

**BIKEPGH
REPORT ON
PEDESTRIAN
& BICYCLING
SAFETY IN
PITTSBURGH
2011-2015**



TABLE OF CONTENTS

4 INTRODUCTION

6 SECTION 1: CITY OF PITTSBURGH STATISTICS

8 1. HOW MANY PEOPLE WALK & BIKE?

12 2. GENERAL CRASH STATS

14 3. FATAL CRASHES

16 4. INJURIES

20 5. CRASH CONDITIONS AND COMMON FACTORS

22 6. TAKEAWAYS & CONCLUSION

24 SECTION 2: COMPARING THE CITY TO ALLEGHENY COUNTY AND BENCHMARK CITIES

26 1. BENCHMARK CITIES

28 2. PITTSBURGH AND ALLEGHENY COUNTY

32 3. ALLEGHENY COUNTY AND BENCHMARK CITIES

38 CONCLUSION

42 ACKNOWLEDGEMENTS

43 CITATIONS

INTRODUCTION

At the heart of Bike Pittsburgh's mission is safety. In fact, our origin in 2002, in part, is due to a hit-and-run driver crashing into one of our cofounders.

While just about everyone can agree things have gotten better since then, all evidence suggesting such is anecdotal, with very little empirical evidence indicating just how safe, or dangerous it is to ride in Pittsburgh. We are constantly hearing about how people don't ride because they don't feel safe, which is completely understandable, considering the lack of safe, comfortable, connected bikeways. However, this perceived safety does nothing to help us get to heart of the matter at hand: saving lives and broken bones.

But how dangerous is it really for people on bikes and foot in Pittsburgh?

This is a question that nobody could answer with actual facts. City Planning didn't know, PennDOT didn't know, the police didn't know. The lack of data has made it difficult to make the case as to why we even need bike lanes, traffic calming, and Complete Streets policies.

Recently, Allegheny County, in cooperation with Western Pennsylvania Regional Data Center (WPRDC), released to the public, a decade's worth of crash data. While the information has always been available, the public's access to the information from PennDOT's database was near limited.

Advocates were dependent on other people to analyze and process this crash data.

This report is intended for urban planners, law enforcement, decision makers, and neighborhood advocates to better understand how their streets are performing and serving their safety needs. Using tools like engineering, enforcement, and education, we believe that traffic crashes are preventable. The data can be used to strategically allocate limited resources in order to fix problem areas and ultimately reduce harm.

We hope that this snapshot of the state of biking and walking safety will help all of us see where improvements are needed, as well as provide a reference point for other American cities. Additionally, we aim to frequently update this report and to create a public record that can track the progress that we're making toward the ultimate and achievable goal of zero deaths from traffic crashes in Pittsburgh.

Section 1 measures walking and biking levels in Pittsburgh and presents basic safety statistics.

Section 2 offers a comparison to Allegheny County, the State of Pennsylvania, and selected benchmark cities in the United States to contextualize Pittsburgh's pedestrian and cycling safety.

A note on crash reporting

All of the data originates from the crash reporting of City of Pittsburgh and local municipal police departments. A reportable crash is defined as one in which the incident occurs on a highway or traffic way that is open to the public and an injury or a fatality occurs, or at least one of the vehicles involved requires towing from the scene.

City of Pittsburgh Police are responsible for recording the details of crashes within the City. We have found that there is a major underreporting of bicycle and pedestrian crashes. First of all, bicycles or pedestrians don't get towed. Secondly, the responding officer determines what qualifies as an injury. An ambulance ride will almost certainly guarantee a written police report, but a cut, sprain, bruise, or broken bicycle may not. Oftentimes, people don't even realize that they are injured until they get home. When there is an ambulance ride, there is a small opportunity for the responding officer to take a full account of what happened, as the victim may be getting care or carted away, assuming they are conscious at the time.

Another layer that influences the data is that it is the responsibility of the police to follow up with any new information. For instance, a victim may leave the scene alive in an ambulance, but pass away at the hospital and their status may never be updated.

It is also not clear how one can report their crash after the fact. For instance, if a person gets home and realizes that they are hurt more than they thought, and want a police report of the incident, it is often difficult to navigate the system to obtain. We are told to either call 911 where an officer will meet the person at their house, or they can go to the local police station. However, reports indicate that this doesn't always pan out. This makes it difficult for someone on a bike to receive compensation from an insurance company or from court.



SECTION 1

CITY OF PITTSBURGH

STATISTICS

1.1

HOW MANY PEOPLE WALK AND BIKE?

For such a simple question, it's surprisingly difficult to answer. Some people may ride once a month or once a year; do we count them? And how do we count them? There are several national and local resources available to estimate how many regularly walk and bike in Pittsburgh. Transportation is complicated, and the existing studies mostly describe how people get to work, which indicate around 10% of Pittsburghers regularly walk and between 2% and 4% cycle to their job. But many people who may never ride to their job might ride more after work than someone who pedals to work daily.

The United States Census Bureau's American Community Survey (ACS) estimates annual commuter trends and is one of the only resources for evaluating national, state, county, and local walking and biking levels. However, the ACS captures only commuting modal activity (for residents, 16 years of age and older, with employment), and does not include people such as retirees, the unemployed, students without jobs, children, as well as other walking and biking trips, such as errands, pleasure, or non-work-related travel. In addition, the ACS only records one transportation mode on its questionnaire. Thus, a worker who walks or bikes to work occasionally, but usually drives, will not be counted as a pedestrian or bicycling commuter. The survey is also not able to measure people who may take multiple modes in a single trip.

In raw numbers, in 2014, approximately 15,600 Pittsburghers walked and 2,500 commuters biked as their primary means to get to their jobs, out of approximately 146,500 workers.

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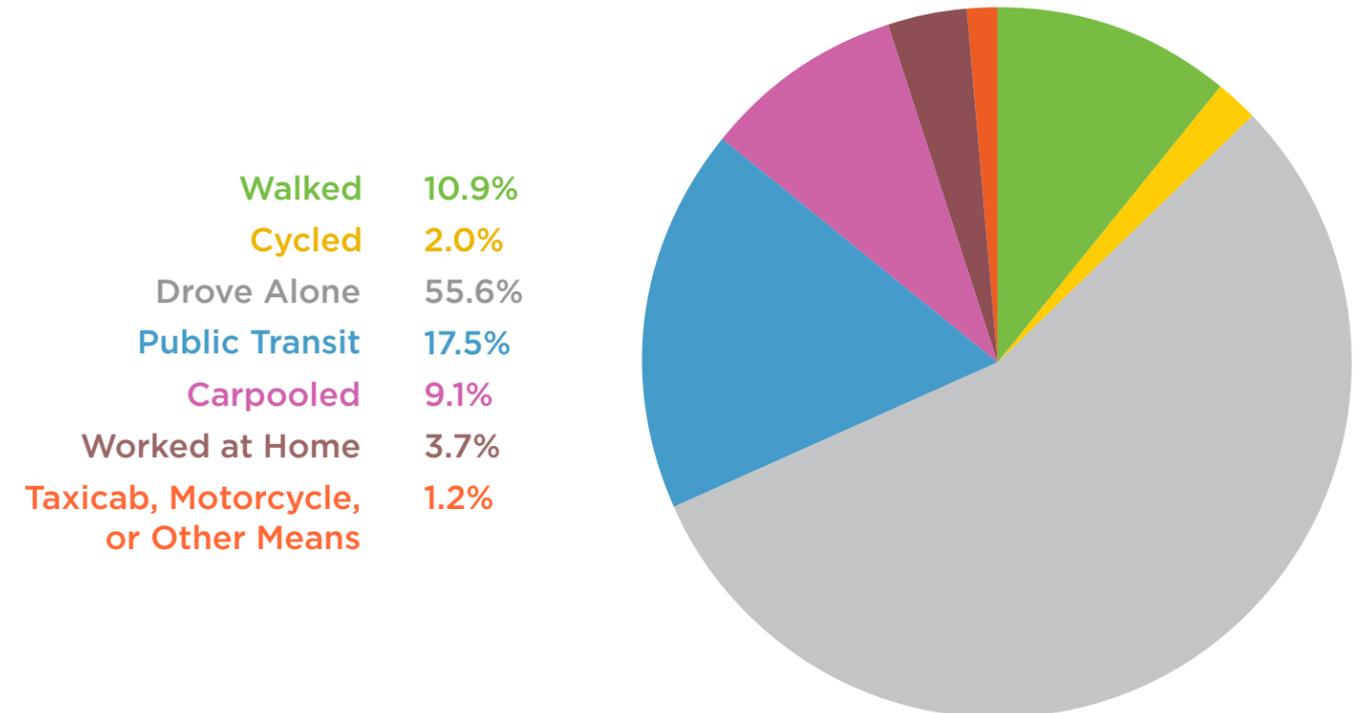


FIG. 1: COMMUTING IN PITTSBURGH, 2014

US Census Bureau, 2014 American Community Survey 1-Year Estimate

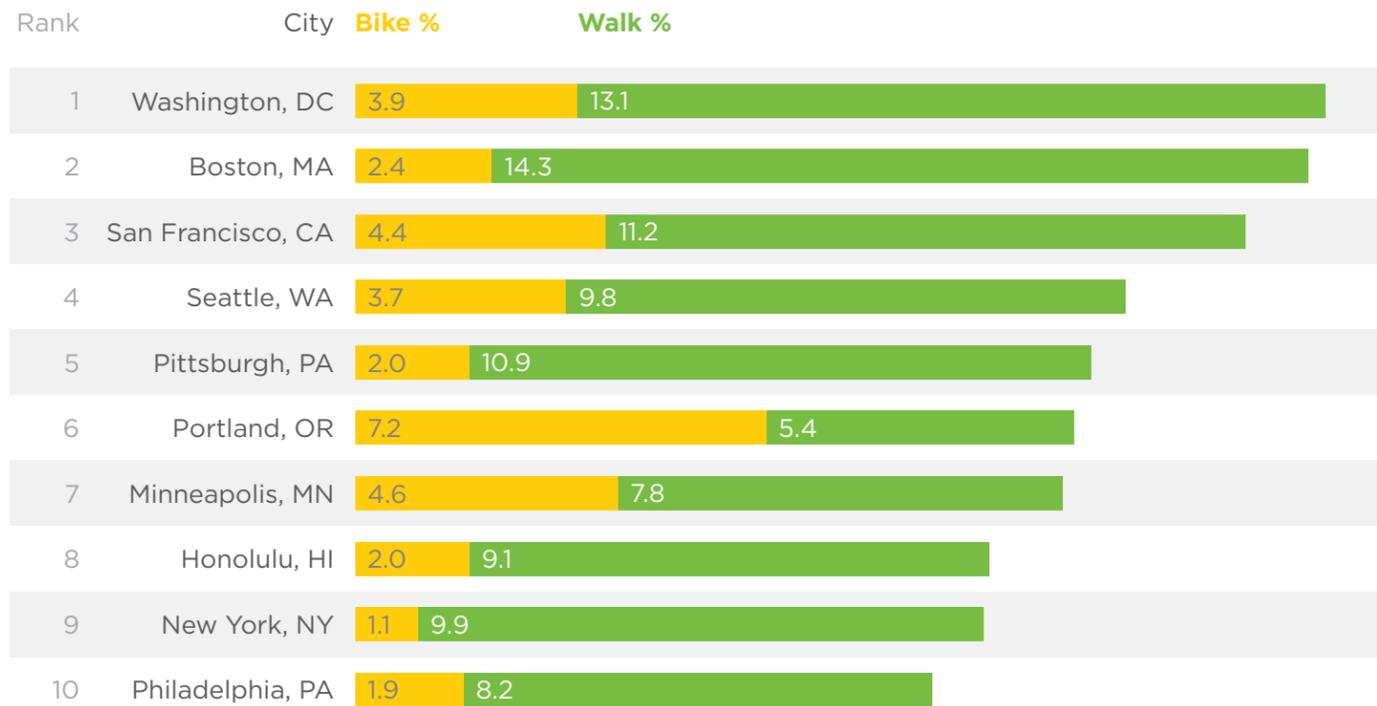


FIG. 2: TOP TEN WALKING AND CYCLING COMMUTING RATES AMONG UNITED STATES' SIXTY LARGEST CITIES, 2014

*US Census Bureau, 2010-2014 American Community Survey 1-Year Estimate
Commuting Characteristics by Sex: 2010-2014 American Community Survey 1-Year Estimate*

The ACS is also the only tool for making comparisons between US cities, as the methods are standardized nationwide. According to BikePGH's compilation of ACS data, in 2014, Pittsburgh has the fifth highest walking and cycling commuter rates in the country, among the sixty largest cities. In particular, Pittsburgh had very high walking commuter rates.

In 2015, the Green Building Alliance (GBA) provided another piece of the puzzle when they undertook a commuting survey, called Make my Trip Count. In particular, the survey focused on the transportation mode of commuters into downtown and Oakland neighborhoods. The survey found that among its 20,710 respondents (who mainly work in downtown and Oakland), approximately 1,800 commuters regularly walk and bike to work.

The City of Pittsburgh's Department of City Planning began a pedestrian and bicyclist count in May 2015. The 2015 count tallied 20,026 pedestrians and 3,355 bicyclists in a six hour window at roughly 50 count locations throughout the City (City of Pittsburgh, 2015 - May 2015 snapshot).

In May 2015, the City installed protected bike lanes along Penn Avenue serving the Strip District and Downtown. According to the Pittsburgh Downtown Partnership's bike counters, between May and October 2015, the bike lanes averaged 800 trips per day over the six month period (PDP, 2016 State of Downtown Report, p.39)

Pittsburgh welcomed a bike share program in May 2015, Healthy Ride Bike Share. Its 500 bikes across 50 stations in central neighborhoods adds new opportunities for residents and visitors to bike in Pittsburgh. According to Healthy Ride's data, users took 56,397 unique trips between July 1 and December 31, 2015, an average of 307 rides per day (PBS, 2016).

All trips begin and end as a pedestrian. Even the most dedicated drivers must exist their vehicles at some point during the day. Pittsburgh's sidewalks and roads carry thousands of walkers and bikers to work, to activities, or just around the neighborhood.

*All trips begin and end **as a pedestrian.***

1.2

GENERAL CRASH STATS: DRIVING, WALKING, AND BICYCLING

On average, a reportable crash occurs every 2 hours in Pittsburgh, for all modes of travel. A pedestrian is hit every 34 hours while a person on a bike is involved in a crash every 6 days.

To reiterate, a reportable crash—i.e. one that triggers a police report—is one in which the incident occurs on a highway or traffic way that is open to the public and an injury or a fatality occurs, or at least one of the vehicles involved requires towing from the scene. For this reason, bicycle and pedestrian crashes are often underreported.

Comparing pedestrian and bicyclist crashes to total crashes help establish a baseline to assess the relative danger of Pittsburgh’s streets for different users. Between 2011 and 2015, reported pedestrian, cyclist, and total crashes are consistent over time (Fig 3).

Out of the thousands of reported crashes that occur each year in Pittsburgh, roughly 6% of all crashes involve pedestrians and about 2% involve people on bikes.

A slight reduction in the number of total pedestrian crashes can be observed in the study period. They fall in each consecutive year. There is no clear increasing or decreasing trend among cyclists.

Between 4% and 10% of Pittsburghers regularly walk to work and between 2% and 4% cycle, so the pedestrian collision rate of 5-6% and cycling collision rate of 1.5% are not higher than expected. In other words, walkers and bike riders are not involved in crashes at higher rates than automobiles.

*In Pittsburgh, a pedestrian is hit every **34 hours**, while a person on a bike is involved in a crash every **6 days**.*

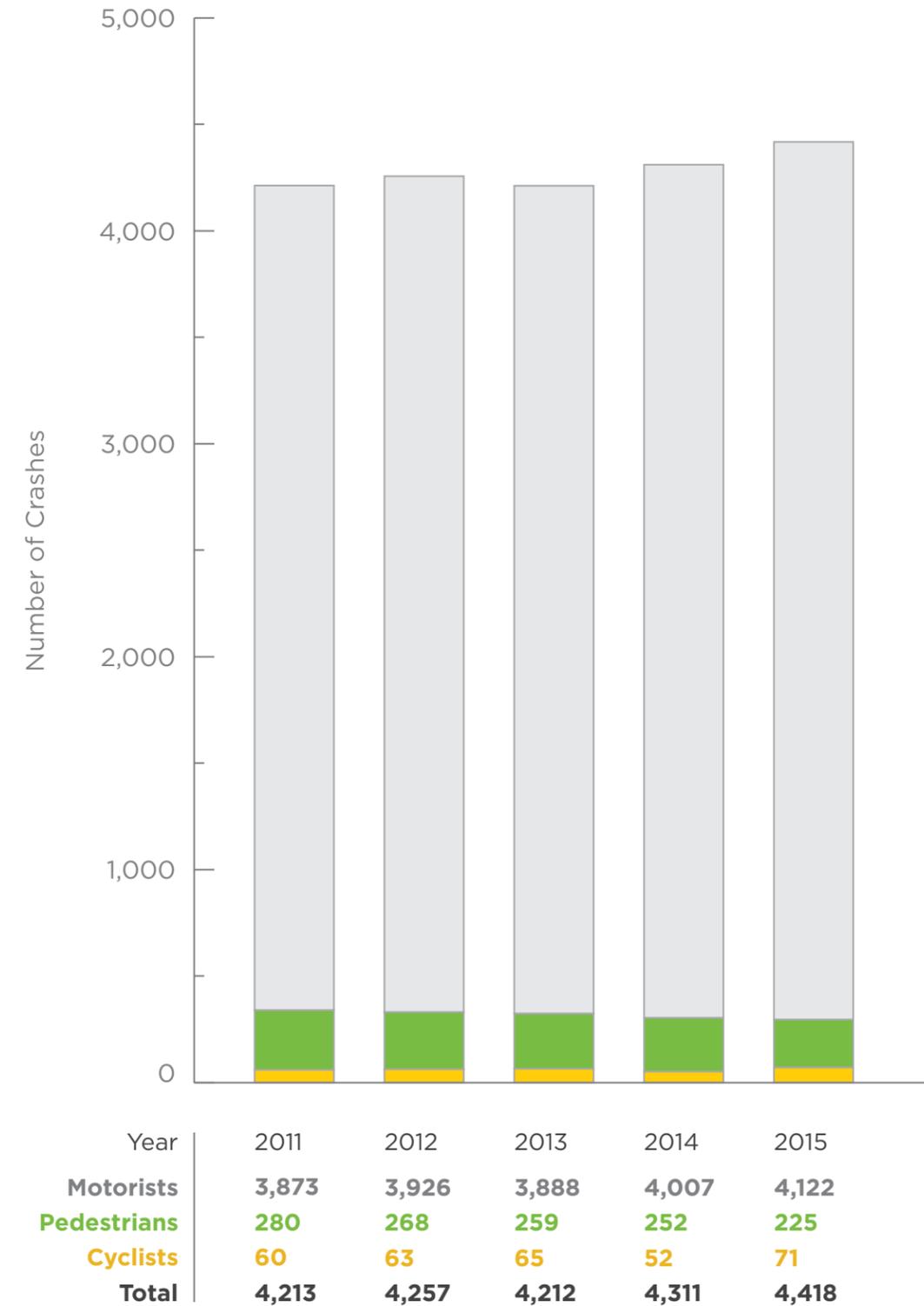


FIG. 3: REPORTED CRASHES IN PITTSBURGH, 2011-2015
PennDOT statistics compiled by BikePGH

1.3

FATAL CRASHES

The data show that pedestrians and bicyclists are killed at a higher rate than auto drivers and account for a large share of all fatal crashes. However, raw crash numbers do not tell the entire story of Pittsburgh's road safety. The severity of traffic collisions range from dented doors to broken limbs to loss of life. Fatal crashes are the worst possible result of road crashes. There were 79 deadly crashes between 2010 and 2014 on Pittsburgh's streets, resulting in the loss of 84 lives.

This report uses fatal crashes instead of fatalities to illustrate the frequency of severe collisions. As multiple fatalities can result from a single incident, fatal crashes offer a clearer portrait of how often deadly crashes occur.

Pedestrian crashes were consistently deadlier than auto or bicyclist crashes. The fatality rate of reported pedestrian crashes increased throughout the study period even though the total rate remained stable. In 2015, 2.67% of pedestrian crashes were fatal, 7 times higher than the overall fatality rate. Although pedestrian and cyclist involvement in crashes is stable and drops slightly over the time frame, the number of fatal pedestrian crashes did not fall. In 2015, 4 in 10 fatal collisions included pedestrians and bicyclists.

In 2015, 40% of fatal collisions included pedestrians and bicyclists.

One shocking result of deadlier pedestrian collisions is reflected in pedestrians' elevated share of all fatal crashes. While only 6% of all traffic crashes involved pedestrians, they accounted for a stunning 26% of Pittsburgh's traffic fatalities from 2011-2015.

Pittsburgh's pedestrian and bicyclist fatalities mirrors a similar trend at the national level. Despite fewer overall traffic fatalities in the US since 2005, bicyclist fatalities have remained constant. Pittsburgh's pedestrian and cycling fatality rate is far higher than the nationwide mark. Given the short duration of the study period, the data do

not provide conclusive evidence that pedestrian fatalities will continue to increase. The low numbers of total and pedestrian fatal collisions creates volatility in the trends. If anything, the results underline the need for long term analysis when measuring pedestrian and bicyclist safety. However, it is a striking finding that while relatively few pedestrians figure in traffic crashes, a disproportionate number are dying.

Year	All	Motorist	Pedestrian	Bicyclist
2011-2015 avg	0.45%	0.26%	1.22%	0.96%

FIG. 4: PERCENTAGE OF CRASHES RESULTING IN FATALITIES SEPARATED BY TRANSPORTATION TYPE, 2011-2015 AVERAGE

PennDOT statistics compiled by BikePGH

While only 6% of all traffic crashes involved pedestrians, they accounted for a stunning 26% of Pittsburgh's traffic fatalities from 2011-2015.

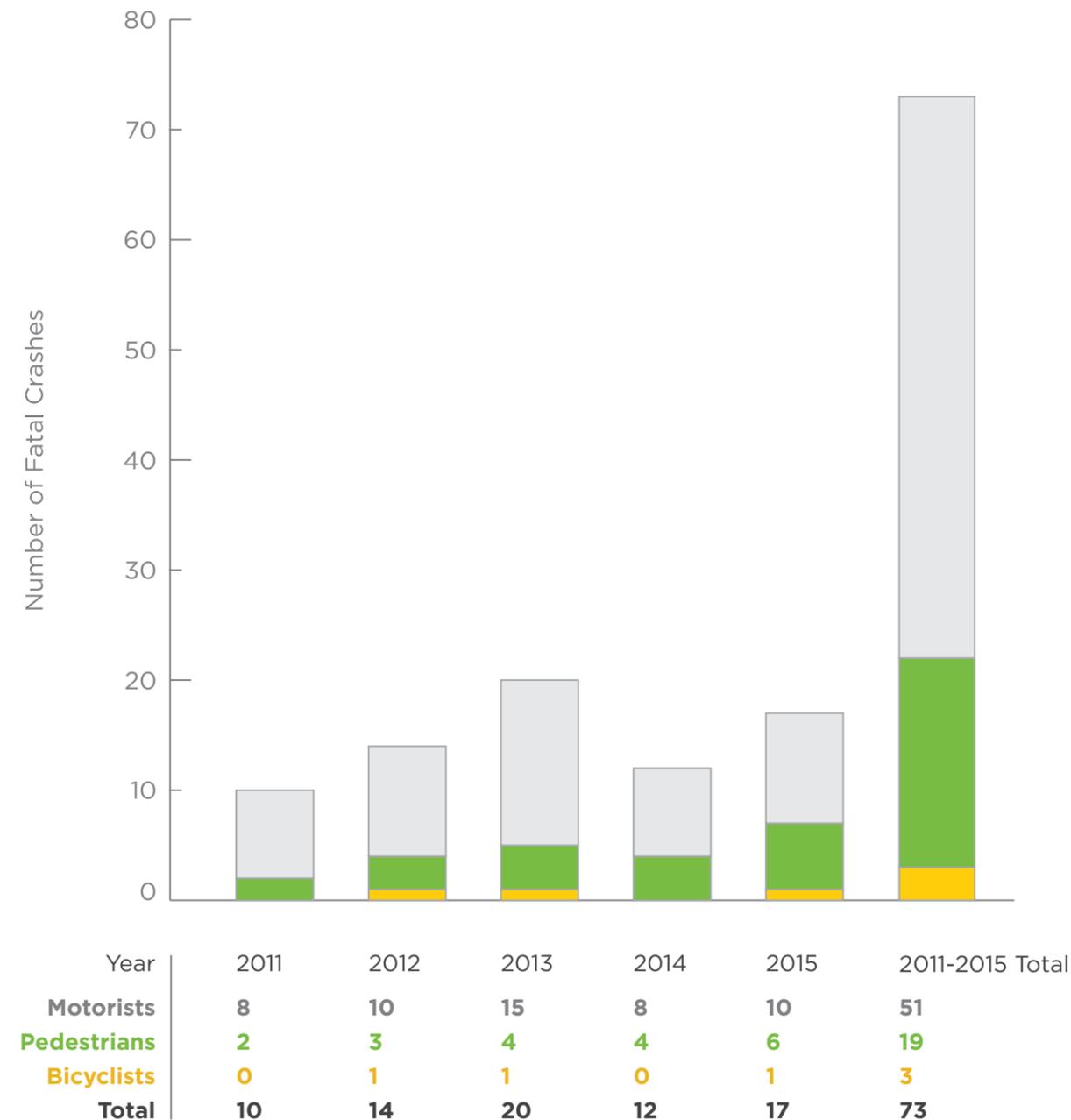


FIG. 5: FATAL CRASHES IN PITTSBURGH, 2011-2015
PennDOT statistics compiled by BikePGH

1.4

INJURIES

Non-life-threatening injuries are the most common human cost of Pittsburgh’s traffic crashes. Collisions can result in injuries, ranging from bumps and bruises to serious and life altering injuries. PennDOT’s crash reports distinguish between: injury, minor injury, moderate injury, and major injury.

In general, the responding police officer makes the severity determination on scene, but may follow up and update the report.

The instance of injuries in traffic incidents are relatively high overall, and especially so for people riding bikes and walking. Nearly every reported pedestrian and bicyclist collision resulted in at least a minor injury, giving a near 1:1 crash to injury ratio. This indicates that police only write reports if an injury reaches a certain threshold.

Clearly not every single pedestrian and cyclist crash causes an injury, even if walkers and bikers are more likely to be hurt than a car driver or passenger. The 1:1 ratio of crash to injury suggests an issue with reporting of minor collisions, lending weight to the argument that bike and pedestrian crashes are underreported. As PennDOT only collects crash data when delivered by police, many collisions go unreported if a police officer is not called, or chooses to not file a report.

Year	Total Injury Crashes	Motorist	Pedestrian	Bicyclist
2011-2015 avg	43.0%	38.5%	98.5%	99.0%

FIG. 6: CRASHES INVOLVING INJURY IN PITTSBURGH, 2011-2015 AVERAGE
Calculated from BikePGH’s compilation of PennDOT’s statistics

Major Injuries

A major injury is an incapacitating injury, including bleeding wounds and distorted members that requires transport of the patient from the scene. Pedestrians and bicyclists are not often involved in crashes resulting in a major injury. However, when they are, it is a higher percentage than motorists. They do account for a large overall share of all major injuries. Between 2011 and 2015, an average of 69 crashes per year left someone with a major injury, 28% of which are bicyclists and pedestrians.

Although a high number of drivers suffered major injuries each year, pedestrians had much higher rates of major injuries.

Pedestrian crashes in Pittsburgh more frequently resulted in serious injuries. Between 2011 and 2015, an average of 6.9% pedestrian crashes inflicted major injuries, a full 5 percentage points higher than overall major injury rate.

Year	All Major Injury Crashes	Motorist	Pedestrian	Bicyclist
2011-2015 avg	69	50	18	1

FIG. 7: MAJOR INJURY CRASHES IN PITTSBURGH, 2011-2015 AVERAGE PER YEAR

PennDot statistics compiled by BikePGH

As with fatal crashes, a higher rate of pedestrian major injuries translates into an elevated share of all major injuries. One-quarter of all major injury crashes involved a pedestrian, which held consistent over the study period.

2011 was a particularly notable year for the high share of pedestrian crashes resulting in major injury, comprising 36.7% of the city's major injuries.

The percentage of bicycling crashes resulting in a major injury was similar to the overall trend. In 2014, PennDOT reported no major injuries sustained by cyclists in Pittsburgh. PennDOT reported six crashes involving a bicyclist causing a major injury between 2011 and 2015.

2011 was a particularly notable year for the high share of pedestrian crashes resulting in major injury, comprising 36.7% of the city's major injuries.

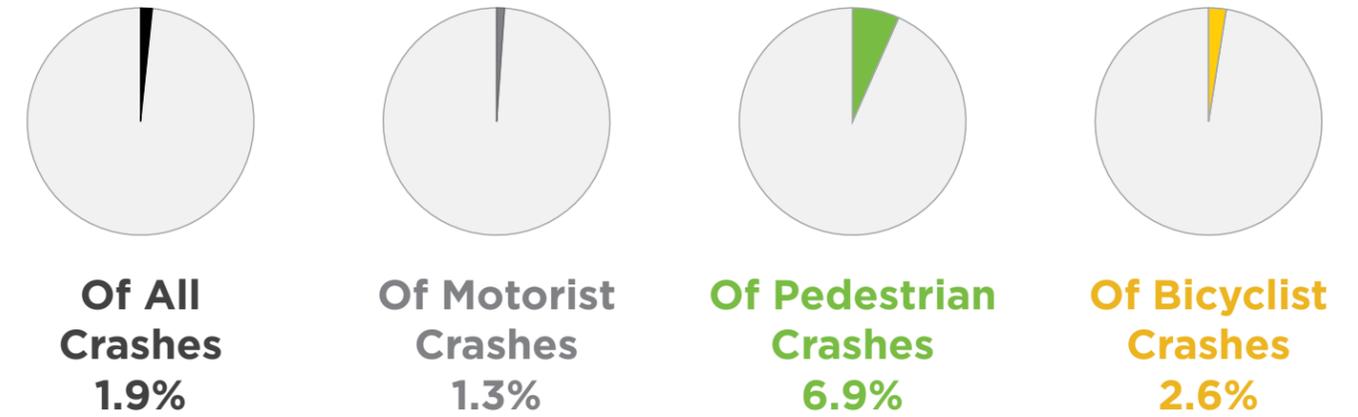


FIG. 8: AVERAGE PERCENTAGE OF MAJOR INJURY CRASHES IN PITTSBURGH, 2011-2015

Calculated from BikePGH's compilation of PennDOT's statistics

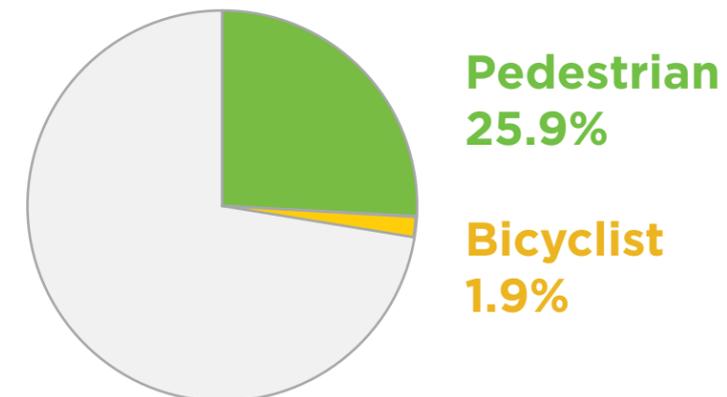


FIG. 9: ALL MAJOR INJURY CRASHES, 2011-2015

Calculated from BikePGH's compilation of PennDOT's statistics

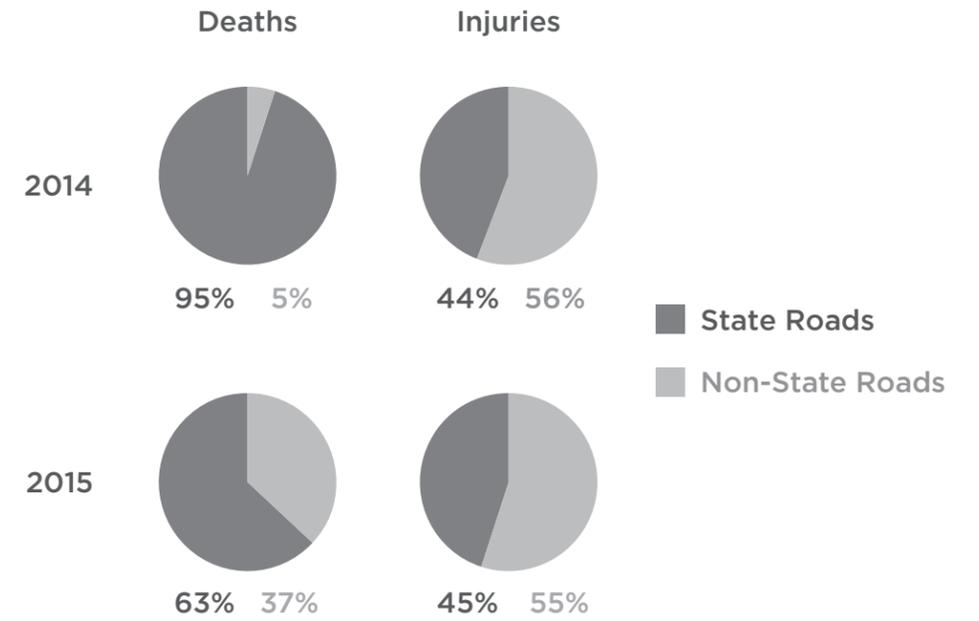
CRASH CONDITIONS AND COMMON FACTORS



For all collision types, most occurred at four way or T intersections.

Around 25% of all collisions happened midblock. 28% of all pedestrian collisions occurred mid-block.

Most collisions transpired during daylight hours.



Percentages of cyclist deaths and injuries in 2014 and 2015 on state and non-state roads.

Between 2010-2014, most pedestrian crashes occurred during the colder months between October and March, peaking in December with nearly twice as many crashes as July. For bicyclists, May through October saw the highest number of crashes, with the largest number recorded in July - about five times as many as the low month of February.



Alcohol was a proven factor in **less than 10%** of crashes, for pedestrians, cyclists and motorists.

Of the pedestrian crashes involving alcohol, police reported that the driver was drinking in about 31% of the cases. For bicycle crashes, records indicate that the driver was drinking 56% of the time.



TAKEAWAYS

1. Pedestrians and bicyclists bear a higher burden of major injury or death.

Pedestrians and bicyclists represent a small share of Pittsburgh's total traffic crashes, but feature prominently in harmful collisions.

Despite being involved in traffic crashes less often, pedestrians comprise a high share of total annual traffic fatalities. Pedestrians represent approximately 25% of traffic fatalities, although account for only 6% of total reported crashes.

Of the 349 crashes resulting in a major injury between 2011 and 2015, 91 involved a pedestrian. Although between 5% and 8% of pedestrian collisions result in a major injury, pedestrians accounted for at least 20% of all major injury crash victims during the study period.

Pedestrians account for fewer overall fatalities, but have a higher fatality rate than drivers and passengers in motor vehicles. Modest investments in improved pedestrian infrastructure, such as better marked crossings, traffic calming measures, and slower vehicle speeds can make significant progress towards reducing overall death, injury, and harm. Between 2010 and 2014, in the State as a whole, 78 people were killed while cycling, two of which while riding on Pittsburgh's streets.

When accounting for traffic injuries, pedestrians and bicyclists figure prominently. Overall, between 40% and 45% of all reported crashes resulted in an injury. However, for bicyclists and pedestrians, the percentage jumps to 97%. Clearly, not every collision involving a pedestrian or cyclist results in an injury, as some walk (or ride) away from the incident without issue, and are not reported. In short, not all crashes are created equal.

*Pedestrians represent about **25%** of traffic fatalities, although account for only **6%** of total reported crashes.*

2. Widespread pedestrian and bicyclist under-reporting of crashes.

The extremely high percentage of pedestrian and bicyclist crashes resulting in injury appears to be due to reporting protocols.

While we can be reasonably assured of accurate fatality and major injury reporting, the number of actual crashes involving pedestrians and bicyclists is subject to under-reporting. As a result, only serious pedestrian and cyclist crashes are reported because of injury. Most incidents are unlikely to cause damage to a motor vehicle severe enough to warrant a tow truck. Therefore, we are not getting as full of a picture of bike/ped crash patterns as we are of motor vehicle crash patterns since we're only recording the rarer bike/ped serious injuries.

3. Conditions leading to pedestrian and bicyclist crashes are not caused by pedestrians or bicyclists.

According to the PennDOT data, pedestrians and bicyclists are not engaging in dangerous activities and causing crashes. The majority of pedestrian and bicyclist collisions happened during daytime illumination on dry roads at designated intersections.

A driver's use of a cell phone was cited as a factor in very few pedestrian or bicyclist crashes. However, cell phone use is difficult to prove.

Notably, police noted aggressive driving as an important factor in 25% of the pedestrian and 33% of the bicycling incidents.

Conclusion

As Section 2 will show, Pittsburgh has few pedestrian and cycling collisions each year relative to other US cities. But, even though pedestrians are involved in a small fraction of total traffic crashes each year, pedestrians suffer disproportionate harm.

Improving pedestrian infrastructure to minimize collisions with vehicular traffic will have the greatest impact in reducing fatalities and major injuries on Pittsburgh's streets. Pedestrian and bicycle interventions are often relatively cheap, leaving a high return on this safety investment. Targeting infrastructure improvements toward the most vul-

nerable road users, where it will have the greatest impact in reducing harm, should be a transportation priority. This is especially important on State-owned roads, which are particularly dangerous for people on foot or bike.

The severity of pedestrian and bicycling collisions appears to be increasing. Pedestrian involvement, as a share of fatal crashes, increased from 20% to 35% between 2011 and 2015.



SECTION 2

COMPARING THE CITY TO ALLEGHENY COUNTY AND BENCHMARK CITIES

2.1

BENCHMARK CITIES

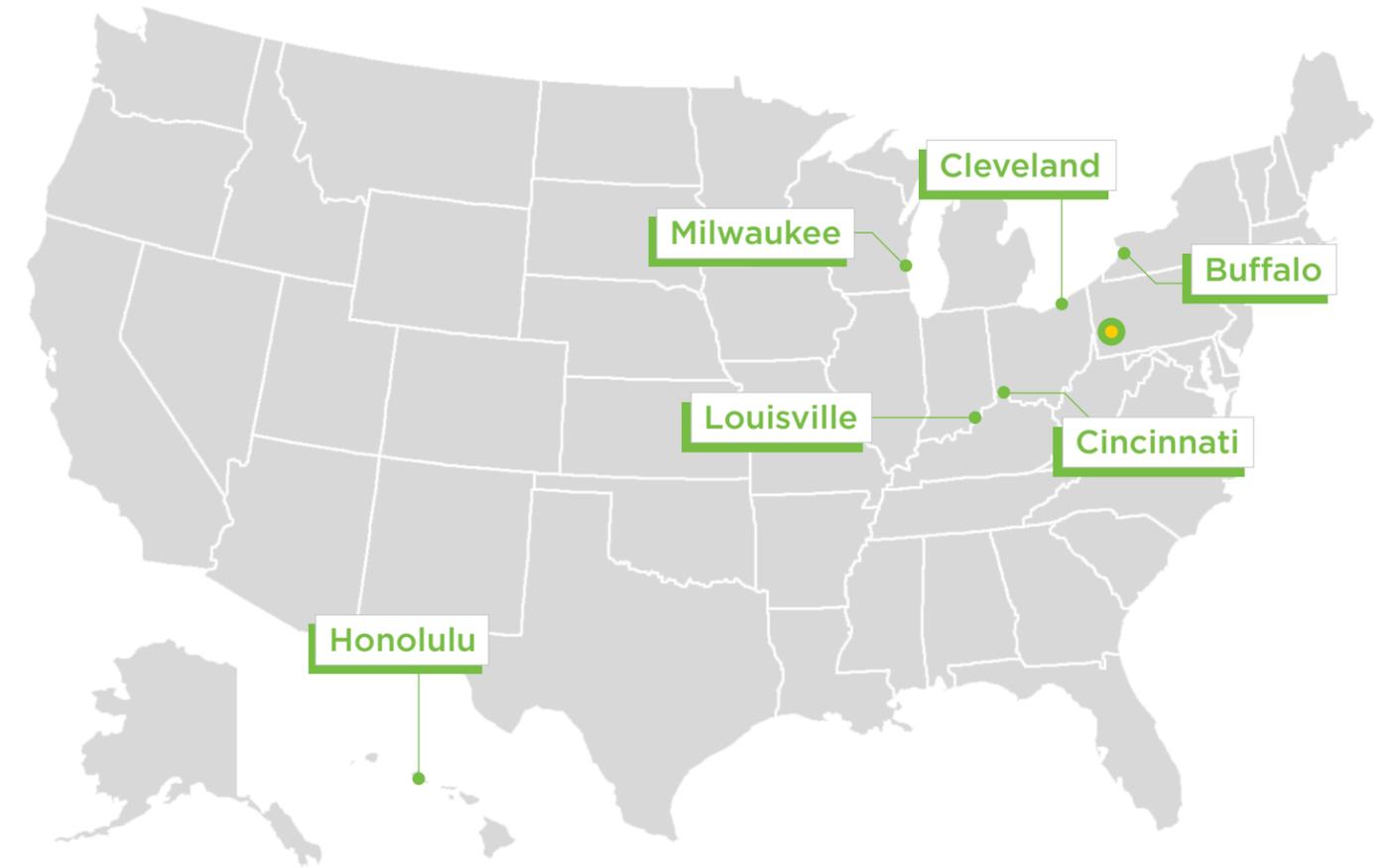
Pittsburgh’s pedestrian and bicycling safety statistics must be compared to peer cities and national trends to contextualize the findings. According to available national reports on pedestrian and bike safety, Pittsburgh is doing better than its peer cities.

Based on a survey on national pedestrian and bicycling safety reports, Pittsburgh routinely ranks as one of the safest walking and biking cities (Alliance for Biking and Walking Benchmarking Report 2014 and 2016; Goodyear, 2014).

We selected benchmark cities of comparable city and metro size to Pittsburgh, or who have a similar county population to Allegheny County. The City of Pittsburgh ranks 63rd among US cities in terms of population (US Census Bureau). National comparison studies group Pittsburgh with cities like Lexington KY, Madison WI, and Spokane WA. However, Pittsburgh’s metropolitan statistical area ranks significantly higher, as the 26th largest in the US. Pittsburgh is the anchor city for a large metropolitan region, acting as the cultural and employment center, and experiences much

higher traffic volumes than cities of similar size. For the purposes of this study, anchor cities in comparably-sized metropolitan regions, in terms of population, have been selected as ‘benchmark cities.’ In addition, cities in the northeast and midwest are favored as having similar development histories prior to 1945 and infrastructure investments.

Although municipal comparisons would be more instructive, this report compares County-wide rates. This is due to the availability and consistency of data. County level data is available from the National Highways Traffic Administration’s (NHTSA) Fatality Analysis Reporting System (FARS), which allows for consistent categories, reporting, and categorization that is unavailable from individual State or municipal data sources. For the basis of comparison, Allegheny County is compared with the home county for each benchmark city.



Anchor City	City Population	County	County Population	City Share of County Population
Pittsburgh	305,412	Allegheny	1,231,255	24.8%
Buffalo	258,703	Erie	922,835	28.0%
Cincinnati	298,165	Hamilton	806,631	37.0%
Cleveland	389,521	Cuyahoga	1,259,828	30.9%
Honolulu	350,399	Honolulu	991,788	35.3%
Louisville	612,780	Jefferson	760,026	80.6%
Milwaukee	599,642	Milwaukee	956,406	62.7%

FIG. 10: BENCHMARK CITIES POPULATION, JULY 1, 2014

US Census Bureau statistics compiled by BikePGH

2.2

PITTSBURGH AND ALLEGHENY COUNTY

To understand the relationship between bike/ped crashes in Pittsburgh and the benchmark counties, it is necessary to contextualize how Pittsburgh's statistics relate to Allegheny County.

The City of Pittsburgh is the largest municipality by population in Allegheny County. However, the County is highly fragmented, containing 130 different municipalities. Although the City is the County's largest municipality, just 25% of Allegheny County residents live within City limits.

Pittsburgh is home to most of Allegheny County's traffic collisions. Even though about 25% of Pittsburgh households have no car, about one-third of all crashes occur within City limits. A large majority of pedestrian and bicyclist collisions in the entire County transpire on Pittsburgh's streets.

In general, we observe that the City of Pittsburgh has higher instances of pedestrian collisions relative to Allegheny County and Pennsylvania. However, despite higher collision rates, Pittsburgh experiences fewer pedestrian fatalities than Allegheny County and Pennsylvania.

*Despite higher collision rates, Pittsburgh experiences **fewer** pedestrian fatalities than Allegheny County and Pennsylvania.*

Year	All Crashes	Motorists	Pedestrians	Bicyclists
2010-2014 avg	34.7%	33.5%	61.0%	63.9%

FIG. 11: PERCENT OF ALLEGHENY COUNTY CRASHES OCCURRING IN CITY OF PITTSBURGH, 2010-2014
Calculated from PennDOT statistics compiled by BikePGH

In general, Pittsburgh has far more crashes per capita, with around 400 more annual crashes per 100K than the County or State, between 2010 and 2015.

Pittsburgh also has more fatal crashes in relative terms than the County, but fewer than the State. In addition, the City has far more variability in the fatal crash rate than the County. 2010 and 2013 were bad years, seeing 23 and 20 fatal crashes respectively.

It's worth noting that the City of Pittsburgh sees a large daily influx of non-city residents who drive, walk, and bike in the City. This higher potential for a crash will naturally increase the total number of crashes, pointing to the need to focus resources where they will make the biggest impact.

Pittsburgh is home to most of Allegheny County's traffic collisions.

	Pittsburgh	Allegheny County	Pennsylvania
Total Crashes per 100K	1352	969	963
Fatal Crashes per 100K	5.2	5.0	9.3
Pedestrian Crashes per 100K	87.0	35.5	34.2
Bicyclist Crashes per 100K	8.4	7.2	10.7

FIG. 12: CRASHES PER 100K POPULATION IN PITTSBURGH, ALLEGHENY COUNTY, AND PENNSYLVANIA, 2010-2014
PennDOT statistics compiled by BikePGH

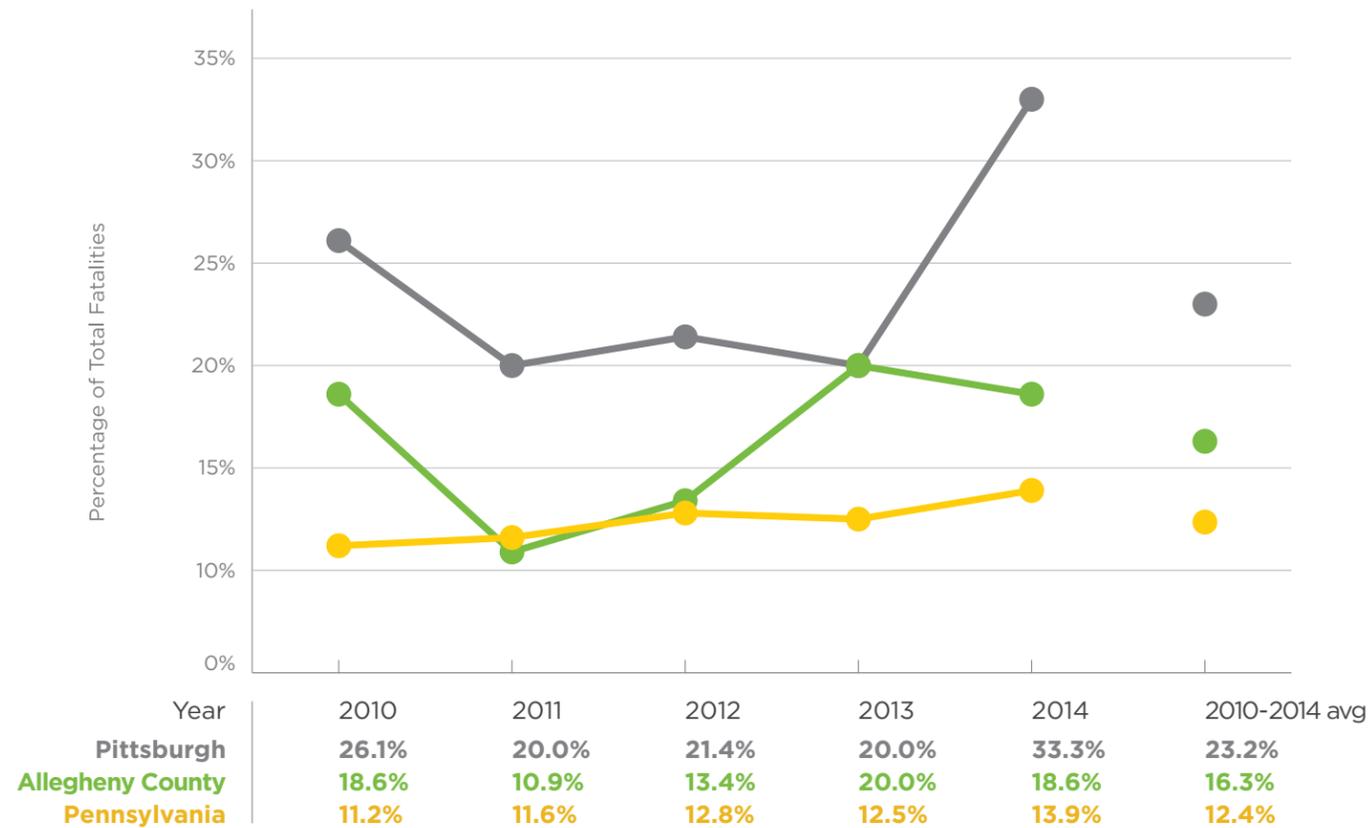


FIG. 13: PEDESTRIANS AS PERCENTAGE OF TOTAL FATALITIES IN PITTSBURGH, ALLEGHENY COUNTY, AND PENNSYLVANIA, 2010-2014

Calculated from BikePGH's compilation of PennDOT's statistics

As a percentile representation of pedestrian fatalities on city streets, Pittsburgh sees more victims than the County and State. PennDOT reports relatively few annual bicyclist crashes, with only 1,375 reported Statewide each year.

A higher crash rate also holds true for bicyclists. Pittsburgh has between 17 and 21 crashes per 100K. Allegheny County, by comparison, had between 6 and 8 collisions involving bicyclists per 100K. In the State, crash rates were consistently around 10 per 100K in population.

Bicyclists display the same trend as pedestrians. Pittsburgh experiences more bike crashes per 100K of population than either the County or the State. When compared with the County, Pittsburgh has a bike crash rate around three times higher than the County.

Due to the variable levels of bicyclist fatal crashes in Pittsburgh and Allegheny County, in years with bicyclist fatalities, Pittsburgh's relative rate is higher than the State's.

Allegheny County and Pittsburgh Summary

In terms of traffic danger, Pittsburgh consistently accounts for 35% of all crashes in Allegheny County despite only 25% of County residents calling Pittsburgh home. Pittsburgh's share of pedestrian crashes is even higher. In the time period studied, between 55% and 65% of all reported collisions involving pedestrians occurred within City limits. Despite the majority share of yearly pedestrian crashes, Pittsburgh accounted for between 18% and 44% of countywide pedestrian fatal crashes. Considering that about 25% of Pittsburgh households (according to the American Community Survey) have no access to a car, it leaves one to wonder how many of the crashes involve City residents versus out-of-towners.

The concentration of bicycle crashes in Pittsburgh is even more pronounced than pedestrians. Between 60% and 70% of reported bicyclist collisions in Allegheny County occurred in the City of Pittsburgh. Neither is surprising, as the City has more people biking and walking than the rest of the County.

*Each year, Pittsburgh accounts for between **18% and 44%** of countywide pedestrian fatal crashes, yet **25%** of Pittsburgh households have no access to a vehicle.*

2.3

ALLEGHENY COUNTY AND BENCHMARK CITIES

In general, Allegheny County experiences more traffic fatalities per year than the benchmark Counties. Between 2010 and 2014, only Jefferson County (Louisville) had more deaths on its streets.

Allegheny County experiences middling pedestrian danger rates compared to the benchmark counties. Milwaukee, Jefferson, and Honolulu Counties generally saw more annual pedestrian fatalities than Allegheny County. In terms of raw statistics, Allegheny County's was most similar to Erie County (Buffalo).

However, when represented as a population-relative mark, per 100K, Allegheny County's relative pedestrian fatalities are among the lowest, on par with Cincinnati's Hamilton County. This is significant because Hamilton County had the lowest overall pedestrian fatalities from 2010-2014.

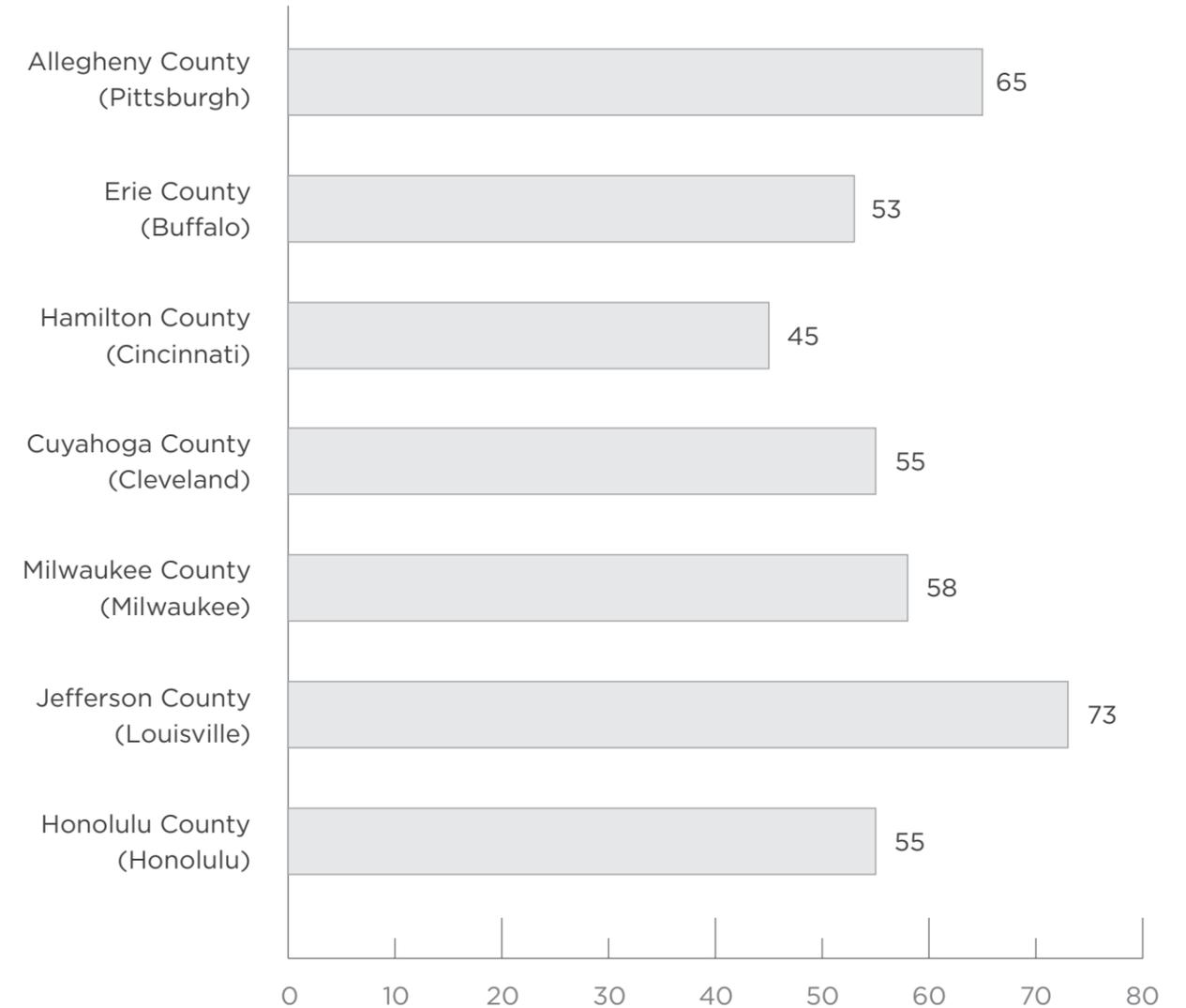
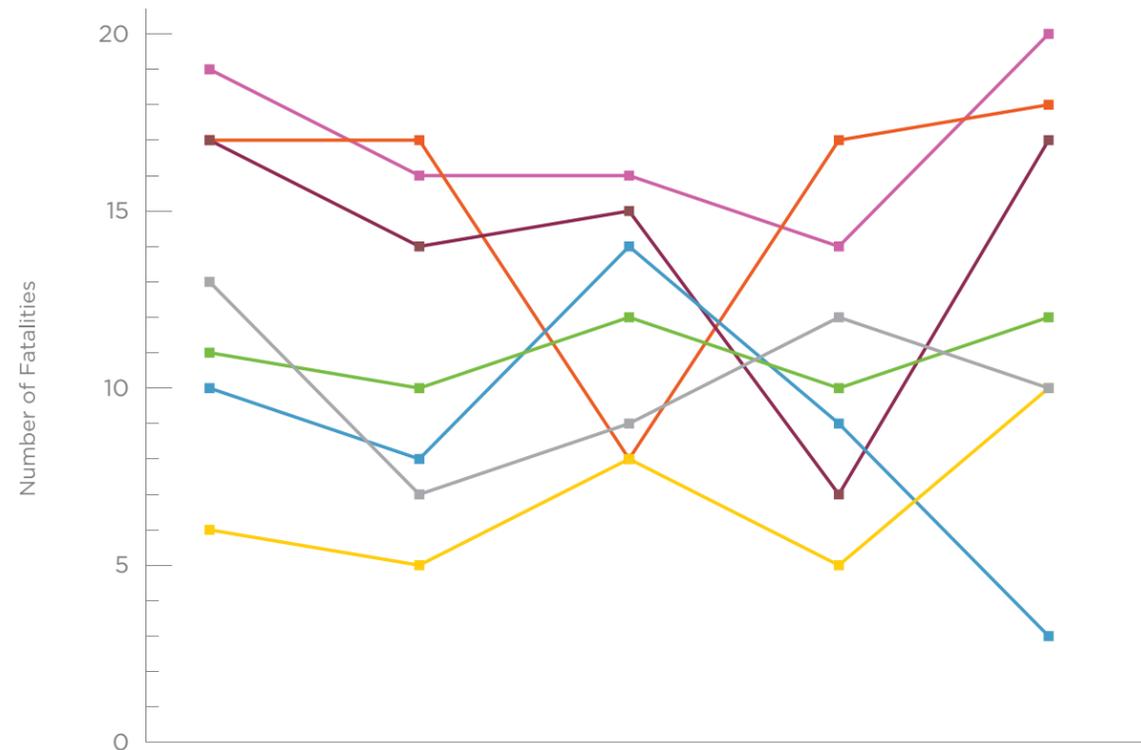


FIG. 14: TOTAL TRAFFIC FATALITIES IN BENCHMARK COUNTIES, 2010-2014 AVERAGE

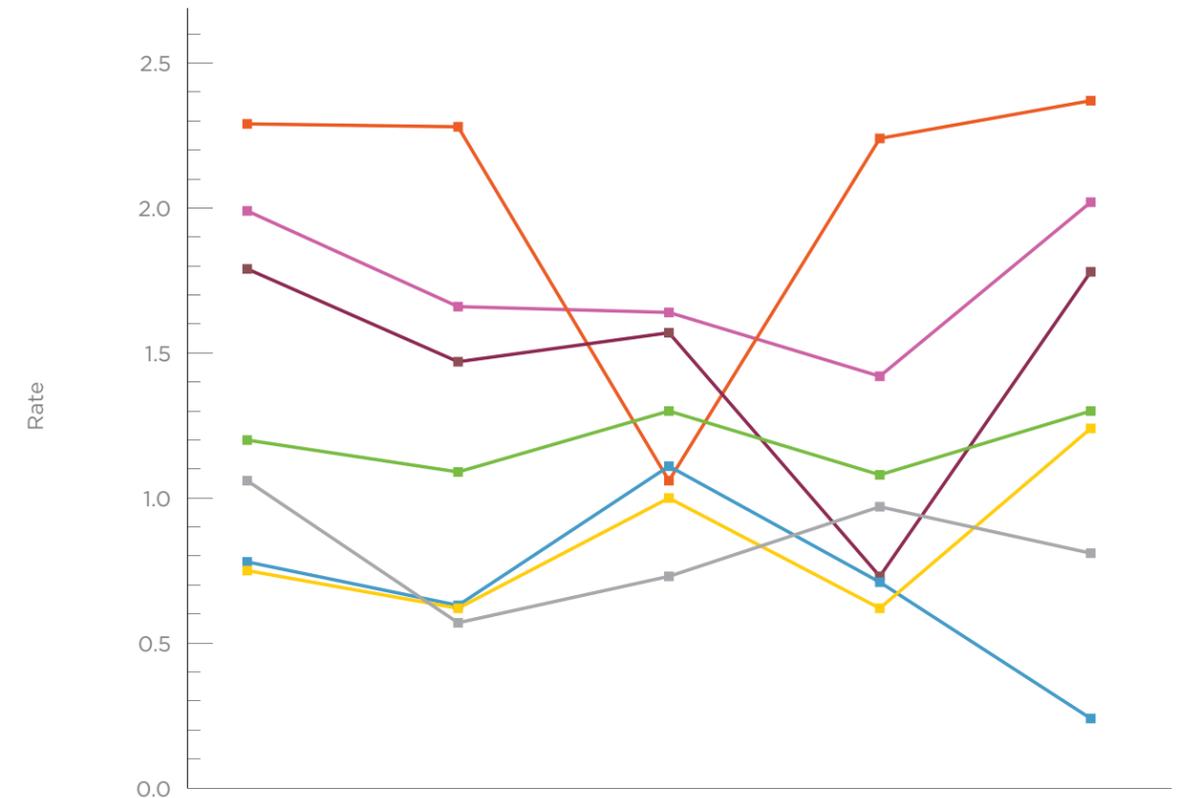
Calculated from BikePGH's compilation of FARS' statistics



Year	2010	2011	2012	2013	2014
Allegheny County (Pittsburgh)	13	7	9	12	10
Erie County (Buffalo)	11	10	12	10	12
Hamilton County (Cincinnati)	6	5	8	5	10
Cuyahoga County (Cleveland)	10	8	14	9	3
Milwaukee County (Milwaukee)	17	14	15	7	17
Jefferson County (Louisville)	17	17	8	17	18
Honolulu County (Honolulu)	19	16	16	14	20

FIG. 15: PEDESTRIAN FATALITIES IN BENCHMARK COUNTIES, 2010-2014 AVERAGE

Calculated from BikePGH's compilation of FARS' statistics



Year	2010	2011	2012	2013	2014
Allegheny County (Pittsburgh)	1.06	0.57	0.73	0.97	0.81
Erie County (Buffalo)	1.20	1.09	1.30	1.08	1.30
Hamilton County (Cincinnati)	0.75	0.62	1.00	0.62	1.24
Cuyahoga County (Cleveland)	0.78	0.63	1.11	0.71	0.24
Milwaukee County (Milwaukee)	1.79	1.47	1.57	0.73	1.78
Jefferson County (Louisville)	2.29	2.28	1.06	2.24	2.37
Honolulu County (Honolulu)	1.99	1.66	1.64	1.42	2.02

FIG. 16: PEDESTRIAN FATALITIES PER 100K IN BENCHMARK COUNTIES, 2010-2014 AVERAGE

FARS statistics compiled by BikePGH

Pedestrians as percentage of traffic fatalities

In Allegheny County, pedestrians as a percentage of traffic fatalities is among the lowest of the the benchmark cities. The 2010-2014 average in Honolulu was 31.1%

The comparison between Honolulu and Allegheny Counties is telling. Both the Cities and Counties of Pittsburgh and Honolulu have similar populations, and they also have similar commuting mode shares, according to the ACS.

Year	Allegheny County (Pittsburgh)	Erie County (Buffalo)	Hamilton County (Cincinnati)	Cuyahoga County (Cleveland)	Milwaukee County (Milwaukee)	Jefferson County (Louisville)	Honolulu County (Honolulu)
2010	1	1	0	1	1	3	3
2011	0	0	1	0	2	0	1
2012	1	2	2	0	2	1	0
2013	2	3	0	1	1	1	0
2014	0	1	1	0	1	1	2

FIG. 17: BICYCLIST FATALITIES IN BENCHMARK COUNTIES, 2010-2014

FARS' statistics compiled by BikePGH

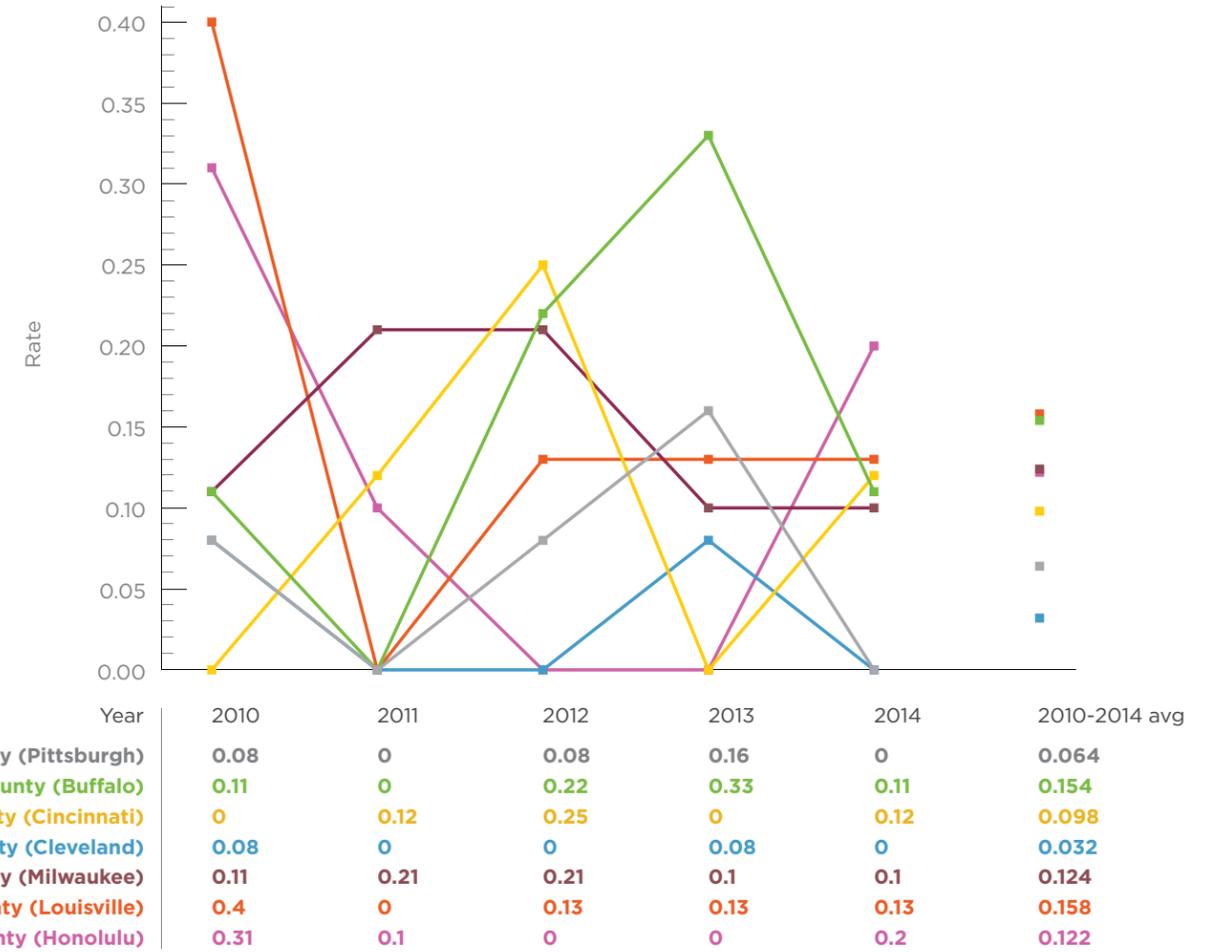


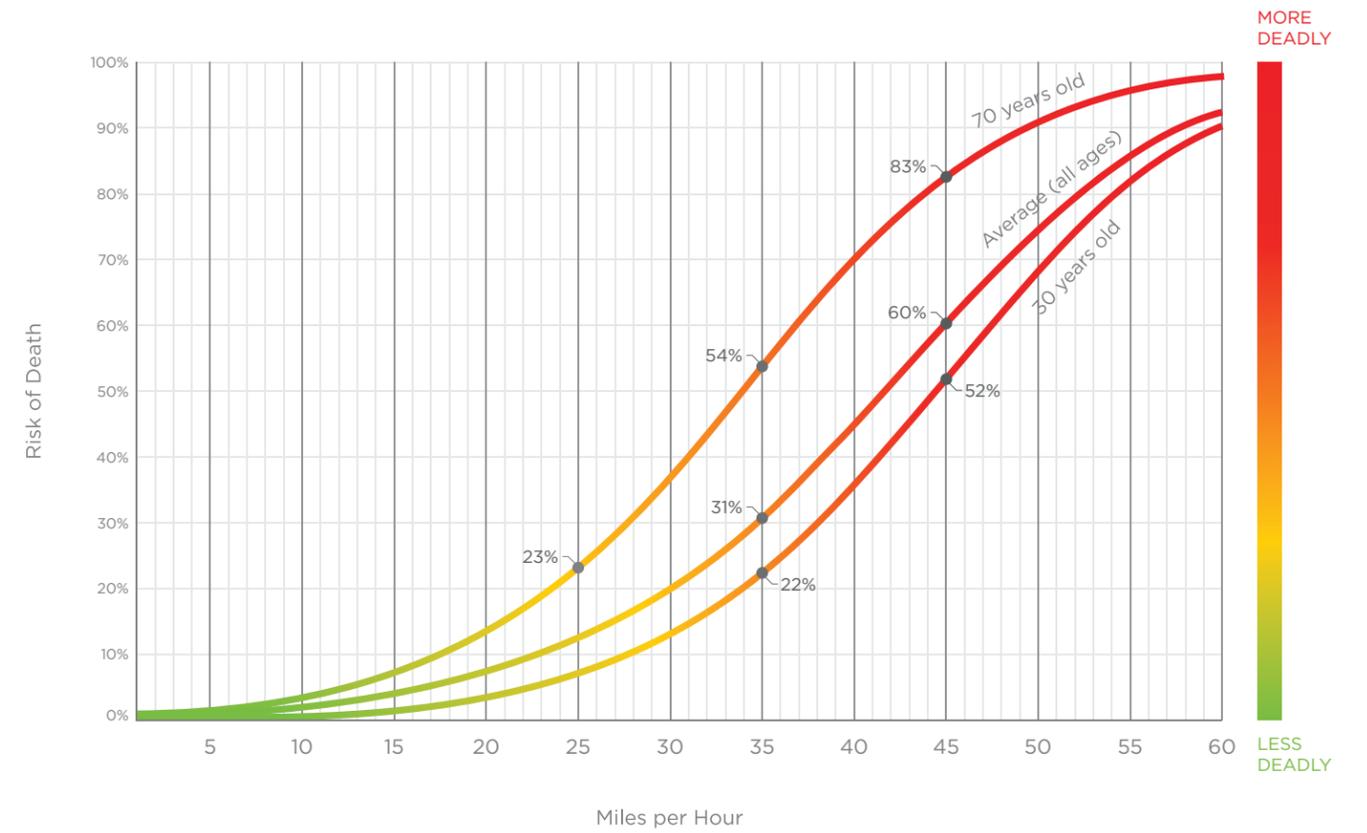
FIG. 18: BICYCLIST FATALITIES PER 100K IN BENCHMARK COUNTIES, 2010-2014

FARS' and Census Bureau statistics compiled by BikePGH

Hit by a vehicle traveling at



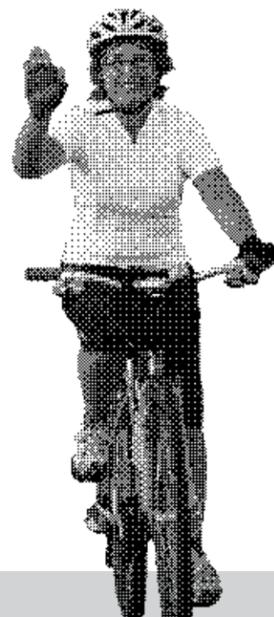
Source: AAA Foundation for Traffic Safety



Source: AAA Foundation for Traffic Safety

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