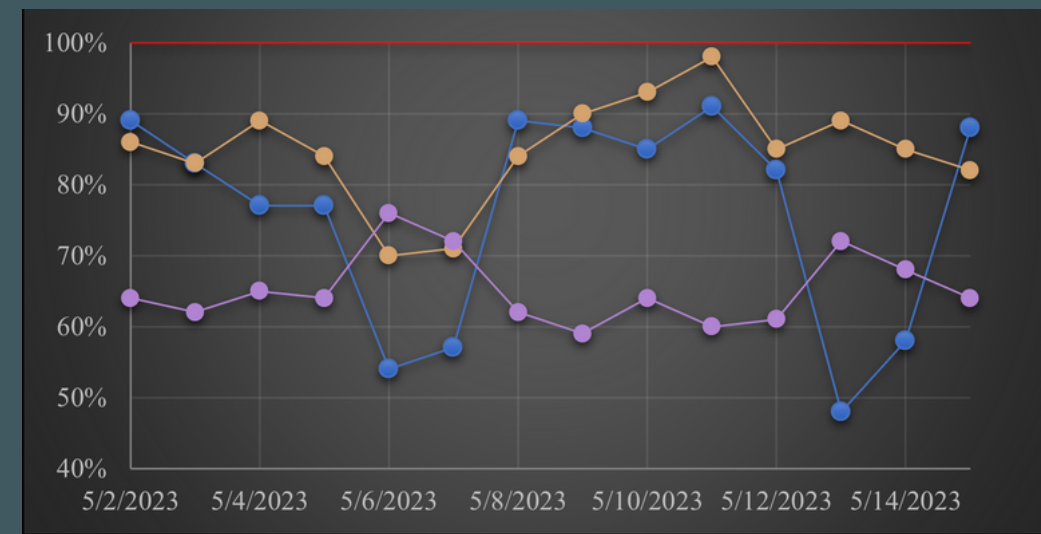


Transportation Systems and Equity in Chicago, Illinois

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Introduction

- **Since COVID-19, the Chicago Transit Authority (CTA) has been increasingly unreliable, having lost around 1,000 employees**¹
 - Some transit lines have less than 50% of scheduled trains arriving²
 - Less reliable in low-income neighborhoods³
 - 2022 was the CTA's most violent year in decades
- **Ridership has fallen by around 50% in recent years**⁴
 - Leads to increased personal vehicle usage, traffic, and pollution that can impact local health
- **CTA is still under its goal minimum number of employees, and little progress has been made to increasing vehicle reliability**



Simplified Graph of Percentage of Scheduled Arrivals met by the CTA Rail System for the Blue, Brown and Purple Lines between May 2, 2023-May 15, 2023²

Costs & Benefits

Priority Lanes

- \$13.8 million
 - Accounts for painting and maintenance across 46 miles of existing bus lines in congested areas of Chicago

New Bus Lines

- \$14 million
 - Accounts for infrastructure for new buses, including bus operators

Operator Retention

- \$250 million
 - Includes a fair wage, hiring bonus and incentive (within the 1 year period)

Overall Benefits

- Reduce congestion
- Increase access to lower-income residents living outside downtown Chicago
- Increase ridership --> increased revenue for CTA from bus fares

Solutions

Solutions for increasing operator retention:

- Providing retention incentives from 2023-2024: \$1,500 per six-month period⁵
- Hiring bonuses of \$1,000 & increased starting rate of \$29/hour
- Implementation priority lanes: exclusive spatial scheme in the form of bus-only lanes

Solutions for Transit Users

- Extension of transit lines in South Side neighborhood
- Reduced-cost fare application for low-income transit users

New policy to support transit initiatives

- Overall fare increase; mitigated by staggered fare system
- Congestion charge in high-traffic areas in Chicago to help pay for transit updates.

Data Acquisition/Feasibility

Inefficiency evaluated through reliability and inaccessibility metrics

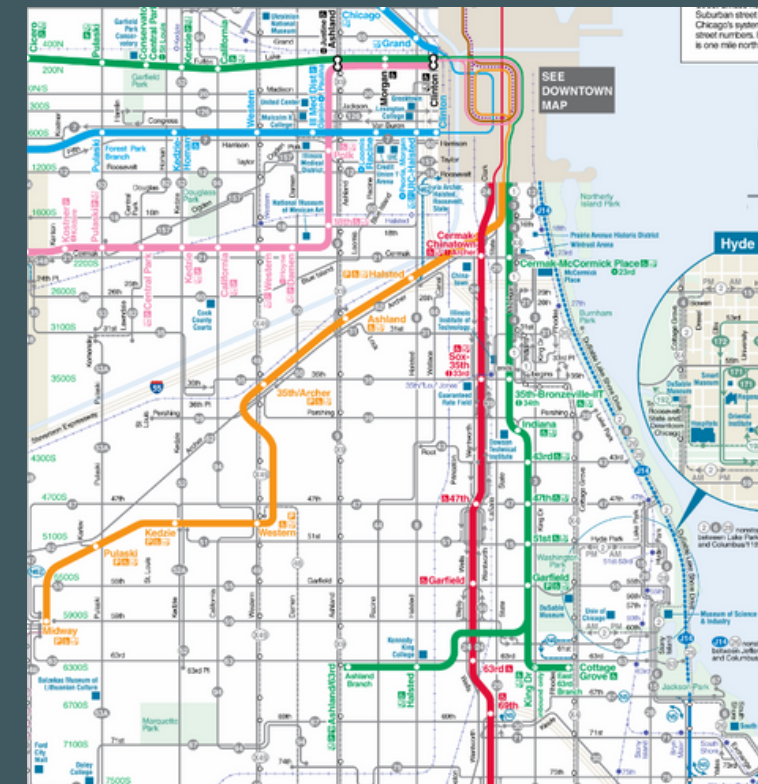
- Commuters Take Action --> community organization that provides updates on "ghost" buses/other issues not in CTA app
- Bus/rail lines not as extensive in areas where the poverty rate is much higher among individuals --> evaluated Census data in comparison with transit line maps

Sustainability --> priority bus lanes to maximize reliability and accessibility

- LA implementing these lanes to certain areas of the city; Chicago has implemented a few zones already

Income-based fares have been successfully implemented in places such as New York City with a high success rate

- Can increase current well being/benefits for transit workers as the CTA is short staffed for numerous positions



Current CTA service map, including bus lines (marked in grey)⁶

Discussion

- **Problem Summary:** The current transit system is unreliable and inaccessible to a high percentage of Chicago citizens. Additionally, the CTA has experienced a significant decline in employee retention and ridership.

Our Solutions:

- Improve operator retention through financial incentives + improved work environment.
- Improving accessibility through reduced-cost fare system and bus line extension.

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