Hillsborough County

Bicycle Injury and Fatality Analysis

Hillsborough County Bicycle Injury and Fatality Trends

with Regional Comparison to Pinellas, Pasco, and Hernando



PREPARED FOR

Hillsborough County Board of County Commissioners

PREPARED BY

Santini Research

Study period

2017-2019 baseline compared with the 2022-2025 study period

Data sources

Florida Department of Highway Safety and Motor Vehicles (FLHSMV), Crash Dashboard bicycle injury and fatality records.
University of Florida Bureau of Economic and Business Research (BEBR), county population benchmarks.

November 2026

RESEARCH CONTEXT

The Bicycle Landscape Has Changed

Bicycle injury data can include e-bikes, but do not consistently identify them.

HILLSBOROUGH COUNTY

+63%

Bicycle injuries

435 in 2022 to 709 in 2025

FLHSMV bicycle injury counts

FLORIDA STATEWIDE

4.1% → 15.2%

E-bike share of identified bicycle crashes

2021 to 2024, in CUTR's study

158 to 825 identified e-bike crashes

Different measures: Hillsborough counts people injured; CUTR counts crashes. The CUTR study includes fatal, incapacitating and non-incapacitating injury crashes. Its e-bike estimates are incomplete and may be affected by reporting practices.

The trends overlap.

Hillsborough's rising bicycle injuries coincide with growing identified e-bike crash involvement statewide.

DATA CLASSIFICATION NOTE

FLHSMV's published bicycle definition includes certain motor-assisted bicycles, but e-bike crashes are not consistently classified. Some may be recorded under pedestrian categories. Electric scooters are excluded from the bicycle definition. These figures therefore do not isolate e-bike injuries or deaths.

Sources

Hillsborough: FLHSMV Crash Dashboard data; Table 4, p. 13. Methods: p. 14.
E-bike data: C. Lee, USF Center for Urban Transportation Research (CUTR), Oct. 21, 2025.
Electric Bicycle Research and Trends, presentation handout p. 2 (meeting report PDF p. 30).
Classification: FLHSMV, Traffic Crash Facts 2023, p. 3; TraCS Florida, Micro-Mobility Devices guidance.

Hillsborough in Statewide Context

A substantial injury burden and a statewide-leading fatality count

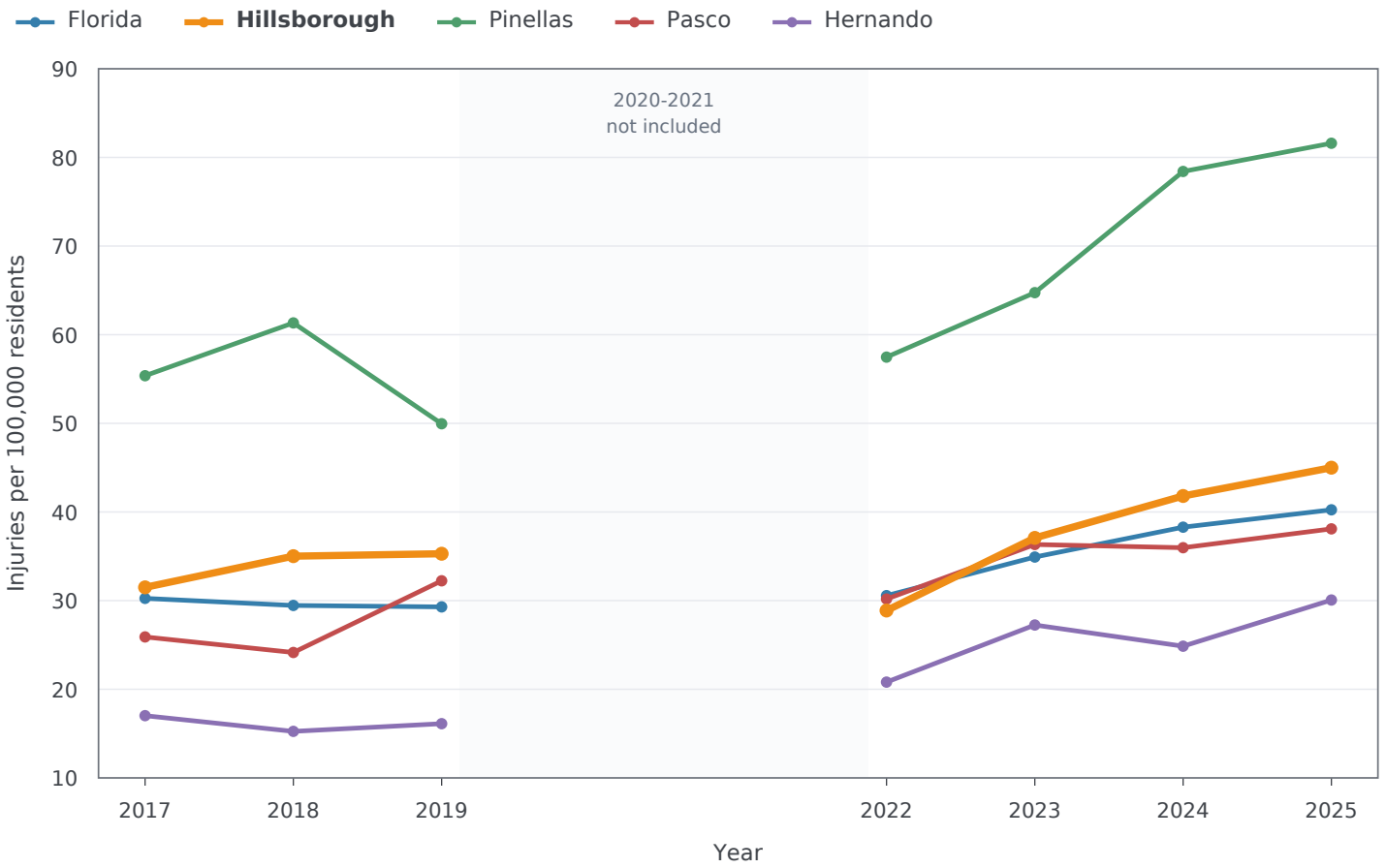
Hillsborough County ranked **fifth statewide by total bicycle injuries** and **tied for first by total bicycle fatalities** during 2022-2025. FLHSMV data record **2,360 injuries and 71 deaths** in Hillsborough.

Average annual injuries increased from **480 in 2017-2019 to 590 in 2022-2025**, a 22.9% rise. The population-adjusted injury rate also increased, from **33.93 to 38.19 per 100,000 residents**.

Key findings

- **Fifth statewide in injury count:** 2,360 injuries in 2022-2025, averaging 590 annually.
- **Injuries rose 63.0%** from 435 in 2022 to 709 in 2025, increasing every year.
- **Injury rate 6.1% above statewide:** 38.19 vs. 36.00 per 100,000 residents, averaged across 2022-2025.
- **Injury rate up 12.5%** from the 2017-2019 baseline, even after adjusting for population.

Figure 1. Counties vs. Florida Statewide Bicycle Injury Rates



Hillsborough is shown in orange. Count rankings compare all 67 counties in the FLHSMV data. Chart rates are per 100,000 residents, not per cyclist.

Hillsborough County Fatality Burden

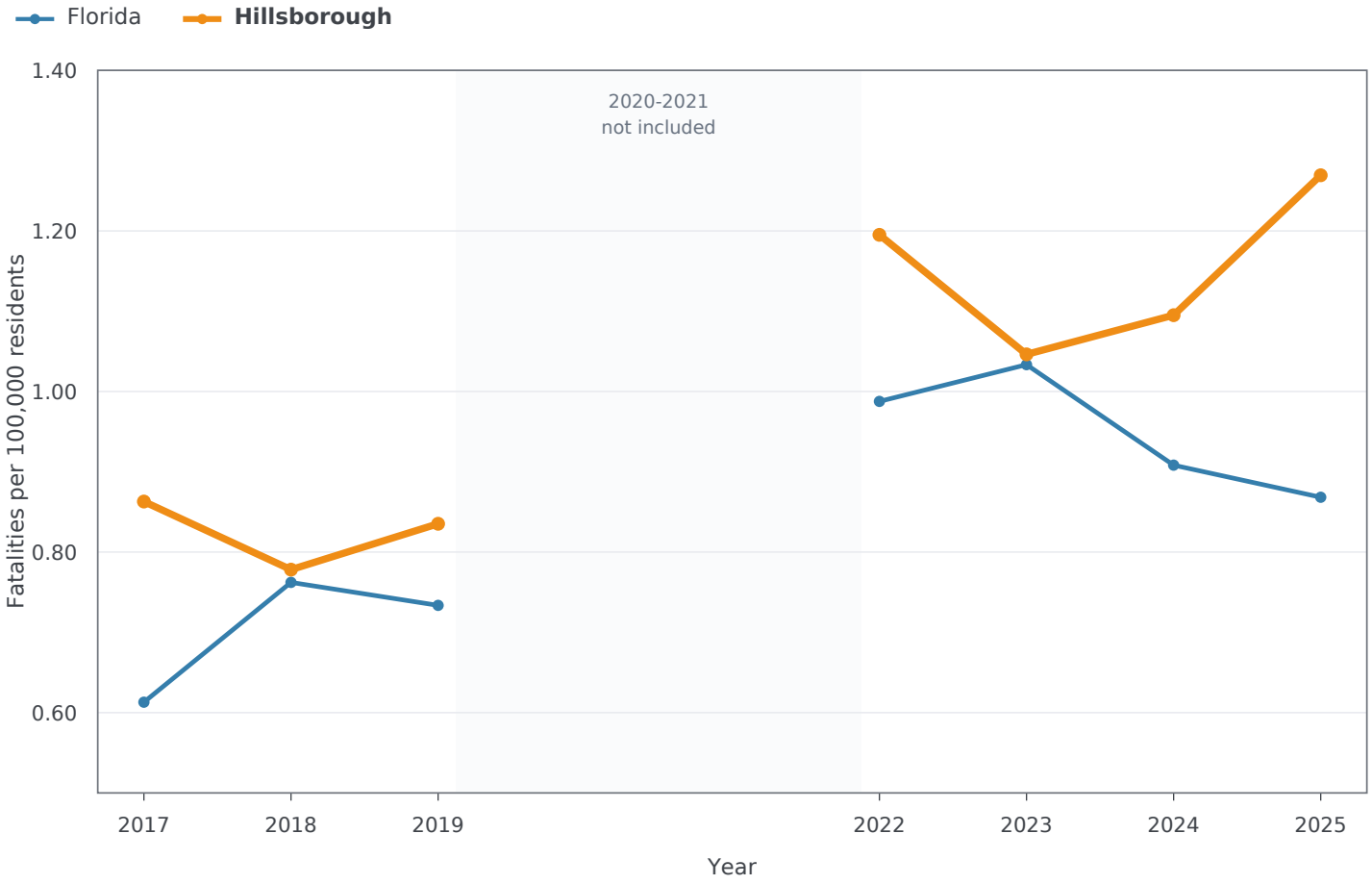
Bicycle fatalities in regional and statewide context

Key fatality findings

- **71 bicycle fatalities in 2022-2025:** tied with Miami-Dade for the highest total among Florida counties.
- Average annual fatalities rose from **11.67 in 2017-2019 to 17.75 in 2022-2025**, a **52.1% increase**.
- The **2022-2025 average annual fatality rate was 1.15** per 100,000 residents, **21.3% above** Florida's 0.95.
- **20 deaths in 2025:** a fatality rate of **1.27 per 100,000 residents**, compared with 0.87 statewide.

Hillsborough tied for Florida's highest bicycle fatality count, despite having about 1.24 million fewer residents than Miami-Dade in 2025. It had more deaths than Pinellas in 2022-2025 (71 vs. 53), but a lower average annual fatality rate (1.15 vs. 1.37 per 100,000 residents).

Figure 2. Hillsborough vs. Florida Statewide Bicycle Fatality Rates



2022-2025 average annual fatality rate: **Hillsborough 1.15 | Florida 0.95 per 100,000 residents.**
The chart is population-adjusted. The first-place tie refers to **total deaths**, not deaths per resident.

Summary and Interpretation

Hillsborough County compared with regional and statewide benchmarks

Table 1. Summary by Study Period

Annual averages: 2017-2019 baseline vs. 2022-2025. Rates are per 100,000 residents.

County	2017-2019 avg. injuries	2022-2025 avg. injuries	2017-2019 injury rate	2022-2025 injury rate	2017-2019 avg. fatalities	2022-2025 avg. fatalities	2022-2025 fatality rate
Hillsborough	**480.00**	**590.00**	**33.93**	**38.19**	**11.67**	**17.75**	**1.15**
Pinellas	528.00	680.75	55.55	70.56	7.67	13.25	1.37
Pasco	149.00	219.25	27.43	35.14	8.00	8.00	1.29
Hernando	30.67	53.50	16.13	25.75	1.33	1.75	0.85
Florida	6,226.67	8,233.25	29.67	36.00	147.67	216.50	0.95

Table 2. Hillsborough vs. Key Benchmarks

Metric	Hillsborough	Miami-Dade	Florida
2025 population	1,575,637	2,814,927	23,379,261
2025 bicycle injuries	709	1,000	9,409
2022-2025 total bicycle fatalities	71	71	866
2022-2025 avg. annual fatalities	17.75	17.75	216.50
2022-2025 avg. annual injury rate	38.19	32.99	36.00
2022-2025 avg. annual fatality rate	1.15	0.64	0.95

Table 3. What the Metrics Mean

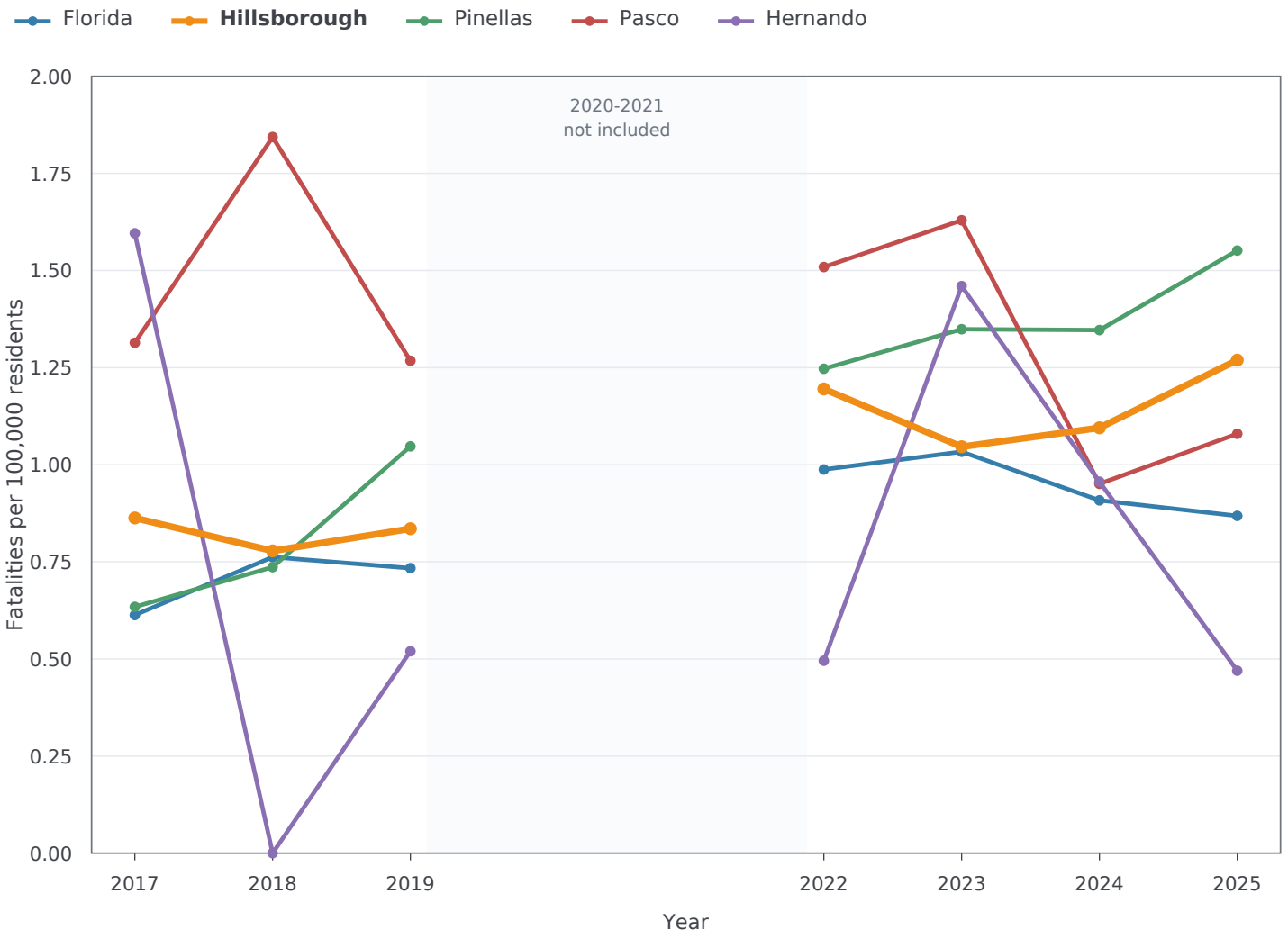
Metric	Interpretation
Injury rate	Annual bicycle injuries per 100,000 residents, not per cyclist or cycling trip.
Fatality rate	Annual bicycle deaths per 100,000 residents.
Hillsborough takeaway	A statewide-leading fatality count and above-statewide rates warrant attention; Hillsborough does not have the highest per-capita rate.

FIGURE 3

Regional Fatality-Rate Context

Hillsborough, Pinellas, Pasco, Hernando, and Florida statewide

Hillsborough recorded **more bicycle fatalities than any of the other three comparison counties** in 2022-2025: 71, compared with 53 in Pinellas, 32 in Pasco, and 7 in Hernando. Its average annual fatality rate of **1.15 per 100,000 residents** was above Florida's 0.95, but below Pinellas's 1.37 and Pasco's 1.29.



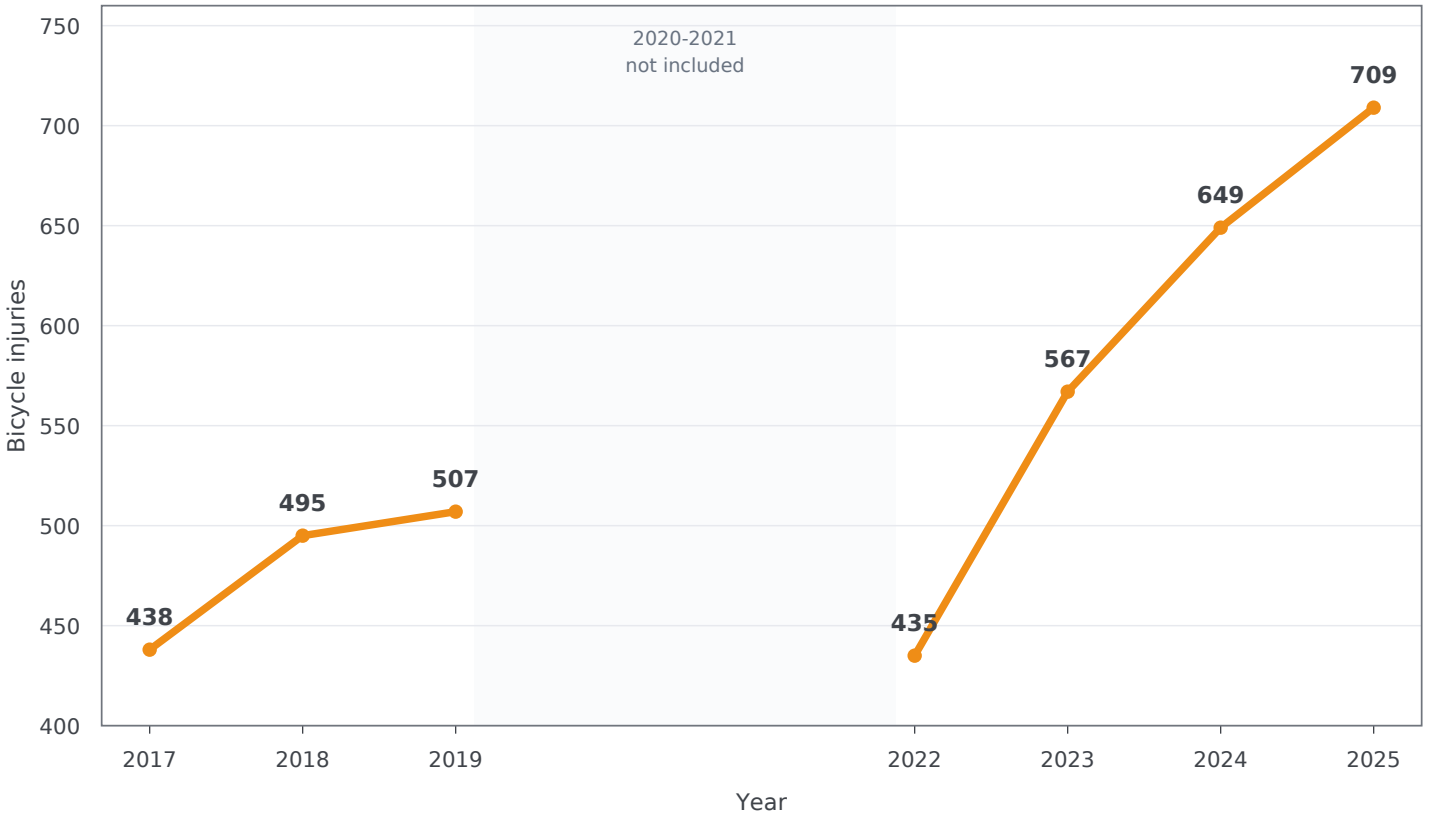
Counts and rates answer different questions. Hillsborough has the largest fatality count in this four-county comparison, while Pinellas and Pasco have higher population-adjusted fatality rates.

FIGURE 4

Hillsborough County Bicycle Injury Counts

Annual bicycle injuries reported in FLHSMV crash data

Study years: 2017-2019 and 2022-2025



Hillsborough averaged **480.00 bicycle injuries per year in 2017-2019 and 590.00 in 2022-2025**. That is **110 additional injuries per year, a 22.9% increase**. Injuries rose in each year from 2022 through 2025.

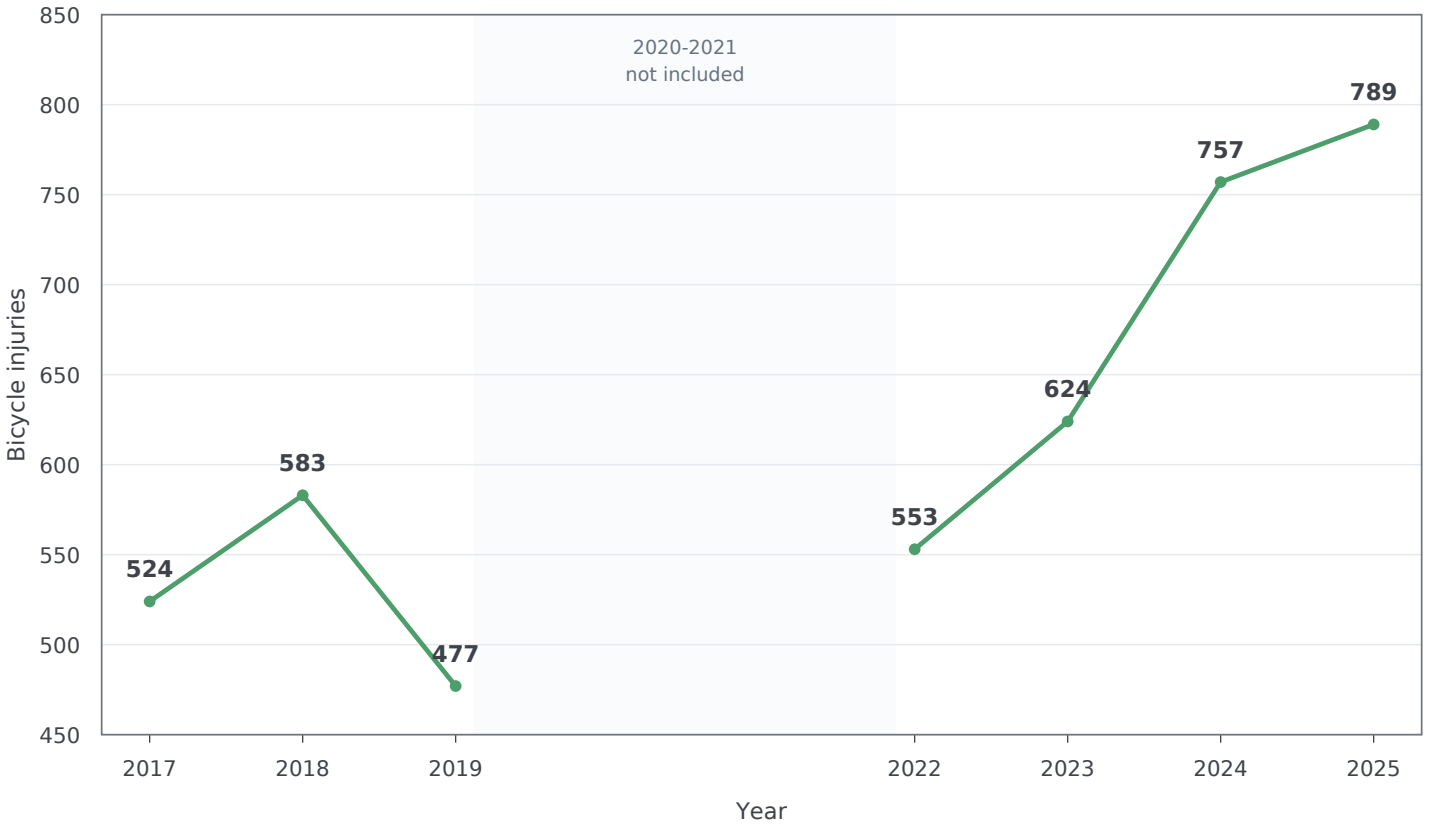
The shaded gap marks years excluded from this comparison. No 2020 or 2021 values are plotted.

FIGURE 5

Pinellas County Bicycle Injury Counts

Annual bicycle injuries reported in FLHSMV crash data

Study years: 2017-2019 and 2022-2025



Pinellas recorded **2,723 bicycle injuries in 2022-2025**, compared with **2,360 in Hillsborough**. Its average annual injury rate was also higher: **70.56 vs. 38.19 per 100,000 residents**.

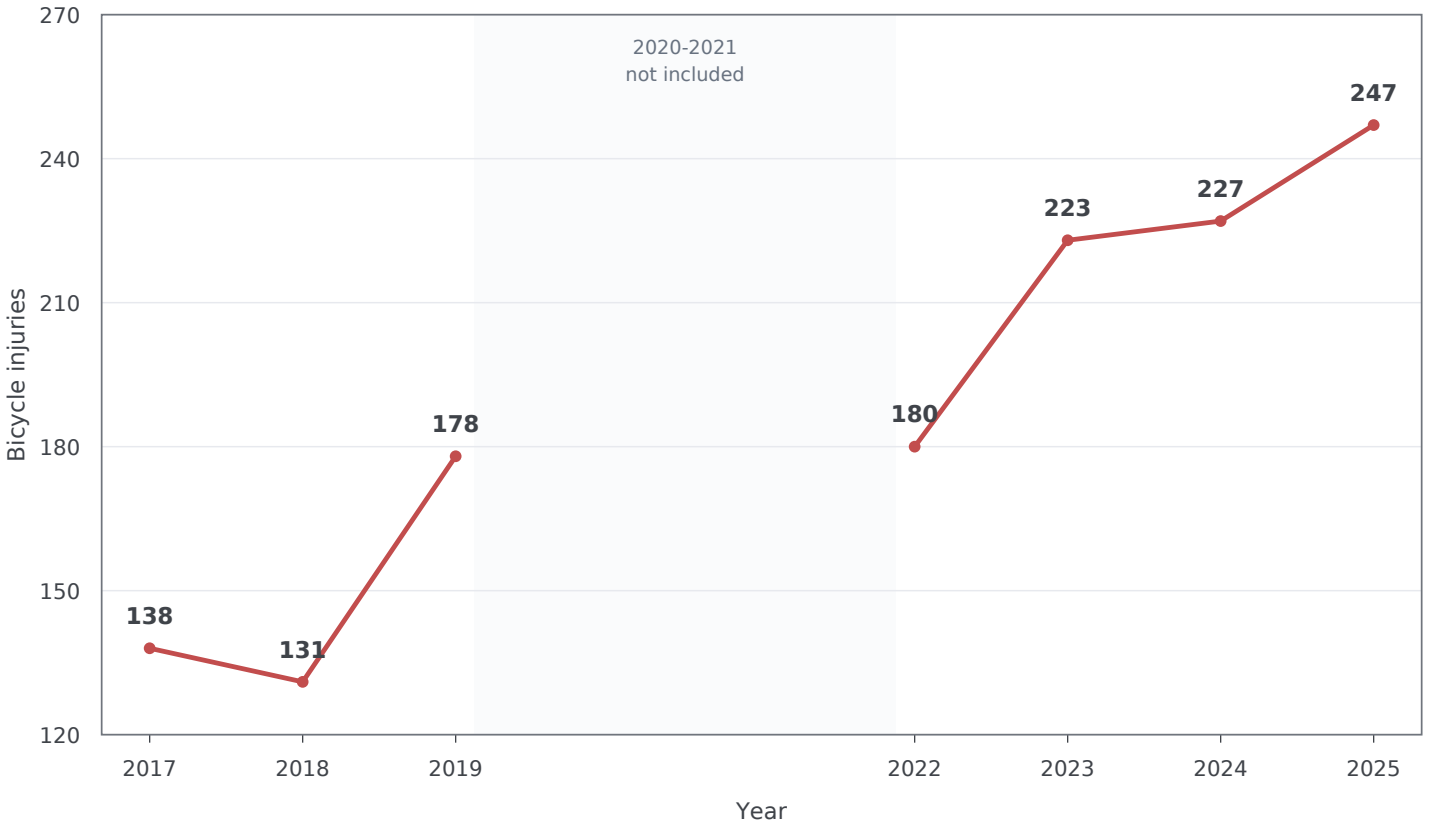
The shaded gap marks years excluded from this comparison. No 2020 or 2021 values are plotted.

FIGURE 6

Pasco County Bicycle Injury Counts

Annual bicycle injuries reported in FLHSMV crash data

Study years: 2017-2019 and 2022-2025



Pasco's average annual injuries rose from **149.00 to 219.25**, a **47.1% increase** between the study periods. Its 2022-2025 average injury rate of **35.14** remained below Hillsborough's **38.19** per 100,000 residents.

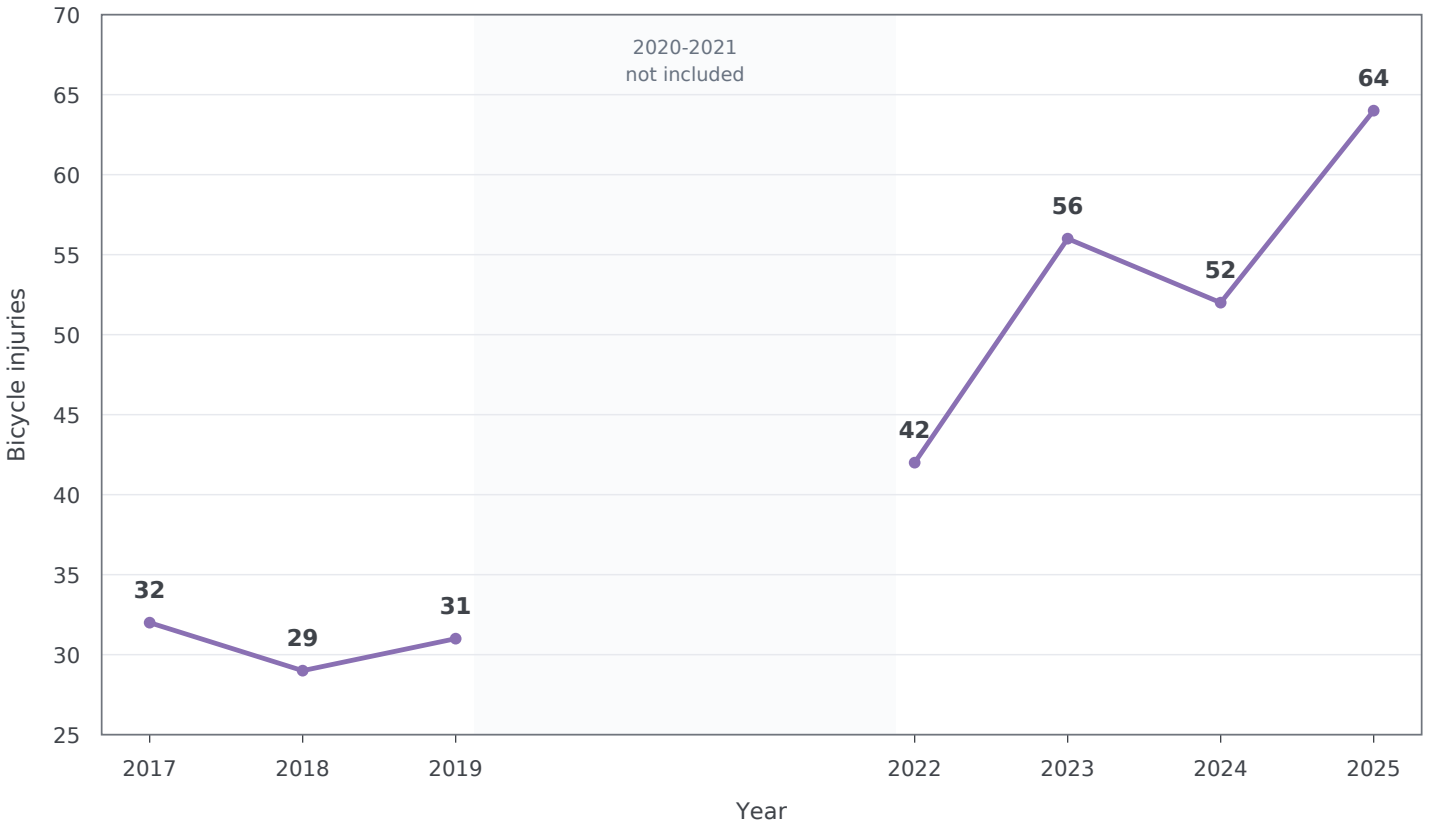
The shaded gap marks years excluded from this comparison. No 2020 or 2021 values are plotted.

FIGURE 7

Hernando County Bicycle Injury Counts

Annual bicycle injuries reported in FLHSMV crash data

Study years: 2017-2019 and 2022-2025



Hernando averaged **53.50 bicycle injuries per year in 2022-2025**, compared with **590.00 in Hillsborough**. Its lower count and smaller population require a different interpretation than Hillsborough's high-volume injury burden.

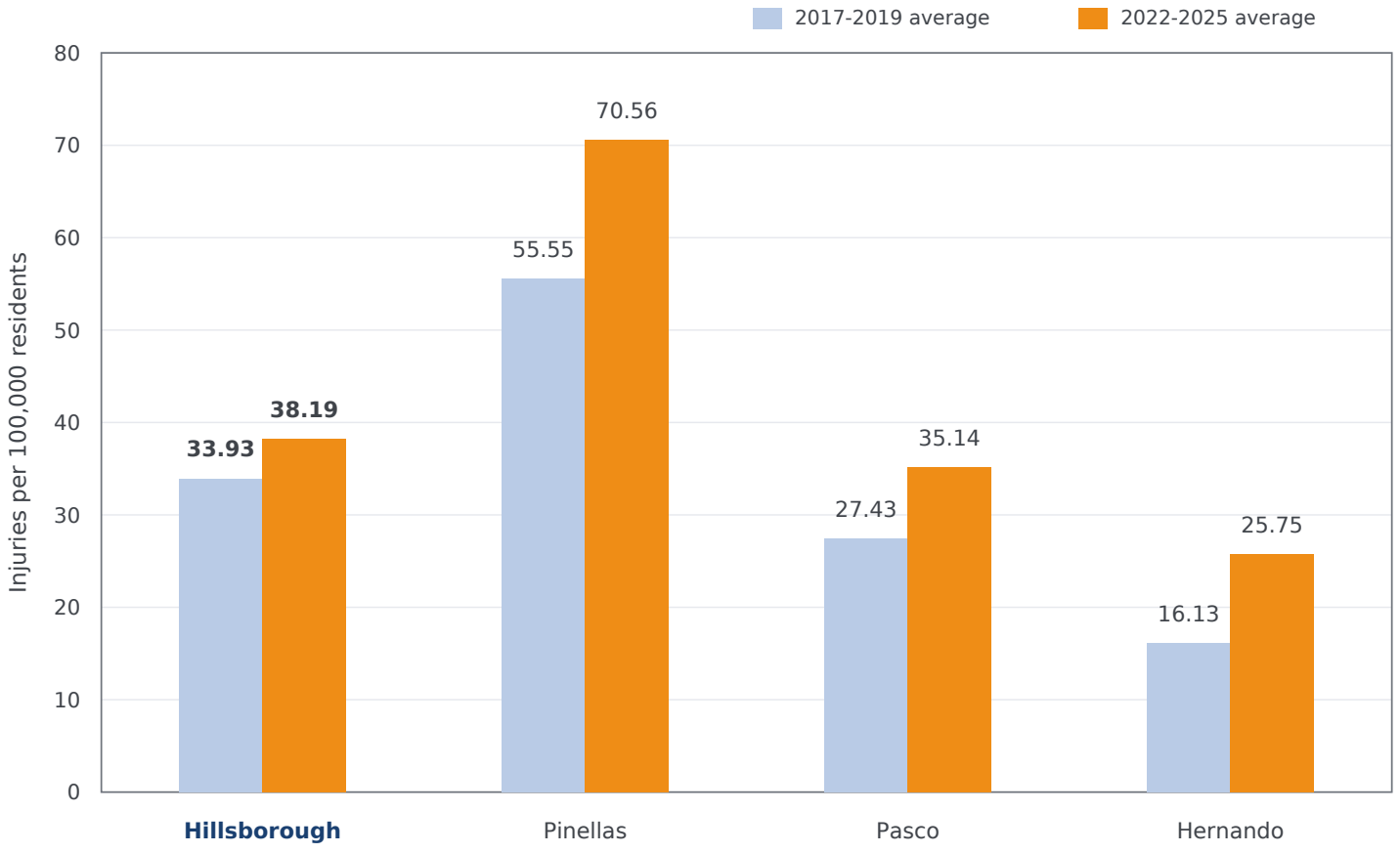
The shaded gap marks years excluded from this comparison. No 2020 or 2021 values are plotted.

FIGURE 8

Bicycle Injury Rates by Study Period

2017-2019 average compared with the 2022-2025 average

Hillsborough's average annual injury rate increased from **33.93 to 38.19 per 100,000 residents**, a **12.5% increase**. This was a smaller percentage increase than in each of the three comparison counties, but Hillsborough remained above the statewide rate in both periods.



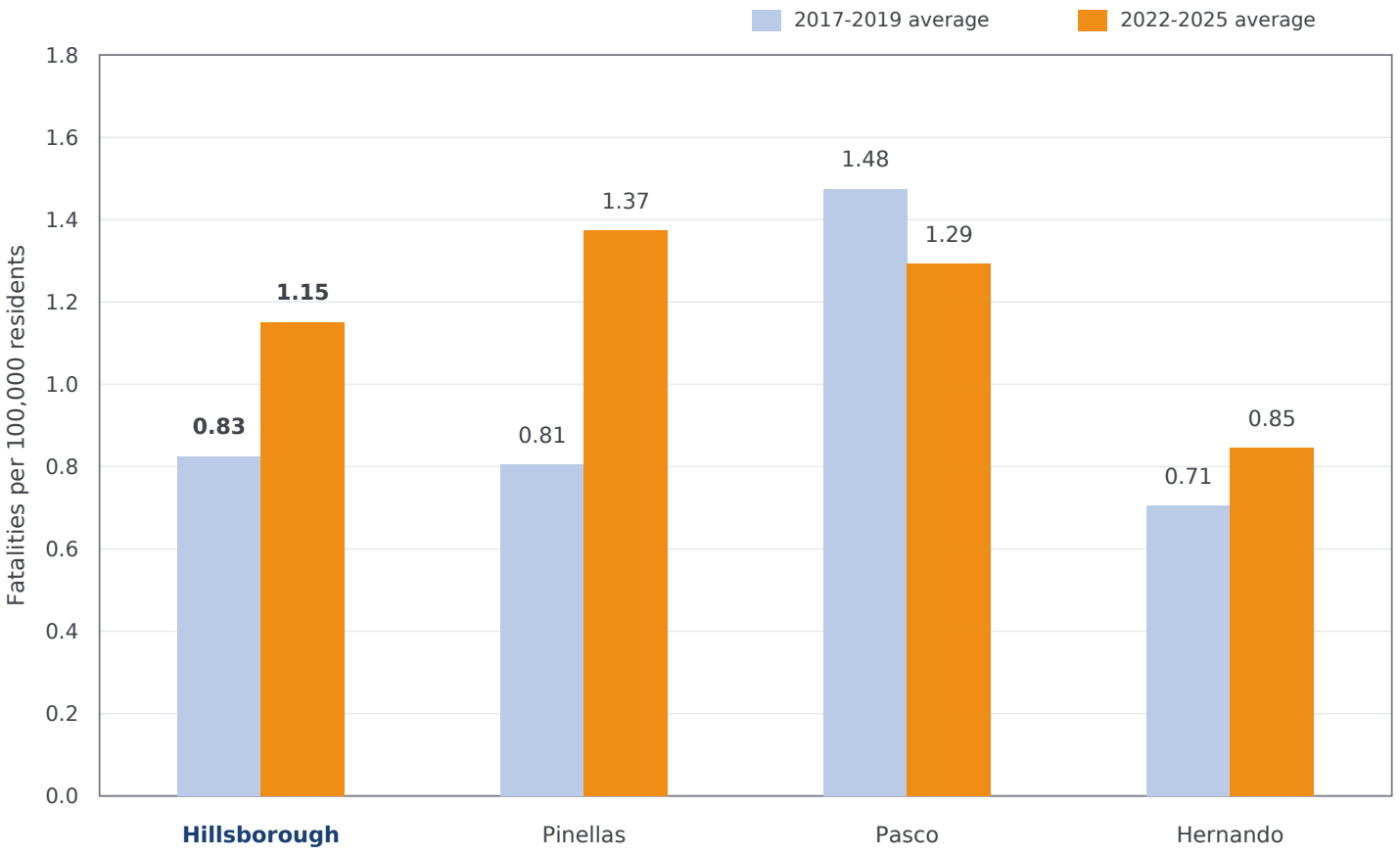
Florida statewide: 29.67 injuries per 100,000 residents in 2017-2019 and 36.00 in 2022-2025. The bars show the arithmetic mean of each county's annual rates, using the same population methodology.

FIGURE 9

Bicycle Fatality Rates by Study Period

2017-2019 average compared with the 2022-2025 average

Hillsborough's average annual fatality rate rose from **0.83 to 1.15 per 100,000 residents**, a **39.5% increase** calculated from unrounded rates. Its later-period rate was above Florida's 0.95 and Hernando's 0.85, but below Pinellas's 1.37 and Pasco's 1.29.



The increase persists after population adjustment. Hillsborough's average annual fatality count rose 52.1%, while its average annual fatality rate rose 39.5%. These measures do not establish the causes of that increase.

TABLE 4

Annual County Data

Hillsborough, Pinellas, Pasco, and Hernando Counties

Injury and fatality rates are per 100,000 residents. Hillsborough rows are highlighted.

Year	County	Population	Injuries	Fatalities	Injury rate per 100,000	Fatality rate per 100,000	Deaths per 100 injuries
2017	**Hillsborough**	**1,390,601**	**438**	**12**	**31.50**	**0.86**	**2.7**
2017	Pinellas	946,338	524	6	55.37	0.63	1.1
2017	Pasco	532,733	138	7	25.90	1.31	5.1
2017	Hernando	187,994	32	3	17.02	1.60	9.4
2018	**Hillsborough**	**1,413,655**	**495**	**11**	**35.02**	**0.78**	**2.2**
2018	Pinellas	950,594	583	7	61.33	0.74	1.2
2018	Pasco	542,452	131	10	24.15	1.84	7.6
2018	Hernando	190,168	29	0	15.25	0.00	0.0
2019	**Hillsborough**	**1,436,708**	**507**	**12**	**35.29**	**0.84**	**2.4**
2019	Pinellas	954,850	477	10	49.96	1.05	2.1
2019	Pasco	552,172	178	7	32.24	1.27	3.9
2019	Hernando	192,341	31	1	16.12	0.52	3.2
2022	**Hillsborough**	**1,506,112**	**435**	**18**	**28.88**	**1.20**	**4.1**
2022	Pinellas	962,237	553	12	57.47	1.25	2.2
2022	Pasco	596,482	180	9	30.18	1.51	5.0
2022	Hernando	201,849	42	1	20.81	0.50	2.4
2023	**Hillsborough**	**1,529,287**	**567**	**16**	**37.08**	**1.05**	**2.8**
2023	Pinellas	963,803	624	13	64.74	1.35	2.1
2023	Pasco	613,778	223	10	36.33	1.63	4.5
2023	Hernando	205,515	56	3	27.25	1.46	5.4
2024	**Hillsborough**	**1,552,462**	**649**	**17**	**41.80**	**1.10**	**2.6**
2024	Pinellas	965,368	757	13	78.42	1.35	1.7
2024	Pasco	631,073	227	6	35.97	0.95	2.6
2024	Hernando	209,182	52	2	24.86	0.96	3.8
2025	**Hillsborough**	**1,575,637**	**709**	**20**	**45.00**	**1.27**	**2.8**
2025	Pinellas	966,933	789	15	81.60	1.55	1.9
2025	Pasco	648,369	247	7	38.10	1.08	2.8
2025	Hernando	212,849	64	1	30.07	0.47	1.6

Fatality rate = bicycle deaths / resident population × 100,000.
Deaths per 100 injuries = bicycle deaths / nonfatal bicycle injuries × 100, not a population-based rate or fatality percentage.
Population estimates are calculated by interpolation for 2017-2019 and 2022-2024; 2025 uses BEBR's published estimate.

Methods, Limitations, and Disclosure

Data sources, calculation methods, and interpretation

Method notes

Study period. The analysis compares 2017-2019 with 2022-2025. The 2020-2021 years are excluded because of pandemic-related traffic disruption.

Counts and geography. Annual totals sum FLHSMV's Bicycle Injuries and Bicycle Fatalities fields by county and year. They count people injured or killed, not crashes, and include all municipalities within each county.

Population estimates. All study-year populations are estimates. Benchmarks are the 2010 and 2020 U.S. Census counts and BEBR's April 1, 2025 estimates, published in *Florida Estimates of Population 2025*. Santini Research calculated 2017-2019 populations between the 2010 and 2020 benchmarks, and 2022-2024 populations between 2020 and 2025, using linear interpolation (an equal annual change between benchmarks). These calculated figures are not BEBR's published annual estimates; 2025 uses BEBR's estimate directly.

Rates, averages, and rankings. Annual injury and fatality rates equal the respective count divided by that year's estimated resident population, multiplied by 100,000. Period rates are the arithmetic mean of annual rates. Percentage changes use unrounded period averages: (later / baseline - 1) × 100. Count rankings compare total injuries or deaths across all 67 counties, retaining ties; they are not per-capita rankings.

Interpretive limitations

These are reported traffic-crash injuries and deaths, not all cycling injuries. Population-based rates measure burden per resident, not risk per rider, trip, or mile. The FLHSMV data analyzed do not identify e-bikes separately or describe crash circumstances, and cannot establish causation, fault, dangerous corridors, or policy effects. Visitors, commuting, reporting changes, small counts, and population interpolation may affect comparisons. Results are descriptive, not causal or significance-tested.

Verification and data revisions

Totals and rates were recalculated and cross-checked. Population benchmarks and selected 2022-2023 crash totals were compared with published BEBR and FLHSMV sources. The FLHSMV data analyzed lack crash dates, unique identifiers, original filter settings, and download dates; study years follow the annual data filenames. These checks do not establish record uniqueness, original filter accuracy, or that the data reflect the latest dashboard revisions. Later FLHSMV revisions may change historical totals.

Sources

FLHSMV. *Crash Dashboard*, county-level bicycle injury and fatality data for 2017, 2018, 2019, 2022, 2023, 2024, and 2025.

University of Florida, Bureau of Economic and Business Research (BEBR). *Florida Estimates of Population 2025*, Table 6, pp. 27-28.

FLHSMV. *Florida Traffic Crash Facts Annual Report 2023*, injury definitions and county tables (selected verification checks).

Funding and independence

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