Courtney Olive
Attorney
Portland, OR

February 19, 2019

Sen. Lee Beyer and Rep. Caddy McKeown
Co-Chairs, Joint Committee on Transportation
Oregon State Capitol, S-411 900 Court St., N.E.
Salem, OR 97301

RE: Documents supporting 2/20/19 oral testimony in favor of HB2314

Attached please find the following in support of the testimony I will present tomorrow:

1. Summary of Belgian study regarding the congestion-relief benefits of motorcycle lane sharing. The full, 51-page study is available at: https://www.tmleuven.be/en/project/motorcyclesandcommuting

2. Traffic rankings for Portland, OR, showing it is between the 7th and 10th most-congested city in the U.S. (sources: statista.com, US News & World Report, and TomTom.com)

3. Articles from Wired.com and Road&Track.com discussing the congestion-relief benefits of lane sharing.

ATTACHMENT 1

(Belgian study summary page)
(Full study available at: https://www.tmleuven.be/en/project/motorcyclesandcommuting)

Commuting by Motorcycle

In this study, we examined the effects of an increased share of motorcycles in commuter traffic. A modal shift from private cars towards motorcycles affects the propagation of traffic flows and traffic congestion. There will also be an impact on emissions from traffic.

The impact on traffic congestion was determined in a case study for the section of motorway between Leuven and Brussels. Traffic flows in the morning commute were simulated in detail. A modal shift towards motorcycles resulted in shorter queues that disappear sooner. Travel times are significantly shorter. If 10% of all private cars are replaced by motorcycles, the total time loss for all vehicles decreases by 40%. The attraction of new traffic due to improved circumstances is taken into account in this case study.

When the case study results are extrapolated to the entire motorway network in Belgium, total time savings for all vehicles add up to 15 000 hours, which is equivalent to a benefit of € 350 000 per day.

The impact of a modal shift on emissions was also determined for the case study Leuven-Brussels. New motorcycles emit fewer pollutants compared to average private cars (less NOX, NO2, PM2.5 and EC, but more VOC). They also emit less CO2. Total external emission costs of new motorcycles are more than 20% lower than average private cars. On the section of motorway between Leuven and Brussels, total emission costs can be reduced by 6% if 10% of private cars are replaced by motorcycles.

Periode: 2011

Opdrachtgever: Febiac

Partner: /

Contact: griet.deceuster@tmleuven.be +32 16 31.77.30

Downloads

- Final report (Dutch)
- Final Report (ENG)

Webpagina: https://www.tmleuven.be/en/project/motorcyclesandcommuting

ATTACHMENT 2

(Traffic rankings for Portland, OR)

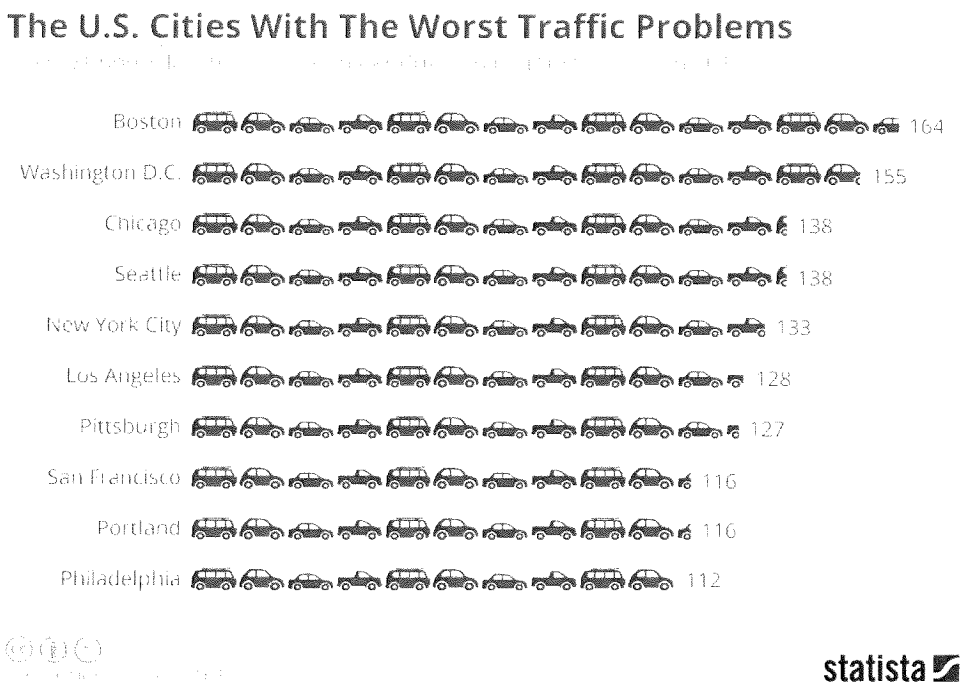
TRAFFIC

The U.S. Cities With The Worst Traffic Problems

by Niall McCarthy, Feb 13, 2019

Hot on the heels of the New England Patriots winning the Super Bowl, Boston has earned another title, though it isn't as positive. Residents of the city will readily agree that the commute can prove nightmarish and new research from INRIX shows just how bad it actually is. In 2018, the average Boston commuter driving to and from work lost a whopping 164 hours sitting "bumpah to bumpah" in traffic jams. All of that time stuck in traffic costs each driver $2,291 a year on average while it cost the entire area just over $4 billion.

Washington D.C. comes second in the U.S. congestion league with commuters traveling by automobile losing 155 hours last year on average. Chicago came third with 138 hours lost to traffic while New York City and Los Angeles came fourth and fifth with 133 and 128 hours lost respectively. Nationwide, 97 hours were lost on average while the total cost was $87 billion in 2018. There was criticism of INRIX's methodology from some quarters and several observers pointed out that while trips can be more congested in dense cities like Boston, they are generally do not take as long as in sprawling regions such as Los Angeles where greater distances are involved.



Niall McCarthy
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DESCRIPTION

This chart shows average hours lost to congestion per driver in major U.S. cities in 2018.

Repc

URL TO BE USED AS REFERENCE LINK:

https://www.statista.com/chart/12855/americas-most-congested-cities/

HTML CODE TO EMBED CHART

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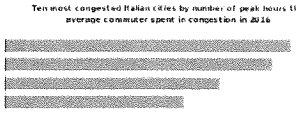
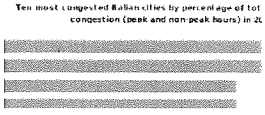


Italy: top 10 cities by number of peak hours spent in congestion 2016



U.S.News & WORLD REPORT

Cities With the World's Worst Traffic Congestion

In one Russian city, residents spent the equivalent of almost nine days in 2018 stuck in traffic.

By **Katelyn Newman**, Staff Writer Feb. 12, 2019

Traffic congestion in Moscow on Dec. 28, 2018. (MIKHAIL TERESHCHENKO\TASS VIA GETTY IMAGES)

MOSCOW COMMUTERS LOSE nearly nine days a year sitting in city traffic, a new report finds.

With drivers spending an average of 210 hours in peak rush hour periods last year, Moscow was the most traffic-congested city in the world in 2018, according to an annual scorecard by INRIX, a data analytics company that delivers insight into how people move around the world.

The 2018 traffic scorecard analyzed the per capita time spent in congestion, as well as its severity, in more than 200 cities across 38 countries. Rankings were based on the total number of hours lost in traffic during peak commute periods compared to free-flow periods as well as the average speed and the time it took to travel one mile into a city's business district during rush hour.

"Congestion is an indiscriminate global phenomenon that is dramatically impacted by population, the economy, infrastructure and the proliferation of rideshare and delivery services," the report says. "It also imposes massive costs both economically and socially."

At about 272 hours on average, drivers in Colombia's capital lost the most hours due to traffic congestion in 2018, according to the report.

Driving Dangerously in Lima

In fact, four of the top 10 cities were in Latin America. That didn't surprise authors, who noted "breakneck rates of urbanization, high levels of informal settlements, unforgiving topographies and financial volatility" in the cities make it difficult to improve mobility within them.

Russia and Brazil were the only two countries with more than one city on the top 10 most congested list.

The 10 Most Congested Cities in the World in 2018:

CONGESTION RANK	METRO AREA	COUNTRY	HOURS LOST TO CONGESTION
1	**Moscow**	**Russia**	**210**

3	Bogota	Colombia	272
4	Mexico City	Mexico	218
5	Sao Paulo	Brazil	154
6	London	United Kingdom	227
7	Rio de Janeiro	Brazil	199
8	Boston	United States	164
9	Saint Petersburg	Russia	200
10	Rome	Italy	254

As for the United States, the 2018 scorecard analyzed congestion and its severity in the top 60 urban areas. It found that Americans lost an average of 97 hours a year due to traffic, costing them $87 billion annually in time – an average of $1,348 per driver.

lost due to congestion. Meanwhile, Washington, D.C. came in second both in terms of impact and time wasted, with 144 hours lost and drivers losing an average of $2,161 last year on their commute.

Among the country's oldest and densest cities, New York City, San Francisco and Philadelphia were determined to have the slowest downtown business districts in the U.S.

The 10 Most Congested Cities in the United States in 2018:

CONGESTION RANK	METRO AREA	STATE	HOURS LOST IN CONGESTION
1	Boston	Massachusetts	164
2	Washington	District of Columbia	155
3	Chicago	Illinois	138
4	New York City	New York	133
5	Los Angeles	California	128
6	Seattle	Washington	138
7	Pittsburgh	Pennsylvania	127
8	San Francisco	California	116
9	Philadelphia	Pennsylvania	112
10	Portland	Oregon	116

Katelyn Newman , Staff Writer

Katelyn Newman is a staff writer for the Healthiest Communities division at U.S. News & World R... **READ MORE »**

Tags: Russia, Brazil, United States, Turkey, Boston, Moscow, traffic, world

RECOMMENDED

Cities With the Largest Carbon Footprints

TOMTOM
TRAFFIC INDEX

FULL RANKING

FILTER RESULTS

CONTINENT

All

COUNTRY

United States

CITY SIZE

Large (Population > 800 thousand)

US Rank	WORLD RANK	CITY	CONGESTION LEVEL
1	12	Los Angeles	45% ↑ 4%
2	30	San Francisco	39% ↑ 3%
3	49	New York	35% ↑ 2%
4	53	Seattle	34% ↑ 3%
5	65	San José	32% ↑ 2%
6	75	Miami	30% ↑ 2%
7	82	Portland	29% ↑ 3%
8	89	Honolulu	29% – 0%
9	90	Washington	29% ↑ 3%

WORLD RANK	CITY	CONGESTION LEVEL
97	Boston	28% ↑ 3%
102	San Diego	27% ↑ 3%
104	Atlanta	27% ↑ 3%
106	Baton Rouge	26% ↑ 3%
108	Chicago	26% – 0%
115	Austin	25% ↑ 3%
117	Houston	24% ↓ 1%
120	Tampa	24% – 0%
121	Las Vegas	24% ↑ 2%
122	Nashville	23% ↑ 1%
123	New Orleans	23% ↑ 1%
125	Philadelphia	23% – 0%
131	Sacramento	22% ↑ 3%
132	Riverside	22% ↑ 2%
134	McAllen	21% ↑ 4%
136	Denver	20% ↓ 1%
138	Tucson	20% ↑ 1%
142	Orlando	20% ↓ 3%

WORLD RANK	CITY	CONGESTION LEVEL
143	San Antonio	20% ↑ 2%
145	Baltimore	19% ↑ 1%
146	Pittsburgh	19% ↑ 1%
147	New Haven	19% ↑ 1%
148	Fresno	19% ↑ 2%
150	Providence	19% ↑ 1%
151	Dallas-Fort Worth	18% ↑ 1%
152	Virginia Beach	18% – 0%
153	Raleigh	18% ↑ 2%
154	Bakersfield	18% ↑ 3%
155	Jacksonville	18% ↑ 2%
156	Oxnard-Thousand Oaks-Ventura	18% ↑ 1%
157	Greenville	18% ↑ 4%
158	Charlotte	17% ↑ 1%
159	Memphis	17% ↑ 1%
160	Louisville	17% – 0%
161	El Paso	17% ↑ 2%
163	Allentown	17% ↑ 2%

WORLD RANK	CITY	CONGESTION LEVEL
164	Columbus	16% ↑ 1%
165	Phoenix	16% ↑ 1%
166	Minneapolis	16% ↑ 1%
167	Hartford	16% – 0%
168	Salt Lake City	16% ↑ 2%
169	Detroit	16% ↑ 1%
170	Albuquerque	16% – 0%
171	Buffalo	16% ↑ 1%
172	Grand Rapids	15% ↑ 3%
173	Birmingham, Alabama	15% ↑ 2%
174	Rochester	14% – 0%
175	Cincinnati	14% – 0%
176	Oklahoma City	14% – 0%
177	Worcester, Massachusetts	14% – 0%
178	Albany	14% – 0%
179	Milwaukee	13% ↑ 1%
180	St. Louis	13% ↑ 1%
181	Columbia	13% ↑ 2%

WORLD RANK	CITY	CONGESTION LEVEL
182	Tulsa	12% — 0%
183	Cleveland	12% ↑ 1%
184	Richmond	11% ↑ 1%
185	Omaha-Council Bluffs	11% ↑ 1%
186	Kansas City	11% ↑ 1%
187	Indianapolis	11% ↑ 1%
188	Knoxville	10% ↑ 3%
189	Dayton	9% — 0%

The TomTom Traffic Index is based on 2016 data.

To see the live traffic situation, go to TomTom City.

For more information on our traffic and maps products, go to www.tomtommaps.com/en_us/traffic.

To check out the products that help drivers to beat traffic, go to www.tomtom.com/drive/car/.

ATTACHMENT 3

(Articles regarding congestion-relief benefits of motorcycle lane sharing)

ALEX DAVIES TRANSPORTATION 06.01.15 07.00 AM

YES, WE SHOULD LET MOTORCYCLES RIDE BETWEEN CARS

MITCH DIAMOND

EVERY CALIFORNIA DRIVER'S seen it: While you're sitting in your car on the freeway, creeping through traffic, one motorcyclist after another zips by, riding between lanes. It may seem unfair (why does he get to go ahead!?) and unsafe (won't he be hit!?), and for those reasons, illegal.

It's not. At least not in California. Lane splitting, also called lane sharing and traffic filtering, is 100 percent legal in the Golden State, simply because it's not *illegal*. It's not mentioned anywhere in the rules of the road.

And if you care about congestion, carbon emissions, or motorcyclist safety, that's a good thing.

From Not Illegal to Legal

Every other state in the union explicitly bans lane splitting, according to the American Motorcyclist Association, although some have reconsidered in recent years. It's legal in Europe and Asia.

The California Vehicle Code does not mention lane splitting at all, which is precisely why it's not illegal. The closest thing motorcyclists have to lane splitting rules are guidelines the California Highway Patrol issued in 2013. They're not legally binding, but advise motorcyclists who traffic filter to do so when traffic is going 30 mph or slower, and not go more than 10 mph faster than the speed of traffic. They also recommend riding between the left lanes (where drivers are "more accustomed" to it) and not lane splitting near trucks, at night, on unfamiliar roads, or in bad weather.

The bill moving through the legislature runs along the same lines, but makes the issue much clearer. It "unequivocally authorizes motorcycles to drive between stopped or slow moving vehicles," as long as traffic is moving at 50 mph or less and the motorcyclist doesn't outrun traffic by more than 15 mph.

Advantages

The big upside of riding between cars is obvious for motorcyclists: While the chumps on four wheels are crawling over the Bay Bridge at 3 mph, cyclists are zipping through. But it's good for drivers too, because motorcyclists who lane split reduce congestion and carbon emissions. That's according to a 2012 study by Belgian research firm Transport & Mobility Leuven.

Studying one congested stretch of road, the researchers found replacing 10

When traffic comes to a complete standstill, it can be assumed that all motorcycles drive between two lanes."

On top of all that, there are safety advantages to lane splitting. Hard to believe—it's so easy for a driver to hit someone riding by!—but riding between cars rather than in front of and behind them seems to reduce the risk of a deadly collision, specifically from being rear ended.

"Seemingly counter-intuitive, traffic filtering is actually a viable safety technique," motorcycle safety consultant Steve Guderian wrote in an August 2011 study. It "removes the motorcycle and rider from the danger spot behind a stopped car, and places the motorcycle into the more secure safety envelope that is created between two larger vehicles." Guderian found that California had significantly fewer motorcyclist fatalities from rear end collisions than other states.

California Assembly Member Dan Quirk, one sponsor of the bill, points out these benefits. He also argues that once lane splitting is officially legal, it'll be easier to slap on some rules to regulate what's safe and what isn't. "Hav[ing] clearly established guidelines in state law will make it easier for the California Highway Patrol and the Department of Motor Vehicles, for example, to educate drivers on this practice," he says.

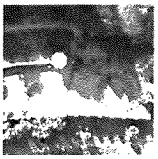
#MOTORCYCLES #REGULATION

AARIAN MARSHALL

Amazon's Self-Driving Pet and More Car News This Week

AARIAN MARSHALL

The Green New Deal's Trains and EVs Won't Work for Everyone



AARIAN MARSHALL

Ride With the Guy Who Builds Roller Coasters in His Yard

ALEX DAVIES

Amazon Dives Into Self-Driving Cars With a Bet on Aurora

ERIC ADAMS

With Its New 911, Porsche Improves the Unimprovable—Again

MORE TRANSPORTATION

Legalize Lane Splitting

It's time to stop banning this beneficial practice.

BY COLLIN WOODARD AUG 9, 2016

GETTY IMAGES / ANNA BRYUKHANOVA

Last week, the California Assembly unanimously passed a bill that would officially make it legal for motorcyclists to ride between lanes of traffic. It's something that motorcyclists in the state have been doing for years since there was no law specifically against it. But now it's set to officially go on the books as a legal practice. And it's time for every other state to do the same thing.

As it stands, the other 49 states in this country agree that lane splitting is dangerous and should be illegal. And while bills to change that have been proposed in several other states over the years, none have made it to law. Simply looking at how many states are for and against lane splitting, it would

look like it's obvious that they're correct. Unfortunately for anti-lane-splitting legislators, the research doesn't back that idea up.

University of California, Berkeley put out a report on the safety of lane splitting last May. The conclusion? With a few caveats, lane splitting is safe.

Traffic speed was found to be a key factor in rider safety, with no increase in risk of injury until traffic exceeded 50 mph. The other key factor was speed differential. Anything less than 15 mph had no impact on rider injuries. So as long as riders followed those two guidelines, researchers found no evidence that lane splitting was dangerous.

In fact, the study found that lane splitting could even be safer for motorcyclists. Riders who rode in traffic were both injured more frequently and more seriously than riders who lane split, and they were much more likely to be rear-ended. As far as rider safety goes, it looks like the benefit of lane splitting is an open-and-shut case.

But lane splitting doesn't only benefit motorcyclists. It benefits everybody on the road by reducing congestion.

This 2012 study by Belgian researchers found that replacing only 10 percent of cars with lane-splitting motorcycles reduced travel times by 63 percent. That's huge. Obviously, it can be frustrating to be stuck in traffic and watch a motorcyclist ride by, but the research shows that if that rider stayed weren't lane splitting, traffic would actually be moving more slowly.

If you reduce congestion, that means you're not only saving everyone time and frustration, you're also saving them money. That's because they're using nearly as much fuel to get where they're going. And when you reduce fuel usage as a whole, you also reduce emissions.

Allowing motorcycles to lane split probably won't go so far as to reverse global warming, but no one's ever complained that the air they're breathing is too clean. Or that they're not stressed enough during their commute. Or that they're spending too little on gas. Or that they're getting home from work too quickly. Doing that would be almost as crazy as, well, banning lane splitting.

People can try to argue that riding between lanes is dangerous, but when you look at the evidence, the opposite is true. They can also try to argue it's an inconvenience for other drivers, but again, the

evidence shows the opposite is true. Really, the only defensible argument against legalizing lane splitting is "I don't care what the research says. I don't like it and never will." At least then they're being honest.

But states shouldn't let their laws be dictated by groups of people who don't like that the available research disagrees with them. It's time for the rest of this country to catch up with California and start repealing anti-lane splitting laws.

WATCH NEXT

READ NEXT