# 1. Purpose

One common concern regarding new light rail construction  in an existing market is its influence on property values . Residents and policymakers should be equipped with accurate information in order to advocate for their community's best interests. This document will outline the results of three studies into the impact of light rail installations in the United States.

# 2. Houston's METRORail

Houston's METRORail began operation in 2004 as a collection of light rail lines that operate throughout Harris County, Texas. Houston is a non-zoning city, meaning private ventures and home owner associations have control over zoning rather than the city government. The population density in Houston was a mere 5.27 people per acre in 2000, much lower than 76.57 people per acre required to support a mass transit system[1].

When concluding the effect of Houston's METRORail on residential property values, "all the models employed in this study consistently report that distances to rail station have significant positive effects on residential property values."[2] It was found that distance to the light rail stations did have an impact, although that impact was always positive. In this case, property values increased the most for homes within a half mile of a light rail station and that effect tapered off as distances increased. Previous studies found that "access to rail stations has negative impacts on the values of properties located within one-quarter mile of rail stops."[1] The discrepancies between these two findings are likely due to either the low density of the Houston area and the lack of a datapoint for the quarter-mile distance, as a large increase in the 0.25-0.5 mile range could erase a decrease in value from the 0-0.25 mile range.

# 3. Charnotte LYNX

Charlotte developed an expansion to their LYNX rail network that began operation in 2007 known as the light blue line. The light blue line is a 10 mile light rail line that connects the central business district to the suburban area to the south of the city. The Charlotte Metropolitan Statistical Area saw a population growth of 3.45% between 2000 and 2007 according to the US census.

Charlotte's LYNX blue line expansion similarly showed that the value of housing increased regardless of distance within the range of the study. Where Charlotte differed however is the pattern at which these values increased, with the properties farther away from the station within the studied range

1. Bertaud, A. (2003). Clearing the air in Atlanta: Transit and smart growth or conventional economics. Journal of Urban Economics, 54, 379–400.

2. Pan, Qisheng. "The Impacts of Light Rail on Residential Property Values in a Non-Zoning City: A New Test on the Houston METRORail Transit Line." *Journal of Transport and Land Use* 12, no. 1 (2019): 241–64. https://www.jstor.org/stable/26911267.

increasing at a higher rate than those closer to the station. “One plausible explanation is that the Charlotte light rail system occupies what was once a freight rail corridor surrounded by industrial uses. This has had a negative influence on surrounding properties, but this negative influence has dissipated with the introduction of the light rail system.”[3] As the observed periods progressed, the value increase observed began to taper off especially at the last observed time period (10 years after the first observed period).

## 4. Oregon Corridor

Portland, Oregon began operating an additional light rail system in 1998. This system connected the towns Hillsboro and Beaverton with downtown Portland, as well as another light rail system to the east of Portland. Plans for the Portland metropolitan area included developing alongside this rail corridor, which includes vacant green fields alongside the line. This study is unlike the others in that it assesses the value of land as opposed to housing properties.

Examining the land value along the planned Oregon light rail line showed that “the prices of parcels located within half a mile of a planned station were 31 percent higher than elsewhere in the study area if they were sold after the plans were announced and 10 percent higher if they were located within one mile of a planned station location.”[4] This observation does not distinguish between land that is zoned for commercial use or land that is zoned for residential use, however due to the 1 mile range of the study it can be assumed that both commercial and residential zoning land values are included in the 10-31% increase.

## 5. Conclusion

Across all the cities examined, local light rail worked to the advantage of homeowners by increasing the value of their properties faster than other nearby areas. Low density areas such as Houston where car dependency is typically necessary still benefitted from the economic force of light rail and even undeveloped land along the Oregon corridor benefitted in increased value due to the light rail project there.

One factor that these studies do not touch upon is the use of existing rail lines that are already being occupied by cargo trains, as is the case with the upcoming Glassboro-Camden Line project in Southern New Jersey. In this case much of the detriments of rail are already present without the benefits, cargo trains also increase noise but do not service the local community. The benefits of expanding existing infrastructure would amplify the positive impact on surrounding properties.

3. Yan, Sisi, Eric Delmelle, and Michael Duncan. “The Impact of a New Light Rail System on Single-Family Property Values in Charlotte, North Carolina.” *Journal of Transport and Land Use* 5, no. 2 (2012): 60–67. http://www.jstor.org/stable/26201691.

4. Knaap, G. J., Ding, C., & Hopkins, L. D. (2001). Do Plans Matter? The Effects of Light Rail Plans on Land Values in Station Areas. *Journal of Planning Education and Research*, *21*(1), 32-39. https://doi.org/10.1177/0739456X0102100103 (Original work published 2001)

Bibliography

Bertaud, A. (2003). Clearing the air in Atlanta: Transit and smart growth or conventional economics. Journal of Urban Economics, 54, 379–400.

Pan, Qisheng. “The Impacts of Light Rail on Residential Property Values in a Non-Zoning City: A New Test on the Houston METRORail Transit Line.” *Journal of Transport and Land Use* 12, no. 1 (2019): 241–64.https://www.jstor.org/stable/26911267.

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Knaap, G. J., Ding, C., & Hopkins, L. D. (2001). Do Plans Matter? The Effects of Light Rail Plans on Land Values in Station Areas. Journal of Planning Education and Research, 21(1), 32-39. https://doi.org/10.1177/0739456X0102100103 (Original work published 2001)