# Traffic Congestion: Causes And Ways Of Solution

Traffic congestion. Something every human at the age of 16 or more that drives a car during rush hour struggles with. It takes a toll on your attitude and your time. To clarify, traffic congestion is when there are a lot of vehicles on the road and they all move very slowly. Henceforth, KPIX 5 says that the Bay Area has the 5th worst traffic congestion in the whole world! According to the Inrix Global Traffic Scorecard, commuters in Sacramento spends 25 hours in traffic per week, and commuters in San Francisco spend 79 hours in traffic per week. Incidentally, 80% of drivers exhibit some type of road rage caused by traffic congestion. Whenever my parents drive me places, there is always someone who cuts us off, or is looking at their phone at a light. They are making bad decisions in traffic and everyone else has to suffer because of it. Under these circumstances, traffic congestion contributes to air pollution. Sharine Wittkopp researches the connection between traffic congestion and the cardiovascular system and she has found this out,"Blood pressure went up with increased traffic pollutants, EKG (electrocardiogram) changes showed decreased blood flow to the heart,"(Stress, pollution, fatigue: How traffic jams affect your health). This means that when traffic gets worse, there are more pollutants in the air, and this causes blood to flow slower, getting to the heart slower than it could normally have gotten there without traffic. Whenever I go somewhere, I have to be driven by one of my parents, and every time we go somewhere, someone makes a bad decision, causing us to have to slow down, which makes traffic, and everyone in the car frequently gets upset because of something someone else did. In essence, traffic congestion creates lots of problems that are caused by lots of things.

Obviously, there are many causes and effects of traffic congestion. On account of people making bad choices, people have to slow down for them, which makes congestion. In 2015, there were,"there were 35,092 fatal crashes in the U.S. Of those crashes, 28% were caused by speeding,"(23 Road Rage Statistics That Will Shock You). This shows that when people make bad decisions that affect others, it doesn't work out well, and this percentage is increasing steadily. Also, 27% of deaths are involved with speeding. When people get impatient, they choose to go around it and they make an awful choice, which sometimes ends up killing someone.

Subsequently, one of the effects of upsetting decisions is road rage. Road rage is caused by distracted driving, slow driving, changing lanes too quickly which cuts off drivers, overusing the car horn, etc. Road rage causes people to be more likely to get into an accident, which causes 25% of traffic congestion. Without a doubt, people cause a lot of problems, and we are affecting ourselves.

Granted, sometimes humans aren't the only cause of traffic congestion. Sometimes it is caused by nature. With that in mind, the environment does a lot of unpredictable things. Traffic increases by 50% during rain and snow. This means that if traffic is already bad, precipitation makes it worse. Precipitation from the sky causes a small chunk of traffic,"Bad weather is 15% of traffic cases,"(What causes traffic congestion?). This is bad because it makes it hard to see, so everyone is extra nervous and you have to drive slower.

Incidentally, all this precipitation and traffic is causing air pollution because the rain washes

pollutants down the drain, where they mix in with the water, and then it sits in there until it reaches fresh or salt water where it makes the water dirty and therefore, when it evaporates it is bad for your lungs. Air pollution is blamed for 3.2 million preventable deaths each year worldwide. It is the worst for drivers in jeeps and motorcyclists because their vehicles are non-air conditioned and the bad air just hits them and they inhale it, and air pollution causes your lungs to have problems. Unquestionably, the environment is one of the causes of traffic congestion, which eventually causes air pollution.

One way people tried to stop traffic congestion is by adding more lanes to freeways. They have tried to increase the capacity of highways and freeways.

For instance, people have added lanes to I-270 and Route 355 to decrease traffic. I-270, or I-70 south back in 1973, had only four lanes in 1973, and Route 355 had only two lanes. Now I-270 has 12 lanes with plans to add more, and Route 355 has six lanes. Maryland's governor, Larry Hogan, says that adding another lane to Interstate 270 will finally make traffic bearable. There are even two more highways to help handle the load(Midcounty highway and Great Seneca highway, or Maryland Route 119, with four lanes each). In all, that is 26 lanes, and we still have traffic.

Basically, adding new roads requires construction, money, and space. The construction takes time and adds to the congestion. Adding new roads is very expensive, and if there is no space, it is almost impossible unless they want to cut into outside of the freeway, which sometimes has houses on the other side. What people try to accomplish is that it would then distribute the cars into the new lane(s) and then traffic would get better.

"Surprisingly", this does not work because what some people can't realize is that this causes more people to think that there's room for them, so they change which way they go and what time they leave for work and they go on the "improved" freeway. The website usa.streetsblog.org tells you that whenever you add more highway, traffic increase by almost the exact percentage of highway added,"...they found that every 1 percent increase in highway capacity, traffic increases 0.29 to 1.1 percent in long term(about five years out), and up to 0.68 percent in short term(one or two years out),"(The Science Is Clear: More Highways Equals More Traffic. Why Are DOTs Still Ignoring It?). This isn't very successful because every time people add lanes to the freeway or highway, more people come on, adding to the traffic.

In brief, adding more lanes to roads isn't the solution to traffic congestion, it is actually far from it.

Closing roads is another way people use to solve congestion, but it's not as common. They have done this in New York, Boston, and London.

In essence, people will use common sense if a road is closed, they won't go that way on the way home. The website https://transportist.org/2016/04/19/21-strategies-to-solve-congestion/ has given a nice illustration for this,"If people can't get across a river, they won't drive from home to the river either, reducing traffic along that path,"(21 Strategies to Solve Congestion). This means that if there's an obstacle in the road on the way to work, you are less likely to go home that way because you remember the bad experience with this obstacle, so you go home a different way because of the obstacle.

Thus, this is closely connected to the Braess Paradox. The Braess paradox was made by a german mathematician named Dietrich Braess. It says that if people have the choice of roads, they be selfish and pick the fastest route. When a new road is made, drivers want to choose it because it's new and "faster", and this causes traffic congestion to appear on the "faster" route. This means that the more roads we have, the more people will use those roads to commute to work.

As a result, this is successful because something very similar happened in New York. New York's very congested street, 42nd street, was closed, and the congestion just "evaporated". A way to understand this is that is by using math. Math teaches you that when you add something, there is more, and when you take something away, there is less. It is the same for traffic. When you add more lanes or roads, more traffic comes, and when you take it away, traffic congestion goes away, or evaporates.

In short, closing roads and lanes is evaporating traffic and making it easier for people to commute and get to work. It is a scientific fact that closing roads speeds up traffic, and when traffic is better, people are happier. To begin, closing roads for temporary events is pointless. Sometimes there are events that close down roads, like carnivals, farmers' markets, and block parties, and then they open the streets the next day,"Open streets close down auto-oriented streets [to the public for]... one-time events. The transformation is astonishingly beautiful. But, when the streets turn back into uninhabitable congested roadway the following day I'm left asking myself, 'What's the point?'","(Hoo.). Closing roads impermanently makes people see the beauty when there isn't as much traffic congestion. It captures the beauty. In 1970, preservationists turned Milwaukee Ave. into a park. Even though the houses were meant for the lower class, Milwaukee Ave. has 47 properties and each house has an average value of $233,647, which has nine more properties and the average is $13,661 more than 26th Ave. just a few roads over. Also, closing roads helps grizzly bears with their habitat loss. There is scientific research that when there are more roads, there are less grizzly bears,"higher road density leads to lower grizzly bear density,"(Closing roads counters effects of habitat loss for grizzly bears). This means that if we close more roads, the grizzly bear population will grow. Most bears avoid the roads not only because they die near there, but because their habitat has roads through them, and when the roads go away, they come back,"Not only do bears die near roads, bears also avoid these areas, making many habitats with roads through them less effective. By closing roads, we can reduce the negative impact of roads in a lot of ways. We can't turn roads back into forest tomorrow, so the best thing we can do right now is to close them,"(Closing roads counters effects of habitat loss for grizzly bears). This helps the grizzly bears because their population density will grow. They will also be able to not have to be so close to each other because of the space. Given that this solution actually makes some of the traffic congestion go away, this is the leading and best solution.

Scientists have proven that closing roads is beneficial to traffic and people's mood. Subsequently, if we don't close roads, then traffic will get worse, especially if we add roads. In Maryland, their governor has added so many lanes to one of their interstates, I-270, so traffic just keeps piling up. Incidentally, closing roads provides good things and the California government can close roads and lanes, which will make commuters' lives so much less stressful and it will benefit everyone's commute to work. Overall, closing roads is one of the best ways to stop traffic congestion.