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Bureau of Justice Statistics • **Statistical Tables**

Mortality in State and Federal Prisons, 2001-2016 – Statistical Tables

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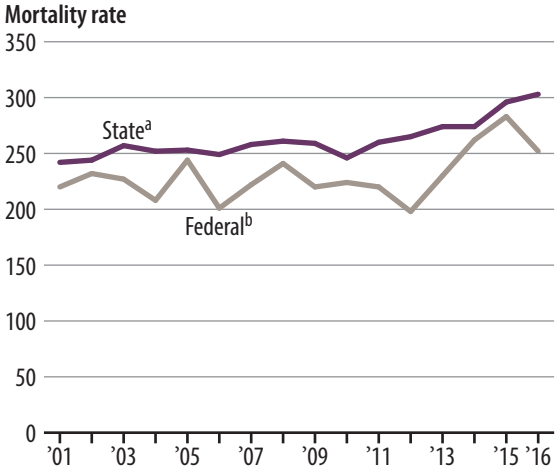
In 2016, a total of 4,117 state and federal prisoners died in publicly or privately operated prisons. The number of deaths in state prisons rose 1.3% from 2015 to 2016 (from 3,682 to 3,729), while the number of deaths in federal prisons fell 15% (from 455 to 388). This marked the first decrease in deaths in federal prisons since 2012.

While the total number of state prisoners dropped 5% from 2006 to 2016, the number of deaths in state prisons rose 15% over that same period. Each year from 2001 to 2016, an average of 88% of deaths in state prisons were due to natural causes, ranging from 89% in 2001 to 86% in 2016. Over that same span, an average of 11% of deaths in state prisons were due to unnatural causes (suicide, drug or alcohol intoxication, accidental causes, or homicide), ranging from 9% in 2001 and 2008 to 13% in 2016.

Mortality rates, or the annual number of deaths per 100,000 prisoners, dropped from 2001 to 2016 for all four age groups of state prisoners

FIGURE 1
Mortality rate per 100,000 state and federal prisoners, 2001-2016



Note: Based on the annual number of deaths and the one-day custody population on December 31. See appendix table 9 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, 2001-2016; and Federal Bureau of Prisons, 2001-2016.

Highlights

- From 2015 to 2016, deaths in state prisons increased from 296 to 303 deaths per 100,000 state prisoners.
- From 2015 to 2016, deaths in federal prisons decreased for the first time since 2012, from 283 to 252 deaths per 100,000 federal prisoners.
- Illness-related deaths made up 86% of deaths in state prisons in 2016, with more than half of those being due to cancer (30% of all deaths) or heart disease (28%).
- Homicide deaths, which include deaths due to injuries sustained before imprisonment, accounted for 2.5% of deaths in state prisons and 3.6% of deaths in federal prisons in 2016.
- More than half of all deaths in state prisons in 2016 (55%) were of white prisoners, who made up less than one-third (31%) of the state prison population.
- From 2001 to 2016, mortality rates dropped for all four age groups of state prisoners age 25 or older; however, the portion of prisoners age 55 or older tripled, and they have the highest mortality rates.

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age 25 or older (25-34, 35-44, 45-54, and 55 or older). However, the portion of state prisoners who were age 55 or older roughly tripled from 2001 to 2016 (from 4% to 12%), and that subpopulation had the highest mortality rate (more than three times as high as any other age group in each year).

Suicides represented an average of 6% of deaths in state prisons from 2001 to 2016, ranging from 5.5% to 7.1% per year (6.8% in 2016).

Findings in this report are from the Mortality in Correctional Institutions (MCI) data collection (formerly the Deaths in Custody Reporting Program), developed by the Bureau of Justice Statistics (BJS). The MCI is the only national statistical collection that obtains comprehensive information about deaths among prisoners and jail inmates in the custody of adult correctional facilities. This report reviews deaths in state and federal prisons from 2001 to 2016. Until 2015, BJS received aggregated mortality data from the Federal Bureau of Prisons (BOP). In 2015, BJS began receiving individual-level data on deaths from the BOP.

Data on mortality in local jails can be found in *Mortality in Local Jails, 2000-2016 – Statistical Tables* (NCJ 251921, BJS, February 2020).

Other key findings

- A total of 59,036 prisoners died in state and federal prisons from 2001 to 2016, with about 90% of the deaths occurring in state prisons (53,051) and 10% occurring in federal prisons (5,985) **(table 1)**.
- A total of 255 state prisoners committed suicide in 2016, marking a 16-year peak in the number of suicides **(table 2)**.
- From 2015 to 2016, suicides increased from 5.9% to 6.8% of all deaths in state prisons, down from 7.1% in 2014 **(table 3)**.
- In 2016, 96% of those who died in state prisons were male (3,586) and 4% were female (143) **(tables 6 and 7)**.
- The annual average rate of suicides from 2001 to 2016 was 17 deaths per 100,000 male state prisoners and 13 deaths per 100,000 female state prisoners **(table 10)**.
- On average from 2001 to 2016, male state prisoners died from cancer, heart disease, or liver disease at about twice the rate of females **(table 10)**.
- From 2001 to 2016, eight states (Texas, California, Florida, Pennsylvania, New York, Michigan, Ohio, and Georgia) accounted for more than half of all deaths in state prisons (27,204 of 53,051), with Texas (6,628) and California (5,796) accounting for 23% of all deaths **(table 13)**.

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TABLE 1
State and federal prisoner deaths, by cause of death, 2001-2016

Cause of death	State prisoners[a] Number of deaths	State prisoners[a] Percent of deaths	State prisoners[a] Mortality rate per 100,000	Federal prisoners[b] Number of deaths	Federal prisoners[b] Percent of deaths	Federal prisoners[b] Mortality rate per 100,000
All causes	53,051	100%	262	5,985	100%	230
Illness	46,824	88.3%	231	5,441	90.9%	209
Cancer	14,525	27.4	72	...	...	...
Heart disease	13,695	25.8	68	...	...	...
Liver disease	4,940	9.3	24	...	...	...
Respiratory disease	3,315	6.2	16	...	...	...
AIDS-related[c]	1,873	3.5	9	161	2.7	6
All other illnesses[d]	8,476	16.0	42	...	...	...
Suicide	3,300	6.2%	16	260	4.3%	10
Drug/alcohol intoxication	781	1.5%	4	...	...	...
Accident[e]	530	1.0%	3	81	1.4%	3
Homicide[f]	1,024	1.9%	5	160	2.7%	6
Other causes	345	0.7%	2	0	0.0%	0
Missing/unknown	247	0.5%	1	43	0.7%	2

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to rounding. Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). 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 non-leading natural causes of death) and unspecified illnesses.

[e]Includes deaths by intoxication among federal prisoners.

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

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001-2016; and Federal Bureau of Prisons, 2001-2016.

TABLE 2
Number of state and federal prisoner deaths, by cause of death, 2001 and 2006-2016

Cause of death	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	3,170	3,561	3,757	3,851	3,793	3,620	3,738	3,707	3,879	3,927	4,137	4,117
Federal[a]	301	328	368	399	376	387	387	350	400	444	455	388
State[b]	2,869	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,479	3,483	3,682	3,729
Illness	2,567	2,830	2,980	3,036	3,029	2,869	2,980	2,959	3,082	3,031	3,225	3,191
Cancer	691	806	772	907	978	927	1,028	1,024	1,066	1,046	1,122	1,128
Heart disease	743	854	840	845	848	830	854	804	897	890	985	1,025
Liver disease	307	303	316	318	332	288	339	304	355	313	301	260
Respiratory disease	147	193	207	251	200	211	205	223	198	238	242	222
AIDS-related[c]	275	132	120	99	98	73	57	74	52	64	45	31
All other illnesses[d]	404	542	725	616	573	540	497	530	514	480	530	525
Suicide	168	219	215	197	202	215	185	205	192	249	219	255
Drug/alcohol intoxication	35	56	41	58	50	40	58	33	56	50	81	104
Accident	22	32	28	26	32	32	38	50	34	39	39	41
Homicide[e]	39	55	57	40	54	70	70	85	90	83	84	95
Other causes	0	41	16	95	16	4	11	14	18	10	20	22
Missing/unknown	38	0	52	0	34	3	9	11	7	21	14	21

Note: Data may have been revised from previously published statistics. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). See *Methodology*. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

[a]Until 2015, federal deaths were submitted as an aggregate count by the Federal Bureau of Prisons. Excludes deaths in private federal facilities.

[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 non-leading 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 injuries sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016; and Federal Bureau of Prisons, 2001 and 2006-2016.

TABLE 3
Percent of state prisoner deaths, by cause of death, 2001 and 2006-2016

Cause of death	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All causes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Illness	89.5%	87.5%	87.9%	87.9%	88.6%	88.7%	88.9%	88.1%	88.6%	87.0%	87.6%	85.6%
Cancer	24.1	24.9	22.8	26.3	28.6	28.7	30.7	30.5	30.6	30.0	30.5	30.2
Heart disease	25.9	26.4	24.8	24.5	24.8	25.7	25.5	23.9	25.8	25.6	26.8	27.5
Liver disease	10.7	9.4	9.3	9.2	9.7	8.9	10.1	9.1	10.2	9.0	8.2	7.0
Respiratory disease	5.1	6.0	6.1	7.3	5.9	6.5	6.1	6.6	5.7	6.8	6.6	6.0
AIDS-related[a]	9.6	4.1	3.5	2.9	2.9	2.3	1.7	2.2	1.5	1.8	1.2	0.8
All other illnesses[b]	14.1	16.8	21.4	17.8	16.8	16.7	14.8	15.8	14.8	13.8	14.4	14.1
Suicide	5.9%	6.8%	6.3%	5.7%	5.9%	6.7%	5.5%	6.1%	5.5%	7.1%	5.9%	6.8%
Drug/alcohol intoxication	1.2%	1.7%	1.2%	1.7%	1.5%	1.2%	1.7%	1.0%	1.6%	1.4%	2.2%	2.8%
Accident	0.8%	1.0%	0.8%	0.8%	0.9%	1.0%	1.1%	1.5%	1.0%	1.1%	1.1%	1.1%
Homicide[c]	1.4%	1.7%	1.7%	1.2%	1.6%	2.2%	2.1%	2.5%	2.6%	2.4%	2.3%	2.5%
Other causes	0.0%	1.3%	0.5%	2.8%	0.5%	0.1%	0.3%	0.4%	0.5%	0.3%	0.5%	0.6%
Missing/unknown	1.3%	0.0%	1.5%	0.0%	1.0%	0.1%	0.3%	0.3%	0.2%	0.6%	0.4%	0.6%

Note: Data may have been revised from previously published statistics. Details may not sum to totals due to rounding. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). See *Methodology*. Includes deaths in private state facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

[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 non-leading 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 injuries sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016.

TABLE 4
Mortality rate per 100,000 state prisoners, by cause of death, 2001 and 2006-2016

Cause of death	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All causes	242	249	258	261	259	246	260	265	274	274	296	303
Illness	217	218	226	229	230	218	231	234	243	239	259	260
Cancer	58	62	59	68	74	71	80	81	84	82	90	92
Heart disease	63	66	64	64	64	63	66	63	71	70	79	83
Liver disease	26	23	24	24	25	22	26	24	28	25	24	21
Respiratory disease	12	15	16	19	15	16	16	18	16	19	19	18
AIDS-related[a]	23	10	9	7	7	6	4	6	4	5	4	3
All other illnesses[b]	34	42	55	47	43	41	39	42	40	38	43	43
Suicide	14	17	16	15	15	16	14	16	15	20	18	21
Drug/alcohol intoxication	3	4	3	4	4	3	4	3	4	4	7	8
Accident	2	2	2	2	2	2	3	4	3	3	3	3
Homicide[c]	3	4	4	3	4	5	5	7	7	7	7	8
Other causes	0	3	1	7	1	<1 !	1 !	1	1	1 !	2	2
Missing/unknown	3	0	4	0	3	<1 !	1 !	1 !	1 !	2	1	2

Note: Data may have been revised from previously published statistics. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

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

[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 non-leading 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 injuries sustained prior to incarceration.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016; National Prisoner Statistics, 2001 and 2006-2016.

TABLE 5

Mortality rate per 100,000 federal prisoners, by cause of death, 2001 and 2006-2016

Cause of death	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All causes	220	328	222	241	220	224	220	198	230	262	283	252
Illness	196	294	195	217	198	203	204	182	213	238	249	220
AIDS-related[a]	16	12	6 !	8	4 !	4 !	2 !	3 !	2 !	0	1 !	1 !
Suicide	13	12	11	13	12	6 !	10	11	8	14	12	12
Accident[b]	4 !	2 !	0	4 !	3 !	1 !	1 !	2 !	2 !	1 !	10	9
Homicide	6 !	8 !	7	8	4 !	10	5 !	3 !	7	8	10	9
Other/unknown	0	0	9	1 !	4 !	3 !	1 !	1 !	1 !	0	2 !	2 !

Note: Until 2015, federal deaths were submitted as aggregate counts by the Federal Bureau of Prisons, with limited details regarding cause of death. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. Excludes deaths in private federal facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

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

[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.

Source: Bureau of Justice Statistics, Federal Bureau of Prisons, 2001 and 2006-2016; and National Prisoner Statistics, 2001 and 2006-2016.

TABLE 6

Number of state prisoner deaths, by decedent characteristics, 2001 and 2006-2016

Characteristic	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	2,869	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,479	3,483	3,682	3,729
Sex												
Male	2,769	3,103	3,252	3,289	3,267	3,116	3,208	3,244	3,338	3,329	3,533	3,586
Female	100	130	137	163	150	117	143	113	141	154	149	143
Race/ethnicity												
White[a]	1,340	1,627	1,719	1,822	1,774	1,680	1,912	1,789	1,902	1,920	2,040	2,063
Black[a]	1,161	1,148	1,225	1,157	1,199	1,121	1,037	1,113	1,104	1,108	1,189	1,200
Hispanic	322	404	383	400	372	359	329	379	402	368	367	383
Other[a,b]	41	50	54	73	58	61	61	70	70	87	84	80
Age												
17 or younger	2	1	1	3	0	3	2	0	0	2	0	1
18-24	86	60	68	67	69	69	50	69	69	56	68	72
25-34	256	250	226	222	210	217	200	190	221	221	226	244
35-44	656	561	513	468	467	382	397	360	335	335	341	380
45-54	893	1,061	1,031	1,063	1,039	956	930	876	861	821	795	721
55 or older	972	1,300	1,550	1,629	1,631	1,606	1,771	1,862	1,993	2,048	2,251	2,297

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, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). Includes deaths in private state facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016.

TABLE 7

Percent of state prisoner deaths, by decedent characteristics, 2001 and 2006-2016

Characteristic	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Sex												
Male	96.5%	96.0%	96.0%	95.3%	95.6%	96.4%	95.7%	96.6%	95.9%	95.6%	96.0%	96.2%
Female	3.5	4.0	4.0	4.7	4.4	3.6	4.3	3.4	4.1	4.4	4.0	3.8
Race/ethnicity												
White[a]	46.7%	50.4%	50.7%	52.8%	51.9%	52.0%	57.1%	53.3%	54.7%	55.1%	55.4%	55.3%
Black[a]	40.5	35.6	36.1	33.5	35.1	34.7	30.9	33.2	31.7	31.8	32.3	32.2
Hispanic	11.2	12.5	11.3	11.6	10.9	11.1	9.8	11.3	11.6	10.6	10.0	10.3
Other[a,b]	1.4	1.5	1.6	2.1	1.7	1.9	1.8	2.1	2.0	2.5	2.3	2.1
Age												
17 or younger	0.1%	<0.1%	<0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	<0.1%
18-24	3.0	1.9	2.0	1.9	2.0	2.1	1.5	2.1	2.0	1.6	1.8	1.9
25-34	8.9	7.7	6.7	6.4	6.2	6.7	6.0	5.7	6.4	6.4	6.1	6.5
35-44	22.9	17.4	15.1	13.6	13.7	11.8	11.8	10.7	9.6	9.6	9.3	10.2
45-54	31.1	32.8	30.4	30.8	30.4	29.6	27.8	26.1	24.7	23.6	21.6	19.3
55 or older	33.9	40.2	45.7	47.2	47.7	49.7	52.9	55.5	57.3	58.8	61.1	61.6

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, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). Includes deaths in private state facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016.

TABLE 8

Mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2001 and 2006-2016

Characteristic	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	242	244	258	261	259	246	260	265	274	274	296	303
Sex												
Male	250	251	266	267	266	255	267	275	283	282	306	315
Female	131	151	146	173	163	128	160	131	159	171	167	161
Race/ethnicity												
White[a]	345	323	389	413	412	396	461	439	468	473	515	535
Black[a]	234	219	244	230	243	233	222	245	246	254	282	293
Hispanic	139	200	138	147	134	129	121	145	153	141	142	144
Other[a,b]	59	151	57	67	49	47	45	49	45	53	50	48
Age												
17 or younger	68 !	33 !	41 !	115 !	0	140 !	111 !	0	0	206 !	0	120 !
18-24	39	29	35	34	35	35	26	38	40	35	47	53
25-34	64	62	52	51	48	50	47	46	53	53	55	61
35-44	181	182	140	131	136	114	123	113	105	104	106	118
45-54	584	554	444	442	427	389	384	368	364	349	347	321
55 or older	2,032	2,004	1,927	1,859	1,737	1,580	1,632	1,615	1,619	1,563	1,619	1,578

Note: Data may have been revised from previously published statistics. Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). Includes deaths in private state facilities. For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016; National Prisoner Statistics, 2001 and 2006-2016; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

TABLE 9
Number of deaths in state prisons, by cause of death and decedent characteristics, 2001-2016

Characteristic	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]				
Total	53,051	14,525	13,695	4,940	3,315	1,873	8,476	3,300	781	530	1,024
Sex											
Male	50,885	13,976	13,235	4,768	3,149	1,779	8,017	3,120	747	513	1,017
Female	2,165	549	460	172	166	94	459	180	34	17	7
Race/ethnicity											
White[e]	27,748	7,988	7,300	2,746	1,886	417	3,980	1,951	436	299	462
Black[e]	18,454	5,069	5,113	1,113	1,073	1,240	3,268	672	148	149	359
Hispanic	5,764	1,220	1,065	949	306	196	1,063	522	161	67	172
Other[e,f]	997	224	203	123	45	19	150	142	36	14	29
Age											
17 or younger	21	3	2	1	1	0	1	11	0	1	1
18-24	1,081	66	132	13	62	19	133	425	53	38	121
25-34	3,706	341	626	81	190	238	493	1,059	212	95	283
35-44	7,740	1,294	1,800	602	367	734	1,229	930	265	131	276
45-54	14,907	4,097	3,505	2,234	715	639	2,464	607	184	115	200
55 or older	25,568	8,719	7,626	2,006	1,979	243	4,153	266	67	149	141

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 Cap*ital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). See *Methodology*. Includes deaths in private state facilities. There were 88 prisoners whose race/ethnicity was unknown, 28 whose age was unknown, and 1 whose sex was unknown.

[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 non-leading 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 injuries 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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001-2016.

TABLE 10

Average annual mortality rate per 100,000 state prisoners within each demographic group, by cause of death and decedent characteristics, 2001-2016

		Illness									
Characteristic	All causes[a]	Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
Total	262	72	68	24	16	9	42	16	4	3	5
Sex											
Male	270	74	70	25	17	9	43	17	4	3	5
Female	154	39	33	12	12	7	33	13	2	1	<1 !
Race/ethnicity											
White[e]	416	120	109	41	28	6	60	29	7	4	7
Black[e]	243	67	67	15	14	16	43	9	2	2	5
Hispanic	138	29	25	23	7	5	25	12	4	2	4
Other[e,f]	54	12	11	7	2	1	8	8	2	1	2
Age											
17 or younger	66	9 !	6 !	3 !	3 !	0	3 !	35 !	0	3 !	3 !
18-24	36	2	4	<1	2	1	4	14	2	1	4
25-34	55	5	9	1	3	4	7	16	3	1	4
35-44	140	23	33	11	7	13	22	17	5	2	5
45-54	429	118	101	64	21	18	71	17	5	3	6
55 or older	1,722	587	514	135	133	16	280	18	5	10	9

Note: Data may have been revised from previously published statistics. Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). See *Methodology*. Includes deaths in private state facilities.

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

[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 non-leading 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 injuries 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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001-2016; National Inmate Survey, 2007-2009, 2011, and 2012; National Prisoner Statistics, 2001-2016; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

TABLE 11
Number of prisoner deaths in state and federal facilities, 2001 and 2006-2016

State/Federal	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Federal[a]	301	328	368	399	376	387	387	350	400	444	455	388
State[b]	2,869	3,233	3,389	3,452	3,417	3,233	3,351	3,357	3,479	3,483	3,682	3,729
Alabama	87	61	54	75	80	66	104	86	107	102	112	118
Alaska[c]	8	6	10	14	7	13	12	11	8	12	15	10
Arizona	64	72	61	77	85	85	86	87	95	99	105	126
Arkansas	42	37	46	41	50	54	50	43	56	57	54	71
California	287	424	395	371	395	414	388	368	366	317	353	334
Colorado	42	31	42	38	49	48	37	48	40	35	51	57
Connecticut[d]	30	25	27	32	29	21	19	24	20	24	23	17
Delaware[d]	16	13	15	15	12	23	15	10	14	18	17	14
Florida	182	261	249	291	278	275	297	324	305	346	354	356
Georgia	93	103	143	128	125	112	121	103	122	120	130	132
Hawaii[d]	7	5	13	14	11	12	6	12	14	8	4	9
Idaho	17	18	14	18	13	13	13	9	10	23	18	16
Illinois	86	94	104	71	75	94	97	85	78	88	120	90
Indiana	46	70	54	70	91	69	74	59	66	70	85	70
Iowa	9	12	17	21	14	13	12	20	16	15	19	29
Kansas	21	16	20	24	20	22	25	17	28	21	25	35
Kentucky	36	46	46	68	57	42	60	55	40	44	60	42
Louisiana	71	72	82	117	108	100	108	116	118	118	113	123
Maine	6	6	1	2	4	3	5	2	3	7	5	5
Maryland	70	61	57	69	56	40	41	46	58	43	62	49
Massachusetts	29	39	39	29	29	39	33	42	39	45	34	34
Michigan	114	138	117	99	148	93	119	124	124	121	118	106
Minnesota	13	9	13	17	12	16	19	14	20	14	11	18
Mississippi	36	58	77	54	52	52	47	41	68	50	45	65
Missouri	57	66	78	87	81	88	74	71	92	97	106	99
Montana	6	5	5	9	3	2	6	11	7	19	13	16
Nebraska	7	8	12	6	11	12	17	11	16	13	17	9
Nevada	27	23	39	35	35	41	34	37	35	44	47	43
New Hampshire	2	6	6	5	9	4	10	5	8	5	8	9
New Jersey	69	70	60	66	58	56	66	48	46	50	52	49
New Mexico	11	13	22	29	21	16	16	14	17	24	19	16
New York	175	131	148	133	142	124	117	115	142	123	115	147
North Carolina	66	90	99	117	86	87	71	79	81	94	90	127
North Dakota	3	1	0	0	0	1	1	3	1	0	0	4
Ohio	115	106	123	101	120	116	111	126	124	111	138	133
Oklahoma	51	80	98	88	79	60	85	79	87	107	107	93
Oregon	24	40	36	31	34	39	40	26	30	31	37	47
Pennsylvania	122	124	150	145	165	141	157	157	157	145	167	171
Rhode Island[d]	3	8	9	6	7	7	10	6	4	7	5	2
South Carolina	69	65	72	83	49	70	55	58	66	66	76	79
South Dakota	4	4	8	6	4	8	11	9	6	7	7	5
Tennessee	51	84	73	74	69	74	59	84	82	83	94	102
Texas	408	443	435	469	426	375	417	462	438	409	418	403
Utah	5	7	7	11	17	13	12	15	23	23	16	21
Vermont[d]	3	7	1	3	3	5	0	2	8	6	4	7
Virginia	71	78	103	86	87	93	99	86	82	90	90	90

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TABLE 11 (continued)
Number of prisoner deaths in state and federal facilities, 2001 and 2006-2016

State/Federal	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Washington	29	36	39	35	44	35	21	33	39	38	42	28
West Virginia	17	13	19	19	18	20	23	24	26	24	28	26
Wisconsin	48	45	43	44	42	25	48	46	43	58	46	66
Wyoming	5	3	8	9	7	2	3	4	4	12	7	11

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, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

[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 14 locally operated jails.

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

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001 and 2006-2016; and Federal Bureau of Prisons, 2001 and 2006-2016.

TABLE 12
Mortality rate per 100,000 state and federal prisoners, 2001 and 2006-2016

State/Federal	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Federal[a]	220	201	222	241	220	224	220	198	230	262	283	252
State[b]	242	249	258	261	259	246	260	265	274	274	296	303
Alabama	352	253	214	296	294	241	388	321	399	390	444	497
Alaska[c]	175 !	119 !	194 !	280	128 !	242	193	174 !	157 !	190	286	228 !
Arizona	231	201	162	195	210	212	215	217	232	235	249	298
Arkansas	366	288	347	312	375	380	355	306	392	374	342	448
California	183	246	230	217	234	254	263	277	272	236	276	258
Colorado	243	141	185	164	216	211	169	236	198	171	256	293
Connecticut[d]	171	132	139	161	153	113	106	140	115	143	144	113
Delaware[d]	234	185	211	216	182	361	229	149 !	206	267	264	221
Florida	251	289	262	291	274	269	294	325	302	343	356	363
Georgia	202	195	264	243	233	212	229	187	227	228	250	247
Hawaii[d]	137 !	91 !	238	257	227 !	227	110 !	227	271	148 !	74 !	174 !
Idaho	323	270	198	256	181	180	174	117 !	139 !	307	249	222
Illinois	194	208	230	156	166	194	200	172	160	182	260	206
Indiana	234	281	215	265	340	253	270	210	232	215	320	278
Iowa	113 !	136	196	241	157	137	132	229	184	170	214	320
Kansas	245	181	229	281	231	243	268	179	291	220	262	363
Kentucky	336	295	299	446	380	290	429	423	329	363	502	354
Louisiana[e]	361	346	401	561	543	526	573	624	628	631	613	817
Maine	358 !	288 !	47 !	98 !	193 !	154 !	253 !	101 !	145 !	318 !	228 !	212 !
Maryland	295	269	246	298	254	175	178	211	267	202	296	242
Massachusetts	284	362	352	260	260	349	288	377	367	431	358	376
Michigan	233	268	233	203	325	211	277	284	284	279	277	258
Minnesota	203	102 !	141	188	126	170	204	149	213	146	115 !	189
Mississippi	238	354	441	302	302	316	305	260	436	383	322	474
Missouri	199	219	262	289	265	288	239	228	292	304	328	305
Montana	215 !	170 !	172 !	309 !	97 !	64 !	192 !	355 !	224 !	609	409	500
Nebraska	179 !	182 !	273	134 !	245 !	260	365	233 !	319	249	331	174 !
Nevada	274	180	293	272	278	336	280	294	274	347	355	309
New Hampshire	83 !	224 !	217 !	175 !	309 !	153 !	413 !	195 !	305 !	184 !	301 !	346 !
New Jersey	265	274	237	266	241	229	279	208	207	234	256	252
New Mexico	194 !	196	342	459	319	240	239	211	251	345	267	229
New York	259	206	236	221	243	220	212	213	266	235	223	290

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TABLE 12 (continued)
Mortality rate per 100,000 state and federal prisoners, 2001 and 2006-2016

State/Federal	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
North Carolina	205	239	259	293	214	215	179	211	218	252	244	353
North Dakota	276 !	75 !	0	0	0	71 !	72 !	212 !	63 !	0	0	244 !
Ohio	256	219	247	198	236	224	218	248	240	215	264	255
Oklahoma	235	350	412	372	328	248	358	324	343	404	392	353
Oregon	219	303	269	229	248	281	291	184	205	214	252	322
Pennsylvania	324	282	329	298	327	293	316	313	314	295	342	354
Rhode Island[d]	89 !	215 !	240 !	160 !	205 !	222 !	330 !	197 !	126 !	223 !	168 !	69 !
South Carolina	318	283	305	350	207	304	246	265	306	315	372	388
South Dakota	143 !	121 !	244 !	179 !	118 !	236 !	309 !	250 !	166 !	200 !	198 !	133 !
Tennessee	292	435	379	382	346	369	298	424	395	399	475	474
Texas	275	279	274	295	269	234	261	298	282	265	274	266
Utah	121 !	139 !	136 !	214 !	324	239	227	283	427	433	331	466
Vermont[d]	214 !	316 !	47 !	142 !	135 !	241 !	0	98 !	385 !	303 !	229 !	403 !
Virginia	226	253	312	264	281	291	324	289	273	300	296	301
Washington	190	214	231	204	255	206	123	195	220	221	244	163
West Virginia	500	298	387	388	356	394	447	450	456	409	473	441
Wisconsin	231	199	188	197	189	113	214	205	192	257	201	285
Wyoming	336 !	147 !	415 !	528 !	402 !	96 !	139 !	183 !	175 !	507	292 !	468 !

Note: Data may have been revised from previously published statistics. Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Mortality rates are not adjusted for demographic differences among states. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). For data from 2002 to 2006, see the *Mortality in Correctional Institutions* page on the BJS website.

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

[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 14 locally operated jails.

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

[e]In 2016, Louisiana held 57.8% 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 and 2006-2016, and National Prisoner Statistics, 2001 and 2006-2016; and Federal Bureau of Prisons, 2001 and 2006-2016.

TABLE 13
Number of prisoner deaths in state and federal facilities, by cause of death, 2001-2016

		Illness									
State/Federal	All causes[a]	Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
Federal[e]	5,985	...	...	...	...	161	5,280	260	...	81	160
State[f]	53,051	14,525	13,695	4,940	3,315	1,873	8,476	3,300	781	530	1,024
Alabama	1,360	364	326	129	97	37	262	30	4	17	32
Alaska[g]	156	23	38	17	2	1	23	27	10	8	4
Arizona	1,343	352	308	178	80	32	182	102	50	12	36
Arkansas	743	204	260	57	39	25	85	42	2	12	13
California	5,796	1,418	986	601	414	115	1,207	496	238	44	233
Colorado	709	147	134	121	52	1	125	62	27	14	26
Connecticut[h]	430	56	104	64	25	11	89	66	3	6	6
Delaware[h]	248	57	60	24	13	20	30	29	4	0	2
Florida	4,392	1,347	928	366	299	295	813	135	23	51	98
Georgia	1,872	481	627	110	153	78	233	87	3	15	59
Hawaii[h]	152	41	26	17	7	4	21	25	4	0	5
Idaho	228	56	60	22	12	3	31	29	4	5	3
Illinois	1,403	437	399	73	73	64	188	123	11	13	16

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TABLE 13 (continued)
Number of prisoner deaths in state and federal facilities, by cause of death, 2001-2016

State/Federal	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]				
Indiana	1,030	274	273	94	65	22	152	68	35	15	26
Iowa	255	90	54	15	24	5	32	27	2	1	2
Kansas	377	118	95	44	22	2	54	24	6	8	3
Kentucky	767	242	237	62	43	28	123	18	2	4	4
Louisiana	1,577	491	461	127	67	104	205	35	2	14	7
Maine	62	15	17	6	5	1	7	4	2	0	4
Maryland	925	196	227	76	37	102	106	68	54	7	43
Massachusetts	543	140	146	57	27	10	82	50	10	8	3
Michigan	1,939	662	594	157	106	39	182	118	24	24	18
Minnesota	223	65	45	32	10	1	41	23	4	1	1
Mississippi	848	218	326	43	45	24	104	37	3	9	18
Missouri	1,271	382	357	141	66	25	195	62	10	7	23
Montana	143	38	27	21	8	2	24	17	3	1	2
Nebraska	169	35	39	24	8	4	18	16	4	3	3
Nevada	548	116	128	37	16	9	127	34	6	3	9
New Hampshire	106	39	23	11	3	3	11	12	4	0	0
New Jersey	914	217	282	58	52	83	124	50	14	10	12
New Mexico	278	71	54	52	17	3	36	25	7	1	11
New York	2,318	666	617	186	100	217	212	204	38	26	25
North Carolina	1,383	457	362	120	95	69	188	47	4	21	15
North Dakota	18	5	4	2	0	0	3	3	1	0	0
Ohio	1,875	627	537	108	133	31	275	107	16	8	26
Oklahoma	1,276	318	330	142	79	30	170	75	29	27	54
Oregon	544	172	112	84	25	7	75	34	13	7	9
Pennsylvania	2,384	667	681	225	141	34	455	121	15	14	17
Rhode Island[h]	99	18	25	2	4	5	8	21	5	3	1
South Carolina	1,041	226	394	69	49	36	170	51	8	4	32
South Dakota	110	21	30	16	11	1	9	15	1	3	3
Tennessee	1,234	329	373	130	66	40	175	50	21	11	29
Texas	6,628	1,603	1,683	705	520	166	1,364	417	20	66	60
Utah	208	42	47	18	8	0	39	34	3	3	8
Vermont[h]	63	11	16	10	1	3	10	9	3	0	0
Virginia	1,387	472	374	140	69	53	183	48	12	5	11
Washington	561	158	136	66	43	9	87	38	4	10	7
West Virginia	303	87	110	22	15	6	49	6	1	2	4
Wisconsin	713	239	190	45	60	11	77	73	8	5	1
Wyoming	90	15	31	13	8	1	13	6	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, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). 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 non-leading natural causes of death) and unspecified illnesses. Includes natural and illness-related federal prisoner deaths for which the Federal Bureau of Prisons could not provide details.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from injuries 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 Federal Bureau of Prisons.

[g]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 14 locally operated jails.

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

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001-2016; and Federal Bureau of Prisons, 2001-2016.

TABLE 14

Average annual mortality rate per 100,000 state and federal prisoners, by cause of death, 2001-2016

		Illness									
State/Federal	All causes[a]	Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]	Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
Federal[e]	230	...	...	...	...	6	203	10	...	3	6
State[f]	262	72	68	24	16	9	42	16	4	3	5
Alabama	330	88	79	31	24	9	64	7	1 !	4	8
Alaska[g]	190	28	46	21	2 !	1 !	28	33	12 !	10 !	5 !
Arizona	226	59	52	30	13	5	31	17	8	2	6
Arkansas	343	94	120	26	18	12	39	19	1 !	6	6
California	235	58	40	24	17	5	49	20	10	2	9
Colorado	214	44	40	36	16	<1 !	38	19	8	4	8
Connecticut[h]	150	20	36	22	9	4 !	31	23	1 !	2 !	2 !
Delaware[h]	231	53	56	22	12	19	28	27	4 !	0	2 !
Florida	296	91	62	25	20	20	55	9	2	3	7
Georgia	227	58	76	13	19	9	28	11	<1 !	2	7
Hawaii[h]	178	48	30	20	8 !	5 !	25	29	5 !	1 !	6 !
Idaho	211	52	56	20	11	3 !	29	27	4 !	5 !	3 !
Illinois	191	60	54	10	10	9	26	17	1 !	2	2
Indiana	255	68	67	23	16	5	38	17	9	4	6
Iowa	182	64	39	11	17	4 !	23	19	1 !	1 !	1 !
Kansas	259	81	65	30	15	1 !	37	16	4 !	5 !	2 !
Kentucky	360	114	111	29	20	13	58	8	1 !	2 !	2 !
Louisiana[i]	513	160	150	41	22	34	67	11	1 !	5	2 !
Maine	190	46	52	18!	15 !	3 !	21 !	12 !	6 !	0	12 !
Maryland	257	54	63	21	10	28	29	19	15	2 !	12
Massachusetts	324	84	87	34	16	6 !	49	30	6 !	5 !	2 !
Michigan	260	89	80	21	14	5	24	16	3	3	2
Minnesota	159	46	32	23	7 !	1 !	29	16	3 !	1 !	1 !
Mississippi	337	87	129	17	18	10	41	15	1 !	4 !	7
Missouri	259	78	73	29	13	5	40	13	2 !	1 !	5
Montana	297	79	56	44	17 !	4 !	50	35	6 !	2 !	4 !
Nebraska	232	48	54	33	11 !	5 !	25	22	5 !	4 !	4 !
Nevada	282	60	66	19	8	5 !	65	17	3 !	2 !	5 !
New Hampshire	255	94	55	26 !	7 !	7 !	26 !	29	10 !	0	0
New Jersey	238	57	74	15	14	22	32	13	4	3 !	3
New Mexico	266	68	52	50	16	3 !	34	24	7 !	1 !	11 !
New York	245	70	65	20	11	23	22	22	4	3	3
North Carolina	234	77	61	20	16	12	32	8	1 !	4	3
North Dakota	81	23 !	18 !	9 !	0	0	14 !	14 !	5 !	0	0
Ohio	239	80	68	14	17	4	35	14	2	1 !	3
Oklahoma	332	83	86	37	21	8	44	20	8	7	14
Oregon	254	80	52	39	12	3 !	35	16	6	3 !	4 !
Pennsylvania	325	91	93	31	19	5	62	16	2	2	2
Rhode Island[h]	187	34	47	4 !	8 !	9 !	15 !	40	9 !	6 !	2 !
South Carolina	292	63	110	19	14	10	48	14	2 !	1 !	9
South Dakota	206	39	56	30	21 !	2 !	17 !	28	2 !	6 !	6 !
Tennessee	393	105	119	41	21	13	56	16	7	4 !	9
Texas	266	64	68	28	21	7	55	17	1	3	2
Utah	262	53	59	23	10 !	0	49	43	4 !	4 !	10 !
Vermont[h]	205	36 !	52	33 !	3 !	10 !	33 !	29 !	10 !	0	0
Virginia	280	95	76	28	14	11	37	10	2	1 !	2 !

Continued on next page

TABLE 14 (continued)

Average annual mortality rate per 100,000 state and federal prisoners, by cause of death, 2001-2016

State/Federal	All causes[a]	Illness						Suicide	Drug/alcohol intoxication	Accident	Homicide[d]
		Cancer	Heart disease	Liver disease	Respiratory disease	AIDS-related[b]	All other illnesses[c]				
Washington	208	59	50	24	16	3 !	32	14	1 !	4 !	3 !
West Virginia	394	113	143	29	19	8 !	64	8 !	1 !	3 !	5 !
Wisconsin	200	67	53	13	17	3 !	22	20	2 !	1 !	<1 !
Wyoming	282	47	97	41	25 !	3 !	41	19 !	6 !	3 !	0

Note: Data may have been revised from previously published statistics. Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. Mortality rates are not adjusted for demographic differences among states. Details may not sum to totals due to missing data. Excludes executions. For execution data, see *Capital Punishment, 2016 – Statistical Brief* (NCJ 251430, BJS, April 2018). See *Methodology*.

...Not available.

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

[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 non-leading natural causes of death) and unspecified illnesses. Includes natural and illness-related federal prisoner deaths for which the Federal Bureau of Prisons could not provide details.

[d]Includes homicides committed by other prisoners, incidental to the use of force by staff, and resulting from injuries 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 Federal Bureau of Prisons.

[g]Prisons and jails form one integrated system. Counts include deaths only in state-operated prisons and jails and exclude deaths in 14 locally operated jails.

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

[i]In 2016, Louisiana held 57.8% 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, 2001-2016, and National Prisoner Statistics, 2001-2016; and Federal Bureau of Prisons, 2001-2016.

Methodology

Data collection coverage

The Mortality in Correctional Institutions (MCI), formerly the Deaths in Custody Reporting Program (DCRP), is an annual Bureau of Justice Statistics (BJS) data collection. The MCI obtains national-, state-, and incident-level data on persons who died while in the physical custody of the 50 state departments of corrections (DOCs) or of the approximately 2,800 local jail jurisdictions with adult populations nationwide. This methodology pertains to the prison portion of the MCI collection only. See *Mortality in Local Jails, 2000-2016 – Statistical Tables* (NCJ 251921, BJS, February 2020) for the methodology on deaths in local jails.

The DCRP began in 2000 in response to the Death in Custody Reporting Act of 2000 (P.L. 106-297) and was the only national statistical collection providing comprehensive information about deaths in adult correctional facilities. Starting in 2001, BJS has annually collected data directly from state prison systems, maintaining a 100% response rate. BJS uses these data to track national trends in the number and causes or manners 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 from the DCRP to MCI to more accurately describe the data collection.

Mortality data measured by the MCI include the location and type of facility where the prisoner died, decedent characteristics (sex, race or ethnicity, and age), admission date, conviction status, and admission offense. The MCI also collects 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.[1] Statistics for 2001 to 2016 presented in this report are current as of October 30, 2019.

For more information on mortality in correctional settings, see—

- *Assessing Inmate Cause of Death: Deaths in Custody Reporting Program and National Death Index* (NCJ 249568, BJS, April 2016)
- *Mortality in Local Jails, 2000-2014 – Statistical Tables* (NCJ 250169, BJS, December 2016)
- *Mortality in State Prisons, 2001-2014 – Statistical Tables* (NCJ 250150, BJS, December 2016)
- *Suicide and Homicide in State Prisons and Local Jails* (NCJ 210036, BJS, August 2005).

The MCI instruments for collecting data from state prisons are administered annually to state DOCs. Respondents provide an aggregate count of the number of deaths that occurred during the referenced calendar year (NPS-4) and provide forms describing individual deaths (NPS-4A). The prison survey instruments are available on the BJS website. Respondents can submit individual records on decedents at any time during a collection cycle through a BJS web-based collection system. The BOP submits federal prison 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 over a prisoner. For instance, if a prison transports an ill prisoner to a hospital for medical services and that prisoner dies 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 the state or federal DOCs. The MCI obtains information about such deaths through the jail reports.

[1]See *Capital Punishment, 2017: Selected Findings* (NCJ 253060, BJS, July 2019).

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 (ICD-10).

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 the 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; or 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 DCRP 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. The mortality rate for state or federal prisoners 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 re-estimated 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 (such as one year), divided by the population estimate at the midpoint of the period. For statistics on mortality in the general population, the NCHS uses the midyear population as an approximation of the average population that is exposed to risk of death during any given year.[2]

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

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 (sex, race or ethnicity, and age) differs from the population in state and federal prisons, which in turn differs from the population in local jails.

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

Age and sex distributions of the state prison population are estimated using the NPS and National Corrections Reporting Program (NCRP) collections. Rates for race or ethnicity are also derived from these collections, and 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 to reflect statistics that were reported in BJS's 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. 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).

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 10 overlapping 3-year periods spanning 12 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."[3,4] 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, or coefficient of variation is greater than 50%.)

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

[4]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). Hyattsville, MD: National Center for Health Statistics. Retrieved from 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 and 2006-2016

Characteristic	Custody population, 2001-2016	2001	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	22,869,200	1,322,600	1,460,300	1,482,100	1,489,800	1,490,600	1,487,500	1,466,400	1,443,500	1,444,100	1,439,200	1,405,800	1,382,900
Federal[a]	2,600,100	137,100	163,100	166,000	165,300	171,000	173,100	176,200	176,500	173,800	169,500	160,700	154,200
State[b]	20,269,100	1,185,500	1,297,200	1,316,100	1,324,500	1,319,600	1,314,400	1,290,200	1,267,000	1,270,300	1,269,700	1,245,100	1,228,700
Sex													
Male	18,860,000	1,109,400	1,205,100	1,222,500	1,230,600	1,227,500	1,222,900	1,201,100	1,180,600	1,181,500	1,179,400	1,156,000	1,139,900
Female	1,409,100	76,100	92,200	93,600	93,900	92,100	91,500	89,100	86,400	88,800	90,300	89,100	88,800
Race/ethnicity													
White[c]	6,670,600	387,900	475,000	441,600	441,100	430,400	424,700	414,600	407,800	406,100	406,300	396,100	385,400
Black[c]	7,584,200	495,400	523,300	502,700	502,800	493,200	481,800	467,900	454,600	448,200	437,000	421,000	409,600
Hispanic	4,179,400	232,200	189,900	277,200	272,400	277,400	278,600	270,900	260,900	262,100	261,800	258,300	266,100
Other[c,d]	1,834,900	70,000	33,700	94,600	108,300	118,600	129,300	136,800	143,700	153,900	164,700	169,600	167,600
Age													
17 or younger	31,600	2,900	2,800	2,400	2,600	2,500	2,100	1,800	1,400	1,100	1,000	900	800
18-24	3,030,100	218,000	227,500	196,700	197,900	198,700	196,000	189,100	180,400	173,700	161,300	145,500	134,800
25-34	6,712,900	401,700	429,500	437,700	439,200	437,300	434,800	424,400	413,800	415,300	417,700	407,700	400,000
35-44	5,534,900	362,000	384,500	366,600	356,600	343,700	334,200	324,100	318,200	320,500	323,700	322,500	322,600
45-54	3,475,200	153,000	185,600	232,200	240,600	243,500	245,600	242,300	238,000	236,500	235,000	229,400	224,900
55 or older	1,484,400	47,800	60,400	80,400	87,600	93,900	101,700	108,500	115,300	123,100	131,100	139,100	145,600

Note: Data rounded to the nearest 100. Data may have been revised from previously published statistics. State data include prisoners in the custody of state correctional facilities, including private prison facilities. Federal data include prisoners in the custody of federal prisons, excluding private federal facilities. 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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

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

APPENDIX TABLE 2

Illness mortality rate per 100,000 state prisoners within each demographic group, by decedent characteristics, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	223	225	228	226	226	227	236	238	247	252
Sex										
Male	230	231	235	232	233	235	243	246	255	261
Female	133	136	144	137	132	122	132	133	143	142
Race/ethnicity										
White[a]	325	337	353	357	372	381	403	404	425	439
Black[a]	217	213	218	216	215	213	217	225	236	248
Hispanic	115	122	119	115	107	110	116	120	120	115
Other[a,b]	48	49	46	42	35	36	36	39	38	37
Age										
17 or younger	14 !	27 !	13 !	41 !	47 !	56 !	23 !	29 !	33 !	73 !
18-24	13	14	15	15	14	14	15	15	16	14
25-34	32	29	26	25	25	24	24	23	24	24
35-44	120	110	107	99	94	86	81	75	71	70
45-54	435	416	397	382	364	346	338	324	315	298
55 or older	1,791	1,777	1,765	1,658	1,598	1,558	1,567	1,538	1,544	1,528

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	62	63	67	71	75	77	81	82	85	88
Sex										
Male	64	65	70	73	77	79	84	85	88	91
Female	31	33	35	40	48	44	45	43	51	53
Race/ethnicity										
White[a]	97	103	114	119	130	134	146	144	149	154
Black[a]	58	58	62	66	68	71	75	79	83	89
Hispanic	23	24	23	28	30	31	32	34	36	38
Other[a,b]	15	15	13	15	11	12	11	11	11	10
Age										
17 or younger	0	14 !	13 !	14 !	16 !	19 !	23 !	0	0	37 !
18-24	2 !	1 !	2 !	3	4	4	3	2	2 !	2 !
25-34	5	4	4	4	5	5	6	5	6	6
35-44	22	22	20	22	21	21	22	22	21	19
45-54	119	113	115	117	118	113	116	114	113	104
55 or older	580	577	592	584	584	573	572	552	549	556

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	65	64	64	64	65	64	67	68	73	77
Sex										
Male	68	67	66	66	67	67	69	71	76	81
Female	32	33	36	30	29	27	31	31	35	37
Race/ethnicity										
White[a]	98	99	99	101	107	107	114	116	126	136
Black[a]	65	62	63	64	65	66	67	69	76	82
Hispanic	27	30	29	28	25	23	24	23	25	25
Other[a,b]	12	12	12	9	7	9	11	13	12	11
Age										
17 or younger	0	0	0	14 !	16 !	19 !	0	29 !	33 !	37 !
18-24	5	4	4	4	4	3	5	5	7	5
25-34	10	8	8	8	8	7	7	8	9	10
35-44	34	31	31	32	33	30	28	25	23	24
45-54	112	106	98	94	90	86	82	79	81	82
55 or older	572	550	525	487	468	448	455	448	466	470

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	24	24	24	24	24	24	26	26	26	23
Sex										
Male	25	25	25	25	26	25	27	26	26	24
Female	12	10	10	10	9	9	13	14	16	13
Race/ethnicity										
White[a]	37	37	40	42	44	44	47	46	46	44
Black[a]	15	14	14	14	15	14	15	14	15	14
Hispanic	25	25	24	21	19	20	23	25	25	19
Other[a,b]	10	8	8	5	5	5	6	5	5	5
Age										
17 or younger	0	0	0	14 !	16 !	19 !	0	0	0	0
18-24	1 !	1 !	1 !	1 !	1 !	<1 !	<1 !	1 !	1 !	1 !
25-34	1	1 !	1	1	1	1	1 !	1	1 !	1 !
35-44	11	11	11	9	10	7	7	5	5	5
45-54	75	69	67	63	58	53	54	50	47	41
55 or older	137	136	136	129	137	139	156	150	146	125

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	16	17	17	17	16	17	16	17	18	19
Sex										
Male	16	17	17	17	16	17	17	18	19	19
Female	15	16	14	12	10	7	10	9	10	11
Race/ethnicity										
White[a]	25	28	28	28	29	31	32	32	34	36
Black[a]	15	14	14	15	13	13	12	14	15	16
Hispanic	7	8	8	9	7	7	7	8	8	9
Other[a,b]	1 !	1 !	1 !	1 !	1 !	2 !	3	3	3	3
Age										
17 or younger	14 !	14 !	0	0	0	0	0	0	0	0
18-24	2	3	2	2	1 !	2 !	2 !	2 !	2 !	1 !
25-34	3	3	3	3	2	3	3	3	2	2
35-44	9	8	8	7	6	5	4	4	4	4
45-54	22	23	21	21	20	19	18	16	16	16
55 or older	144	143	140	137	121	127	120	125	126	126

Note: Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	45	48	48	44	41	40	40	40	40	41
Sex										
Male	46	49	49	44	42	41	41	41	41	42
Female	34	36	39	39	32	31	30	32	29	26
Race/ethnicity										
White[a]	61	65	67	61	59	60	61	61	65	66
Black[a]	46	48	50	45	43	41	40	40	40	41
Hispanic	28	32	30	27	24	26	27	28	25	24
Other[a,b]	9	12	12	10	9	7	6	6	6	8
Age										
17 or younger	0	0	0	0	0	0	0	0	0	0
18-24	4	4	5	4	4	5	4	4	4	4
25-34	9	9	9	7	7	6	6	5	5	5
35-44	29	28	28	22	19	17	16	14	14	14
45-54	85	84	78	72	65	64	58	55	50	47
55 or older	338	350	352	303	274	255	250	246	245	240

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, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; 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, 2007-2016 (3-year rolling averages)

Characteristic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	27	26	25	26	27	28	29	31	32	36
Sex										
Male	28	27	26	26	27	29	29	31	33	37
Female	14	15	15	16	18	18	17	20	22	23
Race/ethnicity										
White[a]	43	43	44	44	47	49	50	53	57	63
Black[a]	16	15	15	16	16	18	18	20	22	26
Hispanic	23	21	19	20	20	21	23	25	25	26
Other[a,b]	14	13	10	11	11	11	10	10	11	12
Age										
17 or younger	29 !	41 !	40 !	41 !	31 !	38 !	23 !	29 !	33 !	37 !
18-24	21	18	19	19	18	19	19	22	24	30
25-34	23	23	22	23	23	23	24	26	29	30
35-44	29	27	26	26	29	30	31	30	33	38
45-54	32	30	30	30	32	33	32	35	36	39
55 or older	38	40	36	38	39	46	46	51	46	47

Note: Unnatural deaths include deaths caused by suicide, accident, homicide, and drug or alcohol intoxication. Based on 3-year rolling averages. Labels show the most recent year only (for example, 2005-07 is shown as 2007). Mortality rates are based on the annual number of deaths and a one-day custody population on December 31. See *Methodology*. Includes deaths in private state facilities.

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

[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, Other Pacific Islanders, American Indians, Alaska Natives, or persons of two or more races.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2007-2016; National Prisoner Statistics, 2007-2016; Survey of Inmates in State Correctional Facilities, 2004; and Survey of Prison Inmates, 2016.

APPENDIX TABLE 9

Rates for figure 1: Mortality rate per 100,000 state and federal prisoners, 2001-2016

State/ Federal	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Federal[a]	220	232	227	208	244	201	222	241	220	224	220	198	230	262	283	252
State[b]	242	244	257	252	253	249	258	261	259	246	260	265	274	274	296	303

Note: Based on the annual number of deaths and the one-day custody population on December 31.

[a]Excludes deaths in private federal facilities.

[b]Includes deaths in private state facilities.

Source: Bureau of Justice Statistics, Mortality in Correctional Institutions, 2001-2016; and Federal Bureau of Prisons, 2001-2016.

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