

# **NATIONAL SAFETY AND HEALTH OVERVIEW**

## Workplace Fatalities 1970–2007<sup>1,2</sup>

**(Employment-Based Fatality Rates)**

<b>Year</b>	<b>Work Deaths</b>	<b>Employment (000)<sup>3</sup></b>	<b>Fatality Rate<sup>4</sup></b>
<b>1970</b>	13,800	77,700	18
<b>1971</b>	13,700	78,500	17
<b>1972</b>	14,000	81,300	17
<b>1973</b>	14,300	84,300	17
<b>1974</b>	13,500	86,200	16
<b>1975</b>	13,000	85,200	15
<b>1976</b>	12,500	88,100	14
<b>1977</b>	12,900	91,500	14
<b>1978</b>	13,100	95,500	14
<b>1979</b>	13,000	98,300	13
<b>1980</b>	13,200	98,800	13
<b>1981</b>	12,500	99,800	13
<b>1982</b>	11,900	98,800	12
<b>1983</b>	11,700	100,100	12
<b>1984</b>	11,500	104,300	11
<b>1985</b>	11,500	106,400	11
<b>1986</b>	11,100	108,900	10
<b>1987</b>	11,300	111,700	10
<b>1988</b>	10,800	114,300	9
<b>1989</b>	10,400	116,700	9
<b>1990</b>	10,500	117,400	9
<b>1991</b>	9,900	116,400	9
<b>1992<sup>2</sup></b>	6,217	117,000	5.2
<b>1993</b>	6,331	118,700	5.2
<b>1994</b>	6,632	122,400	5.3
<b>1995</b>	6,275	126,200	4.9
<b>1996</b>	6,202	127,997	4.8
<b>1997</b>	6,238	130,810	4.8
<b>1998</b>	6,055	132,684	4.5
<b>1999</b>	6,054	134,666	4.5
<b>2000</b>	5,920	136,377	4.3
<b>2001</b>	5,915 <sup>5</sup>	136,252	4.3
<b>2002</b>	5,534	137,700	4.0
<b>2003</b>	5,575	138,928	4.0
<b>2004</b>	5,764	140,411	4.1
<b>2005</b>	5,734	142,894	4.0
<b>2006</b>	5,840	145,501	4.0
<b>2007</b>	5,657	147,215	3.8

<sup>1</sup>Fatality information for 1971 to 1991 from National Safety Council Accident Facts, 1994.

<sup>2</sup>Fatality information for 1992 to 2007 is from the Bureau of Labor Statistics, Census of Fatal Occupational Injuries. In 1994, the National Safety Council changed its reporting fatalities and adopted the BLS count. The earlier NSC numbers are based on an estimate; the BLS method for workplace numbers are based on an actual census.

<sup>3</sup>Employment is an annual average of employed civilians 16 years of age and older from the Current Population Survey, adjusted to include data for resident and armed forces from the Department of Defense.

<sup>4</sup>Deaths per 100,000 workers are based on annual average of employed civilians 16 years of age and older from 1992 to 2007. In 2008, CFOI switched from an employment-based fatality rate to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared with hours-based fatality rates.

<sup>5</sup>Excludes fatalities from the events of September 11, 2001.

## Workplace Fatalities 2006–2019<sup>1</sup> (Hours-Based Fatality Rates)

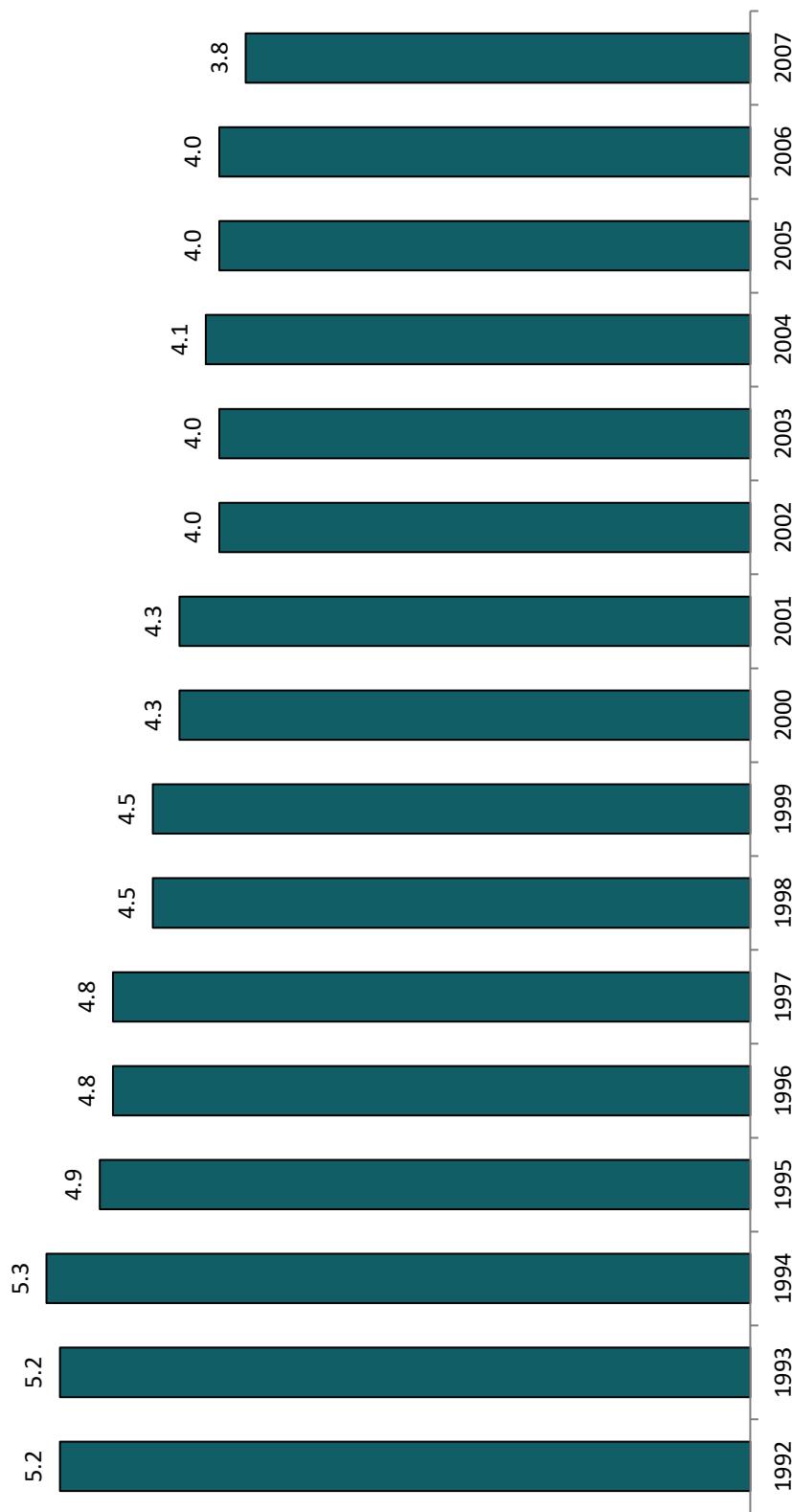
Year	Work Deaths	Total Hours Worked (Millions) <sup>2</sup>	Fatality Rate <sup>3</sup>
2006	5,840	271,815	4.2
2007	5,657	275,043	4.0
2008	5,214	271,958	3.7
2009	4,551	254,771	3.5
2010	4,690	255,948	3.6
2011	4,693	258,293	3.5
2012	4,628	264,374	3.4
2013	4,585	268,127	3.3
2014	4,821	272,663	3.4
2015	4,836	277,470	3.4
2016	5,190	283,101	3.6
2017	5,147	285,977	3.5
2018	5,250	292,528	3.5
2019	5,333	296,600	3.5

<sup>1</sup>Fatality information is from the U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>2</sup>The total hours worked figures are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey, U.S. Bureau of Labor Statistics.

<sup>3</sup>Deaths per 100,000 workers. In 2008, CFOI switched to an hours-based fatality rate calculation from an employment-based calculation used from 1992 to 2007. Fatality rates for 2006 and 2007 were calculated by CFOI using both approaches during the transition to hours-based rates beginning exclusively in 2008. Hours-based fatality rates should not be compared directly with the employment-based rates CFOI calculated for 1992 to 2007.

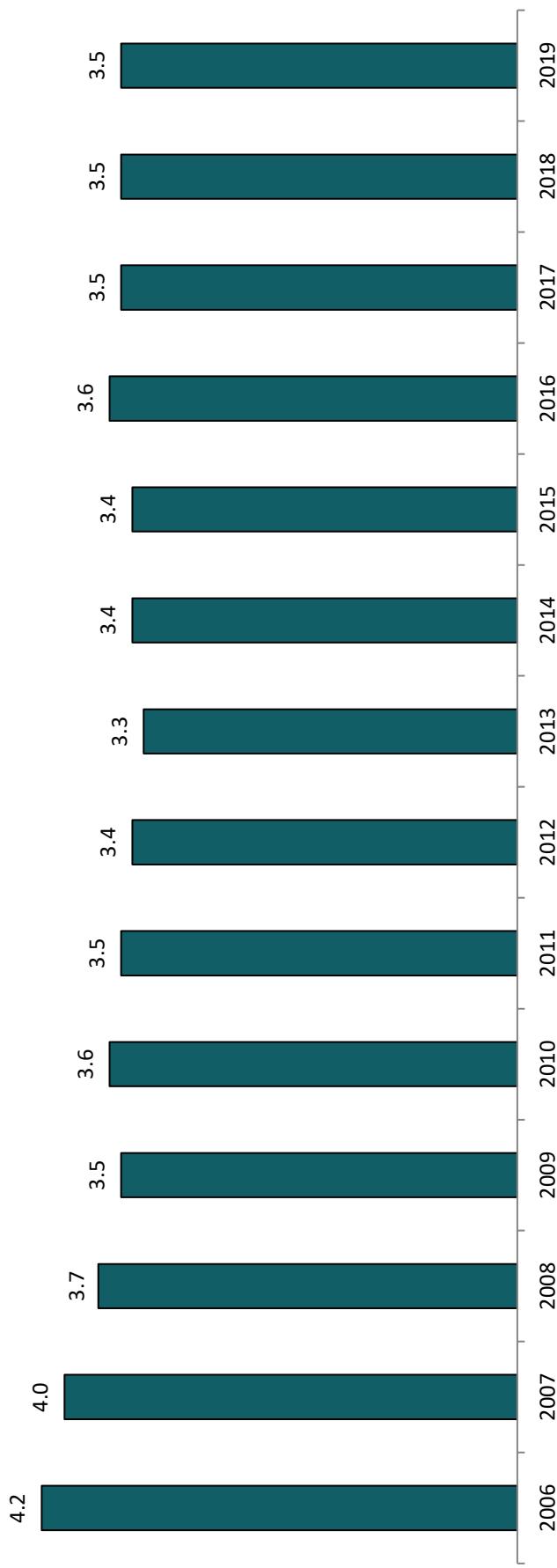
## Rate of Fatal Work Injuries Per 100,000 Workers, 1992–2007<sup>1</sup> (Employment-Based Rates)



Sources: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Census of Fatal Occupational Injuries; U.S. Bureau of the Census; and U.S. Department of Defense.

<sup>1</sup>Incidence rate represents the number of fatalities per 100,000 workers. Fatality rate is an employment-based calculation using employment figures that are annual average estimates of employed civilians, 16 years of age and older, from the Current Population Survey, U.S. Bureau of Labor Statistics. In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

## **Rate of Fatal Work Injuries Per 100,000 Workers, 2006–2019<sup>1</sup>** (Hours-Based Rates)



**Source:** U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>Incidence rate represents the number of fatalities per 100,000 workers. Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey, U.S. Bureau of Labor Statistics. Hours-based fatality rates should not be compared directly with the employment-based rates CFOI calculated for 1992 to 2007.

## Workplace Fatality Rates by Industry Sector, 1970–2002<sup>1,2</sup>

Year	All Ind.	Mfg.	Const.	Mining	Gov't	Agri.	Trans/Util.	Ret. Trade	Service	Finance
1970	18.0	9	69	100	13	64	N/A	N/A	N/A	N/A
1971	17.0	9	68	83	13	63	N/A	N/A	N/A	N/A
1972	17.0	9	68	100	13	58	N/A	N/A	N/A	N/A
1973	17.0	9	56	83	14	58	38	8	11	N/A
1974	16.0	8	53	71	13	54	35	7	10	N/A
1975	15.0	9	52	63	12	58	33	7	9	N/A
1976	14.0	9	45	63	11	54	31	7	8	N/A
1977	14.0	9	47	63	11	51	32	6	8	N/A
1978	14.0	9	48	56	11	52	29	7	7	N/A
1979	13.0	8	46	56	10	54	30	6	8	N/A
1980	13.0	8	45	50	11	56	28	6	7	N/A
1981	13.0	7	42	55	10	54	31	5	7	N/A
1982	12.0	6	40	50	11	52	26	5	6	N/A
1983	12.0	6	39	50	10	52	28	5	7	N/A
1984	11.0	6	39	50	9	49	29	5	7	N/A
1985	11.0	6	40	40	8	49	27	5	6	N/A
1986	10.0	5	37	38	8	55	29	4	5	N/A
1987	10.0	5	33	38	9	53	26	5	6	N/A
1988	10.0	6	34	38	9	48	26	4	5	N/A
1989	9.0	6	32	43	10	40	25	4	5	N/A
1990	9.0	5	33	43	10	42	20	4	4	N/A
1991	8.0	4	31	43	11	44	18	3	4	N/A
1992	5.2	4	14	27	4	24	13	4	2	2
1993	5.2	4	14	26	3	26	13	4	2	2
1994	5.3	4	15	27	3	24	13	4	3	1
1995	4.9	3	15	25	4	22	12	3	2	2
1996	4.8	3.5	13.9	26.8	3.0	22.2	13.1	3.1	2.2	1.5
1997	4.8	3.6	14.1	25.0	3.2	23.4	13.2	3.0	2.0	1.2
1998	4.5	3.3	14.5	23.6	3.0	23.3	11.8	2.6	2.0	1.1
1999	4.5	3.6	14.0	21.5	2.8	24.1	12.7	2.3	1.9	1.2
2000	4.3	3.3	12.9	30.0	2.8	20.9	11.8	2.7	2.0	0.9
2001	4.3	3.2	13.3	30.0	3.1	22.8	11.2	2.4	1.9	1.0
2002	4.0	3.1	12.2	23.5	2.7	22.7	11.3	2.1	1.7	1.0

<sup>1</sup>Data for 1970–1991 is from the National Safety Council, Accident Facts, 1994. Fatality information for 1992–2002 is from the Bureau of Labor Statistics, Census of Fatal Occupational Injuries. In 1994, the National Safety Council changed its reporting method for workplace fatalities and adopted the BLS count. The earlier NSC numbers are based on an estimate; the BLS numbers are based on an actual census. Beginning with 2003, CFOI began using the North American Industry Classification System. The substantial differences between these systems result in breaks in series for industries. Prior to 2003, CFOI used the Standard Industrial Classification system. The industry data for 1992–2002 are based on the SIC system.

<sup>2</sup>Deaths per 100,000 workers.

## Workplace Fatality Rates by Industry Sector, 2003–2007<sup>1,2</sup> (Employment-Based Rates)

Industry Sector	2003	2004	2005	2006	2007
<b>All Industries</b>	<b>4.0</b>	<b>4.1</b>	<b>4.0</b>	<b>4.0</b>	<b>3.8</b>
Agriculture, Forestry, Fishing and Hunting	31.2	30.5	32.5	30.0	27.9
Mining	26.9	28.3	25.6	28.1	25.1
Construction	11.7	12.0	11.1	10.9	10.5
Manufacturing	2.5	2.8	2.4	2.8	2.5
Wholesale Trade	4.2	4.5	4.6	4.9	4.7
Retail Trade	2.1	2.3	2.4	2.2	2.1
Transportation and Warehousing	17.5	18.0	17.7	16.8	16.9
Utilities	3.7	6.1	3.6	6.3	4.0
Information	1.8	1.7	2.0	2.0	2.3
Finance, Insurance, Real Estate	1.4	1.2	1.0	1.2	1.2
Professional and Administrative	3.3	3.3	3.5	3.2	3.1
Educational and Health Services	0.8	0.8	0.8	0.9	0.7
Leisure and Hospitality	2.4	2.2	1.8	2.3	2.2
Other Services, Except Public Administration	2.8	3.0	3.0	2.6	2.5
Government	2.5	2.5	2.4	2.4	2.5

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>Deaths per 100,000 workers.

<sup>2</sup>Fatality rate is an employment-based calculation using employment figures that are annual average estimates of employed civilians, 16 years of age and older, from the Current Population Survey. In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

*Note: Beginning with the 2003 reference year, both CFOI and the Survey of Occupational Injuries and Illnesses began using the 2002 North American Industry Classification System (NAICS) for industries. Prior to 2003, the surveys used the Standard Industrial Classification (SIC) system. The substantial differences between these systems result in breaks in series for industry data.*

## Workplace Fatality Rates by Industry Sector, 2009–2019<sup>1,2</sup> (Hours-Based Rates)

	Industry Sector	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>All Industries</b>		3.5	3.6	3.5	3.4	3.3	3.4	3.4	3.6	3.5	3.5	3.5
<b>Agriculture, Forestry, Fishing and Hunting</b>		27.2	27.9	24.9	22.8	23.2	25.6	22.8	23.2	23.0	23.4	23.1
<b>Mining, Quarrying, and Oil and Gas Extraction</b>		12.4	19.8	15.9	15.9	12.4	14.2	11.4	10.1	12.9	14.1	14.6
<b>Construction</b>		9.9	9.8	9.1	9.9	9.7	9.8	10.1	10.1	9.5	9.5	9.7
<b>Manufacturing</b>		2.3	2.3	2.2	2.2	2.1	2.3	2.3	2.0	1.9	2.2	-
<b>Wholesale Trade</b>		5.0	4.9	4.9	5.4	5.3	5.1	4.7	4.8	4.8	5.3	4.9
<b>Retail Trade</b>		2.2	2.2	1.9	1.9	1.9	1.9	1.8	1.9	2.0	1.9	2.0
<b>Transportation and Warehousing</b>		13.3	13.7	15.3	14.6	14	14.1	13.8	14.3	15.1	14.0	13.9
<b>Utilities</b>		1.7	2.8	4.2	2.5	2.6	1.7	2.2	2.8	2.6	2.6	2.0
<b>Information</b>		1.1	1.5	1.9	1.5	1.5	1.2	1.5	1.7	1.6	1.2	-
<b>Financial Activities</b>		1.2	1.3	1.1	0.9	0.9	1.2	0.9	1.2	1.0	1.1	1.0
<b>Professional, Scientific and Technical Services<sup>3</sup></b>		3.1	2.6	2.9	2.7	2.8	2.7	3.0	3.1	3.0	3.3	0.7
<b>Educational and Health Services</b>		0.8	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.8
<b>Leisure and Hospitality</b>		2.2	2.3	2.2	2.2	1.9	2.0	2.0	2.6	2.2	2.2	2.2
<b>Other Services, Except Public Administration</b>		2.8	3.0	3.0	2.7	2.7	3.0	3.2	2.9	2.6	3.0	-
<b>Government<sup>4</sup></b>		1.9	2.2	2.2	2.0	2.0	1.9	1.9	2.2	2.0	1.8	1.8

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

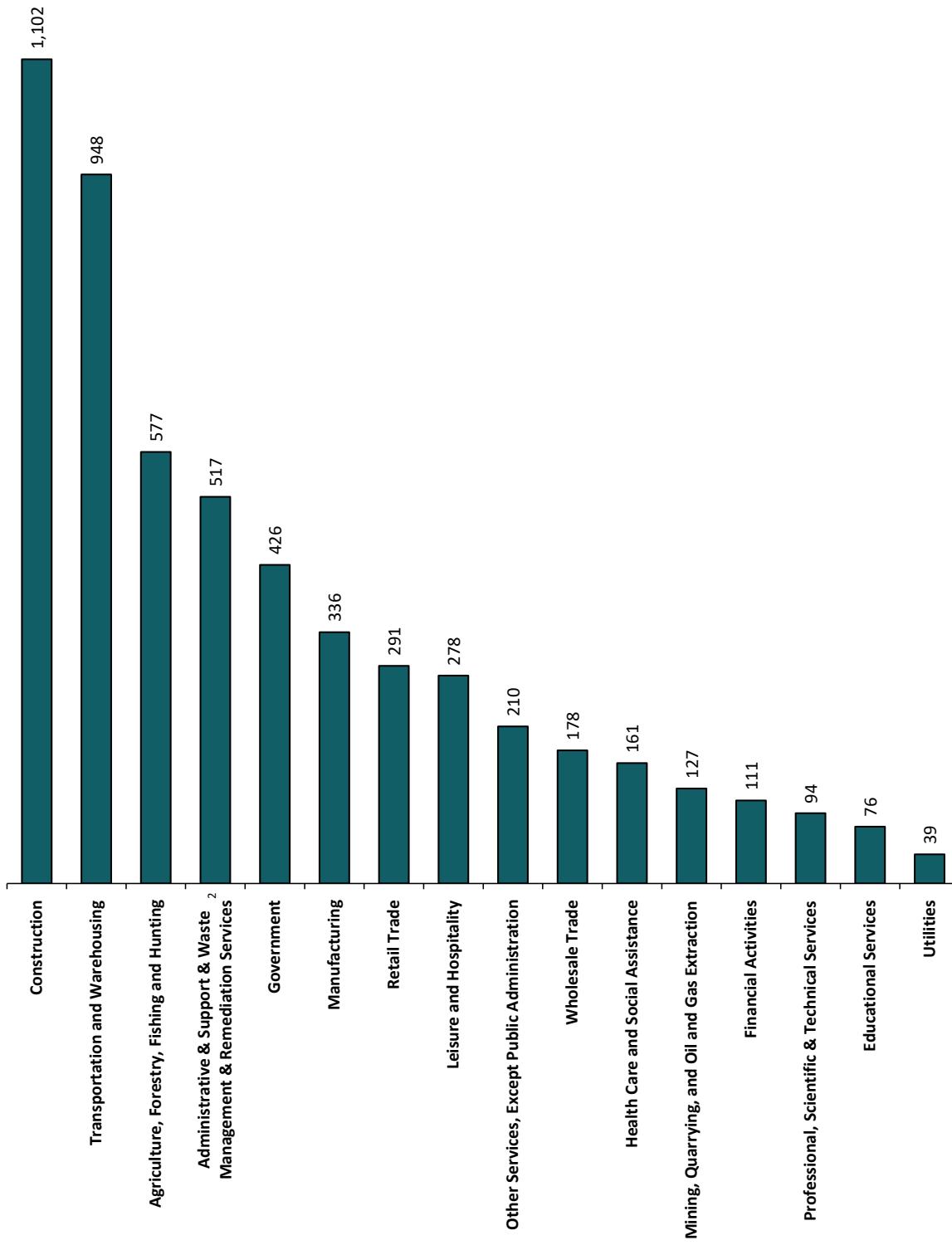
<sup>1</sup>Deaths per 100,000 workers.

<sup>2</sup>Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey. Hours-based fatality rates should not be compared directly with employment-based rates that CFOI calculated for 1992 to 2007.

<sup>3</sup>Landscaping services was not reported in 2019 for private industry.

<sup>4</sup>Government fatalities may overlap with specific industry sectors listed.

# Occupational Fatalities by Industry Sector, 2019 (Total Fatalities 5,333)<sup>1</sup>

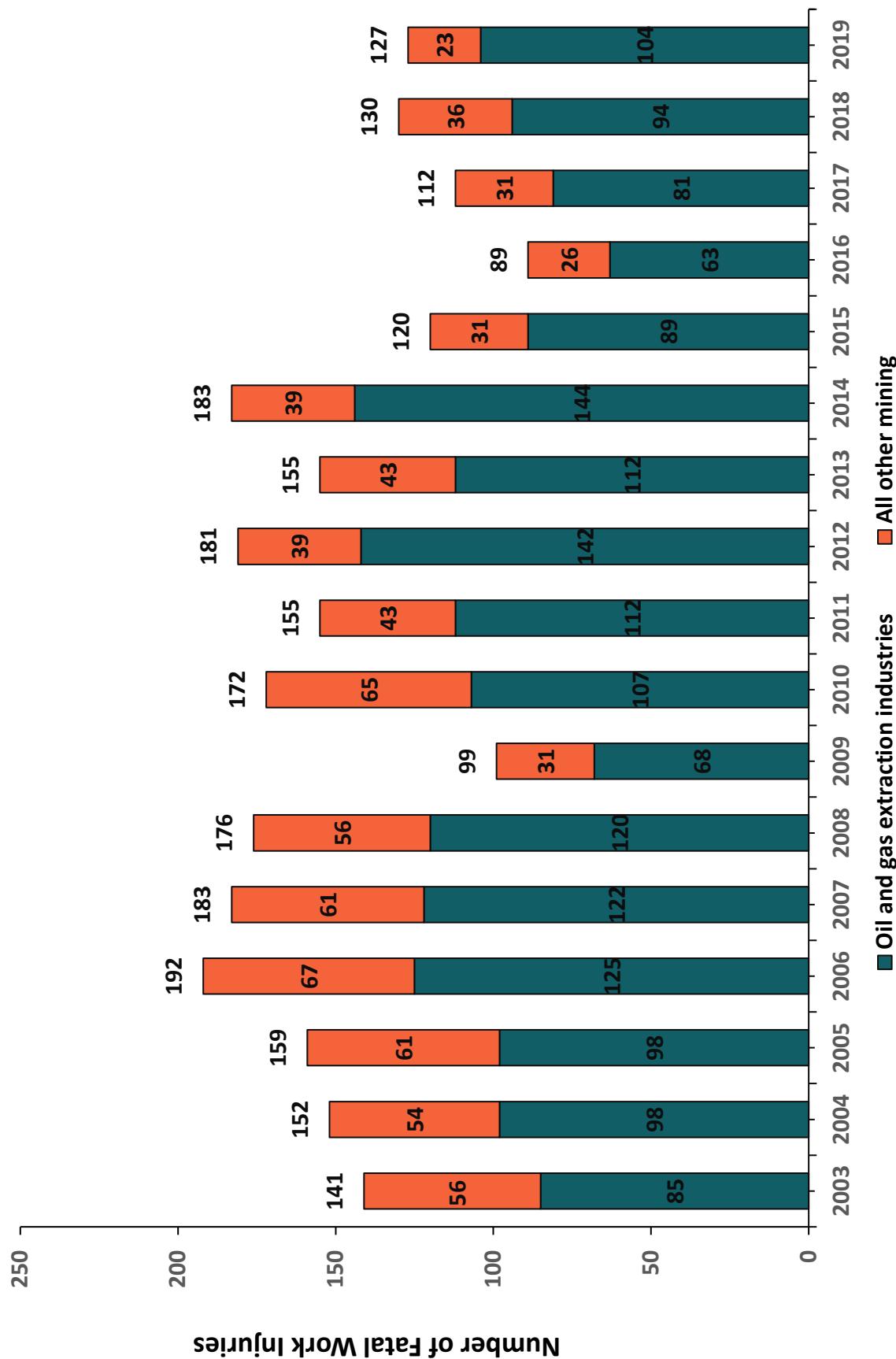


Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>Fatalities reported for all ownerships and government fatalities may overlap with specific industry sectors listed.

<sup>2</sup>Landscaping services accounted for 252 of these deaths.

## Fatal Occupational Injuries in the Private Sector Mining, Quarrying, and Oil and Gas Extraction Industries, 2003–2019



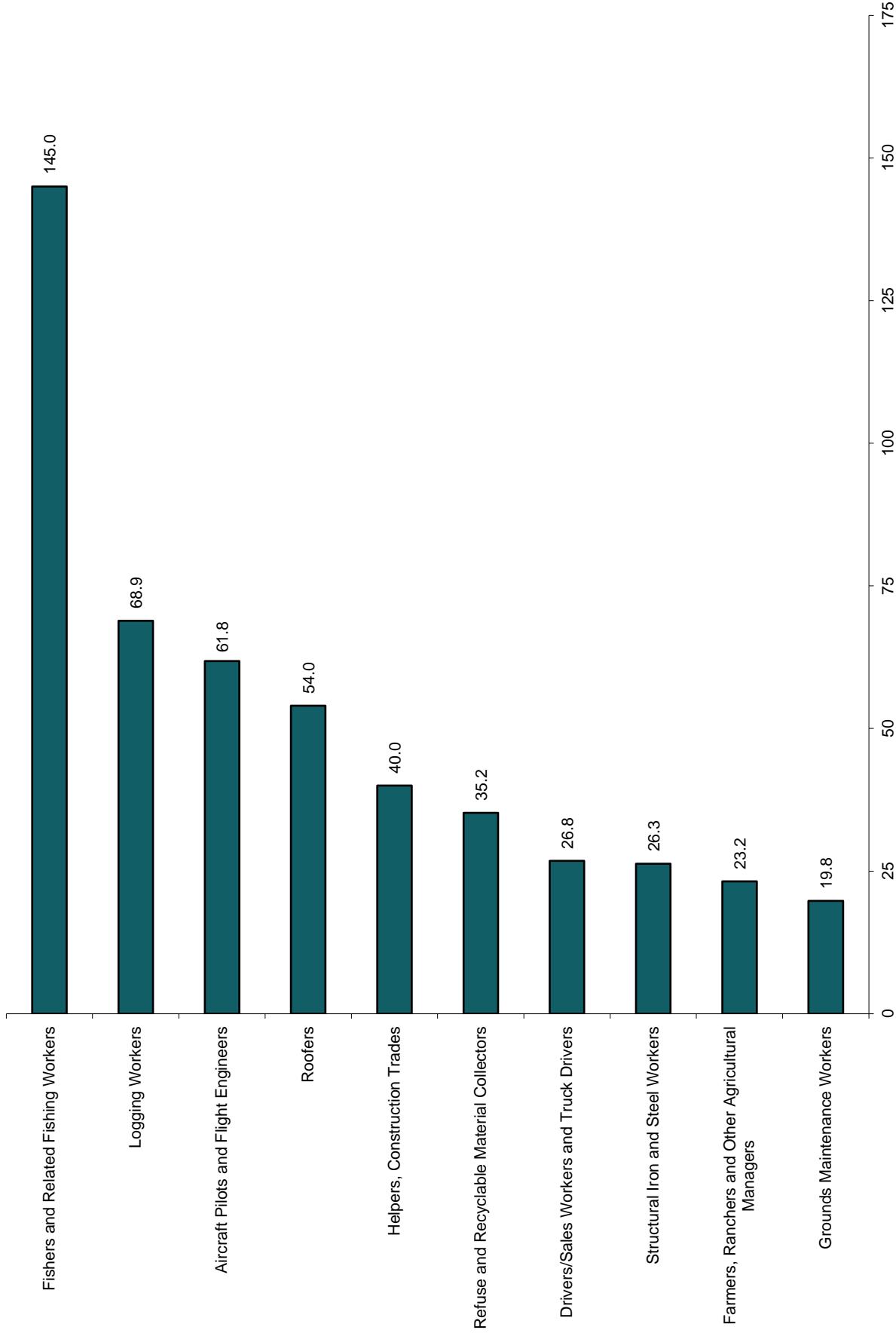
Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor.

Note: Oil and gas extraction industries include oil and gas extraction (NAICS 21111), drilling oil and gas wells (NAICS 21311), and support activities for oil and gas operations (NAICS 21311/2).

## **Selected Occupations with High Fatality Rates, 2019**

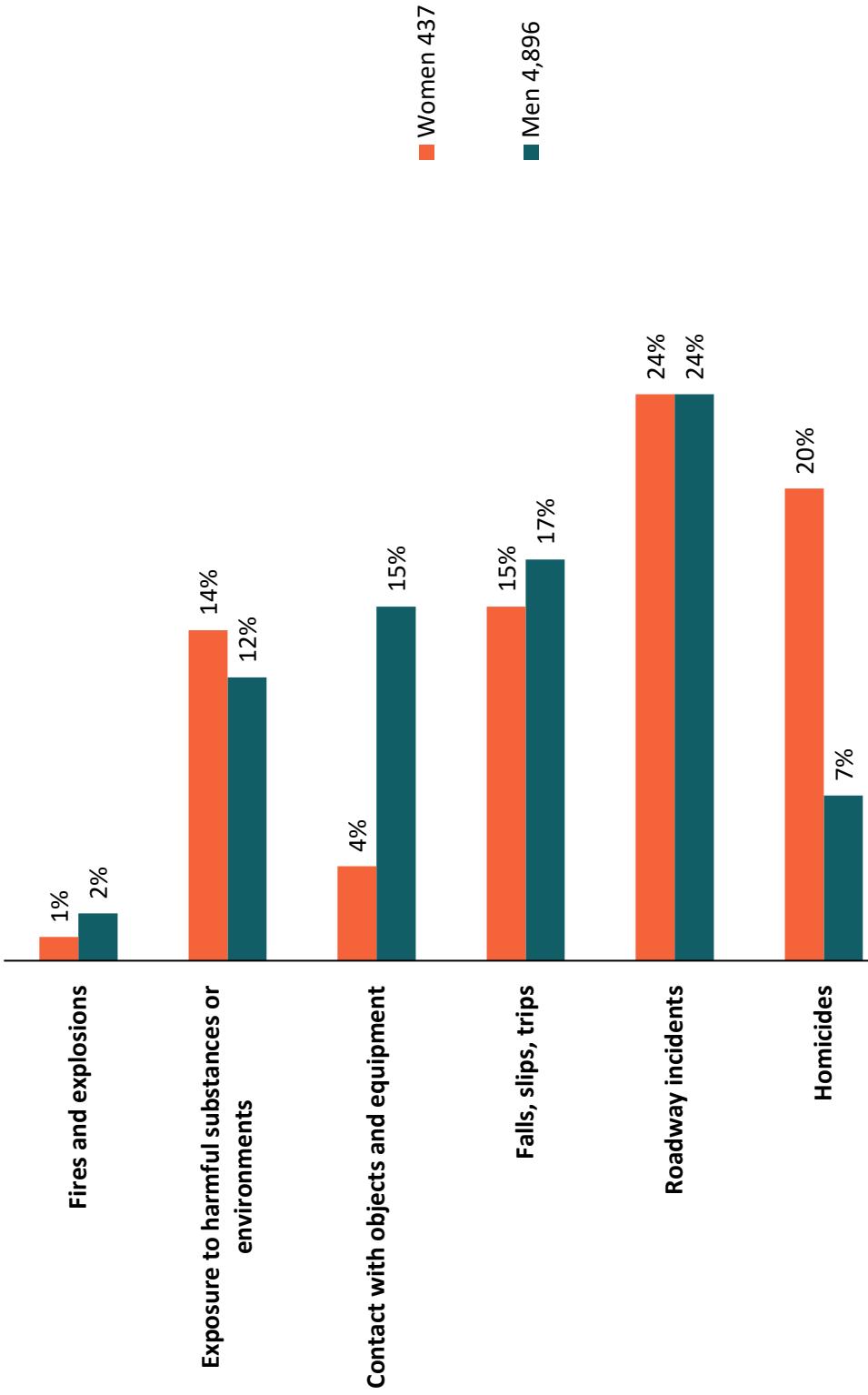
(Per 100,000 Workers)

National Fatality Rate = 3.5



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

## Distribution of Fatal Injury Events by Gender of Worker, 2019



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

## Profile of Workplace Homicides, 2019<sup>1</sup>

Characteristic	Subcharacteristics	Deaths
Total Homicides <sup>2</sup>		454
Gender	Men	366
	Women	88
Employee Status	Wage and salary workers	362
	Self employed	92
Race	White	197
	Black	127
	Hispanic or Latino	74
Leading Primary Source	Assailant, suspect	-
	Co-worker or work associate	-
	Other client or customer	-
	Relative or domestic partner of injured or ill worker	-
Leading Secondary Source	Firearm	362
	Knives	-
Leading Worker Activity	Protective service activities	82
	Tending a retail establishment	-
	Vehicular and transportation operations	-
Leading Location	Public building	180
	Private residence	53
	Street or highway	70
Leading Occupations	Law enforcement workers	-
	Retail sales workers	-
	Supervisors of sales workers	-
Leading Industries	Retail trade	84
	Accommodations and food services	57
	Public administration <sup>3</sup>	51
	Transportation and warehousing	45

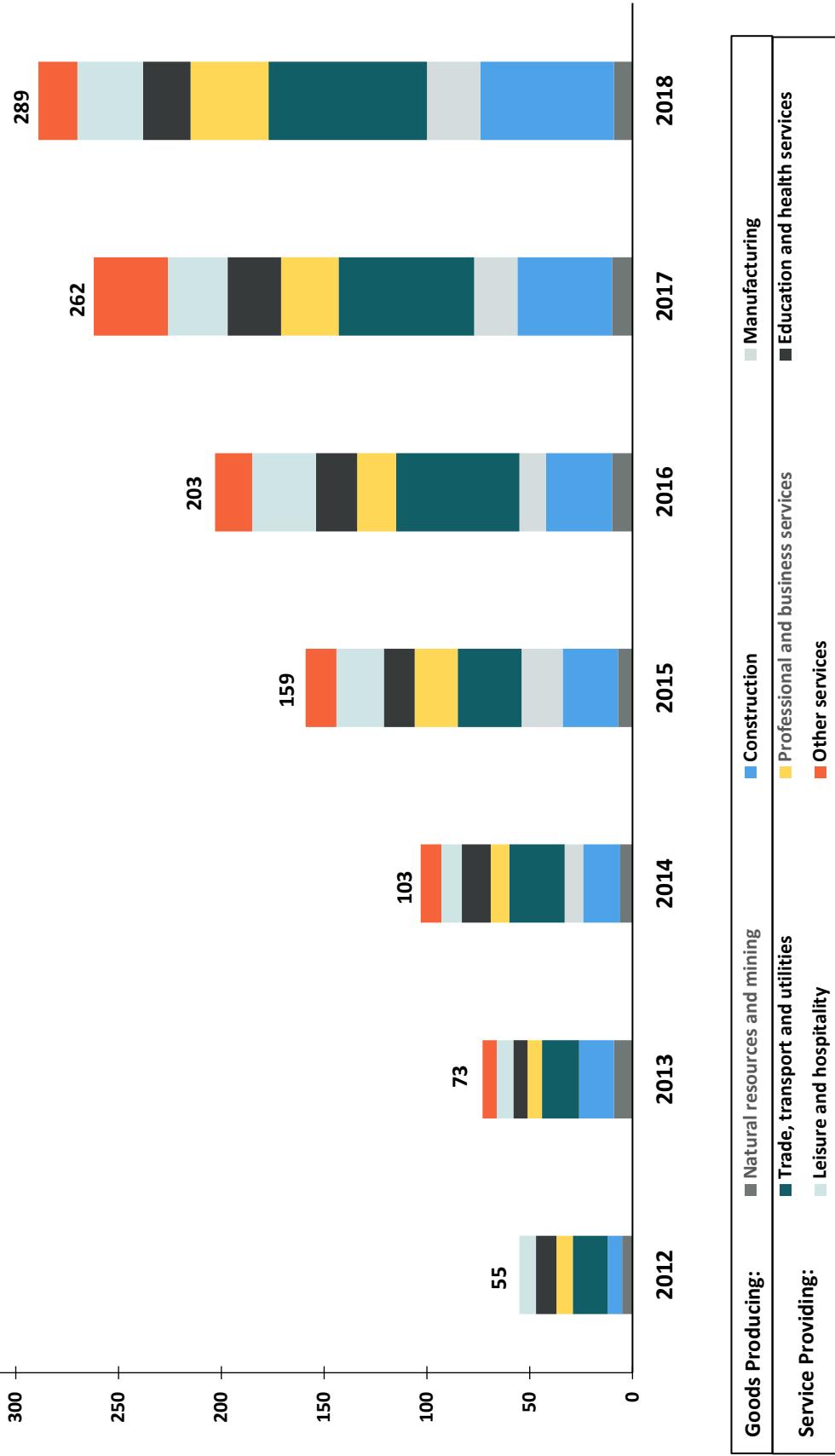
Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>In 2020, the Bureau of Labor Statistics updated its disclosure methodology resulting in significantly fewer publishable data. See [www.bls.gov/iif/oshfaq1.htm#accessingourdata](http://www.bls.gov/iif/oshfaq1.htm#accessingourdata).

<sup>2</sup>This does not include 307 workplace suicides.

<sup>3</sup>Police protection was not reported in 2019. In 2018, police protection accounted for 55 deaths in this industry.

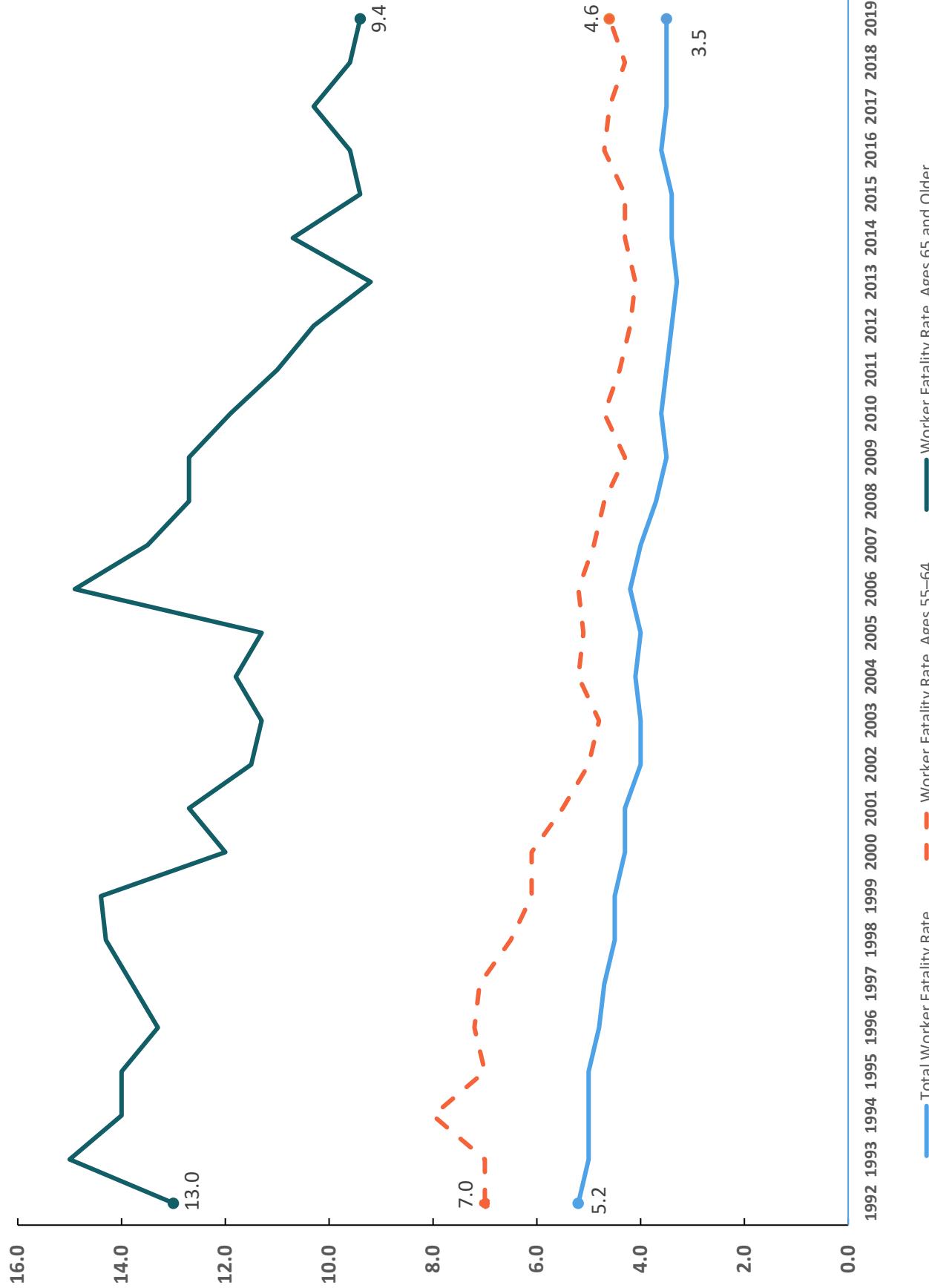
## Work-Related Unintentional Overdose Deaths, 2012–2018



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

Note: 2019 data is unavailable. In 2020, the Bureau of Labor Statistics updated its disclosure methodology resulting in significantly fewer publishable data. See [www.bls.gov/iif/ostifaq1.htm#accessinggourdata](http://www.bls.gov/iif/ostifaq1.htm#accessinggourdata).

## Total Worker Fatality Rates Compared with Aging Worker Fatality Rates, 1992–2019<sup>1</sup>



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>All rates per 100,000 workers.

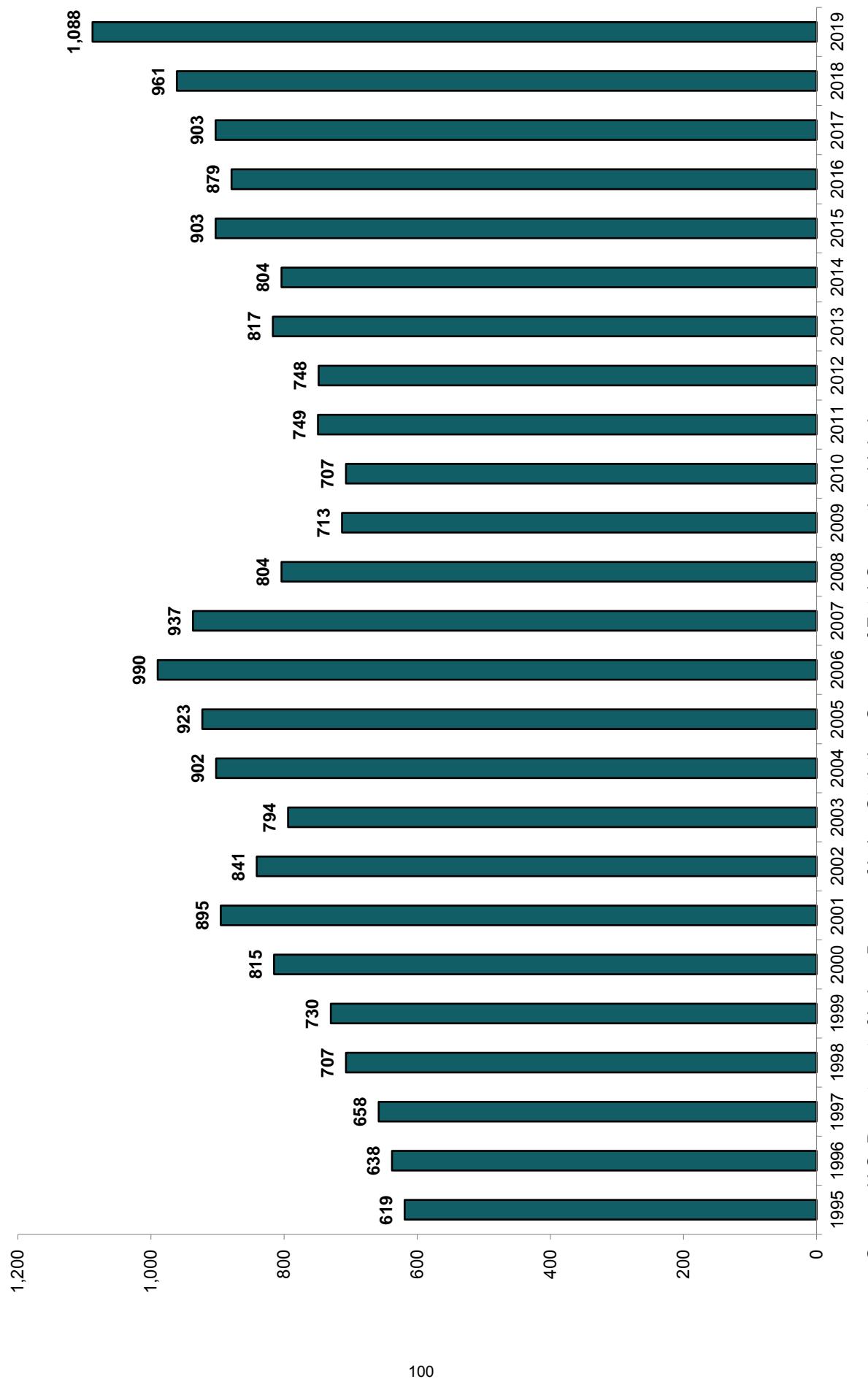
## Fatal Work Injuries by Race, 2000–2019

	2000	2001 <sup>1</sup>	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Total Fatalities</b>	5,920	5,915	5,534	5,575	5,764	5,734	5,840	5,657	5,214	4,551	4,690	4,693	4,628	4,585	4,821	4,836	5,190	5,147	5,250	5,333
White	4,244	4,175	3,926	3,988	4,066	3,977	4,019	3,867	3,663	3,204	3,363	3,323	3,177	3,125	3,332	3,241	3,481	3,449	3,405	3,297
Black or African American	575	565	491	543	546	584	565	609	533	421	412	440	486	439	475	495	587	530	615	634
Hispanic or Latino	815	895	841	794	902	923	990	937	804	713	707	749	748	817	804	903	879	903	961	1,088
Asian or Pacific Islander	185	182	140	158	180	163	159	172	152	148	149	124	154	132	142	123	167	161	163	181
American Indian or Alaskan Native	33	48	40	42	28	50	46	29	32	33	32	30	37	35	34	36	38	38	42	30
Multiple Races	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	14	22
Other Races/Not Reported	68	50	96	50	42	37	61	43	30	32	27	27	26	37	34	38	38	57	50	81

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

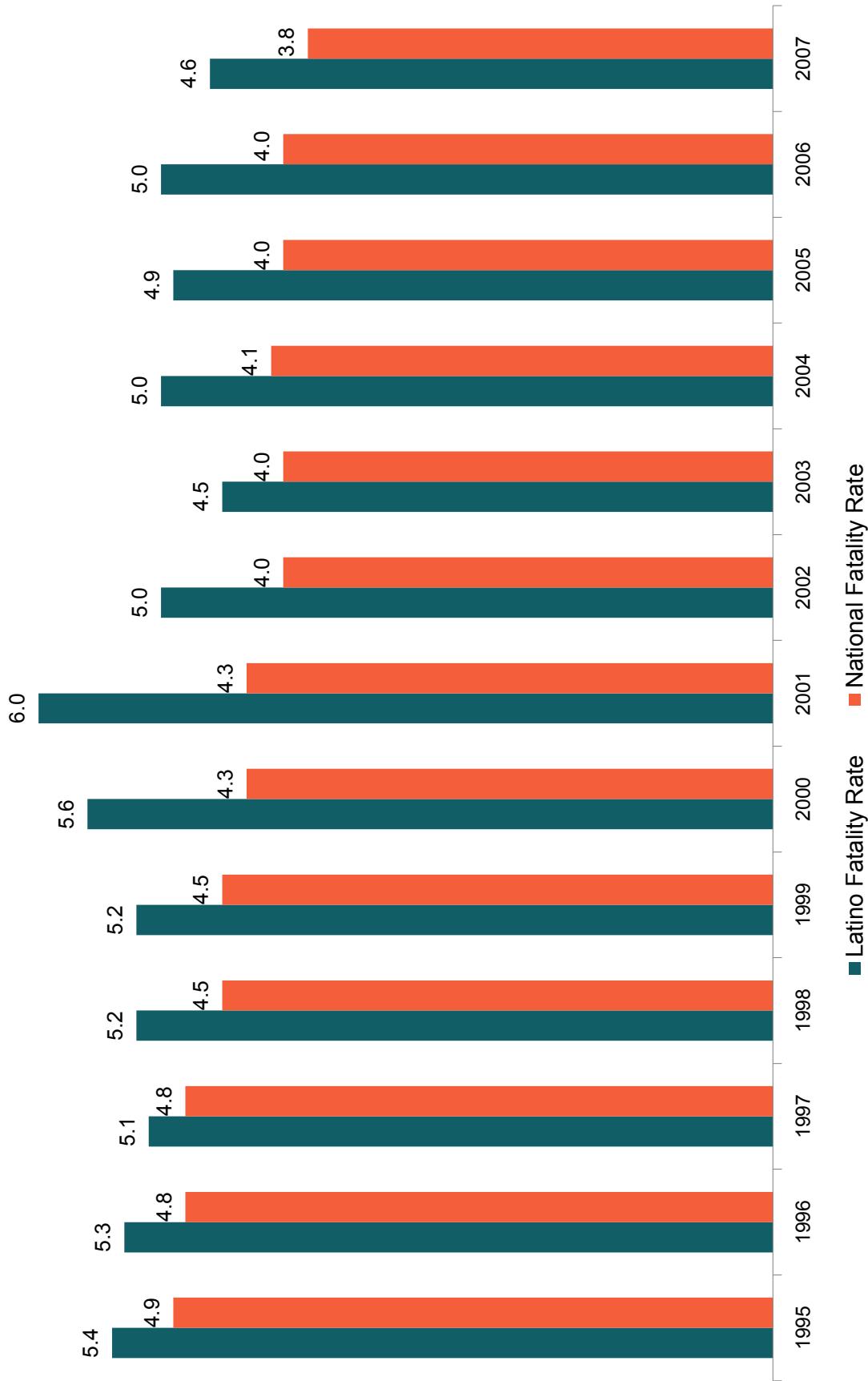
<sup>1</sup>Excludes fatalities from the September 11 terrorist attacks.

## Number of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2019



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

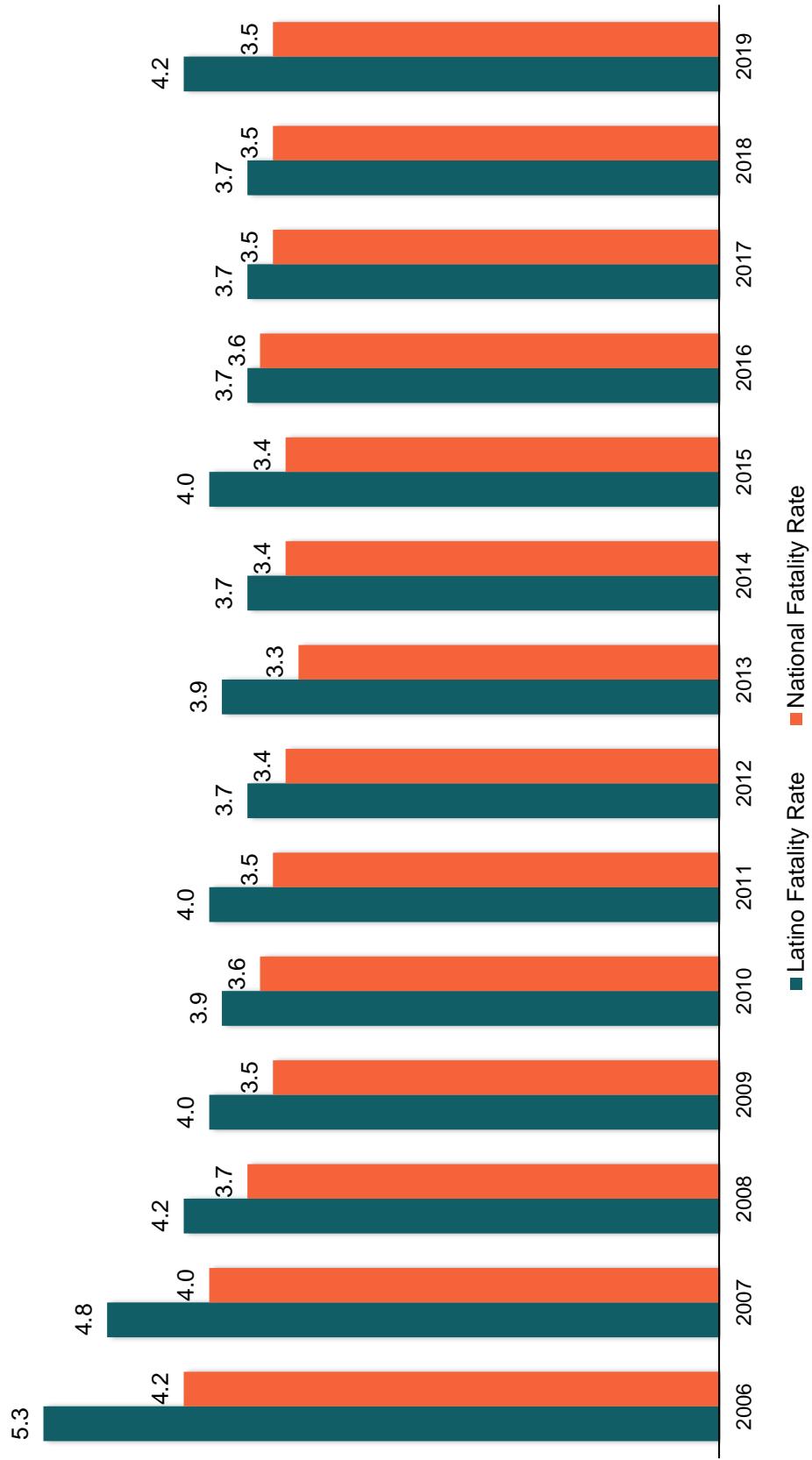
## Rate of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2007<sup>1</sup> (Employment-Based Rates)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>Incidence rate represents the number of fatalities per 100,000 workers. Fatality rate is an employment-based calculation. In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

## Rate of Fatal Occupational Injuries to Hispanic and Latino Workers, 2006–2019<sup>1</sup> (Hours-Based Rates)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>Incidence rate represents the number of fatalities per 10,000 workers. In 2008, CFOI switched to an hours-based calculation from an employment-based calculation it used from 1992 to 2007. Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey. Fatality rates for 2006 and 2007 were calculated by CFOI using both employment-based and hours-based calculations during the transition to hours-based rates beginning exclusively in 2008.

## Profile of Hispanic and Latino Worker Fatalities, 2019<sup>1</sup>

Characteristic	Subcharacteristics	Deaths
Total Fatalities		1,088
Country of Birth	Foreign-born	719
	Native-born	369
Leading Birthplace Countries	Mexico	-
	United States	-
	El Salvador	-
Employee Status	Wage and salary workers	-
	Self employed	-
Gender	Men	-
	Women	-
Leading Occupations	Construction trades workers	321
	Motor vehicle operators <sup>2</sup>	173
	Grounds maintenance workers	88
	Agricultural workers	84
Leading Industries	Construction	374
	Administration and support and waste management and remediation services <sup>3</sup>	147
	Transportation and warehousing <sup>4</sup>	156
Leading Event or Exposure	Transportation incidents	368
	Fall, slip, trip	267
	Contact with object/equipment	174
	Exposure to harmful substances or environment	149

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

<sup>1</sup>In 2020, the Bureau of Labor Statistics updated its disclosure methodology resulting in significantly fewer publishable data. See [www.bls.gov/iif/oshfaq1.htm#accessingourdata](http://www.bls.gov/iif/oshfaq1.htm#accessingourdata).

<sup>2</sup>Heavy and tractor-trailer truck drivers accounted for 152 of these deaths.

<sup>3</sup>Landscaping services accounted for 93 of these deaths.

<sup>4</sup>Truck transportation accounted for 109 of these deaths.

## Profile of Foreign-Born Worker Fatalities, 2018

Characteristic	Subcharacteristics	Number
Total Fatalities		1,028
Leading Birthplace Countries	Mexico	406
	El Salvador	56
	Guatemala	43
	India	43
Employee Status	Wage and salary workers	865
	Self employed	163
Gender	Men	966
	Women	62
Leading Occupations	Motor vehicle operators <sup>1</sup>	221
	Construction trades workers	209
	Grounds maintenance workers	67
	Agricultural workers	59
	Material moving workers	41
Leading Industries	Construction	262
	Transportation and warehousing <sup>2</sup>	217
	Administrative and support and waste management and remediation services <sup>3</sup>	102
	Agriculture, forestry, fishing and hunting	85
Leading Event or Exposure	Transportation incidents	365
	Fall, slip, trip	205
	Violence <sup>4</sup>	175
	Contact with object/equipment	168

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

Note: 2019 data is not available. In 2020, the Bureau of Labor Statistics updated its disclosure methodology resulting in significantly fewer publishable data.

See [www.bls.gov/iif/oshfaq1.htm#accessingourdata](http://www.bls.gov/iif/oshfaq1.htm#accessingourdata).

<sup>1</sup>Heavy and tractor-trailer truck drivers accounted for 182 of these deaths.

<sup>2</sup>Truck transportation accounted for 156 of these deaths.

<sup>3</sup>Landscaping services accounted for 69 of these deaths.

<sup>4</sup>Excludes animal- and insect-related incidents.

## Workplace Injury and Illness Incidence Rates, Private Sector, 1974–2019 (Per 100 Workers)

Year	Total Case Rate	Cases with Days Away from Work, Job Transfer or Restriction		
		Total	Cases with Days Away from Work	Cases with Job Transfer or Restriction <sup>1</sup>
1974	10.4	3.5	N/A	N/A
1975	9.1	3.3	N/A	N/A
1976	9.2	3.5	3.3	0.2
1977	9.3	3.8	3.6	0.2
1978	9.4	4.1	3.8	0.3
1979	9.5	4.3	4.0	0.3
1980	8.7	4.0	3.7	0.3
1981	8.3	3.8	3.5	0.3
1982	7.7	3.5	3.2	0.3
1983	7.6	3.4	3.2	0.3
1984	8.0	3.7	3.4	0.3
1985	7.9	3.6	3.3	0.3
1986	7.9	3.6	3.3	0.3
1987	8.3	3.8	3.4	0.4
1988	8.6	4.0	3.5	0.5
1989	8.6	4.0	3.4	0.6
1990	8.8	4.1	3.4	0.7
1991	8.4	3.9	3.2	0.7
1992	8.9	3.9	3.0	0.8
1993	8.5	3.8	2.9	0.9
1994	8.4	3.8	2.8	1.0
1995	8.1	3.6	2.5	1.1
1996	7.4	3.4	2.2	1.1
1997	7.1	3.3	2.1	1.2
1998	6.7	3.1	2.0	1.2
1999	6.3	3.0	1.9	1.2
2000	6.1	3.0	1.8	1.2
2001	5.7	2.8	1.7	1.1
2002	5.3	2.8	1.6	1.2
2003	5.0	2.6	1.5	1.1
2004	4.8	2.5	1.4	1.1
2005	4.6	2.4	1.4	1.0
2006	4.4	2.3	1.3	1.0
2007	4.2	2.1	1.2	0.9
2008	3.9	2.0	1.1	0.9
2009	3.6	2.0	1.1	0.8
2010	3.5	1.8	1.1	0.8
2011	3.5	1.8	1.1	0.7
2012	3.4	1.8	1.0	0.7
2013	3.3	1.7	1.0	0.7
2014	3.2	1.7	1.0	0.7
2015	3.0	1.6	0.9	0.7
2016	2.9	1.6	0.9	0.7
2017	2.8	1.5	0.9	0.7
2018	2.8	1.6	0.9	0.7
2019	2.8	1.5	0.9	0.7

Source: Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Through 2001, this column includes cases involving restricted activity only.

**Workplace Injury and Illness Rates by Industry Sector, 1973–2002<sup>1</sup>**  
 Per 100 Full-Time Workers

Year	All Ind.	Mfg.	Const.	Mining	Finance	Agri.	Trans./Util.	Trade	Service
1973	11.0	15.3	19.8	12.5	2.4	11.6	10.3	8.6	6.2
1974	10.4	14.6	18.3	10.2	2.4	9.9	10.5	8.4	5.8
1975	9.1	13.0	16.0	11.0	2.2	8.5	9.4	7.3	5.4
1976	9.2	13.2	15.3	11.0	2.0	11.0	9.8	7.5	5.3
1977	9.3	13.1	15.5	10.9	2.0	11.5	9.7	7.7	5.5
1978	9.4	13.2	16.0	11.5	2.1	11.6	10.1	7.9	5.5
1979	9.5	13.3	16.2	11.4	2.1	11.7	10.2	8.0	5.5
1980	8.7	12.2	15.7	11.2	2.0	11.9	9.4	7.4	5.2
1981	8.3	11.5	15.1	11.6	1.9	12.3	9.0	7.3	5.0
1982	7.7	10.2	14.6	10.5	2.0	11.8	8.5	7.2	4.9
1983	7.6	10.0	14.8	8.4	2.0	11.9	8.2	7.0	5.1
1984	8.0	10.6	15.5	9.7	1.9	12.0	8.8	7.2	5.2
1985	7.9	10.4	15.2	8.4	2.0	11.4	8.6	7.4	5.4
1986	7.9	10.6	15.2	7.4	2.0	11.2	8.2	7.7	5.3
1987	8.3	11.9	14.7	8.5	2.0	11.2	8.4	7.4	5.5
1988	8.6	13.1	14.6	8.8	2.0	10.9	8.9	7.6	5.4
1989	8.6	13.1	14.3	8.5	2.0	10.9	9.2	8.0	5.5
1990	8.8	13.2	14.2	8.3	2.4	11.6	9.6	7.9	6.0
1991	8.4	12.7	13.0	7.4	2.4	10.8	9.3	7.6	6.2
1992	8.9	12.5	13.1	7.3	2.9	11.6	9.1	8.4	7.1
1993	8.6	12.1	12.2	6.8	2.9	11.2	9.5	8.1	6.7
1994	8.4	12.2	11.8	6.3	2.7	10.0	9.3	7.9	6.5
1995	8.1	11.6	10.6	6.2	2.6	9.7	9.1	7.5	6.4
1996	7.4	10.6	9.9	5.4	2.4	8.7	8.7	6.8	6.0
1997	7.1	10.3	9.5	5.9	2.2	8.4	8.2	6.7	5.6
1998	6.7	9.7	8.8	4.9	1.9	7.9	7.3	6.5	5.2
1999	6.3	9.2	8.6	4.4	1.8	7.3	7.3	6.1	4.9
2000	6.1	9.0	8.3	4.7	1.9	7.1	6.9	5.9	4.9
2001	5.7	8.1	7.9	4.0	1.8	7.3	6.9	5.6	4.6
2002	5.3	7.2	7.1	4.0	1.7	6.4	6.1	5.3	4.6

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Beginning with the 2003 reference year, the Survey of Occupational Injuries and Illnesses began using the North American Industry Classification System for industries. Prior to 2003, the survey used the Standard Industrial Classification system. The substantial differences between these systems result in breaks in series for industry data.

## Workplace Injury and Illness Rates by Industry Sector, 2004–2019<sup>1,2</sup>

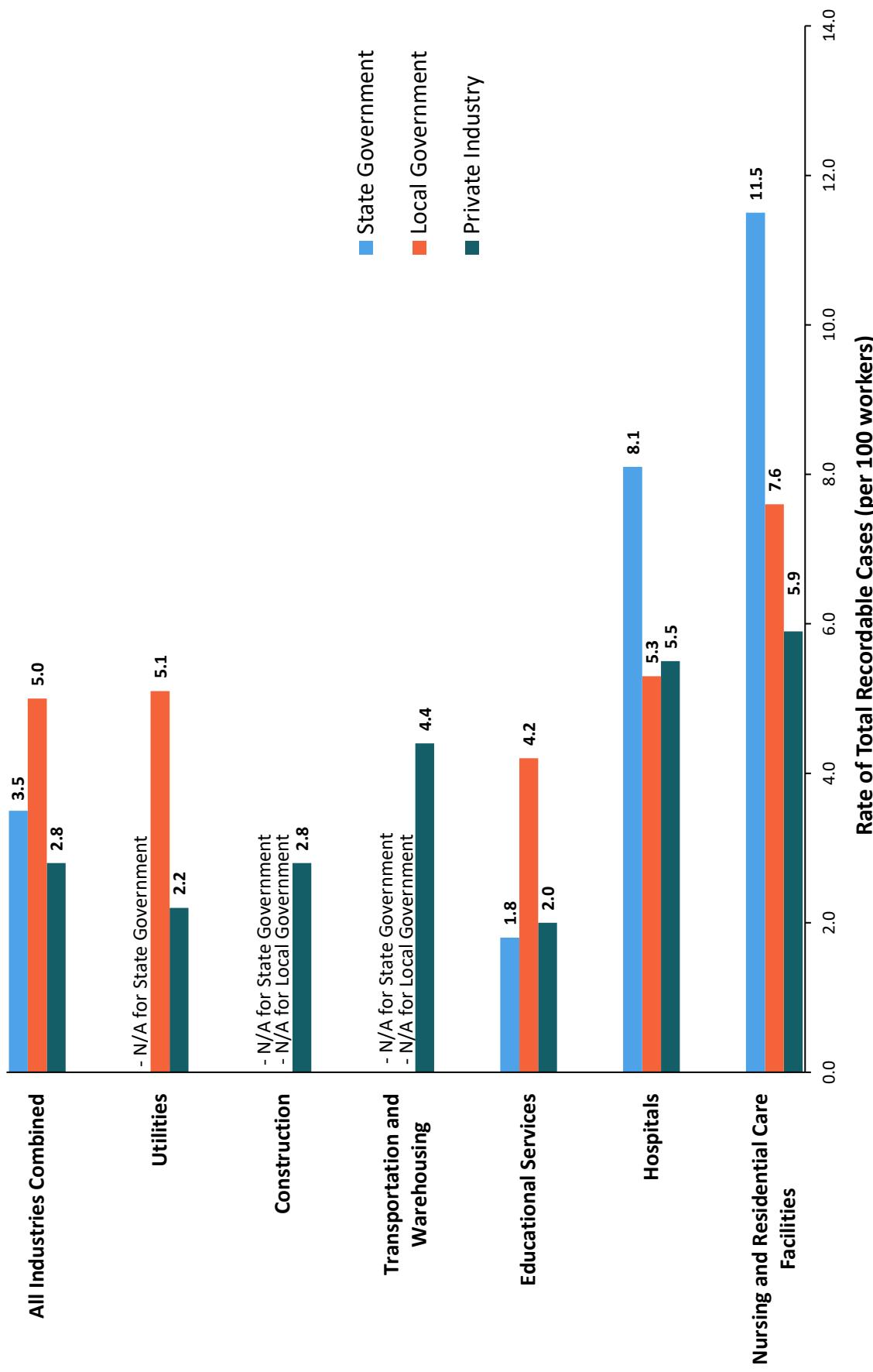
	2004	2005	2006	2007	2008 <sup>3</sup>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Total case rate, private industry</b>	4.8	4.6	4.4	4.2	3.9	3.6	3.5	3.4	3.3	3.2	3.0	2.9	2.8	2.8	2.8	2.8
<b>State and local government</b>	-	-	-	-	6.3	5.8	5.7	5.7	5.6	5.2	5	5.1	4.7	4.6	4.8	4.6
State government	-	-	-	-	4.7	4.6	4.6	4.6	4.4	3.9	4.1	3.7	3.7	3.6	3.6	3.5
Local government	-	-	-	-	7.0	6.3	6.1	6.1	5.7	5.4	5.6	5.0	5.0	5.3	5.3	5.0
<b>Natural resources and mining</b>	5.3	5.1	4.9	4.4	4.1	4.0	3.7	4.0	3.8	3.9	3.8	3.7	4.2	3.6	3.7	3.4
Agriculture, forestry, fishing and hunting	6.4	6.1	6.0	5.4	5.3	4.8	5.5	5.5	5.7	5.5	5.7	6.1	5.0	5.3	5.3	5.2
Mining, quarrying, and oil and gas extraction	3.8	3.6	3.5	3.1	2.9	2.4	2.3	2.2	2.1	2.0	2	1.4	1.5	1.5	1.4	1.2
<b>Construction</b>	6.4	6.3	5.9	5.4	4.7	4.3	4.0	3.9	3.7	3.8	3.6	3.5	3.2	3.1	3.0	2.8
Construction (local government)	-	-	-	-	12.7	13.0	9.5	8.7	10.2	7.9	8.6	8.0	9.1	-	-	-
<b>Manufacturing</b>	6.8	6.3	6.0	5.6	5.0	4.3	4.4	4.4	4.3	4.0	4	3.8	3.6	3.5	3.4	3.3
<b>Trade, transportation and utilities</b>	5.5	5.2	5.0	4.9	4.4	4.1	4.1	3.9	3.9	3.8	3.6	3.6	3.4	3.4	3.5	3.4
Wholesale trade	4.5	4.5	4.1	4.0	3.7	3.3	3.4	3.2	3.3	3.1	2.9	3.1	2.8	2.8	2.9	2.7
Retail trade	5.3	5.0	4.9	4.8	4.4	4.2	4.1	3.9	4.0	3.8	3.6	3.5	3.3	3.3	3.5	3.4
Transportation and warehousing	7.3	7.0	6.5	6.4	5.7	5.2	5.0	4.9	4.7	4.8	4.5	4.6	4.6	4.6	4.5	4.4
Utilities	5.2	4.6	4.1	4.0	3.5	3.3	3.1	3.5	2.8	2.1	2.4	2.2	2.1	2.0	1.9	2.2
<b>Information</b>	2.0	2.1	1.9	2.0	2.0	1.9	1.8	1.6	1.4	1.5	1.4	1.3	1.3	1.3	1.2	1.2
<b>Financial activities</b>	1.6	1.7	1.5	1.4	1.5	1.5	1.3	1.4	1.3	1.3	1.2	1.1	1.1	1.0	1.0	0.9
<b>Professional and business services</b>	2.4	2.4	2.1	2.1	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.3
<b>Educational and health services</b>	5.8	5.5	5.4	5.2	5.0	4.8	4.7	4.5	4.4	4.2	4.0	3.9	3.8	3.7	3.6	3.6
Hospitals (private)	8.3	8.1	8.1	7.7	7.6	7.3	7.0	6.8	6.6	6.4	6.2	6.0	5.9	5.7	5.6	5.5
Hospitals (state government)	-	-	-	-	11.9	11.0	11.8	9.2	9.2	7.7	8.7	8.1	7.7	8.1	8.1	8.1
Nursing and residential care (private)	9.7	9.1	8.9	8.8	8.4	8.4	8.3	7.8	7.6	7.3	7.1	6.8	6.4	6.3	6.1	5.9
Nursing and residential care (state gov.)	-	-	-	-	12.5	-	15.1	13.1	13.6	13.7	12.6	12.0	13.7	10.9	11.9	11.5
<b>Leisure and hospitality</b>	4.7	4.7	4.6	4.5	4.2	3.9	3.9	4.0	3.9	3.8	3.6	3.5	3.4	3.4	3.3	3.3
<b>Other services, except public administration</b>	3.2	3.2	2.9	3.1	3.1	2.9	2.7	2.6	2.5	2.5	2.5	2.3	2.3	2.1	2.2	2.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Total recordable cases per 100 workers.  
<sup>2</sup>Private industry, unless otherwise noted.

<sup>3</sup>Beginning in 2008, the Bureau of Labor Statistics provided national public sector estimates for state and local government workers.

## Rate of Workplace Injuries and Illnesses for Selected Industries in State Government, Local Government and Private Industry, 2019



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

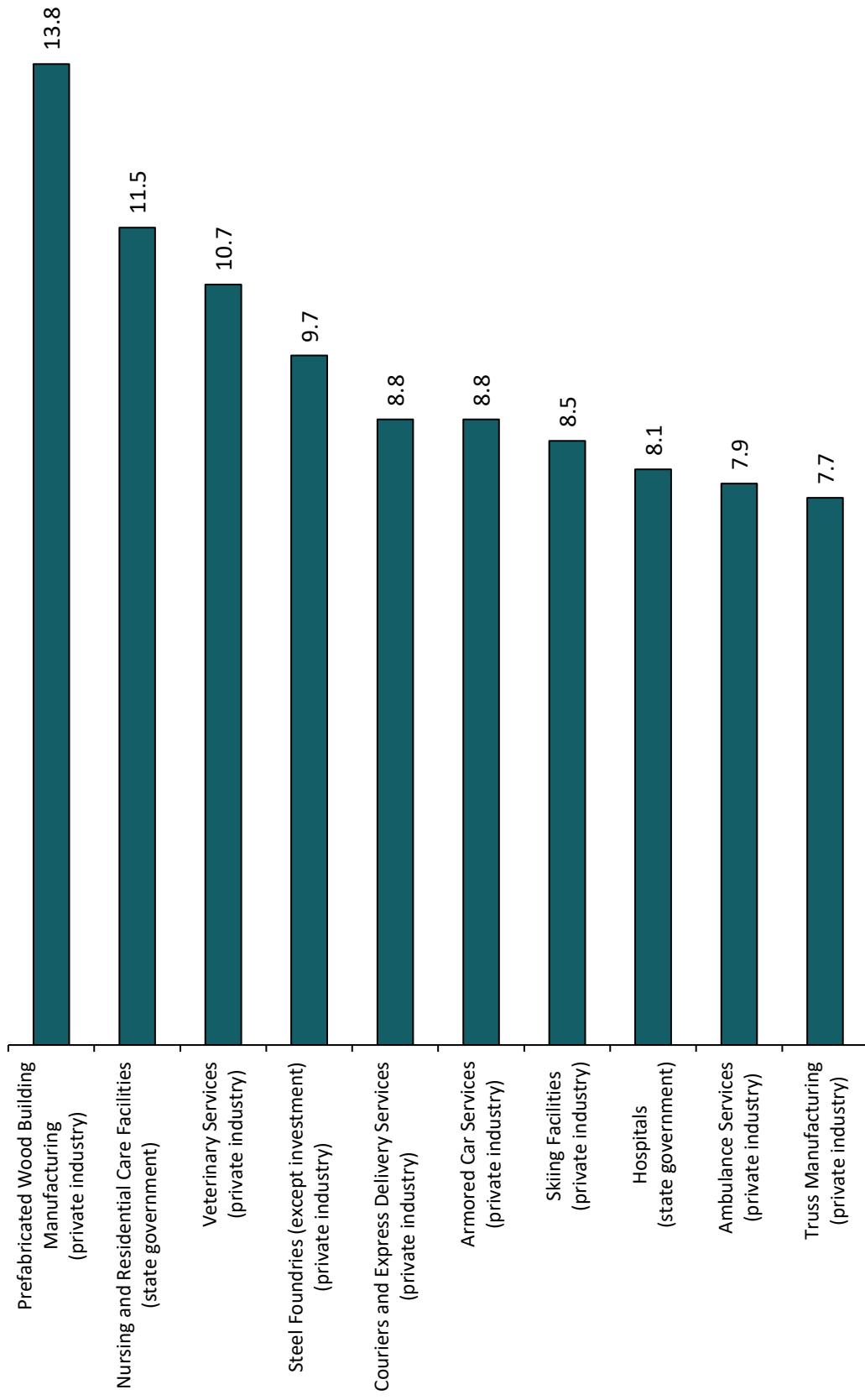
## Industries with the Highest Total Nonfatal Injury and Illness Rates, 2019

(Per 100 Workers)

**Private Industry = 2.8**

**State Government = 3.5**

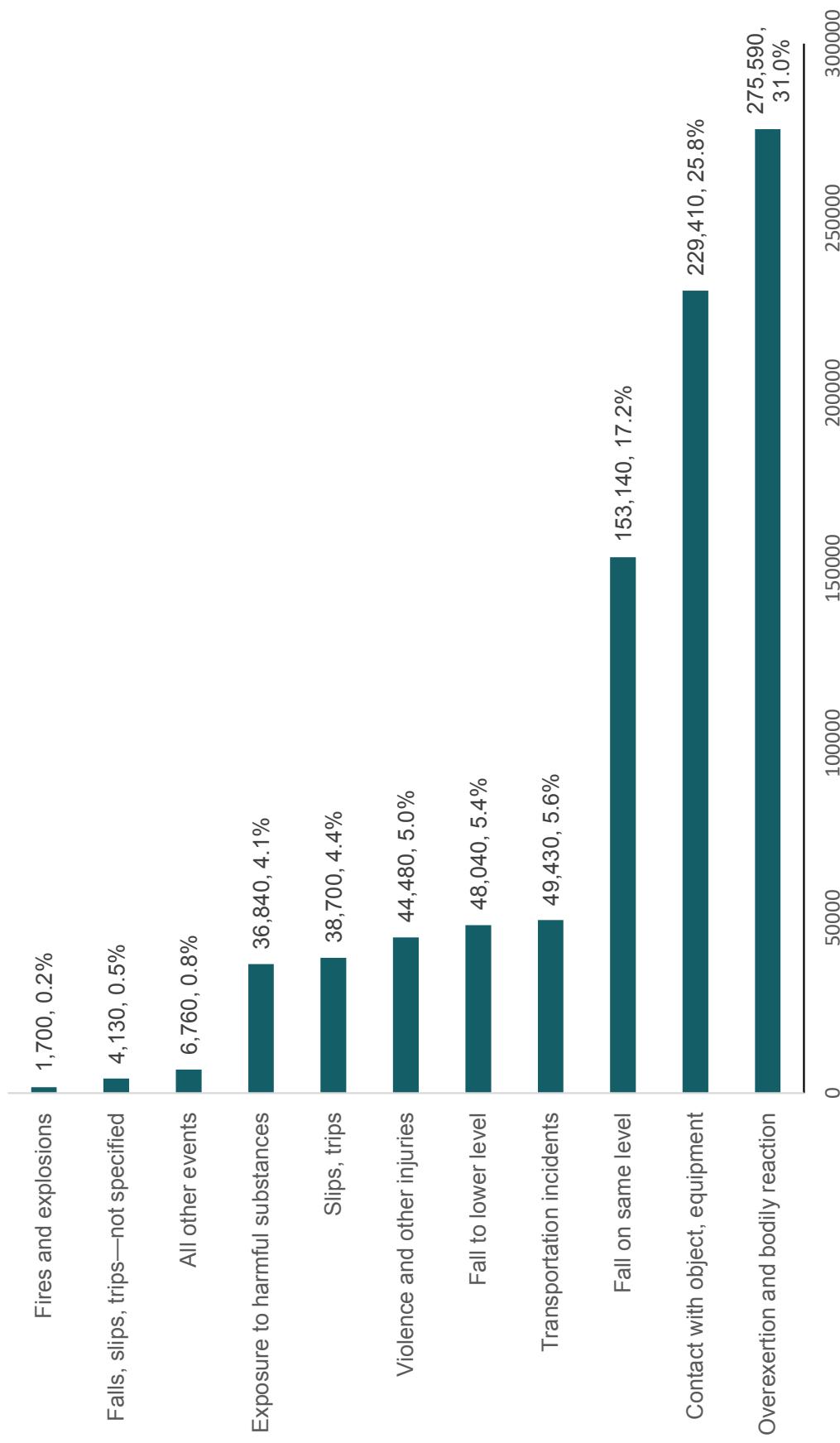
**Local Government = 5.0**



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

# Nonfatal Occupational Injuries and Illnesses with Days Away from Work by Event or Exposure, Private Industry, 2019<sup>1</sup>

**Total = 888,220**



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>Includes total number in private industry, state and local government.

## Number of Injury and Illness Cases in Private Industry with Days Away from Work Among Hispanic and Latino Workers, 1995–2019<sup>1</sup>

Year	Number of Hispanic and Latino Worker Cases	Percent of Total Injury and Illness Cases
<b>1995</b>	191,665	9.4
<b>1996</b>	169,300	9.0
<b>1997</b>	187,221	10.2
<b>1998</b>	179,399	10.4
<b>1999</b>	182,896	10.7
<b>2000</b>	186,029	11.2
<b>2001</b>	191,959	12.5
<b>2002<sup>2</sup></b>	180,419	12.6
<b>2003<sup>3</sup></b>	161,330	12.3
<b>2004<sup>3</sup></b>	164,390	13.1
<b>2005<sup>3</sup></b>	163,440	13.2
<b>2006<sup>3</sup></b>	159,440	13.5
<b>2007<sup>3</sup></b>	157,320	13.6
<b>2008<sup>3</sup></b>	145,870	13.5
<b>2009<sup>3</sup></b>	125,790	13.0
<b>2010<sup>3</sup></b>	122,970	13.2
<b>2011<sup>3</sup></b>	117,210	12.9
<b>2012<sup>3</sup></b>	118,940	13.1
<b>2013<sup>3</sup></b>	124,330	13.6
<b>2014<sup>3</sup></b>	124,280	13.6
<b>2015<sup>3</sup></b>	125,360	13.9
<b>2016<sup>3</sup></b>	127,490	14.3
<b>2017<sup>3</sup></b>	122,220	13.8
<b>2018<sup>3</sup></b>	123,390	13.7
<b>2019<sup>3</sup></b>	124,710	14.0

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup> Days away from work include those that result in days away from work with or without restricted work activity. They do not include cases involving only restricted work activity.

<sup>2</sup> Days away from work cases include those that result in days away from work with or without job transfer or restriction.

<sup>3</sup> Classification of workers by race and ethnicity was revised in 2003 to conform to other government data. One result of this revision is that individuals may be categorized in more than one race or ethnic group. Cases reflected here are for those who reported Hispanic or Latino only and Hispanic or Latino and other race. Race and ethnicity data reporting is not mandatory in the BLS Survey of Occupational Injuries and Illnesses. As a result, 30% to 40% of cases do not report race and ethnicity.

## Workplace Injuries and Illnesses to Women Involving Days Away from Work, Private Industry, 2019

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		348,600
Leading Industries	Hospitals	40,010
	Nursing and residential care facilities	36,550
	Food service and drinking places	34,580
Leading Occupations	Nursing, psychiatric and home health aides	35,290
	Laborers and material movers	30,350
	Building cleaning workers	21,560
	Registered nurses	18,150
Leading Nature	Sprains, strains, tears	117,960
	Soreness, pain	66,610
	Bruises, contusions	40,470
Leading Event or Exposure	Falls, slips, trips	116,830
	Overexertion and bodily reaction	104,460
	Contact with objects and equipment	67,920
Leading Source	Bodily motion or position of injured, ill worker	46,690
	Floors <sup>1</sup>	52,490
	Patient	36,710
Median Days Away from Work	Total cases	8
	Women	7

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 88,200 injuries and illnesses involving days away from work for women.

## Workplace Injuries and Illnesses to Men Involving Days Away from Work, Private Industry, 2019

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		535,980
Leading Industries	Specialty trade contractors	51,420
	Food service and drinking places	27,950
	Truck transportation	26,260
Leading Occupations	Driver/sales workers and truck drivers	71,460
	Laborers and material movers	70,470
	Maintenance and repair workers	20,780
	Construction laborers	19,260
Leading Nature	Sprains, strains, tears	175,750
	Soreness, pain	90,420
	Cuts, lacerations, punctures	64,550
Leading Event or Exposure	Overexertion and bodily reaction	170,430
	Contact with objects and equipment	160,790
	Falls, slips, trips	126,250
Leading Source	Bodily motion or position of injured, ill worker	72,800
	Containers, nonpressurized	42,490
	Floors <sup>1</sup>	26,220
Median Days Away from Work	Total cases	8
	Men	10

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 66,790 injuries and illnesses involving days away from work for men.

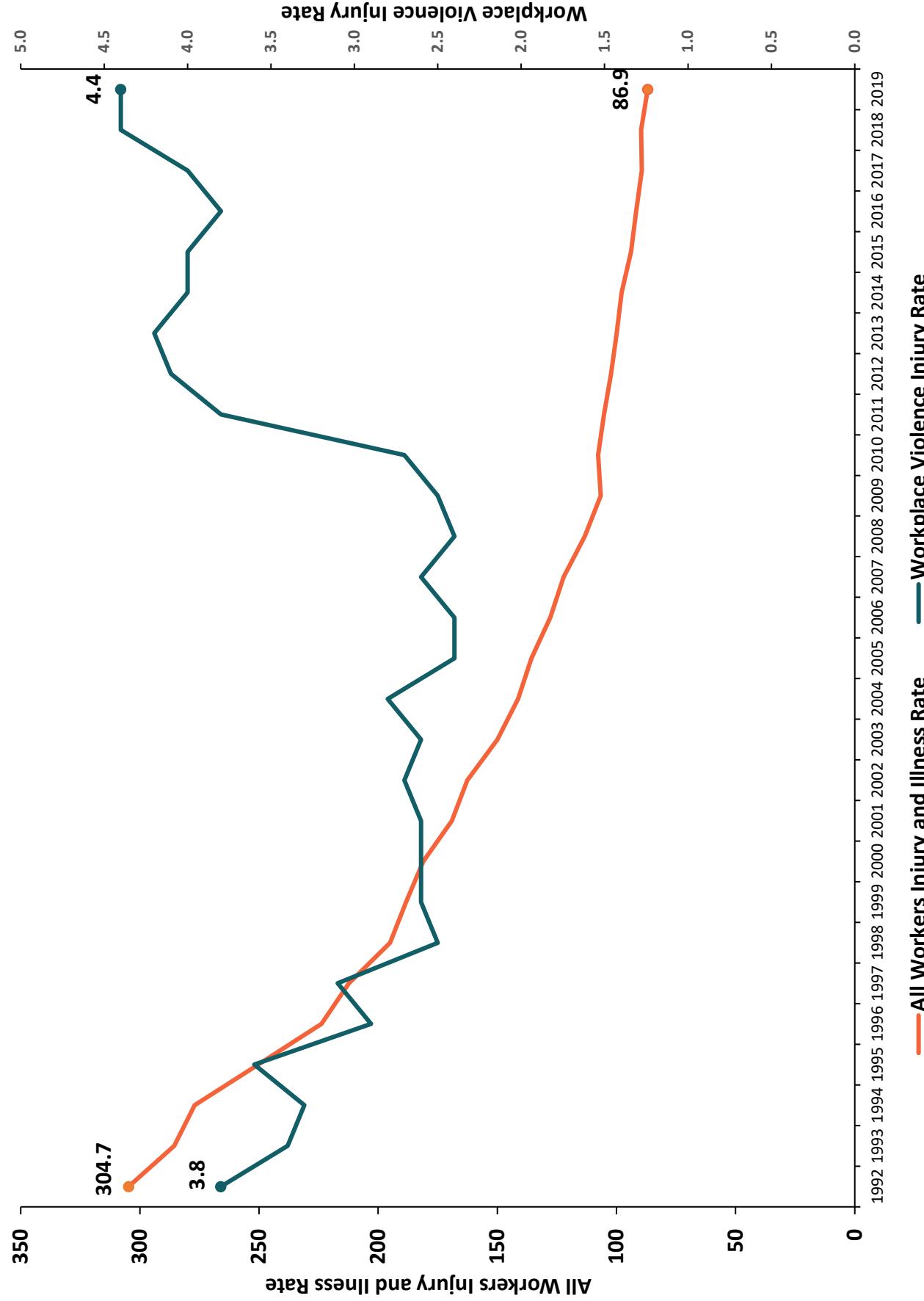
## Number of Workplace Violence Events Leading to Injuries Involving Days Away from Work, Private Industry, 2019<sup>1</sup>

Characteristic	Subcharacteristics	Number
Total Events		30,090
Gender	Women	19,560
	Men	10,440
Race	White	9,500
	Black	5,970
	Hispanic or Latino	2,330
Leading Industries	Nursing and residential care facilities	7,830
	Hospitals	7,170
	Social assistance	2,770
	Ambulatory health care services	2,690
Leading Occupations	Nursing assistants, orderlies and psychiatric aides	4,550
	Home health and personal care aides	4,360
	Registered nurses	2,590
Leading Nature of Injury	Sprains, strains, tears	7,930
	Soreness, pain	7,020
	Bruises, contusions	4,930
Leading Source	Patient	16,210
	Other client or customer	4,360
	Student	3,750
Median Days Away from Work	Overall, all injuries and illnesses	8
	Intentional injury by person	5
	Injury by person—unintentional or intent unknown	8

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>Violence events in private industry include intentional injury by person and injury by person—unintentional or intent unknown, and exclude animal- and insect-related incidents.

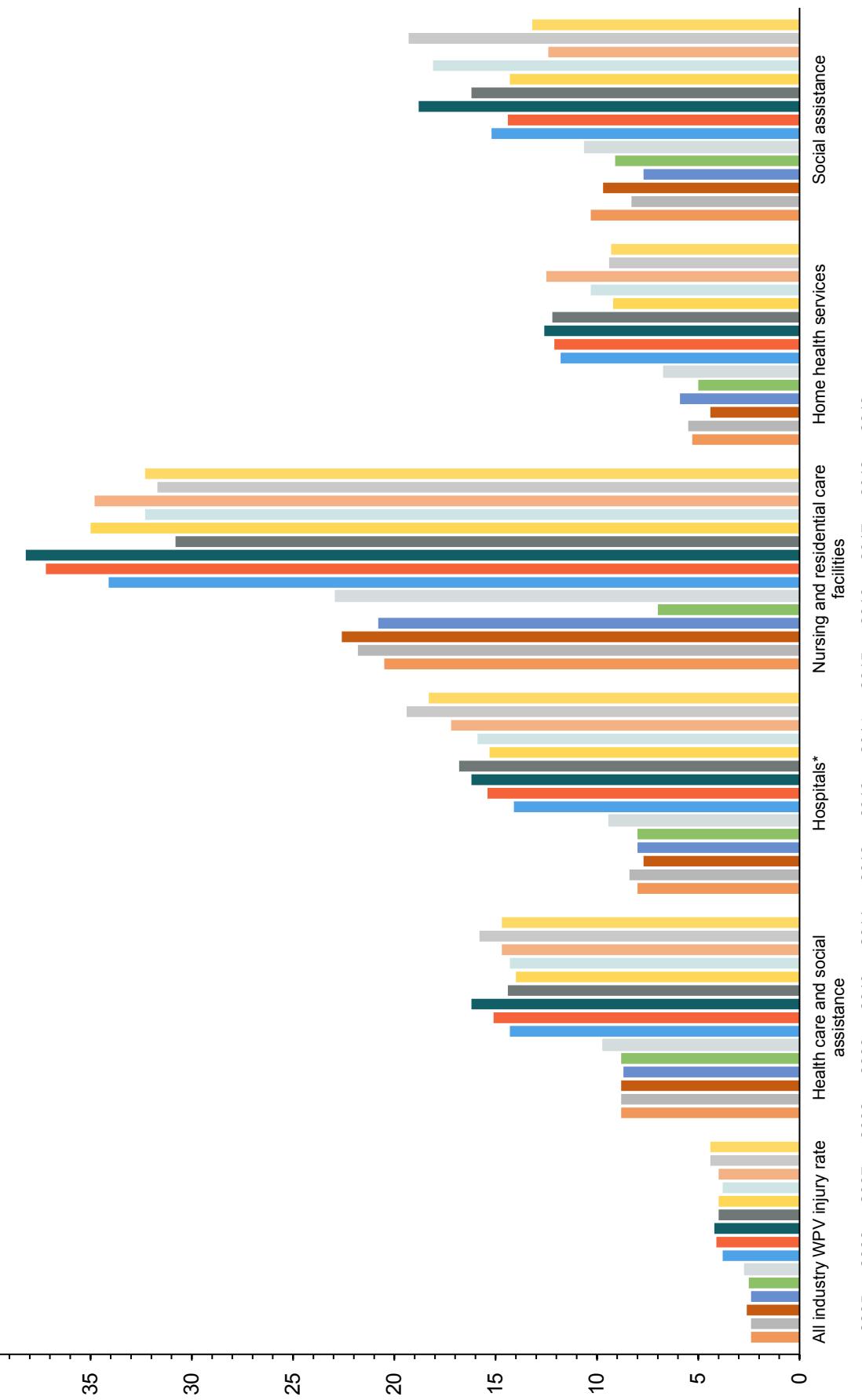
## Total Injury and Illness Rates Compared with Workplace Violence Injury Rates, Private Industry, 1992–2019<sup>1</sup>



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>Rate of injuries and illnesses leading to days away from work, per 10,000 workers.

# Workplace Violence (WPV) Rates for Injuries Leading to Days Away from Work in Selected Health Care Industries, Private Industry, 2005–2019<sup>1</sup>

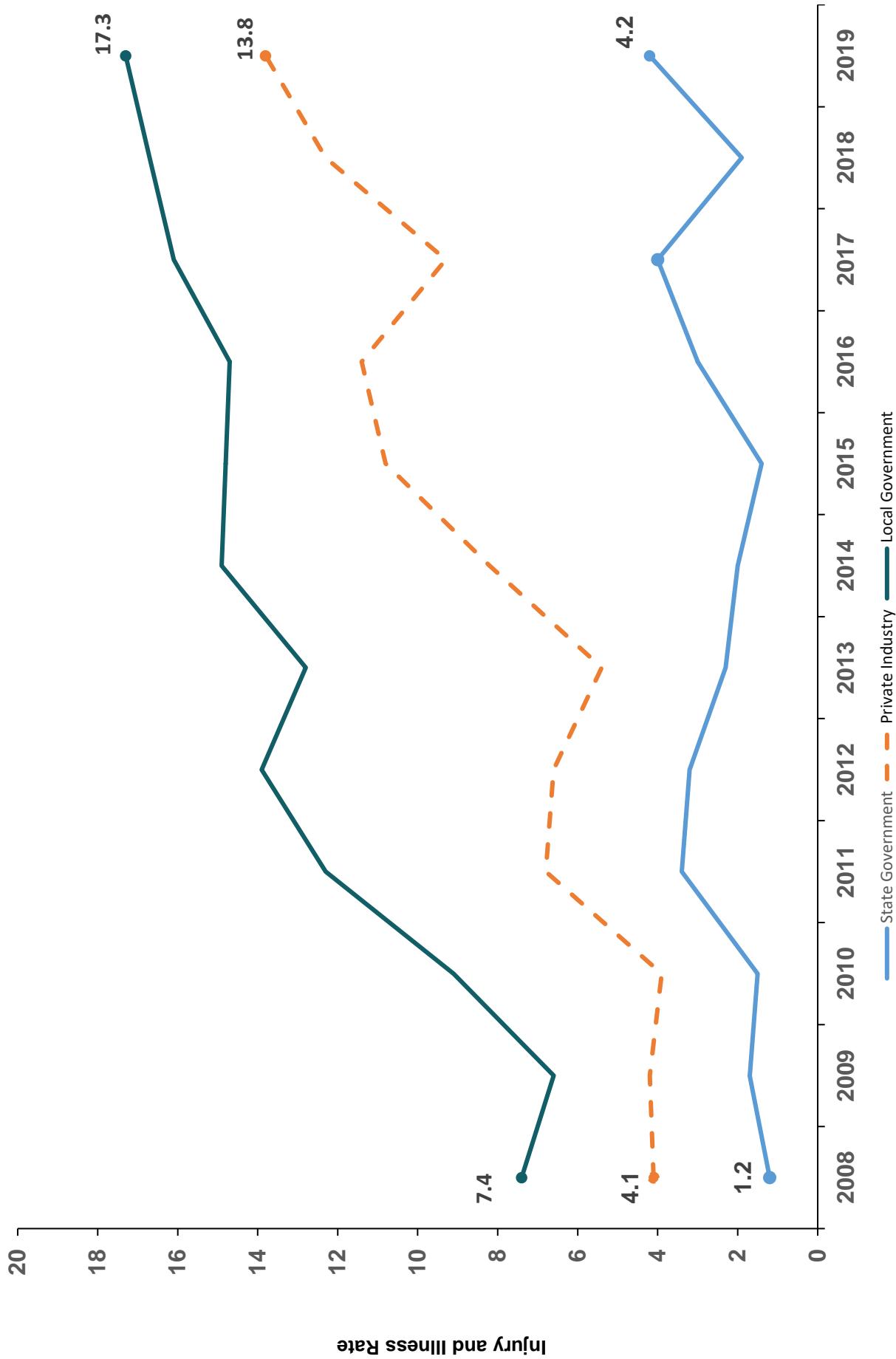


Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

<sup>1</sup>Rate per 10,000 workers.

\*The subcategory "psychiatric and substance abuse hospitals" had a workplace violence injury rate of 152.4 per 10,000 workers; 175.0 in 2018; 181.1 in 2017; 123.6 in 2016; 133.4 in 2015; 170.2 in 2014; 134.6 in 2013; 111.7 in 2012; 111.7 in 2011; 77.0 in 2010; 77.9 in 2009; 70.2 in 2008; 60.1 in 2007, and 84.3 in 2006. Data not available for 2005 and 2004.

## Workplace Violence Rates in Educational Services for Private Industry, State and Local Government, 2008–2019<sup>1</sup>



## Estimated and Reported Cases of Musculoskeletal Disorders, Private Industry, 1996–2019<sup>1,2</sup>

Year	Total MSD Cases <sup>1</sup>	MSD Cases with Days Away from Work, Job Transfer or Restriction <sup>1,3</sup>	MSD Cases with Job Transfer or Restriction <sup>1,4</sup>	MSDs Involving Days Away from Work <sup>5</sup>	Percent of Cases Involving MSDs
1996	2,146,182	974,380	327,025	647,355	34.4%
1997	2,101,795	980,240	353,888	626,352	34.2%
1998	2,025,598	950,999	358,455	592,544	34.2%
1999	1,951,862	938,038	355,698	582,340	34.2%
2000	1,960,585	954,979	377,165	577,814	34.7%
2001	1,773,304	870,094	347,310	522,500	34.0%
2002	1,598,204	848,062	359,788	487,915	34.0%
2003	1,440,516	759,627	325,380	435,180	33.0%
2004	1,362,336	712,000	309,024	402,700	32.0%
2005	1,264,260	655,440	285,030	375,540	30.0%
2006	1,233,791	638,609	281,192	357,160	30.2%
2007	1,152,778	586,368	252,634	333,760	28.8%
2008	1,086,653	558,835	241,844	317,440	29.4%
2009	963,644	490,216	206,506	283,800	29.4%
2010	934,337	487,421	202,795	284,340	30.5%
2011	1,018,397	534,697	214,966	309,940	34.1%
2012	1,032,811	539,793	225,515	314,470	34.7%
2013	1,015,212	522,988	215,348	307,640	33.5%
2014	955,072	507,382	208,922	298,460	32.3%
2015	954,501	509,067	222,717	286,350	31.7%
2016	921,394	508,355	222,405	285,950	31.8%
2017	879,667	471,250	188,500	282,750	31.2%
2018	848,649	484,942	212,162	272,780	30.3%
2019	829,204	444,217	207,301	266,530	30.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Total MSD cases, MSD days away, job transfer or restriction cases, and MSD job transfer or restriction cases are estimated based upon the percentage of MSD cases reported by BLS for the total days away from work cases involving MSD in private industry.

<sup>2</sup>These figures are based on employer-reported cases of MSDs provided to BLS. The number of cases shown here does not reflect the impact of underreporting, which would significantly increase the true toll of MSDs occurring among workers. OSHA has estimated that for every reported MSD, two MSDs go unreported.

<sup>3</sup>Through 2001, this column was titled Total MSD Lost Workday Cases. The new title reflects the change in the recordkeeping standard that went into effect Jan. 1, 2002. Lost workday cases were defined as those that involve days away from work, days of restricted work activity, or both. They do not include cases involving only restricted work activity.

<sup>4</sup>Through 2001, this column was titled MSD Cases with Days of Restricted Activity. The new title reflects the change in the recordkeeping standard that went into effect Jan. 1, 2002.

<sup>5</sup>Days away from work cases include those that result in days away from work without job transfer or restriction. They do not include cases involving only restricted work activity. Prior to 2002, days away from work cases included those that resulted in days away from work with restricted activity.

## Highest Rates of Musculoskeletal Disorders by Occupation, 2019<sup>1,2,3</sup>

Occupation	Incidence Rate	Number of MSDs <sup>4</sup>
Telecommunications equipment installers and repairers	238.2	2,710
Dietetic technicians	212.4	470
First-line supervisors of firefighting and prevention workers	195.0	1,470
Ship engineers	184.4	160
Refuse and recyclable material collectors	180.5	1,720
Firefighters	179.9	6,070
Aircraft cargo handling supervisors	175.8	150
Orderlies	165.8	580
Psychiatric aides	162.3	670
Bus drivers, transit and intercity	157.2	2,060

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>MSDs leading to days away from work with or without job transfer or restriction.

<sup>2</sup>Includes cases where the nature of injury is sprains, tears; back pain, hurt back; soreness, pain, hurt except back; carpal tunnel syndrome; hernia; musculoskeletal system and connective tissue diseases and disorders; and when the event or exposure leading to the injury or illness is bodily reaction/bending, climbing, crawling, reaching, twisting, overexertion or repetition. Cases of Raynaud's phenomenon, tarsal tunnel syndrome and herniated spinal discs are not included. Although these cases may be considered MSDs, the survey classifies these cases in categories that also include non-MSD cases.

<sup>3</sup>Athletes and sports competitors have the highest rate of MSDs, with a rate of 1,019.2 and 620 cases in 2019.

<sup>4</sup>Includes total number in private industry, state and local government.

## Highest Incidence Rates of Musculoskeletal Disorders by Industry, 2019

Industry (NAICS Code) <sup>1</sup>	Incidence Rate <sup>2</sup>	Number of Total Cases
000 All Private Industry <sup>3</sup>	26.1	266,530
481 Air transportation	164.7	6,880
492 Couriers and messengers	138.9	7,960
493 Warehousing and storage	90.0	9,700
623 Nursing and residential care facilities	59.4	15,300
444 Building material and garden supply stores	55.0	6,140
622 Hospitals	53.1	21,320
517 Telecommunications	51.9	3,620
484 Truck transportation	50.9	8,280
424 Merchant wholesalers—nondurable goods	50.1	10,510
711 Performing arts and spectator sports	48.1	1,460
312 Beverage and tobacco product manufacturing	48.0	1,160
562 Waste management and remediation services	45.1	2,030
445 Food and beverage stores	44.9	9,640
321 Wood product manufacturing	44.8	1,850
442 Furniture and home furnishings stores	43.8	1,610
485 Transit and ground passenger transportation	38.0	1,430
452 General merchandise stores	37.8	8,220
336 Transportation equipment manufacturing	37.4	6,500
721 Accommodation	36.7	5,960
311 Food manufacturing	36.0	5,880
488 Support activities for transportation	35.8	2,320
326 Plastics and rubber products manufacturing	33.7	2,470
212 Mining (except oil and gas)	33.5	720
115 Support activies for agriculture and forestry <sup>4</sup>	33.1	1,050
337 Furniture and related product manufacturing	32.3	1,240
423 Merchant wholesalers—durable goods	31.3	9,730
238 Specialty trade contractors	30.8	13,610
487 Scenic and sightseeing transportation	30.5	70
327 Nonmetallic mineral product manufacturing	30.3	1,310
441 Motor vehicle parts and dealers	29.4	5,690

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Does not include state or local government.

<sup>2</sup>Rates of MSDs leading to days away from work, per 10,000 workers.

<sup>3</sup>All private industry MSDs led to a median of 13 days away from work.

<sup>4</sup>Excludes farms with fewer than 11 employees.

## Highest Numbers of Musculoskeletal Disorders by Industry, 2019

Industry (NAICS Code) <sup>1</sup>	Number of Total Cases	Incidence Rate <sup>2</sup>
000 All Private Industry <sup>3</sup>	266,530	26.1
622 Hospitals	21,320	51.3
623 Nursing and residential care facilities	15,300	59.4
238 Specialty trade contractors	13,610	30.8
621 Ambulatory health care services	11,380	19.0
424 Merchant wholesalers—nondurable goods	10,510	50.1
423 Merchant wholesalers—durable goods	9,730	31.3
493 Warehousing and storage	9,700	90.0
445 Food and beverage stores	9,640	44.9
722 Food services and drinking places	9,120	12.4
484 Truck transportation	8,280	50.9
452 General merchandise stores	8,220	37.8
492 Couriers and messengers	7,960	138.9
481 Air transportation	6,880	164.7
336 Transportation equipment manufacturing	6,500	37.4
624 Social assistance	6,440	26.9
444 Building material and garden equipment and supply dealers	6,140	55.0
721 Accommodation	5,960	36.7
311 Food manufacturing	5,880	36.0
441 Motor vehicle and parts dealers	5,690	29.4
541 Professional and technical services	4,240	4.9
332 Fabricated metal product manufacturing	4,230	28.3
517 Telecommunications	3,620	51.9
236 Construction of buildings	3,590	23.8
531 Real estate	3,200	21.5
488 Support activities for transportation	2,320	35.8
326 Plastics and rubber products manufacturing	2,470	33.7
333 Machinery manufacturing	2,330	20.4
237 Heavy and civil engineering construction	2,200	19.5
611 Educational services	2,190	11.1
812 Personal and laundry care services	2,190	19.8

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup>Does not include state or local government.

<sup>2</sup>Rates of MSDs leading to days away from work, per 10,000 workers.

<sup>3</sup>All private industry MSDs led to a median of 13 days away from work.

## Estimates of the True Toll of Workplace Injuries and Illnesses

	<b>Estimated 2019 Figures Accounting for Impact of Undercounting Injuries and Illnesses<sup>1</sup></b>	<b>2019 Data Reported by Bureau of Labor Statistics</b>
<b>Total Number of Nonfatal Injuries and Illnesses in Private Industry</b>	<b>8.4 million</b>	<b>2.8 million</b>
<b>Total Nonfatal Injury and Illness Case Rate in Private Industry (cases per 100 workers)</b>	<b>8.4</b>	<b>2.8</b>
<b>Total Number of Injuries and Illnesses Involving Days Away from Work in Private Industry</b>	<b>2.7 million</b>	<b>888,220</b>
<b>Case Rate for Nonfatal Injuries and Illnesses Involving Days Away from Work (cases per 100 workers) in Private Industry</b>	<b>2.7</b>	<b>0.9</b>
<b>Total Number of Musculoskeletal Disorders—Cases Involving Days Away from Work in Private Industry</b>	<b>679,590</b>	<b>266,530</b>
<b>Total Number of Estimated Cases of Musculoskeletal Disorders in Private Industry</b>	<b>2,487,612</b>	<b>829,204</b>

Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>1</sup> A detailed comparison of individual injury and illness reports from various reporting systems found that only one in three workplace injuries and illnesses was reported on the OSHA Log and captured by the Bureau of Labor Statistics survey. This study did not address the number of injuries and illnesses that are not reported to any reporting system in the first place. Thus, this study represents a conservative estimate of under-reporting of the true toll of injuries and illnesses. For more details on the study, see the paper by Rosenman, et al., "How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?," Journal of Occupational and Environmental Medicine, 48(4): 357–365, April 2006.

## Federal OSHA Inspection/Enforcement Activity, FY 2011–2020

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 <sup>1</sup>
<b>Inspections</b>										
Safety	40,625	40,950	39,178	36,167	35,822	31,948	32,396	32,020	33,401	21,674
Health	33,338	33,598	31,920	29,343	28,903	25,704	26,453	27,890	17,558	4,116
7,287	7,352	7,258	6,824	6,917	6,244	5,789	5,567	5,511		
<b>Complaints Programmed</b>										
8,762	9,568	9,503	9,577	9,037	8,870	8,254	7,510	7,408	4,581	4,581
23,319	23,082	22,170	19,207	16,527	12,731	14,396	13,980	14,910	8,726	8,726
<b>Construction</b>										
22,624	22,507	20,430	18,223	17,549	15,610	16,729	16,921	17,500	11,069	11,069
340	386	411	370	357	297	274	292	275	211	211
<b>Maritime</b>										
8,566	8,399	7,945	7,602	8,051	7,450	6,863	7,046	8,580	4,367	4,367
9,094	9,654	10,392	9,972	9,863	8,591	8,140			6,027	6,027
<b>Average Case Hours/Inspections</b>										
Safety	20.4	20.3	22.5	22.0	22.3	21.0	20.21	19.26	18.40	23.91
Health	33.9	34.6	40.1	45.2	39.7	33.4	33.58	32.00	29.34	44.86
<b>Violations – Total</b>										
81,861	78,760	78,037	67,556	65,044	59,856	51,273	50,910	50,638	40,313	40,313
572	424	316	433	527	524	319	341	364	385	385
3,029	3,031	3,119	2,984	3,088	3,146	2,771	2,593	2,471	2,155	2,155
59,547	57,155	58,234	49,416	47,934	42,984	36,802	36,645	36,447	28,757	28,757
7	1	-	1	1	1	-	1	1	0	0
18,436	18,038	16,260	14,597	13,016	11,895	11,300	11,265	11,280	8,984	8,984
FTA	270	107	77	155	107	152	81	65	75	32
<b>Penalties – Total (\$)</b>										
178,289,800	168,842,092	149,994,488	143,535,247	156,525,585	162,872,470	196,837,526	196,598,571	207,960,691	186,187,094	186,187,094
22,737,340	15,053,400	12,484,996	17,474,793	21,581,025	21,794,276	20,808,006	21,108,034	21,611,925	27,256,828	27,256,828
21,076,053	21,884,028	19,563,867	20,407,958	24,042,251	27,277,061	31,447,412	29,823,210	34,862,762	33,058,548	33,058,548
125,459,324	123,274,497	110,326,980	97,427,1404	102,971,432	103,234,454	130,767,703	131,173,038	135,482,837	112,819,262	112,819,262
317,775	1,200	-	0	4,200	-	5,432	1,037	0	0	0
Other	7,299,625	7,829,960	6,855,744	6,500,117	7,222,074	8,537,920	12,183,280	12,926,576	14,876,315	12,248,709
FTA	1,399,683	797,507	762,901	1,724,976	704,143	2,028,758	1,631,125	1,561,970	1,125,815	775,011
<b>Average Penalty/ Violation (\$)</b>										
2,178	2,144	1,922	2,125	2,406	2,721	3,839	3,862	4,107	4,619	4,619
39,751	35,503	39,509	40,357	40,951	41,592	65,229	61,900	59,373	70,797	70,797
6,958	7,220	6,272	6,909	7,786	8,670	11,349	11,501	14,109	15,340	15,340
2,107	2,157	1,895	1,972	2,148	2,402	3,553	3,580	3,717	3,923	3,923
45,396	1,200	-	0	4,200	-	5,432	1,037	-	-	-
Other	396	434	422	445	555	718	1,148	1,319	1,363	1,363
FTA	5,184	7,453	9,908	11,129	6,581	13,347	20,137	24,030	15,011	24,219
<b>Percent Inspections with Citations Contested (%)</b>										
10.8%	11.4%	6.0%	6.6%	7.4%	8.3%	8.3%	8.0%	8.0%	9.6%	9.6%

Sources: OSHA IMIS Inspection Reports, FY 2011–FY 2013, and OIS Federal Inspection Reports, FY 2012–FY 2020.

<sup>1</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

# Federal OSHA and State Plan OSHA Inspection/Enforcement Activity, FY 2020<sup>1</sup>

	<u>FEDERAL OSHA</u>	<u>STATE PLAN OSHA</u>
<b>Inspections</b>		
Safety	21,674	32,062
Health	17,558	23,921
	4,116	8,141
Complaints	4,581	7,238
Programmed	8,726	12,628
Construction	11,069	12,933
Maritime	211	71
Manufacturing	4,367	4,958
Other	6,027	14,100
<b>Average Case Hours/Inspection</b>		
Safety	23.91	24.68
Health	44.86	30.00
<b>Violations – Total</b>	40,313	65,884
Willful	385	149
Repeat	2,155	1,927
Serious	28,757	32,724
Unclassified	0	12
Other	8,984	30,906
FTA	32	166
<b>Penalties – Total (\$)</b>	186,187,094	98,921,201
Willful	27,256,828	6,592,975
Repeat	33,058,548	10,607,408
Serious	112,819,262	69,935,786
Unclassified	0	58,966
Other	12,248,709	9,698,312
FTA	775,011	2,027,753
<b>Average Penalty/Violation (\$)</b>	4,619	1,501
Willful	70,797	44,248
Repeat	15,340	5,505
Serious	3,923	2,137
Unclassified	-	4,914
Other	1,363	314
FTA	24,219	12,215
<b>Percent Inspections with Citations Contested</b>	9.6%	22.4%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

<sup>1</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

## **Federal OSHA Inspection/Enforcement Activity in Federal Agencies, FY 2020<sup>1,2</sup>**

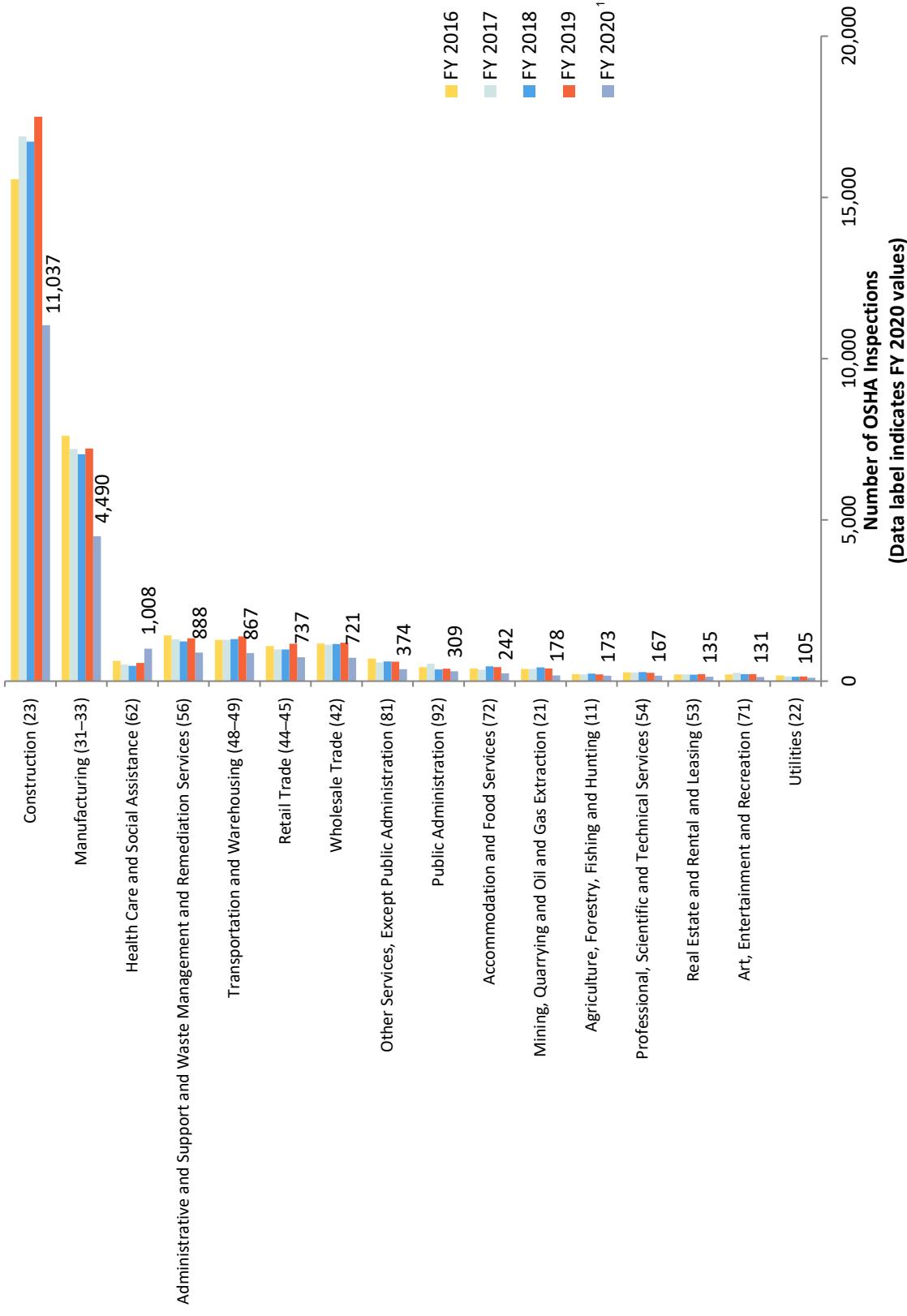
	<b><u>FY 2020</u></b>
<b>Inspections</b>	
Safety	502
Health	293
	209
Complaints	128
Programmed	223
Public administration	309
Health care and social assistance	71
Transportation and warehousing	27
Other	123
<b>Average Case Hours/Inspection</b>	
Safety	29.70
Health	43.39
<b>Violations – Total</b>	847
Willful	4
Repeat	69
Serious	577
Unclassified	0
Other	197
FTA	0
<b>Violations by Agency</b>	
DHS	52
CBP	32
TSA	18
Other DHS	2
DOT	24
FAA	17
Other DOT	7
DOC (NOAA)	12
DOD	269
DOE	10
DOI	132
DOJ	37
HHS	10
SSA	13
USDA	92
USPS	2
VA	107
Other	21
<b>Percent Inspections with Citations Contested</b>	1.5%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

<sup>1</sup>OSHA does not issue monetary penalties to federal agencies.

<sup>2</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

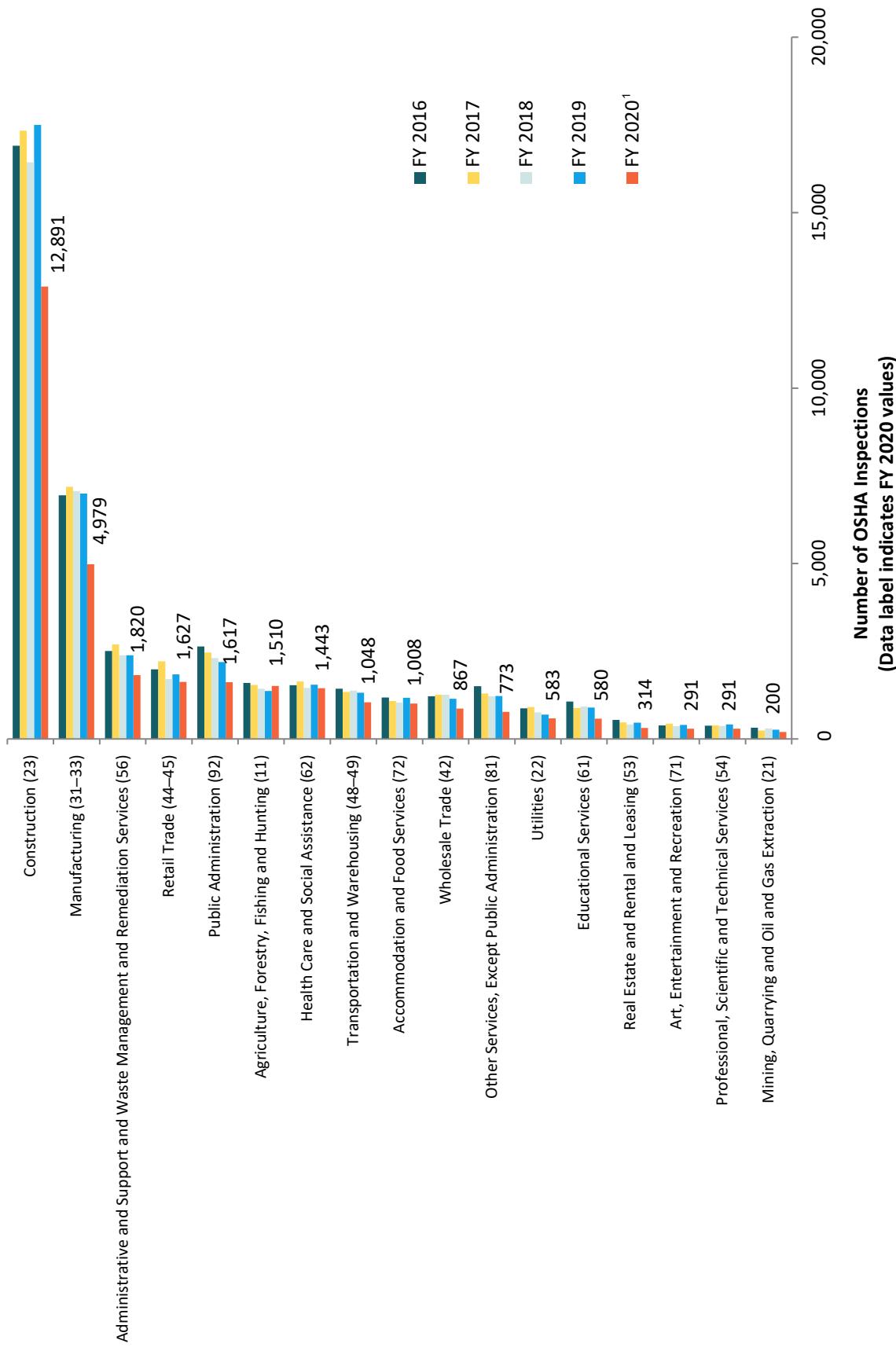
## Number of Federal OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2016–2020



Source: OSHA OIS inspection reports, FY2016–FY2020. Most recent data received Feb. 26, 2021.

<sup>1</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

## Number of State Plan OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2016–2020



Sources: OSHA OIS inspection reports, FY2016–FY2020. Most recent data received Jan. 11, 2021.

<sup>1</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Inspections and Investigations Under OSHA's Enforcement Weighting System, FY 2016–2019 <sup>1</sup>						
	FY 2016	FY 2017	FY 2018	FY 2019	% Change FY 2016–2019	
<b>Total Inspections</b>		31,948	32,396	32,020	33,401	5%
<b>Total Enforcement Units</b>		42,900	41,591	41,500	42,825	0%
<b>With Inspections</b>						
<b>Significant Case</b>	Number of Inspections	131	53	65	100	-24%
EU Value: 8	Number of EUs	1,048	424	520	800	-24%
<b>Process Safety Management</b>	Number of Inspections	234	140	232	172	-26%
EU Value: 7	Number of EUs	1,638	980	1,624	1,204	-26%
<b>5a1 Ergonomics<sup>2</sup></b>	Number of Inspections	69	44	19	31	-55%
EU Value: 5	Number of EUs	345	220	95	155	-55%
<b>5a1 Heat<sup>2</sup></b>	Number of Inspections	187	74	95	178	-5%
EU Value: 4	Number of EUs	748	296	380	712	-5%
<b>Fatality/Catastrophe</b>	Number of Inspections	866	825	910	885	2%
EU Value: 3	Number of EUs	2,598	2,475	2,730	2,655	2%
<b>5a1 Non-PEL Overexposure<sup>2</sup></b>	Number of Inspections	20	5	14	11	-45%
EU Value: 3	Number of EUs	60	15	42	33	-45%
<b>5a1 Workplace Violence<sup>2</sup></b>	Number of Inspections	49	40	41	35	-29%
EU Value: 3	Number of EUs	147	120	123	105	-29%
<b>Federal Agencies</b>	Number of Inspections	657	768	620	634	-4%
EU Value: 2	Number of EUs	1,314	1,536	1,240	1,268	-4%
<b>Combustible Dust</b>	Number of Inspections	491	419	397	372	-24%
EU Value: 2	Number of EUs	982	838	794	744	-24%
<b>Personal Sampling</b>	Number of Inspections	1,582	1,459	1,270	1,187	-25%
EU Value: 2	Number of EUs	3,164	2,918	2,540	2,374	-25%
<b>All Other Inspections</b>	Number of Inspections	27,662	28,569	28,357	29,794	8%
EU Value: 1	Number of EUs	27,662	28,569	28,357	29,794	8%
<b>Without Inspections</b>						
<b>Phone/Fax</b>	Number of Complaints	21,738	21,243	19,338	18,584	-15%
EU Value: 1/9	Number of EUs	2,410	2,355	2,144	2,060	-15%
<b>Rapid Response</b>	Number of Investigations	7,088	7,645	8,244	8,320	17%
EU Value: 1/9	Number of EUs	784	845	911	921	17%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

<sup>1</sup>This data is based on OSHA's Updated Enforcement Weighting System (EWS), which was in effect Oct. 1, 2015, until Sept. 30, 2019: osha.gov/dep/enforcement/ews\_memo\_09302015.html. The OSHA Weighting System replaced the EWS and took effect beginning FY 2020 (Oct. 1, 2019); the OWS data are reflected in a separate table.

<sup>2</sup>These inspections resulted in either a 5a1 citation or hazard alert letter (HAL). HALs do not result in a citation or penalty. The majority of inspections resulted in a HAL.

## Inspections and Investigations Under the OSHA Weighting System, FY 2020<sup>1,2,3</sup>

		FY 2020
<b>Total Inspections</b>		21,674
<b>Total Enforcement Units</b>		43,217
<b>With Inspections</b>		
<b>Significant Case</b> EU Value: 7	Number of Inspections	1
	Number of EUs	7
<b>Process Safety Management</b> EU Value: 5	Number of Inspections	101
	Number of EUs	505
<b>Fatality/Catastrophe</b> EU Value: 5	Number of Inspections	1,508
	Number of EUs	7,540
<b>Falls, Caught in, Struck by, Electrical Hazards<sup>4</sup></b> EU Value: 3	Number of Inspections	6,966
	5a1 Citation	334
	5a1 HAL	116
	Emphasis Programs	6,516
	Number of EUs	20,898
<b>National/Regional/Local Emphasis Program</b> EU Value: 2	Number of Inspections	707
	Number of EUs	1,414
<b>5a1 Ergonomics<sup>4</sup></b> EU Value: 2	Number of Inspections	13
	5a1 Citation	0
	HAL	13
	Number of EUs	26
<b>5a1 Heat<sup>4</sup></b> EU Value: 2	Number of Inspections	29
	5a1 Citation	4
	HAL	25
	Number of EUs	58
<b>5a1 Non-PEL Overexposure<sup>4</sup></b> EU Value: 2	Number of Inspections	2
	5a1 Citation	0
	HAL	2
	Number of EUs	4
<b>5a1 Workplace Violence<sup>4</sup></b> EU Value: 2	Number of Inspections	15
	5a1 Citation	1
	HAL	14
	Number of EUs	30
<b>Federal Agencies</b> EU Value: 2	Number of Inspections	164
	Number of EUs	328
<b>Personal Sampling</b> EU Value: 2	Number of Inspections	698
	Number of EUs	1,396
<b>All Other Inspections</b> EU Value: 1	Number of Inspections	11,744
	Number of EUs	11,744

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

<sup>1</sup>OSHA replaced its Enforcement Weighting System (EWS) that was implemented in FY 2015 with the new OSHA Weighting System (OWS), which took effect beginning FY 2020 (Oct. 1, 2019):

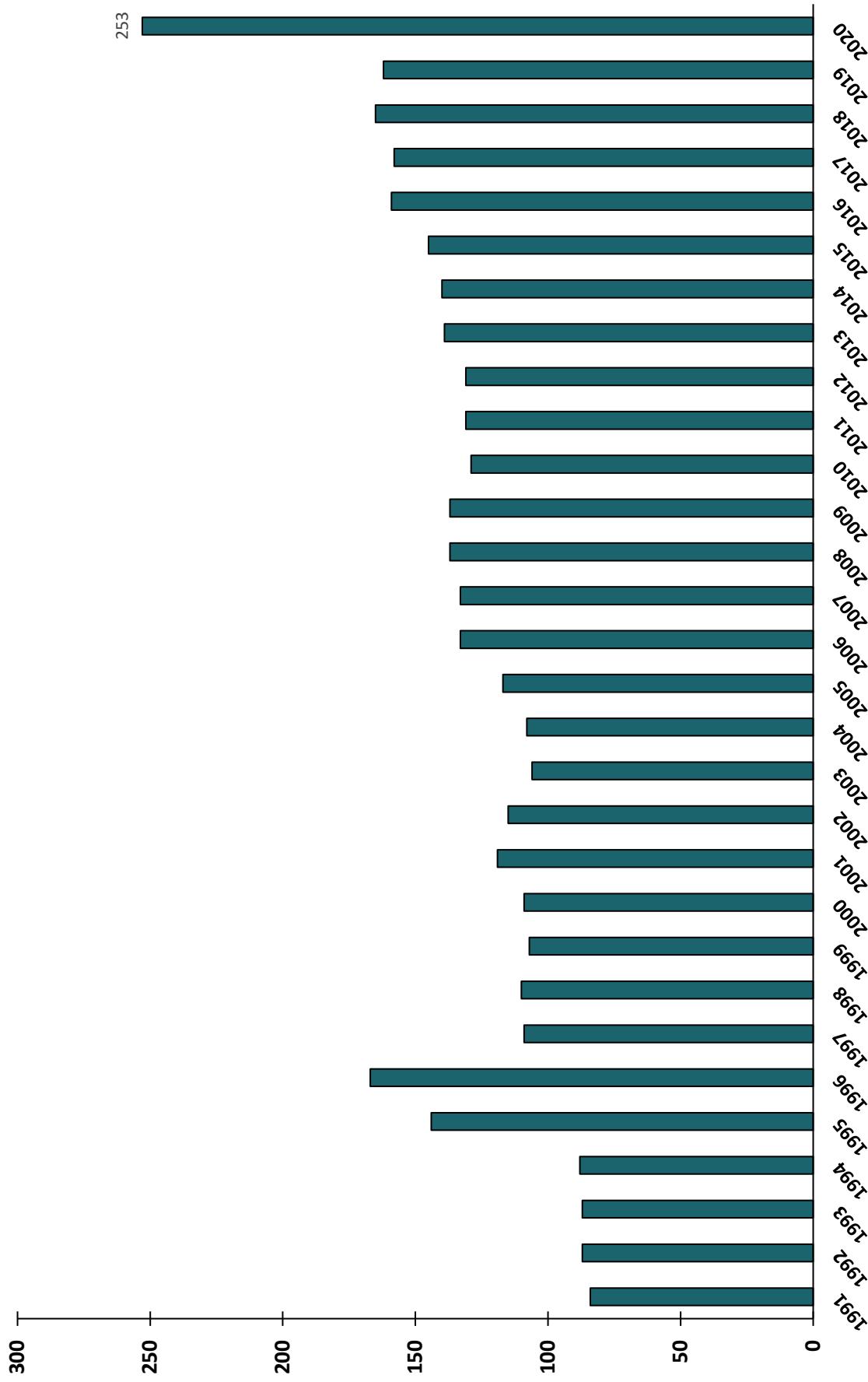
[osha.gov/sites/default/files/CTS\\_7132\\_Whitepaper\\_FINAL\\_v2019\\_9\\_30.pdf](http://osha.gov/sites/default/files/CTS_7132_Whitepaper_FINAL_v2019_9_30.pdf). The OWS places less emphasis on significant inspections and health inspections.

<sup>2</sup>When OSHA revised its weighting system, unprogrammed activity such as phone/fax complaints and rapid response investigations were moved into a category called "essential enforcement support functions." As of March 12, 2021, this category is still being developed, so there are no data to present.

<sup>3</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

<sup>4</sup>Hazard alert letters (HALs) do not result in a citation or penalty.

## Years for Federal OSHA to Inspect Each Workplace Once FY 1991–2020<sup>1,2,3</sup>



<sup>1</sup>Years to inspect is based on the number of establishments and the number of OSHA inspections for each fiscal year.

<sup>2</sup>FY 1995–1996 inspections declined significantly during the Clinton administration's "Reinventing Government" initiative.

<sup>3</sup>FY 2020 inspections declined significantly during the Trump administration's COVID-19 pandemic response.

## Average Total Penalty Per OSHA Fatality Inspection, FY 2013–2020

Fiscal Year	Number of Fatality Inspections Conducted	Total Current Penalties (\$)	Average Total Penalty Per Inspection (\$)
<b><u>FY 2013</u></b>			
Federal States	797	7,744,931	9,718
State Plan States	635	6,131,773	9,656
Nationwide	1,432	13,876,704	9,751
<b><u>FY 2014</u></b>			
Federal States	900	11,912,254	13,236
State Plan States	697	6,393,686	9,173
Nationwide	1,597	18,305,940	11,463
<b><u>FY 2015</u></b>			
Federal States	967	11,412,315	11,802
State Plan States	842	5,358,100	6,364
Nationwide	1,809	16,770,415	9,271
<b><u>FY 2016</u></b>			
Federal States	945	13,941,452	14,753
State Plan States	583	6,363,471	10,915
Nationwide	1,528	20,304,923	13,289
<b><u>FY 2017</u></b>			
Federal States	906	17,351,501	19,152
State Plan States	790	7,389,944	9,354
Nationwide	1,696	24,741,445	14,588
<b><u>FY 2018</u></b>			
Federal States	873	14,608,527	16,734
State Plan States	732	8,232,798	11,247
Nationwide	1,605	22,841,324	14,231
<b><u>FY 2019</u></b>			
Federal States	826	18,522,711	22,425
State Plan States	693	8,561,263	12,354
Nationwide	1,519	27,083,974	17,830
<b><u>FY 2020</u></b>			
Federal States	1,379	19,939,122	14,459
State Plan States	1,084	12,925,108	11,924
Nationwide	2,463	32,864,230	13,343

Sources: OSHA IMIS Fatality Inspection Reports, FY 2013–2015, and OSHA OIS Fatality Inspection Reports, FY 2013–2020.

Significant OSHA Enforcement Cases Based on Total Penalty Issued, FY 2020 <sup>1</sup>					
Company Name	State	Inspection Number(s)	Date Citations Issued	Total Initial Penalty Issued	Current Penalty Issued
BB Frame, LLC dba Frame Q LLC as successor to Frame Q LLC, and Juan Quevedo <sup>2</sup>	NJ	1450621 1470364 1470356 1464272 1466351	6/2/20	\$2,004,225	\$2,004,225
AB Specialty Silicones LLC	IL	1398632	10/24/19	\$1,591,176	\$1,591,176
Great Lakes Tank and Vessel LLC	OH	1464642	8/13/20	\$1,565,271	\$1,565,271
Florida Roofing Experts Inc. <sup>3</sup>	FL	1415336 1414375 1415000	1/9/20	\$1,017,717	\$1,017,717
Dollar Tree Store Inc.	NY	1443323	5/4/20	\$639,469	\$639,469
Dana Railcare, a Division of Dana Container Inc.	PA	1405010	11/25/19	\$551,226	\$551,226
RES System 3 LLC / RES America Construction Inc. <sup>4</sup>	WA	1456990 1456979	7/6/20	\$545,674	\$545,674
Dollar Tree Stores Inc.	NE	1440331	4/13/20	\$539,934	\$539,934
Dollar Tree Stores Inc. dba Dollar Tree <sup>2</sup>	MA	1431460	2/25/20	\$523,745	\$523,745
TPC Group LLC	TX	1448049	5/26/20	\$514,692	\$514,692
Ferrara Candy Company	IL	1456731	7/6/20	\$485,008	\$485,008
The Valley Fertilizer and Chemical Company Inc. <sup>4</sup>	VA	1397970	10/18/19	\$479,010	\$479,010
Dollar Tree Stores Inc.	WI	1433182	3/19/20	\$477,089	\$477,089
Alpha Technical Services Corporation LLC dba Quala Rail and Specialty <sup>2</sup>	TX	1454465	6/24/20	\$499,134	\$450,000
United Parcel Service Inc. dba UPS <sup>2</sup>	MA	1399036	3/30/20	\$431,517	\$431,517

Source: Occupational Safety and Health Administration.

<sup>1</sup>On Aug. 1, 2016, as a result of OSHA's new penalty structure, OSHA raised the threshold for significant enforcement cases from cases resulting in a total proposed penalty of more than \$100,000 to cases with a total proposed penalty of more than \$180,000. In FY 2020, OSHA brought 89 federal and 18 state significant enforcement cases; six of these were against federal agencies and carried no penalties.

<sup>2</sup>dba = "doing business as"

<sup>3</sup>This significant case involved an egregious violation.

<sup>4</sup>This significant case was issued under an OSHA state plan, which may have different criteria for a significant case, but this case exceeds the federal threshold for a significant case.

## Largest-Ever OSHA Enforcement Cases Based on Total Penalty Issued

Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued	Penalty Amount Paid <sup>1</sup>
BP Products North America	311962674 308314640	10/29/2009	\$81,340,000	\$50,610,000 \$14,567,000 \$205,000 (Formal settlements)
BP Products North America	308314640 308314988	9/21/2005	\$21,361,500	
IMC Fertilizer/Angus Chemical	107607863 107607871	10/31/1991	\$11,550,000	\$10,000,000
Imperial Sugar	310988712 311522858	7/25/2008	\$8,777,500	\$6,050,000 (Formal settlement)
O&G Industries Inc.	109179937 314295460	8/3/2010	\$8,347,000	\$1,000,000 (Formal settlement)
Samsung Guam Inc.	107329740 106196801	9/21/1995	\$8,260,000	\$1,829,000 (Formal settlement)
CITGO Petroleum	110416880	8/29/1991	\$8,155,000	\$5,800,000
Dayton Tire	109061648	4/18/1994	\$7,490,000	\$7,490,000
USX (aka U.S. Steel Corp.)	100504950 018252858 102873288	10/26/1998 11/2/1989	\$7,275,300	\$3,268,845 (Formal settlement)
Keystone Construction Maintenance	109179952 314295445	8/3/2010	\$6,623,000	\$250,000* (Formal settlement)
Phillips 66/Fish Engineering	106612443 107365751	4/19/1990	\$6,395,200	\$410,000 (Formal settlement)
Hercules Inc.	1086662420 100490705	9/8/1993	\$6,328,000	\$100,000 (ALJ decision)
Arcadian	102281292 102281128	1/27/1993	\$5,085,000	\$5,085,000
E. Smalis Painting	108753690	6/31/1994	\$5,008,500	\$1,092,750 (OSHRC decision)
John Morrell	101456325	10/28/1988	\$4,330,000	\$990,000 (Formal settlement)
Bath Iron Works	101450336 101450294	11/4/1987	\$4,175,940	\$650,000 (Formal settlement)

## Largest-Ever OSHA Enforcement Cases Based on Total Penalty Issued

Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued	Penalty Amount Paid <sup>1</sup>
Fraser Paper	102749868 102750395	9/17/1991	\$3,982,500	\$1,286,233 (Formal settlement)
Decoster Egg Farms (aka Maine Contract Farming LLC)	122375512	7/12/1996	\$3,555,500	\$1,887,500 (Formal settlement)
Arco Chemical Co.	110318540	1/3/1999	\$3,481,300	\$3,481,300
Sunfield Inc.	1117773 1128049	6/29/2016	\$3,426,900	\$2,497,200 (Formal settlement)
The Budd Company	18252510	12/12/1989	\$3,345,600	\$1,528,000 (Formal settlement)
McCrary Stores	113919278	11/7/1991	\$3,188,000	\$500,000 (ALJ decision)
IBP	100059591	5/11/1998	\$3,133,100	\$532,030 (OSHRC decision)
BP North America Inc. and BP Husky Refining LLC	311611081	3/8/2010	\$3,042,000	\$3,042,000
Shell Oil Chemical Co.	103342093	11/22/1994	\$3,017,000	\$3,017,000
Union Carbide	1103998310	9/12/1991	\$2,803,500	\$1,496,500 (Formal settlement)
Ajin USA Alliance Total Solutions LLC Joyrus Staffing Group	1156866 1165706 1165707	12/12/2016	\$2,565,621	Violations under contest
Dover Greens LLC (dba as Olivet Management LLC)	945519	3/31/2014	\$2,359,000	\$700,000 (Formal settlement)
Republic Steel	942971 942968	3/31/2014	\$2,086,000	\$240,614
BB Frame LLC dba Frame Q LLC as successor to Frame Q LLC and Juan Quevedo	1450621 1470364 1470356 1464272 1466351	6/2/2020	\$2,004,225	Violations under contest

Source: Occupational Safety and Health Administration.

<sup>1</sup>Penalty amount paid information comes from March 26, 2012, posting by Celeste Monforton on the Pump Handle blog at [www.scienceblogs.com/the\\_pump\\_handle/2012/03/26/federal-osha-penalties-101-a-i-and-from-www.osha.gov/pls/imis/inspectionNr.html](http://www.scienceblogs.com/the_pump_handle/2012/03/26/federal-osha-penalties-101-a-i-and-from-www.osha.gov/pls/imis/inspectionNr.html).

\*Settlement called for Keystone Construction Maintenance also to pay 5% of its annual revenue above a set amount for each of the seven years following the settlement.

## Disposition of Federal OSHA 11(c) Whistleblower Complaints, FY 2006–2020

Fiscal Year	Cases Received	Cases Completed <sup>1</sup>	Complaint Determinations						Total Determinations
			Total Merit	Merit	Settled	Settled Other	Dismissed	Withdrawn	
2006	1,195	1,229	293	14	213	66	787	196	1,276
2007	1,301	1,167	262	14	190	58	766	176	1,204
2008	1,381	1,255	261	14	202	45	830	227	1,318
2009	1,267	1,168	287	22	210	55	726	187	1,200
2010	1,402	1,144	334	24	244	66	672	177	1,183
2011	1,668	1,234	411	23	314	74	694	177	1,282
2012	1,745	1,653	400	18	294	88	977	340	1,717
2013	1,708	1,827	611	41	369	201	921	415	1,947
2014	1,751	1,794	483	13	309	161	957	426	1,866
2015	2,031	1,952	560	18	362	180	962	459	1,975
2016	2,030	2,035	581	29	342	210	1,043	472	2,096
2017	1,932	1,876	538	15	303	220	877	502	1,917
2018	1,870	1,740	510	20	269	221	870	377	1,757
2019	2,084	2,001	559	14	272	273	1067	392	2,018
2020	2,539	2,082	644	20	344	280	1,082	411	2,137

Source: Occupational Safety and Health Administration, Directorate of Whistleblower Protection Programs.

<sup>1</sup>Cases completed include cases received and backlog cases.

## Disposition of OSHA State Plan 11(c) Whistleblower Complaints, FY 2009–2020

Fiscal Year	Cases Received	Cases Completed <sup>1</sup>	Cases				Complaint Determinations				Total Determinations
			Total Merit	Merit Finding	Settled	Settled Other	Dismissed	Withdrawn			
2009	1,043	882	158	31	94	33	654	121	933		
2010	1,167	954	160	24	107	29	612	132	904		
2011	1,462	839	168	24	125	19	626	135	929		
2012	1,457	766	174	20	133	21	443	112	729		
2013	1,192	1,059	248	58	139	51	655	215	1,118		
2014	1,157	965	221	46	125	50	606	198	1,025		
2015	1,060	1,120	219	27	145	47	606	300	1,125		
2016	1,143	1,031	169	25	95	49	646	216	1,031		
2017	1,183	1,222	259	66	115	78	766	206	1,231		
2018	1,347	1,376	244	47	91	106	841	261	1,376		
2019	1,176	1,274	201	39	67	95	826	262	1,289		
2020	1,712	1,228	242	38	82	122	747	241	1,230		

Source: Occupational Safety and Health Administration, Directorate of Cooperative and State Programs.

<sup>1</sup>Cases completed include cases received and backlog cases.

## Major OSHA Health Standards Since 1971

<b>Standard</b>	<b>Year Final Standard Issued</b>
1. Asbestos	1972
2. Fourteen Carcinogens	1974
3. Vinyl Chloride	1974
4. Coke Oven Emissions	1976
5. Benzene (vacated)	1978
6. DBCP	1978
7. Arsenic	1978
8. Cotton Dust	1978
9. Acrylonitrile	1978
10. Lead	1978
11. Cancer Policy	1980
12. Access to Medical Records	1980
13. Hearing Conservation	1981
14. Hazard Communication	1983
15. Ethylene Oxide	1984
16. Asbestos (revised)	1986
17. Field Sanitation	1987
18. Benzene (revised)	1987
19. Formaldehyde	1987
20. Access to Medical Records (modified)	1988
21. Permissible Exposure Limits (PELs) Update (vacated)	1989
22. Chemical Exposure in Laboratories	1990
23. Bloodborne Pathogens	1991
24. 4,4'-methylenedianiline	1992
25. Cadmium	1992
26. Asbestos (partial response to court remand)	1992
27. Formaldehyde (response to court remand)	1992
28. Lead (construction)	1993
29. Asbestos (response to court remand)	1994
30. 1,3-Butadiene	1996
31. Methylene Chloride	1998
32. Respiratory Protection	1998
33. Ergonomics (revoked under the Congressional Review Act)	2000
34. Bloodborne Pathogens – Needlestick Injuries	2001
35. Hexavalent Chromium (response to court order)	2006
36. Hazard Communication – Globally Harmonized System	2012
37. Crystalline Silica	2016
38. Beryllium	2017

Source: Code of Federal Regulations.

## Major OSHA Safety Standards Since 1971

Standard	Year Final Standard Issued
1. Cranes/Derricks (load indicators)	1972
2. Roll-over Protective Structures (construction)	1972
3. Power Transmission and Distribution	1972
4. Scaffolding, Pump Jack Scaffolding and Roof Catch Platform	1972
5. Lavatories for Industrial Employment	1973
6. Trucks, Cranes, Derricks and Indoor General Storage	1973
7. Temporary Flooring – Skeleton Steel Construction	1974
8. Mechanical Power Presses	1974
9. Telecommunications	1975
10. Roll-over Protective Structures of Agricultural Tractors	1975
11. Industrial Slings	1975
12. Guarding of Farm Field Equipment, Farmstead Equipment and Cotton Gins	1976
13. Ground-Fault Protection	1976
14. Commercial Diving Operations	1977
15. Servicing Multi-Piece Rim Wheels	1980
16. Fire Protection	1980
17. Guarding of Low-Pitched Roof Perimeters	1980
18. Design Safety Standards for Electrical Standards	1981
19. Latch-Open Devices	1982
20. Marine Terminals	1983
21. Servicing of Single-Piece and Multi-Piece Rim Wheels	1984
22. Electrical Safety in Construction (Part 1926)	1986
23. General Environmental Controls – TAGS (Part 1910)	1986
24. Marine Terminals – Servicing Single-Piece Rim Wheels (Part 1917)	1987
25. Grain Handling Facilities (Part 1910)	1987
26. Safety Testing of Certification of Certain Workplace Equipment and Materials	1988
27. Crane or Derrick Suspended Personnel Platforms (Part 1926)	1988
28. Concrete and Masonry Construction (Part 1926)	1988
29. Mechanical Power Presses (modified)	1988
30. Powered Platforms (Part 1910)	1989
31. Underground Construction (Part 1926)	1989
32. Hazardous Waste Operations (Part 1910) (mandated by Congress)	1989
33. Excavations (Part 1926)	1989
34. Control of Hazardous Energy Sources (lockout/tagout) (Part 1910)	1989
35. Stairways and Ladders (Part 1926)	1990
36. Concrete and Masonry Lift-Slab Operations	1990
37. Electrical Safety Work Practices (Part 1910)	1990
38. Welding, Cutting and Brazing (Part 1910) (revision)	1990
39. Chemical Process Safety	1992
40. Confined Spaces (general industry)	1993

## **Major OSHA Safety Standards Since 1971**

<b>Standard</b>	<b>Year Final Standard Issued</b>
41. Fall Protection	1994
42. Electrical Power Generation	1994
43. Personal Protective Equipment	1994
44. Logging Operations	1995
45. Scaffolds	1996
46. PPE for Shipyards	1996
47. Longshoring and Marine Terminals	1997
48. Powered Industrial Truck Operator Training	1998
49. Steel Erection	2001
50. Electrical Equipment Installation	2007
51. Employer Payment for Personal Protective Equipment	2007
52. Cranes and Derricks in Construction	2010
53. General Working Conditions for Shipyard Employment	2011
54. Electric Power Generation, Transmission and Distribution	2014
55. Confined Spaces (construction)	2015
56. Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems) (Part 1910)	2016

Source: Code of Federal Regulations.

## Impact on Workers' Lives from Delays in Recent OSHA Standards

Hazard/Issue	Year Rulemaking Initiated	Year Rulemaking Completed	Years Elapsed Since Rulemaking Initiated	Lives Lost Per Year of Delay	Lives Lost Over Entire Rulemaking Period
Cranes and Derricks <sup>1</sup>	2002	2010	8	22	176
Hexavalent Chromium <sup>2</sup>	1993	2006	13	40 to 145	520 to 1,885
Silica <sup>3</sup>	1997	2016	19	642	12,198
Beryllium <sup>4</sup>	1998	2017	19	90	1,710

<sup>1</sup>In 2002, OSHA initiated negotiated rulemaking on the cranes and derricks standard. The negotiated rulemaking committee recommended a draft rule in 2004. The proposed rule was issued in 2008 and the final rule promulgated in 2010. According to OSHA, the cranes and derricks standard also will prevent 175 injuries per year. Fatalities and injuries prevented per year by the new standard were obtained from OSHA's preamble to the final rule for cranes and derricks published in the Federal Register on Aug. 9, 2010.

<sup>2</sup>In 1993, a petition for an Emergency Temporary Standard for the carcinogen hexavalent chromium was submitted to OSHA. In 1994, OSHA denied the ETS petition but put hexavalent chromium on the regulatory agenda for normal rulemaking. OSHA failed to issue a proposed rule. Lawsuits in 1997 and in 2002 seeking to compel rulemaking resulted in a court-ordered timetable to issue a final standard by Jan. 18, 2006. According to OSHA, the standard also will prevent 209 to 1,045 cases of dermatitis and 1,140 cases of nasal perforations/ulcerations from occurring annually. Lung cancer and silicosis deaths and illnesses avoided per year by the new standard were obtained from OSHA's preamble to the final rule published in the Federal Register on Feb. 28, 2006.

<sup>3</sup>In 1997, silica was put on OSHA's regulatory agenda. In 2003, a draft silica standard underwent a Small Business Regulatory Enforcement Fairness Act review, but the rule then stalled. Work on the standard was reactivated in 2009, and on Feb. 14, 2011, the draft proposed standard was submitted to the Office of Management and Budget for review under Executive Order 12866. OMB review of proposed rules is required to be completed within 120 days under the EO, but due to political pressure from industries opposed to the new rule, the draft proposed rule was held by OMB for two and one-half years. The proposed rule finally was issued on Sept. 12, 2013; the final rule was issued on March 25, 2016. According to the preamble of the final rule, reducing the permissible exposure limit for silica to 50 µg/m<sup>3</sup> will prevent 642 deaths and 918 cases of silica-related disease each year (81 FR 16285).

<sup>4</sup>In 1998, beryllium was put on OSHA's regulatory agenda. A petition for an Emergency Temporary Standard for the carcinogen beryllium was submitted to OSHA in 1999 and again in 2001. In 2002, OSHA denied the petition for an ETS but kept beryllium on the regulatory agenda for normal rulemaking. In 2002, OSHA issued a Request for Information. In 2012, the United Steelworkers and Materion Brush jointly submitted a draft standard to OSHA. OSHA published the proposed rule in 2015 and the final rule on Jan. 9, 2017. According to the preamble of the final rule, reducing the permissible exposure limit for beryllium to 0.2 µg/m<sup>3</sup> will prevent 90 deaths and 46 cases of chronic beryllium disease each year (82 FR 2597). After a previous attempt to repeal the exposure monitoring, medical surveillance and other ancillary provisions of the beryllium standard for construction and maritime workers, on Aug. 31, 2020, the Trump administration issued a rule to revoke or otherwise alter the ancillary provisions for construction and maritime workers.

## Permissible Exposure Limits of OSHA Compared with Other Standards and Recommendations<sup>1</sup>

Chemical <sup>2</sup>	OSHA PEL	Cal/OSHA PEL	ACGIH TLV	NIOSH REL	Units
Acrylamide <sup>3</sup>	0.3	0.03	0.03	0.03	mg/m <sup>3</sup>
Ammonia	50	25	25	25	ppm
Asphalt fume <sup>3</sup>	-	5.0	0.5	5.0 (s)	mg/m <sup>3</sup>
Benzene <sup>3</sup>	1.0	1.0	0.5	0.1	ppm
1-Bromopropane <sup>4</sup>	-	5.0	0.1	-	ppm
n-Butanol	100	50 (c)	20	50 (c)	ppm
Carbon disulfide <sup>5</sup>	20	1.0	1.0	1.0	ppm
Carbon monoxide <sup>5</sup>	50	25	25	35	ppm
Chlorobenzene	75	10	10	-	ppm
Chlorodiphenyl (54% chlorine) (PCB) <sup>3</sup>	0.5	0.5	0.5	0.001	mg/m <sup>3</sup>
Cobalt metal, dust and fume	0.1	0.02	0.02	0.05	mg/m <sup>3</sup>
Dimethyl sulfate <sup>3,5</sup>	1.00	0.1	0.1	0.1	ppm
2-Ethoxyethanol (EGEE)	200	5.0	5.0	0.5	ppm
Ethyl acrylate <sup>3</sup>	25	5.0	5.0	-	ppm
Formaldehyde <sup>3,4</sup>	0.75	0.75	0.1	0.016	ppm
Gasoline <sup>3</sup>	-	300	300	-	ppm
Glutaraldehyde <sup>5</sup>	-	0.05 (c)	0.05 (c)	0.2 (c)	ppm
Manganese compounds	5.0 (c)	0.2	0.02	1.0	mg/m <sup>3</sup>
Methylene bisphenyl isocyanate (MDI)	0.02 (c)	0.005	0.005	0.005	ppm
Styrene	100	50	10	50	ppm
Tetrachloroethylene (Perchloroethylene/PERC) <sup>3,4,5</sup>	100	25	25	-	ppm
Toluene <sup>5</sup>	200	10	20	100	ppm
Toluene-2,4-Diisocyanate (TDI) <sup>3</sup>	0.02 (c)	0.005	0.001	-	ppm
Triethylamine	25	1.0 (c)	0.5	-	ppm
Welding fume <sup>3</sup>	-	5.0	-	-	mg/m <sup>3</sup>

<sup>1</sup>(c) Ceiling level; (s) Short-term exposure limit.

<sup>2</sup>More available at [www.osha.gov/dsg/annotated-pels/](http://www.osha.gov/dsg/annotated-pels/), OSHA Permissible Exposure Limits – Annotated Tables.

<sup>3</sup>NIOSH denotes carcinogenicity of chemicals according to Appendix A: [www.cdc.gov/niosh/npg/nengapdxa.html](http://www.cdc.gov/niosh/npg/nengapdxa.html). NIOSH does not always assign an exposure limit for carcinogens and, instead, recommends reducing exposure to the lowest feasible level.

<sup>4</sup>Designated or proposed by EPA as a high-priority chemical for regulation under the amended Toxic Substances Control Act.

<sup>5</sup>Chemicals identified by OSHA for updating permissible exposure limits but subsequently dropped from the agency's regulatory agenda.

**5(a)(1) Citations for Airborne Chemical Exposures  
2011–2020, Federal OSHA and State Plan Cases**

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
Feb. 14, 2011 313878563, FL	Spray painting in construction	VM&P Naptha (No PEL)	Lung, skin irritation, chemical pneumonia	5,900 mg/m <sup>3</sup> 15 minutes	1,800 mg/m <sup>3</sup> (C) REL NIOSH
April 8, 2011 314468745, MO	Construction work in sewer manhole	Hydrogen sulfide (10 ppm, 8 hour)	Lung, eye irritation, central nervous system, dizziness, coma	235 ppm (assume direct read)	100 ppm IDLH NIOSH
July 7, 2011 315638304, NC	Home furniture manufacture	1-Bromopropane (No PEL)	Liver damage, neurotoxicity, fetal	86 ppm 8 hours	25 ppm AEL EPA
Aug. 2, 2011 315447078, NC	Operating propane forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	278 ppm (assume direct read)	No reference (200 ppm-C NIOSH REL)
Aug. 10, 2011 315685123, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	2,622 ppm (assume direct read)	200 ppm (C) REL NIOSH
Aug. 12, 2011 314677188, NJ	Applying adhesive in glass manufacturing	Ethyl cyanoacrylate (No PEL)	Respiratory illness, sensitization	0.5 ppm 8 hours	0.20 ppm TLV ACGIH
Aug. 25, 2011 313138430, WI	By furnace at steel foundry	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	492 ppm (assume direct read)	200 ppm (C) REL NIOSH
Sept. 7, 2011 29490, CO	Spray finishing auto body	HDIH <sup>1</sup> (No PEL)	Nausea, dizziness, cyanosis	2.34 mg/m <sup>3</sup> 19 minutes	1 mg/m <sup>3</sup> STEL MSDS
Oct. 7, 2011 315121244, WI	Mixing and gluing ceramic fibers	Refractory ceramic fibers (No PEL)	Respiratory irritation, lung cancer, mesothelioma	0.87 fibers/cc 8 hours	0.5 f/cc REG HTIW
Nov. 7, 2011 62933, FL	Spray finishing auto body	HDIH <sup>1</sup> (No PEL)	Respiratory irritation, chemical asthma	1.23 mg/m <sup>3</sup> 19 minutes	1mg/m <sup>3</sup> STEL MSDS
Feb. 28, 2012 315359471, FL	Roofers heating asphalt kettle	Asphalt fumes (No PEL)	Eye, upper respiratory irritation, cancer	0.93 mg/m <sup>3</sup> 8 hours	5 mg/m <sup>3</sup> REL NIOSH
March 6, 2012 3163337708, NC	Spraying glue	1-Bromopropane (No PEL)	Liver damage, neurotoxicity, fetal	90 ppm 8 hour TWA	25 ppm AEL EPA
March 16, 2012 316436021, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	600 ppm (assume direct read)	200 ppm (C) REL NIOSH

**5(a)(1) Citations for Airborne Chemical Exposures  
2011–2020, Federal OSHA and State Plan Cases**

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
May 12, 2012 110849, WI	Handling molds in steel foundry	DMEA <sup>2</sup> (No PEL)	Headache, nausea, blurred vision, increased heart rate	17.7 ppm 8 hours	3 ppm MSDS
May 24, 2012 316528181, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	300 ppm (assume direct read)	200 ppm (C) REL NIOSH
April 2, 2013 890719, NJ	Pouring food flavor chemical	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	0.094 ppm 15 minutes	0.02 STEL ACGIH
April 19, 2013 702499, TX	Spraying powder coat on metal part	TGIC <sup>3</sup> (No PEL)	Respiratory illness, sensitization, male reproduction	0.22 mg/m <sup>3</sup> 8 hours	0.05 mg/m <sup>3</sup> TLV ACGIH
June 18, 2013 315840883, NV	Animal surgery	Iosflurane (No PEL)	Reproductive, central nervous system, liver, kidney	2.3 ppm (assume 60 minutes)	2 ppm (C) REL NIOSH
Sept. 19, 2013 897143, WI	Manual work with fiberglass molds	Styrene (100 ppm PEL)	Respiratory, skin and eye irritation, central nervous system, liver	65.2 ppm 10 hours	50 ppm REL NIOSH
Sept. 30, 2013 899582, FL	Disinfecting endoscopy equipment	Glutaraldehyde (no PEL)	Respiratory illness, skin and eye irritation, sensitization, asthma	0.13 ppm (assume 15 minutes)	0.05 ppm (C) TLV ACGIH
Feb. 3, 2014 925263, TX	Foam lamination for car seats	2,6-TDI <sup>4</sup> (No PEL)	Respiratory illness, asthma, sensitizer	0.08 mg/m <sup>3</sup> 8 hours	0.036 mg/m <sup>3</sup> TLV ACGIH
March 21, 2014 947716, NV	Destruction of old munitions	TNT <sup>5</sup> (1.5 mg/m <sup>3</sup> 8 hour)	Respiratory, liver, kidneys, central nervous system, eyes, skin	0.17 mg/m <sup>3</sup> 8 hours	0.1 mg/m <sup>3</sup> TLV ACGIH
Oct. 24, 2014 317376770, NV	Animal Surgery	Iosflurane (No PEL)	Reproductive, central nervous system, liver, kidney	Above REL (not posted)	2ppm (C) REL NIOSH
Dec. 1, 2015 1068107, NJ	Fragrance manufacturing	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	80.1 ppm 15 minutes	0.02 STEL ACGIH
April 13, 2015 1055558, NJ	Fragrance manufacturing	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	5.8969 ppm 15 minutes	0.02 ppm STEL ACGIH

**5(a)(1) Citations for Airborne Chemical Exposures  
2011–2020, Federal OSHA and State Plan Cases**

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
Jan. 17, 2017 1125064, PA	Travel trailer and camper manufacturing	TGIC <sup>3</sup> (No PEL)	Respiratory illness, sensitization, male reproduction	0.866 mg/m <sup>3</sup> 8 hour TWA	0.05 mg/m <sup>3</sup> TLV ACGIH 0.025 mg/m <sup>3</sup> Mfg STEL
Feb. 26, 2018 1260141, PA	Degreasing	1-Bromopropane (No PEL)	Nervous system damage, cancer, eye and respiratory irritation	88.53 ppm 8 hour TWA	0.1ppm TLV ACGIH 5.0ppm PEL CAL/OSHA
Feb. 26, 2019 1343291, WI	Aluminum manufacturing	Metalworking fluids	Respiratory illness, skin irritation, asthma	341 endotoxin units/m <sup>3</sup> 8 hour TWA	90 endotoxin units/m <sup>3</sup> DECOS <sup>6</sup>

Source: Occupational Safety and Health Administration.

<sup>1</sup>HDIH is hexamethylene diisocyanate homopolymer.

<sup>2</sup>DMEA is dimethyl/ethyl/amine.

<sup>3</sup>TGIC is 1,3,5-triglycidyl isocyanurate, aka 1,3,5-triglycidyl-s-triazinetrone.

<sup>4</sup>2,6-TDI is toluene diisocyanate.

<sup>5</sup>TNT is 2,4,6-trinitrotoluene.

<sup>6</sup>Reference Occupational Exposure Limit from Dutch Expert Committee on Occupational Safety. Further information in this NIOSH Health Hazard Evaluation:  
[www.cdc.gov/niosh/hhe/reports/pdfs/2010-0144-3164.pdf?id=10.26616/NIOSHHE TA201001443164](http://www.cdc.gov/niosh/hhe/reports/pdfs/2010-0144-3164.pdf?id=10.26616/NIOSHHE TA201001443164).

**Federal OSHA Budget and Personnel**  
**FY 1980–2021**

<b>Fiscal Year</b>	<b>Budget</b> (in dollars – \$)	<b>Positions</b> (Staff Full-Time Equivalent Employment)
<b>1980</b>	186,394,000	2,951
<b>1985</b>	219,652,000	2,239
<b>1990</b>	267,147,000	2,425
<b>1991</b>	285,190,000	2,466
<b>1992</b>	296,540,000	2,473
<b>1993</b>	288,251,000	2,368
<b>1994</b>	296,428,000	2,295
<b>1995</b>	311,660,000	2,196
<b>1996</b>	303,810,000	2,069
<b>1997</b>	324,955,000	2,118
<b>1998</b>	336,480,000	2,171
<b>1999</b>	354,129,000	2,154
<b>2000</b>	381,620,000	2,259
<b>2001</b>	425,886,000	2,370
<b>2002</b>	443,651,000	2,313
<b>2003</b>	453,256,000	2,313
<b>2004</b>	457,500,000	2,236
<b>2005</b>	464,224,000	2,208
<b>2006</b>	472,427,000	2,165
<b>2007</b>	486,925,000	2,165
<b>2008</b>	486,001,000	2,118
<b>2009</b>	513,042,000	2,147
<b>2010</b>	558,620,000	2,335
<b>2011</b>	558,619,000	2,335
<b>2012</b>	564,788,000	2,305
<b>2013<sup>1</sup></b>	535,546,000	2,226
<b>2014</b>	552,247,000	2,238
<b>2015</b>	552,787,000	2,224
<b>2016</b>	552,787,000	2,173
<b>2017</b>	552,787,000	2,011
<b>2018</b>	552,787,000	1,953
<b>2019</b>	557,533,000	1,911
<b>2020</b>	581,787,000	1,884
<b>2021</b>	<b>591,787,000</b>	<b>1,896</b>

Source: Occupational Safety and Health Administration.

<sup>1</sup>The FY 2013 funding levels reflect budget cuts mandated by the sequester.

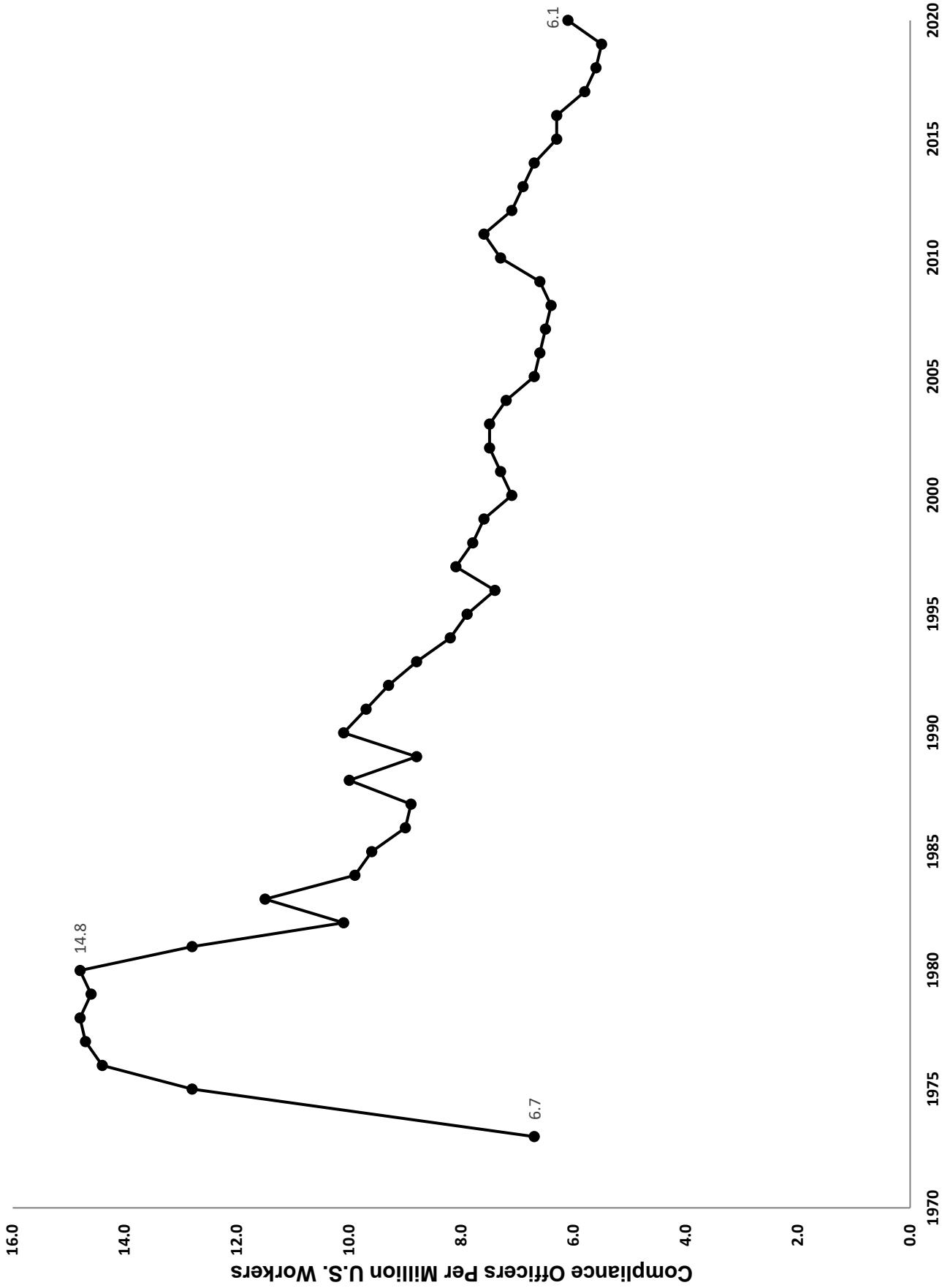
## Federal OSHA Safety and Health Compliance Staffing, 1975–2020

Year	Total Number of Federal OSHA Compliance Officers <sup>1</sup>	Employment (000) <sup>2</sup>	OSHA Compliance Officers Per Million Workers
1975	1,102	85,846	12.8
1976	1,281	88,752	14.4
1977	1,353	92,017	14.7
1978	1,422	96,048	14.8
1979	1,441	98,824	14.6
1980	1,469	99,302	14.8
1981	1,287	100,397	12.8
1982	1,003	99,526	10.1
1983	1,160	100,834	11.5
1984	1,040	105,005	9.9
1985	1,027	107,150	9.6
1986	975	109,597	9.0
1987	999	112,440	8.9
1988	1,153	114,968	10.0
1989	1,038	117,342	8.8
1990	1,203	118,793	10.1
1991	1,137	117,718	9.7
1992	1,106	118,492	9.3
1993	1,055	120,259	8.8
1994	1,006	123,060	8.2
1995	986	124,900	7.9
1996	932	126,708	7.4
1997	1,049	129,558	8.1
1998	1,029	131,463	7.8
1999	1,013	133,488	7.6
2000	972	136,891	7.1
2001	1,001	136,933	7.3
2002	1,017	136,485	7.5
2003	1,038	137,736	7.5
2004	1,006	139,252	7.2
2005	956	141,730	6.7
2006	948	144,427	6.6
2007	948	146,047	6.5
2008	936	145,362	6.4
2009	929	139,877	6.6
2010	1,016	139,064	7.3
2011	1,059	139,869	7.6
2012	1,006	142,469	7.1
2013	994	143,929	6.9
2014	986	146,305	6.7
2015	943	148,834	6.3
2016	952	151,436	6.3
2017	896	153,337	5.8
2018	875	155,761	5.6
2019	862	157,538	5.5
2020	901	147,795	6.1

<sup>1</sup>Compliance officers for 1973 to 1989 from Twentieth Century OSHA Enforcement Data, A Review and Explanation of the Major Trends, U.S. Department of Labor, 2002; Compliance officers for 1990 to 2019 from OSHA Directorate of Enforcement Programs. Compliance officer totals include safety and industrial hygiene (health) officers and supervisory safety and industrial hygiene officers.

<sup>2</sup>Employment is an annual average of employed civilians, 16 years of age and older, from the Current Population Survey (CPS), Bureau of Labor Statistics.

## Federal OSHA Compliance Officers Per Million U.S. Workers, 1974–2020<sup>1</sup>



Source: Employment data from Current Population Survey, Bureau of Labor Statistics.

<sup>1</sup>Compliance officers from U.S. Department of Labor, OSHA Directorate of Enforcement Programs, includes CSHOs and their supervisors.

# Job Safety and Health Appropriations, FY 2011–2021

CATEGORY	FY 2011	FY 2012	FY 2013 <sup>3</sup>	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 <sup>6</sup>
<b>OSHA (in thousands of dollars)</b>											
<b>TOTAL</b>	<b>558,619</b>	<b>564,788</b>	<b>535,246</b>	<b>552,247</b>	<b>552,787</b>	<b>552,787</b>	<b>552,787</b>	<b>552,787</b>	<b>551,787</b>	<b>581,787</b>	<b>591,787</b>
Safety and Health Standards	20,288	19,962	18,918	20,000	20,000	18,000	18,000	18,000	18,000	18,000	18,000
Federal Enforcement	208,146	207,753	207,928	207,785	208,000	208,000	208,000	208,000	209,000	221,711	228,711
Whistleblower Protection	14,806	15,873	15,043	17,000	17,500	17,500	17,500	17,500	17,500	18,564	19,064
State Enforcement	104,393	104,196	98,746	100,000	100,850	100,850	100,850	100,850	102,350	108,575	110,075
Technical Support	25,868	25,820	24,344	24,344	24,469	24,469	24,469	24,469	24,469	24,469	24,469
Federal Compliance Assistance	73,383	76,355	61,444	69,433	68,433	68,433	70,981	70,981	73,981	74,481	75,231
State Compliance Assistance	54,688	57,890	54,862	57,775	57,775	57,775	59,500	59,500	59,500	61,500	61,500
Training Grants	10,729	10,709	10,149	10,687	10,537	10,537	10,537	10,537	10,537	11,537	11,787
Safety and Health Statistics	34,805	34,739	32,922	34,250	34,250	34,250	32,900	32,900	32,900	32,900	32,900
Executive Administration	11,513	11,491	10,890	10,973	10,973	10,973	10,050	10,050	10,050	10,050	10,050
<b>MSHA (in thousands of dollars)</b>											
<b>TOTAL</b>	<b>361,844<sup>2</sup></b>	<b>372,524</b>	<b>353,768</b>	<b>375,887</b>	<b>375,887</b>	<b>375,887</b>	<b>373,816</b>	<b>373,816</b>	<b>373,816</b>	<b>379,816</b>	<b>379,816</b>
Coal Enforcement	160,639	164,500	158,713	167,859	167,859	167,859	160,000	160,000	160,000	258,913 <sup>5</sup>	260,500
Metal/Nonmetal Enforcement	87,644	89,063	86,121	91,697	91,697	91,697	94,500	94,500	94,500		
Standards Development	4,352	4,765	4,547	5,416	5,416	5,416	4,500	4,500	4,500	5,382	4,500
Assessments	6,221	7,103	7,036	6,976	6,976	6,976	6,976	6,976	6,976	6,627	6,627
Education Policy and Development	38,148	38,325	31,898	36,320	36,320	36,320	39,320	39,320	39,320	38,559	39,320
Technical Support	31,031	33,613	32,050	33,791	33,791	33,791	35,041	35,041	35,041	34,079	35,041
Program Administration	15,906	16,998	15,974	15,838	15,838	15,838	15,838	15,838	15,838	16,355	15,838
Program Eval. and Info Resources	18,173	18,157	17,429	17,990	17,990	17,990	17,990	17,990	17,990	19,083	17,990
<b>NIOSH (in thousands of dollars)</b>											
<b>TOTAL<sup>1</sup></b>	<b>302,171</b>	<b>292,588</b>	<b>332,364</b>	<b>334,863</b>	<b>339,121</b>	<b>335,200</b>	<b>335,200</b>	<b>336,300</b>	<b>336,300</b>	<b>342,800</b>	<b>345,300</b>

Source: Budget of the U.S. Government, FY 2011–2012, and U.S. Department of Labor Congressional Budget Justification, FY 2011–2021.

<sup>1</sup>Does not include \$55 million in mandatory funding for the Energy Employees Occupational Injury Compensation Program or mandatory funding for the 9/11 Health Program.

<sup>2</sup>Includes \$6.5 million for addressing the backlog of contested cases, of which up to \$3 million may be transferred to the DOL's Office of Solicitor.

<sup>3</sup>The FY 2013 funding levels reflect the budget cuts mandated by the budget sequester.

<sup>4</sup>In FY 2014 and subsequent years, administrative costs previously allocated to the CDC budget were transferred to the NIOSH budget.

<sup>5</sup>President Trump combined the MSHA Coal Enforcement and Metal/Nonmetal Enforcement programs into one Mine Safety and Health Enforcement program.

<sup>6</sup>The American Relief Plan, passed on March 10, 2021, additionally appropriated COVID-19 funds to the Department of Labor: \$200 million for pandemic-related worker protection activities, including \$100 million for OSHA, of which \$10 million must be used for training grants and not less than \$5 million for COVID-19 enforcement.

**Funding for OSHA Worker Safety Training Programs vs.  
Employer Compliance Assistance Programs, FY 2003–2021**  
**(\$ in thousands)**

<b>Fiscal Year</b>	<b>Worker Safety and Health Training</b>	<b>Employer Compliance Assistance (Federal and State)</b>
FY 2003 Enacted	\$11,175	\$115,300
FY 2004 Request	\$4,000	\$120,000
FY 2004 Enacted	\$11,100	\$120,000
FY 2004 Rescission	\$10,500	\$119,200
FY 2005 Request	\$4,000	\$125,200
FY 2005 Enacted	\$10,500	\$124,200
FY 2006 Request	\$0	\$124,200
FY 2006 Enacted	\$10,100	\$125,900
FY 2007 Request	\$0	\$129,900
FY 2007 Enacted	\$10,100	\$126,000
FY 2008 Request	\$0	\$134,100
FY 2008 Enacted	\$9,900	\$123,800
FY 2009 Request	\$0	\$131,100
FY 2009 Enacted	\$10,000	\$127,200
FY 2010 Request	\$10,000	\$128,175
FY 2010 Enacted	\$10,750	\$128,200
FY 2011 Request	\$11,000	\$126,100
FY 2011 Enacted	\$10,729	\$128,200
FY 2012 Request	\$12,000	\$129,800
FY 2012 Enacted	\$10,700	\$134,200
FY 2013 Request	\$10,700	\$131,000
FY 2013 Enacted <sup>1</sup>	\$10,150	\$116,300
FY 2014 Request	\$10,700	\$133,200
FY 2014 Enacted	\$10,700	\$127,200
FY 2015 Request	\$10,700	\$128,200
FY 2015 Enacted	\$10,500	\$126,200
FY 2016 Request	\$10,700	\$130,800
FY 2016 Enacted	\$10,537	\$126,558
FY 2017 Request	\$10,537	\$132,558
FY 2017 Enacted	\$10,537	\$130,481
FY 2018 Request	\$0	\$130,016
FY 2018 Enacted	\$10,537	\$130,481
FY 2019 Request	\$0	\$134,715
FY 2019 Enacted	\$10,537	\$133,481
FY 2020 Request	\$0	\$133,414
FY 2020 Enacted	\$11,537	\$135,981
FY 2021 Request	\$0	\$136,910
FY 2021 Enacted <sup>2</sup>	\$11,787	\$136,731

Source: Department of Labor, Occupational Safety and Health Administration, Annual Congressional Budget Justification.

<sup>1</sup>FY 2013 funding levels reflect the budget cuts mandated by the sequester.

<sup>2</sup>The American Relief Plan, passed on March 10, 2021, additionally appropriated COVID-19 funds to the Department of Labor: \$200 million for pandemic-related worker protection activities, including \$100 million for OSHA, of which \$10 million must be used for training grants and not less than \$5 million for COVID-19 enforcement.

**Number of U.S. Establishments and Employees Covered  
Per OSHA Full-Time Equivalent (FTE) Staff, 1980–2019**

Fiscal Year	Annual Average Employment <sup>1</sup>	Annual Average Establishments <sup>1</sup>	OSHA Full-Time Equivalent (FTE) Staff <sup>2</sup>	Employees Covered Per OSHA FTE	Establishments Covered Per OSHA FTE
1980	73,395,500	4,544,800	2,951	24,871	1,540
1985	96,314,200	5,305,400	2,239	43,017	2,370
1990	108,657,200	6,076,400	2,425	44,807	2,506
1995	115,487,841	7,040,677	2,196	52,590	3,206
2000	129,877,063	7,879,116	2,259	57,493	3,488
2005	131,571,623	8,571,144	2,208	59,589	3,882
2010	127,820,442	8,993,109	2,335	54,741	3,851
2011	129,411,095	9,072,796	2,335	55,422	3,886
2012	131,696,378	9,121,868	2,305	57,135	3,957
2013	133,968,434	9,205,888	2,226	60,183	4,136
2014	136,613,609	9,361,354	2,238	61,043	4,183
2015	139,491,699	9,522,775	2,224	62,721	4,282
2016	141,870,066	9,716,618	2,173	65,228	4,472
2017	143,859,855	9,835,104	2,011	71,536	4,891
2018	146,131,754	10,011,038	1,953	74,824	5,126
2019	147,329,051	10,167,267	1,884	78,200	5,397

<sup>1</sup>U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages, Annual Averages (Total Covered).

<sup>2</sup>U.S. Department of Labor, Occupational Safety and Health Administration.

# 8.1 Million State and Local Employees Lacked OSHA Coverage in 2019



<sup>1</sup>Massachusetts passed a law providing OSHA coverage to the state's public employees (effective Sept. 1, 2018), but does not have a federal OSHA-approved state plan with enforcement resources.

★ In 2019, 41,270 public employees in the District of Columbia lacked OSHA coverage.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages; Annual Average.

Prepared by the AEI-CIO

## Profiles of Mine Safety and Health 2012–2020

### Coal Mines

	2012	2013	2014 <sup>3</sup>	2015 <sup>3</sup>	2016 <sup>3</sup>	2017 <sup>3</sup>	2018 <sup>3</sup>	2019 <sup>3</sup>	2020 <sup>3,4</sup>
<b>Number of coal mines</b>	1,871	1,704	1,633	1,459	1,287	1,216	1,192	1,137	1,008
<b>Number of miners</b>	138,338	123,446	116,318	102,871	81,880	82,932	82,857	81,483	63,734
<b>Fatalities</b>	20	20	16	12	8	15	12	12	5
<b>Fatal injury rate<sup>1</sup></b>	0.0159	0.0176	0.0149	0.0131	0.0115	0.0200	0.0155	0.0159	0.0091
<b>All injury rate<sup>1</sup></b>	3.21	3.15	3.15	2.93	2.91	3.19	2.88	2.93	2.68
<b>States with coal mining</b>	26	26	26	26	26	25	26	26	23
<b>Coal production (millions of tons)</b>	1,018	984	1,000	897	728	775	756	706	535
<b>Citations and orders issued<sup>2</sup></b>	78,836	63,166	62,452	49,322	40,499	46,760	46,727	43,593	28,725

### Metal and Nonmetal Mines

	2012	2013	2014 <sup>3</sup>	2015 <sup>3</sup>	2016 <sup>3</sup>	2017 <sup>3</sup>	2018 <sup>3</sup>	2019 <sup>3</sup>	2020 <sup>3,4</sup>
<b>Number of metal/nonmetal mines</b>	12,227	12,101	11,990	11,862	11,823	11,898	11,885	11,846	11,666
<b>Number of miners</b>	250,664	251,433	250,576	247,269	237,406	238,627	249,415	250,228	232,331
<b>Fatalities</b>	16	22	30	17	17	13	15	15	24
<b>Fatal injury rate<sup>1</sup></b>	0.0079	0.0108	0.0147	0.0084	0.0088	0.0066	0.0077	0.0072	0.0125
<b>All injury rate<sup>1</sup></b>	2.20	2.14	2.11	2.03	1.94	1.79	1.74	1.72	1.58
<b>States with M/NM mining</b>	50	50	50	50	50	50	50	50	50
<b>Citations and orders issued<sup>2</sup></b>	60,074	54,952	58,599	58,374	56,525	57,843	50,765	55,751	49,260

Source: U.S. Department of Labor, Mine Safety and Health

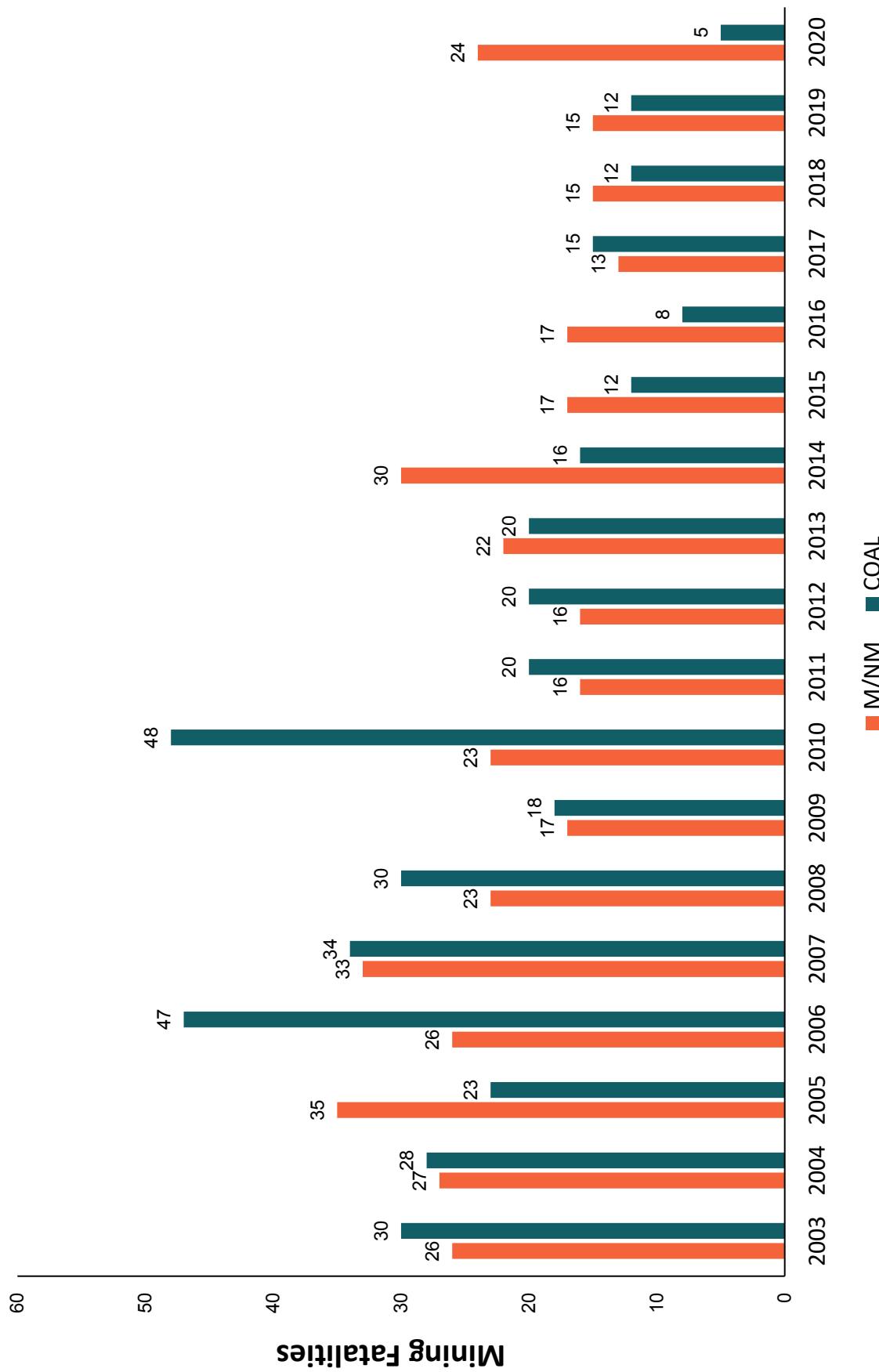
<sup>1</sup>All reported injuries per 200,000 employee hours.

<sup>2</sup>Citations and orders are those not vacated.

<sup>3</sup>Includes operator and contractor employees.

<sup>4</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

## Coal and Metal/Nonmetal Mining Fatality Comparisons, 2003–2020



Source: U.S. Department of Labor, Mine Safety and Health Administration.

**Coal Mining Fatalities by State, 2003–2020**

<b>State</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Alabama</b>	1	2	4	2	3	2	3	2			3	1	1	1	1	1	1	
<b>Alaska</b>																		
<b>Arizona</b>					1													
<b>Arkansas</b>																		
<b>California</b>																		
<b>Colorado</b>					1				1	1								
<b>Connecticut</b>																		1
<b>Delaware</b>																		
<b>Florida</b>																		
<b>Georgia</b>																		
<b>Hawaii</b>																		
<b>Idaho</b>																		
<b>Illinois</b>	3						1	2	2		1	4	1	3	1		1	
<b>Indiana</b>	1	1					3	1	1		1	1					2	
<b>Iowa</b>																		
<b>Kansas</b>																		
<b>Kentucky</b>	10	6	8	16	2	8	6	7	8	4	2		2	2	2	1	5	2
<b>Louisiana</b>											1							
<b>Maine</b>																		
<b>Maryland</b>																		
<b>Massachusetts</b>																		
<b>Michigan</b>																		
<b>Minnesota</b>																		
<b>Mississippi</b>																		

**Coal Mining Fatalities by State, 2003–2020**

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Missouri																		
Montana					1				1									1
Nebraska																		
Nevada																		
New Hampshire																		
New Jersey																		
New Mexico																		
New York																		
North Carolina																		
North Dakota																		
Ohio																		
Oklahoma																		
Oregon																		
Pennsylvania	1	1	4	1	1	5	1						2		3	1	1	1
Puerto Rico																		
Rhode Island																		
South Carolina																		
South Dakota																		
Tennessee															1			
Texas																		
Utah		2			1	10									1	1		
Vermont																		
Virginia	3	3			1		2	1			1	1			2	1		
Washington																	1	

## Coal Mining Fatalities by State, 2003–2020

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
West Virginia	9	12	4	23	9	9	3	35	6	7	6	5	2	3	8	4	4	2
Wisconsin																		
Wyoming	2		1			1			1		2	2			1			
Total	30	28	23	47	34	30	18	48	20	20	20	16	12	8	15	12	12	5

Source: U.S. Department of Labor, Mine Safety and Health Administration.

## Metal and Nonmetal Mining Fatalities by State, 2003–2020

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Alabama</b>	2	1					1		1							1	1	
<b>Alaska</b>			2	3			2											
<b>Arizona</b>	2	1	2	2	1	2		1	1	1			1	1			2	
<b>Arkansas</b>	1		2		1								1					
<b>California</b>	2		2	3	2	1	2		1	2		1		1			2	
<b>Colorado</b>	1		2									2				1		
<b>Connecticut</b>																		
<b>Delaware</b>																		
<b>Florida</b>		2	1				1	1	2			1	1	1				
<b>Georgia</b>	1	1				1	1	1				2	1	1	1	1	1	2
<b>Hawaii</b>																		
<b>Idaho</b>								1	2				1		1			
<b>Illinois</b>	1												1		1			1
<b>Indiana</b>	2		1	1									1					
<b>Iowa</b>	1					2	1		1				1	1	1	1		2
<b>Kansas</b>	1													1	1	1		
<b>Kentucky</b>	1		3	1		1	2					1	4	1	1		1	
<b>Louisiana</b>						1	1	1				1	1			1	3	
<b>Maine</b>																		
<b>Maryland</b>											1	1						
<b>Massachusetts</b>														1				
<b>Michigan</b>	1	2	1	3											1	1	1	
<b>Minnesota</b>			1	3	2							1	2				1	

## Metal and Nonmetal Mining Fatalities by State, 2003–2020

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mississippi		2												2			1	
Missouri	2	1	2	2	2				2	2	2						1	
Montana	1		1					1	2		1					1		
Nebraska	1		1					1			1							
Nevada	2	4	3		2	3	1	2	1	1	2	2	3	1	2	2		1
New Hampshire	1			1											1			
New Jersey	1		1															1
New Mexico	1	1	2		1	1					1				1	1	1	
New York		1			1			1	1	3		2				1		
North Carolina	1	1			1			1	1					1	1			
North Dakota											1					1		
Ohio	2		2		2				1			1		1				1
Oklahoma		2							3	1								1
Oregon	1	2	1	1	1										1			
Pennsylvania	2	1	2			2	1		1		1	2	1			1		
Puerto Rico			1	1			1											
Rhode Island																		
South Carolina	2	1	1								2					1	1	
South Dakota																		
Tennessee	1	1	1	2	1		1	1			1			1			2	
Texas	2	3	2	1	2	3	2	2			1	5	1	2	1	3	3	2
Utah							1	1	1		2		1	1				2
Vermont																		

## Metal and Nonmetal Mining Fatalities by State, 2003–2020

<b>State</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Virginia</b>		1	1	1									2	1	1	1		
<b>Washington</b>	1	1	1	1				1	1					1			1	
<b>West Virginia</b>				1														
<b>Wisconsin</b>		1			1													
<b>Wyoming</b>		1	1	1													1	
<b>Total</b>	26	27	35	26	33	23	17	23	16	16	22	30	17	17	13	15	15	24

Source: U.S. Department of Labor, Mine Safety and Health Administration.

## MSHA Impact Inspections, 2020<sup>1,2</sup>

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	Year Totals
<b>Coal</b>													
Number of Impact Inspections	7	7	3	-	-	-	-	-	-	-	-	-	17
Total # Citations Issued	105	92	47	-	-	-	-	-	-	-	-	-	244
# Orders <sup>3</sup> Issued	14	4	7	-	-	-	-	-	-	-	-	-	25
# S&S <sup>4</sup> Citations Issued	34	18	22	-	-	-	-	-	-	-	-	-	74
% S&S Citations	29%	19%	41%	-	-	-	-	-	-	-	-	-	360
<b>Metal/Nonmetal</b>													
Number of Impact Inspections	4	1	4	-	-	-	-	-	-	-	-	-	9
Total # Citations Issued	98	16	80	-	-	-	-	-	-	-	-	-	194
# Orders <sup>3</sup> Issued	3	2	2	-	-	-	-	-	-	-	-	-	7
# S&S <sup>4</sup> Citations Issued	29	5	12	-	-	-	-	-	-	-	-	-	46
% S&S Citations	29%	28%	15%	-	-	-	-	-	-	-	-	-	256

Source: U.S. Department of Labor, Mine Safety and Health Administration.

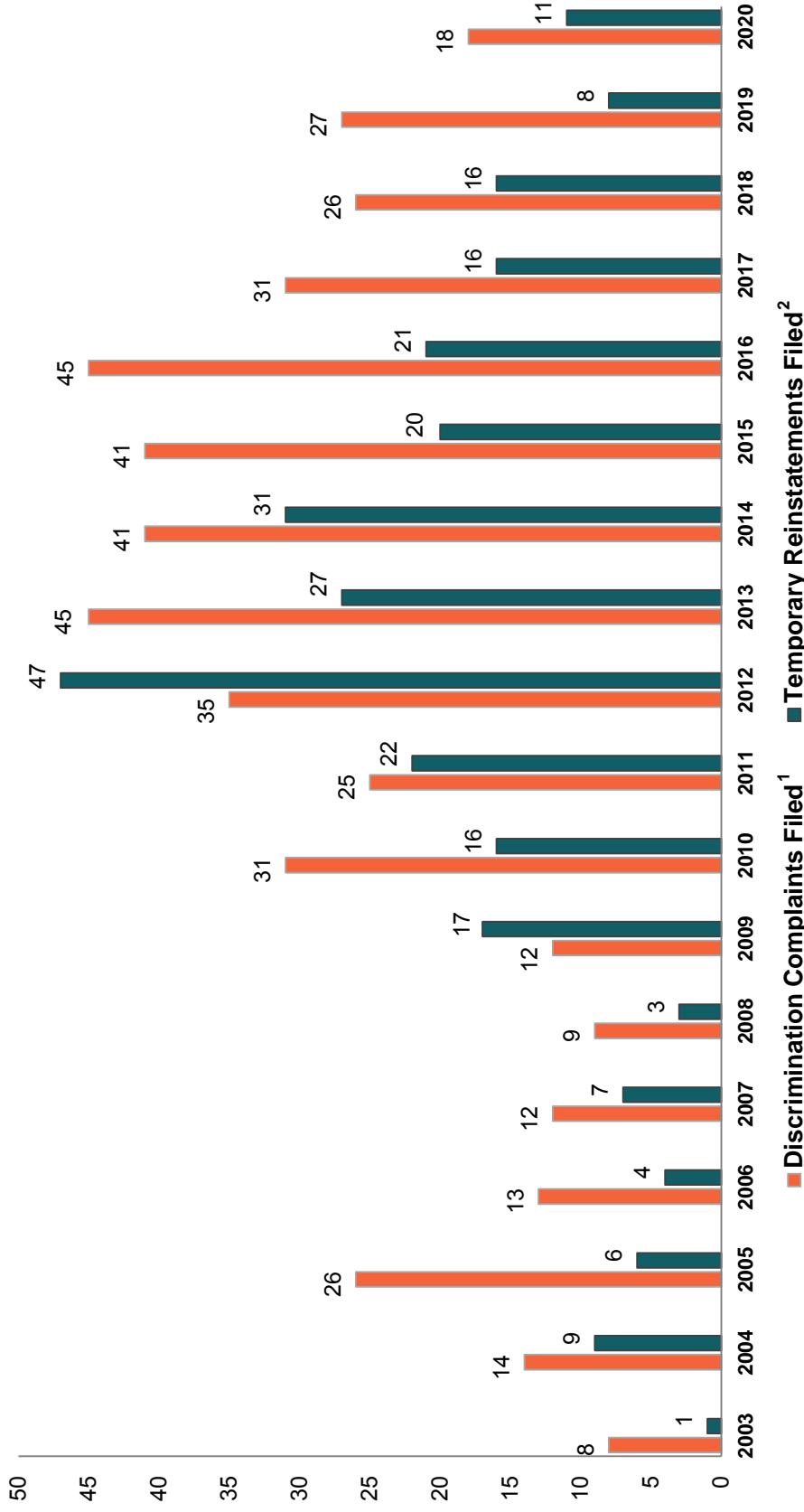
<sup>1</sup>Impact inspections were initiated after the April 2010 explosion at the Upper Big Branch Mine. The inspections are conducted at mines with a poor compliance history with MSHA standards, high numbers of injuries, illnesses or fatalities, and other indicators of unsafe mines.

<sup>2</sup>Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

<sup>3</sup>MSHA can issue orders to mine operators that require them to withdraw miners from affected areas of the mine for failure to abate violations, for "unwarrantable failure" (reckless disregard, intentional misconduct) to correct significant and substantial violations, and where imminent danger exists. Miners remain withdrawn from the affected area until the violation(s) are abated.

<sup>4</sup>A Significant and Substantial (S&S) citation is a violation of a mandatory MSHA standard in which the hazard resulting from the violation has a reasonable likelihood of resulting in an injury of a reasonably serious nature.

## MSHA Discrimination Complaints and Temporary Reinstatements Filed by the Department of Labor on Behalf of Miners, 2003–2020



Source: U.S. Department of Labor, Mine Safety and Health Administration.

<sup>1</sup>Under Section 105(c)(2) of the Federal Mine Safety and Health Act, any miner who thinks he or she has been discharged, interfered with or discriminated against for exercising his or her rights under the act may file a discrimination complaint.

<sup>2</sup>If the Mine Safety and Health Administration finds that a miner's discrimination complaint is "not frivolously brought," MSHA will ask the Federal Mine Safety and Health Review Commission to order immediate reinstatement of the miner while the discrimination case is pending.