons and jails form one integrated system. Data include total prison and jail population.

[i]From 2001 to 2019, Louisiana held between 44.5% and 57.9% of its prison population in local jails. Since the calculation of mortality rates is based on the custody populations, which exclude prisoners held in local jails, the mortality rates for Louisiana prisoners will be high because the prisoners held in jails are generally healthier according to the Louisiana Department of Corrections.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–19, and National Prisoner Statistics, 2001–19; and Federal Bureau of Prisons, 2001–19.

Methodology

Data collection coverage

The Mortality in Correctional Institutions (MCI), formerly the Deaths in Custody Reporting Program (DCRP), was an annual Bureau of Justice Statistics (BJS) data collection from 2000 to 2019. The MCI obtained national-, state-, and incident-level data on persons who died while in the physical custody of the 50 state departments of corrections (DOCs) starting in 2001 or in the physical custody of the approximately 2,800 local jail jurisdictions with adult populations nationwide starting in 2000. This methodology pertains to the prison portion of the MCI collection only. See *Mortality in Local Jails, 2000–2019 – Statistical Tables* (NCJ 301368, BJS, December 2021) for data and the methodology on deaths in local jails.

The DCRP began in 2000 in response to the Death in Custody Reporting Act of 2000 (DICRA; P.L. 106–297) and was the only national statistical collection providing comprehensive information about deaths in adult correctional facilities. Starting in 2001, BJS collected annual data directly from state prison systems and maintained a 100% response rate throughout the 19 years of data collection. BJS used these data to track national trends in the number, cause, and manner of deaths occurring in state prisons. Until 2015, the Federal Bureau of Prisons (BOP) submitted aggregate counts of the number of male and female deaths to BJS, by cause of death. The BOP started reporting decedent-level data to BJS in 2015, including individual demographic and criminal justice characteristics. In 2017, BJS changed the name of the DCRP to MCI to more accurately describe the data collection.

BJS ceased collection of mortality data in state and local correctional facilities after the 2019 data year. When DICRA was reauthorized in 2014 (P.L. 113–242), it included additional enforcement and reporting compliance requirements that are incompatible with BJS's authorizing statute as a federal statistical agency. The U.S. Department of Justice (DOJ) determined it would be more appropriate for the Bureau of Justice Assistance (BJA) to administer the program and collect mortality data for the DOJ starting with the first quarter of fiscal year 2019 (October to December 2019). State DOCs and local jails now report their death information on a quarterly basis to centralized state agencies, which compile and submit this to BJA to comply with all applicable requirements in P.L. 113–242.

Mortality data measured by the MCI included the location and type of facility where the incarcerated person died, decedent characteristics (sex, race or ethnicity, and age), admission date, conviction status, and admission offense. The MCI also collected data on the circumstances surrounding the death (the cause, time, and location of death), whether an autopsy was conducted, and the availability of autopsy results to the respondent. Data on executions are excluded from this report but are accessible on the BJS website.[3] Statistics for 2001 to 2019 presented in this report are considered final as of February 18, 2021.

For more information on mortality in correctional settings, see—

- *Mortality in Local Jails, 2000–2019 – Statistical Tables* (NCJ 301368, BJS, December 2021)
- *Suicide in Local Jails and State and Federal Prisons, 2000–2019 – Statistical Tables* (NCJ 300731, BJS, October 2021)
- *Mortality in Local Jails, 2000–2018 – Statistical Tables* (NCJ 256002, BJS, April 2021)
- *Mortality in State and Federal Prisons, 2001–2018 – Statistical Tables* (NCJ 255970, BJS, April 2021)
- *Assessing Inmate Cause of Death: Deaths in Custody Reporting Program and National Death Index* (NCJ 249568, BJS, April 2016)
- *Suicide and Homicide in State Prisons and Local Jails* (NCJ 210036, BJS, August 2005).

The MCI instruments for collecting state prison data were administered annually to state DOCs. Respondents provided an aggregate count of the number of deaths that occurred during the referenced calendar year (NPS-4) and provided forms describing individual deaths (NPS-4A). The prison survey instruments are available on the BJS website. Respondents submitted individual records on decedents at any time during a collection cycle through a BJS web-based collection system. The BOP submitted federal prison mortality data directly to BJS.

Determining eligibility for reporting to the Mortality in Correctional Institutions

In the MCI, custody refers to the physical holding of a person in a facility or to the period during which a correctional authority maintains a chain of custody

[3]See *Capital Punishment, 2019 – Statistical Tables* (NCJ 300381, BJS, June 2021).

over such person. For instance, if a prison transports an ill prisoner to a hospital for medical services and that prisoner dies in the hospital while in the chain of custody of the prison, then that death is counted as a death in custody. A death that occurs when a prisoner is not in the custody of a correctional authority is considered beyond the scope of the MCI. Deaths were considered out of scope for prisoners who were on escape status or under the supervision of community corrections, such as on probation, parole, or home electronic monitoring. For state prisons responding to the survey, prisoners in physical custody include those held in any private prison facility under contract to the responding states' DOCs or in any of their state-operated facilities, such as halfway houses, prison camps or farms, training or treatment centers, and prison hospitals. BOP data submitted to the MCI exclude deaths of federal prisoners that occurred in privately operated facilities.

State and federal prison officials were asked to exclude deaths of prisoners serving sentences in the custody of local jails while under the jurisdiction of a state DOC or the BOP. The MCI obtains information about such deaths through the jail reports.

Identifying and excluding duplicate records

Duplicate and out-of-scope records are excluded from analysis in this report. Duplicate death records may occur in the MCI due to overlapping correctional populations or overlapping duties within correctional facilities. For example, a state prison system may report the death of a prisoner who was transferred to a local jail while serving a prison sentence. This death would be counted by the local jail that had custody of the prisoner at the time of death. The duplicate record from the prison would be deleted.

To identify duplicate records, BJS reconciles the aggregate summary counts of deaths that occurred during a calendar year with the number of individual records of death that were obtained from a reporting prison system. When discrepancies are identified, reporting prison systems are contacted for clarification.

Information on cause of death

MCI respondents are instructed to report on the cause of death as determined by autopsy or another official medical investigation. For this collection, deaths due to intoxication, accidents, suicides, and homicides are considered discrete causes of death. Although the manner and cause of death are distinct from one another, no such distinction is made in the MCI. When reporting a death due to illness, accident, suicide, intoxication, or homicide, BJS requests that respondents describe the events surrounding these deaths. Clinical data specialists convert text entries that describe illness-related deaths into standard medical codes from the World Health Organization's International Statistical Classification of Diseases and Related Health Problems, Tenth Revision.

Homicides include all types of intentional homicide and involuntary manslaughter as determined by a medical examiner or pathologist at autopsy. Homicide counts include legal intervention homicides committed while a prisoner was trying to escape. Homicides also encompass cases that are ruled a homicide at autopsy when events that led to the death occurred prior to incarceration, such as a prisoner who was shot outside of custody and who later died from complications of the gunshot wound while in custody.

Other BJS sources of correctional mortality data

BJS collects other data reported to the MCI on prisoner mortality. These other collections include—

- Capital Punishment, which provides data on legal executions. Additional details on executions are available on the BJS website.
- the National Prisoner Statistics (NPS) program, which collects counts of deaths by cause of death, including deaths due to execution; illness; AIDS and AIDS-related causes, such as HIV; suicide; accident; and homicide. Detailed counts by cause of death were discontinued in 2007. The NPS currently collects a total count of deaths as a type of release from prison. After 2006, the BOP submitted counts of deaths by cause of death to the MCI but discontinued submitting counts to the NPS. Additional details on the NPS are available on the BJS website.

Reported statistics

Mortality data in this report include the number of deaths and mortality rates by year, the cause of death, selected decedent characteristics, and the state where the death occurred.

Mortality rates are calculated per 100,000 prisoners, with the denominators providing estimates of the number of person-years of exposure in custody in institutional corrections (*person-years* combines time in jail with the number of inmates to measure actual exposure to a jail setting). The mortality rate in state or

federal prisons is calculated as the number of deaths per year divided by the December 31 population of state or federal prisoners in custody, with the resulting quotient multiplied by 100,000. The population of state prisoners used in rate calculations includes prisoners held in privately operated facilities, while the population in federal prisons does not. To improve comparability between years, this report includes mortality rates of state prisons that were reestimated for prior years using updated year-end custody populations, including privately operated facilities.

Data on the source of the denominator allow annual mortality rates to be calculated separately by group or characteristic. The National Center for Health Statistics (NCHS) calculates crude mortality rates as the number of events for a period, divided by the population estimate at the midpoint of the period. For general population mortality statistics, the NCHS uses the midyear population to approximate the average population that was exposed to risk of death during any given year.[4]

The crude mortality rates that are reported in the MCI annual statistical tables use a year-end, rather than midyear, population for the denominator. The composition of the general population differs by sex, race or ethnicity, and age from the population in state and federal prisons, which in turn differs from the population in local jails. In 2019, BJS adjusted the general population in table 5 and figures 3 and 4 of this report to reflect the sex, race or ethnicity, and age distribution of state prisons to permit direct comparisons. For details on this adjustment, see *Comparison of state prison mortality rates to the U.S. resident population*.

Estimating population characteristics of prisoners to calculate mortality rates by demographic subgroups

Sex and age distributions of the state prison population are estimated using the NPS and National Corrections Reporting Program (NCRP) data collections. Rates for race or ethnicity are also derived from these collections. They have been updated from previous years and will not match previously reported rates. Race or ethnicity reported in the NPS and NCRP come from administrative records of prisoners and may not reflect self-reporting by prisoners. Distributions of race or ethnicity were adjusted based on self-reported data collected from interviews with prisoners through BJS's national prisoner surveys. Previously, distributions of race or ethnicity were derived from BJS's 2004 Survey of Inmates in State and Federal Correctional Facilities. In 2017, BJS updated estimates of prisoners' race or ethnicity using new data from the 2016 Survey of Prison Inmates (formerly the Survey of Inmates in State and Federal Correctional Facilities). Annual distributions of race or ethnicity were weighted by the number of years from the most recent prisoner survey (2004 or 2016). For complete details on the methodology used to estimate distributions of race or ethnicity, see *Prisoners in 2016* (NCJ 251149, BJS, January 2018).

Comparison of state prison mortality rates to the U.S. resident population

The state prison population differs substantially from the U.S. resident population in terms of age, race or ethnicity, and sex distributions. These differences preclude direct comparison of mortality rates between state prisoners and U.S. residents. To allow for direct comparisons, BJS adjusted the U.S. resident population's mortality rates to the age-by-sex-by-race/ethnicity (ASR) distribution of state prisoners in 2019.

U.S. resident population mortality data were obtained from the WONDER (Wide-ranging Online Data for Epidemiological Research) Underlying Cause of Death database (https://wonder.cdc.gov/ucd-icd10.html), created by the Centers for Disease Control and Prevention. Because state prisons hold fewer than 800 persons age 17 or younger, BJS limited the WONDER death data to residents who had a known age at death and were age 18 or older in 2019. In addition, BJS excluded causes of death that are unlikely to occur in a prison setting, including motor vehicle accidents; homicides due to explosives or firearms not related to law enforcement, motor vehicle assault, or neglect; and firearm discharges not related to law enforcement.

For each cause of death, BJS parsed the WONDER death data to match ASR categories from the MCI and calculated crude mortality rates for the adult U.S. resident population for each ASR category. Next, the total state prison population was divided into the same ASR categories based on data from the NPS and NCRP and then weighted to the race or ethnicity distribution from BJS's self-reported prisoner surveys using the process described above. The crude mortality rates for the adult U.S. resident population were then multiplied by the total state prison population by weighted ASR category. This approach allowed BJS to generate a

[4]See Siegel, J. S., & Swanson, D. A. (Eds.). (2004). *The methods and materials of demography* (2nd ed., p. 269). Elsevier Academic Press.

cause-specific expected count of deaths that, when summed, gave the total number of expected deaths in the U.S. resident population due to that cause for 2019, if the demographic distribution of the U.S. population resembled that of the state prison population. To obtain the adjusted mortality rate per 100,000 shown in table 5 and figures 3 and 4, BJS divided these cause-specific mortality rates by the total state prison population and multiplied by 100,000.

Rolling averages

Rolling averages were computed to examine trends for certain causes of death in prisons while smoothing short-term fluctuations. Data were divided into 17 3-year periods spanning 19 years. The rolling averages in this report describe some changes in cause-specific mortality rates over time, such as whether the overall rise in the mortality rate for cancer was steady or the increase in unnatural deaths was recent. Rolling averages were not computed for all causes of death in custody due to small cell sizes.

Interpreting rates among small populations

MCI data on deaths in state prisons are not subject to sampling error because the data represent a full enumeration of deaths. However, according to Brillinger and NCHS, mortality data from a complete enumeration may be subject to random error because "the number of deaths that actually occurred may be considered as one of a large series of possible results that could have arisen under the same set of circumstances."[5,6] The random variation can be large when the number of deaths is small. Therefore, caution is warranted when interpreting statistics that are based on small numbers of deaths.

Continuing to use the NCHS and Brillinger methods, BJS quantified random variation by assuming that the appropriate underlying probability distribution for the number of deaths was a Poisson distribution. This provided a simple and reasonable approach for estimating variances in mortality statistics when the probability of dying is low. Variances were calculated based on the assumption of a Poisson process. From these variances, estimates of relative random error were calculated. These estimates are comparable to the relative standard error because the relative random error is the ratio of random error derived from the Poisson variance to the number of deaths. Following NCHS practice, when the relative random error exceeded 30%, estimated mortality rates were flagged with an "!" symbol to show the instability of the rate. (Interpret with caution. Estimate is based on 10 or fewer cases.)

[5]See Brillinger, D. R. (1986). The natural variability of vital rates and associated statistics. *Biometrics, 42*(4), 693–734.

[6]See Xu, J., Kochanek, K. D., Murphy, S. L., & Tejada-Vera, B. (2010). *Deaths: Final data for 2007* (National Vital Statistics Reports, Vol. 58, No. 19). National Center for Health Statistics. https://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf

APPENDIX TABLE 1

Estimated number of state and federal prisoners in custody, by prisoner characteristics, 2001–2019

Characteristic	Custody population, 2001–2019	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total	26,872,800	1,322,600	1,352,600	1,377,900	1,403,100	1,420,400	1,460,600	1,482,100	1,489,800	1,490,600
Federal[a]	3,053,100	137,100	143,500	151,900	158,900	159,300	163,100	166,000	165,300	171,000
State[b]	23,819,700	1,185,500	1,209,100	1,226,000	1,244,200	1,261,100	1,297,500	1,316,100	1,324,500	1,319,600
Sex										
Male	22,148,200	1,109,400	1,129,000	1,143,300	1,158,100	1,172,800	1,205,400	1,222,500	1,230,600	1,227,500
Female	1,671,500	76,100	80,100	82,700	86,100	88,300	92,100	93,600	93,900	92,100
Race/ethnicity										
White[c]	7,907,000	401,900	418,100	433,200	437,400	449,900	455,100	446,600	446,900	436,200
Black[c]	8,791,200	514,500	508,600	498,200	496,000	490,500	498,200	501,400	502,600	493,500
Hispanic	4,740,600	208,300	217,000	223,900	231,300	232,800	244,800	259,100	256,900	263,700
American Indian/ Alaska Native[c]	357,500	22,300	21,300	20,100	20,600	20,200	21,300	20,500	20,000	19,400
Asian[c,d]	251,400	11,800	11,700	12,900	12,200	12,000	12,100	12,800	13,000	13,200
Other[c,e]	1,771,700	26,800	32,300	37,700	46,600	55,700	66,000	75,800	85,100	93,600
Age										
17 or younger	33,600	2,900	2,700	2,600	2,200	2,200	2,400	2,400	2,600	2,500
18–24	3,376,400	218,000	217,400	216,100	207,700	200,000	196,700	196,700	197,900	198,700
25–34	7,862,400	401,700	405,800	408,800	416,200	420,600	431,900	437,700	439,200	437,300
35–44	6,503,000	362,000	365,600	366,400	367,700	367,900	372,600	366,600	356,600	343,700
45–54	4,113,700	153,000	165,300	175,900	189,200	203,700	220,200	232,200	240,600	243,500
55 or older	1,947,000	47,800	52,400	56,200	61,100	66,700	73,800	80,400	87,600	93,900

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APPENDIX TABLE 1 (continued)

Estimated number of state and federal prisoners in custody, by prisoner characteristics, 2001–2019

Characteristic	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	1,487,500	1,466,400	1,438,600	1,443,600	1,429,700	1,404,200	1,383,000	1,365,500	1,342,800	1,311,700
Federal[a]	173,100	176,200	176,500	173,800	169,500	160,700	154,200	154,600	151,500	147,000
State[b]	1,314,400	1,290,200	1,262,100	1,269,800	1,260,200	1,243,500	1,228,800	1,210,900	1,191,300	1,164,700
Sex										
Male	1,222,900	1,201,100	1,175,700	1,180,900	1,170,000	1,154,400	1,139,900	1,122,400	1,102,900	1,079,300
Female	91,500	89,100	86,400	88,900	90,200	89,100	88,900	88,500	88,400	85,400
Race/ethnicity										
White[c]	430,400	419,500	410,100	409,500	405,200	395,600	385,400	381,200	375,800	368,700
Black[c]	482,600	468,700	453,600	449,400	434,500	420,500	409,600	398,800	389,400	380,500
Hispanic	267,100	261,900	253,300	257,900	257,900	258,000	266,000	264,600	261,800	254,200
American Indian/ Alaska Native[c]	19,200	18,000	17,000	15,600	17,300	16,800	16,500	17,100	17,000	17,400
Asian[c,d]	13,100	13,400	13,300	13,400	13,700	14,500	14,700	14,600	14,800	14,400
Other[c,e]	102,000	108,700	114,800	124,000	131,500	138,100	136,600	134,600	132,400	129,400
Age										
17 or younger	2,100	1,800	1,400	1,100	1,000	900	800	800	600	600
18–24	196,000	189,100	180,400	173,700	161,300	145,500	134,800	124,000	112,800	109,500
25–34	434,800	424,400	413,800	415,300	417,700	407,700	400,000	393,000	382,800	373,800
35–44	334,200	324,100	318,200	320,500	323,700	322,500	322,600	323,800	325,700	318,700
45–54	245,600	242,300	238,000	236,500	235,000	229,400	224,900	218,200	212,300	208,000
55 or older	101,700	108,500	115,300	123,100	131,100	139,100	145,600	151,200	157,100	154,200

Note: Data are rounded to the nearest 100. Data may have been revised from previously published statistics. Details may not sum to totals due to missing data. All populations are based on a custody count as of December 31.

[a]Excludes prisoners in private federal facilities.

[b]Includes prisoners in private state facilities.

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

[d]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[e]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019, National Prisoner Statistics, 2001–2019, Survey of Inmates in State and Federal Correctional Facilities, 2004, and Survey of Prison Inmates, 2016; and Federal Bureau of Prisons, 2001–2019.

APPENDIX TABLE 2

Illness mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	221	224	226	222	223	225	228	226	226	228	236	239	248	254	264	269	269
Sex																	
Male	228	230	232	228	230	231	235	232	233	236	244	247	256	263	274	278	279
Female	129	134	141	135	132	136	144	137	132	122	132	133	144	142	138	145	148
Race/ethnicity																	
White[a]	305	310	318	313	321	333	349	352	367	377	400	402	425	441	463	469	474
Black[a]	214	218	222	218	218	213	218	215	214	213	216	225	237	250	262	268	263
Hispanic	127	123	116	122	124	131	126	121	112	114	120	123	121	116	120	127	129
American Indian/ Alaska Native[a]	88	98	118	116	116	126	140	143	145	160	182	193	218	225	228	209	200
Asian[a,b]	49	63	56	48	52	53	77	77	78	85	99	116	105	101	97	101	103
Other[a,c]	9 !	15	13	16	9	12	7	7	3 !	4	5	7	7	6	3	1 !	4
Age																	
17 or younger	12 !	13 !	14 !	15 !	14 !	27 !	13 !	42 !	47 !	57 !	23 !	29 !	33 !	74 !	80 !	91 !	50 !
18–24	13	13	13	14	13	14	15	15	14	14	15	15	16	14	13	10	11
25–34	39	38	38	35	32	29	26	25	25	24	24	23	24	25	28	27	27
35–44	155	151	143	130	120	110	106	98	94	85	81	75	71	70	70	69	63
45–54	534	507	488	461	435	416	397	382	364	346	338	324	317	299	284	272	257
55 or older	1,992	1,964	1,916	1,805	1,791	1,777	1,766	1,658	1,598	1,558	1,568	1,538	1,546	1,531	1,547	1,527	1,515

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 3

Cancer mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	60	60	63	62	62	63	67	71	75	77	82	83	86	89	91	93	93
Sex																	
Male	63	62	65	64	64	65	70	73	77	80	84	86	89	91	95	97	97
Female	26	33	33	33	31	33	35	40	48	44	45	43	51	53	49	49	47
Race/ethnicity																	
White[a]	93	91	95	91	96	102	112	118	128	133	144	143	149	154	163	167	173
Black[a]	53	55	59	59	58	58	62	66	68	71	75	80	84	89	90	91	87
Hispanic	27	28	26	29	25	25	25	30	31	33	33	35	37	38	40	42	42
American Indian/ Alaska Native[a]	24	26	36	34	31	32	32	43	39	53	55	56	58	57	62	55	54
Asian[a,b]	25 !	27 !	19 !	25 !	27	37	49	59	48	38	35	45	46	40	39	39	43
Other[a,c]	2 !	4 !	4 !	7	4 !	4 !	1 !	1 !	1 !	2 !	1 !	2 !	2 !	2 !	1 !	<1 !	1 !
Age																	
17 or younger	0	0	0	0	0	14 !	13 !	14 !	16 !	19 !	23 !	0	0	37 !	80 !	91 !	50 !
18–24	2	2	2	1 !	2 !	1 !	2	3	4	4	3	2	2	2 !	2 !	2 !	3
25–34	5	5	6	5	5	4	4	4	5	5	6	5	6	6	6	5	5
35–44	29	29	29	26	22	22	20	22	21	21	22	22	21	19	17	16	14
45–54	142	130	128	122	119	113	115	117	118	113	116	114	114	104	100	95	89
55 or older	696	670	665	612	580	577	592	584	584	573	572	553	550	558	560	558	553

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 4

Heart disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	65	66	66	67	65	64	64	64	65	64	67	68	74	78	85	88	90
Sex																	
Male	67	69	69	69	68	67	66	66	67	67	70	71	77	81	88	92	93
Female	35	33	34	30	32	33	37	30	30	27	31	31	35	37	39	37	40
Race/ethnicity																	
White[a]	97	99	98	100	97	98	98	100	105	106	113	116	127	136	148	153	156
Black[a]	61	63	66	64	65	62	63	64	65	66	67	69	76	83	93	96	96
Hispanic	28	27	25	27	29	32	31	29	26	23	24	24	26	25	28	31	33
American Indian/ Alaska Native[a]	19	29	34	29	26	31	38	36	34	39	51	66	73	65	60	63	70
Asian[a,b]	19 !	19 !	24 !	19 !	27	21 !	31	18 !	18 !	28	37	52	38	37	27	29	30
Other[a,c]	2 !	3 !	4 !	4 !	3 !	4 !	2 !	2 !	1 !	1 !	1 !	2 !	2 !	2 !	1 !	1 !	2 !
Age																	
17 or younger	0	0	0	0	0	0	0	14 !	16 !	19 !	0	29 !	33 !	37 !	0	0	0
18–24	3	3	4	5	5	4	4	4	4	3	5	5	7	5	4	5	5
25–34	11	12	12	12	10	8	8	8	8	7	7	8	9	10	10	11	11
35–44	40	41	41	38	34	31	31	32	33	30	28	25	24	24	26	27	26
45–54	139	134	127	120	112	106	98	94	90	86	82	80	81	83	86	85	83
55 or older	683	661	614	592	572	550	526	488	468	448	455	450	468	473	493	489	491

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 5

Liver disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	25	24	24	24	24	24	24	24	24	24	26	26	26	24	22	20	17
Sex																	
Male	26	25	25	25	25	25	25	25	26	25	27	26	27	24	23	21	17
Female	13	12	14	13	12	10	10	10	9	9	13	14	16	13	11	11	11
Race/ethnicity																	
White[a]	37	35	37	36	36	37	39	41	43	44	46	46	46	45	41	38	31
Black[a]	15	15	15	15	15	14	14	14	15	14	15	14	15	14	15	13	10
Hispanic	30	26	25	24	27	27	25	22	20	21	24	25	25	19	16	15	15
American Indian/ Alaska Native[a]	22	23	21	29	36	31	33	26	32	26	30	30	34	36	40	32	23
Asian[a,b]	16 !	24 !	22 !	17 !	11 !	8 !	10 !	8 !	8 !	13 !	15 !	12 !	12 !	12 !	14 !	7 !	5 !
Other[a,c]	1 !	1 !	1 !	1 !	0	<1 !	<1 !	<1 !	0	<1 !	1 !	1 !	1 !	0	0	0	0
Age																	
17 or younger	0	0	0	0	0	0	0	14 !	16 !	19 !	0	0	0	0	0	0	0
18–24	0	0	0	<1 !	1 !	1 !	1 !	1 !	1 !	<1 !	<1 !	1 !	1 !	1 !	1 !	1 !	1 !
25–34	2	2	1	1	1	1	1	1	1	1	1 !	1	1	1	1 !	1 !	1 !
35–44	20	17	14	12	11	11	11	9	10	7	7	5	5	5	5	5	4
45–54	94	84	85	81	75	69	67	63	58	53	54	50	48	42	34	27	21
55 or older	130	134	134	128	137	136	136	129	137	139	156	150	146	126	118	107	91

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 6

Respiratory disease mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	14	15	16	16	16	17	17	17	16	17	16	17	18	19	19	21	22
Sex																	
Male	14	16	17	16	16	17	17	17	16	17	17	18	19	19	20	21	22
Female	9	11	14	16	15	16	14	12	10	7	10	9	10	11	12	16	14
Race/ethnicity																	
White[a]	21	23	25	23	25	27	28	28	28	31	32	32	34	36	38	40	42
Black[a]	12	14	16	16	15	14	14	15	13	13	12	14	15	16	16	18	19
Hispanic	7	7	7	7	7	8	9	9	8	8	7	9	8	9	9	10	10
American Indian/ Alaska Native[a]	8 !	2 !	2 !	2 !	2 !	6 !	5 !	5 !	4 !	9 !	10 !	10 !	12 !	20	18 !	14 !	10 !
Asian[a,b]	8 !	11 !	8 !	6 !	3 !	0	0	3 !	5 !	8 !	15 !	12 !	10 !	2 !	2 !	2 !	5 !
Other[a,c]	2 !	3 !	2 !	1 !	1 !	0	0	0	0	<1 !	1 !	1 !	1 !	<1 !	0	0	<1 !
Age																	
17 or younger	0	0	0	15 !	14 !	14 !	0	0	0	0	0	0	0	0	0	0	0
18–24	2	2	2	3	2	3	2	2	1 !	2 !	2	2 !	2 !	1 !	1 !	0	<1 !
25–34	3	4	4	3	3	3	3	3	2	3	3	3	2	2	1	2	2
35–44	8	8	9	9	9	8	8	7	6	5	4	4	4	4	5	6	5
45–54	26	26	26	24	22	23	21	21	21	19	18	16	16	16	14	15	14
55 or older	153	158	166	148	144	144	140	137	121	127	120	125	126	126	128	130	134

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 7

Mortality rate due to all other illnesses per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	57	57	56	54	56	57	56	50	47	46	45	45	45	45	46	47	47
Sex																	
Male	58	58	57	55	57	58	57	51	47	46	46	46	46	46	48	48	48
Female	46	45	47	42	42	45	48	46	36	34	33	35	32	29	28	32	35
Race/ethnicity																	
White[a]	57	62	62	61	66	70	71	65	62	64	65	65	69	70	73	72	72
Black[a]	72	70	67	64	65	64	64	57	53	49	47	48	47	48	50	51	52
Hispanic	35	35	34	35	36	38	36	31	27	30	31	30	26	25	26	29	29
American Indian/ Alaska Native[a]	16	19	25	23	23	26	32	34	37	33	36	30	40	47	50	45	43
Asian[a,b]	16 !	24 !	19 !	17 !	19 !	21 !	28	28	33	30	22 !	22 !	19 !	28	30	39	39
Other[a,c]	2 !	4 !	3 !	4 !	2 !	4	4 !	3 !	1 !	1 !	1 !	2 !	2 !	2 !	1 !	<1 !	1 !
Age																	
17 or younger	12 !	13 !	14 !	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18–24	6	5	5	4	4	5	6	5	5	5	5	5	4	4	4	3	2 !
25–34	18	16	15	13	12	12	11	9	9	8	7	6	6	7	9	9	8
35–44	58	55	50	45	44	40	37	29	25	22	21	19	18	17	17	16	15
45–54	133	132	122	114	107	104	96	87	77	75	68	64	58	54	51	51	49
55 or older	331	342	336	325	358	369	372	320	288	269	264	260	256	250	247	243	245

Note: Excludes cancer; heart, liver, and respiratory diseases; and AIDS-related illnesses. Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 8

Rate of unnatural deaths per 100,000 state prisoners within each demographic group, by decedent characteristics, 2003–2019 (3-year rolling averages)

Characteristic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	23	24	25	26	27	26	25	26	27	28	29	31	32	36	42	51	59
Sex																	
Male	24	25	26	27	28	27	26	26	27	29	30	32	33	37	44	53	62
Female	13	16	14	15	14	15	15	16	18	18	17	20	22	23	19	22	22
Race/ethnicity																	
White[a]	37	38	40	41	43	43	44	44	46	48	50	53	57	63	71	83	93
Black[a]	14	15	14	15	16	15	15	16	16	18	18	20	22	26	34	44	54
Hispanic	20	20	23	26	25	23	20	21	21	22	24	26	25	26	30	38	43
American Indian/ Alaska Native[a]	19	16	20	21	29	26	25	31	35	46	42	46	46	61	69	75	66
Asian[a,b]	36	41	49	47	35	42	41	51	55	53	52	49	65	61	48	52	64
Other[a,c]	6 !	7 !	5 !	4 !	2 !	2 !	1 !	1 !	<1 !	0	<1 !	1 !	1 !	1 !	1 !	1 !	1 !
Age																	
17 or younger	61 !	53 !	57 !	29 !	29 !	41 !	40 !	42 !	31 !	38 !	23 !	29 !	33 !	37 !	0	0	0
18–24	18	18	21	22	21	18	19	19	18	19	19	22	24	31	36	41	41
25–34	24	24	23	23	23	23	22	23	23	23	24	26	29	30	35	45	53
35–44	23	24	26	29	29	27	26	27	29	30	31	30	33	38	45	52	60
45–54	26	27	28	29	32	30	30	30	32	33	32	35	36	39	44	56	66
55 or older	32	35	35	37	38	40	36	38	39	46	46	51	46	48	55	66	74

Note: Unnatural deaths include deaths caused by suicide, drug or alcohol intoxication, accident, and homicide. Based on 3-year rolling averages. Labels show the most recent year only (for example, 2001–2003 is shown as 2003). Includes deaths in private state facilities. Mortality rates are per 100,000 prisoners held in the custody of state prisons. Mortality rates are based on the annual number of deaths and a 1-day custody population on December 31. See *Methodology*.

! Interpret with caution. Estimate is based on 10 or fewer cases. See *Interpreting rates among small populations* in *Methodology*.

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

[b]Includes Asians, Native Hawaiians, and Other Pacific Islanders.

[c]Includes persons of two or more races and other races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001–2019; National Prisoner Statistics, 2001–2019; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

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This report was written by E. Ann Carson. Emily Buehler and Stephanie Mueller verified the report.

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December 2021, NCJ 300953

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