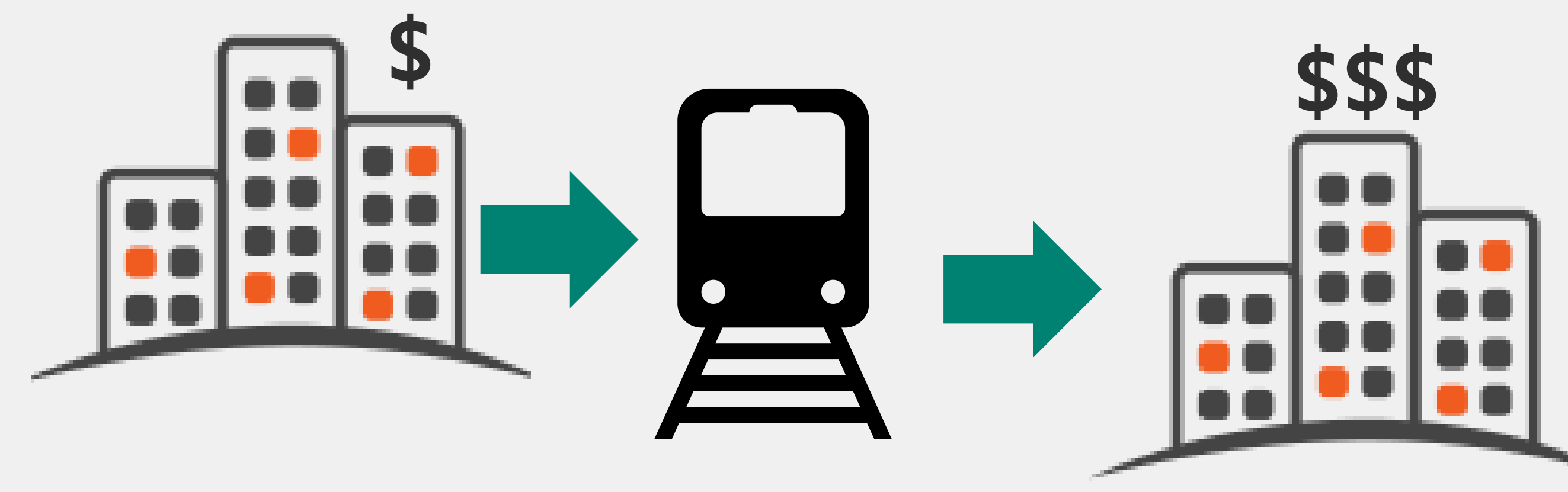




How does transit impact multifamily property values?



A Meta Analysis

Methods

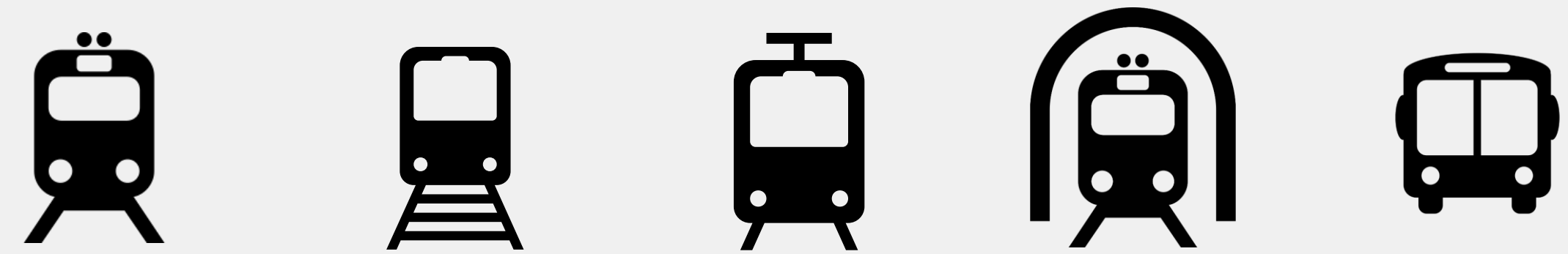


Identification of studies concerning multifamily housing and transit premiums

- Inclusion of studies:**
- For which data were available for computing effect sizes
 - Studies that report premium changes before and after station opening
 - That control for confounding variables (e.g., neighborhood, structural attributes)
- Exclusion of studies that report premium:**
- In aggregate level (census tract or neighborhood) to avoid "ecological fallacy"
 - At pre-operation phase (announcement, construction etc.)

Synthesizing information from studies

- For studies that report distance as continuous variable:** "% increase or decrease in premium with 1 unit change in distance from station"
- For studies that report distance as dummy variables or use distance bands from transit stations:** "% increase or decrease in premium if a property is located in a distance band (e.g. 0—1/2 mile, 1/2—1 mile)". In this case the premium is measured relative to properties a mile or more from stations.



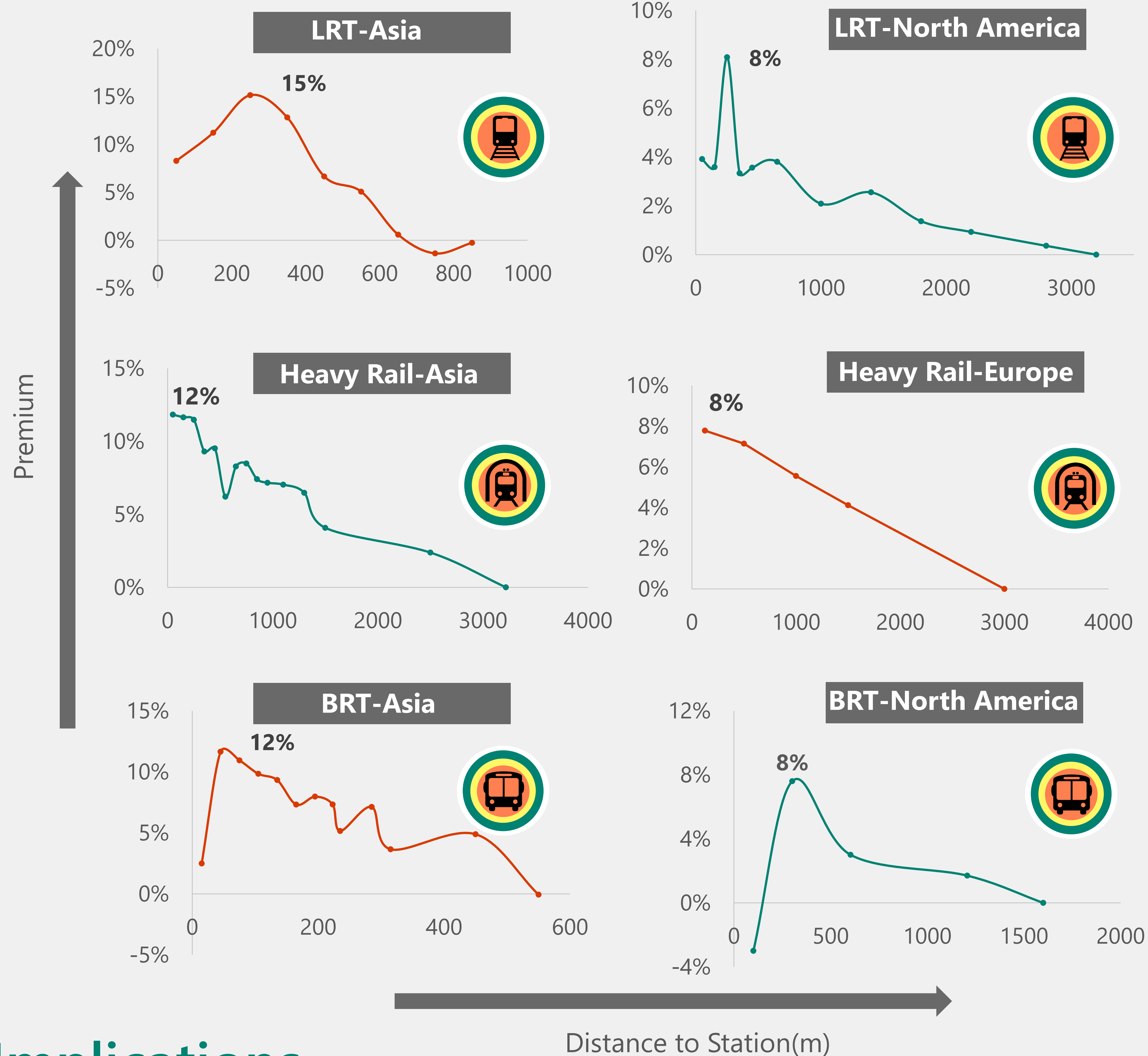
Studies focus on Commuter Rail (CRT), Light Rail Transit (LRT), Streetcar, Heavy Rail (HRT), Bus Rapid Transit (BRT) (Left to Right)

Meta analysis and calculating effect size

- Meta-analysis:** Study of studies synthesizing empirical work for systematic explanation of variation in findings of those studies
- Measuring effect size:** If the studies do not report effect size explicitly,
- For linear specification = (regression coefficients / mean value of independent variables) * 100%
 - For semi-log specification = regression coefficient * 100%
 - For double-log specification = from regression coefficient and distance of station catchment

Why this Study?

As many cities continue to grow, they face housing shortages, witness increased automobile congestion, and subsequent air pollution. Promoting transit-oriented development and multifamily housing is one way municipalities are combating the challenges associated with growth. As this kind of development has expanded, so has the research investigating the link between real estate values and transit proximity. However, the results of those inquiries have been mixed. This research aims to fill a gap in the literature by conducting a meta-analysis of transit premiums for multifamily housing.

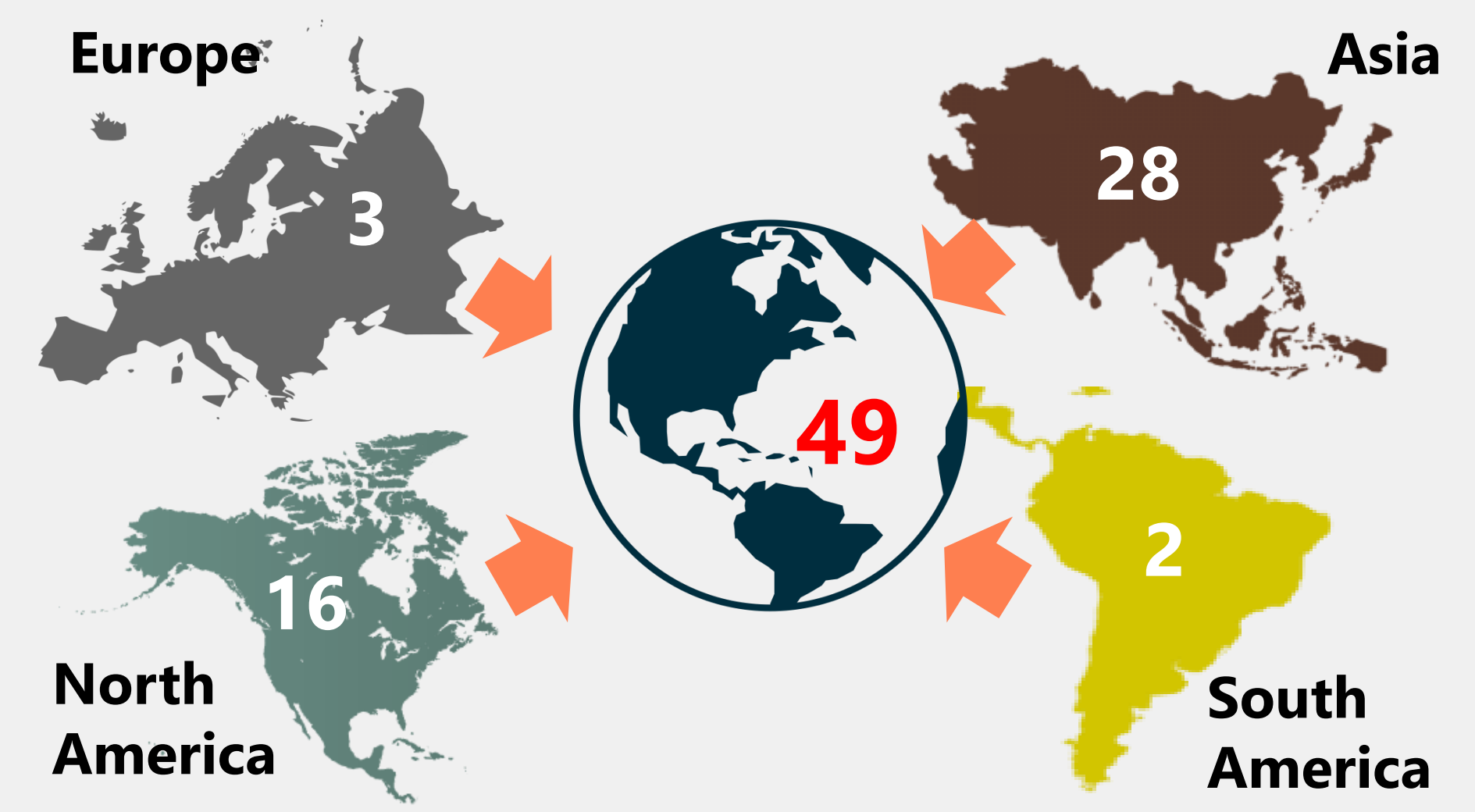


Implications

This study provides insight about how transit investment is valued by multifamily property buyers or renters. The findings of the meta-analysis can help local governments consider how and where they may get the highest economic yields on investments near transit.

Findings

Studies found



Premium is higher for Rail Transit than Bus Rapid Transit. Nuisance from stations create disamenity which leads to lower premium in the distance bands immediately next to stations for BRT and LRT. Average Premium for BRT, LRT and HRT are 3.2%, 6% and 7% respectively.

Station Impact Area

