

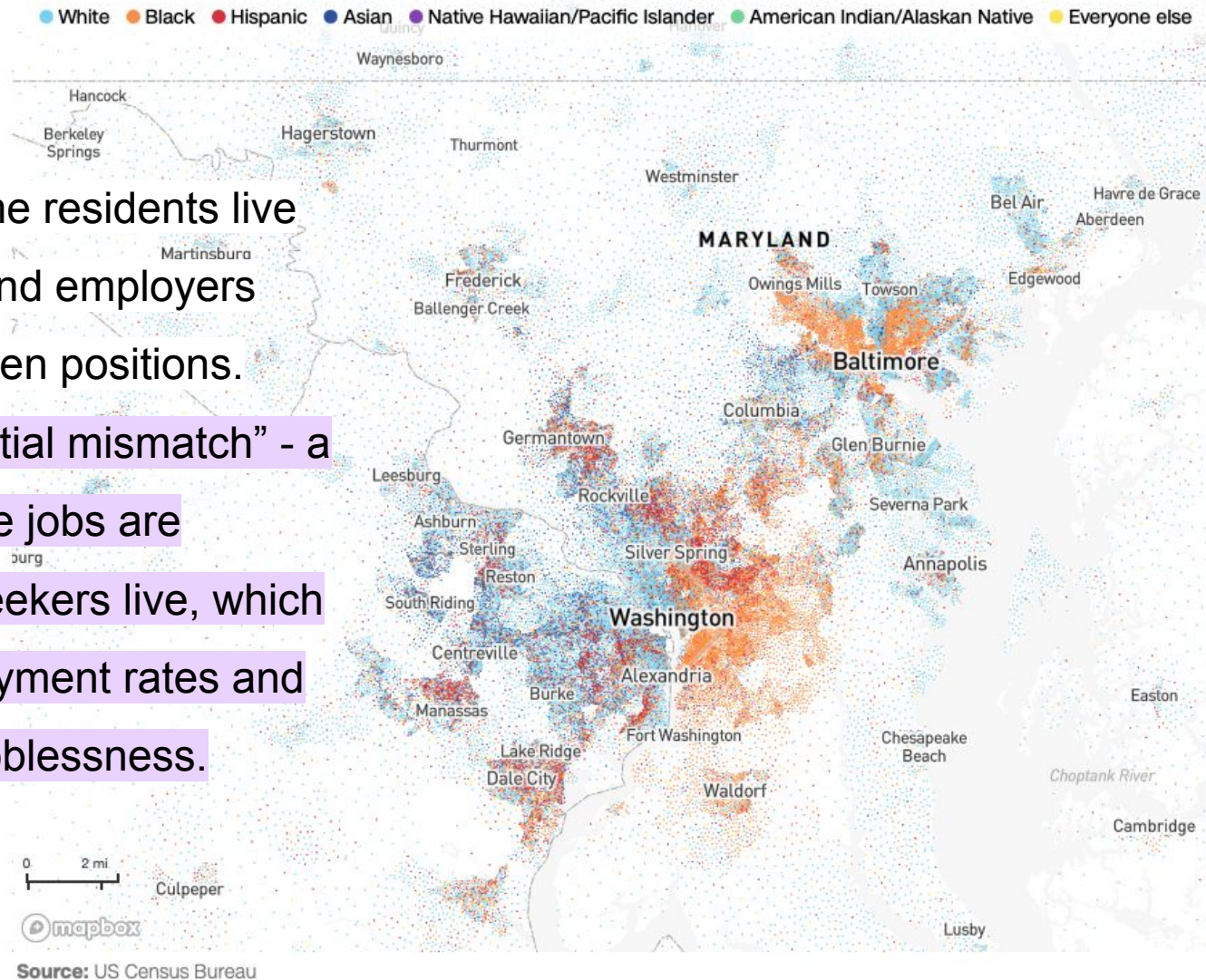
# **Spatial Mismatch in the DMV**

Presented by: Scott Brown, Hannah Hill, Peyton Weber

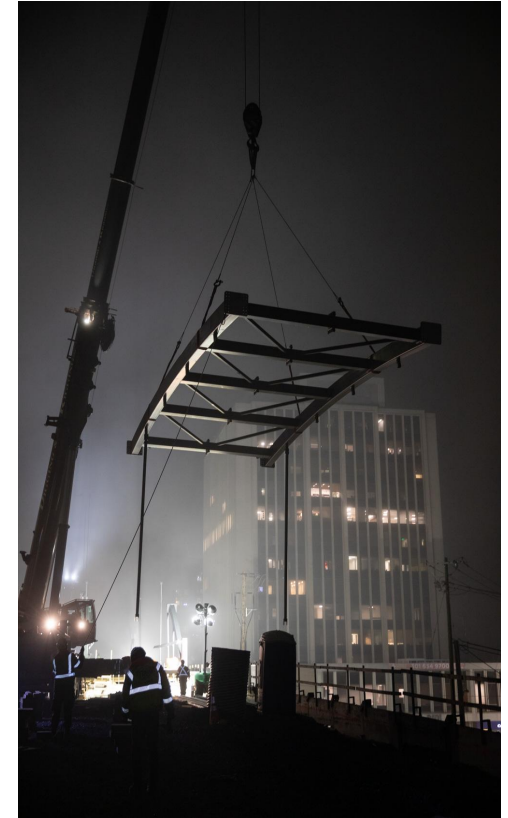
# Background and Motivation

In many cities, low-income residents live far from available jobs, and employers can't find people to fill open positions.

Economists call this “spatial mismatch” - a mismatch between where jobs are located and where job seekers live, which can cause high unemployment rates and lead to longer spells of joblessness.



# Problem Statement - Market Failure

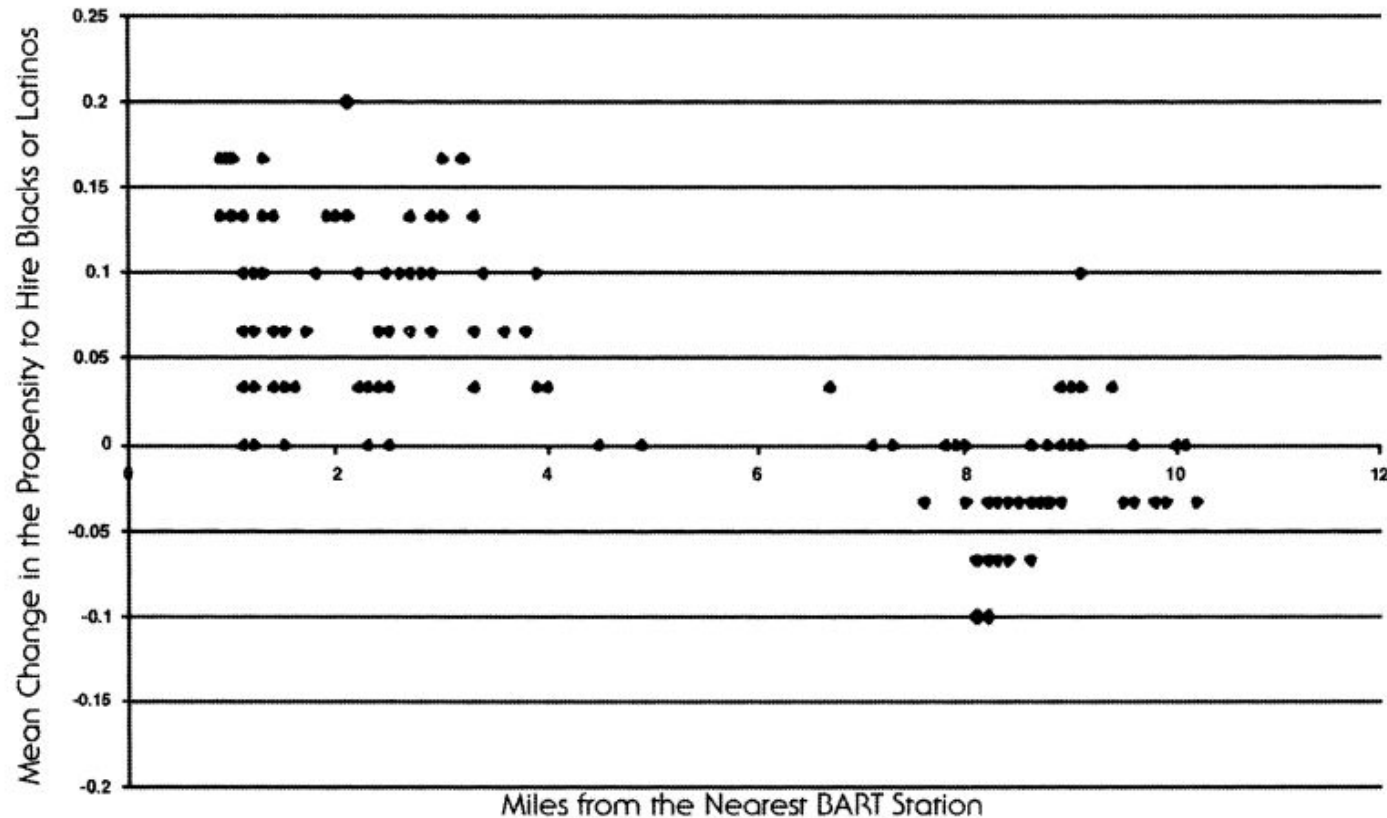






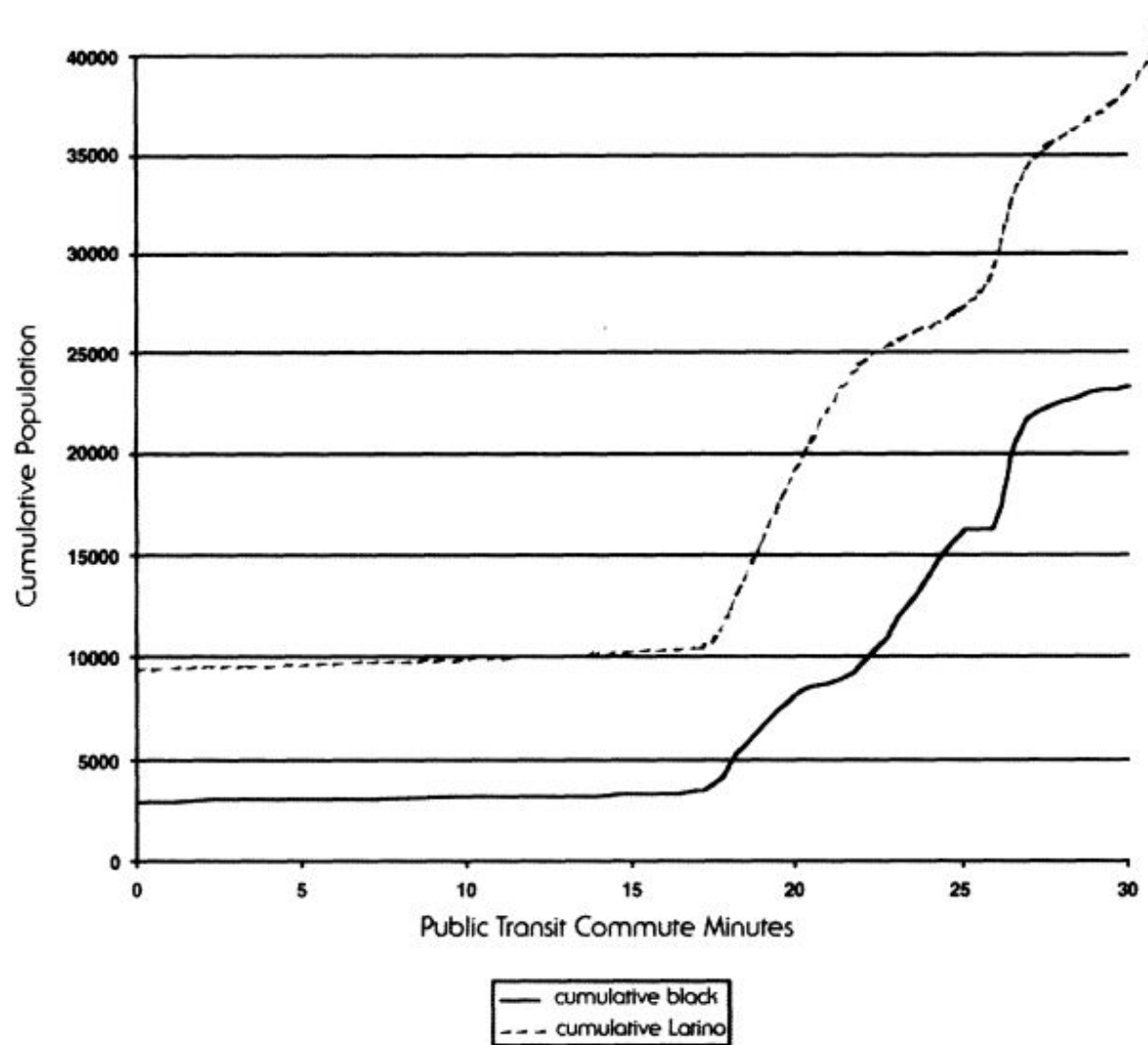
# Bay Area Rapid Transit (BART) - Holzer et al. (2003)

# BART Spatial Mismatch - East Bay



**Figure 4.** Scatter plots of the changes in the variable indicating that the last worker hired is either black or Latino against distance from the BART station.

Source: Holzer et al. (2003)



## Commute Times: Bay Fair Station

**Figure 5.** Cumulative black and Latino population within a 20-minute public transit commute of the Bay Fair station.

Source: Holzer et al. (2003)

# Experimental Design



## Purple Line will open 4½ years late and cost \$1.4 billion more to complete, state says

Maryland transit officials say the Purple Line will carry passengers in fall 2026 if a new construction contractor begins work this spring.

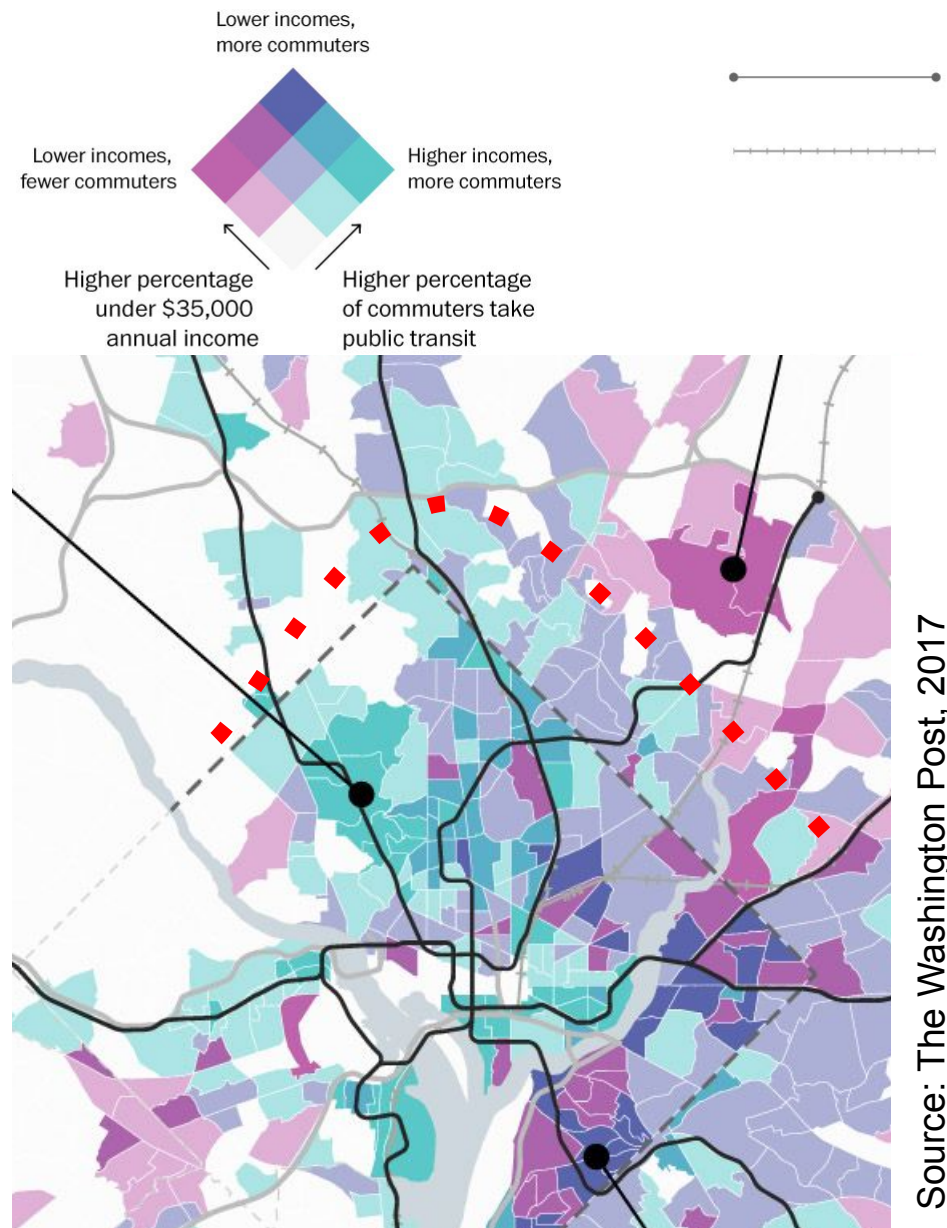


By [Katherine Shaver](#)

Updated January 12, 2022 at 7:25 p.m. EST | Published January 12, 2022 at 3:56 p.m. EST

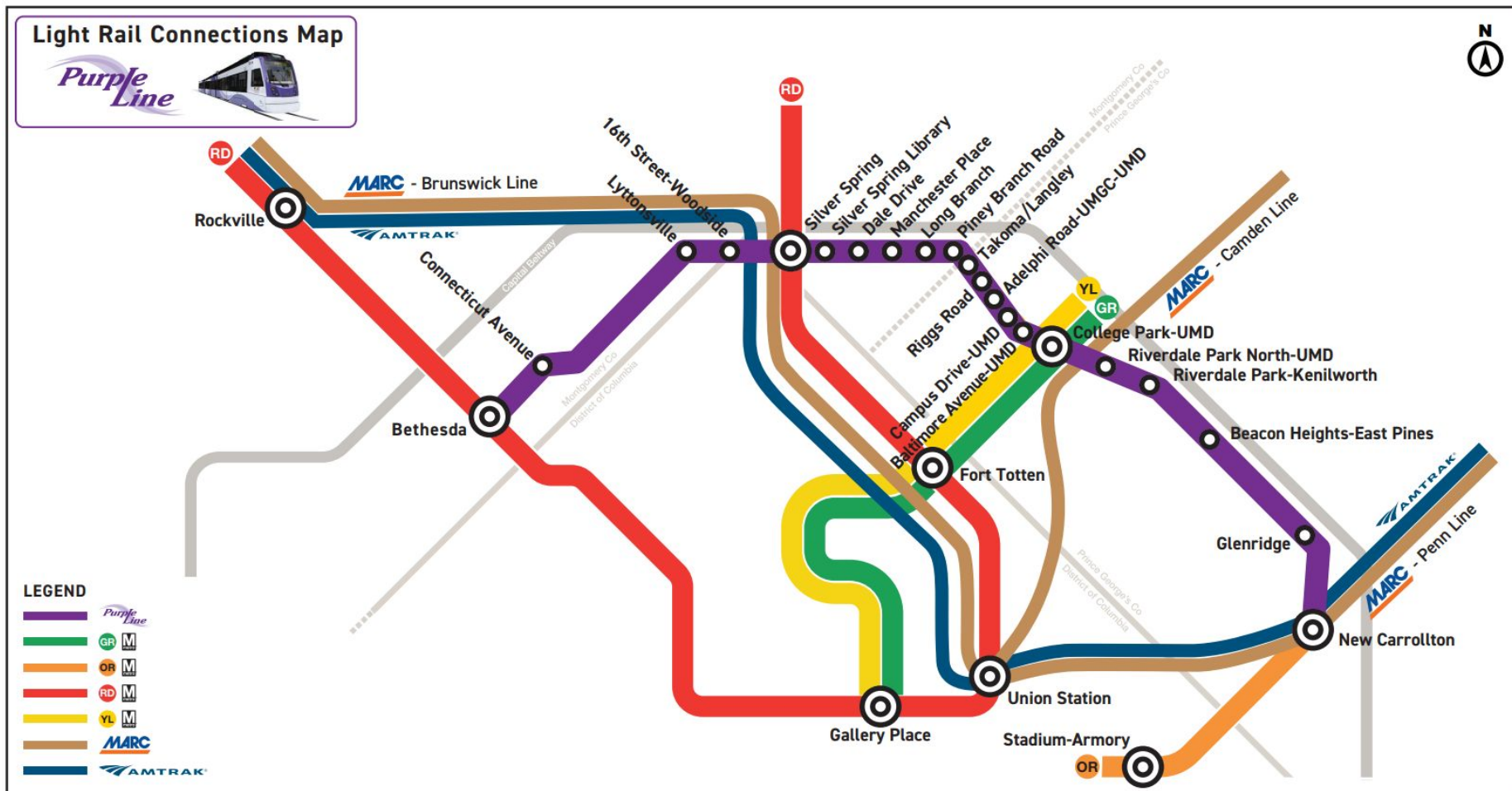


# Baseline Characteristics of the Populations of Interest



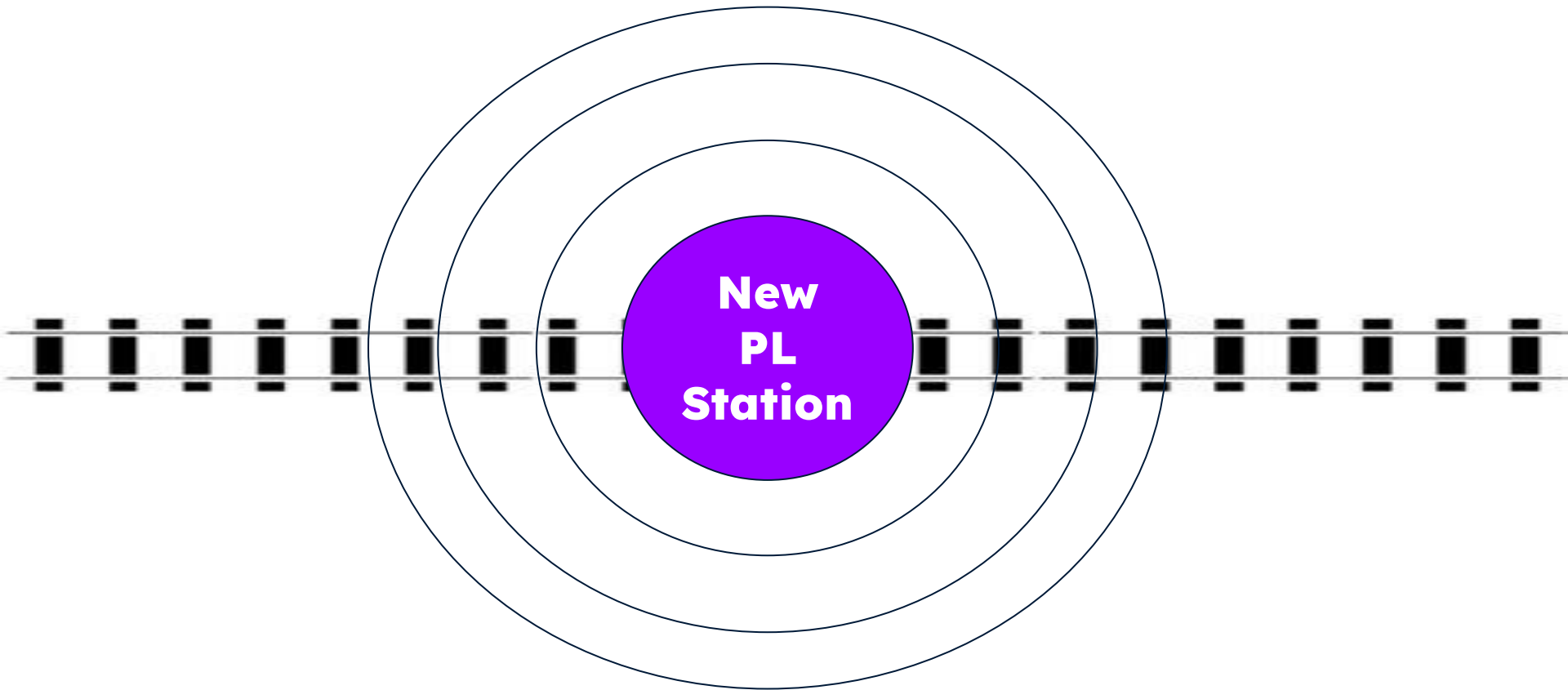


# Empirical Analysis: Hiring Before & After Purple Line



## Research Question & Implementation

**“People who get access to metro receive gains that others do not – what are the size of those gains?”**

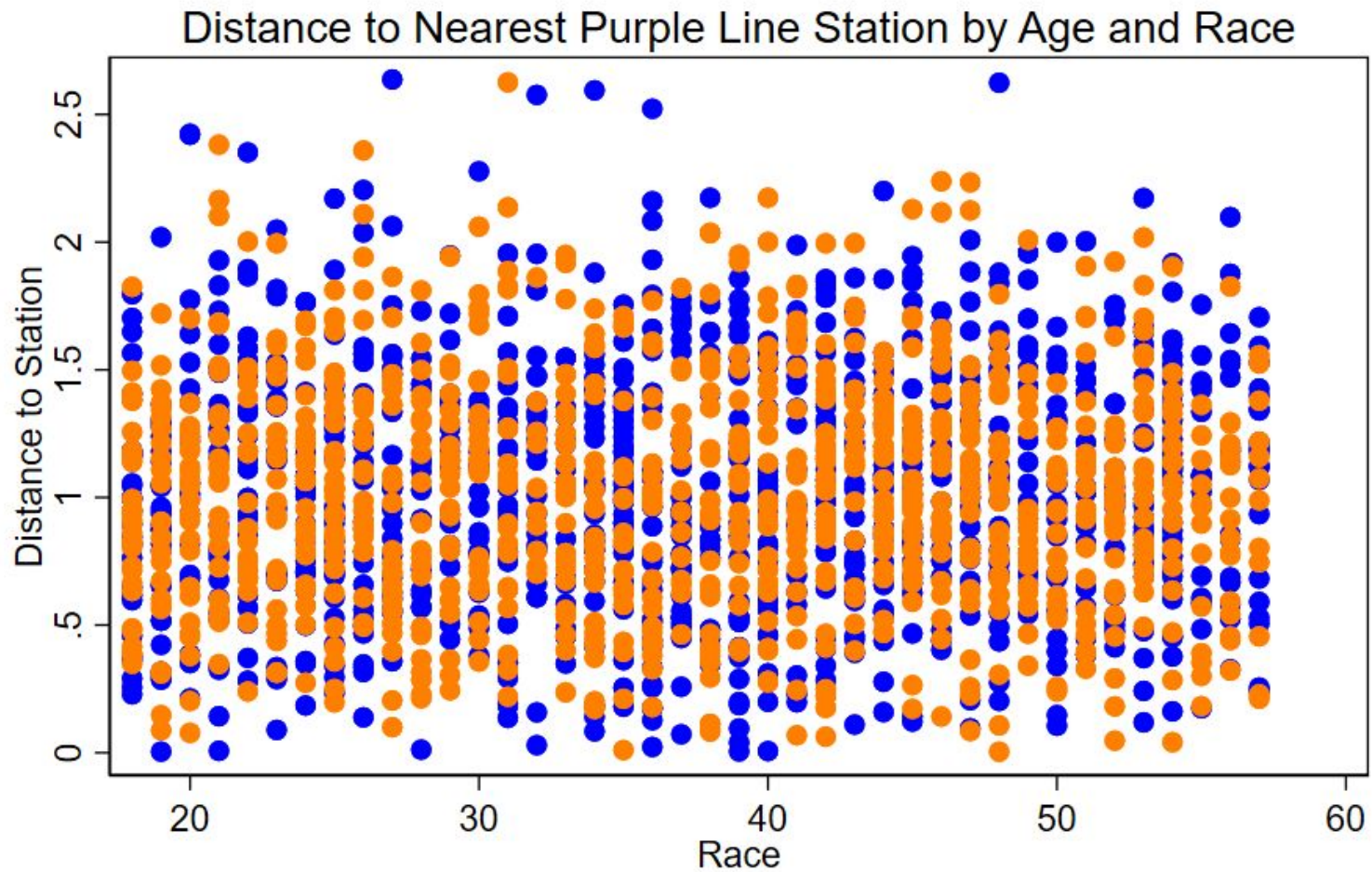


Treatment exposure: how close is the person to a new Metro station?

# Data, Enrollment Criteria, and Assignment Protocol







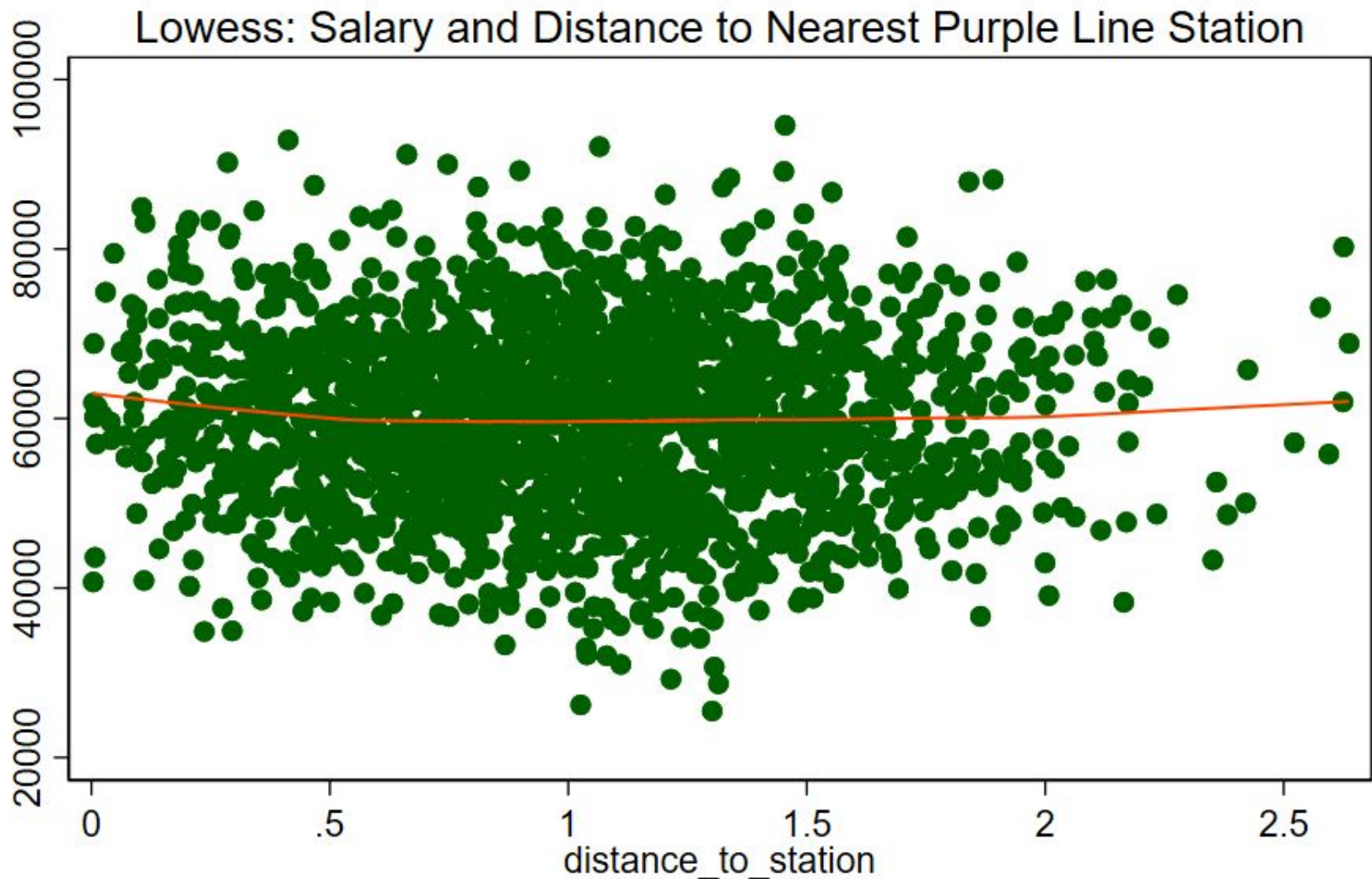
NOTE: this is randomly distributed mock data.

## Scatter Plot: Salaries by Age

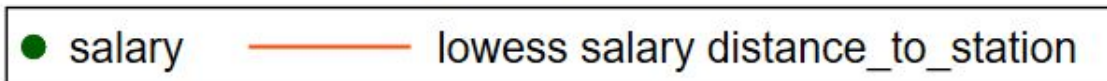


NOTE: this is randomly distributed mock data.

• salary — Fitted values



NOTE: this is randomly distributed mock data.





# Research Limitations



## TRANSPORTATION

# Maryland's Purple Line construction faces another seven-month delay

Unless work can be accelerated, the long-delayed light-rail Purple Line has a new projected opening date of mid-2027, according to new project reports

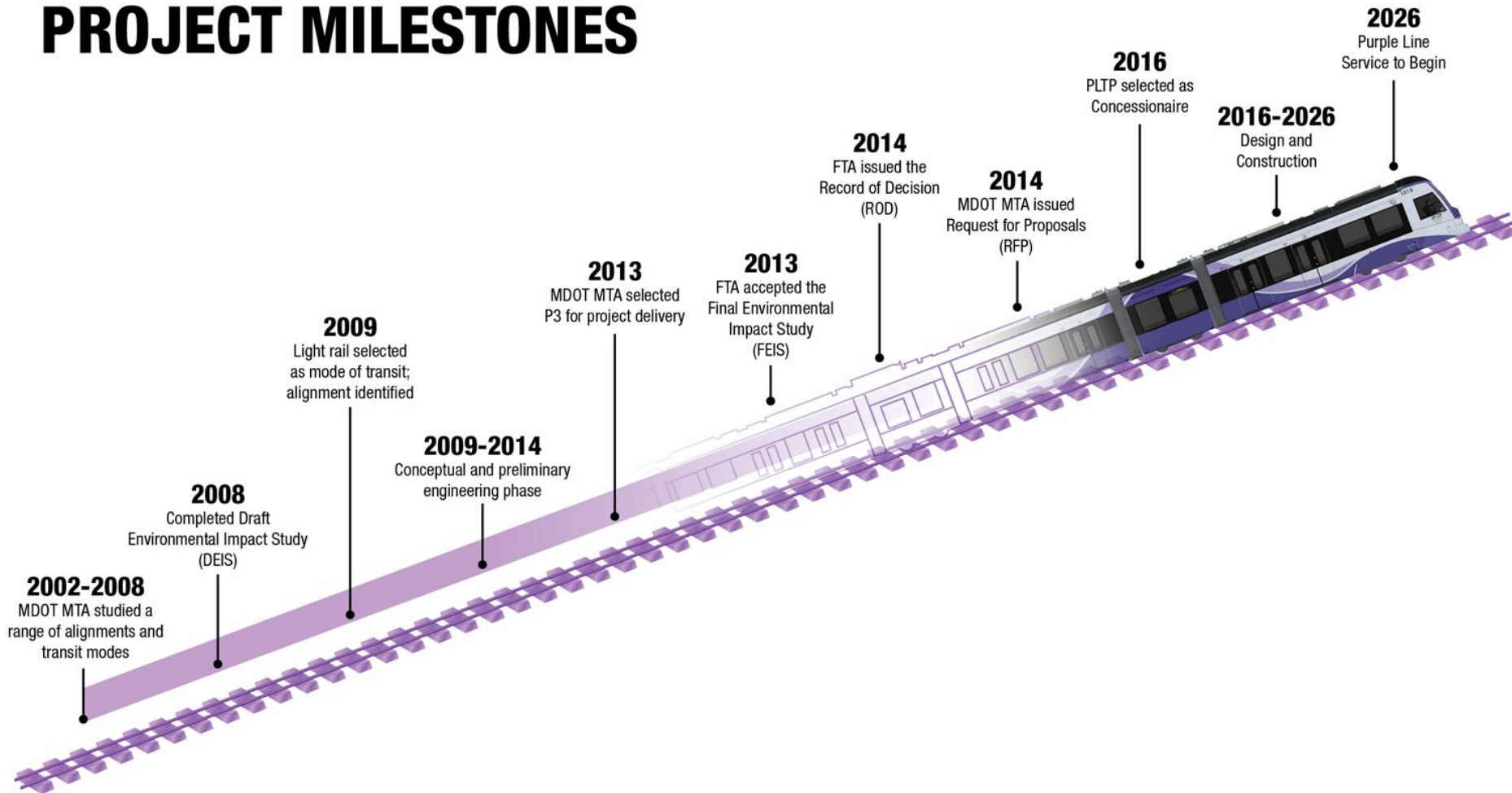


By [Katherine Shaver](#)

January 19, 2023 at 3:24 p.m. EST

# Next Steps

## PROJECT MILESTONES



# Questions?

