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Detroit's Dysfunctional Development: A Do-over

Detroit, Michigan is a city with a rich history and culture, known for its hard-working automotive industry, unmatched pizza, infectious music, and art deco architecture. However, like many cities in the United States and across the globe, Detroit has struggled with issues related to transportation and mobility. Many of the city and surrounding metropolitan area's residents face challenges in accessing jobs, education, and other resources due to inadequate public transportation options. This reality is unacceptable for a city whose history exploded the transportation industry for the entire country in the early 20th century. Knowing this, recently there has been a growing recognition of the need to improve public transportation in Detroit. A number of initiatives and programs have been implemented to address this issue.[1] However, many of them still fall short both in their motives and efficacy.

This essay will take the form of four main parts all in hopes of answering a simple yet pressing question: How can Detroit's current state of public transportation be evaluated and built upon in order to improve its standard of living in an equitable fashion? First, an examination of the many systemic and complex issues which arise from a city with poor transportation is necessary to fully understand why this topic is so critical. Second, an assessment of the current transportation scene in Detroit is needed to find what's working, what is not working, and most importantly what facets of the current transportation system can be improved upon to best suit

[1] Hyde, Charles K. "Planning a Transportation System for Metropolitan Detroit in the Age of the Automobile: The Triumph of the Expressway." Michigan Historical Review 32, no. 1 (2006): 59–95.

the needs of Detroiters. Third, a survey of the many available options which can help ameliorate transit will help weigh the benefits and drawbacks of all possible solutions. Finally, a proposed solution that will draw from one or multiple of the potential transit options will hopefully set up a transportation network that will improve citizens' lives and Detroit's economy as a whole.

Challenges Posed by Inadequate Transportation

The inadequate public transportation system in Detroit poses a number of challenges for its residents. One of the most significant challenges is limited access to jobs, education, and healthcare. According to a 2017 report by the University of Michigan, over one-third of Detroiters do not own or lease a car.[2] This is drastically lower than other U.S. cities of similar densities and urban sprawl. For so many of Detroit's residents, accessible transportation is a massive issue. It is an issue for accessibility to leisure activities and personal meetups, but it becomes a greater issue when accessibility to events such as doctors' appointments, tutoring, and interviews is limited. The same University of Michigan report asked Detroit citizens varying questions about their lives regarding transportation in order to see how car owners' lives differ from the lives of transportation-disadvantaged citizens. When asked if the pollee had been forced to miss work or an appointment due to inadequate availability of transportation, people who did not own a car were over three times more likely to answer yes than those who did own a car.[2] This is the defining statistic of the effects of inadequate transportation. Transportation equals opportunity, and consequently, inadequate transportation in Detroit has allowed for inadequate opportunities for over one-third of its citizens.

[2] Gerber, Elizabeth, Jeffrey Morenoff, and Conan Smith. "Detroiters' Views on Transportation and Mobility." Detroit Metropolitan Area Communities Study, 2017.

On top of issues of accessibility, inadequate public transportation also contributes significantly to traffic congestion and air pollution. Due to not being able to utilize public transportation, many residents of Detroit are forced to rely on personal vehicles for their daily commutes to work and transit to leisure activities. Well-planned public transportation systems such as bus and railway networks cut down on the number of vehicles on the road. Fewer vehicles equals less traffic for commutes and less pollution from all those gas engines. These problems are at the forefront of all American cities, and reducing each of them can improve environmental impacts, individual citizen health, and general well-being.[3]

All of these problems stemming from the core issue of poor transportation add up to deteriorating health, economies, and quality of life for the citizens of Detroit. Blocked access to jobs and interviews leads to lowered incomes for citizens. Increased car pollution leads to respiratory health problems and biosphere degradation. More cars on the roads lead to longer commutes for both citizens utilizing private transportation and for systems of public transportation such as bus routes. The solution to all these issues of transportation plaguing the city is simple: create an effective and equitable system of public transportation connecting both inner-city Detroit and its surrounding suburbs. Fixing this transportation problem will have massive effects on improving Detroit as a whole. It will trickle down into countless facets of citizens' lives and help to improve both Detroit's image and the well-being of its citizens.

Current State of Public Transportation in Detroit

If the goal is to create a high-functioning public transportation system, it is necessary to assess the current Detroit public transportation systems to understand what needs removal and

[3] Balcombe, R. J. The Demand for Public Transport: A Practical Guide. Crowthorne, Berkshire, England: Transport Research Laboratory, 2004.

improvement. The first and probably most important area of assessment is what makes the world go around: money. The current funding breakdown is obviously complex and multi-faceted, but the most important statistics to look at deal with the disparity between private and public funding. In a 2018 journal publication, it was found that in a developing public transit railway for Detroit, only 59.6% of funds came from public sectors such as the county, state, and federal government.[4] This means that the government, whose transportation accessibility and citizen welfare are primary responsibilities, is only paying for half of a system that could drastically improve public transit.

Even more problematic is the fact that 19.5% of the project's funding came from private, for-profit contributions.[4] These private contributions from companies such as Quicken Loans, Penske Corp., and Ilitch Holdings are not coming from the generosity of the owners' hearts. They are coming from an interest in improving the value of their assets and properties which are directly tied to transportation. For example, as the owner of the Tigers and Red Wings, it is in Chris Ilitch's best interest that Metro Detroiters have an easy way of getting to his downtown sports arenas. Funding is still funding nonetheless, but the large portion of for-profit funding creates moral problems for developers and opportunities for inequitable systems. Keeping with the Chris Ilitch example, a public transit option that serves his best interests would be more likely to cater to affluent neighborhoods that can afford season tickets and leave behind bottom-quintile neighborhoods which are the neighborhoods that desperately need public transportation in the first place. Therefore, in order to create an equitable transit system, there needs to be less private funding and significantly more government funding.

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[4] Lowe, Kate, and Joe Grengs. "Private Donations for Public Transit: The Equity Implications of Detroit's Public–Private Streetcar." Journal of Planning Education and Research 40, no. 3 (2018): 289–303. https://doi.org/10.1177/0739456x18761237.

Moving on and taking a look at the actual components of presently implemented public transportation, Detroit's system is primarily composed of buses and light rail, with some additional services provided by private companies and organizations. The city's primary public transportation provider is the Detroit Department of Transportation (DDOT), which operates over 40 bus routes throughout the city and surrounding suburbs. Currently, DDOT serves approximately 85,000 riders per day and has a fleet of approximately 400 buses.[5] In addition to DDOT, the Suburban Mobility Authority for Regional Transportation (SMART) also provides bus service in the greater Detroit area. This system is primarily focused on connecting Detroit to its surrounding suburbs.

In addition to its bus service, Detroit has recently invested in a new light rail system known as the QLine. Opening in 2017, the QLine is a 3.3-mile straight line of streetcars that runs along Woodward Avenue, connecting downtown Detroit with Midtown and eventually North End suburbs. The QLine operates with a fleet of six streetcars and has stations located approximately every block. While the QLine is a good first attempt at connecting Metropolitan Detroit, it certainly leaves much to be desired. First and foremost, its network of routes and buses is not nearly large or reliable enough to service the economic and geographic diversity of citizens. More routes and buses are certainly needed. Moreover, the footprint of routes needs to be expanded to provide greater accessibility to neighborhoods not directly touching the current QLine route.

Despite these efforts, public transportation in Detroit still faces significant challenges. According to a 2016 report by the city, Detroit has the second-longest commute time in the country, with an average commute of 28.5 minutes.[5] This is a direct result of DDOT's inability

[5] City of Detroit: From Motor City to Mobility City § (2016).

to produce an effective and reliant transportation system. The current bus systems do not even reach some neighborhoods. For the neighborhoods it does reach, the infrequency of buses makes for a total lack of reliability, forcing many Metro Detroit residents to abandon public transportation altogether. Furthermore, the new QLine has been criticized for its limited service area and high operating costs, with some questioning whether it represents a sustainable solution for improving public transportation in the city.

This overall failure has led many of Detroit's residents to rely solely on private transportation, namely car leasing and ownership. This allows for each resident to be self-reliant for their own transportation, but comes with numerous problems of its own. The aforementioned lack of economic stability for many Detroiters to own their own cars is one of the primary issues, but there are even more issues with those citizens who are able to afford their own cars. Poor road safety, maintenance, and availability of parking are all factors that render private transportation less than an ideal option.

Last to examine when assessing Detroit's transportation is the issue of equity. All of the previously mentioned factors combine to build an extremely inequitable public transit system. One which is not only small and unreliable, but grossly disprivileges the Detroiters who need it the most: those living at or below the poverty line. An equitable transit system would prioritize low-income neighborhoods that are less likely to have private transportation in order to afford them the same opportunities present in more affluent neighborhoods.

Overall, the current state of transportation in Metro Detroit is troubling to say the least. Countless problems plague the current system which is small, inefficient, and extremely inequitable. Drastic changes need to be made for the betterment of its citizens.

Strategies for Improving Public Transportation in Detroit

Given these numerous challenges, it is clear that significant improvements are needed in order to make public transportation a more viable and accessible option for residents of Detroit. There are several strategies that Detroit's local and state governments could implement to achieve this goal, each with its own benefits and drawbacks. While examining all possible solutions, a key priority in improving public transportation in Detroit should be ensuring that the system is accessible and equitable for all residents, regardless of income or physical ability. This could involve implementing fare structures that are more affordable for low-income riders, as well as providing more accessible buses and bus stops, with features such as low floors, wheelchair ramps, and audible stop announcements. In addition, efforts could be made to ensure that bus service is distributed fairly throughout the city, with a focus on providing service to neighborhoods that have historically been underserved.

The first possible option is expanding Detroit's current bus system. Buses are often the first form of transportation thought of when planning public transportation and for good reason. They are a known, relatively straightforward solution that addresses many of the aforementioned issues such as accessibility and traffic reduction. Moreover, when the right types of buses are invested in, they can significantly reduce the carbon footprint created by inevitable daily commutes. One promising approach for improving public transportation in Detroit is to invest more in Bus Rapid Transit (BRT) systems. BRT is a high-quality, bus-based system that provides fast, reliable, and frequent service, often with dedicated lanes and signal priority. BRT systems for Detroit have already been proposed, but a larger system is needed. These systems have been successful in many cities around the world and could be a good fit for Detroit given

the city's existing bus infrastructure. Expansions and adjustments will obviously need to be made, but BRT systems are a great way to improve upon what has already been invested in. Specifically, BRT systems could be used to provide more frequent and reliable service along more key roads besides Woodward Avenue which already has the QLine. Detroit's European downtown city layout is a perfect match with BRT systems, as divisions for the transit network can be easily drawn and expanded upon. This would help to connect residents living in varying economic demographics of surrounding neighborhoods with the downtown job centers where they often work while also reducing congestion for those utilizing private transportation.

In addition to adding buses and routes, efforts could be made to improve the quality of bus stops and shelters, providing amenities such as seating, lighting, and real-time arrival information. These improvements would help to make public transportation a more attractive option for residents and could also help to reduce the social stigma associated with riding the bus. Like many other solutions, this option is not cheap and would need to involve government investment, but this is the real world where massive, effective systems which drastically improve citizens' lives are not birthed from shooting stars. Any practical solution is going to need a serious amount of funding.

While public transportation is an important component of a comprehensive mobility system, it is not the only solution. The next possible solution zooms out on the overarching problem. Encouraging active transportation, such as walking and biking, can help to drastically improve access and mobility for residents, especially for shorter commutes. This could involve investing in infrastructure such as bike lanes and sidewalks as well as programs to encourage active transportation such as bike share systems and walk-to-school initiatives. Downtown

Detroit is by no means a "walking city", so these improvements could potentially start in downtown Detroit to improve both walking and biking conditions. Tangentially, accessibility to active transportation often hinges on street safety which is a larger problem that warrants its own paper, but is still relevant to the discussion of transportation nonetheless. All of these investments would immediately improve the lives of citizens who work and live downtown while also improving the general mobility for residents on short trips across town. This focus on improving downtown transportation would make a significant impact on addressing the issue of equitable transport, as downtown Detroit neighborhoods are made up of 91.9% non-white residents according to a 2017 research paper.[6] After the downtown area's active transportation is improved, efforts could be made to spread active transportation to Detroit's immediate surrounding suburbs, encouraging more people to walk and bike for their daily commutes to downtown. This solution to transportation is perhaps the cheapest and would provide many of the desirable benefits such as reducing traffic, lowering carbon emissions, and drastically improving individual health, all in an equitable fashion.

Next on the list of potential answers, there is a growing recognition that new technologies can play an important role in improving public transportation, particularly in terms of improving the efficiency and reliability of service. For example, some cities have implemented on-demand ride-sharing services that provide last-mile connections to public transportation. This would help fill in the gaps of whatever transportation system is implemented, such as helping citizens quickly zip between unconnected bus stations. Going further down the technological rabbit hole,

[6] Lee, Jieun, Igor Vojnovic, and Sue C Grady. "The 'Transportation Disadvantaged': Urban Form, Gender and Automobile versus Non-Automobile Travel in the Detroit Region." Urban Studies 55, no. 11 (2017): 2470–98. https://doi.org/10.1177/0042098017730521.

other cities have begun to experiment with autonomous buses and shuttles. These, while having high upfront costs, would reduce operating costs in the long term, ultimately saving the city money they would have paid to bus drivers, ticket booth workers, and legal fees. These high-tech solutions would certainly demand higher amounts of funding but would ultimately solve many of the problems caused by city transportation. Most notably, it would ease ecological concerns, as higher technological forms of transportation often mean eco-friendly options such as fully electronic systems.[7]

Last of the potential solutions is the idea to shift focus to improving private transportation. This would be a much different approach than any of the other explored solutions, as it would significantly shift focus away from public transportation and fully or partially commit to Metro Detroit being a car-focused area. One focus of this solution could be for the government to make an effort to reduce car insurance rates in Metro Detroit. In the same 2017 poll by the University of Michigan, when asked about preferred options to improve Metro Detroit transportation, by far the most popular answer was lowering the cost of car insurance at 55%. This was significantly higher than other public transportation solutions such as adding more bus routes (29%) or improving bus service reliability (26%).[1] However, it is very possible these responses could be skewed due to a general mistrust of the Detroit public transportation system. Residents may have already abandoned the prospect of effective public transportation. Regardless, this is seemingly the current preferred option among Detroiters. This solution would do a lot in addressing the equity of transportation, as car insurance rates disproportionately affect minorities and lower-income residents. However, it is counterproductive to the issue of ecology,

[7] Gontarz, Mateusz, and Adam Sulich. “The Sustainable Transportation Solutions: Smart Shuttle Example.” Vision 2025, January 29, 2021.

as it would facilitate more drivers on the road emitting more carbon emissions. Moreover, the logistics of executing this solution are a bit murkier than previously explored options. Car insurance companies are private enterprises thus limiting the amount of effective control the government has over them. To that end, rather than lowering auto insurance rates which it has questionable control over, the government does have control over the quality of its roads. As any Michigander knows, the current quality of roads is certainly less than optimal. More state taxes could be allocated to DDOT in order to ensure higher quality roads with fewer potential hazards. This solution comes with similar effects as lowering car insurance rates such as increased accessibility to transportation but greater environmental concerns.

These are certainly not all of the solutions to improving transportation. They are, however, the most common solutions which have been proven to have positive effects when implemented in different American cities and are great contenders to be considered for a comprehensive system.

The Proposed Solution

When exploring available answers to the problem of Detroit transit, it becomes clear why transportation remains an issue that plagues Detroit. No solution is perfect, each comes with its own mix of pros and cons, and all solutions require some level of increased government funding which can be extremely difficult to obtain. Given all of the information, a blend of multiple solutions is required in order to begin to solve transportation issues and build an effective, efficient, and equitable system of transportation. Specifically, a comprehensive plan would come in the form of three parts. First and foremost, more government funding is needed to solve the

issue. Second, the existing Detroit bus system needs to be dramatically improved across the board. Finally, active transportation needs to be invested in and encouraged in order to round out the transportation network. These three parts, when paired together, would dramatically improve transportation for Detroiters in innumerable ways.

The most important step to this proposed plan is to significantly increase the amount of funding allocated to Detroit transportation. Detroit's failure to produce an effective and equitable system of transportation is a direct result of its unwillingness to invest in the issue. Given Detroit's widespread urban sprawl, transportation needs to be treated as a top priority to connect the downtown area to its surrounding suburbs where many of its daily workers live. Crucially important to the acquisition of funding is ensuring that the funds are coming from the right sources. Fewer donations from for-profit companies should be accepted. If they are accepted, they should come with large contractual stipulations which limit the donors' influence. This would ensure the system services Detroit residents' interests, not the interests of wealthy donors. This focus on equitable transportation will help immensely to ameliorate many of the problems that Detroit and its residents presently face. By investing in transportation, the city will see countless positive effects across many facets of civilian life such as a strengthened economy stemming from increased employment opportunities, reduced air pollution and traffic congestion from greater public transit usage, and generally a more equitable society which will allow its economically and racially diverse range of citizens to prosper. The city investing in its transportation shows an investment in its citizens and a strong commitment to its future.

After proper funding is acquired, the first and largest use of it should go towards massively expanding the bus system, with a large focus on improving the BRT system. Doubling or even tripling the current number of 40 DDOT bus routes and 400 buses would be a necessary

step in the right direction. As previously stated, the layout of Detroit makes it perfectly suited for an elegant, well-connected system of bus routes. Large arterial routes would start downtown and spread out along the five major roadways of Lafayette Boulevard, Michigan Avenue, Grand River Avenue, Woodward Avenue, and Gratiot Avenue. From those main transit arteries, smaller systems would spread out across surrounding Detroit suburbs. This would make for an efficient and equitable system of transportation that would service every demographic of neighborhoods in the Detroit metropolitan area. In addition to expanding the bus route system, funding should be spent on more buses and drivers in order to improve the reliability of the entire system, making residents far more likely to actually use it. On top of that, upfront costs should be spent to raise the quality of buses, their engines, and bus stations. Improved buses and bus stations would also drastically increase the bus system's usage. Moreover, higher efficiency engines or even fully electric buses would decrease Metro Detroit's carbon footprint immensely. All of these new systems would increase public transit usage while affording more equitable opportunities to all Metro Detroit residents.

The last step in Detroit's transportation revamp is to improve active transport conditions. Detroit's current state of active transportation is severely lacking. The downtown area is relatively concentrated which usually spells great things for walking and biking. However, the narrow sidewalks and little-to-no bike lanes across the downtown landscape make active transport an undesirable option for downtown residents. Significant efforts need to be made to improve sidewalk size, safety, and general beauty in order to encourage a higher rate of usage. In addition, protected bike lanes should be added across the city. Pairing these additions with programs that encourage active transport such as tax breaks or bike-to-school programs would

cut down on the number of short car trips within downtown Detroit, which would in turn reduce traffic and pollution as previously explored.

Improving public transportation in Detroit is a complex challenge that will require a comprehensive approach, involving investments in infrastructure, service improvements, and equity considerations. However, there are also many opportunities to build on the city's existing strengths and assets, including its bus systems, growing bike culture, and vibrant urban core. By prioritizing equity and accessibility, large bus systems which embrace new technologies, and residents' accessibility to active transportation, it is possible to create a transportation system that meets the needs of all residents while also helping to build a more equitable, sustainable, and connected future for Detroit.

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