Spatial mismatch: Utilizing public transportation for greater equity in DC

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Background

In economic terms, public transportation in the District of Columbia (DC) exists as an exclusionary toll good with varying fares across the different modes of transportation offered (Kraft & Furlong, 2021; WMATA, 2023a). Revenue for Washington Metropolitan Area Transit Authority's 2024 fiscal year project passenger fares generating \$406 million, which comprises around 16.9% of the year's operating budget and 8.5% of the organization's total source of funds (WMATA, 2023b). Ridership figures for 2023 have seen a recovery since the height of the pandemic for the two primary modes of transportation, Metrorail and Metrobus, but respectively stand at 53.7% and 58.7% to 2019 figures (WMATA, 2023d; WMATA, 2023c).

Approximately 70% of individuals commuting by public transportation in the US fall below the median household income. (U.S. Census Bureau, 2021b; Semega & Kollar, 2022)

Problem

Aligned with spatial mismatch theory, the ability to utilize public transportation affects employment prospects (Tyndall, 2016). When public transportation became unavailable after a weather-related crisis, individuals who relied on public transit saw higher unemployment rates than those with vehicles. Specific to youth, public transportation has been characterized as a labor market institution where its availability considerably influences unemployment rates (Brandtner et al., 2017). The impact of spatial mismatch specific to public transit sees African Americans disproportionately affected (Alireza Ermagun et al., 2023). When a county in Georgie eliminated bus routes, impacts to poverty and unemployment rates followed with increases of 5.1% and 4.5% respectively (Li & Wyczalkowski, 2023). Palm and colleagues (2021) found that individuals with low incomes postponed healthcare treatment due to interruptions of public transportation during the COVID-19 pandemic. Accessibility of public transportation sees socioeconomic and equity impacts that reverberate across communities.

Public transportation asks individuals, most earning less than the U.S. median income, to pay for access to work, education, healthcare, and other basic needs that require mobility. This means of transportation also stands as the primary commuting method for individuals below the poverty line (U.S. Census Bureau, 2021b). WMATA recently approved the new Metro Lift program, the organization's first offering for reduced fares based on income level (WMATA, 2023e). However, Perrotta (2016) found that individuals who have lower incomes see the cost of public transit as prohibitive. To make use of public transportation, they may pursue subsidy programs, practice fare evasion, or forsake their inaccessible need.

Landscape

WMATA oversaw the attempt at a partial fare elimination and subsidization program in 2021 (Metro for D.C. Amendment Act of 2021, 2021). Implementation would see residents' fares for buses eliminated and a monthly subsidy of \$100 available to them for the DC metro and surrounding transportation networks. However, WMATA has not enacted such measures and has experienced resistance (George, 2023). Utilizing McConnell's (2010) framework to analyze policy success, the statute stands as a failure. While experiencing a degree of process success at first, the coalition behind the effort was unsustainable. Resultantly, there lacks any program realization and the political success remains unclear.



Fare elimination for public transportation in DC presents itself as the policy solution as its unaffordability coincides with the effects of spatial mismatch. In effect, this would transform public transportation from a toll good to a public good, through government subsidization, as it would be non-rivalrous and non-exclusionary. Such government action aims to eliminate the economic inefficiencies experienced of unnecessary unemployment, such as lower government revenue and higher costs for social programs (Kraft & Furlong, 2021). While the loss in passenger revenue will also carry a cost, the designed measures will carry a level of effectiveness, efficiency, and equity. Such a policy in Kansas City saw transit riders feel the policy enabled to purchase essentials, obtain healthcare, connect to their community, and sustain their employment (Urban League of Greater Kansas City, 2021).

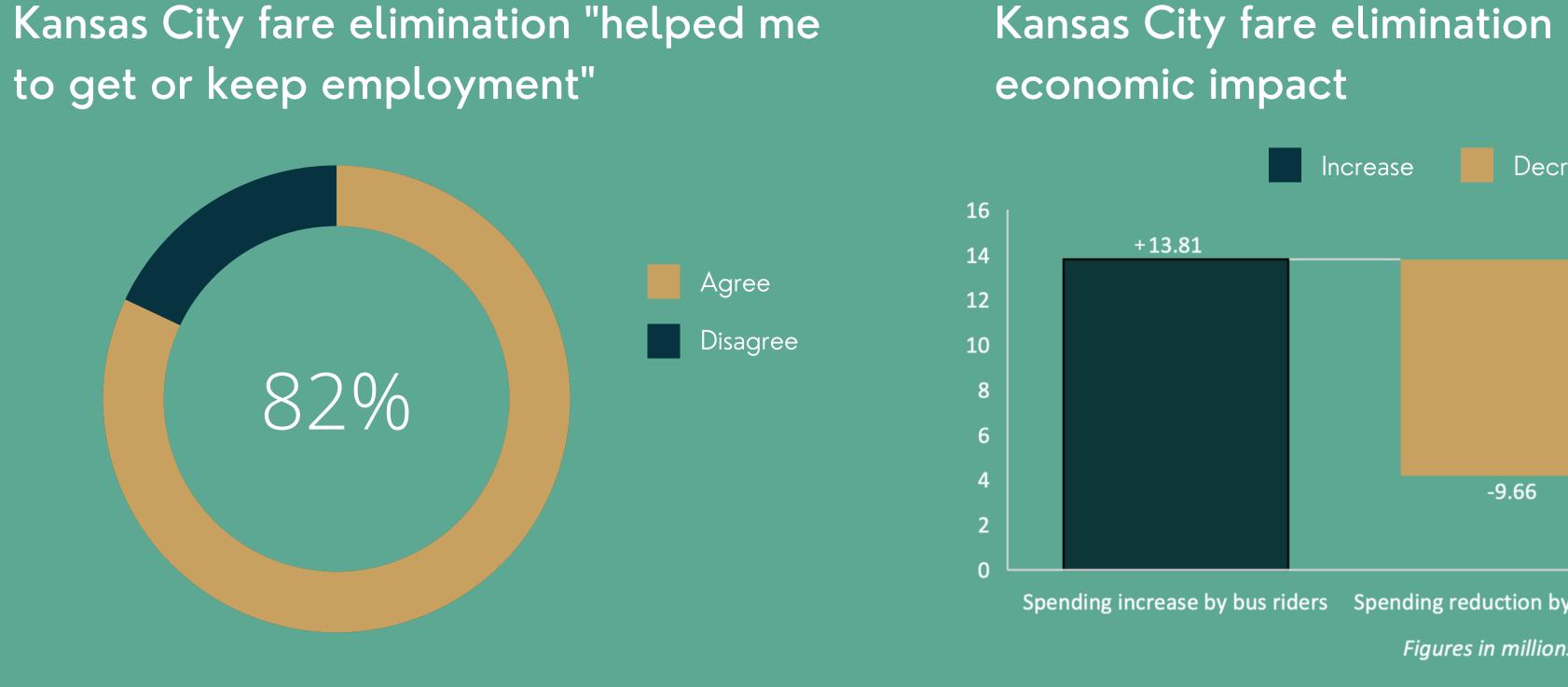
With fares eliminated, the WMATA's infrastructure surrounding collection and enforcement can be eliminated as well. These costs include factors such as the personnel dedicated to enforcement and the purchasing and upkeep of the collection system (Healy, 2020). During fare elimination considerations in Los Angeles, the LA Metro's chief executive estimated these expenses at as much as one-third of fare revenue. The remaining gap in revenue will be addressed by increasing corporate advertising opportunities and adopting a low emission zone toll. The low emission zone policy will reflect that of Paris and, more explicitly, burden individuals choosing personal vehicles to navigate the city (Cui et al., 2021). This measure will simultaneously generate revenue to fund the cost of public transportation while also incentivizing the use of public transportation.



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Recommendation



(Urban League of Greater Kansas City, 2021)

Increase Decrease + 4.16 -9.66 Spending increase by bus riders Spending reduction by taxpayers Net impact Figures in millions USD

(Mid-America Regional Council, 2022)