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Cincinnati Streetcar: Was it a Mistake?

In two years, Cincinnati's streetcar will begin operation. Although the Southwest Ohio Regional Transit Authority has been trying to get the project green lighted for twelve years, was it all a mistake? Why didn't they do Bus-Rapid Transit? I mean, in a time when our government is running such a large deficit, should we really be choosing the more expensive route? Why not stop the construction of the streetcar, and replace it with Bus Rapid Transit lines? Because, bus is cheaper, right? Well, although Bus-Rapid Transit (BRT) has its merits, the streetcar was the best decision for Cincinnati's goals.

In any good discussion about public transportation in Cincinnati, there is at least a mention of the well-known failure that is the Cincinnati subway system. In 1920, Cincinnati began building a subway system; a system that followed the same specifications as the MBTA Red Line in Massachusetts (Cole). However, the United States' involvement in World War I helped escalate costs to make it more expensive than the 1916 bond issue of \$6 million allowed for (Cole). So, by 1925, there was no more money to continue the project, and construction was halted (Cole).

During the Great Depression, many infrastructure projects were undertaken under Franklin D Roosevelt's *Works Progress Administration* (WPA) in Cincinnati. The subway, however, was not one of them (Cole). Then, after World War II, suburbanization began to take hold in part thanks to the Federal Housing Administration (FHA) loans to veterans for single

family housing. So, with city boundaries expanding and the rise of automobile ownership, there was no longer any need for a subway system. The subway tunnels still exist, however, and are maintained by the city, with regular inspections. There are even periodic tours given in the tunnels (Cole).

While the subway system was never opened, there was a different mode of public transportation that served Cincinnati. Turns out, there was once a streetcar system that ran through the city, once boasting 200 miles of track that served 100 million annual passengers (Cole). Starting out as horse drawn omnibuses that ran along metal rails in the mid eighteenth century, these horse drawn omnibuses began to be replaced by electric cars as they became more popular by the beginning of the twentieth century (Cole). These lines were even expanded starting in 1872 to the hills right outside Cincinnati proper, like where the University of Cincinnati currently sits. To do this, inclines were built that allowed the streetcars to drive onto a level platform and be “pulled by cables along a sloped track to the top of the hill” (Cole). As mentioned earlier, public transportation ridership began to decline after World War II as automobile ownership began to increase (Cole). Without much demand, Cincinnati, along with many other American cities of the time, began to take out their streetcar system as roads needed to be repaved. “On April 29, 1951, [the last streetcar was parked for the last time], ending the streetcar era in Cincinnati. Since then, buses have provided the only form of public transit in the Greater Cincinnati area. Streetcars had already ceased running in Northern Kentucky several years earlier” (Cole).

So the streetcar already existed in Cincinnati! They took it out because it didn't work! So why build another system? Especially one that is much, much smaller than the old one? Even more, why even build public transportation in any form? Turns out, after 60 years of sustained

increases in miles traveled by automobile, the trend is starting to reverse in the United States (Baxandell 16). Several studies, such as academic research, survey results, and government data, show that Millennials - or those born between 1984 and 2000 – are choosing to use other methods for transportation much more than the generations preceding them; and that includes public transportation (1). For example, government data shows that only 73% of high school seniors even have their driver's license in 2010, compared to 85% in 1996 (2).

Not only are Millennials driving less cars, they are also moving to the cities, where public transportation is more feasible (34). It also doesn't take a bright mind to realize that public transportation is a lot more energy efficient method of transportation. So, while oil prices may currently be low, chances are, they will increase again in the coming decades - if not in the next year or two. Less demand for oil will put less pressure on the economy as price fluctuates. This, combined with 54% of Americans believing that the government should provide more public transportation options, proves that public transportation is a good investment for the future of transportation in the United States (Schmitt).

So, the importance of public transportation has been established. What methods of public transportation are there? There are five common methods used in cities: buses, taxis, subway, bus-rapid transit, and light rail/streetcar. A comprehensive bus system already exists in Cincinnati, but bus systems don't work all that well in high density areas where traffic moves slow. Taxis work the same way that cars do. If a person has a car, chances are, they are going to take it. So taxis are extremely ineffective in cities without much tourism. Subway systems are extremely expensive to put in, as the tunnels have to be dug underneath the city. Bus-rapid transit is a form of bus transportation where the buses have their own right-of-way lane for them to drive along; which sounds plausible. Then, there is the light rail/streetcar system. This was the

mode that was chosen for Cincinnati. It is a little bit more expensive to put in than Bus Rapid Transit. A streetcar is basically a train that runs along train tracks that are less heavy duty than regular rail. Hence, the name “light rail.” So why was the streetcar system chosen over Bus Rapid Transit? Was the right decision made?

Since Bus-Rapid Transit (BRT) uses buses that simply drive along dedicated lanes (Wise 1), these buses are able to go another route if their route has been obstructed. This also means that BRT routes are easily changed as demand increases and decreases in certain areas. This makes BRT a lot more flexible than a streetcar system, which is unable to go down another route if its tracks are obstructed (Bourassa). Also, if demand changes and there is a need for a route that goes through another area, there *has* to be new track laid in order for the streetcars to reach these new areas. This is a contrast to BRT, which may need dedicated lanes to be built eventually, but can have buses reach these areas immediately.

However, the streetcar’s inflexibility is used as a benefit for business owners and other developers along the streetcar route because they know that the route is not going to change anytime in the near future; thereby guaranteeing transportation and customer opportunities (Bourassa). So, while BRT routes do increase investments along its routes, rail increases investments much more (Wise 3). As it turns out, one of the major motivations behind the building of the streetcar is to increase development in Over-The-Rhine and Downtown; the two areas that the first phase of the streetcar lines go through (Mokadi 1). A study was conducted by Elsevier in the areas to be affected by the streetcar system in Cincinnati. This study looked at three scenarios: “a baseline scenario, which does not include the streetcar alignment, and two scenarios based on the supporters’ and opponents’ narratives” (1). The study found that development will occur surrounding the streetcar line throughout the next 10 years, but will stay

isolated without supporting public policy. However, with supporting public policy, development can spread through the entire urban core (1). This proves that if development is a major factor in which method should be used – which it is – the streetcar beats out BRT by a wide margin. BRT systems are able to serve larger geographical areas because they tend to just ride along already established road networks. Also, several routes are able to converge onto one busway. This, in effect, reduces need for transfers (Bourassa). Also, it is much easier to phase BRT development than to phase streetcar development (Bourassa). However, these benefits work best in more suburban areas where transit demand is lower (Bourassa). This is not the case for Cincinnati, which wants to use a mode for its more urban areas.

Public support is much higher for streetcar systems in America than for BRT according to a 2005 Harris poll, which found that “44% of voters support LRT while only 23% support BRT” (Bourassa). Both numbers, of course, have increased in recent years (Schmitt). However, BRT systems still have a negative connotation because “no matter how comfortable the seats, a bus is still a bus!” (Bourassa). Also, ridership numbers tend to be higher for rail systems compared to BRT systems. Averaging at about 29,000 a day and 15,600 a day, respectively. On the contrary, however, BRT systems tend to attract riders who are more transit dependent (Bourassa). This is likely due to the fact that BRT fares are much cheaper than streetcar fares, so the poor - the people who benefit the most from public transportation - are better able to afford riding the bus (Bourassa).

The final point to be brought up for BRT is the fact that initial infrastructure costs are much, much lower for BRT systems than streetcar/light rail (LRT) systems. BRT systems are able to use roads that are already existing by converting lanes into busway lanes, while streetcar/LRT systems *must* be built in order to be used (Bourassa). According to a study by the

Government Accountability Office in 2000 found that BRT systems ranged from a low of \$200,000 per mile to a high of \$55,000,000 per mile. The huge difference comes from the somewhat lax definition of BRT that doesn't always require dedicated lanes to be considered BRT in the United States (Wise 1). The same study found that streetcar/LTR systems range from \$12.4 million to \$118.8 million per mile (Bourassa). This large difference depends on how flat the land is, and how "luxurious" the system is. To put the Cincinnati streetcar system into perspective, the project averages at about \$36.9 million per mile (Stankorb); which would put the project in the lower half of the average streetcar/LTR project.

Local governments, however, do not feel the huge difference in price because federal subsidies are much higher for streetcar/LTR systems. In the 2001 fiscal year, BRT start up systems received \$831 million in federal subsidies, while streetcar/LTR systems received \$4.67 billion in subsidies (Bourassa). However, on the same note, federal support for streetcar/LTR systems is beginning to wane in favor of BRT systems (Bourassa). On the other hand, federal subsidies through the "New Starts Program" for BRT systems require the systems to run entirely on dedicated lanes (Bourassa). Also, the average operating cost for streetcar/LTR systems are only about a fourth of the average operating cost of BRT systems (Hsu 23).

For someone who doesn't know much about public transportation, bus-rapid transit seems like a better choice when compared to the streetcar; however, the streetcar was the best choice for Cincinnati given its goals. BRT systems may be more flexible than the streetcar systems, but that very benefit also brings about its biggest shortfall: streetcars bring a lot more development in the surrounding area than BRT does. This has been proven multiple times. Also, while BRT systems may cost a lot less to put in, they are more expensive to maintain afterwards when compared to the streetcar. No matter, the Cincinnati streetcar system has already begun. A

study in May found that \$20 million has been spent on the building of the system, and if they were to have stopped the project then, it would cost the city \$14 million (Lopez). That would be \$34 million wasted, which does not sound like a smart idea for anyone. Has anyone learned from the subway project that was started almost a hundred years ago? It would be a real shame to add the current streetcar system to the list of “failed projects” that is public transportation in Cincinnati.

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