



Commercial Motor Vehicle Crash Data Overview

December 2024



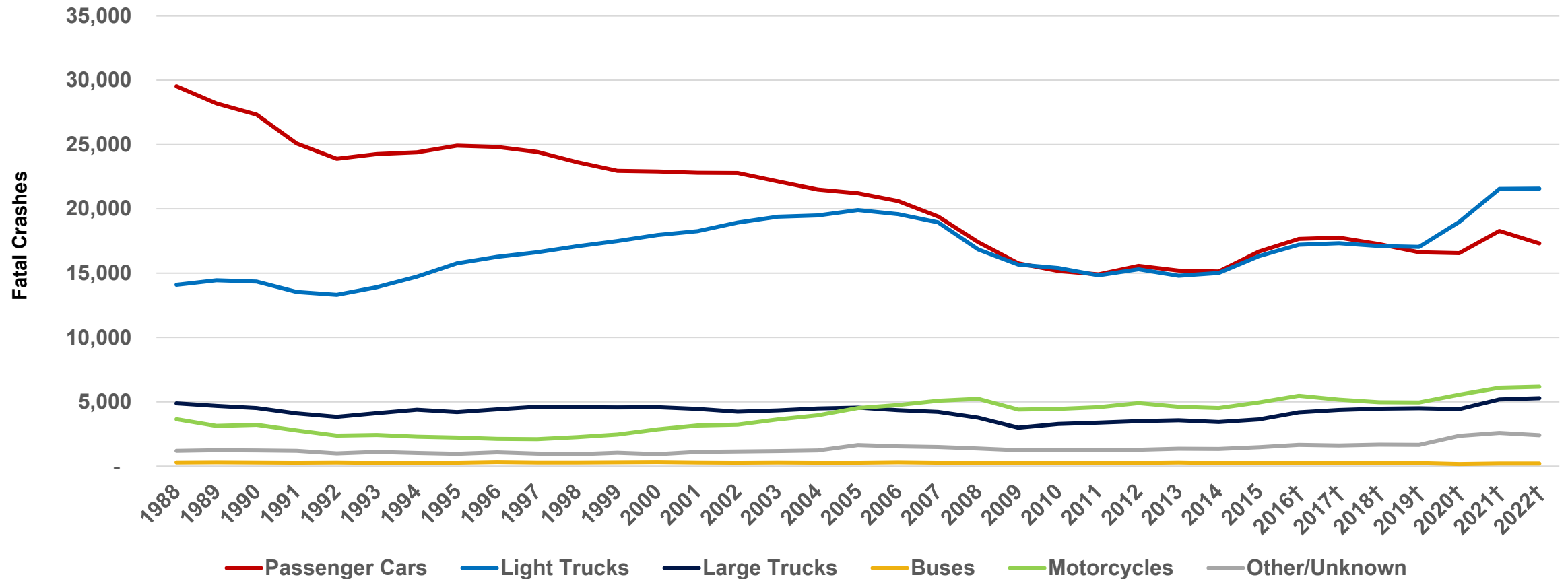
U.S. Department of Transportation
Federal Motor Carrier Safety Administration



Data Sources

- **NHTSA Fatality Analysis Reporting System (FARS)**
 - Census of fatal crashes involving motor vehicles traveling on public trafficways
 - A large truck is defined in FARS as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.
 - A bus is defined in FARS as any motor vehicle designed primarily to transport nine or more persons, including the driver.
 - FARS data is obtained solely from the States' existing documents: Police Accident Reports, State Vehicle Registration Files, State Driver Licensing Files, State Highway Department Data, Vital Statistics, Death Certificates, Coroner/Medical Examiner Reports, Emergency Medical Service Reports, Other State Records
- **FMCSA Motor Carrier Management Information System (MCMIS)**
 - Census of crashes involving FMCSA-regulated entities

Fatal Crashes by Vehicle Type, 1988–2022

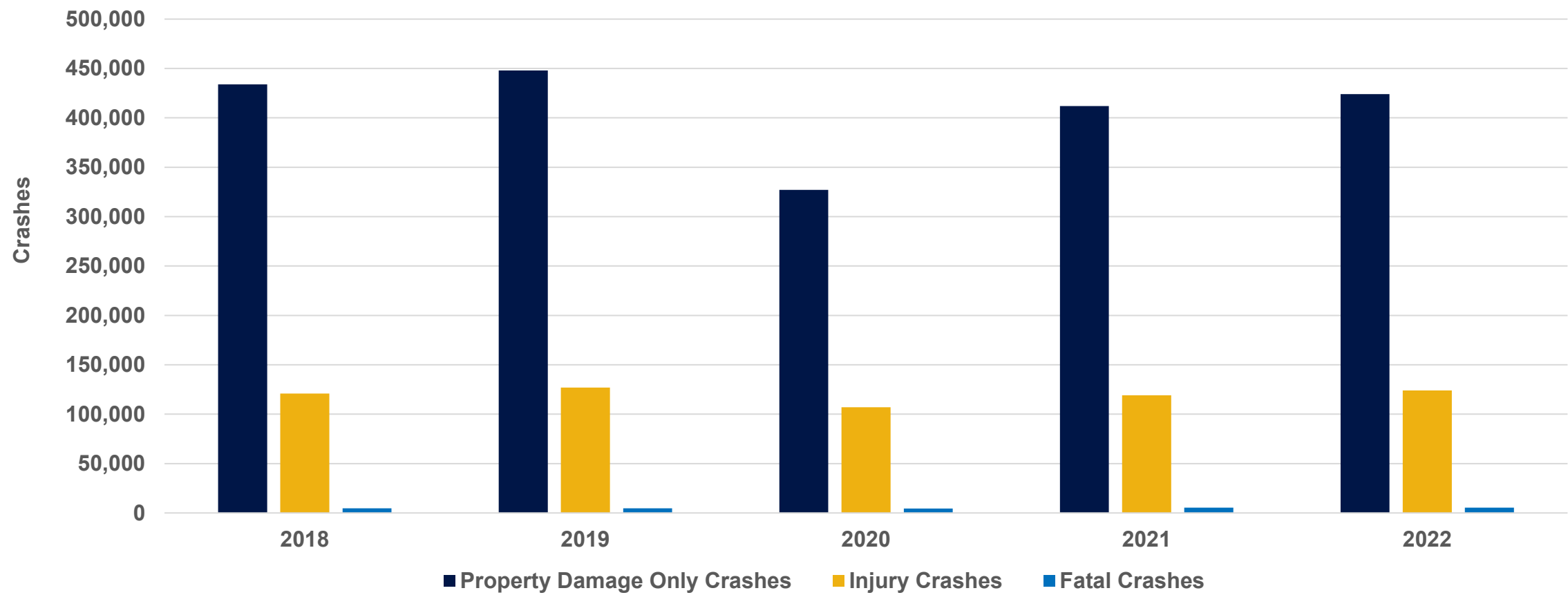


Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

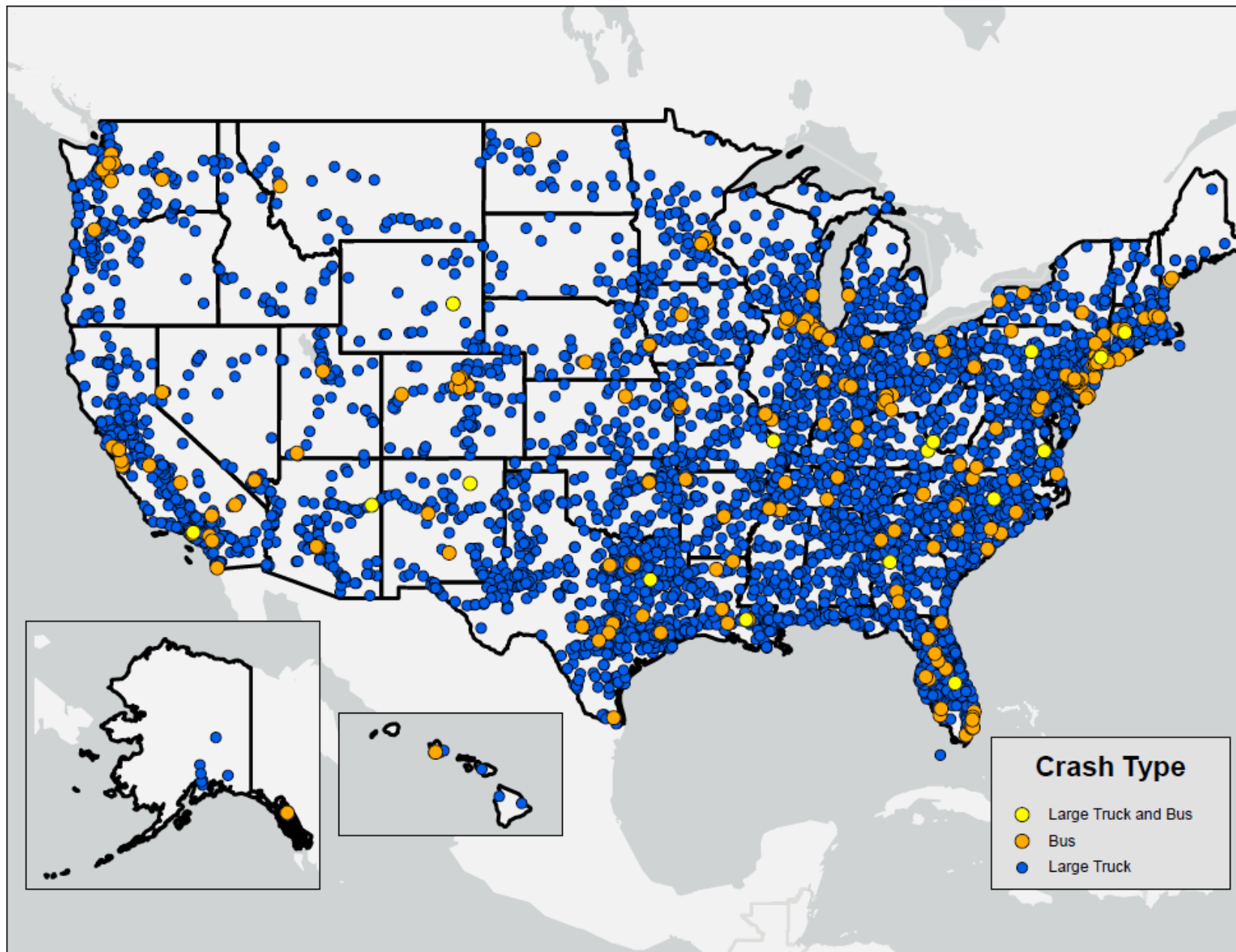
**In 2016, NHTSA made changes to revise the light pickup truck classification and reclassified 329 vehicles as large trucks (based on GVWR). Due to this methodology change, comparisons of 2016 FARS large truck data with prior years should be performed with caution.*



Large Truck and Bus Crashes by Crash Type, 2018–2022



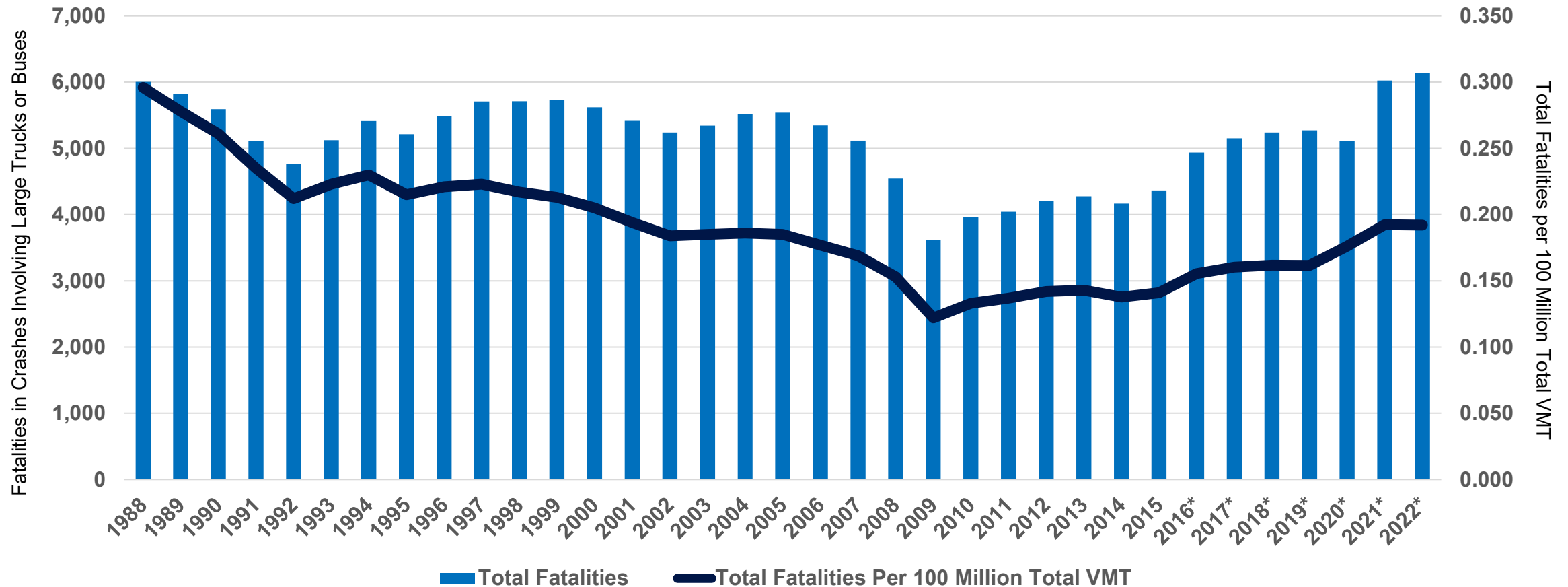
Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) & Crash Report Sampling System (CRSS)



2022 Fatal Large Truck and Bus Crash Locations

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Large Truck and Bus Fatality Rate, 1988–2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

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Fatal Crashes Involving Large Trucks and Buses, 2010–2022

Year	Fatal Crashes Involving Large Trucks or Buses	Large Trucks and Buses Involved in Fatal Crashes	Large Truck and Bus Occupant Fatalities	Total Fatalities in Large Truck and Bus Crashes
2010	3,512	3,745	574	3,957
2011	3,593	3,878	695	4,043
2012	3,726	4,078	736	4,208
2013	3,821	4,203	749	4,278
2014	3,656	3,985	700	4,168
2015	3,864	4,337	714	4,366
2016*	4,396	4,796	879	4,936
2017*	4,587	5,039	921	5,152
2018*	4,678	5,147	934	5,241
2019*	4,722	5,268	928	5,274
2020*	4,574	4,986	841	5,113
2021*	5,370	5,938	1,026	6,025
2022*	5,476	6,050	1,123	6,139

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

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Buses in Fatal Crashes by Type of Bus, 2018–2022

Type	2018	2019	2020	2021	2022	Percent Change 2020– 2022	Percent Change 2021– 2022
School Bus	81	86	43	80	87	102%	9%
Intercity Bus (Motorcoach)	15	15	13	17	14	8%	-18%
Transit Bus	84	79	80	78	74	-8%	-5%
Van-based Bus*	30	32	-	-	-	-	-
Other/Unknown Bus Type	25	23	28	30	38	36%	27%
Total	235	235	164	205	213	30%	4%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

*Van-based Bus was removed in 2020 with the switch to VPIC categorization

Top 10 States for Fatal Large Truck Crashes, 2018–2022

State	2018	2019	2020	2021	2022	Percent Change 2020– 2022	Percent Change 2021– 2022
Texas	591	579	568	717	691	21.7%	-3.6%
California	335	365	371	401	400	7.8%	-0.2%
Florida	296	311	322	339	337	4.7%	-0.6%
Georgia	179	180	211	223	237	12.3%	6.3%
Illinois	145	126	152	159	195	28.3%	22.6%
Ohio	159	152	129	191	189	46.5%	-1.0%
North Carolina	160	154	149	153	173	16.1%	13.1%
Pennsylvania	124	129	121	149	165	36.4%	10.7%
Indiana	137	125	130	157	157	20.8%	0.0%
Arizona	78	87	104	113	143	37.5%	26.5%
Total for Top 10 States	2,204	2,208	2,257	2,602	2,687	19.1%	3.3%
Total for All States	4,461	4,502	4,423	5,178	5,279	19.4%	2.0%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Top 10 States for Large Truck Fatality Rate, 2020–2022

Top 10 States in 2020	Fatal Crashes	Total VMT	Rate
Wyoming	33	98	0.34
Idaho	49	174	0.28
Nebraska	53	194	0.27
Arkansas	88	339	0.26
Kentucky	114	465	0.24
Texas	622	2,606	0.24
Kansas	66	279	0.24
South Dakota	23	97	0.24
New Mexico	56	238	0.24
Iowa	67	298	0.23
Total for all States + DC	4,821	29,036	0.17

Top 10 States in 2021	Fatal Crashes	Total VMT	Rate
New Mexico	89	268	0.33
Arkansas	117	384	0.30
Texas	834	2,850	0.29
Oklahoma	127	448	0.28
Kansas	87	317	0.27
Kentucky	130	481	0.27
West Virginia	42	161	0.26
Mississippi	106	409	0.26
Montana	34	135	0.25
Idaho	47	193	0.24
Total for all States + DC	5,733	31,324	0.18

Top 10 States in 2022	Fatal Crashes	Total VMT	Rate
North Dakota	35	92	0.38
New Mexico	99	268	0.37
Wyoming	34	93	0.36
Arkansas	123	385	0.32
Oklahoma	126	446	0.28
Montana	37	135	0.27
Texas	782	2,909	0.27
Nebraska	55	213	0.26
South Dakota	26	102	0.26
West Virginia	38	153	0.25
Total for all States + DC	5,837	31,962	0.18

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

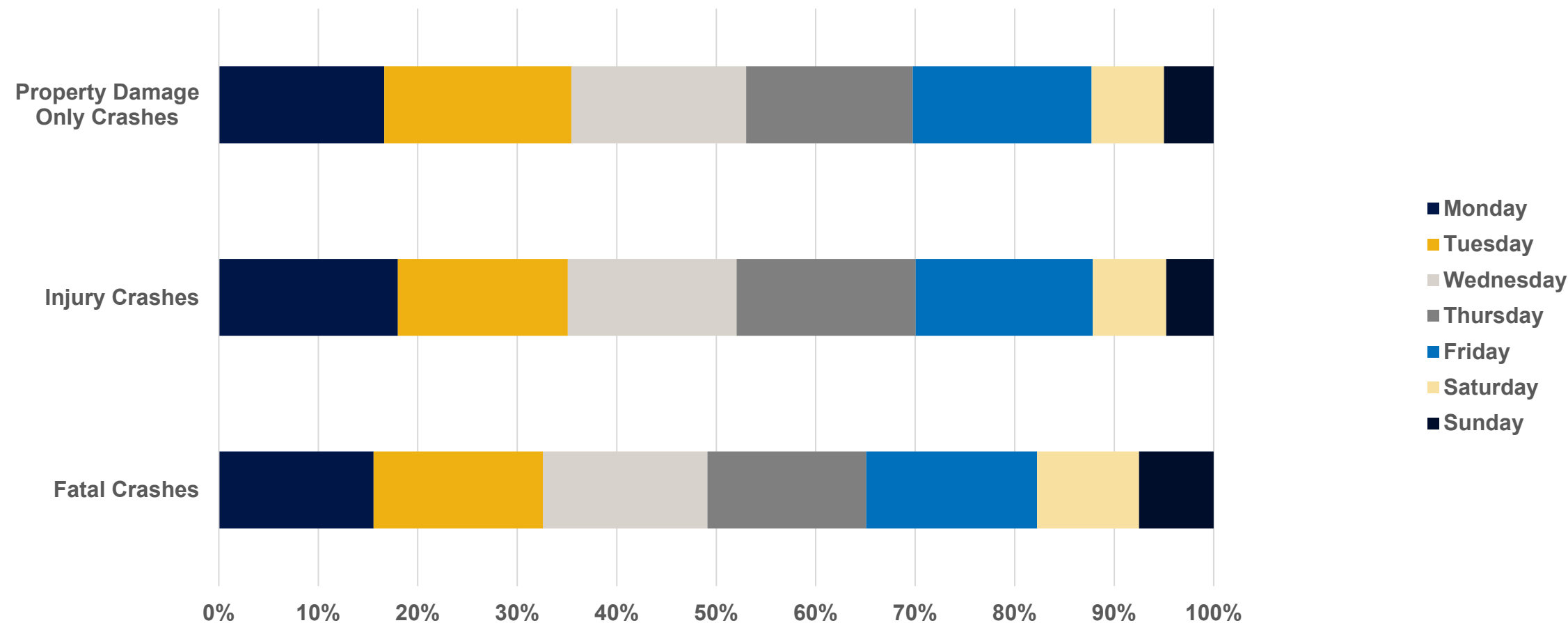
VMT and Registered Vehicles: FHWA, Highway Statistics 2019-2021

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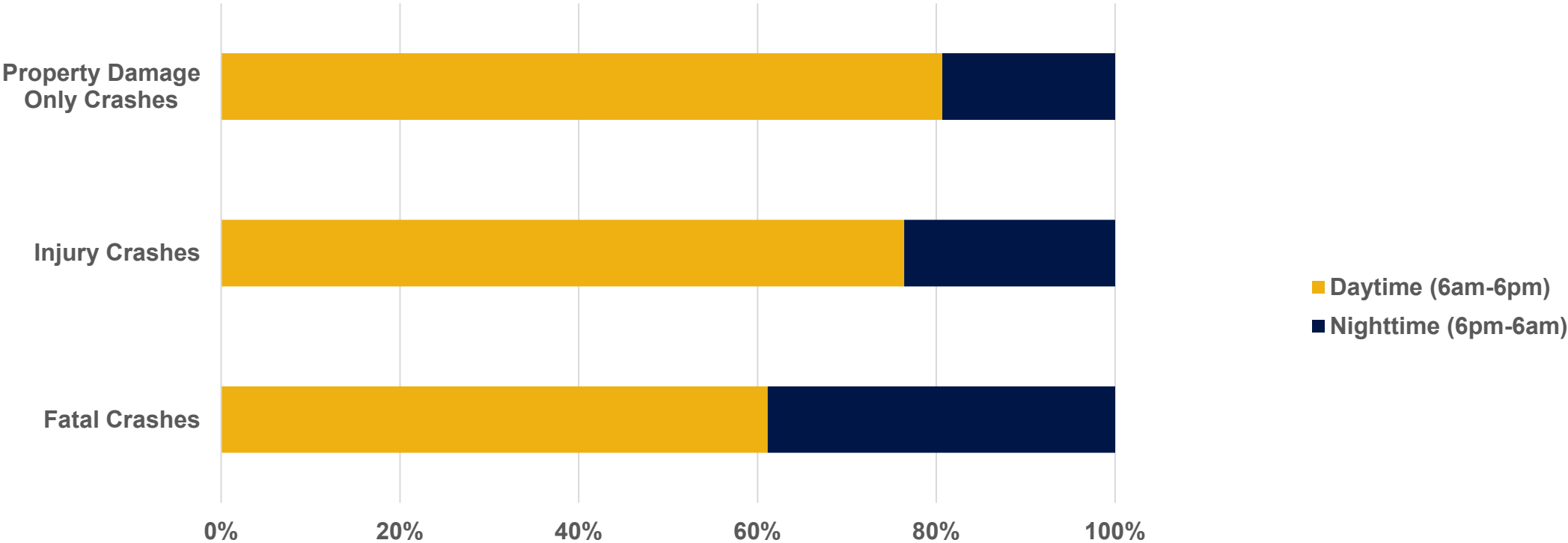
Large Truck Crashes by Day of Week, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) & Crash Report Sampling System (CRSS)



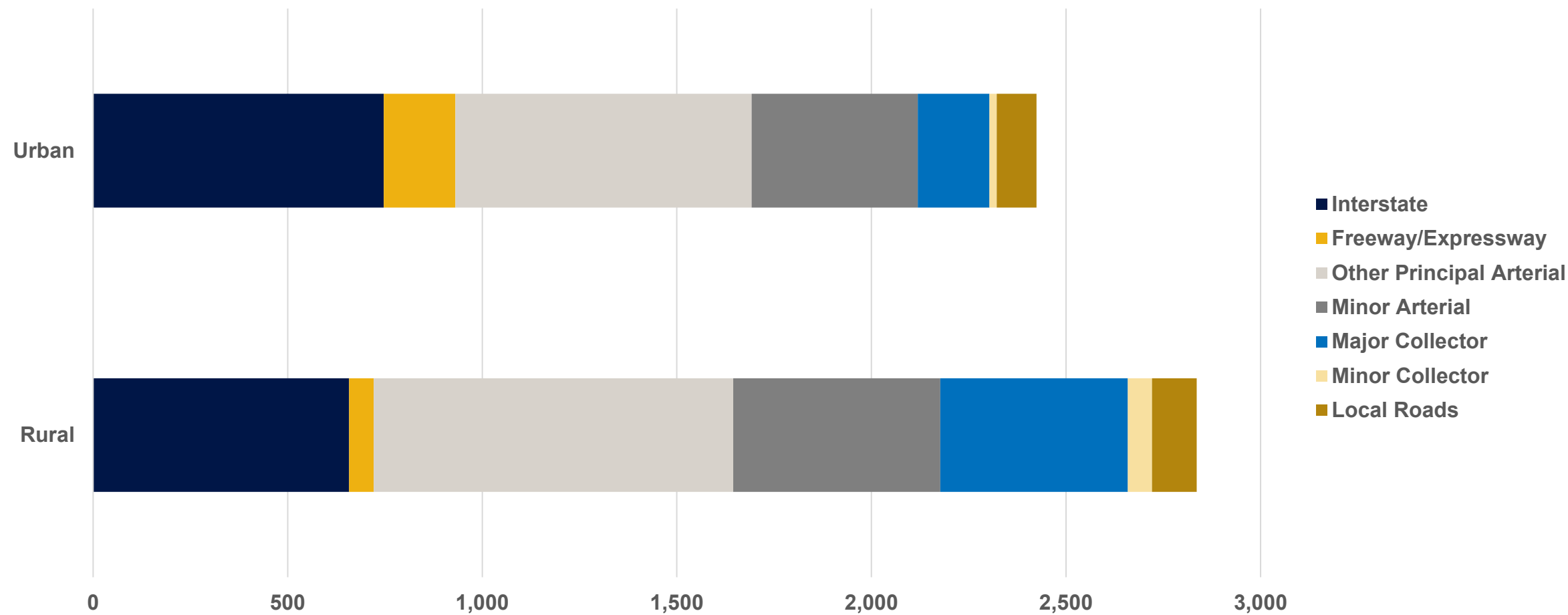
Large Truck Crashes by Time of Day, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) & Crash Report Sampling System (CRSS)



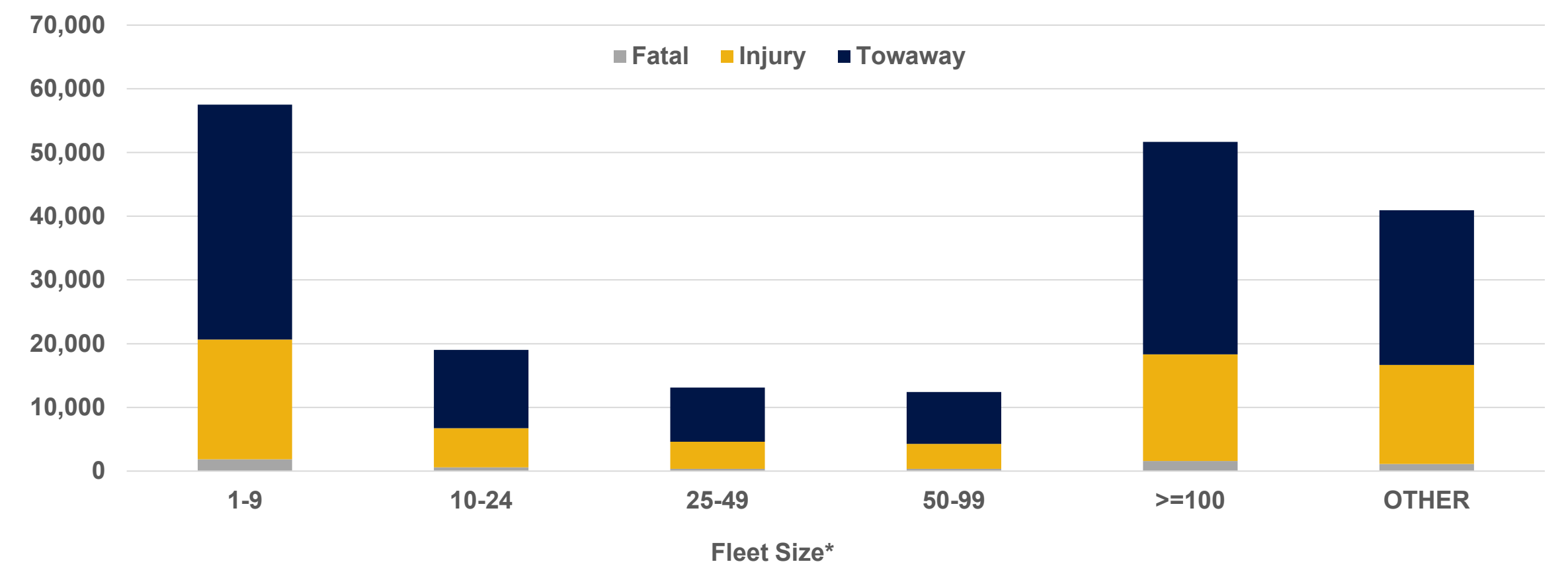
Fatal Large Truck Crashes by Roadway Class, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) & Crash Report Sampling System (CRSS)



Large Truck Crashes by Carrier Fleet Size, 2022



Source: FMCSA, Motor Carrier Management Information System (MCMIS)

*Note: Fleet size is based on current carrier power unit count

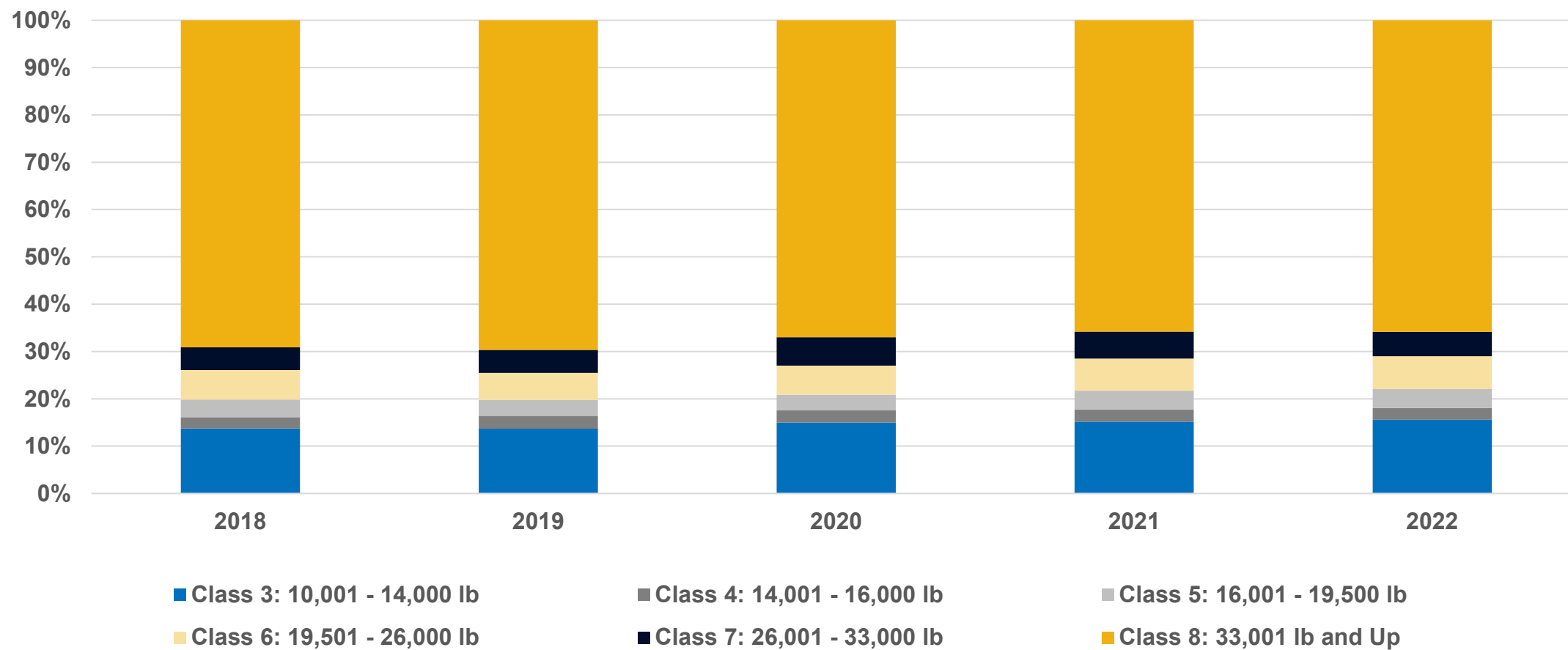
Large Trucks in Fatal Crashes by GVWR Class, 2018–2022 (1)

Truck Weight Rating	2018 Number	2018 Percent	2019 Number	2019 Percent	2020 Number	2020 Percent	2021 Number	2021 Percent	2022 Number	2022 Percent
Class 1: < 6,000 lb	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Class 2: 6,001–10,000 lb	1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Class 3: 10,001–14,000 lb	635	13.7%	658	13.7%	722	15.0%	871	15.2%	909	15.6%
Class 4: 14,001–16,000 lb	111	2.7%	132	2.7%	125	2.6%	143	2.5%	145	2.5%
Class 5: 16,001–19,500 lb	172	3.7%	163	3.4%	160	3.3%	232	4.0%	234	4.0%
Class 6: 19,501–26,000 lb	287	6.2%	274	5.7%	295	6.1%	388	6.8%	406	7.0%
Class 7: 26,001–33,000 lb	222	4.8%	235	4.9%	290	6.0%	326	5.7%	300	5.1%
Class 8: > 33,000 lb	3,197	69.1%	3,353	69.6%	3,229	67.0%	3,773	65.8%	3,843	65.8%
Unknown	3	0.1%	4	0.1%	0	0.0%	0	0.0%	0	0.0%
Total	4,628	100.0%	5,033	100.0%	4,821	100.0%	5,733	100.0%	5,837	100.0%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

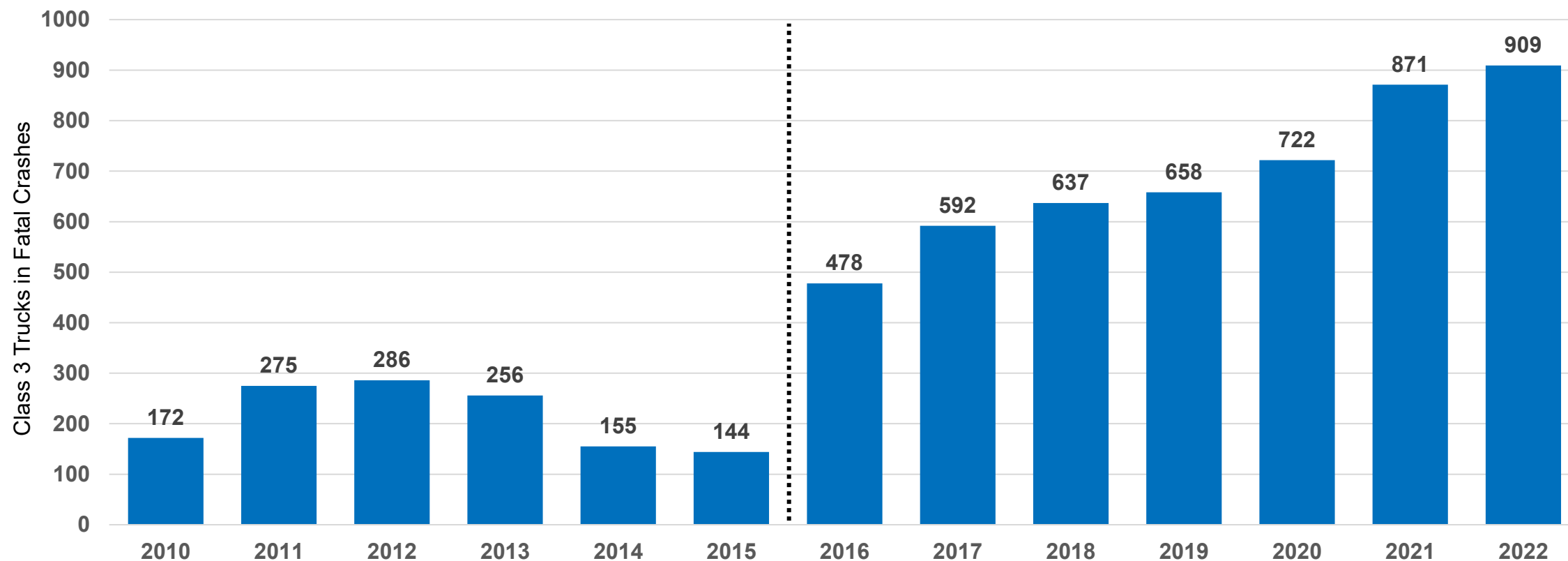
- From 2021 - 2022:
 - The number of large trucks in a fatal crash with a weight rating between 10,001 and 14,000 lbs. increased 4%
 - The number of large trucks in a fatal crash with a weight rating greater than 26,000 lbs. increased 1%

Large Trucks in Fatal Crashes by GVWR Class, 2018–2022 (2)



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

10,001–14,000 lbs. Large Trucks in Fatal Crashes, 2010–2022

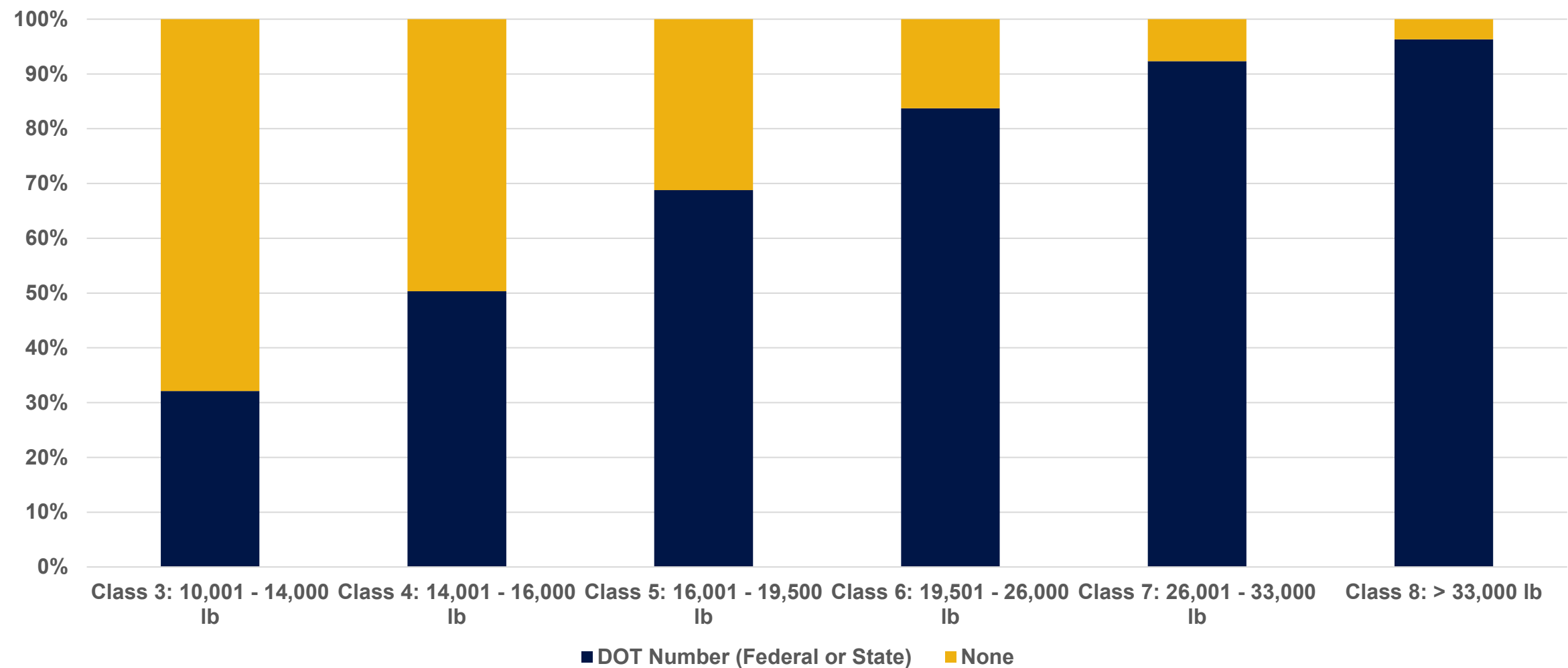


Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

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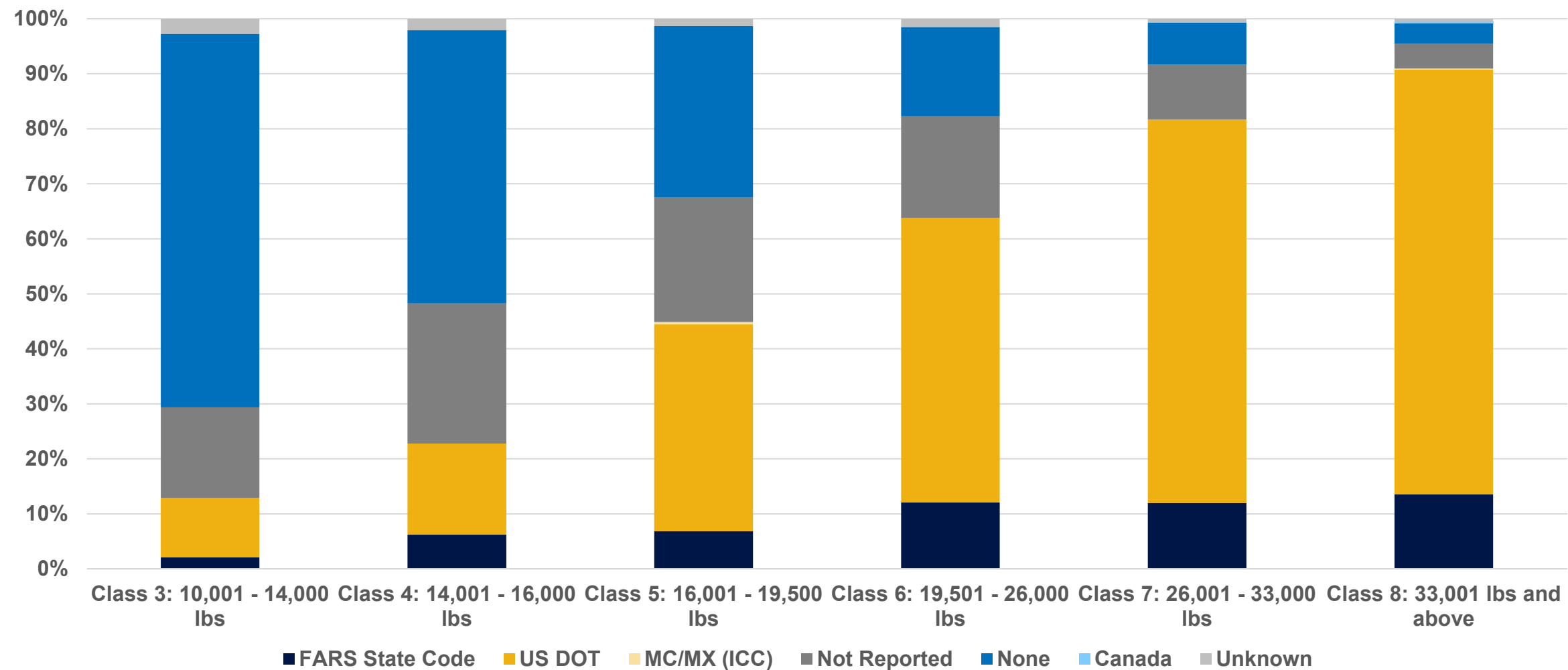
Large Trucks in Fatal Crashes, with/without USDOT#, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Large Trucks in Fatal Crashes by Issuing Authority, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

First Harmful Events in Fatal Large Truck Crashes, 2022

Event	Total Crashes	Percent of Crashes
Collision with Vehicle in Transport	3,852	73.0%
Collision with Fixed Object	513	9.7%
Collision with Pedestrian	449	8.5%
Overturn (Rollover)	203	3.8%
Collision with Pedalcycle or Other Personal Conveyance	124	2.3%
Collision with Parked MV	45	0.9%
Collision with Train	12	0.2%
Collision with Other Object	19	0.4%
Collision with Animal	4	0.1%
Explosion or Fire	3	0.1%
Jackknife	10	0.2%
Pavement Surface Irregularity	1	0.0%
Cargo Equipment Loss or Shift	11	0.2%
Other	30	0.6%
Unknown / Not Reported	3	0.1%
Total	5,279	100%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



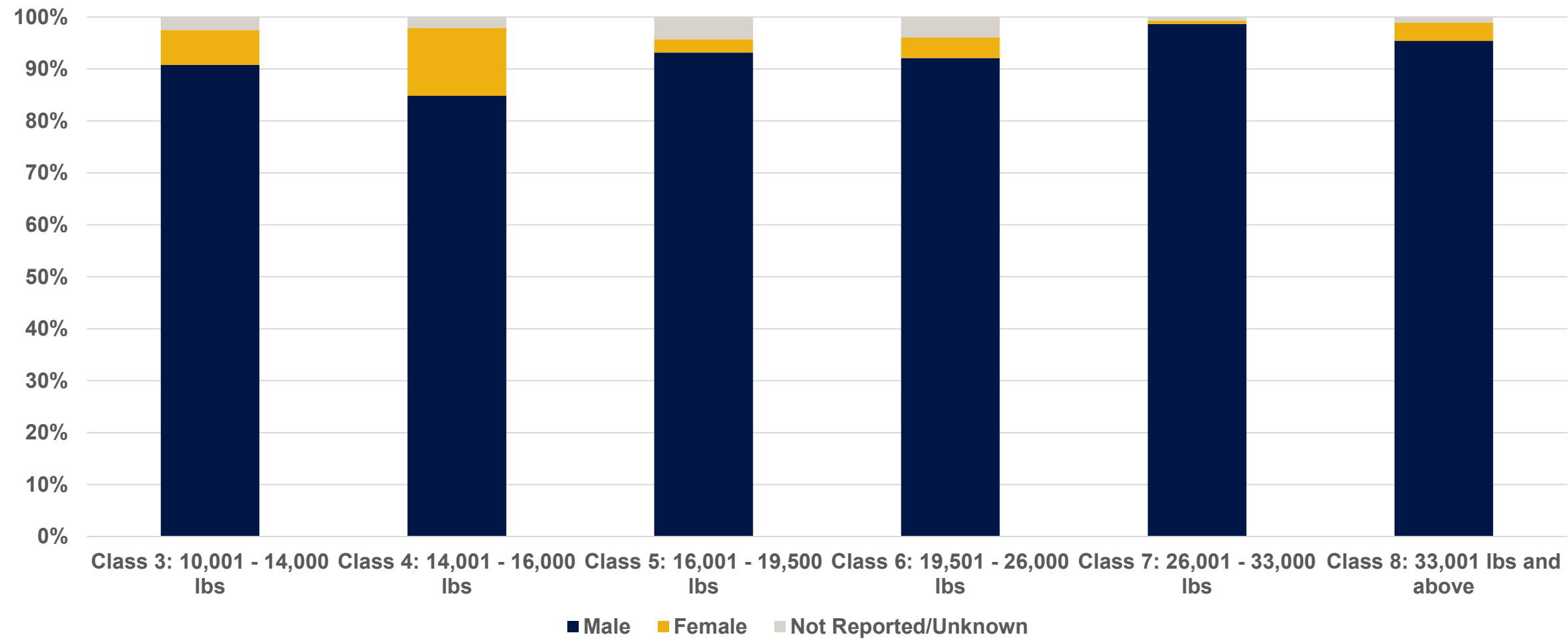
Top Three First Harmful Events in Fatal Large Truck Crashes by GVWR Class, 2022

Event	Class 3: 10,001- 14,000 lbs.	Class 4: 14,001- 16,000 lbs.	Class 5: 16,001- 19,500 lbs.	Class 6: 19,501- 26,000 lbs.	Class 7: 26,001- 33,000 lbs.	Class 8: 33,001 lbs. and above	Overall
Collision with vehicle in transport	1	1	1	1	1	1	1
Collision with fixed object	3	3	3	2	2	2	2
Collision with pedestrian	2	2	2	3	3	3	3
Overturn (rollover)	5	5	4	4	4	4	4
Collision with pedalcycle or other personal conveyance	4	4	5	5	5	5	5
Collision with parked motor vehicle			5				

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Large Trucks in Fatal Crashes by GVWR and Driver Sex, 2022



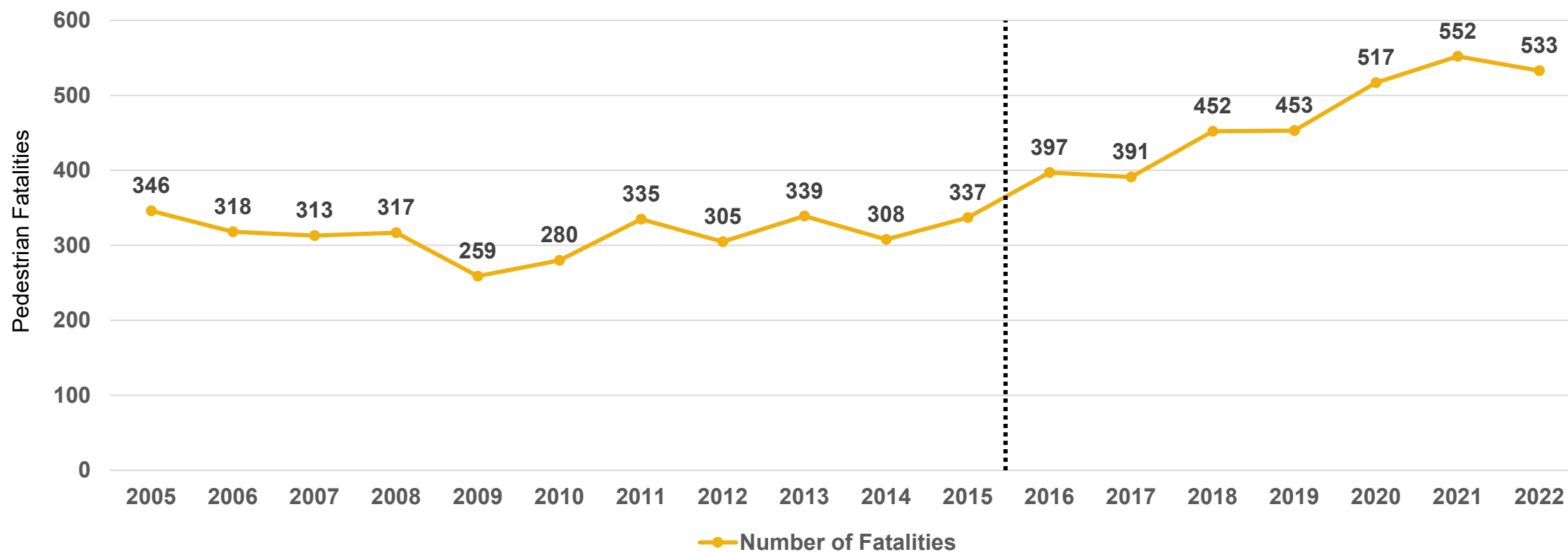
Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Large Trucks in Fatal Crashes, Single vs Combination Unit, 2020–2022

Truck Weight Rating	2020 Combo Number	2020 Combo Percent	2020 Single Number	2020 Single Percent	2021 Combo Number	2021 Combo Percent	2021 Single Number	2021 Single Percent	2022 Combo Number	2022 Combo Percent	2022 Single Number	2022 Single Percent
Class 1: < 6,000 lb	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Class 2: 6,001–10,000 lb	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Class 3: 10,001–14,000 lb	153	4.8%	569	34.2%	215	5.7%	656	33.7%	212	5.6%	697	33.6%
Class 4: 14,001–16,000 lb	13	0.4%	112	6.7%	14	0.4%	129	6.6%	13	0.3%	132	6.4%
Class 5: 16,001–19,500 lb	23	0.7%	137	8.2%	47	1.2%	185	9.5%	34	0.9%	200	9.6%
Class 6: 19,501–26,000 lb	19	0.6%	276	16.6%	39	1.0%	349	17.9%	40	1.1%	366	17.6%
Class 7: 26,001–33,000 lb	160	5.1%	130	7.8%	180	4.8%	146	7.5%	171	4.5%	129	6.2%
Class 8: > 33,000 lb	2,790	88.3%	439	26.4%	3,292	86.9%	481	24.7%	3,290	87.5%	553	26.6%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	3,158	100.0%	1,663	100.0%	3,787	100.0%	1,946	100.0%	3,760	100.0%	2,077	100.0%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Pedestrian Fatalities in Large Truck Crashes, 2005–2022



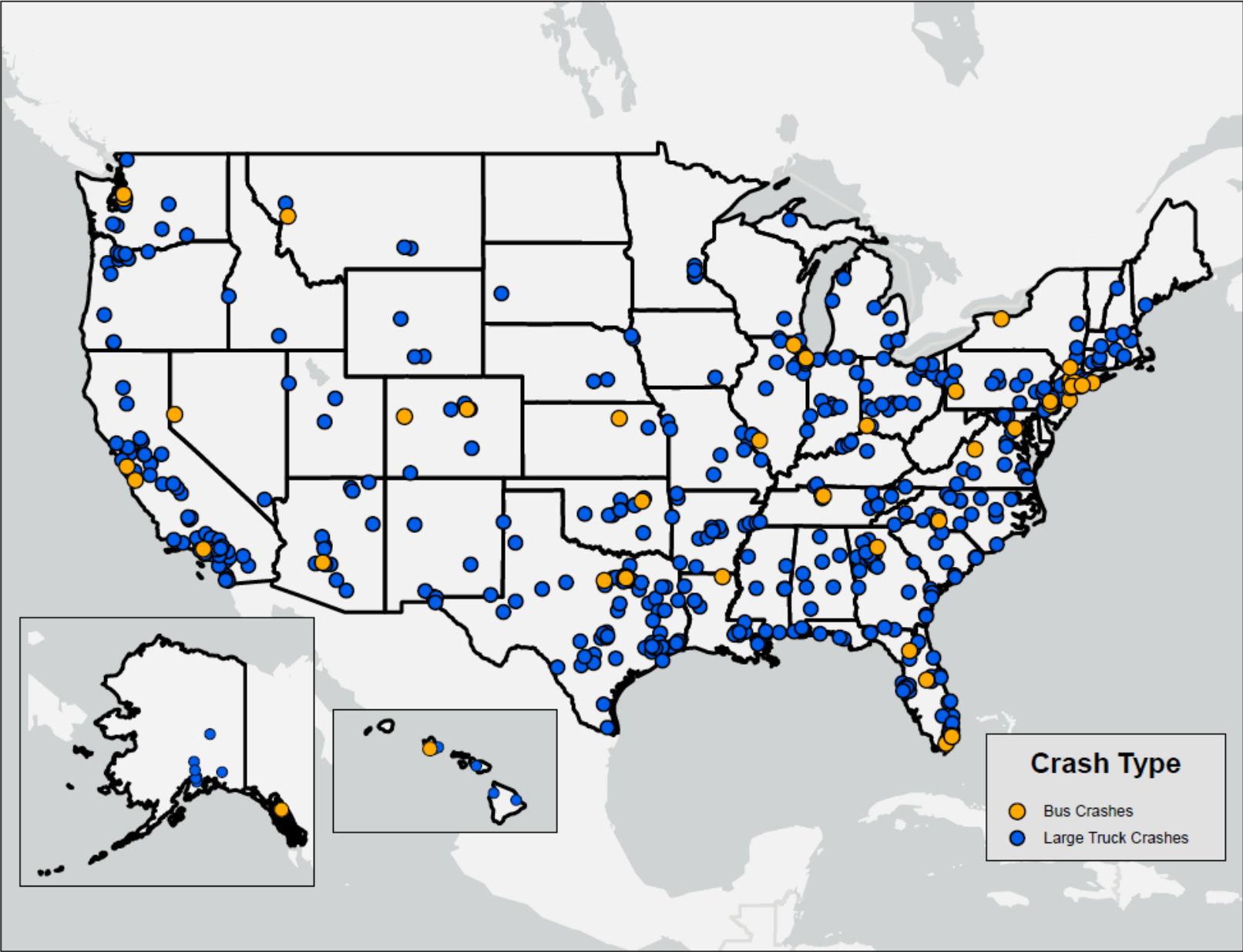
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Pedestrians in Fatal Crashes Involving Large Trucks and Buses, 2022

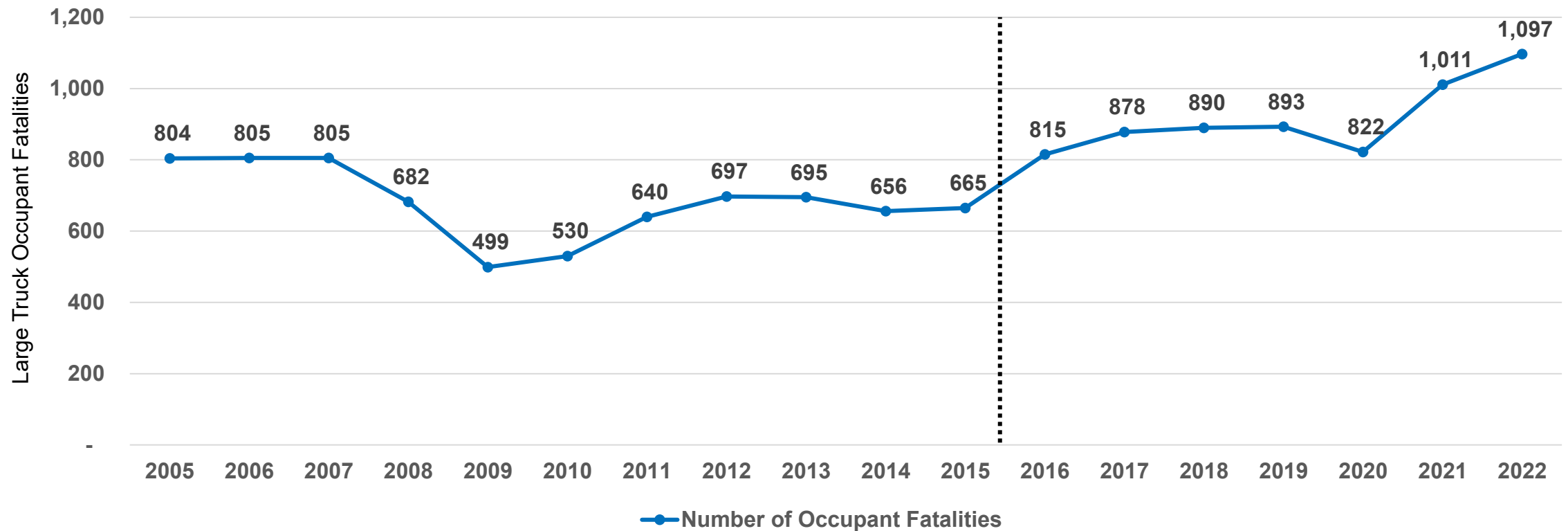
Work Zone	Frequency	Percent
No	552	95.0%
Yes	29	5.0%
Total	581	100.0%

Land Use	Frequency	Percent
Rural	153	26.3%
Urban	428	73.7%
Total	581	100.0%



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Large Truck Occupant Fatalities, 2005–2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

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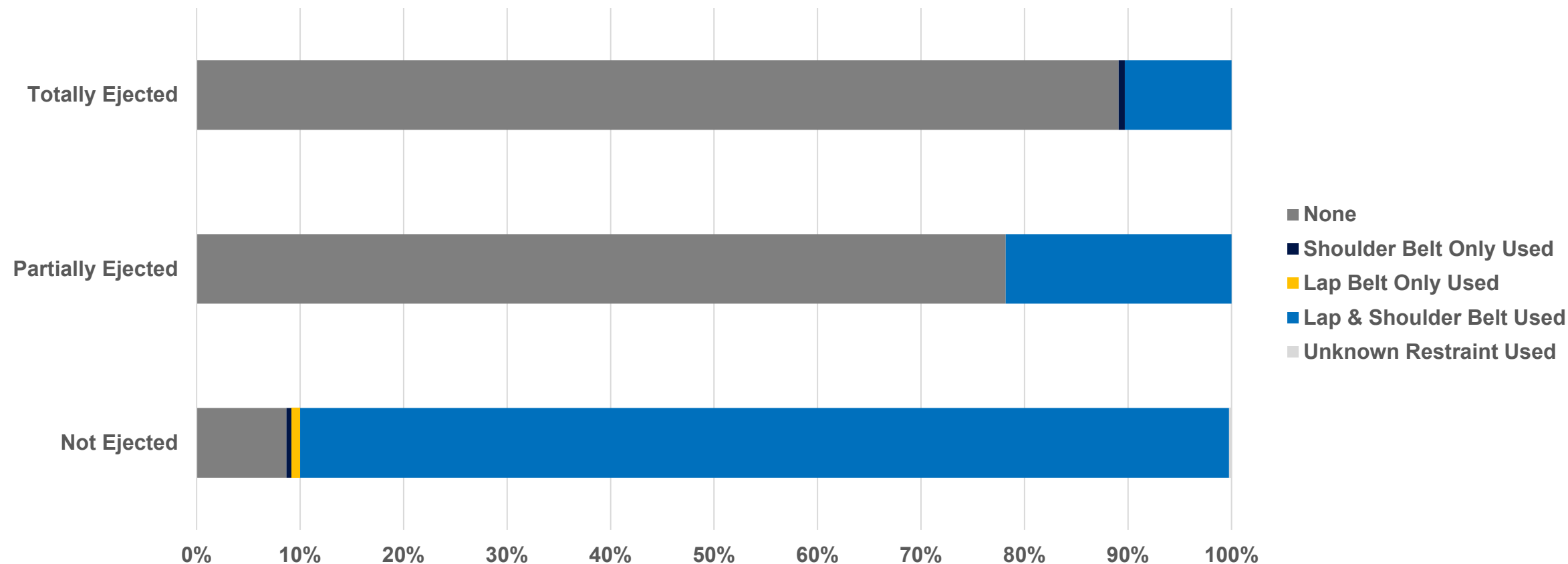
Large Truck Driver Fatalities and Restraint Use, 2018–2022

Year	Number of Fatal Crashes	Number of Total Fatalities	Number of Driver Fatalities	Number Not Wearing Seatbelt	% of Driver Fatalities Not Wearing Seatbelt
2018	4,461	5,006	740	465	63%
2019	4,502	5,032	768	456	59%
2020	4,423	4,945	718	528	74%
2021	5,178	5,821	859	546	64%
2022	5,279	5,936	914	635	69%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Drivers of Large Trucks in Fatal Crashes by Restraint Use and Ejection from the Vehicle, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Fatal Crashes by Work Zone, 2018–2022

Crashes	2018	2019	2020	2021	2022
Fatal Crashes in Work Zone (Involving Large Trucks)	207	249	205	291	241
Fatalities in Crashes in Work Zone (Involving Large Trucks)	233	290	240	321	274
Fatal Crashes in Work Zone (All Crashes)	672	765	780	878	821
Fatalities in Crashes in Work Zone (All Crashes)	756	845	863	961	891
Percentage of Fatal Work Zone Crashes that Involved at Least One Large Truck	30.8%	32.5%	26.3%	33.1%	29.4%
Percentage of ALL Fatal Crashes that Involved at Least One Large Truck	13.2%	13.4%	12.3%	13.0%	13.5%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Large Truck Fatal Crash Types in Work Zones, 2020–2022

Crash Type	2020 Frequency	2020 Percent	2021 Frequency	2021 Percent	2022 Frequency	2022 Percent
Passenger Vehicle Rear-Ending Large Truck	37	40.2%	46	39.7%	34	37.4%
Large Truck Striking Passenger Vehicle (Other)	18	19.6%	28	24.1%	24	26.4%
Passenger Vehicle Crosses Center Line (Head-on)	9	9.8%	18	15.5%	6	6.6%
Passenger Vehicle Striking Large Truck (Other)	15	16.3%	11	9.5%	13	14.3%
Large Truck Rear-Ending Passenger Vehicle	7	7.6%	6	5.2%	5	5.5%
Large Truck Crosses Center Line (Head-on)	2	2.2%	1	0.9%	0	0.0%
Other	4	4.3%	6	5.2%	9	9.9%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Top Ten Driver-Related Factors for Large Truck Drivers in Fatal Crashes, 2020–2022

Driver-Related Factors, 2020	Percent	Driver-Related Factors, 2021	Percent	Driver-Related Factors, 2022	Percent
Speeding of Any Kind	7.4%	Speeding of Any Kind	7.0%	Speeding of Any Kind	6.4%
Impairment (Fatigue, Alcohol, Illness, etc.)	5.2%	Distraction/inattention (Cell Phone, Lost in Thought, Eating, etc.)	5.0%	Careless Driving, Inattentive Operation, Improper Driving, Driving Without Due Care	5.7%
Distraction/inattention (Cell Phone, Lost in Thought, Eating, etc.)	5.2%	Careless Driving, Inattentive Operation, Improper Driving, Driving Without Due Care	4.7%	Distraction/inattention (Cell Phone, Lost in Thought, Eating, etc.)	4.8%
Careless Driving, Inattentive Operation, Improper Driving, Driving Without Due Care	4.9%	Failure to Yield Right of Way	4.6%	Impairment (Fatigue, Alcohol, Illness, etc.)	4.8%
Failure to Yield Right of Way	4.3%	Impairment (Fatigue, Alcohol, Illness, etc.)	4.1%	Failure to Yield Right of Way	4.8%
Vision Obscured (by Weather, Roadway Design, Vehicles, etc.)	3.2%	Vision Obscured (by Weather, Roadway Design, Vehicles, etc.)	3.1%	Vision Obscured (by Weather, Roadway Design, Vehicles, etc.)	3.6%
Improper Lane Usage	2.8%	Improper Lane Usage	2.8%	Improper Lane Usage	2.8%
Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers, Failure to Observe Safety Zone Traffic Laws	2.2%	Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers, Failure to Observe Safety Zone Traffic Laws	2.3%	Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers, Failure to Observe Safety Zone Traffic Laws	2.8%
Following Improperly	1.9%	Following Improperly	1.8%	Following Improperly	1.9%
Overcorrecting	1.7%	Overcorrecting	1.6%	Overcorrecting	1.8%
No Driver-Related Factors Recorded	68.5%	No Driver-Related Factors Recorded	67.7%	No Driver-Related Factors Recorded	66.8%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Top Three Driver-Related Factors in Fatal Large Truck Crashes by GVWR Class, 2022

Factor	Class 3: 10,001- 14,000 lbs.	Class 4: 14,001- 16,000 lbs.	Class 5: 16,001- 19,500 lbs.	Class 6: 19,501- 26,000 lbs.	Class 7: 26,001- 33,000 lbs.	Class 8: 33,001 lbs. and above	Overall
Speeding of Any Kind	2	1		2		1	1
Careless Driving, Inattentive Operation, Improper Driving, Driving Without Due Care	3	3	2	3	1	2	2
Impairment (Fatigue, Alcohol, Illness, etc.)	1			1	3		
Distraction/inattention (Cell Phone, Lost in Thought, Eating, etc.)		2	3		2	3	3
Failure to Yield Right of Way			1				

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Important Trends

- Pedestrian fatalities in large truck crashes decreased slightly (3%) from 2021 to 2022.
- In 2022, pedestrians accounted for 9% of total fatalities in large truck crashes.
- Of the 914 large truck drivers killed in 2022, 69% were not wearing a seatbelt.
- The number of large truck and bus occupant fatalities broke 1,000 in 2021 and continued to increase in 2022.
- Texas remains a top 10 state for number of large truck fatal crashes and large truck fatality rate.
- The number of Class 3 trucks in fatal crashes:
 - 4% (2021 to 2022)
 - 53% (2016 to 2022)
- Speeding remains the top driver-related factor for fatal large truck crashes.

Contact Information:

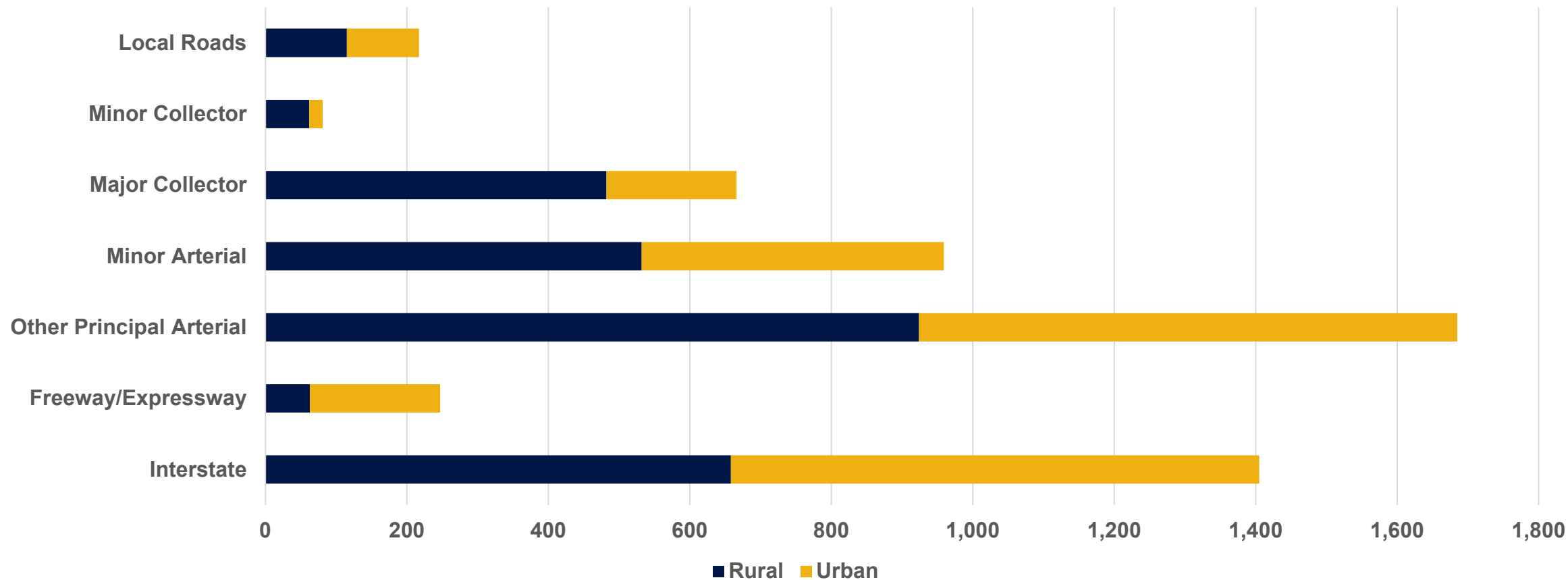
CrashAnalytics@dot.gov
Jessica Powell, Jessica.Powell@dot.gov



Supplemental Slides



Fatal Large Truck Crashes by Roadway Type, 2022



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)



Top Ten Driver-Related Factors for Passenger Vehicle Drivers in Fatal Crashes, 2022

Driver-Related Factors	Number	Percent
Speeding of Any Kind	8,232	18.1%
Impairment (Fatigue, Alcohol, Illness, etc.)	7,412	16.3%
Careless Driving, Inattentive Operation, Improper Driving, Driving Without Due Care	4,162	9.2%
Failure to Yield Right of Way	3,814	8.4%
Improper Lane Usage	2,947	6.5%
Distraction/inattention (Cell Phone, Lost in Thought, Eating, etc.)	2,524	5.5%
Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers, Failure to Observe Safety Zone Traffic Laws	2,057	4.5%
Operating the Vehicle in an Erratic, Reckless, Careless or Negligent Manner	1,801	4.0%
Overcorrecting	1,481	3.3%
Vision Obscured (by Weather, Roadway Design, Vehicles, etc.)	1,192	2.6%
At Least One Driver-Related Factor Recorded	24,570	54.0%
No Driver-Related Factors Recorded	20,908	46.0%
Total Large Truck Drivers in Fatal Crashes	45,478	100.0%
At Least One Moving Violation Recorded	4,971	10.9%
No Moving Violations Recorded	40,507	89.1%
Total Large Truck Drivers in Fatal Crashes	45,478	100.0%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)