

Public Transportation as an Ethical Necessity

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By

Charles A. Kellas

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On my honor as a university student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

Signed: 
Charles Kellas

Date: 11/08/2021

Approved: 

STS Advisor: Richard D. Jacques, Ph.D.

Date: 12/08/2021

Introduction

This paper will try to make an argument that investment in future public transportation is a moral obligation. Most of the inquiry will be focused on the United States considering things such as public opinion and recent historical trends mainly in regards to social mobility. It will also explore a few specific examples of transportation systems in specific cities. However, there will be some investigation abroad as a sort of compare and contrast with the United States.

Demand for Public Transportation

It is first necessary to determine whether or not there is a demand for public transportation and whether or not people will use it if implemented. A big reason why engineering projects fail is because a project is endeavored to produce a product that nobody wanted or solving a problem that is not really a problem. This conjures of ideas like a bridge to nowhere connecting roads that no one travels and perhaps just built to give a contract to a friendly private construction company.

According to the American Public Transportation Authority “Nearly 66 percent of the public report interest in traveling by high-speed rail” (2013). This is just a general sweep of public opinion. When accounting for the age of respondents, those aged between eighteen and twenty-four, the interest rises to seventy four percent. Reasons given are “faster trip times, lower cost, greater convenience and a more environmentally friendly alternative to other transportation modes.”

This is also the result of the increased urbanization of the American populace. After the 2010 census, the percentage of Americans living in urban environments rose to 80.7% (2012). This is in agreement with trends that are happening in Europe. Europe has a higher population density and urbanization than the United States. After a study of several cities in Europe, it is

decided that the use and demand for public transportation are related to the density of urban environments (Gascon et al., 2020).

This also indicates that future generation will be more receptive to public transportation initiatives since “younger Americans place higher priority on alternatives to Driving” (American, 2013). This is just one incentive for investment in future public transportation investment.

Another demand comes from those who are economically disadvantaged. According to a case study of Washington, “transit users are more likely to live in households under or close to the poverty line (Ross 2012).” There is a combination of use and desire for public transportation by youth and the poor, the latter group being the primary target of our moral obligation.

Discrepancies in Demand and Need

There is also a discussion to be had on the difference between want of public transportation and need for public transportation. There are several reasons why some people may want public transportation. It can provide a more convenient option than driving. It can be more economical than other modes of transportation. In some cases it can be faster than some of these modes. And it can reduce the carbon footprint of each individual rider. The need for public transportation, however, can sometimes exceed the desire for convenience.

There have been many studies to show that public transportation is not provided to those that would most benefit, that benefit primarily being access to employment. Here are presented two studies one of Chicago and the other of Washington, D.C. to illustrate this.

In Chicago “poor job seekers living in the inner-ring suburb, ... [and] poor job seekers living in the outer-ring suburb, have the worst transit-based job accessibility (Liu 2020).” This is controlling for other social factors such as race and gender identity. That is to say that employment opportunity can be directly traced to easy access to public transportation. “Easy”

access means both proximity to household of transportation stations and also affordability of transportation fares. The “outer-ring” refers to the fringe that is just beyond the reaches of a robust transportation system which typically occurs right outside of urban centers.

Another study in Washington found similar results. “Transit does a better job providing high-skill residents access to high-skill jobs than it does mid-skill residents to mid-skill jobs and low-skill residents to low-skill jobs (Ross 2012).” This is indicative of the discrepancy between people who want public transportation and those who need public transportation. When implemented, public transportation does not specifically help those that need it most. This shows that employment opportunities are fewer for those that do not have access to public transportation and these people are exactly the people that need this service.

On a side note, I am aware that I am ignoring the systematic discrimination that has been going on, well, since the founding of the country. This paper is not written explicitly to condemn past policies (though I certainly do). It is more to address current issues and argue that transportation ought to be better funded and more robust in order ensure mobility for any potential user.

Other Benefits to Public Transportation

There are more benefits other than social mobility to public transportation. This paper is mainly about the social aspect but other benefits ought to be mentioned briefly. First, is the economic aspect. Although public transportation will not pay for itself directly it does help the overall economy grow. “Every dollar spent on public transportation generates \$4 in economic returns” (American 2013). That is to say that not only does public transportation increase access to jobs and lift people out of poverty, it also give people access to markets to increase spending and also gives private investors incentive to invest in those markets.

The other benefit is environmental. This is (in my personal experience) usually the most often cited reason to promote the use of public transportation. “By eliminating one car and taking public transportation instead of driving, a savings of up to 30% of carbon dioxide emissions can be realized” (American 2008). This is the case, not only because public transportation is more energy efficient than driving but also because it can reduce traffic congestion especially during a commute during rush hours. A large portion of emissions can be attributed to wasted fuel that is burned in idling cars.

Again, these are just mentioned here briefly to shed light on other benefits of public transportation both of which are good reasons in themselves to encourage public transportation investment and use. These diversions can point other writers doing further research in these areas.

A Social Solution

The problem is primarily that government spending on transportation infrastructure has mostly been stagnant. In 2020 the Department of Transportation of the United States was allocated around 87 billion dollars (Buttigieg 2021 p.79). In 2011 this figure was 77 billion dollars (Agency 2011 p.23). This increase is roughly equivalent to the inflation rate. This is not to imply that the federal government is solely responsible for transportation costs, but it speaks to a larger trend of stagnant governmental support for public transportation systems while demand and need have been increasing.

The need for more government investing is also evident at the state and local level. A study of the state of New Jersey by Hall demonstrates this. New Jersey is the state with the highest population density in the country. It also has some of the highest transit usership in the country. But, as Hall points out, there has been a steady increase of driving to work by residents

of New Jersey (2008). This indicates that use of public transportation is not sufficiently incentivized. People are not incentivized to live near and use public transit and employers are not incentivized to place their businesses near transit hubs. Again, this is New Jersey, a state where public transportation is highly robust compared to the rest of the country and the people of New Jersey are more receptive to the use of public transportation. This can be alleviated by governmental investment and incentivization.

The social solution therefore is a coordinated, multi-level, governmental investment that promotes public transportation. This will provide jobs, boost the economy, and reduce the environmental impact of traditional transportation methods.

A Technical Solution

This will be the more speculative part of the paper. Here I try to predict the future and try not to look like a fool to whomever maybe reading this in the future. I do not want to be embarrassed like those who predicted technologies like Google Glass or Apple's Newton would transform society. But I do feel rather comfortable in saying that future technologies (as has been trending for decades) will be increasingly controlled by automation.

Autonomous vehicles and electric vehicles have been regularly making headlines recently. Often, they are cited as the future solutions to our current transportation problems. Rather than eliminating traditional car ownership and usage it is speculated that traditional cars will be replaced by autonomous and electric cars. However, this does not address the issue of social mobility which is the main argument of this essay. "The initial high cost of [autonomous vehicles] will put those cars out of financial reach for many current public transportation riders. Thus, public transportation will retain its important role in assuring mobility for all" (Buehler 2018).

This also ignores the fact that autonomy could very well be incorporated into the public transportation sector itself. Rather than having these vehicles owned by private individuals, there could be a fleet of vehicles either owned and operated by a government agency or owned by a corporation that can be subsidized by a government agency. Research and development could be directed toward automation of anything from buses to trains or maybe even individual cars to provide public transportation to those that need it. And with automation as historically been the case, a greater robustness and efficiency can result. Automation can then provide transportation to those that need it who sit outside the bounds of the transportation options that are currently offered.

Again, this is speculation and imagination. Predicting the future of things can sometimes make one look like a genius or it can also make one look like a fool. Whether I am a genius or a fool or something in between only the course of future events can tell.

Moral Obligation and Conclusion

Ethical questions are as old human thought and answers have rarely been revolutionary. Social situations and technologies change but an impressive ethical claim can be rare and far reaching. Therefore, I have no problem citing a very old source to make an ethical claim. Immanuel Kant in 1785 wrote “Act only according to that maxim whereby you can at the same time will that it should become a universal law.” That is to say that any action can be considered a moral action if it can be performed universally, i.e. everybody does it.

Imagine sitting in a room of people each of whom are strangers to each other. One individual takes out their phone and starts listening to music using the phones speaker. This may annoy some of the others that are also in the room. What this person listening to the music should then consider, according to Kant’s statement, is whether this action can be universalized.

When it is universalized everyone else in the room is now listening to their own music. Imagine the noise that would be happening and try to imagine if anyone would be pleased.

Kant's rule can then be applied to a multiplicity of situations one of which is the promotion of public transportation. The universalization of inaction could not help solve the problem of wealth disparity, unemployment, and poverty. Universal collective action is needed to provide the compassion necessary to help everyone.

Future Research

Additional research can be done on some of the things mentioned above like the economic and environmental effects of public transportation usage. Also, research may be done on one aspect of access to transportation that I could not resolve. "In many cases, housing costs are out of reach for low- and mid-skill workers in areas ... offering strong transit access to employment" (Ross, 2012). I was unable to find evidence whether transit is the cause of higher housing cost, whether the opposite is the case, or whether this correlation has any causal relationship. A future researcher could investigate this.

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