Urbanization or Gentrification?
Unpacking the Benefits and Challenges of Link Light Rail

Palmer Holt*, Program on the Environment, University of Washington
Site Supervisor: Keith Kyle, Seattle Subway Foundation
Faculty Advisor: Manish Chalana, College of the Built Environment, University of Washington

BACKGROUND
Cars are noisy, dangerous, and emit greenhouse gases that contribute to climate change.

Public transit systems like Link Light Rail are popular in Seattle, but expansion has been slow.

Commercial and residential displacement have been associated with Light Rail Development.

Seattle Subway advocates for Link Light Rail projects. Understanding the impacts of Light Rail development is important to responsible and equitable expansion.

RESEARCH QUESTION
What are the benefits and challenges of expanding Link Light Rail in Seattle?

INTERNSHIP/METHODS
• Summer 2023 I partnered with Seattle Subway, a transit advocacy group that promotes Light Rail development.
• A student-led Environmental Impact Study was drafted on the Ballard to University District corridor with focus on the underground Phinney Station noted on Seattle Subway’s Vision Map—see fig. 1.
• A Literature Review was also conducted, and the benefits and challenges of building Link Light Rail were assessed.

RESULTS

Benefits:
1. Link Light Rail reduces traffic, greenhouse gas emissions, and air/noise pollution—see fig. 2 below.
2. Fewer traffic related deaths and more active travel translates to better health.
3. Pedestrian activity has been shown to increase community safety and cohesion.
4. Compared to cars, public transit emits 95% less carbon monoxide, 45% less carbon dioxide, and 45% less nitrous oxide.

Challenges:
1. Light Rail can put gentrification pressures on historically underserved populations like those in ID/Chinatown, Rainier Beach, and other BIPOC communities. Rising costs can result in displacement—see fig. 3.
2. Light Rail station construction limits accessibility for residents and businesses along planned routes and engineering challenges make construction periods long and prone to delays.
3. Stakeholders also delay or change voter approved plans for Light Rail through private deals or organized resistance.

IMPLICATIONS
New revenue streams are needed to expand Link Light Rail. Fig. 4 shows the current service map for the Light Rail alongside Seattle Subway’s Vision Map for future development.

New signage and contractor regulations could improve accessibility for businesses during construction periods—reducing commercial stakeholder displacement/resistance.

Fare equity initiatives, forgivable loans, and housing assistance may help reduce residential displacement along Link Routes.

Further research on best practices for advocacy/outreach could help organizations like Seattle Subway push for responsible Light Rail expansion.

ACKNOWLEDGMENTS:
I’d like to thank my Mom for inspiring me to be a better human, Seattle Subway director Arthur Bachus for his knowledge and kindness, my Site Supervisor Keith Kyle for his mentorship, my Faculty Advisor Manish Chalana for his support and perspective, Mae Langford for partnering with me on this project, and Eli Wheat for providing me with a positive outlook on the future.
Figure 1: Phinney Station Map. Colored circles note potential station entrances along Aurora Avenue. Preferred alternatives are labeled with P, with second preferred alternatives labeled A, and third choices labeled B (Google Maps).
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