Answers to Common Bicyclist-Motorist Myths, Misunderstandings and Misconceptions Bike Friendly Kalamazoo

Paul Runnels, Editor May 16, 2018

This compilation addresses common myths, misunderstanding and misconceptions among bicyclists and motorists. We hope the reference section makes it easier for others to reuse, cross-check and update our conclusions as new information becomes available. When using our conclusions for your own purposes, please acknowledge Bike Friendly Kalamazoo.

BICYCLISTS SHOULD 'PAY TO PLAY'

1. Gas taxes pay for our roads, so people riding bikes don't pay their "fair share" to use the roads.

Bicyclists are often motorists who pay gas taxes and drive far more than they bike. Many adult bicyclists pay property, income and sales taxes, all of which provide major sources of road funding.

Generally speaking, gasoline taxes don't cover the cost of building and maintaining a road, and, road funding comes from many sources unrelated to direct user fees. Actually, bicyclists may be paying far more for roads than their "fair share" in relation to the benefits they receive, when considering that most roads have already been built and costs now go to road maintenance, the need for which is primarily caused by motor vehicle traffic.

2. Bicyclists should be the ones to pay for bike lanes.

Adult bicyclists who are also motorists and tax payers already pay for bike lanes in many ways. In addition, bike lanes often benefit the motoring and general public in terms of safety, capacity, maintenance, business, health, and economic return to the community.

3. Wider shoulders help bicyclists more than motorists.

Wider shoulders benefit motorists as much if not more than bicyclists. This is because wider shoulders benefit all road users (and taxpayers), but motorists far outnumber bicyclists on the roads so are the main group that benefits. Twenty-one of the 22 benefits cited by AASHTO (American Association of State Highway and Transportation Officials) for wide road shoulders apply to motorists; only one of them mentions bicycles. The benefits of wider shoulders typically outweigh the costs by a wide margin.

4. I'll respect bicyclists only when they are licensed just like motorists.

Licensing bicyclists in a similar manner as motorists is a matter that may be debated. Bicycles have been in use before and throughout the history of motor vehicles; if bicyclists are not required to obtain an operator's license it is probably the case that the idea has been set aside for practical, financial, legal, philosophical, political and other reasons.

5. Bicycles should be required to pay a license fee and have a license plate.

Registering bicycles may help if a bicycle is stolen and recovered by the police. Most jurisdictions do not require such registration for a variety of practical reasons.

6. I'll start respecting (motorists' / bicyclists') rights when they start respecting mine.

Respect for other people's rights is grounded in the US Constitution and other fundamental principles. Bicyclists' rights are a matter of law. Following the law and respecting each other's rights under the law, rest on fundamental legal, moral and religious principles. Since motorists and bicyclists both break the law at about the same rates, in their own ways, waiting for any such group to stop breaking the law would lead to dangerous social consequences.

Sharing the road safely and courteously are prerequisites for public safety. The theme of showing mutual courtesy is the cornerstone of a number of public service and awareness-building campaigns on behalf of the public good.

BICYCLISTS SHOULD NOT BE ON ROADS INTENDED FOR MOTORISTS

7. Roads were created for cars.

This cannot be true since roads have been around long before cars were invented. The general public may not realize that the push for more adequate roads in the US was largely spurred on by bicyclists. Nowadays more and more effort is being given to how roads and their right of ways can best be used by non-motorists as well as motorists.

Michigan law and policy requires "roadways planned, designed, and constructed to provide appropriate access to all legal users...whether by car, truck, transit, assistive device, foot or bicycle."

8. Bicyclists should not be using the roads when sidewalks or trails are available.

Adult bicyclists following the rules of the road are typically safer when using the roads than when using sidewalks or trails, with respect to safety. Bicyclists have the freedom to decide where to ride, unless prohibited by law. Pedestrians often do not feel comfortable or safe when passed by a bicyclist at high speed. Bicyclists riding for more aerobic exercise or training cannot often do so unless riding on the roads; braking for pedestrians significantly slows the pace.

9. Bicyclists should only ride on trails or sidewalks.

Contrary to popular belief, except perhaps for children, sidewalks and trails: are typically more dangerous places to ride; often introduce more points of conflict between bicyclists, motor vehicles and pedestrians (especially at intersections and driveways); and, increase the amount of times bicyclists may be riding against the flow of traffic.

Michigan's Motor Vehicle Code does not require bicycles to ride on trails or sidewalks, nor are such facilities available in many areas.

Such declarations may be more an expression of the speaker's own anxiety, resentment about having to share the road with non-motorized users, and may be a verbal form of road rage. Resentment against non-motorized users can be caused by a generalized belief that bicyclists all break the law, impatience with slower-moving traffic, by an encounter with a rude bicyclist, etc.

10. There is no reason strong enough to justify requiring specific passing distances such as 3-5 feet.

Not True. Safe passing laws have already been passed to protect other vulnerable road users such as construction workers and law enforcement officers. Strong reasons to justify specific passing distances for bicyclists include the potential to:

- increase clarity as to how far a "safe passing distance" really is
- reduce death and injury;
- reduce psychological trauma and economic damages in the aftermath of a crash;
- give the legal system additional tools for improving public safety;
- support the recommendations and efforts of Michigan's Secretary of State and the Michigan Department of Transportation;
- help counter the apparent increase in the number of drivers who drive while distracted and/or impaired;
- provide more room for bicyclists to maneuver around hazards or in case of a fall;
- offset weaknesses in technologies such as automated lane departure systems;
- reduce feelings of insecurity when bicycling;
- raise awareness about the need to drive (and bike) safely; and,
- support and encourage bicycling, an activity that benefits the greater community as well as bicyclists (who after all, are a part of the greater community).
- 11. Laws and policies that restrict / discourage bicycling would be good for our area.

Just the opposite is true--for many reasons, laws and policies that encourage bicycling would be good for our area. Such reasons include but are not limited to many of the benefits related to "Complete Streets," improved public safety, economic opportunity and development, as well as public health, to name a few.

BICYCLISTS ARE RUDE SCOFFLAWS

12. Bicyclists are less law-abiding than motorists.

Motorists, bicyclists and pedestrians apparently break the law at about the same rates.

13. Bicyclists hog the road.

Bicyclists sometimes appear to be selfish, especially when riding two abreast or more. Decisions about whether to ride single file, two abreast or to ride in the lane of traffic are complex and vary with the situation. Riding more than two abreast is illegal in Michigan; organized ride groups forbid it. By itself, the mere act of riding slower than other traffic is not illegal--bicyclists do not "impede traffic"--they are a part of normal traffic, which often includes other slow moving or stopped vehicles.

The appearance of hogging the road from a motorist's point of view may be due to a cyclist's moving to take a left turn, avoiding hazards, to increase visibility (hence, safety) while riding in a group, etc.

On the other hand, when not necessary to ride in the traffic lane or two abreast, a number of authorities recommend riding single file in the presence of traffic.

14. Bicyclists who get injured by motorists are usually at fault.

Fault for bicycle-motor vehicle crashes appears to be shared about equally.

MOTORISTS CAN BE INTIMIDATING AND BULLYING

15. Motorists who hit bicyclists are usually to blame.

Fault for bicycle-motor vehicle crashes seems to be shared about equally.

16. Motorists act like they can cut off bicyclists without worrying about it.

Careless drivers exist, but are not as common as implied by this blanket assertion. Data suggests that many adult bike crashes occur due to a motorist failing to yield the right of way. It pays to be aware of your surroundings, especially at intersections and driveways.

17. Motorists yell abusive language at me.

Regrettably, some motorists sometimes yell abusive language at bicyclists--and display rage against other motorists, as well. Road rage is so dangerous and contrary to a civilized society (and the Golden Rule), that laws have been passed against harassing bicyclists, and therapies are even being developed to reduce it.

18. Motorists deliberately try to intimidate bicyclists with their aggressive driving and rude comments.

Regrettably, some motorists drive aggressively and take their road rage out against bicyclists, some times. The reverse also occurs, though probably not as often. Problems with this type of behavior are common enough that some law practices advertise their services in bringing such claims to court. Aggressive driving is against the law and antisocial. Deliberate rude behavior certainly goes against the Golden Rule.

19. Motorists don't know how to drive when around bicyclists.

Some motorists don't know the rules of the road when driving around bicyclists, but not as many are unaware as implied by this blanket assertion. It is also fair to say that some bicyclists don't know how to ride around motorists. Public awareness campaigns, driver education and training for bicyclists can improve the level of knowledge.

RIDING A BICYCLE IS NOT SAFE

20. Bicycling on the roads is not safe enough to legally allow.

Bicycling on the roads is apparently no more dangerous than walking or driving, and is apparently safer than riding on trails or sidewalks. Bicycling itself would need to be outlawed entirely if this line of "public health" reasoning were followed--as would many other activities that people enjoy.

Unless otherwise forbidden by law, the agencies that weigh such matters have made bicycling on the roads a legal right. On the other hand, bicycles are banned on certain limited access highways, on certain sidewalks, and on certain stretches of roads that agencies charged with studying such matters have decided are too dangerous. Some states require alternatives to be found if access is prohibited for bicyclists and other slower moving users.

Yes, bicycling is an inherently risky endeavor. Riders are exposed on lightweight machines. Encounters with road hazards, with wildlife, with each other and especially with motor vehicles never favor the bicyclist. Accidents due to such encounters are comparatively rare.

Risks can be reduced by following the rules of the road and following common-sense guidelines, such as using helmets.

21. Our area is too cold / wet for bicycling year round.

Bikes and bicyclists can ride in almost any weather--the key is to be properly dressed and equipped. More and more riders bicycle year-round, even in cold and wet conditions. Pure Michigan encourages cyclists to ride Michigan trails in the winter.

22. You need to be fearless or crazy to ride on the roads.

Riding a bicycle on the roads is typically safer than riding on the sidewalks or bike paths, and is safer than many other sports. On the other hand, this belief is certainly part of the reason people don't ride or limit their bicycle riding. Certain groups often "create fear" out of proportion to the risks, for a variety of reasons. Most bicyclists make lots of rational decisions about when and where to ride, constantly, and manage to get home safe and sound after what is usually a very enjoyable experience.

23. Telling bicyclists and motorists to "share the road" is most likely to improve their behavior.

More specific language is even more effective with regard to road signs like this, as shown by a growing body of research. The broad principle behind sharing the road makes sense.

BICYCLING IS JUST FOR KIDS, THE "ELITE" OR TOO SLOW

24. Bicycling is just for a few people, not for the general public.

Bicycle ownership and use are fairly widespread. The ratio of bicycles to people in the USA was approximately 1 to 2.6 in the USA, in 1995, or roughly one per household. More than one in ten Americans cycle regularly.

25. Bicycling is a luxury just for rich white people who wear spandex.

Actually, people of lower incomes use bicycles the most, per the U.S. Census Bureau.

26. Bicyclists are mainly young people.

It depends on the definition of "young." Most active bicyclists are probably 25 years old or older. Among bicyclists who commute, individuals older than 25 outnumber those under 25 years old by about 2.7 to 1.

27. Riding a bike takes longer than driving.

Riding a bike to specific destinations can reduce door-to-door time on shorter trips, especially at certain times of the day. On longer trips in light traffic, driving is quicker. It depends on more than one factor and on the purpose of the ride, if not for basic transportation.

Deciding whether to ride a bicycle or drive in a particular situation depends on more factors than simple mph measures of speed. On one hand, recreational bicycling is intended to allow the rider to enjoy the surroundings at a deliberately slower pace than when motoring. On the other hand, for the operator, bicycling for exercise burns more calories than sitting behind a steering wheel. When energy efficiency is considered, the bicycle is one of the most efficient forms of travel ever invented. On a cost-per-mile traveled basis, the bicycle can also be much less expensive than a motor vehicle.

28. Bicyclists don't drive cars.

Most adult bicyclists own and drive motor vehicles. The typical household travels more by motor vehicle than they travel by bicycle by a ratio of about 84 to 1. Motorists drive an average 13,476 miles per year. Doing the math, it is reasonable to suggest that the typical bicycle owner in the US drives cars many more miles than they bicycle, perhaps riding a bicycle less than 200 miles per year.

References

BICYCLISTS SHOULD 'PAY TO PLAY'.

1. Gas taxes pay for our roads, so people riding bikes don't pay their "fair share" to use the roads.

"This old argument gets broken out time and again. Less than a third of all road funding comes from user taxes and fees. Since 1947, spending on roads has exceeded the amount raised by user fees, such as gas taxes, tolls, and licensing fees, by \$600 billion. The majority of road spending comes from the general fund, sales and property taxes. That means everyone pays for roads and highways, even if they don't use them. And anyways, most cyclists have cars, so they do pay some of the associated user fees."

From: Let's Put Those Tired, Anti-Bike Arguments to Rest https://streets.mn/2015/07/13/lets-put-those-tired-anti-bike-arguments-to-rest/

"Today, general taxes paid by all taxpayers cover nearly as much of the cost of building and maintaining highways as the gas tax and other fees paid by drivers. ... Nearly as much of the cost of building and maintaining highways now comes from general taxes such as income and sales taxes (plus additional federal debt) as comes from gasoline taxes or other "user fees" on drivers. ... Most walking and bicycling takes place on local streets and roads that are primarily paid for through property taxes and other general local taxes. ... Walking and bicycling inflict virtually no damage on roads and streets, and take up only a tiny fraction of the road space occupied by vehicles. Bicyclists and pedestrians likely pay far more in general taxes to facilitate the use of local roads and streets by drivers than they receive in benefits from state and federal infrastructure investment paid for through the gas tax."

From: Who Pays for Roads? How the "Users Pay" Myth Gets in the Way of Solving America's Transportation Problems http://www.uspirg.org/sites/pirg/files/reports/Who%20Pays%20for%20Roads%20vUS.pdf

Also see:

https://www.bikelaw.com/2015/11/running-on-empty-the-gas-tax-argument/ [Running On Empty: The "Gas Tax"Argument]

https://www.bicycling.com/training/tips/best-responses-anti-cyclist-claims
[The Best Responses to Anti-Cyclist Claims]

"Drivers don't come close to paying for the costs of the roads they use." https://www.theatlantic.com/business/archive/2015/10/driving-true-costs/412237/ [The True Costs of Driving]

2. Bicyclists should be the ones to pay for bike lanes.

"Paved shoulders have benefits in three important areas: safety, capacity and maintenance [which benefits motorists, since motor vehicles use roads the most.] ... (A) Safety--highways with paved shoulders have reduced accident rates ... (B) Capacity--highways with paved shoulders can carry more traffic ...(C) Maintenance--highways with paved shoulders are easier to maintain ..."

From: Twenty-Two Reasons For Paved Highway Shoulders

http://www.bicyclinglife.com/EffectiveAdvocacy/22reasons.htm

"Bike lanes and paved shoulders have been found to have a benefit-to-cost ratio of approximately 5 to 1 (Texas Transportation Institute, 1989) and reduce crashes by 49 percent (FHWA, 1987). Another study found the provision of bike lanes and paved pathways result in a 9 to 1 benefit-to-cost ratio (North Carolina State University, 2004)."

From: Benefits of Bike Lanes and Paved Shoulders https://michigantrails.org/wp-content/uploads/2016/05/benefits-of-bike-lanes-paved-shoulders.pdf

"Every \$1,300 New York City invested in building bike lanes in 2015 provided benefits equivalent to one additional year of life at full health over the lifetime of all city residents, according to a new economic assessment.

"That's a better return on investment than some direct health treatments, like dialysis, which costs \$129,000 for one quality-adjusted life year, or QALY, said coauthor Dr. Babak Mohit of the Mailman School of Public Health at Columbia University in New York."

From: Bike lanes are a sound public health investment https://www.reuters.com/article/us-health-costbenefit-bike-lanes/bike-lanes-are-a-sound-public-health-investment-idUSKCN11Z23A

"Don't listen to the angry drivers shouting at you. By reducing pedestrian and cyclist injuries and easing car congestion, protected bike lanes are good for everyone—not just riders. ...

"When New York City first started adding new protected bike lanes in 2007, some drivers made the usual argument against them: Taking street space away from cars would slow down traffic. After years of collecting data, a new report from the city shows that the opposite is true. On some streets redesigned with protected bike lanes, travel times are actually faster. And it turns out the new lanes have a range of other benefits as well.

"For pedestrians, the bike lanes make walking safer by shortening crosswalks and making crossings more obvious to drivers. Pedestrian injuries have dropped an average of 22% on streets with bike lanes. Not surprisingly, cyclist injuries have also decreased; on 9th Avenue, for example, even though far more bikes are on the street, cyclist injuries have gone down by 65%.

"The new bike lanes even help local business; the city has found that streets with bike lanes are linked with more retail sales, new jobs, and more tourists."

From: New York City's Protected Bike Lanes Have Actually Sped Up Its Car Traffic https://www.fastcompany.com/3035580/new-york-citys-protected-bike-lanes-have-actually-sped-up-its-car-traffic

3. Wider shoulders help bicyclists more than motorists.

"Paved shoulders have benefits in three important areas: safety, capacity and maintenance. Most of these advantages apply to both shoulders on rural highways and to marked, on-street bike lanes on urban roadways."

From: Twenty-Two Reasons For Paved Highway Shoulders http://www.bicyclinglife.com/EffectiveAdvocacy/22reasons.htm

"Bike lanes and paved shoulders have been found to have a benefit-to-cost ratio of approximately 5 to 1 (Texas Transportation Institute, 1989) and reduce crashes by 49 percent (FHWA, 1987). Another study found the provision of bike lanes and paved pathways result in a 9 to 1 benefit-to-cost ratio (North Carolina State University, 2004)."

From: Benefits of Bike Lanes and Paved Shoulders https://michigantrails.org/wp-content/uploads/2016/05/benefits-of-bike-lanes-paved-shoulders.pdf

Also see:

www.abea.bike

American Bicycling Education Association / info@abea.bike

4. I'll respect bicyclists only when they are licensed just like motorists.

"Like pedestrians and equestrians, we [bicyclists] aren't required to be registered. The first automobiles weren't licensed, either. Only after motorists began amassing an appalling record of injuries and fatalities did states begin imposing licensing and registration laws. The rules were not applied to walkers and cyclists because they weren't thought to be dangerous—and they still are not.

From: Pay to Play: The Myths That Lead to Required Licenses for Cyclists https://www.bicycling.com/rides/safety-etiquette/pay-to-play-the-myths-that-lead-to-required-licenses-for-cyclists

"Good idea to do training. Bad idea to do licensing," says Colin Bogart, director of education for the Los Angeles County Bicycle Coalition. "First, we need to understand why people are licensed to drive — you're behind the wheel of a potentially dangerous vehicle. The same is not true for bicyclists. You're not getting behind the wheel of a two-ton vehicle that can go as fast as 60 miles an hour. The bicyclist is potentially a danger to a pedestrian, but mostly they are a danger to themselves if they don't follow the rules."

But what about the cyclist whose bad behavior in traffic forces cars into a precarious situation on the road? License or no license, the cyclist is supposed to be obeying traffic laws. "If a cyclist does something they're not supposed to and a cop is there, they get busted too," says Bogart.

Besides, at what age do you start licensing cyclists, he asks. "Does that mean kids who want to ride a bike?"

From: Should cyclists need a license to ride? http://articles.latimes.com/2013/oct/28/news/la-ol-cyclists-licensed-like-drivers-20131025

Also see:

http://usa.streetsblog.org/2017/06/28/what-do-drivers-really-think-of-cyclists/ [What Do Drivers Really Think of Cyclists?]

http://articles.latimes.com/2013/oct/28/news/la-ol-cyclists-licensed-like-drivers-20131025 [Should cyclists need a license to ride?]

https://www.citylab.com/transportation/2016/11/why-dont-you-need-a-bicycle-license/508937/ [Why Don't You Need a Bicycle License?]

M-bike.org
Bikeleague.org
Alliance for Biking and Walking
Bicycle registration & Bicycle Licensing Laws

- 5. Bicycles should be required to pay a license fee and have a license plate.
- "...the research has been pretty clear that it's not worth it, that any revenue you might create is eaten up by the bureaucracy ..."

"If cyclists were asked to cover the cost of licensing, the license would be more expensive than the bicycle itself."

From: Why Don't You Need a Bicycle License? https://www.citylab.com/transportation/2016/11/why-dont-you-need-a-bicycle-license/508937/

"Like pedestrians and equestrians, we aren't required to be registered. The first automobiles weren't licensed, either. Only after motorists began amassing an appalling record of injuries and fatalities did

states begin imposing licensing and registration laws. The rules were not applied to walkers and cyclists because they weren't thought to be dangerous—and they still are not. ...

"Bikes are considered vehicles in many states, such as Florida, Pennsylvania, and Wisconsin. (In places where that's not the case, cyclists still follow the same rules of the road as drivers.) But in some states, skateboards and wheelchairs are vehicles, too. Like bikes, they don't pose the hazards that cars pose—and that's why they're not required to be registered. ...

"Where you have to pay to play: \$15 Maui, HI (one-time fee) \$10 Madison, WI (every four years) \$5 Hays, KS (one-time fee) \$1 Hershey, PA (annual fee)"

From: Pay to Play: The Myths That Lead to Required Licenses for Cyclists https://www.bicycling.com/rides/safety-etiquette/pay-to-play-the-myths-that-lead-to-required-licenses-for-cyclists

Also see:

http://articles.latimes.com/2013/oct/28/news/la-ol-cyclists-licensed-like-drivers-20131025 [Should cyclists need a license to ride?]

M-bike.org
Bikeleague.org
Alliance for Biking and Walking
Bicycle registration & Bicycle Licensing Laws

6. I'll start respecting (motorists' / bicyclists') rights when they start respecting mine.

"One group breaking laws doesn't make it okay for any other group, but no one says that motorists don't deserve to be on the road because they break laws. Just because you notice bikes breaking laws, doesn't mean they are doing it any more than other modes."

From: Let's Put Those Tired, Anti-Bike Arguments to Rest] https://streets.mn/2015/07/13/lets-put-those-tired-anti-bike-arguments-to-rest/

"In the United States, it seems like we have laws, rules, and regulations to oversee just about everything. We don't always like these rules, since they often mean that someone is telling us what to do, or keeping us from doing what we want. Yet to live in a civil society, we must have some rules to follow."

From: Law and the Rule of Law http://judiciallearningcenter.org/law-and-the-rule-of-law/

"Why do we obey the Law?

"Each and every day, one will notice citizens abiding to basic laws in every aspect of life. This is because law has an impact in our daily routines. These laws can be minor traffic laws like stopping at a stop sign or driving on the right side of the road. Society also must abide more serious laws like not committing a murder and running another person over with your car if they are frustrating you. The question that many sociologists and philosophers attempt to answer is "Why do we obey the law?". Well, I believe that people obey the law for three major reasons; to avoid legal consequences, because they respect authority, and because they feel that it is morally right to do so."

From: Why do we obey the Law? http://newsactivist.com/en/articles/juri-1106a-law-social-science/why-do-we-obey-law-0

"Car drivers break laws too, yet are not subject to this frequent rationale used to oppress minorities: "You are responsible for the behaviour of others of your kind." Every person is responsible for their own behaviour. Every driver is responsible for sharing the road safely with other road users. "

From: Modern Bicycling Myths

http://www.bicyclinglife.com/EffectiveAdvocacy/BicycleMyths.htm

"Drivers, bicycle riders and pedestrians all need to Go Together safely. We should all respect each other's space and ensure that everyone stays safe.

"Like drivers, the majority of bicycle riders have safety in mind most of the time. The increased penalties [in New South Wales] only apply to riders who behave dangerously and break the law.

"Fines for five offences increased on 1 March 2016, so that bicycle riders receive the same fines as motorists for high risk behaviour."

From: Go Together

http://roadsafety.transport.nsw.gov.au/campaigns/go-together/

BICYCLISTS SHOULD NOT BE ON ROADS INTENDED FOR MOTORISTS

7. Roads were created for cars.

"Street paving has been found from the first human settlements around 4000 BC ...

"Macadam roads were adequate for use by horses and carriages or coaches, but they were very dusty and subject to erosion with heavy rain.

"The Good Roads Movement occurred in the United States between the late 1870s and the 1920s. Advocates for improved roads led by bicyclists such as the League of American Bicyclists turned local agitation into a national political movement."

From: History of road transport

https://en.wikipedia.org/wiki/History of road transport

"Horatio Earle is known as the "Father of Good Roads." Quoting from Earle's 1929 autobiography: "I often hear now-a-days, the automobile instigated good roads; that the automobile is the parent of good roads. Well, the truth is, the bicycle is the father of the good roads movement in this country." "The League fought for the privilege of building bicycle paths along the side of public highways." "The League fought for equal privileges with horse-drawn vehicles. All these battles were won and the bicyclist was accorded equal rights with other users of highways and streets."

From: Good Roads Movement

https://en.wikipedia.org/wiki/Good Roads Movement

"[Bike] paths just won't cut it in countries the size of the US and Canada. Even if there were money enough to build them, there is sacredly [sic] any room to put these paths. This is because to serve the needs of cyclist, for commuting or recreation, paths would be needed everywhere. Just as we need roads everywhere."

From: The Roads We Have

http://www.bicyclinglife.com/EffectiveAdvocacy/TheRoadsWeHave.htm

"Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations."

From: What Are Complete Streets?

https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/

"Complete Streets legislation (Public Acts 134 and 135), signed on Aug. 1, 2010, gives new project planning and coordination responsibilities to city, county and state transportation agencies across

Michigan. The legislation defines Complete Streets as "roadways planned, designed, and constructed to provide appropriate access to all legal users...whether by car, truck, transit, assistive device, foot or bicycle."

"The law further requires Complete Streets policies be sensitive to the local context, and consider the functional class, cost, and mobility needs of all legal users. The primary purpose of these new laws is to encourage development of Complete Streets as appropriate to the context and cost of a project."

From: Complete Streets Advisory Council http://www.michigan.gov/mdot/0,4616,7-151-9623 31969 57564---,00.html

"In 1896, roughly a decade after Karl Benz built his first automobile and long before they were widely adopted, a group of almost 100,000 cyclists in San Francisco staged a massive demonstration in support of what was called the Good Roads Movement to repave Market Street.

"The Good Roads Movement itself dates to 1880, an outgrowth of the founding of the League of American Wheelmen, which still exists today as the League of American Bicyclists. The idea was that, as in Europe, governments should pay for the construction and upkeep of roads, via taxes.

"In the 1910s, the growing automobile industry and organizations like the Automobile Association of America (AAA) began surpassing cyclists in advocating and organizing for better roads, culminating in funding the first federal highway in 1916.

"Though cars have long since assumed primacy in road design, the US Department of Transportation's official policy is to accommodate bike and pedestrian use. The policy statement, last updated in 2010, states it pretty clearly:

"Every transportation agency has the responsibility to... integrate walking and bicycling into their transportation systems."

From: The Best Responses To Anti-Cyclist Claims https://www.bicycling.com/training/tips/best-responses-anti-cyclist-claims

Also see:

<u>http://www.roadswerenotbuiltforcars.com/</u>
[Roads were not built for cars] [book]

http://www.bicyclinglife.com/EffectiveAdvocacy/BicycleMyths.htm [Modern Bicycling Myths]

http://www.bikeleague.org/content/mission-and-history [Mission and History]

8. Bicyclists should not be using the roads when sidewalks or trails are available.

"The Michigan Motor Vehicle Code (MVC) does not require bicyclists to ride on the sidewalk and we [The League of Michigan Bicyclists] do not recommend it because of safety hazards to the bicyclist and other sidewalk users. ...

"The MVC does not require bicyclists to use bike lanes, even if present. In 2006 Section 257.660 (3) of the MVC was amended, removing "bicyclists" from being required to use side paths."

From: Michigan Laws Pertaining to Bicyclists http://www.lmb.org/index.php?option=com_content&view=article&id=21&catid=27&Itemid=190

"The evidence that bicycling on sidewalks and similar facilities is more hazardous than bicycling on streets is overwhelming."

From: Bicycle Sidepaths: Crash Risks and Liability Exposure

http://www.bikexprt.com/bikepol/facil/sidepath/sidecrash.htm

"How often has a bicyclist buzzed past you on the sidewalk without warning, scaring a few years off your life in the process? How many times have you biked down a multi-use trail and had to slam on the brakes every few seconds to avoid joggers, walkers, children and dogs? According to a study published in the new issue of the BMJ Open medical journal, biker and walker interaction is more than a question of convenience and comfort. It's often a question of safety."

From: Bicyclists and Pedestrians, the Best of Frenemies https://nextcity.org/daily/entry/cyclists-pedestrians-share-streets-safety

Also see:

https://bikelawmichigan.com/michigan-rules-of-the-road/ [The Rules of the Road for Michigan Cyclists]

http://usa.streetsblog.org/2011/11/11/whats-wrong-with-telling-cyclists-to-ride-on-the-bike-path/[What's Wrong With Telling Cyclists to Ride on the Bike Path?]

9. Bicyclists should only ride on trails or sidewalks.

"If the roadway the bicyclist is on has no minimum speed limit, then they are traffic according to the MVC [Michigan Motor Vehicle Code] and MCL [Michigan Compiled Laws] and therefore cannot be impeding traffic simply because of their speed or the fact that they are riding a bicycle...

"The MVC does not require bicyclists to ride on the sidewalk and ...[t]he MVC does not require bicyclists to use bike lanes, even if present."

From: Michigan Laws Pertaining to Bicyclists http://www.lmb.org/index.php?option=com_content&view=article&id=21&Itemid=38

"Most of the "failing to yield/disregarding traffic control" bicycle crashes involved a bicyclist who was riding in a sidewalk prior to the crash." (41%).

From: A Summary of a Comprehensive Evaluation of Pedestrian and Bicycle Crashes and Causes in Michigan

http://www.michigan.gov/documents/msp/PEDESTRIAN-BICYCLE_ANALYSIS_-A SUMMARY REPORT - FINAL - 022916 523923 7.pdf

"This early study was one of the first to show that bike paths were much more dangerous than riding on the roads."

From: Contents of Our Library, In reference to a Master's Thesis (University of Maryland) entitled 'Characteristics of the Regular Adult Bicycle User by Jerrold A. Kaplan, 1975. http://www.bicyclinglife.com/Library/index.html

"Multi-use trails have a crash rate about 40% greater than would be expected based on the miles cycled on them while cycling on the sidewalk is extremely dangerous."

From: Adult Bicyclists in the U.S., 1998. William Moritz http://www.bicyclinglife.com/Library/Moritz2.htm

There is no reason strong enough to justify requiring specific passing distances such as 3-5 feet.

"Michigan is one of only seven states that has not enacted a law requiring motorists to pass bicyclists safely. ...

"The current "safe distance" language is left to the perspective of the motorist. It is also open to interpretation for law enforcement (and therefore difficult to put into effect). The "safe distance language" does not provide a clearly defined standard for patrol officers to use. ...

"A five-foot passing law will delineate the legal standard for "safe distance" and provide clear guidance to motorists, bicyclists and law enforcement. This will alleviate confusion and frustration. ...

"A five-foot standard is supported by both the Michigan Department of Transportation and Michigan Department of State who recently published a joint PSA recommending drivers pass bicyclists with five feet of clearance. ...

"One of the most common types of bicycle/auto crashes involve collisions where a motor vehicle strikes a bicyclist while attempting to pass when traveling in the same direction. The Office of Highway Safety Planning reports that 56 percent of bicyclists involved in crashes were "going straight ahead" prior to the crash. ...

"A clearly defined safe passing standard will help reduce bicyclist injuries and deaths. It also benefits education and enforcement programs by establishing one, uniform standard across jurisdictions."

From: Give us 5: Enact a Safe Passing Law http://www.lmb.org/index.php?option=com_content&view=article&id=819:give-us-5-enact-a-5-foot-safe-passing-law&catid=190&Itemid=37

"A group of road users can be defined as 'vulnerable' in a number of ways, such as by the amount of protection in traffic (e.g. pedestrians and cyclists) or by the amount of task capability (e.g. the young and the elderly). Vulnerable road users do not usually have a protective 'shell', and also the difference in mass between the colliding opponents is often an important factor. Vulnerable road users can be spared by limiting the driving speed of motorized vehicles and separating unequal road user types as much as possible. ...

"Vulnerable road users can be provided for by completely separating unequal types of road users, or, alternatively, to ensure speed reduction when traffic types mix."

From: Vulnerable Road Users - Institute for Road Safety Research https://www.swov.nl/sites/default/files/publicaties/gearchiveerde-factsheet/uk/fs vulnerable road users archived.pdf

"In 2015 there were 818 pedalcyclists killed in motor vehicle traffic crashes in the United States, an increase from 729 in 2014. An additional estimated 45,000 pedalcyclists were injured in crashes in 2015, which was not a significant change from the previous year."

From: Traffic Safety Facts

https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812382

[The consequences of an impaired or distracted driver striking a bicyclist can be devastating, as exemplified by the June, 2016, tragedy in Kalamazoo, MI:]

"On June 22, 2016, the driver who ran down and killed five Kalamazoo cyclists and injured four others was officially brought into a Kalamazoo courtroom and charged with five counts of second-degree murder and four counts of reckless driving causing serious impairment."

From: Update On The Kalamazoo Cycling Tragedy

https://www.bikelaw.com/2016/06/update-on-the-kalamazoo-cycling-tragedy/

"It was, numerous people have said, the deadliest crash involving bicyclists in memory -- not just in Kalamazoo County, but in Michigan and possibly the country.

""We've talked to lots of people today and nobody can remember a bigger crash," said Aneta Kiersnowski, League of Michigan Bicyclists communications director."

From: Unimaginable horror: How the Kalamazoo bicycle tragedy unfolded http://www.mlive.com/news/kalamazoo/index.ssf/2016/06/weekly_ride_by_kalamazoo_count.html

"The National Safety Council (NSC) estimates that the comprehensive cost of each person killed in a traffic crash to be \$4,538,000 (2012 dollars) (see table below). Multiplying this number by the 726 bicyclists killed in 2012 totals nearly \$3.3 billion. Multiplying this number by the 4,743 pedestrians killed in 2012 totals more than \$21.5 billion. The NSC also estimates the average economic non-incapacitating injury cost per person involved in a motor vehicle crash to be \$58,700 (2012 dollars). Multiplying this number by the 49,000 estimated bicyclist injuries in 2012 totals more than \$2.8 billion. Multiplying this number by the 76,000 estimated pedestrian injuries in 2012 totals nearly \$4.5 billion.

"Category	Cost per Event	2012 Events	Total 2012 Cost	
Bicycle Fatalities	\$4,538,000	726	\$3,294,588,000	
Bicycle Injuries	\$58,700	49,000	\$2,876,300,000	
Pedestrian Fatalities	\$4,538,000	4,743	\$21,523,734,000	
Pedestrian Injuries	\$58,700	76,000	\$4,461,200,000"	

"Based on these estimates, the total cost of bicycle and pedestrian injuries and fatalities for 2012 was \$32,155,822,000."

From: What is the economic cost of crashes involving bicyclists and pedestrians? http://www.pedbikeinfo.org/data/faq_details.cfm?id=42

"Bicycle use has skyrocketed in popularity, but it's also led to more accidents, with medical costs from non-fatal bike crashes climbing steadily by \$789 million annually, according to a new study by UC San Francisco.

"Over a 17-year period, medical costs of bicycle injuries to adults in the United States, both fatal and non-fatal, amounted to \$237 billion, the study found. In 2013 alone, total costs from bicycle accidents exceeded \$24.4 billion, the researchers reported. That is approximately double the medical and other various costs involved for all occupational illnesses over the same time period."

From: Soaring medical costs from bicycle accidents: Billion-dollar toll from injuries, primarily to men https://www.sciencedaily.com/releases/2017/06/170601082236.htm

"Most survivors of trauma return to normal given a little time. However, some people will have stress reactions that do not go away on their own, or may even get worse over time. Some people may relive the experience through nightmares and flashbacks, have difficulty sleeping, and feel detached or estranged. These symptoms can be severe and last long enough to significantly impair quality of life. Similar symptoms may be present that indicate difficulty in returning to cycling as a past time following a traumatic accident."

From: A Guide to Psychological Recovery from a Bicycle Accident http://www.cyclingutah.com/fitness/health/a-guide-to-psychological-recovery-from-a-bicycle-accident/

"Approximately every 10 seconds someone in the U.S. is injured in a motor vehicle accident, according to the National Highway Traffic Safety Administration. Fortunately, most accidents are not fatal, but even minor ones can cause long-term anxiety as well as fears and phobias about driving or riding in a car.

"The latest study by British researchers suggests that at least one-third of all people involved in nonfatal accidents have posttraumatic stress disorder, persistent anxiety, depression, and phobias one year after the incident.

The study suggests there may be "rather large psychological complications even when the motor vehicle accidents have medically not been in the least bit serious," says study author Richard Mayou, FRCPsych,

professor of psychiatry at the University of Oxford's department of psychiatry at Warneford Hospital in Oxford, England."

From: Impact of Car Accidents Can Be Long-Lasting https://www.webmd.com/mental-health/news/20010820/impact-of-car-accidents-can-be-long-lasting#1

"The Michigan Department of Transportation (MDOT) and the Michigan State Police (MSP) will be continuing the Toward Zero Deaths statewide safety campaign in 2017. The campaign is based on the National Strategy on Highway Safety intended to influence driver behavior and improve safety. With more than 35,000 fatalities occurring on U.S. highways each year, roadway safety remains one of the most challenging issues facing Michigan, and the nation.

"The first step to improving the nation's traffic safety culture is to establish a TZD vision with key stakeholders. Michigan, through the Governor's Traffic Safety Advisory Commission, has done that through the Strategic Highway Safety Plan (SHSP). While the SHSP goal is to prevent traffic fatalities from reaching 967 in 2018 our ultimate vision is Toward Zero Deaths on Michigan's roadways."

From: Toward Zero Deaths http://www.michigan.gov/mdot/0,4616,7-151-9615_11261_45350_66595---,00.html

"Only pass when it is safe to do so [graphic shows 3 to 5 feet distance between motor vehicle and bicyclist].

From: Bicycling Safety – Michigan DOT and Michigan Secretary of State https://www.youtube.com/watch?v=QvEM3o4o08E

"Advocates state that these passing laws at least create a legal framework to protect bicyclists who are hit or buzzed from behind, create a less arbitrary standard and raise awareness of the importance of safe passing. ...

From: Safely Passing Bicyclists Chart http://www.ncsl.org/research/transportation/safely-passing-bicyclists.aspx

'People riding bikes don't always ride in a perfectly straight line, especially in cities where they frequently need to swerve in order to avoid potholes, storm drains, cracks, or road debris. Leaving a minimum of 3 feet (one metre) of space between you and the person riding ensures they have room to swerve if need be, even when you're right alongside them."

From: How to Safely Pass A Person Riding a Bike https://momentummag.com/how-to-pass-a-cyclist/

"Most roads feature marked travel lanes that are too narrow for drivers of motor vehicles to pass a cyclist safely within the same lane. By attempting to pass within a typical 10' wide lane on a rural road or city street, the driver of a pickup truck or SUV would strike a cyclist riding near the edge of the lane.

"Bicyclists need a minimum of four feet of operating space to maintain balance and avoid surface hazards, and require at least three feet of passing distance for safety. ...

"When cyclists ride near the right edge of a narrow lane, an overtaking motor vehicle driver may misjudge the remaining space in the cyclists' lane, and fail to change lanes."

From: Why Cyclists Ride Two Abreast http://www.bikewalknc.org/2015/04/why-cyclists-ride-two-abreast/

""We are asking motorists to be more considerate and to consider the safety of the cyclist as they do not have the protection of a metal work if a collision occurs that a vehicle drive has." ...

""Any cyclist will tell you that a vehicle coming past sometimes just inches from your shoulder is a genuinely frightening experience.

"By combining education and the threat of prosecution in this way, motorists will learn to hang back until it is safe to overtake."

From: Police force calls for minimum passing distance - but is enforcement of existing law better? http://road.cc/content/news/207629-police-force-calls-minimum-passing-distance-enforcement-existing-law-better

"The law, which went into effect on January 1, 2008, defines "safe distance" as "sufficient to prevent contact with the person operating the bicycle if the person were to fall into the driver's lane of traffic." While a number of states have legislated specific passing distances, the most common of which is three feet, the Oregon law uses the rider's "fall over" height as a distance measure, a useful gauge to protect from a side swipe."

From: Get Legal with Ray Thomas: Oregon's 'Safe Passing' law explained https://bikeportland.org/2014/01/06/get-legal-with-ray-thomas-oregons-safe-passing-law-explained-99506

""The fact that he was not even given a ticket for obviously careless driving ... he wasn't held accountable," said Snel, a friend of mine and a former reporter for The Denver Post who is recovering from a fractured vertebra in his neck, a lower-back injury and a conk on his head that shattered his helmet and knocked him unconscious.

All too often, he said, bicyclists are discounted by police and policy makers as "collateral damage" on the roads, and drivers responsible for crashes get off with a light slap on the wrist — or less — even when they kill another person."

From: Cyclists are collateral damage for careless drivers http://www.denverpost.com/2017/04/01/cyclists-are-collateral-damage-for-careless-drivers/

"In cities across the world, researchers, planners and policy makers are examining the many potential plus points of cycling. Increasing the proportion of people who cycle or walk, rather than drive, could not only reduce air pollution and greenhouse gas emissions, but also lower people's risk of developing a number of diseases. ...

"[Ari] Rabl, a consultant and retired senior scientist at the Centre Energetique et Procédes of the Ecole des Mines in Paris, has looked at the health benefits when people move from cars to walking or cycling.

"Rabl explains that they found that the population-level costs due to fatal accidents are outweighed at least 10-fold by the health benefits of walking or cycling. Monetizing the costs and benefits, Rabl and de Nazelle estimated that for a driver who switches from driving to cycling for their 5 km commute, the overall health benefit from physical activity is worth about €1,300 (\$1,795) per year. Of course, it's important to point out that while fatal accidents might be reported as small "population-level costs" in public health studies, they have tragic, catastrophic costs for individuals and their loved ones."

From: City cycling: Road to fitness, or accident waiting to happen? http://www.cnn.com/2014/03/04/health/city-cycling-road-to-fitness/index.html

[On initial assessment, it might seem that adding devices to motor vehicles to warn of, or prevent, lane departures, which are one of the most deadly types of car accident, would be highly beneficial. However, as the following references indicate, this initial assessment is not necessarily correct.]

"Lane departure accidents are one of the most deadly types of car accidents. The U.S. Federal Highway Administration reports that lane departure accidents account for more than half (51 percent) of all fatal crashes.

"Lane departure accidents occur when a vehicle leaves his or her lane, either moving into another lane or off the roadway itself.

"A lane departure accident can happen for any number of reasons, including distracted driving, drowsy driving, and drunk driving. Distracted drivers, who are looking at their phone instead of the road, may drift

outside of their lane. Drivers who are tired may fall asleep at the wheel and move from their lane. Drunk drivers, whose driving ability is impaired by alcohol, may not be able to keep their car in their lane.

"Lane departure accidents are sometimes not the fault of the driver. For example, a car whose tire blows out may cause the driver to lose control and leave his or her lane.

"Whatever the cause of the lane departure, the results can be catastrophic. The car that drifts to the right and off the road may crash into a bicyclist or an obstruction such as a tree or telephone pole. If the car drifts to the left, it may cause a head-on collision with another car.

"Safety advocates and automakers have been working to prevent this type of crash. Most recently, automakers have rolled out lane departure warning systems into luxury car models. These systems promise to alert the driver if he or she is drifting from his or her lane. Unfortunately, research from the Insurance Institute for Highway Safety has found that lane departure systems do nothing to reduce the number of crashes. In fact, the study found that cars with lane departure systems actually had an increased number of crashes, which is why drivers shouldn't rely on lane departure systems to keep them from causing an accident."

From: Lane Departure Accidents

https://www.martinsonandbeason.com/practice-areas/car-accidents-huntsville-alabama/types-of-car-accidents/lane-departure-accidents/

"60% of road accident fatalities are due to lane departure ...

"Drifting out of the lane causes nearly 10% of all crashes" From: Lane Departure Warning http://safedrivesystems.com/lane-departure-warning/

"We hear about it all of the time from owners in Consumer Reports' safety surveys: lane-departure warnings are annoying. Turns out, as the Insurance Institute of Highway Safety discovered in a recent study, those warnings are so bothersome that about two thirds of owners turn off the feature."

From: An IIHS study shows this promising safety feature can frustrate drivers https://www.consumerreports.org/car-safety/honda-lane-departure-warning-is-a-turn-off-feature-for-most-owne/?loginMethod=auto

Also see:

http://www.ncsl.org/research/transportation/bicycle-and-pedestrian-safety.aspx [Bicycle and Pedestrian Safety]

11. Laws and policies that restrict / discourage bicycling would be good for our area.

"The number of bike trips doubled between 1990 and 2009, and many communities and the federal government are embracing the bicycle as a transportation solution for a healthy and viable future.

"Published by AARP Livable Communities and the Walkable and Livable Communities Institute as part of the award-winning Livability Fact Sheets series, "Bicycling" offers tips for making a community more bicycle-friendly and explains how bicycling features (such as dedicated bike lanes) help improve a community's safety and economic success. Two examples:

"After bike lanes were installed on certain New York City streets, deaths and serious crashes on those streets decreased by 40 percent.

"Building bicycling infrastructure creates an average of 11.4 jobs for every \$1 million spent. Road-only projects create 7.8 jobs per \$1 million."

From: Bicycling

https://www.aarp.org/livable-communities/info-2014/livability-factsheet-bicycling.html

"This Community and Economic Benefits of Bicycling in Michigan report is separated into two Phases that highlight the economic benefit bicycling has on Michigan's local and statewide economies. The 2014 Phase I report finds that bicycling provides an estimated \$668 million per year in economic benefit to Michigan's economy, including employment, retail revenue, tourism expenditure, improved health, and increased productivity. Using both quantitative and qualitative data, the report takes a unique approach to illustrate both the economic benefits of bicycling on a statewide basis, as well as broader benefits bicycling can have on communities. Phase II of this project includes data on the economic impact of bicycling "events," bicycle touring, and Michigan as a bicycle destination. Released in the spring of 2015, the report estimates out-of-state participation in organized bicycle events contributes nearly \$22 million to the State economy."

From: The Economic Benefits of Bicycling http://www.michigan.gov/mdot/0,4616,7-151-9615 11223 64797 69435---,00.html

"Not everyone can afford to buy or maintain a car. The average cost of car ownership per year is around \$8,000, transit is \$1,800, and bike ownership is \$300. Biking is an equitable transportation option that is accessible to many people."

From: Let's Put Those Tired, Anti-Bike Arguments to Rest https://streets.mn/2015/07/13/lets-put-those-tired-anti-bike-arguments-to-rest/

"Michigan has the 10th highest adult obesity rate in the nation, according to The State of Obesity: Better Policies for a Healthier America released August 2017. Michigan's adult obesity rate is currently 32.5 percent, up from 22.1 percent in 2000 and from 13.2 percent in 1990."

From: The State of Obesity in Michigan http://stateofobesity.org/states/mi

"... it has been shown that in western countries the health benefits of regular cycling significantly outweigh the risks due to traffic danger. ... Therefore, notwithstanding their effect on crashes and injuries, measures that promote cycling should produce an overall societal health benefit."

From: Bikeway safety

https://en.wikipedia.org/wiki/Bikeway safety

"The British Medical Association (1992) estimates the health benefits of cycling to outweigh the hazards by a factor of 20 to 1."

From: Fear of Cycling

https://thinkingaboutcycling.wordpress.com/article-fear-of-cycling/

MDOS study benefits [AARP Livable Communities - Bicycling]

http://www.aarp.org/livable-communities/info-2014/livability-factsheet-bicycling.html

BICYCLISTS ARE RUDE SCOFFLAWS!

12. Bicyclists are less law-abiding than motorists.

"When it comes down to it though, motorists, bicyclists, and pedestrians are all people going places, and they all break laws in their own ways. Studies have show[n] no real difference in the rate of rule-breaking between groups. Pedestrians jaywalk. Cyclists roll through stop signs and run red lights. Motorists speed, tailgate, not signal, not stop before turning right, drive while drunk, drive while distracted, and others. One group breaking laws doesn't make it okay for any other group, but no one says that motorists don't deserve to be on the road because they break laws. Just because you notice bikes breaking laws, doesn't mean they are doing it any more than other modes. Rule-breaking is a human trait, not reserved for cyclists alone."

From: Let's Put Those Tired, Anti-Bike Arguments to Rest https://streets.mn/2015/07/13/lets-put-those-tired-anti-bike-arguments-to-rest/ "When it comes to obeying traffic laws, "we're all criminals," says Wesley Marshall, an associate professor of civil engineering at the University of Colorado.

After surveying 18,000 people, Marshall is trying to understand why cyclists, in particular, might bend or flat-out ignore traffic regulations.

"When you look at the transportation system and the laws we have, pretty much everybody is a criminal. ... We've all gone a few miles an hour over the speed limit, and as a society we seem OK with that...."

"The study gathered similar rates of infraction — 8 percent to 9 percent for drivers, and 7 to 8 percent for cyclists."

From: Survey Finds Bicyclists and Motorists Ignore Traffic Laws at Similar Rates https://www.pri.org/stories/2015-07-18/survey-finds-bicyclists-and-motorists-ignore-traffic-laws-similar-rates

"Nearly everyone has jaywalked, rolled through a stop sign, or driven a few miles per hour over the speed limit, but most such offenses face no legal consequences. Society also tends to see these relatively minor infractions that almost all people make—though they are unmistakably illegal—as normal and even rational. Bicyclists who break the law, however, seem to attract a higher level of scorn and scrutiny."

"When including driving and pedestrian scenario responses—such as how often respondents drive over the speed limit or jaywalk—100% of our sample population admitted to some form of law-breaking in the transportation system (i.e., everybody is technically a criminal). When disaggregating by mode, 95.87% of bicyclists, 97.90% of pedestrians, and nearly all drivers (99.97%) selected responses that would be considered illegal.

"When it comes to rule-breaking bicyclists, one popular opinion is that if bicyclists want to be taken seriously as road users, they need to obey the rules of the road like everyone else. Our survey results and the literature review both suggest that drivers break the rules of the road just as much, if not more, than bicyclists. The other common argument is that cities need to step up bicycle law enforcement to improve safety. While bicyclists are certainly not immune from causing harm, the literature suggests lower societal costs and safety risks associated with lawbreaking bicycling as compared to lawbreaking driving. Drivers speed, roll through stop signs, park in bike lanes, and run lights that have just turned red while still considering themselves to be law-abiding citizens."

From: New Study Shows That "Scofflaw Cyclists" Don't Break the Law Any More Than Drivers https://www.treehugger.com/bikes/new-study-shows-scofflaw-cyclists-dont-break-law-any-more-drivers.html

Also see:

https://www.edmunds.com/car-safety/coexisting-with-bicyclists-10-rules-for-drivers.html [Coexisting With Bicyclists: 10 Rules for Drivers]

https://www.dmv.ca.gov/portal/dmv/?1dmy&urile=wcm:path:/dmv_content_en/dmv/pubs/brochures/fast_facts/ffdl37

[Sharing the Road (FFDL 37) Safety Tips for Bicyclists and Motorists]

https://www.google.com/amp/s/www.wired.com/2014/11/9-things-drivers-need-stop-saying-bikes-vs-cars-debate/amp

[9 Things Drivers Need To Stop Saying In the Bikes vs. Cars Debate]

http://www.spokesman.com/blogs/transportation/2015/jul/15/cyclists-are-just-law-abiding-drivers/ [Cyclists are just as law-abiding as drivers]

https://www.bikelaw.com/2015/11/running-on-empty-the-gas-tax-argument/ [Running On Empty: The "Gas Tax" Argument]

13. Bicyclists hog the road.

"To identify exactly the sources of frustration for motorists, we did a study in 2015 to examine a range of 26 behaviours that drivers face daily, ranking them from most to least frustrating.

"The most frustrating behaviours were almost always those of other drivers (the most annoying were getting cut off, tailgated, blocked at an intersection, or overtaken by a vehicle that then slows down).

"Cyclists did make the top five, however, with riding two abreast found to be the fifth-most-annoying road behaviour. Though legal, it is perhaps something cyclists should bear in mind if they wish to reduce the venom in the debate."

From: Road rage: why do bike riders make car drivers see red? https://theconversation.com/road-rage-why-do-bike-riders-make-car-drivers-see-red-56290

"Whether you're on foot, bike or in your car, the most enraging – and dangerous – thing on the road can be encountering a selfish person. In the form of a completely oblivious pedestrian, thinking only of himself as he jaywalks across the street; a cyclist trampling any semblance of law as she ploughs through a stop sign; or a driver taking up the whole road, weaving in and out of lane lines, selfish people can be everywhere."

From: Introducing Share the Road "Don't be a Road Hog" Campaign https://www.codot.gov/programs/bikeped/building-a-bike-ped-friendly-community/share-the-road/documents/guide.pdf

"The default formation used by many experienced cycling groups is double file. Compared to single file, a double file formation makes the group more visible from behind and in front, and shortens the length of the group by half. This reduces the likelihood of the most common crash types faced by lawful, adult bicyclists: drive out, left cross, and motorist-overtaking.

"One technique cycling groups use to reduce the risk of collisions is riding double file, particularly in narrow lanes and when approaching intersections ... riding double file can deter common crash types."

From: Why Cyclists Ride Two Abreast http://www.bikewalknc.org/2015/04/why-cyclists-ride-two-abreast/

"Ride in a straight line at least three feet away from the curb to allow room for moving around road hazards. ...

"Ride single file when other traffic is present. Riding two-abreast is permitted as long as other traffic is not impeded."

From: On-Street Bicycling – Share the Road https://www.cityofmadison.com/BikeMadison/getBiking/OnStreetBicycling.cfm

"Bicyclists often ride next to one another when dangerous road conditions exist that make it unsafe for drivers to pass in the same travel lane. LMB encouarges [sic] bicyclists to be courteous and "single up" when other road users are present and it is safe to do so. ...

"When riding two abreast, be mindful of the other roadway users and single up when it is safe for others to pass. You may never ride more than two abreast. Remember, sharing the road is a twoway [sic]street."

From: What Every Michigan Bicyclist Must Know http://www.cityofhoughton.com/docs/what every michigan bicyclist must know.pdf

14. Bicyclists who get injured by motorists are usually at fault.

"...when we looked at data from the few states where it's available, cyclists seem almost as likely to cause an accident as motorists."

From: When Bikes And Cars Collide, Who's More Likely To Be At Fault?] http://www.npr.org/sections/health-shots/2011/05/20/136462246/when-bikes-and-cars-collide-whos-more-likely-to-be-at-fault

MOTORISTS CAN BE INTIMIDATING AND BULLYING

15. Motorists who hit bicyclists are usually to blame.

"Bicyclists were judged to be at fault in about half of these crashes with motor vehicles. ... The likelihood of the bicyclist being responsible for the crash was greatest for the younger bicyclists. When the crash-involved bicyclist was older, the motor vehicle driver was more likely to be at fault."

From: FHWA Course On Bicycle and Pedestrian Transportation and Bicycle Crash Types; Lesson 4; Pedestrian and Bicycle Crash Types

https://safety.fhwa.dot.gov/PED_BIKE/univcourse/pdf/swless04.pdf

16. Motorists act like they can cut off bicyclists without worrying about it.

"Driving is one of the most complex tasks that we all engage in. Very few of us are airline pilots or surgeons, but almost all of us can get a drivers license," says Tara Goddard, who authored [a] report as part of her PhD dissertation (cited below) at Portland State's urban planning program. "Like all aspects of human behavior, we're not always rational, and we're not always civil."

"Goddard found that drivers who live in more densely-settled zip codes, who ride a bike at least once a week, or who ride to commute and do errands, had positive attitudes about bicyclists on the road. But drivers who ride a bike for recreation did not necessarily have a higher opinion of cyclists — even though, unlike all other drivers, they said they were comfortable with their ability to pilot a car around bike riders."

From: What Do Drivers Really Think of Cyclists?

https://usa.streetsblog.org/2017/06/28/what-do-drivers-really-think-of-cyclists/

https://trec.pdx.edu/research/project/989 (Goddard, Tara Beth. Drivers' Attitudes and Behaviors Toward Bicyclists: Intermodal Interactions and Implications for Road Safety. NITC-DIS-989. Portland, OR: Transportation Research and Education Center (TREC), 2017.)

"More than half of Florida's bicycle accidents with cars occur due to someone failing to yield the right of way. Of this group, a majority of the adult bike crashes occur due to a motorist failing to yield the right of way." [Motorist Failure to Yield – or Overtaking = 46%; Bicyclist Failure to Yield = 25%]

From: Florida Bicycle Crash Accident Statistics
http://www.floridabikeaccidentlawyer.com/statistics-of-florida-bicycle-accidents/

Also see:

https://www.edmunds.com/car-safety/coexisting-with-bicyclists-10-rules-for-drivers.html [Coexisting With Bicyclists: 10 Rules for Drivers]

17. Motorists yell abusive language at me.

""Get off the road!"

"If you ride often enough, you'll hear that at some point."

From: Dealing with the irate motorist https://thecce.org/traffic-skills/dealing-with-the-irate-motorist/

"Spend enough time bike commuting and eventually it'll happen to you: A passing motorist, irked by your riding style or mere existence on the road, will attempt to engage.

"If you're lucky, this interaction will take the form of a few quick thoughts exchanged about your nighttime visibility, rolling stops, or enviable neon spandex. But more likely, you'll be on the receiving end of a creatively worded tirade that touches on your right to occupy the street and ultimate worth as a human being.

"It's happened to me so often I've written about being a magnet for motorist commentary and projectiles."

From: How to Handle an Angry Driver https://www.bicycling.com/culture/tips/how-to-handle-an-angry-driver

"The city of Los Angeles led the way, passing a law in 2011 that protects cyclists from harassment. Earlier this month, Kansas City, Missouri, passed an anti-harassment law, becoming the sixth Missouri city to do so, according to *Bicycling*. The Missouri laws include protection for pedestrians and people in wheelchairs, in addition to cyclists.

"The Kansas City law prohibits an array of behaviors including threatening, sounding a horn, shouting, or throwing an object at bikes, wheelchairs, or pedestrians. It includes anything that places a person in "apprehension of immediate physical danger" or creates a risk of death or injury. Violators could be subject to a fine and/or imprisonment.

"Advocates are now pushing for state-wide laws in Missouri, reports Bicycling. They hope to join Colorado, Illinois, and South Carolina in that regard."

From: New Laws Prevent Harassment of Pedestrians, Cyclists https://www.runnersworld.com/general-interest/new-laws-prevent-harassment-of-pedestrians-cyclists

"The AAA Foundation for Traffic Safety found that between 1990 and 1996 road rage contributed to 218 deaths and 12,610 injuries. ...

- "...studies revealed that high-anger drivers:
- "-Engage in hostile, aggressive thinking. ...
- "-Take more risks on the road. ...
- "-Get angry faster and behave more aggressively. ...
- "-Have more accidents. ...
- "-Experience more trait anger, anxiety and impulsiveness. ...

"Taken together, "The studies suggest that relaxation, cognitive-relaxation and cognitive-behavioral interventions can lower anger behind the wheel, aggressive anger expression and aggression, and lower general anger as well," Deffenbacher [Psychologist and Professor Emeritus at Colorado State University] said [in a presentation to the Rocky Mountain Psychological Association]."

From: Anger on the road

http://www.apa.org/monitor/jun05/anger.aspx

Also see:

 $\underline{\text{https://www.minnpost.com/second-opinion/2013/02/why-motorists-get-so-angry-cyclists-psychologists-theory}$

[Why motorists get so angry at cyclists — a psychologist's theory]

18. Motorists deliberately try to intimidate bicyclists with their aggressive driving and rude comments.

"A driver in Los Angeles was recently convicted of using his car as a weapon against two cyclists....

"The impact severed Peterson's nose and separated Stoehr's shoulder. Christopher Thomas Thompson, the driver of the car ..., was arrested and put on trial. The jury found him guilty of six felonies, including assault with a deadly weapon: his car."

From: 'Road Rage' Case Highlights Cyclist Vs. Driver Tension http://www.npr.org/templates/story/story.php?storyId=120457877

"All of the road rage stereotypes are part of the latest video from bicyclist Ward Rubrecht, who regularly films his rides and documents the abuse that cyclists take."

From: Road rage and the St. Paul cyclist http://blogs.mprnews.org/newscut/2017/03/road-rage-and-the-st-paul-cyclist/

"In severe cases, offenders that have injured bicyclists due to road rage have been convicted of crimes such as assault with a deadly weapon. However, whether road rage is able to be proven or not, in most cases the driver that causes a bike accident is liable for injuries."

From: Road-Rage Bike Accident Attorney

https://www.rosenfeldinjurylawyers.com/driver-road-rage.html

19. Motorists don't know how to drive when around bicyclists.

"Many motorists don't realize that cyclists have the same fundamental rights to the road and duties as motor vehicles."

From: Driving Laws

http://drivekindridekind.org/driving-laws/

"There's plenty that the average driver and recreational bicyclist may not know. For example: A cyclist does have the right to take up an entire car lane in the street — if the lane is too narrow for a car and bike to share and if there is no dedicated bike lane."

From: Should cyclists need a license to ride? http://articles.latimes.com/2013/oct/28/news/la-ol-cyclists-licensed-like-drivers-20131025

"A focus group of greater Grand Rapids drivers who did not bicycle indicated a lack of certainty at what rules of the road bicyclists must follow and what actions they, as drivers, must observe when encountering a bicyclist on the road. ...

"Following the campaign, nearly four in 10 respondents say they are very familiar with the rules bicyclists must follow, a statistically significant increase from the pre-campaign survey, when about three in 10 respondents felt very familiar with the rules for bicyclists. ...

"Familiarity with what rules apply to drivers when encountering bicyclists increased to a majority, with 52 percent saying they were very familiar with the rules."

From: Driving Change: Grand Rapids Bicycle Safety Campaign Pre-Post Campaign Research Report http://bikefriendlykalamazoo.org/wp/wp-content/uploads/2014/01/DrivingChange PrePostCampaignResearchReport 11 10 16.pdf

Also see:

http://www.pedbikeinfo.org/data/factsheet_crash.cfm [Pedestrian and Bicyclist Crash Statistics]

https://www.nhtsa.gov/road-safety/bicyclists

[Bicyclists / Bicycle Safety]

https://mobile.nytimes.com/blogs/well/2013/10/21/how-safe-is-cycling-its-hard-to-say/?referer= [How Safe Is Cycling? It's Hard to Say]

https://www.michigan.gov/documents/wedmk_16312_7.pdf [What Every Driver Must Know]

RIDING A BICYCLE IS NOT SAFE

20. Bicycling on the roads is not safe enough to legally allow.

"Riding a bike is a healthy, fun and safe activity. However, it isn't without some risk."

From: State Bike Laws

http://bikeleague.org/StateBikeLaws

"When all relevant ICD-10 (International Classification of Diseases) codes are used, fatalities by time spent travelling vary within similar ranges for walking, cycling and driving. Risks for drivers were highest in youth and fell with age, while for pedestrians and cyclists, risks increased with age. For the young, especially males, cycling is safer than driving."

From: Exposure-Based, 'Like-for-Like' Assessment of Road Safety by Travel Mode Using Routine Health Data

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0050606

"Vehicular Cycling is safer than driving a car, [general flying], motorcycling, skiing, swimming, or boating"

Activity	# Fatalities per 1,000,000 Exposure Hours
Skydiving	128.71
General Flying	15.58
Motorcycling	8.80
Scuba Diving	1.98
Living	1.53
Swimming	1.07
Snowmobiling	.88
Motoring	.47
Water skiing	.28
Bicycling	.26
Airline Flying	.15
Hunting	.08

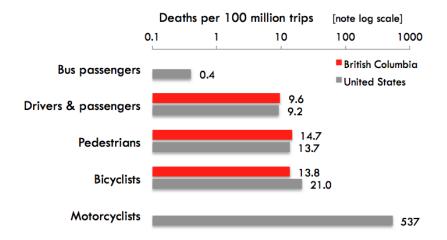
[&]quot;Data compiled by Failure Analysis Associates, Inc."

[Editor: The astute reader may be amused that simply 'Living' is less healthful (more "fatal?") than Bicycling.]

From: Modern Bicycling Myths

http://www.bicyclinglife.com/EffectiveAdvocacy/BicycleMyths.htm

"Risk of death per trip is roughly similar for drivers, pedestrians and bicyclists (all are within the same order of magnitude). Other methods of assessing risk may show different relationships, but the message is the same. Bicycling, when properly done is safe, and moreover, is healthy."



From: http://cyclingincities.spph.ubc.ca/injuries/

"Freeways are usually limited to motor vehicles of a minimum power or weight; signs may prohibit bicyclists, pedestrians and equestrians and impose a minimum speed...."

"In some US jurisdictions, especially where freeways replace existing roads, non-motorized access on freeways is the rule. Different states of the United States have different laws. Cycling on freeways in Arizona may be prohibited only where there is an alternative route judged equal or better for cycling. ... Wyoming, the least populated state, allows cycling on all freeways. Oregon allows bicycles except on specific urban freeways in Portland and Medford."

From: Non-motorized access on freeways https://en.wikipedia.org/wiki/Non-motorized access on freeways

"Biking can be just as safe [as] driving — in fact, some studies claim it's the safest transportation for young adults — when everyone follows the law and uses plenty of common sense."

From: Road Bike Safety 101: How to Get There, Get Fit, and Not Get Hit https://greatist.com/fitness/bicycle-safety-101

"A helmet protects your brain when you fall. It has a thin shell on the outside and thick foam inside. It has a strap to keep it on when you fly through the air. It only covers your head, and the rest of your body is exposed. So you still have to be careful."

From: Bike helmets made simple https://helmets.org/plain.htm

Also see:

https://greatist.com/fitness/bicycle-safety-101

[Road Bike Safety 101: How to Get There, Get Fit, and Not Get Hit]

21. Our area is too cold / wet for bicycling year round.

""People have been riding their bicycles in winter for 125 years, which tells you right off the bat that it's not a complicated affair. 80 percent of Copenhageners ride all winter, even through snowstorms and bitter sub-zero temperatures made worse by our wild winds. Dressing for the weather like pedestrians, we just get on with it. It's Viking Biking." – Mikael Colville-Andersen, Urban Mobility Expert and CEO of Copenhagenize Design Co.

"Each winter, a growing number of riders venture out onto snowy and rainy streets by bike. Although North Americans increasingly see their bicycles as a reliable mode of transportation, riding through winter weather can be intimidating. To increase the number of winter riders, cities across North America are working to make routes more accessible through snow clearing and developing connected, protected infrastructure.

"'Cycling in the City', a report prepared by the New York City Department of Transportation (NYC DOT) shows winter cycling has increased 86 percent since 2008. It's hard not to notice that this increase is paralleled by a huge expansion in bike infrastructure. "Biking isn't just warm-weather recreation, it's four-season transportation," said NYC DOT Commissioner Janette Sadik-Kahn. "More and more New Yorkers are building bikes into their everyday routines because [they're] affordable and efficient every day of the year.""

From: Clearing the Way for Winter Riders https://momentummag.com/clearing-the-way-for-winter-riders/

"Riding comfortably in the rain is easy using some common sense, preparation, and a bit of additional gear.

"There is no such thing as "bad biking weather", just ask those happy folks cycling around rainy Portland or snowy Minneapolis every day of the year!"

From: Wet Weather? No Problem! A Short Guide to Biking in the Rain https://bikeeastbay.org/wetweather

"On a fat bike, there's no need to tread lightly across the hundreds of miles of Michigan trails waiting to be explored this winter."

From: Winter Biking

http://www.michigan.org/winter%20biking#?c=44.4299:-85.1166:7&tid=83&page=0&pagesize=20&pagetitle=Biking

Also see:

http://www.michigan.gov/mdot/0,4616,7-151-9615 11223 64797 69435---,00.html [The Economic Benefits of Bicycling]

22. You need to be fearless to ride on the roads.

"Vehicular Cycling is safer than driving a car, [general flying], motorcycling, skiing, swimming, or boating:

<u>Activity</u>	# Fatalities per	1,000,000	Exposure Hours
Skydiving		128.71	
General F	lying	15.58	
Motorcycli	ng	8.80	
Scuba Div	ing	1.98	
Living		1.53	
Swimming		1.07	
Snowmobi	iling	.88	
Motoring		.47	
Water skiii	ng	.28	
Bicycling		.26	
Airline Flyi	ing	.15	
Hunting		.08	

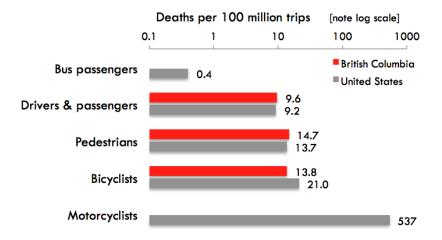
[&]quot;Data compiled by Failure Analysis Associates, Inc."

[Editor: The astute reader may be amused that simply 'Living' is less healthful (more "fatal?") than Bicycling.]

From: Modern Bicycling Myths

http://www.bicyclinglife.com/EffectiveAdvocacy/BicycleMyths.htm

"Risk of death per trip is roughly similar for drivers, pedestrians and bicyclists (all are within the same order of magnitude). Other methods of assessing risk may show different relationships, but the message is the same. Bicycling, when properly done is safe, and moreover, is healthy."



From: http://cyclingincities.spph.ubc.ca/injuries/

"Numerous studies have shown fear to be a significant barrier to cycling (British Medical Association 1992; Davies et al 1997; Gardner 1998; Gardner and Ryley 1997; Pearce et al 1998; Ryley 2004). One study based on quantitative and qualitative research, Barriers to Cycling (CTC et al 1997, 7), concludes 'the most prominent practical barriers perceived to be deterring potential cyclists were danger and safety'. The UK Department for Transport (2007, 2) reports that 47 per cent of adults 'strongly agree that "the idea of cycling on busy roads frightens me". Nor is fear of cycling confined to the UK. Gary Gardner (2002, 76) reports how, in 'surveys in three U.S. cities in the early 1990s, more than half of respondents cited lack of safety as an influential factor in their decisions not to cycle'. ...

"Fears of cycling may also include fear of being on view, of working one's (perhaps 'unsightly', perhaps 'sightly', certainly gendered) body in public, fear of harassment and violence from strangers (on safety fears of using cycle paths, see Harrison 2001, 23; McClintock 1992, 28, 35; Ravenscroft 2004; Ravenscroft et al 2002). ...

"We have never been so safe, yet never have we been so fearful. "Be careful" dominates our cultural imagination' ... We belong to 'a culture that continually inflates the danger and risks facing people' ... 'Activities that were hitherto seen as healthy and fun ... are now declared to be major health risks' ...). What is more, 'to ignore safety advice is to transgress the new moral consensus' ..."

Our fears are produced ... By saying that cycling is constructed as a dangerous practice, I am not denying that cyclists are really injured and killed on the roads; rather I am noting how people's fears of these (im)probabilities of injury and death are culturally constructed.

"[There are] three ways in which cycling is constructed as dangerous, and thus a contemporary fear of cycling is produced...road safety education, helmet promotion campaigns, and the increasing separation of cycling from motorised traffic. The irony, of course, is that these interventions are responses to a fear of cycling, clearly aimed at increasing cycling's safety. But I will demonstrate how, contrary to intentions, each intervention actually tends to exacerbate fear of cycling, and sometimes literally invokes it in order to promote the 'solution'. Fear is also used for financial profit in the sale of safety equipment. ...

"In the meantime, what can be done to allay people's fears of cycling? Although it is constantly produced and reproduced, fear of neither cycling nor the cyclist is inevitable. Both the conditions for cycling practice and representations of the cyclist can change and be changed, and thereby produce different effects. ...

"Correspondingly, we can in varied ways promote a pro-cycling culture. At the level of representation, our task is to generate and continuously reaffirm positive representations of cycling as an ordinary and enjoyable practice ... and instead provide people with very many, very diverse, positive and affirming representations of both cycling practice and cycling identities."

From: Thinking About Cycling https://thinkingaboutcycling.wordpress.com/article-fear-of-cycling/

"... recent planning guidelines in the US advise that cycle tracks drop to a bike lane before arriving at an intersection to increase the visibility of cyclists. ...

"British cycling safety educator John Franklin has argued that the vast majority of research implies increases in the rate and severity of car-bicycle collisions due to such [bike path] segregation, based on an overview of studies published up to 1999."

From: Bikeway Safety

https://en.wikipedia.org/wiki/Bikeway_safety

Also see:

http://usa.streetsblog.org/2015/03/04/survey-100-million-americans-bike-each-year-but-few-make-it-a-habit/

[Survey: 100 Million Americans Bike Each Year, But Few Make It a Habit]

http://www.peopleforbikes.org/statistics/category/participation-statistics

[Statistics Library: Participation Statistics]

https://bradedmondson.files.wordpress.com/2011/11/the-us-bicycle-market-a-trend-overview-report.pdf | The US Bicycle Market: A Trend Overviewl

http://bikeleague.org/content/new-census-data-bike-commuting

[New: Census Data On Bike Commuting]

23. Telling bicyclists and motorists to "share the road" is most likely to improve their behavior.

""Comprehension of the familiar "Share the Road" signage as a statement of bicyclists' roadway rights has been challenged, based on arguments that it is ambiguous, imprecise, frequently misinterpreted, and not designed for that purpose...In fact, the US state of Delaware discontinued use of the "Share the Road" plaque in November, 2013." –

From: "Bicycles May Use Full Lane" Signage Communicates U.S. Roadway Rules and Increases Perception of Safety, North Carolina State University, August 28, 2015 http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136973

"In November of 2013, Delaware formally discontinued the use of the "Share The Road" sign, the first U.S. state to do so [in 2016, Oregon also did so]. The sign was interpreted in <u>diametrically opposite ways</u> by cyclists and motorists and failed to prevent conflict and hostility between motorists and cyclists.

"Arguably, the sign may actually have been causing conflict.

"Now <u>a study</u> published [cited above] by researchers at North Carolina State University (NCSU) has confirmed what Delaware already knew: <u>"Share The Road" is a problem.</u>

"The authors of the new study – both NCSU faculty – surveyed nearly 2,000 people and found that there was "no statistically significant difference in responses between those who saw 'Share the Road' signage and those who saw no signage" whatsoever in terms of their comprehension that cyclists are permitted in the center of the travel lane; that cyclists do not have to move right to allow motorists to pass within the same lane; or that motorists should wait for a break in traffic before passing in the adjacent lane. In sharp contrast to the complete uselessness of "Share The Road", survey respondents who were shown the "Bicycle May Use Full Lane" sign showed uniformly high understanding of permissible cyclist lane positioning and appropriate safe passing behavior for motorists.





"Large study from North Carolina State University confirms that "Share The Road" is a problem."

From: Study Confirms: "Share The Road" Signs Don't Work http://www.bikede.org/2015/08/29/share-the-road-is-a-problem/

"Both cyclists and motorists identified "Share the Road" as a message they believed would reduce the number of bicycle/motor vehicle crashes; however, when asked which message would change their driving or riding habits, the "Share the Road" message fell to the bottom of the list."

From: Grand Rapids Bicycle Safety: Research Appendix http://bikefriendlykalamazoo.org/wp/wp-content/uploads/2014/01/June2015-GrandRapidsBicycleSafetyResearchFindingsAppendix.pdf

BICYCLING IS ELITIST AND SLOW

24. Bicycling is just for a few people, not for the general public.

"Date National Population (USA)

"July 1, 1995 262,803,276"

From: Historical National Population Estimates: July 1, 1900 to July 1, 1999 https://www.census.gov/population/estimates/nation/popclockest.txt

"It is estimated that more than a billion bicycles are present in the world, with nearly half of them in China. Below is a table with the major countries:

"Country	Quantity	Year	
Obline	450 000 000	4000	
China	450,000,000	1992	
USA	100,000,000	1995	
Japan	72,540,000	1996	
Germany	62,000,000	1996	
India	30,800,000	1990	
Indonesia	22,300,000	1982	
Italy	23,000,000	1995	
UK	20,000,000	1995	
France	20,000,000	1995	
Brazil	40,000,000	1996	
Netherlands	16,500,000	2000"	

From: Bicycles produced

http://www.worldometers.info/bicycles/

"1995 98.99 [million]"

From: Number of households in the U.S. from 1960 to 2016 (in millions)

https://www.statista.com/statistics/183635/number-of-households-in-the-us/

"Bicycling participation among Americans is substantially greater than initially thought, according to a new study released Monday.

"The U.S. Bicycling Participation Benchmarking Report, commissioned by PeopleForBikes, indicates that 34 percent of Americans age three or older rode a bike at least once in 2014. For comparison, the same study found that 40 percent of Americans ran or jogged outside last year.

[Other] "... studies had pegged U.S. bicycling participation much lower. The 2014 National Sporting Goods Association data indicated a bicycling participation rate of only 12 percent."

From: Study: 103.7 Million Americans Ride Bikes http://www.velonews.com/2015/03/news/study-103-7-million-americans-ride-bikes 362019

"In 2016, around 12.4 percent of Americans cycled on a regular basis. The number of cyclists/bike riders in the U.S. saw a considerable increase between 2012 and 2014, and has remained fairly stable since then. In 2016, there were 66.5 million cyclists and bike riders in the U.S."

From: Cycling - Statistics & Facts https://www.statista.com/topics/1686/cycling/

Also see:

http://www.bicyclinglife.com/Library/Moritz2.htm [Adult Bicyclists in the U.S.]

25. Bicycling is a luxury just for rich white people who wear spandex.

"...white people remain somewhat overrepresented; but bicycling appears to be trending toward racial parity. As of 2009, roughly 21 percent of all bike trips in the U.S. were made by people of color, and it looks as though U.S. cyclists may soon look pretty darn similar to the nation as a whole.

Contrary to popular convention, the biggest share of bicyclists isn't yuppies, it's low income people. In fact, the lowest-earning quarter of Americans make nearly one-third of all bike trips. Among that group, I would expect to find at least some fraction of working poor, students, the unemployed, and retired people of modest means. No doubt there are almost as many reasons to bike as there are cyclists, but it's clear that bikes are a favored choice among those on a budget."

From: Race, Class, and the Demographics of Cycling http://grist.org/biking/2011-04-06-race-class-and-the-demographics-of-cycling/

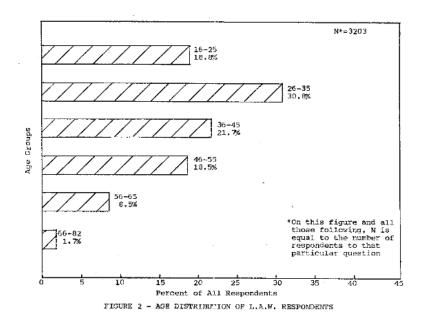
"The U.S. Census Bureau just released its first-ever report exclusively on walking and biking. ...

"The Census report shows that low-income people bike and walk to work the most, hands down. Of those who make less than \$10,000 a year, 1.5 percent commute by bike and 8.2 percent walk. In the \$25,000-34,999 range, those numbers are halved. Then at the highest earning levels, active commuting rates start to creep back up. The income stats provide more evidence that safe walking and biking infrastructure isn't mainly the concern of geared-up weekend warriors with expensive bikes."

From: Low-Income Americans Walk and Bike to Work the Most http://usa.streetsblog.org/2014/05/08/low-income-americans-walk-and-bike-to-work-the-most/

26. Bicyclists are mainly young people.

"The mean age of all respondents to the questionnaire was 37.7 years, with only a minor difference between the sexes. Figure 2 [reproduced below] shows the age distribution of the respondents. It is somewhat surprising to see the large number of persons older than 46 (28.7 percent) that were active cyclists."



From: Characteristics Of The Regular Adult Bicycle User: Chapter IV - Analysis Of Data On Aggregate Basis

http://www.bikexprt.com/research/kaplan/aggreg.htm

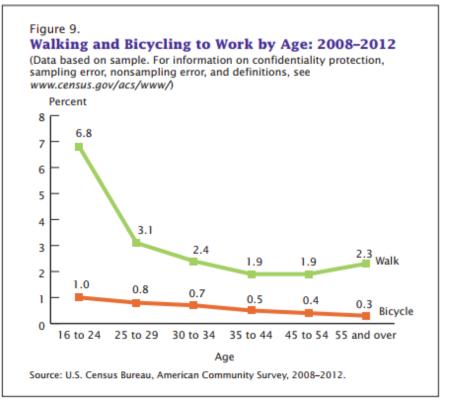
"22 percent of the net growth in U.S. bike trips from 1995-2009 is by people ages 60-79. Their biking quadrupled in those 14 years, the fastest growth of any demographic."

From: Statistics Library: Participation Statistics

http://www.peopleforbikes.org/statistics/category/participation-statistics

From: Survey Of North American Bicycle Commuters: Design And Aggregate Results http://pubsindex.trb.org/view.aspx?id=578182

[&]quot;... the average bicycle commuter is a 39-year-old male professional with a household income in excess of \$45,000 per year who rides 10.6 months per year...nearly one in five...was female."



From: Figure 9 - Walking and Bicycling to Work by Age: 2008–2012 https://www.census.gov/prod/2014pubs/acs-25.pdf

27. Riding a bike takes longer than driving.

[The study] "looked at 11.6 million bicycle trips in Lyon between May 2005 and December 2007. ... Over an average trip, cyclists travel 2.49 km in 14.7 minutes so their average speed is about 10 km/h. That compares well with the average car speed in inner cities across Europe.

"During the rush hour, however, the average speed rises to almost 15 km/h, a speed which outstrips the average car speed."

From: Cyclists Pedal Faster On Wednesdays, Reveals Smart Bike Data https://www.technologyreview.com/s/421862/cyclists-pedal-faster-on-wednesdays-reveals-smart-bike-data/

"I think the real answer to your question is that it depends on where you are. Suburban and rural "car culture" areas will be more spread out and have more highways, thus making driving faster per mile. But cities where there are intersections on every block don't let cars travel any faster than bikes do." [Dan's answer to the question, "Can you really ride faster than you drive?"]

From: Q&A: Can you really ride faster than you drive?

https://www.bikeshophub.com/blog/2008/06/30/ga-can-you-really-ride-faster-than-you-drive

""Nothing compares to the simple pleasure of a bike ride."" - John F. Kennedy

"Let me tell you what I think of bicycling. I think it has done more to emancipate women than anything else in the world. It gives women a feeling of freedom and self-reliance. I stand and rejoice every time I see a woman ride by on a wheel...the picture of free, untrammeled." – Susan B. Anthony

"It is by riding a bicycle that you learn the contours of a country best, since you have to sweat up the hills and coast down them. Thus you remember them as they actually are, while in a motor car only a high hill impresses you, and you have no such accurate remembrance of country you have driven through as you gain by riding a bicycle." – Ernest Hemingway

From: 18 Quotes on Bicycling From Famous People https://www.thoughtco.com/best-bike-quotes-365785

"It takes less energy to bicycle one mile than it takes to walk a mile. In fact, a bicycle can be up to 5 times more efficient than walking. If we compare the amount of calories burned in bicycling to the number of calories an automobile burns, the difference is astounding. One hundred calories can power a cyclist for three miles, but it would only power a car 280 feet (85 meters)!"

From: Human Power

http://www.exploratorium.edu/cycling/humanpower1.html

"Bike advocates often point out how much people can save by driving less, but their general numbers are tough to translate to a personal level. Well, Michael Bluejay ... has come up with a biking vs. driving calculator that lets folks plug in the numbers for their personal situation."

From: Biking vs. Driving Calculator

http://www.getrichslowly.org/blog/2011/06/27/biking-vs-driving-calculator/

28. Bicyclists don't drive cars.

"Despite the belief that bicyclists are getting a free ride, a new survey shows most bike commuters also own and drive cars.

"Nearly nine out of 10 bicyclists in Oregon and southwest Washington also own and drive automobiles, according to a new survey on bike "perceptions and experiences."

"... the study, commissioned by the Bicycle Transportation Alliance in Portland, showed even the most avid cyclists regularly drive, paying gas taxes and licensing fees."

From: Survey: 90 percent of Avid Oregon Bicyclists Also Own, Drive Cars http://blog.oregonlive.com/commuting/2009/10/survey 90 percent of oregon bi.html

"Respondents were asked how many automobiles were available for their use. ... only 5.4 percent of the respondents do not have any available autos.

"... there are on the average 1.6 automobiles available for each respondent."

From: Characteristics Of The Regular Adult Bicycle User: Chapter IV - Analysis Of Data On Aggregate Basis

http://www.bikexprt.com/research/kaplan/aggreg.htm

"Average 16,550 [Males] 10,142 [Females] 13,476 [Overall]"

From: Average Annual Miles per Driver by Age Group https://www.fhwa.dot.gov/ohim/onh00/bar8.htm

"Percent of Trips by Travel Mode (all trip purposes)

Country	bicycle	walking	public transit	car	other
Netherlands	30	18	5	45	2
Denmark	20	21	14	42	3
Germany	12	22	16	49	1
Switzerland	10	29	20	38	1
Sweden	10	39	11	36	4
Austria	9	31	13	39	8
England/Wales	8	12	14	62	4
France	5	30	12	47	6
Italy	5	28	16	42	9
Canada	1	10	14	74	1
United States	1	9	3	84	3

"Source: John Pucher, Transportation Quarterly, 98-1 (from various transport ministries and depts., latest avail. year)"

From: Bicycle Statistics: Usage, Production, Sales, Import, Export http://www.ibike.org/library/statistics-data.htm

ADDITIONAL RESOURCES

Driving Change campaign materials: http://grdrivingchange.org/resources/

Driving Change pre-post survey: http://bikefriendlykalamazoo.org/wp/wp-content/uploads/2014/01/June2015-GrandRapidsBicycleSafetyResearchFindingsAppendix.pdf

Driving Change Pre-Post Campaign Research Report: http://bikefriendlykalamazoo.org/wp/wp-content/uploads/2014/01/DrivingChange_PrePostCampaignResearchReport_11_10_16.pdf Contacts:

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"Be a Safe Cyclist" brochure: orders of 250 are free of charge through the Michigan Office of Highway Safety Planning: https://www.michigan.gov/documents/msp/ohs-007_012010_306211_7.pdf

Contributors / Acknowledgements

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Many of the resources uncovered took place during a public meeting on August 24, 2017 sponsored by Bike Friendly Kalamazoo and graciously hosted at the Oshtemo Charter Township Hall (Michigan).

The summary statements in this document were prepared by Paul Selden and Paul Runnels based on the information generated during this meeting, plus information available at the time as cited. Please email suggestions for its improvement to info@bikefriendlykalamazoo.org.

We welcome serious discussion with individuals or organizations wishing to codify best practices with regard to bicycling law.