

## **Is There Public Transportation Inequality in US Cities?**

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Throughout the past century, the United States has seen huge changes in just about every imaginable way. Population figures have exploded from 76 million at the turn of the century, to more than 308 million in 2010<sup>1</sup>, contributing to enormous amounts of growth throughout the country. Additionally, a healthy manufacturing base and rapid increases in technology provided a large gross domestic product (GDP) and, for the most part, healthy and stable economy for Americans to thrive in. However, even in good times, people are not equal. Some cities continued to grow and thrive, while others shrank and saw hard times. The Great Depression(s), the energy crisis of the 1970's, and the more recent economic instability have all affected equality, job availability, and general life opportunities for many Americans. Add to this the ever-increasing idolization of the private automobile, from a paltry 4,192 passenger vehicles in 1900<sup>2</sup>, to 239.8 million passenger vehicles in 2010<sup>3</sup>. This helps to explain why so many people have chosen to live further away from cities than ever, enduring lengthy commute times in favor of autonomy, status, and perceived freedom.

However, due in part to the events I described earlier, as well as other broader social and political changes over the decades, some populations have been left out of the automobile equation. Recent US Census reports show that the rich and middle class live near other rich and middle class citizens, while the poor, who are less apt to own a private automobile, are more and more confined to concentrated sections of some of America's largest metropolitan centers. Additionally, with industry increasingly being moved overseas and a large majority of the lower-paying jobs favoring suburbs over cities, carless populations in urban centers are relying more on public transportation to access their daily needs than ever. But what is the climate like for people

who rely on public transportation as their only means of mobility and how have cities responded to ever-polarizing population income shifts? Do differences in the *quality* of particular cities' public transportation systems affect the mobility, job accessibility, and income of people living at or below the poverty level? Does a city with a well-established and networked multi-modal (train, bus, subway) system provide better economic opportunities for its residents than a city with a single form of public transportation, for instance, a bus?

In the next few pages, I will attempt to unravel these questions by first exploring public transportation from a historical context. I will then examine a small sample of three regionally close cities, Chicago, Minneapolis, and Milwaukee, with three different types of public transportation networks; comparing basic statistics to see if any conclusion can be made about the benefits of one type of public transportation network compared to another. Though much has been written about a general concentration of poverty in US cities and a small amount has been written about the mobility of impoverished populations in some cities, it appears that no one has attempted to uncover how particular systems of transportation as a whole affect these people, if at all. I feel this is a relevant topic as many cities are adopting different types of new public transportation for the sake of sustainability, accessibility, and modernity. It would behoove planners to know if there were any actual benefits to impoverished populations with the utilization of more levels of public transportation. Taking these questions into account, it is important to know the background and scope of public transportation in the US, along with trends in poverty and transportation infrastructures.

The ability of the public to have access to reliable transportation has been an important feature of urban life in America since the early 1800's. At this time, one of the most used forms of transportation was the horse drawn omnibus which was first utilized in New York City around

1830. It was a very dirty and horribly inefficient form of transportation. American ingenuity led to more progressive models of multi-modal transportation culminating in what we use today in the form of subways, light rails, buses, etc. Public transportation is indeed a major part of the urban landscape for many Americans today. Its development and application have followed some interesting paths throughout the US though not always maintaining an even model of utilization and, in many cases, taking a few steps back in terms of technological evolution.

From here I will explore a timeline of public transportation use, from its not so public roots to the current model of government ownership. I will also take a look at the different types of urban structures that have been created as a result of different types of planning, or lack thereof. Additionally, I will attempt to see if public transportation application has an effect on the overall mobility of citizens when put into the context of a world that is focused on the autonomous automobile. I will attempt to answer the following questions throughout this paper: how does public transportation affect poor, impoverished populations and does it have any bearing on job access, household income, and homeownership in these populations?

One of the most interesting aspects in the history of public transportation in the US is that for quite a long while it was not actually public at all. The original public transportation infrastructure in America was at one time privately owned. From the Omnibus of the early 1800's to street rails to the buses that replaced them, individuals and corporations held them in vast monopolies; monopolies that, in most cases, operated very well. Public transportation was operated by competing owners and was much like today's capitalist framework. The competition was able to spread the risk of developing expensive infrastructure by ensuring that there was enough competition to stabilize prices and provide newer, more efficient services through increased use and demand for new technologies.

In the initial decades of public transportation integration, the private automobile did not exist. Thus, these new systems dictated the layout of many cities. People settled where lines and stops were created. The wealthy transportation owner influenced and were influenced by local governments in coalitions that would soon change the face of public transportation. Smerk contents, "People established their dwellings and their commercial enterprises on the lines of the street railways. Because of the value of the franchises and the political process of granting those franchises, the transit industry inescapably became involved in politics, and in many places it exercised a major political influence."<sup>4</sup>

This public transportation framework is surely one of the largest factors in determining many of the urban settlement patterns throughout the US. Privately held railways, which used government land, were massive jumping-off points for urban centers. The ability to send and receive vital goods and support heavy commerce allowed for rapid growth of urban areas. As these areas grew, increasing population required more efficient means of transportation which lead to the development of smaller, city-sized systems of pedestrian transportation like those mentioned earlier.

Eventually, the state intervened with these private institutions, slowly imposing regulations on them which, in turn, made them more akin to what would be considered public utilities. Decreasing revenues in many public transportation systems as a result of the Great Depression and two world wars made them less attractive to the private industry. However, by this time, these services had become a staple for many Americans; to cut them off would be detrimental to business and to the urban function, so city and state governments began to take full control of them. Unfortunately, around this same time, the automobile had begun to take its

stranglehold on the American psyche through their low cost, appeal of autonomy, and the creation of better roads.<sup>5</sup>

Although this was a time where public transportation was viewed through a very political lens, particularly by Socialist Party members who called for “extensive public transportation in both urban and rural areas,”<sup>6</sup> it was not always evenly adopted or maintained in urban areas. This is true in the case of Milwaukee, where even a long tenure by Socialist Mayor, Daniel Hoan, beginning in 1916, was not enough to harness a comprehensive public transportation plan for the city. Like many other US cities, the major decision to steer away from a rail-based transportation system was influenced largely by consumer preference, the increasing availability of personal automobiles at a relatively low cost, and the general idea of freedom in transportation in America.<sup>7</sup>

Many factors, including political pressure, were to blame for the failed attempts at incorporating a multi-modal transit network into the Milwaukee plan. Early studies by McClellan and Junkersfeld showed that among the many problems affecting adequate transportation in Milwaukee, “inadequate connections of residents to their places of employment and schools” were a major factor.<sup>8</sup> Distrust with the existing power structure led to more political indifferences between the Mayor and TMER&L Co., a privately owned Milwaukee transit company running much of the existing transportation at the time. Such companies were actually quite efficient in their rail operation and utilized technology like headway recorders to maintain accurate schedules.<sup>9</sup> This aside, there were still many indicators that these private companies did not have the interest of the public good in mind, which made dealing with them difficult.

With the end of World War II and large nationwide changes, including government home loan benefits to returning GI's, freeway construction under the Federal-Aid Highway Act of

1956, the explosion of private automobile use, urban sprawl, and the great northern migration of African Americans to rustbelt cities, public transportation began to take a backseat as a viable form of transportation for the middle class majority. Racial tensions in many cities led to a decrease in public transportation use by many white Americans who preferred to leave the systems to the poorer class of people. This was apparent in cities like Detroit, where increased ridership during the war due to shortages of materials for automobiles, close physical proximity of white and black public transportation users, and a general feeling that black riders were encroaching on what had been typically considered as a white utility, raised racial tensions to a boiling point.<sup>10</sup> Frivolous complaints, such as blacks purposely bumping into whites and black operators being seen as a threat to white riders' control over the system, helped to fuel images that would stereotype public transportation for decades.

Just as Milwaukee had attempted a half a century earlier, the state of California attempted to buck the trends of transportation stigma, ever-increasing freeway congestion, and pollution by enacting a multi-modal plan in the early 1970's. The emphasis was on decreasing dependency on automobiles and increasing alternate forms of transportation like light rails and buses. In 1973, the California Department of Transportation, Caltrans, was created to replace the aging and inefficient Division of Highways in an attempt to curb the transportation woes that developed over the decades in this rapidly urbanizing part of the country.<sup>11</sup> It was quickly realized that a change in agencies was not going to be enough to realize the overall plan for statewide multi-modal interconnectivity as Caltrans "made no effort to integrate state and regional plans."<sup>12</sup> An overall public distrust in such agencies to efficiently carry out successful development stagnated any potential growth.

The second half of the 20<sup>th</sup> century was fraught with middle and upper class populations that had grown weary of public transportation. This was due in part to the quality of service eroding through bad political maneuvers, increased use of private automobiles, suburban sprawl, and the idea that it was a utility only suited to the poor and derelict populations. This permeated into the way we think about and utilize public transportation in many places, creating what some consider great disparities between the rich and the poor, affecting access to other life opportunities for the latter. Swanstrom and Barret put this into words best by stating, “Transportation touches every aspect of our lives. It connects people to jobs and other opportunities, like schools, recreation, and culture. Households without access to a car must rely upon public transit that has always had to wait in line behind highways to receive federal funds.”<sup>13</sup>

This is not just an American phenomenon. Many developing countries are repeating the same mistakes that the US made in transportation planning by engineering and building the entire urban form around the private automobile and forgoing any thought about alternative forms of transportation and attempts at equal accessibility.<sup>14</sup> This does not come as a complete surprise though as the ideal of individualism is not strictly an American concept. With new global markets creating opportunities to make more money and to develop urban spaces rapidly, the direction that many countries and individuals are taking mirror the same choices we made here in the US.

A city need not be urbanizing or rapidly developing to experience a decline in public transportation services and accessibility. The already well developed city of Hong Kong, for instance, the poorer, aging parts of the city where infrastructure is not quite up to par anymore have seen a noticeable disinvestment in public transportation. This, unfortunately, has a large

impact on the ability of the disadvantaged populations to access necessary life functions such as jobs and quality schooling.<sup>15</sup> These are areas where large public housing projects were built in the 1960's and where the general population is impoverished. Much of the funding for new development has been focused in the wealthier, more cosmopolitan parts of Hong Kong. Subsequently, so has the development of new transportations. However, some cities do not follow these trends at all. Toronto, for instance, appears to be very well integrated when it comes to equal access to public transportation, jobs, and wealthier as well as disadvantaged groups. In fact, because of transportation placement, the more disadvantaged groups in Toronto have slightly better access and shorter travel times from home to work when utilizing public transportation.<sup>16</sup>

It should be noted, however, that there has been a recent and notable shift in the way Americans are thinking about transportation. Micheline Maynard points out that the car culture that once had a stranglehold on many Americans is beginning to loosen its grip, and that there has been an increased interest by 20 and 30 year olds to return to the once undesirable city centers and urban neighborhoods.<sup>17</sup> Additionally, efforts in sustainability and an increased awareness and sense of responsibility for the environment have begun to permeate more recent discussions and actions. This translates into a lowered reliance on the automobile and a renewed interest in public and multi-modal transportation. Perhaps it will take a new generation of thinkers to transform the perception of public transportation and urban living into a system that can benefit all people, particularly those who have had to endure a lackluster infrastructure out of necessity.

The methodology of my research on public transportation inequality consists almost entirely of quantitative data, which I will be collecting on various cities throughout the US.



Additionally, a small portion of the research will include a historical background to help in understanding how public transportation has evolved and how its uses have developed over time. A historical approach can also help explain how one place may have more or less residents living at or below the poverty line, job accessibility, and income differences. As I have mentioned, however, the bulk of the actual research outcomes will be expressed with quantitative data, as this will help to explain details in a way that is easy to understand and visualize, including demographics, income statistics, and transportation numbers.

To accomplish this, I will look at an overall history of transportation here in the US, as there is quite a bit of information related to this subject. Many different modes have been documented through many different sources. Additionally, the developments of particular transportation systems have been documented for a number of cities, helping to explain why differences in equality might exist. The historical aspects of transportation will be easy to cover in depth and the same information will be used to explore the topic of mobility, both in terms of the movement of people through these places and how this can affect access to jobs, income opportunities, home ownership, etc.

More importantly, I will compare and contrast three regionally similar cities in North America: Chicago, Minneapolis, and Milwaukee. These three cities will provide a good basis to explore some quantitative data in an effort to get a deeper idea of their potential similarities and differences. From the research I have completed thus far, it appears that some of these differences are fairly apparent and that not all public transportation is created equal. I feel that in doing further research, it will become more apparent that while one city might have an excellent system that provides a good level of service to all citizens, wealthy or poor, another might not be up to par and could be lacking in one or more of these areas. It is my hope that this information

will allow for some assessment of job access and income opportunity in urban centers, where a majority of impoverished populations live. This is very important because these are, in many cases, the individuals who rely on the use of public transportation the most, as they oftentimes have unequal access to private automobiles.

I chose Chicago, Minneapolis, and Milwaukee because they are located within close proximity of each other yet offer three distinct networks of public transportation. Chicago, like many US cities, had a strong public transportation infrastructure over a century ago, but, unlike many others, it retained, maintained, and expanded its network of trains and subways, known as the “El.” When buses came to the city, local government incorporated them into their network of transportation, but resisted making them the sole mode of public transportation. Minneapolis also had a thriving streetcar system which, at its peak in the 1940’s, consisted of 524 miles of service within the Minneapolis-St. Paul metro.<sup>18</sup> However, political pressure, private maneuvers, and financial stresses won out and by 1954, not a single mile of track existed, making way for a bus-only system. Recently, Minneapolis has seen a renaissance in transportation revitalization, with 24 miles of light rail becoming operational this past June and another 15 miles planned for 2019.<sup>19</sup> This emerging light rail network has combined with the existing bus system and two planned bus rapid transit (BRT) lines to provide residents with multiple mobility options. Like the others, Milwaukee had a well-functioning streetcar network, but, after losing this system to buses, it effectively created a single-mode system within the city. Recent efforts to incorporate a new light rail line into the downtown core have fall through, leaving many to wonder if such a system will ever be seen in the city again.

To define and separate the three cities, I use a conceptual three-tier system. Chicago is an example of a “first-tier” city, defined as having multiple established modes of public

transportation infrastructure, like integrated heavy passenger rail, subway, and buses.

Minneapolis is an example of a “second-tier” city, which still relies mostly on an established bus network, but is slowly incorporating another mode, a light rail, into the infrastructure.

Milwaukee is a “third-tier” city in which the only form of public transportation is the bus. To help determine how these cities compare to each other in terms of public transportation equality, I will use statistics such as percentage of residents living at or below the poverty line, median household income in the central areas, unemployment rates, percentage of home ownership, and public transportation fare. Ideally, a much larger sample size of 15 or even 30 cities, five from each tier, would be used to establish more concrete findings. It is my belief that a first-tier city like Chicago, with a well-established network of multi-modal public transportation, will have lower percentages of residents living in poverty, higher median household incomes, higher salaries, and lower unemployment due to efficient and accessible transportation systems, while third-tier cities, like Milwaukee, will fall short in these areas. Predictably, a second-tier city, like Minneapolis, should fall somewhere in between the two. To clarify, the preliminary use of three cities is only an investigational tool into the feasibility of such research. More in-depth information on each city’s transportation systems, for example, miles of service, and resident data such as proximity to transportation stops, will be necessary to complete my research.

Unfortunately, some of this data is not readily available for all sample cities at this time.

Currently, it seems as though not much has been written about very specific instances of transportation inequalities in the US and it will require some digging to find adequate information, making this a limitations to the conclusions I will be able to make. Luckily, there are a few sources out there that provide good insight. Foth, Manaugh, and El-Genedity provide information in the form of quantitative research, pictorials, and line graphs to explore potential

transportation inequity in Toronto. They are able to put into numbers and charts a good visual representation of what is going on in Toronto. From a more local perspective, Joel Rast has done a study of Milwaukee's public transportation system in relation to the city's impoverished population and their relative accessibility to jobs. Rast states, "Although most low-income families are located within walking distance of bus stops, many potential job opportunities are inaccessible by transit."<sup>20</sup>

It is my hope that with the information I uncover, I will be able to use these methods to portray a history of public transportation evolution, along with some idea as to whether or not public transportation inequity exist in some cities. I may possibly find a correlation to some aspect of planning or location, or simply prove that random occurrences are more precedent. Though much more data than what I have presented will need to be collected, compared, and contrasted, I feel that the subsequent findings will be enough to plant a seed of change in the mind of some urban planners. If my assumption that better transportation networks equal increased opportunities for residents living in poverty hold true, then this research could be a catalyst, providing ammunition for those on the fence in regards to implementing new forms of transportation in America's great cities.

### Cited Sources

- <sup>1</sup>Census Bureau Homepage. (n.d.). *United States Census Bureau*. Retrieved May 7, 2014, from <http://www.census.gov>.
- <sup>2</sup>Elert, G. (n.d.). Number of Cars. *The Physics Factbook*. Retrieved May 9, 2014.
- <sup>3</sup>World Vehicle Population Tops 1 Billion Units. (n.d.). *WardsAuto*. Retrieved May 9, 2014, from [http://wardsauto.com/ar/world\\_vehicle\\_population\\_110815](http://wardsauto.com/ar/world_vehicle_population_110815).
- <sup>4,5</sup>Smerk, G.M. (1986). Urban Mass Transportation: From Private to Public to Privatization. *Transportation Journal (American Society of Transportation & Logistics, Inc.)*, 26(1), pp. 83-91.
- <sup>6</sup>Platform. (n.d.). *Socialist Party USA*. Retrieved May 9, 2014 from <http://socialistparty---usa.net/platform.html>.
- <sup>7,8</sup>Moore, K.W. (2014). State Impediments to Transit – Centered Planning in Milwaukee, Wisconsin, 1916-1928. *Journal of Urban History*, 40(2), pp. 318-344.
- <sup>9</sup>Levinson, H. (2005). The Reliability of Transit Service: A Historical Perspective. *Journal of Urban Technology*, 12(1), pp. 99-118. doi:10.1080/10630730500116735.
- <sup>10</sup>Frohardt, L.S. (2012). Close Encounters: Interracial Contact and Conflict on Detroit's Public Transit in World War II. *Journal of Transport History*, 33(2), pp. 212-227.
- <sup>11,12</sup>Karner, A. (2013). Multimodal Dreamin': California Transportation Planning, 1967-77. *Journal of Transport History*, 34(1), pp. 39-57. doi:10.7227/TJTH.34.1.4.
- <sup>13</sup>Swanstrom, T., & Barrett, L. (2007). The Road to Jobs: The Fight for Transportation Equity. *Social Policy*, 37(3/4), pp. 76-82.
- <sup>14</sup>Sinha, K.C. (2003). Sustainability and Urban Public Transportation. *Journal of Transportation Engineering*, 129(4), pp. 331.
- <sup>15</sup>LauCho, Y.J. (2010). Public Transport and Job – Seeking Range of the Poor in Older Urban Districts in Hong Kong. *Habitat International*, 34(4), pp. 406-413. doi:10.1016/j.habitantint.2009.11.013.
- <sup>16</sup>Foth, N., Manaugh, K., & El Geneidy, A.M. (2013). Towards Equitable Transit: Examining Transit Accessibility and Social Need in Toronto, Canada, 1996-2006. *Journal of Transport Geography*, pp. 291-310. doi:10.1016/j.trangeo.2002.12.008.
- <sup>17</sup>Maynard, M. (2013). The Love Affair is Over. *Columbia Journalism Review*, 52(4), pp. 24-28.
- <sup>18</sup>Brief History of Twin Cities Transit. (n.d.). *Minnesota Streetcar Museum*. Retrieved May 6, 2014, from [http://www.trolleyride.org/History/Narrative/TC\\_Transit.html](http://www.trolleyride.org/History/Narrative/TC_Transit.html).

<sup>19</sup>Home – Metro Transit. (n.d.). *Metro Transit*. Retrieved May 5, 2014, from <http://www.metrotransit.org>.

<sup>20</sup>Rast, J. (n.d.). Transportation Equity and Access to Jobs in Metropolitan Milwaukee. *University of Wisconsin Milwaukee*. Retrieved May 3, 2014, from <http://www4.uwm.edu/ced/publications/transp804.pdf>.