## Transportation Problems and Solutions

I read an article about population growth. In the 2006 article entitled, "U.S. Population Reaches 300 Million, Heading for 400 Million", from the web site, www.treehugger.com, the author Lester Brown talked about many of the likely effects of population growth. He talked about the effect of population growth on transportation, food supplies, housing, education, healthcare, and several other critical issues. In this essay, I will respond to a few of the claims made in the article regarding transportation, talk about innovations that are addressing these problems, and also attempt to make a few useful suggestions about what more can be done to deal with the challenge.

With more and more people moving into cities, the article's author, Brown, claims that roads and freeways will become more crowded, and trips will take longer to complete by car. "In the United States, more people means more cars. And that in turn means paving more land for roads and parking lots. Each U.S. car requires nearly one fifth of an acre of paved land for roads and parking space." More

and more roads, freeways, and parking lots, Brown is saying, would need to be constructed, covering over farmland and wilderness lands if the status quo is maintained. There will be more demand on carpool lanes and the need to construct more toll lanes where people have to pay to drive on the freeway will increase. Brown reminds us that with more people riding buses and trains, fares may go up and more people may find that they have to stand instead of sit when riding in buses and trains during peak hours of use. As demand for gas increases, so will the cost to fill up at the pump. With increasing numbers of vehicles on the roads, air pollution, noise pollution, and competition for parking places are bound to get worse.

Using a more optimistic outlook, however, it may be possible for inventive people to come up with solutions to these challenges that may actually improve our transportation system, rather than just watch it get worse. It has been proven at the ballot box in recent years that the populations of crowded states are willing to tax themselves more to widen freeways and fund new passenger rail projects, like the Metro lines spreading out around Southern California. To solve some

of the parking headaches, many people are turning to ride sharing apps on their phones like Uber<sup>TM</sup> and Lyft<sup>TM</sup>. With the advent of these services, many people are now able to earn part time money as drivers for these companies. Because of ride sharing competition, the availability of these services has also driven down taxi fares, and the fares of airport shuttle services. People using Uber<sup>TM</sup> and Lyft<sup>TM</sup> also get the benefit of a faster commute, too, since these trips can be made using carpool lanes that usually allow traffic to move faster. One of the best features is they can drop the customer off at the door of their home or hotel, or just steps away from an airline gate with no parking hassles or fees.

The rapid growth in electric vehicles is not only helping with the pollution issue, it is having the additional benefit of keeping gas prices down, for those who still use a gas powered car, since fewer people now buy gas. Even when commuters are traveling alone, those with electric vehicles are allowed to use the carpool lanes. Federal rules about miles per gallon standards in new cars sold in the U.S. have had the effect of reducing car owners' fuel consumption. On the

noise pollution matter, most of us know that the modern light passenger trains makes little noise, and electric cars ostensibly make none.

There are other solutions people, and the companies they work for, have come up with to help with the transportation challenge. Some companies now offer the ability of their employees to work one or more days a week from home, generally conducting business and reporting their work time over the Internet. This form of work is often called *telecommuting*. This takes cars off the highways, and gives workers more flexibility in their schedules, and gives them the ability to take family members to school or medical appointments during work hours. Other companies provide ride sharing vans where employees drive one another to work, taking turns driving, and offering preferential parking. This could mean a reserved space close to the entrance of the building. Ride sharing vans also reduce the number of parking spaces needed around a building, and reduces gas cost for the employees. Employee passengers can conduct work while riding in the vans, relax, or even take a nap. Still other companies

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allow workers to ride bikes to work, and some even offer showering and dressing room facilities for these workers if they arrive to work sweaty.

One of Brown's greatest contentions is that traffic wastes time. It's impossible to argue with that point. "More cars also translates into more traffic congestion. Americans are spending more and more time sitting in their cars going nowhere as freeways and streets become, in effect, parking lots. As cities sprawl, longer commuting distances and more congestion en route combine to increase the time spent in automobiles." Since the year 2006 when Brown wrote this article, many aspects of the transportation crisis have remained problematic, while others have improved somewhat. An app on a Smartphone has proven to be one of the most effective solutions for those mired in traffic on a daily basis. The app is called Waze<sup>TM</sup>, and it allows users, for free, to input their home and work addresses, and then proceeds to search for the best routes between the two. The app, then, through visual maps and auditory prompts, helps the driver get to work or return home, using the fastest route. Sometimes the fastest

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route is the way the user is accustomed to going anyway, but when there is a traffic jam on the normal route because of an accident, road repair, or police activity, the app will advise another 'way'. To a novice user being diverted in another direction, it may seem the app has gone crazy, advising a roundabout route. But with access to traffic sensors now built into streets and freeways and GPS tracking, Waze<sup>TM</sup> really does know the best way to go, even if the distance is a bit longer, and is able to adjust its recommendations if a new accident or incident occurs in the path it had planned for the driver. The app. with input from other drivers further ahead on the same freeway or street, can warn fellow drivers of upcoming concerns like potholes and red light cameras. Waze<sup>TM</sup> knows where you are at all times, and will notice and recalculate if you miss an exit, or go the wrong way. Waze<sup>TM</sup> can predict within a minute or so when drivers will arrive at their destinations. Since  $Waze^{TM}$  displays in large readable digits the anticipated arrival time, it has the additional benefit of lowering the driver's stress level, because users seldom worry about what time they will get home or to work.

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Some suggestions I'd like to offer regarding their transportation woes include asking people to change their attitudes toward these problems. The predicament we find ourselves in is not insurmountable. We can act independently in ways that can help ourselves and everyone else by decreasing the use of our collective system. We can push ourselves to get up earlier to find lighter traffic in the morning. We can try to ride the buses or trains just once a week. We can find someone to carpool with or ride a bike. Some people, especially young single people, can try to find an apartment closer to where they work, maybe even within walking distance. College students can try to enroll in one class each term that they can take online, reducing trips to our crowded campuses. Many people may not be able to afford to buy an electric vehicle now, but can at least make a commitment that the next car they purchase in a few years will be an electricity powered one.

Everyone who drives or rides the bus or rail systems in their city can see transportation challenges. When we see a construction project slowing down traffic, a sense of frustration can rise in us all. But if

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we take a thoughtful view of the ways the movement of millions of
people is being addressed, and the way we ourselves choose to use it,
we can be optimistic that things can get better. Even with ever
growing populations, the people who innovate to improve our
transportation system, and the people who use it, can work together to
ensure we get where we need to go as efficiently as possible.