



TRIP Report: KENTUCKY MOTORISTS LOSE \$4.7 BILLION ANNUALLY – UP TO \$2,154 PER DRIVER – ON ROADS THAT ARE ROUGH, CONGESTED & LACK SOME DESIRABLE SAFETY FEATURES

Posted on [February 15, 2022](#) by [Greg](#)



Roads and bridges that are deteriorated, congested or lack some desirable safety features cost Kentucky motorists a total of \$4.7 billion statewide annually – as much as \$2,154 per driver in some urban areas – due to higher vehicle operating costs, traffic crashes and congestion-related delays. Increased investment in transportation improvements at the local, state and federal levels could relieve traffic congestion, improve road, bridge and transit conditions, boost safety, and support long-term economic growth in Kentucky, according to a new report released today by [TRIP](#), a Washington, DC based national transportation research nonprofit.

The TRIP report, [“Kentucky Transportation by the Numbers: Meeting the State’s Need for Safe, Smooth and Efficient Mobility,”](#) finds that throughout Kentucky, more than one quarter of major locally and state-maintained roads are in poor or mediocre condition, seven percent of locally and state-maintained bridges (20 feet or more in length) are rated poor/structurally deficient, and the state has the fourth highest rate of traffic fatalities in the nation. Kentucky’s major urban roads are congested, causing significant delays and choking commuting and commerce. The TRIP report includes statewide and regional pavement and bridge conditions, congestion data, highway safety data, and cost breakdowns for the Bowling Green, Lexington, Louisville, Northern Kentucky and Owensboro urban areas.

Driving on deficient roads costs Kentucky motorists a total of \$4.7 billion per year in the form of extra vehicle operating costs (VOC) as a result of driving on roads in need of repair,

lost time and fuel due to congestion-related delays, and the costs of traffic crashes in which the lack of adequate roadway safety features, while not the primary factor, likely were a contributing factor. A breakdown of the costs per motorist in the state’s largest urban areas, along with a statewide total, is below.

Location	VOC	Congestion	Safety	TOTAL
Bowling Green	\$170	\$788	\$563	\$1,521
Lexington	\$306	\$809	\$398	\$1,513
Louisville	\$586	\$868	\$430	\$1,884
Northern Kentucky	\$549	\$1,238	\$367	\$2,154
Owensboro	\$627	\$344	\$419	\$1,390
Kentucky Statewide	\$1.3 Billion	\$1.8 Billion	\$1.6 Billion	\$4.7 Billion

The TRIP report finds that seven percent of major locally and state-maintained roads in Kentucky are in poor condition and another 21 percent are in mediocre condition, costing the state’s drivers an additional \$1.3 billion each year in extra vehicle operating costs, including accelerated vehicle depreciation, additional repair costs, and increased fuel consumption and tire wear.

Seven percent of Kentucky’s bridges are rated in poor/structurally deficient condition. Bridges that are rated poor/structurally deficient have significant deterioration of the bridge deck, supports or other major components. Sixty-five percent of the state’s bridges are rated in fair condition and the remaining 28 percent are in good condition.

In 2020, the state’s transportation system carried 46.5 billion annual vehicle miles of travel (VMT). Congested roads choke commuting and commerce and cost Kentucky drivers \$1.8 billion each year in the form of lost time and wasted fuel. In the most congested urban areas, drivers lose up to \$1,238 annually in the loss of 50 hours and the waste of 24 gallons of fuel due to traffic congestion. Due to the Covid-19 pandemic, vehicle travel in Kentucky dropped by as much as 36 percent in April 2020 (as compared to vehicle travel during the same month the previous year), but rebounded to four percent above November 2019 volume by November 2021.



THE FOURTH HIGHEST IN THE NATION



1.48 VS 1.11
(Non-rural) (U.S. Average)

The fatality rate per 100 million vehicle miles of travel in 2019



Traffic crashes in Kentucky claimed the lives 3,833 people between 2015 and 2019. Kentucky’s overall traffic fatality rate of 1.48 fatalities per 100 million vehicle miles of travel in 2019 is the fourth highest in the U.S. and significantly higher than the national average of 1.11. The fatality rate on Kentucky’s non-interstate rural roads is more than two and a half times higher than on all other roads in the state (2.49 fatalities per 100 million vehicle miles of travel vs 0.9). Traffic crashes imposed a total of \$4.9 billion in economic costs in Kentucky in 2019 and traffic crashes in which a lack of adequate roadway safety features, while not the primary factor, were likely a contributing factor imposed \$1.6 billion in economic costs.

Improvements to Kentucky’s roads, highways and bridges are funded by local, state and federal governments. The level of Kentucky Transportation Cabinet highway investment is likely to increase further as a result of the five-year federal [Infrastructure Investment and Jobs Act](#) (IIJA), signed into law in November 2021, which will provide \$5.1 billion for road, highway and bridge investment in Kentucky over the next five years, including a 35 percent funding increase in FY 2022, resulting in approximately an additional \$300 million annually in road, highway and bridge funding in Kentucky. The additional federal highway funds available in Kentucky will partially offset the significant drop in revenue from Kentucky’s variable state motor fuel tax, which, in 2015, dropped from 32.5 cents per gallon to 26 cents per gallon, resulting in a loss of revenue of approximately \$1.2 billion since 2015.

The efficiency and condition of Kentucky’s transportation system, particularly its highways, is critical to the health of the state’s economy. Annually, \$587 billion in goods are shipped to and from Kentucky, relying heavily on the state’s network of roads and bridges. Increasingly, companies are looking at the quality of a region’s transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system. The design, construction and maintenance of transportation infrastructure in Kentucky supports approximately 47,000 full-time jobs across all sectors of the state economy. Approximately 907,000 full-time jobs in Kentucky in key industries like tourism, retail sales, agriculture and manufacturing are dependent on the quality, safety and reliability of the state’s transportation infrastructure network.

“Additional federal funding from the IIJA will allow Kentucky to move forward with needed improvements to its transportation network that will make the state’s roads and bridges smoother, safer and more efficient while boosting the economy and creating jobs,” said Dave Kearby, TRIP’s executive director. “In addition to the federal investment, it will be critical that Kentucky continue to increase its level of transportation investment.”

Kentucky Transportation by the Numbers
Meeting the State's Need for Safe, Smooth and Efficient Mobility



KENTUCKY KEY TRANSPORTATION FACTS
THE HIDDEN COSTS OF DEFICIENT ROADS

Driving on Kentucky roads that are deteriorated, congested and that lack some desirable safety features costs Kentucky drivers a total of \$4.7 billion each year. TRIP has calculated the cost to the average motorist in the state's largest urban areas in the form of additional vehicle operating costs (VOC) as a result of driving on rough roads, the cost of lost time and wasted fuel due to congestion, and the financial cost of traffic crashes in which the lack of adequate safety features, while not the primary factor, were likely a contributing factor. The chart below details the cost of deficient roads statewide and for the average driver in the state's largest urban areas.

Location	VOC	Congestion	Safety	TOTAL
Bowling Green	\$170	\$788	\$563	\$1,521
Lexington	\$306	\$809	\$398	\$1,513
Louisville	\$586	\$868	\$430	\$1,884
Northern Kentucky	\$549	\$1,238	\$367	\$2,154
Owensboro	\$627	\$344	\$419	\$1,390
Kentucky Statewide	\$1.3 Billion	\$1.8 Billion	\$1.6 Billion	\$4.7 Billion

KENTUCKY ROADS PROVIDE A ROUGH RIDE

Due to inadequate state and local funding, more than a quarter of major locally and state-maintained roads and highways in Kentucky are in poor or mediocre condition. Driving on rough roads costs the average Kentucky driver \$422 annually in additional vehicle operating costs – a total of \$1.3 billion statewide. The chart below details pavement conditions on major roads in the state's largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Bowling Green	2%	11%	15%	72%
Lexington	7%	13%	22%	58%
Louisville	19%	25%	20%	36%
Northern Kentucky	19%	19%	20%	43%
Owensboro	19%	29%	28%	24%
Kentucky Statewide	7%	21%	24%	48%

KENTUCKY BRIDGE CONDITIONS

Seven percent of Kentucky's bridges are rated in poor/structurally deficient condition. Bridges that are rated poor/structurally deficient have significant deterioration of the bridge deck, supports or other major components. Sixty-five percent of the state's bridges are rated in fair condition and the remaining 28 percent are in good condition. The chart below details bridge conditions statewide and in the state's largest urban areas.

Location	POOR/STRUCTURALLY DEFICIENT		FAIR		GOOD		TOTAL BRIDGES
	Number	Share	Number	Share	Number	Share	
Bowling Green	17	5%	264	80%	48	15%	329
Lexington	29	4%	516	71%	183	25%	728
Louisville	110	6%	1163	69%	421	25%	1694
Northern Kentucky	38	6%	388	57%	251	37%	677
Owensboro	14	5%	214	76%	55	19%	283
KENTUCKY STATEWIDE	990	7%	9,331	65%	4,089	28%	14,410

TRAFFIC CONGESTION IN KENTUCKY CAUSES DELAYS

In 2020, the state's transportation system carried 46.5 billion annual vehicle miles of travel (VMT). Congested roads choke commuting and commerce and cost Kentucky drivers \$1.8 billion each year in the form of lost time and wasted fuel. In the most congested urban areas, drivers lose up to \$1,238 annually in the loss of 50 hours and the waste of 24 gallons of fuel due to traffic congestion. Due to the Covid-19 pandemic, vehicle travel in Kentucky dropped by as much as 36 percent in April 2020 (as compared to vehicle travel during the same month the previous year), but rebounded to four percent above November 2019 volume by November 2021. The chart below shows the annual number of hours lost to congestion per driver and the average cost per driver of lost time and wasted fuel due to congestion in the state's largest urban areas.

Location	Hours Lost	Congestion Cost	Wasted Fuel in Gallons
Bowling Green	34	\$788	17
Lexington	35	\$809	17
Louisville	46	\$868	19
Northern Kentucky	50	\$1,238	24
Owensboro	14	\$344	7

KENTUCKY TRAFFIC SAFETY AND FATALITIES

A total of 3,833 people were killed in traffic crashes in Kentucky from 2015-2019, an average of 767 annual fatalities. In 2019, Kentucky had 1.48 traffic fatalities for every 100 million miles traveled, the fourth highest in the U.S. and higher than the national average of 1.11. The fatality rate on Kentucky's non-interstate rural roads is more than two and a half times higher than on all other roads in the state (2.49 fatalities per 100 million vehicle miles of travel vs 0.9). From 2015 to 2019, there were 75 pedestrian and eight bicycle fatalities in Kentucky, 11 percent of the total number of traffic fatalities in the state.

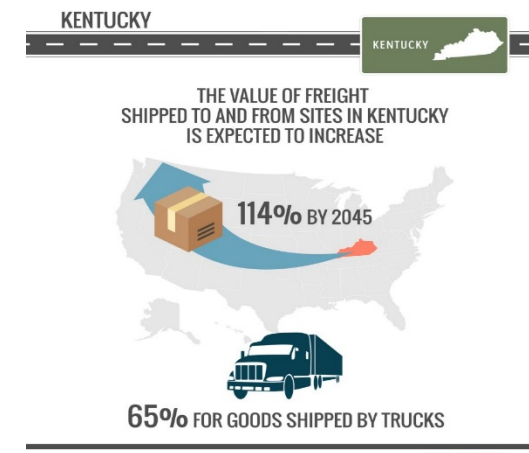
Year	Total Fatalities	Pedestrian Fatalities	Bicycle Fatalities	Share Bike and Ped.
2015	761	67	7	10%
2016	834	81	9	11%
2017	782	83	7	12%
2018	724	73	10	11%
2019	732	73	5	11%
TOTAL	3,833	377	38	11%
AVERAGE	767	75	8	11%

Traffic crashes imposed a total of \$4.9 billion in economic costs in Kentucky in 2019 and traffic crashes in which a lack of adequate roadway safety features, while not the primary factor, were likely a contributing factor imposed \$1.6 billion in economic costs. The chart below details the average number of people killed in traffic crashes in the state's largest urban areas between 2015 and 2019, and the cost of traffic crashes per driver.

Location	Avg. Fatalities	Safety Cost
Bowling Green	30	\$563
Lexington	68	\$398
Louisville	165	\$430
Northern Kentucky	50	\$367
Owensboro	13	\$419

KENTUCKY TRANSPORTATION FUNDING

The level of highway investment in Kentucky is likely to increase as a result of the five-year federal [Infrastructure Investment and Jobs Act](#) (IIJA), signed into law in November 2021, which will provide \$5.1 billion for road, highway, bridge investment in Kentucky over the next five years, including a 35 percent funding increase in FY 2022. The additional federal highway funds available in Kentucky will partially offset the significant drop in revenue from Kentucky's variable state motor fuel tax, which, in 2015, dropped from 32.5 cents per gallon to 26 cents per gallon, resulting in a loss of revenue of approximately \$1.2 billion since 2015.



Increased federal transportation investment in Kentucky will also be helpful in addressing Kentucky's transportation funding shortfall and in funding five transportation mega-projects. The Kentucky Transportation Cabinet (KYTC) has determined that there is an annual \$900 million shortfall in needed highway funding and an annual \$157 million shortfall

in needed municipal and county road funding. The state will also need to invest a total of \$3.3 billion to fund five transportation mega-projects: The Brent Spence bridge, the I-69 Corridor/Henderson Bridge, the Northern Kentucky outer loop, the Mountain Parkway expansion and the completion of the US 460 corridor. The ability of revenue from Kentucky's motor fuel tax – a critical source of state transportation funds – to keep pace with the state's future transportation needs is likely to erode as a result of increasing vehicle fuel efficiency and the increasing use of electric vehicles. The average fuel efficiency of U.S. passenger vehicles increased from 20 miles per gallon in 2010 to 24.5 miles per gallon in 2020. Average fuel efficiency is expected to increase another 31 percent by 2030, to 32 miles per gallon, and increase 51 percent by 2040, to 37 miles per gallon. The share of electric vehicles of total passenger vehicle sales in the U.S. is expected to increase to five percent by 2023 and to 60 percent by 2040, by which time they will represent approximately 30 percent of the passenger vehicle fleet.

TRANSPORTATION AND ECONOMIC DEVELOPMENT

The health and future growth of Kentucky's economy is riding on its transportation system. Each year, \$587 billion in goods are shipped to and from sites in Kentucky, mostly by truck. Increases in passenger and freight movement will place further burdens on the state's already deteriorated and congested surface transportation system. The value of freight shipped to and from sites in Kentucky, when adjusted for inflation, is expected to increase by 114 percent by 2045, and by 65 percent for goods shipped by trucks.



2.49 VS 0.90
(Rural) (all other roads)

The fatality rate per 100 million vehicle miles of travel



A [report](#) by the [American Road & Transportation Builders Association](#) found that the design, construction and maintenance of transportation infrastructure in Kentucky supports approximately 47,000 full-time jobs across all sectors of the state economy. These workers earn \$1.6 billion annually. Approximately 907,000 full-time jobs in Kentucky in key industries like tourism, manufacturing, retail sales and agriculture are completely dependent on the state's transportation infrastructure network.



EVERY YEAR, **\$587 BILLION** IN GOODS ARE SHIPPED TO AND FROM SITES IN KENTUCKY



62% ARE CARRIED BY TRUCKS



Highway and bridge spending multiplies through the economy by stimulating additional output. A 2021 macroeconomic [analysis](#) by [IHS Markit](#) found that that every dollar spent on highway and bridge improvements results in \$3.4 dollars in combined direct, indirect and induced output from industries throughout the economy, resulting in a multiplier for highway and bridge investment of 3.4 *Sources of information for this report include the Federal Highway Administration (FHWA), the Kentucky Transportation Cabinet (KYTC), the American Association of State Highway and Transportation Officials (AASHTO), the Bureau of Transportation Statistics (BTS), the U.S. Census Bureau, the Texas Transportation Institute (TTI), the American Road & Transportation Builders Association (ARTBA), HIS Markit and the National Highway Traffic Safety Administration (NHTSA).* **Cover page photo credit: David Golub.**

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