Georgia Traffic Safety Facts

2022 Data

April 2024

In this fact sheet, information is presented as follows.

- Non-Motorist Fatalities and Serious Injuries
- Crash Characteristics
 - Urban vs. Rural
 - Environmental Characteristics
- Contributing Circumstances
 - School Bus-Related Fatal Crashes
- Demographics
 - Older Pedestrian Population
 - Vulnerable Populations
- Safety Equipment & Protective Gear
- Personal Conveyances

This fact sheet contains information from the Fatality Analysis Reporting System (FARS), Georgia Department of Transportation (GDOT) crash data modified by Crash Outcomes Data Evaluation System (CODES) at the Department of Public Health (DPH), Georgia Department of Transportation (GDOT) Numetric roadway data, Georgia Emergency Medical Services Information System (GEMSIS), Hospital Discharge Data, Emergency Room Data. Refer to the Data Considerations section at the end of this publication regarding the data and information presented.



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PEDESTRIANS AND BICYCLISTS (Non-Motorists)

Non-motorists, as defined in this fact sheet, include pedestrians and bicyclists involved in traffic-related crashes. In some of the following discussions of pedestrian and bicyclist injuries both traffic and non-traffic (i.e., occurring on any place other than a traffic way including trails, driveways, parking lots, or sidewalks) are included in aggregate reporting for hospitalizations and EMS transports. This fact sheet provides an overview of traffic fatalities, serious injuries, and crashes on Georgia roadways.

2022 Key Findings

Although pedestrians and bicyclists accounted for 21% of all traffic fatalities, they represented less than one percent of all individuals involved in motor vehicle crashes (0.94%).

Pedestrians

- In 2022, there were 345 pedestrians fatally injured in traffic crashes, a 12% increase from the 307 pedestrian fatalities in 2021.
- Similar to previous years, more than half of all pedestrian crashes occurred within the Atlanta region (56%).
- In 2022, two-thirds of pedestrian fatalities (67%) and nearly half (48%) of pedestrian injuries occurred on roadways with posted speed limits at or above 45 mph.
- Sixty-one percent of serious injury or fatal pedestrian crashes occurred on two-way, undivided principal arterials.
- Hospitalization and emergency room visit charges totaled \$225 million for the 2,277 pedestrians injured in motor vehicle traffic and nontraffic-related crashes.

Bicyclists

- There was an average of 25 bicyclist fatalities in traffic crashes each year between 2018-2022. In 2022, there were 29 bicyclist fatalities on Georgia roadways, an increase from the 15 bicyclist fatalities in 2021.
- The bicyclist crash rate is highest in urban counties outside of the Atlanta region.
- Fifty-five percent of bicyclist crashes occur at intersections.
- Hospitalization and emergency room visit charges totaled \$74.5 million for the 400 bicyclists injured in motor vehicle traffic and non-traffic-related crashes.

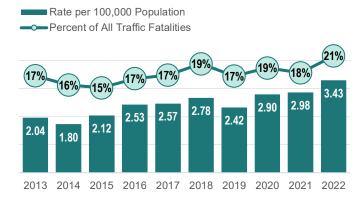
Non-Motorist Fatalities and Serious Injuries

Non-Motorist Fatalities

According to FARS data, there were 345 pedestrians and 29 bicyclists fatally injured in motor vehicle traffic crashes in 2022 (Table 1). The number of pedestrian fatalities in traffic crashes has nearly doubled in the past decade and increased by 12%, from 307 pedestrian fatalities in 2021 to 345 in 2022. There was an average of 25 bicyclist fatalities in traffic crashes per year between 2018-2022.

Although non-motorists represented less than one percent of all persons involved in motor vehicle crashes (0.94%), they accounted for 21% of all Georgia traffic fatalities. In 2022, non-motorists represented 20% of traffic fatalities in the nation. For every 100,000 population in Georgia, there were 3.43 pedestrian and bicyclist fatalities, compared to 2.59 non-motorist fatalities for every 100,000 population nationwide¹. Figure 1 shows the rate by population and percentage of non-motorist traffic fatalities for the past decade.

Figure 1. Rate by Population and Percent of Non-Motorist Traffic Fatalities, 2013-2022



Source: FARS 2013-2022; OASIS 2013-2022

Table 1 presents the total number of traffic fatalities, Georgia population, and non-motorist fatalities (pedestrians and bicyclists) from 2013 to 2022.

- The number of total traffic fatalities <u>de</u>creased by 1%, from 1,809 in 2021 to 1,797 in 2022.
- The number of non-motorist fatalities increased by 16%, from 322 in 2021 to 374 in 2022.
- The rate of non-motorist fatalities <u>in</u>creased by 15%, from 2.98 to 3.43 fatalities per 100,000 population—the highest rate in the past decade. The increase of non-motorist fatalities mainly attributed to the increased number of pedestrian fatalities.

Table 1. Rate and Percent of Non-Motorist Traffic Fatalities, 2013-2022

	Total	O a a mari a	Ped	estrian	Bio	cyclist	Non-Motorists Fatalities			
Year	Traffic Fatalities	Georgia Population	Number	Percent of All Traffic Fatalities	Number	Percent of All Traffic Fatalities	Number	Percent of All Traffic Fatalities	Rate per 100,000 Population	
2013	1,180	9,992,167	176	15%	28	2.4%	204	17%	2.04	
2014	1,164	10,097,343	163	14%	19	1.6%	182	16%	1.80	
2015	1,432	10,214,860	194	14%	23	1.6%	217	15%	2.12	
2016	1,556	10,310,371	232	15%	29	1.9%	261	17%	2.53	
2017	1,540	10,429,379	253	16%	15	1.0%	268	17%	2.57	
2018	1,504	10,519,475	262	17%	30	2.0%	292	19%	2.78	
2019	1,491	10,617,423	236	16%	21	1.4%	257	17%	2.42	
2020	1,664	10,710,017	279	17%	32	1.9%	311	19%	2.90	
2021	1,809	10,799,566	307	17%	15	0.8%	322	18%	2.98	
2022	1,797	10,912,876	345	19%	29	1.6%	374	21%	3.43	

Source: FARS 2013-2022, OASIS 2013-2022

Non-Motorist Injuries

The following section describes various responses to serious injuries experienced by pedestrians and bicyclists involved in motor vehicle traffic crashes and non-traffic crash incidents. Injured pedestrians and bicyclists can be counted multiple times for each response (e.g., an injured person may be counted as an emergency room visit, hospitalization, and/or trauma center patient).

Table 2. Description of Traffic Injury Surveillance Data Sources

Traffic Injury Surveillance Data Sources



Suspected Serious Crash Injuries are reported by law enforcement responding to a motor vehicle crash scene.



Emergency Medical Services include all ground and air transports to an emergency facility for patients who are injured and require medical care in the state of Georgia.



Trauma Center patients are identified as those with serious injuries that meet specific criteria. The State of Georgia follows the identification and treatment guidelines established by the American College of Surgeons along with the Centers for Disease Control and Prevention (CDC) Field Triage Criteria.



Emergency Room and Hospitalizations include Georgia resident discharges from Georgia non-federal acute care hospitals. Emergency room (ER) visits include individuals who were discharged directly from the ER. Hospitalizations include individuals who may have visited the emergency room.

Table 3 shows the number and percent change of non-motorist, motor vehicle traffic-related serious injuries for each injury surveillance source. Between 2021 and 2022, pedestrian injuries reported in crash reports <u>in</u>creased by 6%, pedestrians transported to a hospital facility by EMS <u>de</u>creased by 15%, pedestrian receiving care in a trauma center <u>de</u>creased by 5%, and pedestrians receiving patient care in the emergency department <u>de</u>creased by 17%.

Table 3. Non-Motorist Motor Vehicle Traffic-Related Serious Injuries by Injury Surveillance Source, 2021-2022

Injury Surveillance	20	21	20	2021-2022 Percent Change				
Source	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians		Bicyclists	
Crash Reports	572	95	608	120	A	6%	A	26%
Emergency Medical Services*	2,579	392	2,194	554	∇	-15%	A	26%
Trauma	1,084	205	1,030	196	∇	-5%	∇	-4%
Emergency Department**	2,356	413	1,688	351	∇	-17%	∇	-15%
Hospital**	701	63	749	79	A	7%	A	25%

^{*} EMS arrivals to motor vehicle traffic crashes with reported serious injuries and fatalities may or may not have resulted in transport to a medical facility.

^{**} All persons involved in a Georgia crash that received care in a Georgia Emergency Department or Hospital, regardless of their state residency. Source: CODES 2019-2022, DPH Hospital Inpatient Discharge and Emergency Room Visit Data 2019-2022, GEMSIS 2019-2022, Georgia Trauma Registry 2019-2022

Table 4 shows the number, proportion, and rate (per population) of non-motorist serious injuries by age group and surveillance system. In 2022, non-motorists in the 25-to-34 age group represented the highest rate and proportion of police-reported suspected serious injuries, EMS transports, emergency room visits, and hospitalizations compared to other age groups. However, non-motorists in the 55-to-64 age group had the highest rate per population of hospitalizations and trauma care treatment.

Table 4. <u>Non-Motorist</u> Traffic-Related Serious Injuries, Percent of Total Serious Injuries, and Rate per 100,000 Population by Age Group and Injury Surveillance Source, 2022

Age Group	Police-Reported Suspected Serious Crash Injuries		Emergency Medical Services		Trauma Center		Emergency Room			Hospitalizations					
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
<10	20	3%	1.52	106	4%	8.06	39	3%	2.96	73	4%	5.55	1	0%	0.08
10-14	38	5%	5.19	99	4%	13.51	42	3%	5.73	64	3%	8.74	6	1%	0.82
15-24	119	16%	7.79	427	16%	27.94	180	15%	11.78	373	19%	24.41	105	14%	6.87
15-20	67	9%	7.30	244	9%	26.57	106	9%	11.54	206	11%	22.43	58	8%	6.32
21-24	52	7%	8.53	183	7%	30.01	74	6%	12.13	167	9%	27.38	47	6%	7.71
25-34	156	21%	10.32	529	20%	35.00	211	17%	13.96	407	21%	26.93	140	19%	9.26
35-44	121	17%	8.37	400	15%	27.68	209	17%	14.46	310	16%	21.45	133	18%	9.20
45-54	104	14%	7.44	357	14%	25.55	188	15%	13.45	261	14%	18.68	110	15%	7.87
55-64	107	15%	8.00	392	15%	29.31	202	17%	15.10	259	13%	19.37	135	18%	10.09
65+	51	7%	3.10	327	12%	19.88	153	13%	9.30	185	10%	11.25	115	15%	6.99
Total	728*	100%*	6.67	2,637	100%	24.16	1,224	100%	11.22	1,932	100%	17.70	745	100%	6.83

^{*} Includes 12 suspected serious injuries with unknown age

Source: CODES 2022, DPH-OHIP Hospital Inpatient Discharge and Emergency Room Visit Only Data 2022, GEMSIS 2022, Georgia Trauma Registry 2022

Suspected Serious Crash Injuries

Table 5 shows the percent and rate of serious injuries and fatalities among pedestrians and bicyclists involved in traffic-related crashes by age group. In 2022, there were:

- 12.77 pedestrians in the 25-to-34 age group with traffic-related serious or fatal injuries for every 100,000 population in that age group.
- 2.00 bicyclists in the 45-to-54 age group with traffic-related serious or fatal injuries for every 100,000 population in that age group.

Table 5. Traffic-Related Non-Motorist Suspected Serious Injury and Fatality Rate by Age Group, 2022

Age Group		an Serious nd Fatalitie	_	Bicyclist Serious Injuries and Fatalities			
Group	Number	Percent	Rate	Number	Percent	Rate	
<10	20	2%	1.52	6	4%	0.46	
10-14	30	3%	4.10	11	7%	1.50	
15-24	134	14%	8.77	18	12%	1.18	
15-20	77	8%	8.38	9	6%	0.98	
21-24	57	6%	9.35	9	6%	1.48	
25-34	193	20%	12.77	26	17%	1.72	
35-44	165	17%	11.42	20	13%	1.38	
45-54	143	15%	10.23	28	19%	2.00	
55-64	162	17%	12.11	24	16%	1.79	
65+	87	9%	5.29	14	9%	0.85	
Total*	953	100%	8.73	149	100%	1.37	

^{*}Total includes 11 pedestrian and 1 bicyclist serious injuries, and 8 pedestrian and 1 bicyclist fatalities of unknown age

Source: CODES 2022, FARS 2022

Emergency Medical Services

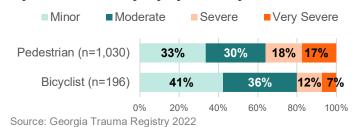
In 2022, 4% of all motor vehicle traffic-related Emergency Medical Services (EMS) transports involved non-motorists. EMS transported 2,637 pedestrians and bicyclists involved in motor vehicle traffic-related crashes to a hospital facility. The number of EMS pedestrian transports decreased by 2% from the 2,586 transports in 2021.

Trauma Center Patients

In 2022, the number of pedestrians identified as trauma patients treated within Georgia Trauma Centers decreased by 5%, from 1,084 in 2021 to 1,030 in 2022. The number of bicyclist trauma patients decreased by 4%, from 205 in 2021 to 196 in 2022.

One-third (33%) of pedestrians treated at the trauma centers had minor injuries, and 17% had very severe injuries. Similarly, 41% of bicyclists treated at trauma centers had minor injuries, and 7% had very severe injuries (Figure 2).

Figure 2. Trauma Registry Pedestrian and Bicyclist Injuries Treated by Injury Severity Score, 2022



Emergency Room Visits & Hospitalizations

In 2022, the total motor vehicle-related (traffic and non-traffic) hospitalization and emergency room charges among Georgia residents were \$225.0 million for pedestrians and \$74.5 million for bicyclists.

- Traffic-related pedestrian emergency room visits and hospitalizations <u>in</u>creased by 3%, and bicyclist emergency room visits and hospitalizations <u>de</u>creased by 3% between 2021 and 2022. In 2022, there were 2,277 traffic-related emergency room visits and hospitalizations² involving pedestrians and 400 traffic-related emergency room visits and hospitalizations involving bicyclists—54 more non-motorist injuries than in 2021.
- Non-traffic-related pedestrian emergency room visits and hospitalizations <u>de</u>creased by 1%, and bicyclist emergency room visits and hospitalizations <u>de</u>creased by 4% between 2021 and 2022—after the substantial annual increase in 2020. There were an additional 1,051 pedestrian and 3,505 bicyclist non-traffic-related emergency room visits and hospitalizations.

² Hospitalizations may include individuals that visited the emergency room. Emergency room visits include individuals who were discharged directly from the ER. Hospitalizations and emergency room visits are for Georgia residents only to calculate the population rates, while fatalities can be a person from out of state.

Crash Characteristics

According to police crash reports, 22% of all pedestrian crashes in Georgia (600 out of 2,777) resulted in at least one pedestrian that was seriously or fatally injured in 2022. In the same year, 15% of all bicyclist crashes (124 out of 829) resulted in at least one bicyclist that was seriously or fatally injured. Table 6 shows the number of non-motorist crashes, persons involved in crashes, and suspected serious injuries between 2018-2022.

Urban vs. Rural 3

There were 25.45 pedestrians per 100,000 population and 7.60 bicyclists per 100,000 population involved in a motor vehicle traffic crash across the state of Georgia (Figure 3). In Georgia, non-motorist crashes are more frequent in the urban areas (the Atlanta region and other urban regions) compared to rural areas, where the residential population is less than 50,000 people. However, the proportion of non-motorist serious injury and fatal crashes are higher in rural areas than in urban areas—51% of pedestrian rural crashes and 32% of rural bicyclist crashes result in a non-motorist fatal or serious injury (Table 7).

- Pedestrian crashes and crash rates were highest within the eleven counties of the Atlanta Region⁴ – 31.19 pedestrians per 100,000 population.
- The Atlanta Region accounted for 46% of the state population. However, 57% (1,573 out of 2,777) of all pedestrian crashes, 55% (336 out of 608) of all pedestrian serious injuries, and 51% (176 out of 345) of all pedestrian fatal injuries occurred within this area.
- Bicyclist crashes and crash rates were highest within the 30 other urban counties – 9.54 bicyclists per 100,000 population.

Table 6. Non-Motorist Crashes and Serious Injury and Fatal Crashes, 2018-2022

	Po	edestrian	Bicyclist			
Year	Crashes	Serious Injury and Fatal Crashes	Crashes	Serious Injury and Fatal Crashes		
2018	2,172	581	550	69		
2019	2,986	613	793	108		
2020	2,332+	625	654 ⁺	100		
2021	2,615	846	731	109		
2022	2,777	943	829	153		

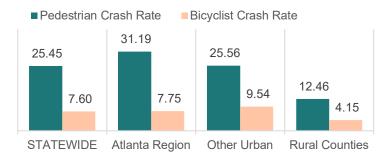
⁺ During the COVID-19 public emergency response, traffic crashes (including non-motorist crashes) with low injury severity were underreported in the police crash reports. Source: CODES 2018-2022, FARS 2018-2022

Table 7. Number of Non-Motorist Crashes and Percent of Fatal or Serious Injury Crashes by Region, 2022

	Pedestr	ian Crashes	Bicycl	ist Crashes
Region	All Pedestrian Crashes	Fatal or Serious Injury Pedestrian Crashes	All Bicyclist Crashes	Fatal or Serious Injury Bicyclist Crashes
Atlanta Region (11 counties)	1,573	502 (32%)	391	48 (12%)
Other Urban (30 counties)	922	298 (32%)	344	75 (22%)
Rural Counties (118 counties)	282	143 (51%)	94	30 (32%)
Statewide	2,777	943 (34%)	829	153 (18%)

Source: CODES 2022

Figure 3. Pedestrian and Bicyclist Crash Rate per 100,000 Population by Region Type, 2022



Source: CODES 2022, OASIS 2022

³ Rural counties are counties that have a residential population less than 50,000 persons. This is different than roadway classifications where urban road systems can be located in urban clusters (or metropolitan areas) of at least 2,500 persons within the rural counties.

⁴ The Atlanta Region includes the eleven counties that are defined by the Atlanta Regional Commission (ARC): Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, and Rockdale counties. In July 2021, Forsyth County officially joined ARC, becoming the 11th county member.

Table 8 shows the percent of pedestrian and bicyclist crashes by region and roadway classification in 2022. More than half of all pedestrian crashes (57%) and 47% of bicyclist crashes occurred in the Atlanta regions. Statewide, most pedestrian crashes and bicyclist crashes occurred on minor arterial roadways—35% and 36%, respectively.

- In the Atlanta region, more pedestrian <u>crashes</u> occurred on <u>minor arterial</u> roadways (38%) whereas most pedestrian crashes in other urban counties occur on <u>principal and minor</u> <u>arterial</u> roadways (31%).
- Within the Atlanta region, 18% of pedestrian <u>fatalities</u> (32 out of 176) occurred on the interstate (not shown).

Table 8. Motor Vehicle Traffic Crashes Involving Non-Motorists by Region and Roadway Classification, 2022

Non-Motori Roadway C	st Type lassification	Atlanta Region	Other Urban Counties	Rural Counties	Statewide
	Interstate	4%	2%	2%	3%
Pedestrian	Principal Arterial	21%	35%	31%	26%
	Minor Arterial	38%	25%	31%	35%
	Collectors	12%	16%	11%	12%
	Local	21%	20%	24%	22%
	Other	2%	1%	1%	2%
	Total	1,573 (100%)	282 (100%)	922 (100%)	2,777 (100%)
	Interstate	0%	0%	0%	0%
Bicyclist	Principal Arterial	19%	28%	24%	22%
	Minor Arterial	39%	17%	38%	36%
	Collectors	14%	17%	16%	15%
	Local	25%	37%	22%	25%
	Other	3%	1%	1%	2%
	Total	391 (100%)	94 (100%)	344 (100%)	829 (100%)

Source: Roadway data obtained for Numetric, 2022

Note: The sum of the individual cells may not equal row or column totals due to rounding error.

In 2022, 83 out of 159 Georgia counties experienced at least one non-motorist traffic fatality. The counties with the highest number of pedestrian fatalities were Fulton (52 pedestrian fatalities), Dekalb (45), and Clayton (23). While most pedestrian fatalities occurred in the Atlanta region, other urban counties and rural counties have higher rates of pedestrian serious and fatal injury per population and pedestrian crashes for every 1,000 motor vehicle crashes. Most bicyclist fatalities occurred in the Atlanta region and other urban counties like Chatham County. In 2022, these urban areas also had higher rates of bicyclist serious and fatal injuries per population and bicyclist crashes for every 1,000 motor vehicle crashes compared to rural areas.

Table 9. Top Counties with the Highest Non-Motorist Serious Injury and Fatal Crashes, 2022

Non-Motorist Type and Rank		Serious Inj Fatali Cou	ties	Inju	and Fatal ry Rate 00 Population	Non-Motorists Crash Rate per 100,000 MV Crashes		
		County	Number	County	Rate	County	Rate	
Pedestrian	1	Fulton	163	Bibb 22.4		Haralson	1,121.50	
Pedestrian	2	DeKalb 119		Clayton	20.57	Polk	794.44	
3		Clayton	61	Chatham	19.59	Tift	542.74	
4		Chatham	59	Tift	19.32	Bibb	519.98	
	5	Gwinnett 5		Haralson	19.15	Clayton	428.31	
Discollet	1	Chatham	19	Whitfield	6.79	Whitfield	200.40	
Bicyclist	2	Fulton	14	Chatham	6.31	Chatham	131.39	
	3	DeKalb	13	Clayton	2.36	Clayton	49.15	
	4	Clayton	7	DeKalb	1.70	DeKalb	33.63	
	5	Whitfield	7	Fulton	1.30	Fulton	24.73	

^{**}Counties with less than five pedestrian or bicyclist serious injuries or fatalities were excluded from the county rankings Source: CODES 2022, FARS 2022

Environmental Characteristics

Table 10 shows the information on environmental characteristics (location of crash, light condition, day, and season) describing where and when pedestrian and bicyclist crashes occurred in 2022.

- Half (50%) of the pedestrian crashes occurred at locations that were not intersections,
 42% occurred at intersections,
 3% occurred on the roadside, and 5% occurred off-roadway.
 According to FARS, 77% of pedestrian fatal crashes and
 79% of bicyclist fatal crashes did *not* occur at an intersection.
- Nearly one-fourth (27%) of all pedestrian crashes and 25% of all bicyclist crashes were hitand-runs (not shown).
- Half (50%) of the pedestrian crashes occurred in dark conditions, whereas 67% of bicyclist crashes occurred during daylight conditions. On average, 81% of all *fatal* pedestrian crashes occurred in dark environmental conditions within the past five years (2018-2022).
- Nearly one-third of pedestrian crashes (30%) and bicyclist crashes (31%) occurred in the summer months.

Table 10. Motor Vehicle Crashes Involving Pedestrians and Bicyclists by Environmental Characteristics. 2022

	All Ped		All Bio	
Environmental Characteristics	Cras		Cras	
Location *	Number	Percent	Number	Percen
Not at Intersection	1,377	50%	314	38%
On Roadway - Non-Intersection	1,375	50%	301	369
Bicycle Lane	2	<1%	13	29
At Intersection	1,178	42%	458	55%
Roadway Intersection	720	26%	318	389
In Crosswalk	336	12%	76	90
Driveway Intersection	104	4%	55	79
Entrance/Exit Ramp	9	<1%	4	<1 [']
Railroad Crossing	5	<1%	2	<1
Roundabout	4	<1%	3	<1
Roadside	82	3%	16	2%
On Shoulder	73	3%	15	2/0
Median	7	<1%	10	<1º
Gore	2	<1%		<u> </u>
	127	5%	37	4%
Off-Roadway				
Off Roadway	83	3%	16	2
Sidewalk	44	2%	21	3
Other Location	13	<1%	4	<1
Light Conditions	4 070	500 /	000	00
Dark	1,379	50%	239	29
Daylight	1,312	47%	557	67
Dawn	40	1%	13	2
Dusk	40	1%	16	2
Unknown	6	<1%	4	<1
Time of Day		400/		
Daytime (6:00a.m. – 5:59p.m.)	1,274	46%	528	64
Nighttime (6:00p.m. – 5:59a.m.)	1,503	54%	301	36
Day of Week / Time of Day				
Weekday (6:00a.m. Mon - 5:59p.m. Fri)	1,806	65%	588	71%
12:00 a.m5:59 a.m.	165	6%	32	4
6:00 a.m11:59 a.m.	483	17%	150	18
12:00 p.m 5:59 p.m.	576	21%	267	32
6:00 p.m 11:59 p.m.	582	21%	139	17
Weekend (6:00p.m. Fri - 5:59a.m. Mon)	971	35%	241	29%
12:00 a.m5:59 a.m.	224	8%	18	2
6:00 a.m 11:59 a.m.	71	3%	37	4
12:00 p.m 5:59 p.m.	144	5%	74	9
6:00 p.m 11:59 p.m.	532	19%	112	14
Season / Time of Day				
Winter (Jan-Feb, Dec)	703	25%	142	17%
Daytime	299	11%	85	10
Nighttime	404	15%	57	7
Spring (Mar-May)	645	23%	188	23%
Daytime	312	11%	119	14
Nighttime	333	12%	69	8'
Summer (Jun-Aug)	843	30%	254	31%
Daytime	411	15%	160	19
Nighttime	432	16%	94	11
Fall (Sep-Nov)	586	21%	245	30%
· · ·				
Daytime	252	9%	164	20

^{*}Location does not include crashes with unknown location or those less than 0.5% of total pedestrian or bike crashes.
Other intersections include roundabouts, railroad crossings, and manage lanes (i.e., HOV lanes). * Nighttime and daytime groupings are based on the time of day in hours. The time-groupings do not consider the change in lighting conditions associated with the seasons (i.e., longer daylight hours in the summer). Source: CODES 2020

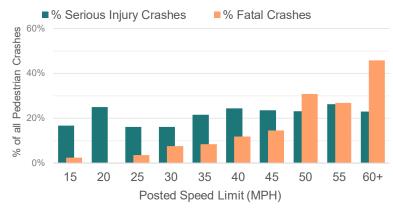
Another important environmental factor that impacts the severity of traffic-related crash injuries is roadway characteristics. According to an AAA national study⁵, as vehicle speeds increase, the risk of pedestrian severe or fatal injuries also increases. At low vehicle impact speeds, 15 miles per hour (mph) or below, most pedestrians (81%) that are struck do <u>not</u> sustain severe or fatal injuries—17% will have a severe injury, and 2% will have a fatal injury. Pedestrians' risk of injury increases greatly when the vehicle impact speed increases from 25 mph or above. According to this AAA study, a vehicle impact speed of 40 mph resulted in 79% of struck pedestrians sustaining severe injuries and 45% sustaining fatal injuries.

The national findings are similar to the patterns experienced in Georgia—the risk of pedestrian serious and fatal injuries increased significantly on roadways with posted speed limits at or above 45 mph. In 2022, two-thirds of pedestrian fatalities (67%) and nearly half (48%) of pedestrian injuries occurred on roadways with posted speed limits at or above 45 mph (Figure 4).

According to Numetric, a greater proportion of all pedestrian serious injury or fatal crashes occurred on roadways with speed limits between 45-55 mph. Among all crashes where pedestrians were severely injured, 61% (554 out of 915) occurred on two-way, not-divided roadways. Figure 5 shows the percent of all serious injury and fatal pedestrian crashes by trafficway and with known posted speed limit.

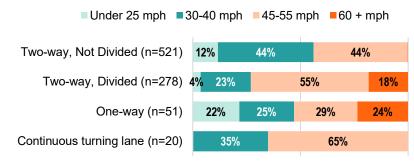
- 44% of severe pedestrian crashes that occurred on <u>two-way undivided</u> <u>roadways</u> had a posted speed limit of 45-55 mph.
- 55% of severe pedestrian crashes that occurred on <u>two-way divided</u> roadways had a posted speed limit of 45-55 mph.

Figure 4. Percent of Pedestrian Crashes that Resulted in a Pedestrian Serious or Fatal Injury by Posted Speed Limit, 2022



Source: Numetric 2022

Figure 5. Percent of All Serious Injury or Fatal Pedestrian Crashes by Trafficway and Posted Speed Limit, 2022



Note: 870 out of 915 serious injury and fatal pedestrian crashes had known posted speed limits. Source: Numetric 2022

⁵ AAA Foundation for Traffic Safety, 2011, "Impact Speed and a Pedestrian's Risk of Severe Injury or Death." Available online: https://nacto.org/wpcontent/uploads/2017/11/2011PedestrianRiskVsSpeed.pdf

Contributing Circumstances

Readers are encouraged to exercise caution when interpreting the contributing factors for pedestrian-related traffic crashes. Contributing circumstances among individuals (drivers or pedestrians) involved in a pedestrian-related crash are underreported—48% of all pedestrian crashes had at least one contributing factor attributed to either the driver or pedestrian recorded in the crash report. Nearly one-quarter (25%) of all pedestrian crashes were hit-and-runs; therefore, the driver contributing factors are unknown and unreported on the police crash reports. For fatal or serious injury pedestrian crashes, contributing factors were more likely to be included in the crash report—63% of all serious injury pedestrian crashes and 77% of all fatal pedestrian crashes have contributing factors listed.

Table 12 shows the top contributing factors among serious injury or fatal pedestrian crash by the person involved in the crash. The top factors among drivers involved in pedestrian serious injury or fatal crashes were drivers failing to yield. The top contributing factor among pedestrians seriously or fatally injured in a crash was the failure to yield to oncoming traffic.

Table 12. Top Contributing Factors among Serious Injury or Fatal Pedestrian Crashes by Person Type, 2022

Rank	Drivers Contributing Factors	Pedestrians Contributing Factors
Nalik	Description	Description
1	Driver failed to yield	Pedestrian failed to yield
2	Confirmed or suspected distracted driver	Confirmed distracted pedestrian
3	Speeding or aggressive driving	Pedestrian not visible
4	Driver vision was obscured, or the pedestrian was not visible	Under the influence of drugs and/or alcohol
5	Under the influence of drugs and alcohol	Disregard signage or traffic control

Source: CODES 2022

SCHOOL BUS-RELATED FATAL CRASHES

From 2018 to 2022, there were 27 fatal school bus-related crashes in Georgia, in which 29 people of all ages were fatally injured—five being school-aged children under 18 years old.

- Among the 5 school-age fatalities, 1 was an occupant of school transportation vehicles, 1 was an occupant of another passenger vehicle, and 3 were pedestrians. There were no fatalities among school-aged children in 2019 and 2020—during the COVID-19 public health emergency response.
- Of the 29 school bus-related fatalities, 2 were school bus passengers, 6 were non-motorists, and 21 were occupants of other passenger vehicles involved in the school bus-related crash.

Demographics

Sex & Age

The incident rate of male non-motorists involved in crashes was 1.9 times the female incident rates. The male non-motorist crash rate per 100,000 population was 33.1 compared to 17.5 for females. The male non-motorist serious injury rate was 7.3 compared to 3.5 for females. The male non-motorist fatality rate was 4.7 compared to 1.7 for females – males were 2.8 times more likely to be fatally injured compared to females.

See the serious injury section and the cross-cutting highlight below (Older Pedestrian Population) for more information on pedestrian serious injuries and fatalities by age group.

OLDER PEDESTRIAN POPULATION

In 2022, pedestrians aged 65+ years represented 9% of all pedestrians involved in crashes (277 out of 2,929), 7% of all pedestrian serious injuries (43 out of 608), and 13% of all pedestrian fatalities (44 out of 345). Persons aged 65+ years represented 15% of the Georgia population in 2022— a 4% increase in population compared to the previous year. As shown in Table 12, the number of pedestrians 65+ years of age that were seriously or fatally injured decreased by 7% (from 95 in 2021 to 87 in 2022), and the rate of seriously or fatally injured pedestrians 65+ years decreased by 12% (from 6.00 in 2021 to 5.29 in 2022). Table 13 shows the number, percent, and rate of serious injuries reported for each injury surveillance source for the older pedestrian population aged 55 years and older.

Table 12. Older Pedestrian (Aged 65+ Years) Serious Injuries, Fatalities, and Injury Rate, 2018-2022

Year	Serious	Fatalities		ious Injuries atalities	Popul	ation		a te 00 Population
rear	Injury	rataiities	Number	Annual % Change	Number	Annual % Change	Rate	Annual % Change
2018	22	42	64	-30%	1,460,409	4%	4.38	-33%
2019	33	30	63	-2%	1,516,954	4%	4.15	-5%
2020	38	42	80	27%	1,574,667	4%	5.08	22%
2021	47	48	95	19%	1,584,071	1%	6.00	18%
2022	43	44	87	-7%	1,645,027	4%	5.29	-12%

Source: CODES 2022, FARS 2022, OASIS 2022

Table 13. Older Pedestrian (Aged 65+ Years) Traffic-Related Serious Injuries, Percent of Total Serious Injuries, and Rate (per 100,000 population) by Age Group and Injury Surveillance Source, 2022

Age Group	Police-Reported Suspected Serious Crash Injuries			Emergency Medical Services			Emergency Room			Hospitalizations		
	#	%	Rate	#	%	Rate	#	%	Rate	#	%	Rate
Less than 55	463	76%	5.80	2,272	77%	28.65	1,488	77%	18.76	495	66%	6.24
55-64	91	15%	6.78	366	12%	27.37	259	13%	19.37	135	18%	10.09
65-74	34	6%	3.44	196	7%	19.71	129	7%	12.97	81	11%	8.15
75-84	7	1%	1.54	100	3%	20.18	41	2%	8.27	25	3%	5.04
85+	2	<1%	1.42	11	<1%	7.09	15	1%	9.67	9	1%	5.80
*Total	608	100%	5.57	2,945	100%	26.99	1,932	100%	17.70	745	100%	6.83

*Total includes 11 suspected serious injuries with unknown age.

Source: CODES 2022, DPH-OHIP Hospital Inpatient Discharge and Emergency Room Visit Only Data 2022, GEMSIS 2022

Pedestrian Race/Hispanic Origin

In 2022, Black/African American, Non-Hispanics represented the majority (46%) of pedestrians fatally injured in motor vehicle traffic crashes and 32% of the Georgia residential population – compared to White, Non-Hispanics that represent 34% of pedestrian fatalities and 50% of the population (Table 7).

The Black/African American, Non-Hispanic pedestrian fatality rate was higher than any other race – 4.57 per 100,000 population. The pedestrian fatality rate per population among Black/African American Non-Hispanic individuals is more than double (2.1 times) the pedestrian fatality rate experienced among White Non-Hispanics.

Table 14. Pedestrian Fatalities by Race/Hispanic Origin, 2022

Race / Hispanic Origin	Georgia Population	Pedestrian Fatalities		Rate per 100,000
	Percent of Total Population	Number	Percent	Population
Hispanic	10%	32	9%	2.81
White, Non-Hispanic	50%	119	34%	2.16
Black/African American, Non-Hispanic	32%	160	46%	4.57
Asian, Non-Hispanic	5%	11	3%	2.16
All Other Non-Hispanic or Race	2%	4	1%	**
Unknown Race and Unknown Hispanic		19	6%	**
TOTAL	100%	345	100%	3.16

Note: Race and Hispanic origin are not available in crash records.

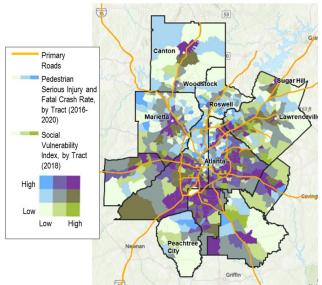
Source: FARS 2022

VULNERABLE POPULATIONS

Vulnerable populations are communities within specific geographic areas that may be vulnerable in their ability to respond and prepare for public health emergencies and disasters. Demographic factors such as the proportion of community members without vehicles, with disabilities, older adults, minority status, and low-income/socioeconomic status are measures and attributes of socially vulnerable communities.

According to the Georgia Traffic Safety Facts study called "Examining Social Vulnerability and the Association with Pedestrian Crashes" (Georgia Crash Outcomes Data Evaluation System, 2022 (), there is a positive correlation between vulnerable census tracts in Georgia and the rates of pedestrian serious and fatal injury crashes across the 10 counties of Atlanta region⁶, other urban regions, and rural regions. In other words, the more vulnerable a community is, the higher the rate of pedestrian serious and fatal injury crashes. This positive, significant relationship was present for overall social vulnerability (shown in Figure 6 for the Atlanta Region) as well as for socioeconomic status, household composition and disability, minority status and language, and housing type and transportation vulnerability themes.

Figure 6. Bivariate Map of Serious Injury and Fatal Pedestrian Crash Rates (per 100,000 census tract population) and Social Vulnerability Index in the Atlanta Region, by Overall Social Vulnerability Index (SVI) and SVI Themes.



Source: Georgia Crash Outcomes Data Evaluation System. (2022, July). Examining Social Vulnerability and the Association with Pedestrian Crashes: 2016-2020 data. (Georgia Traffic Safety Facts).

Atlanta, GA: Governor's Office of Highway Safety.

Dark purple census tracts are communities with high social vulnerability and high pedestrian serious and fatal injury crash rates.

Darker blue census tracts are communities with <u>low</u> social vulnerability and <u>high</u> pedestrian serious and fatal injury crash rates.

CDC's Social Vulnerability Index (SVI) data and other related sociodemographic variables can be leveraged to impartially assess roadway and public health concerns related to pedestrian safety. The findings from this research may encourage stakeholders to apply SVI assessments when implementing pedestrian safety efforts (i.e., engineering improvements, programmatic interventions, campaigning and education efforts, and other countermeasures to improve pedestrian safety).

⁶ The Atlanta Region includes the eleven counties that are defined by the Atlanta Regional Commission (ARC): Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, and Rockdale counties. In July 2021, Forsyth County officially joined ARC, becoming the 11th county member.

Safety Equipment & Protective Gear

Pedestrian Safety Equipment Use

Safety equipment for pedestrians includes clothing or materials that make the pedestrian more visible to others. This can include reflective gear and the use of lights at night or dusk when visibility is poor. Safety equipment use among pedestrians is a relatively new field in police crash reports, and in 2022 safety equipment use was recorded for 51% of all pedestrians involved in motor vehicle traffic crashes (1,480 out of 2,929 pedestrians). Of those pedestrians with known equipment use, 4% were using lighting or reflective clothing (63 out of 1,480).

Bicycle Helmet Use

In 2022, safety equipment use was recorded for 73% of all bicyclists involved in motor vehicle traffic crashes (611 out of 834 bicyclists). Of those bicyclists with known equipment use, 25% wore a helmet, reflective clothing, or lighting (155 out of 611). Among the 76 bicyclists fatally injured in traffic crashes between 2020 and 2022, 11% were helmeted, 64% were un-helmeted, and 25% had an unknown or unreported helmet use.

Personal Conveyances

According to the National Highway Traffic Safety Administration (NHTSA), people fatally injured in motor vehicle traffic crashes who were on "personal conveyances" are not classified as pedestrians. "Personal conveyances" are defined as roller skates, inline skates, skateboards, baby strollers, scooters, toy wagons, motorized skateboards, motorized toy cars, Segway-style devices, motorized and nonmotorized wheelchairs, and scooters for those with disabilities. Non-motorists on personal conveyances represent less than one percent of all traffic-related fatalities. Table 15 presents the distribution of people fatally injured on personal conveyances as a percentage of total traffic fatalities in 2018-2022.

Table 15. **Total Traffic Fatalities and Personal Conveyance Fatalities**, 2018–2022

Year	Total Traffic Fatalities	Personal Conveyance		
		Number	Percent	
2018	1,504	4	0.3%	
2019	1,491	11	0.7%	
2020	1,664			
2021	1,809			
2022	1,797	4	0.2%	

Source: FARS 2018-2022

Data Definitions and Considerations:

This fact sheet defines a pedestrian as any person on foot, walking, running, jogging, hiking, sitting, or lying down who is involved in a motor vehicle traffic crash. These exclude people on personal conveyances like roller skates, inline skates, skateboards, baby strollers, scooters, toy wagons, motorized skateboards, motorized toy cars, Segway-style devices, motorized and non-motorized wheelchairs, and scooters for those with disabilities. Bicyclists and other cyclists include riders of two-wheel, non-motorized vehicles, tricycles, and unicycles powered solely by pedals.

A traffic crash is defined as an incident that involves one or more motor vehicles where at least one vehicle was in transport, and the crash originated on a public trafficway, such as a road or highway. Crashes that occurred on private property, including parking lots and driveways, are excluded. However, in some cases where pedestrian and bicyclist injuries are discussed, traffic and non-traffic (i.e., occurring on any place other than a traffic way – trail, driveway, parking lot, or sidewalk) incidences are included in the aggregate reporting. Fatal crashes are defined as crashes that involve a motor vehicle traveling on a trafficway customarily open to the public and that result in the death of a motorist or a non-motorist within 30 days of the crash.

Serious injuries are those suspected serious injuries reported by law enforcement and used when any injury, other than fatal injury, prevents the injured person from walking, driving, or normally continuing the activities the person was capable of before the injury occurred.

"At Intersection" is used when a person is on a roadway either (1) in the intersection, (2) in the area between a crosswalk and the perimeter of the intersection, or (3) in a crosswalk (marked or unmarked) adjacent to an intersection. "Intersection-Related" is used when a person is within the trafficway 50 feet out from the perimeter of an intersection area or if the crash is related to the flow of traffic through an intersection. "Not at Intersection" is when the person is more than 50 feet out from the perimeter of an intersection, and the crash is not identified as related to the movement of vehicles through an intersection. "Non-Trafficway Locations" are crashes that occur outside the boundaries of the trafficway (i.e., driveways or parking lots).

The National Center for Health Statistics (NCHS), the Federal agency responsible for the use of the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) in the United States, has developed a clinical modification (CM) of the classification for morbidity (EMS, trauma, hospital, and ER data) purposes. ICD-10 Codes used were—Pedestrian traffic - V02-V04 (.1,.9), V09.2, Pedestrian non-traffic - V02-V04 (.0), V01, V05, V06, V09 (.0,.1,.3,.9), Pedal cyclist traffic - V12-V14 (.3-.9) V19 (.4-.6), Pedal cyclist non-traffic - V19(.4-.6), V10-V11, V12-V14(.0-.2), V15-V18, V19(.0-.3,.8,.9).

Contributing circumstances capture the precrash elements or improper actions of persons (pedestrians, bicyclists, other cyclists, and motorists) that may have caused the crash. There is at least one record per person involved in a fatal crash (FARS Data) and some missing records for persons involved in motor vehicle traffic crashes (Crash Data).

The Fatality Analytics Reporting System (FARS) and crash data expanded the safety equipment field to include new attributes related to non-motorist safety equipment (e.g., reflective equipment/clothing, protective pad, lighting, and other safety equipment). These new attributes were added after 2017 and may impact the trending and interpreting of safety equipment use over time. Additionally, FARS data allow the entry of multiple safety equipment being used in a single fatal crash event.

Blood Alcohol Concentration (BAC) values are imputed to address the problem of missing blood alcohol test results in FARS data system. A multiple imputation methodology is employed to generate specific values of BAC for persons involved in fatal crashes.

Rural counties have a population of less than 50,000 according to the United States decennial census of 2010 or any future such census (OCGA Section 31-6-2). This is different from roadway classifications, where urban road systems can be located in urban clusters (or metropolitan areas) of at least 2,500 persons within the rural counties.

Additional Information:

- The shorter Fact Sheet for non-motorists can be found on the Georgia Department of Transportation (GDOT) website: https://www.dot.ga.gov/GDOT/Pages/BikePed.aspx
- Other fact sheets and traffic safety topics are available on the Governor's Office of Highway Safety website: https://www.gahighwaysafety.org/georgia-traffic-safety-facts/

References:

Georgia Crash Outcomes Data Evaluation System. (2022, July). Examining Social Vulnerability and the Association with Pedestrian Crashes: 2016-2020 data. (Georgia Traffic Safety Facts). Atlanta, GA: Governor's Office of Highway Safety.

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The suggested APA format citation for this document is:

Georgia Crash Outcomes Data Evaluation System. (2024, April). *Pedestrians and Bicyclists: 2022 Data.* (Georgia Traffic Safety Facts). Atlanta, GA: Governor's Office of Highway Safety.