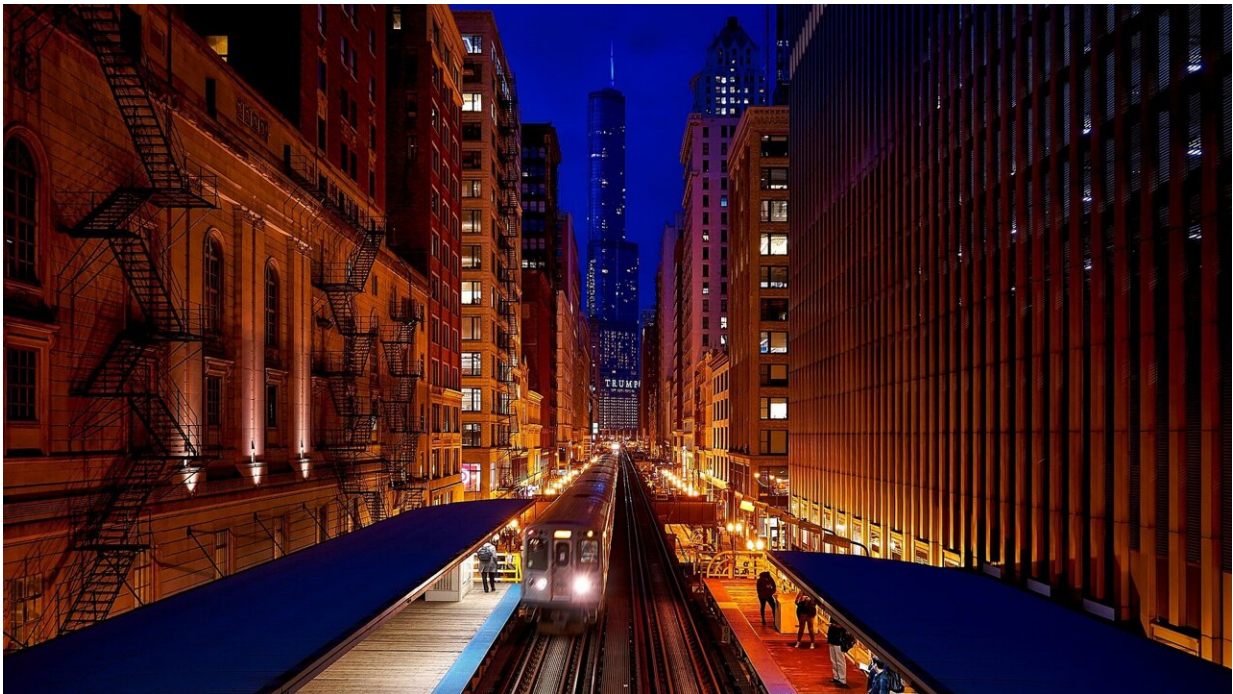


Researcher highlights public transit's critical role across Chicago

June 6 2024



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A study by Argonne and MIT reveals the significant impacts of losing public transit in the Chicago region, from pollution spikes to increased traffic congestion to economic downturns.

Public transit is vital to Chicago's metropolitan area mobility, providing access to jobs, services and opportunities, but lower ridership and

funding uncertainty are prompting the question of what would happen if [public transit](#) wasn't an option.

A recent study led by the U.S. Department of Energy's (DOE) Argonne National Laboratory, in collaboration with Massachusetts Institute of Technology (MIT), reveals that the Chicago region would face severe consequences if its public transportation system was eliminated. The research, presented at a Chicago Transit Authority (CTA) board meeting in May, identifies major consequences, including increased vehicle congestion, reduced [economic activity](#) and a disproportionate impact on underserved communities and minorities.

"Everyone agrees transit is important but exactly how much and to whom remain open questions," said Omer Verbas, transportation system engineer at Argonne and technical lead of the study. "This study is one of the first to our knowledge to quantify transit value across multiple metrics."

Using Argonne's [POLARIS](#) transportation simulation tool, researchers modeled a day in Chicago without public transit. The study assumed that households who did not currently own a car as well as those who owned only one would need to purchase additional vehicles, leading to a 30% increase in vehicle car ownership and causing an economic burden on those households.

"Our results indicated that travel times would increase from around 25 to 34 minutes, and speeds would decrease from 16 mph to 11 mph within the city," said Verbas. "Regionally, travel speeds would decrease by 16% and [travel times](#) would increase by 14%, impacting both urban and suburban areas."

Public transit also plays a crucial role in supporting care trips in the Chicago region, such as daycare or school drop offs and pickups,

grocery shopping and medical appointments. The study found that more care trips are made than trips to work.

"The point of any transit system is to offer people access to opportunities," said Jim Aloisi, director of the MIT Transit Research Consortium. "In Chicago, transit provides access to people across the city, but especially to those living in the south and west sides.

"Without that access, many people simply cancel their activities. The analysis highlighted the disproportional impact on women and low-income groups, as women account for slightly over 50% of activity cancellations, while the lowest 20% income group accounts for over a quarter of activity cancellations."

The study estimated that without public transit, over two million activities would be canceled daily, resulting in an estimated \$35 billion annual loss in direct economic activity. This estimate includes lost jobs, closed businesses and increased living costs.

"Transit spending has a substantial positive impact in the Chicago area economy," said Aymeric Rousseau, director of the vehicle and mobility systems department and director of the Center for Decarbonization Solutions Deployment at Argonne. "Every \$1 invested in transit generates \$13 in economic activity, in addition to creating savings in travel time."

The removal of public transit would also have public health repercussions. Increased vehicle traffic would lead to higher emissions of a type of particulate matter demonstrated to increase respiratory disease, heart attacks and strokes.

The findings from Argonne and MIT show the importance of public transit for mobility, economic stability and public health in the Chicago

region. The results indicate that prioritizing and investing in sustainable transit systems is essential for the community's well-being and economic vitality.

Provided by Argonne National Laboratory

Citation: Researcher highlights public transit's critical role across Chicago (2024, June 6)
retrieved 29 June 2024 from <https://techxplore.com/news/2024-06-highlights-transit-critical-role-chicago.html>

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