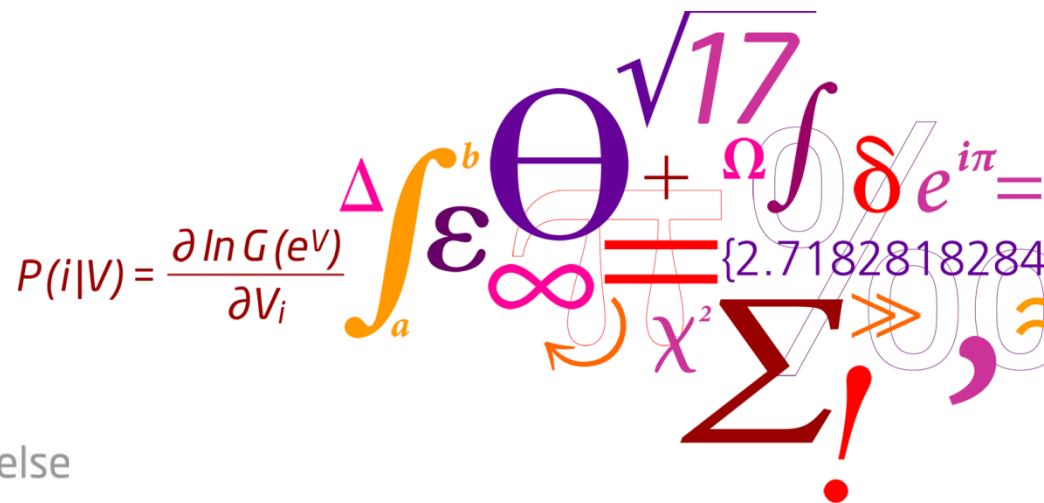


Internationale erfaringer af effekterne af BRT, letbaner og metro

Trafikdage, 28. august 2018

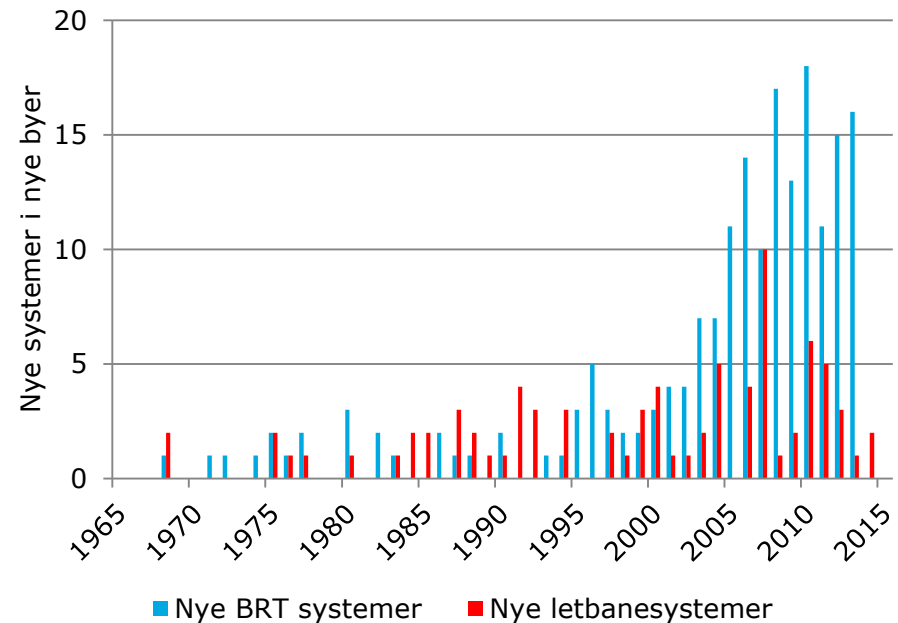
Jesper Bláfoss Ingvardson,
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Sammenligning af effekterne af forskellige kollektive transportsystemer

Formål:

- Kan man tale om stationsnærhedseffekter (skinnefaktor) ved bus-baseret kollektiv trafik?



Sammenligning af effekterne af forskellige kollektive transportsystemer

Formål:

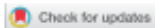
- Kan man tale om stationsnærhedseffekter (skinnefaktor) ved bus-baseret kollektiv trafik?

Metode:

- Undersøge effekterne af 86 kollektive transportsystemer fra hele verden
 - Trafikale effekter
 - Strategiske effekter

TRANSPORT REVIEWS, 2017
<http://dx.doi.org/10.1080/01441647.2017.1301594>

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Effects of new bus and rail rapid transit systems – an international review

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ABSTRACT

Cities worldwide are implementing modern transit systems to improve mobility in the increasingly congested metropolitan areas. Despite much research on the effects of such systems, a comparison of effects across transit modes and countries has not been studied comprehensively. This paper fills this gap in the literature by reviewing and comparing the effects obtained by 86 transit systems around the world, including Bus Rapid Transit (BRT), Light Rail Transit (LRT), metro and heavy rail transit systems. The analysis is twofold by analysing (i) the direct operational effects related to travel time, ridership and modal shifts, and (ii) the indirect strategic effects in terms of effects on property values and urban development. The review confirms the existing literature suggesting that BRT can attract many passengers if travel time reductions are significantly high. This leads to attractive areas surrounding the transit line with increasing property values. Such effects are traditionally associated with attractive rail-based public transport systems. However, a statistical comparison of 41 systems did not show significant deviations between effects on property values resulting from BRT, LRT and metro systems, respectively. Hence, this paper indicates that large strategic effects can be obtained by implementing BRT systems at a much lower cost.

ARTICLE HISTORY

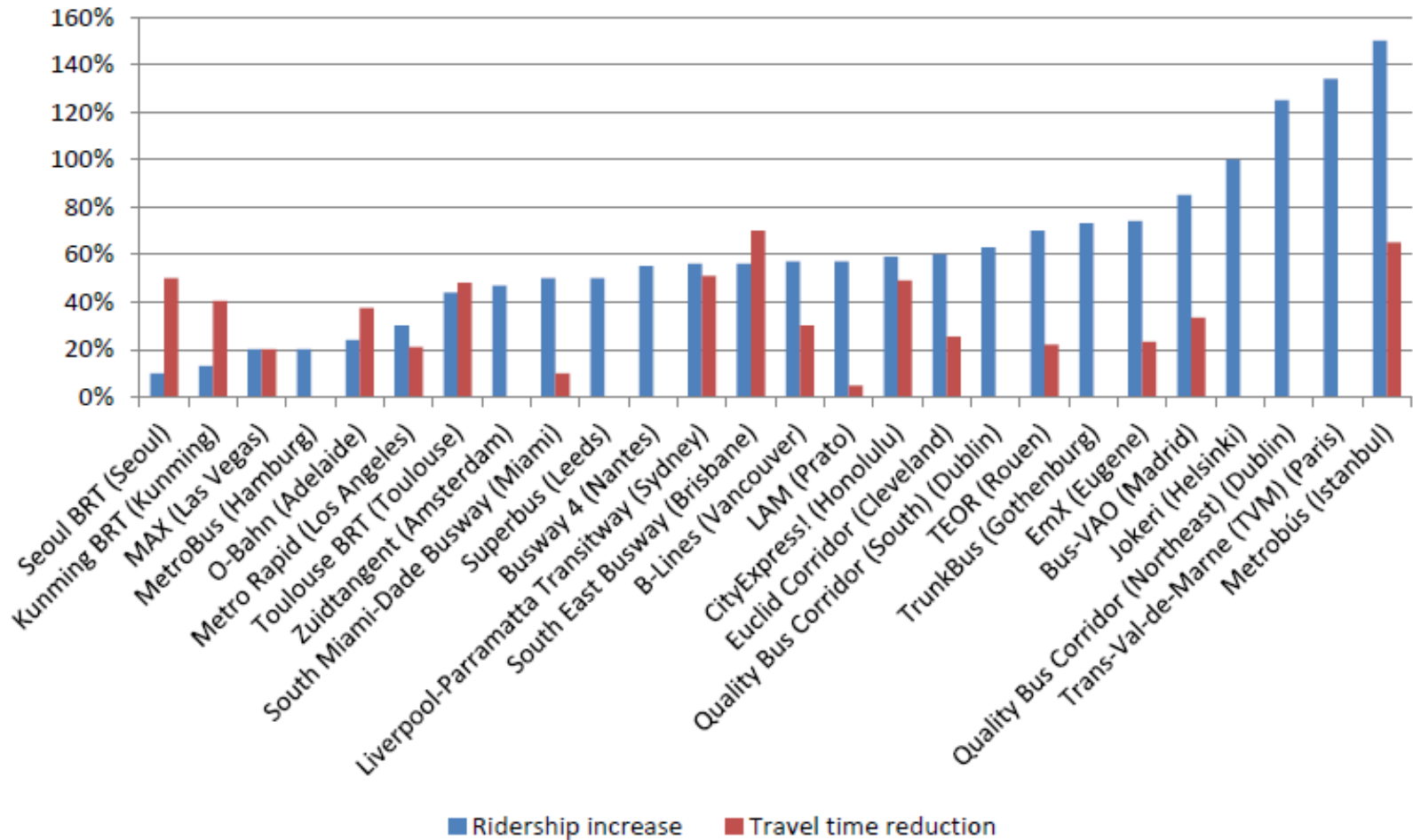
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KEYWORDS

Bus Rapid Transit (BRT); Light Rail Transit (LRT); property values; traffic impacts; urban development; public transport systems; system comparison

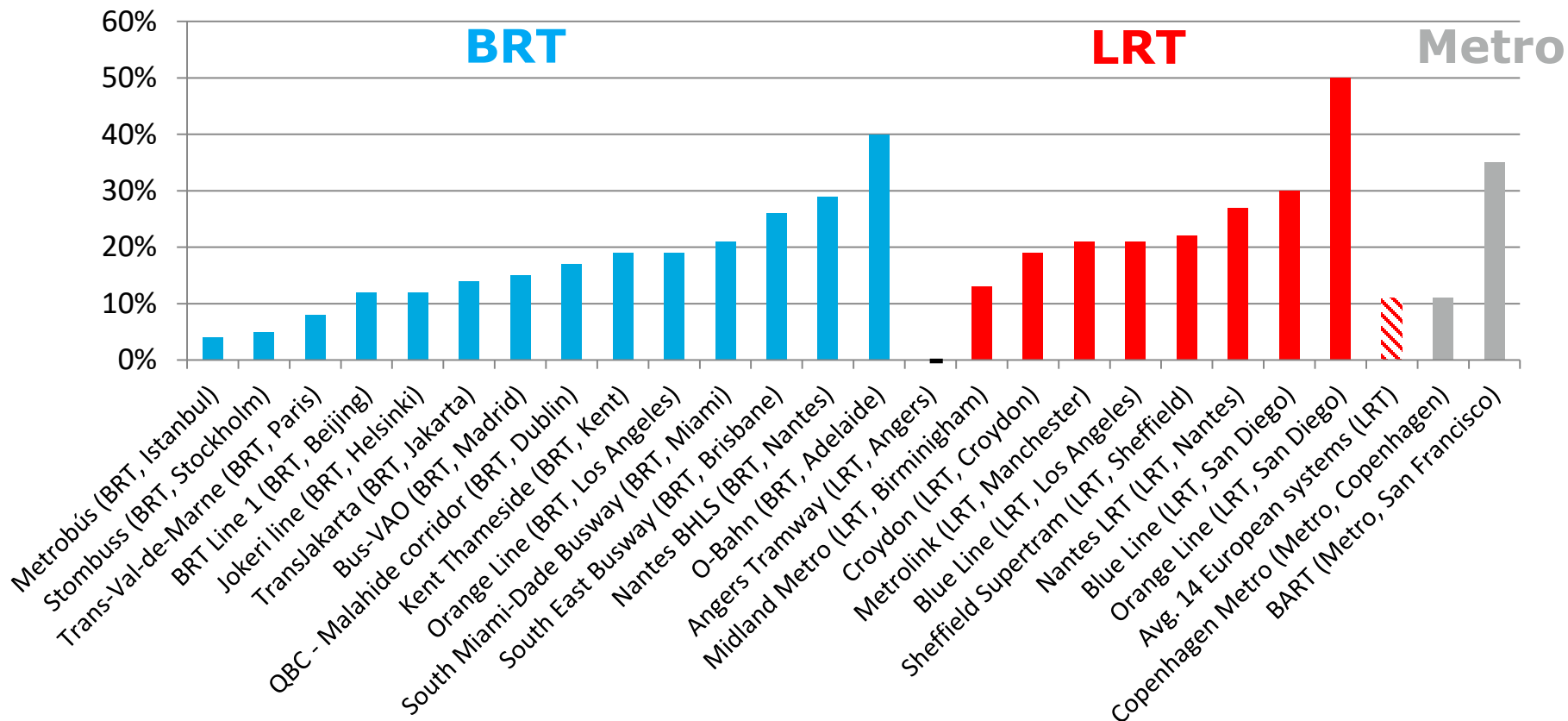
Trafikale effekter, passagertilvækst

- Store passagertilvækster kan opnås med BRT



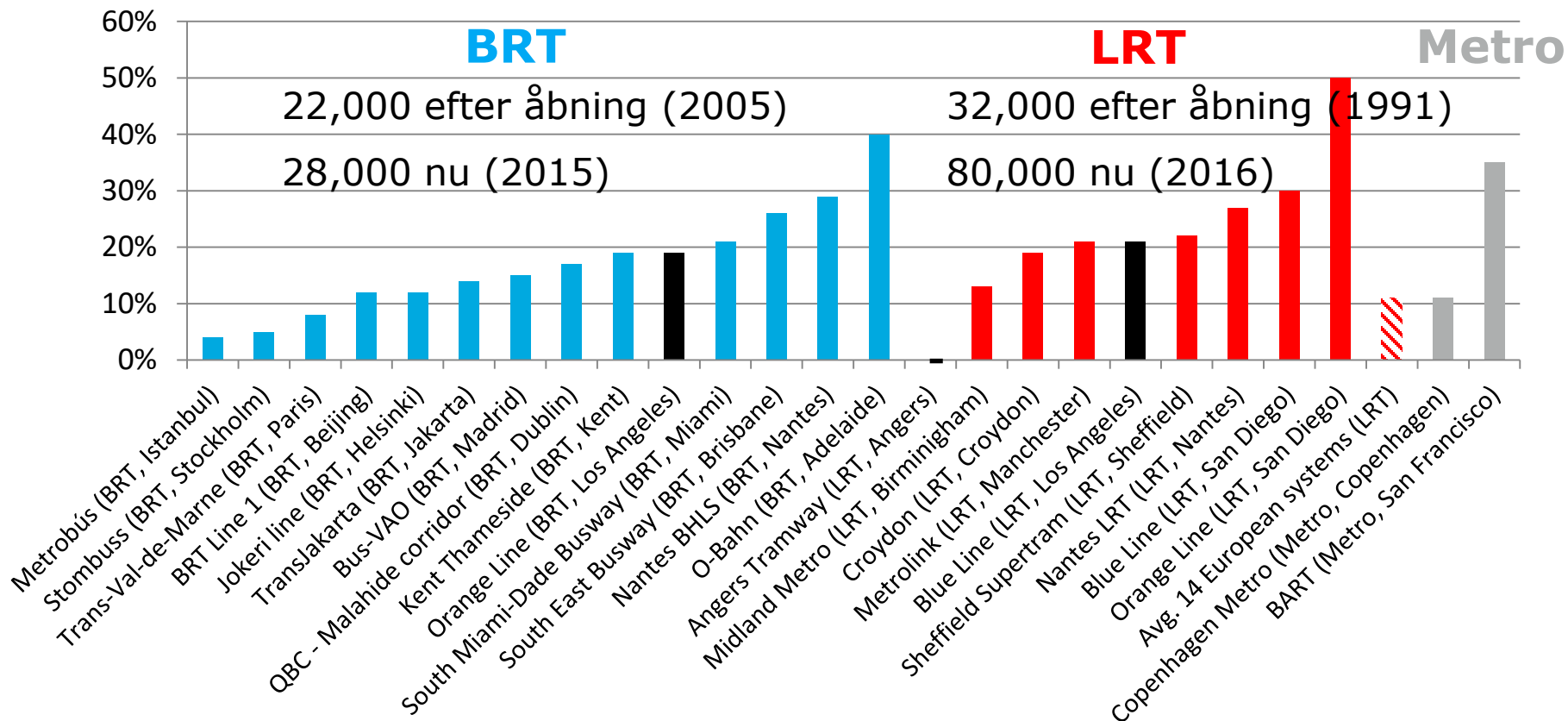
Trafikale effekter, overflytning

- Overflytning hvis attraktivt system...
 - Dog ofte store procentvise stigninger ved små passagertal!



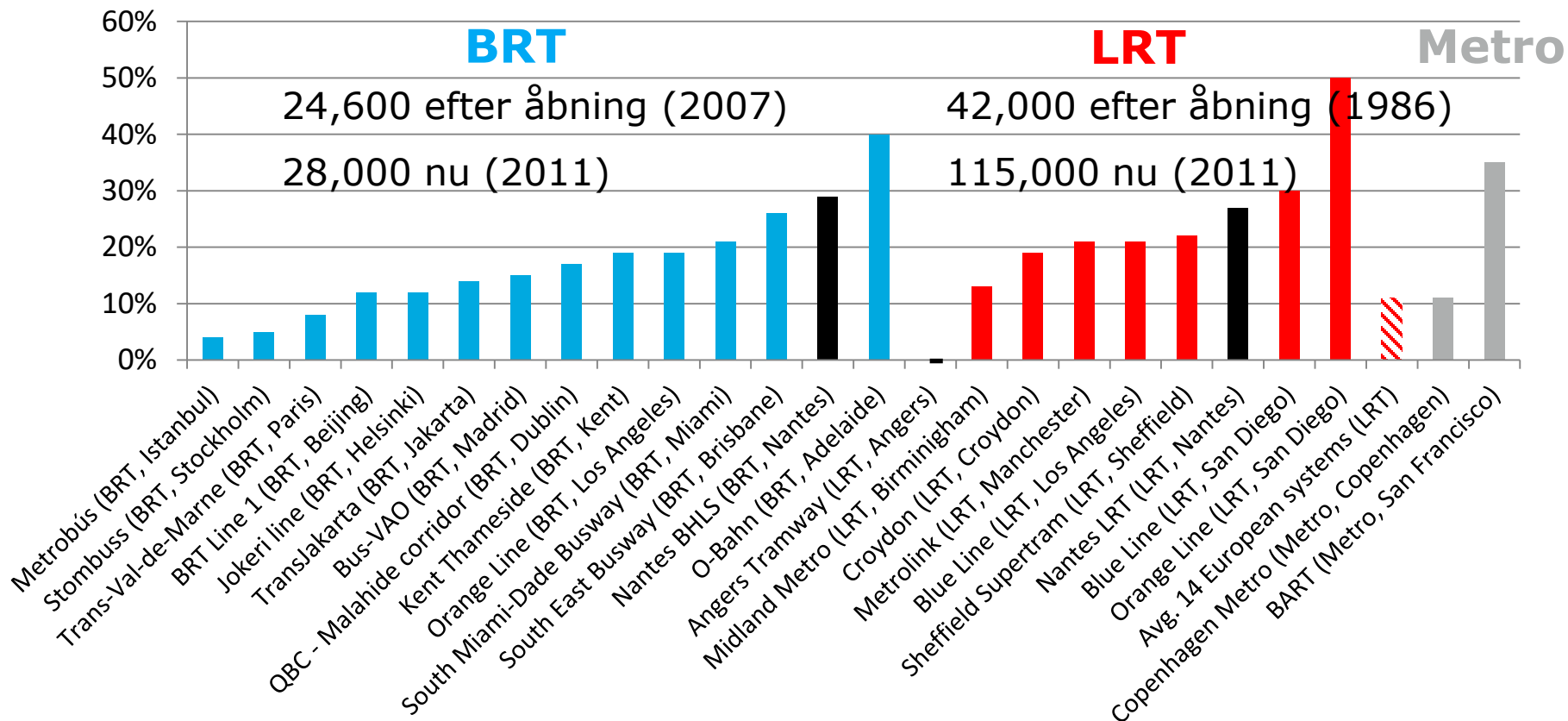
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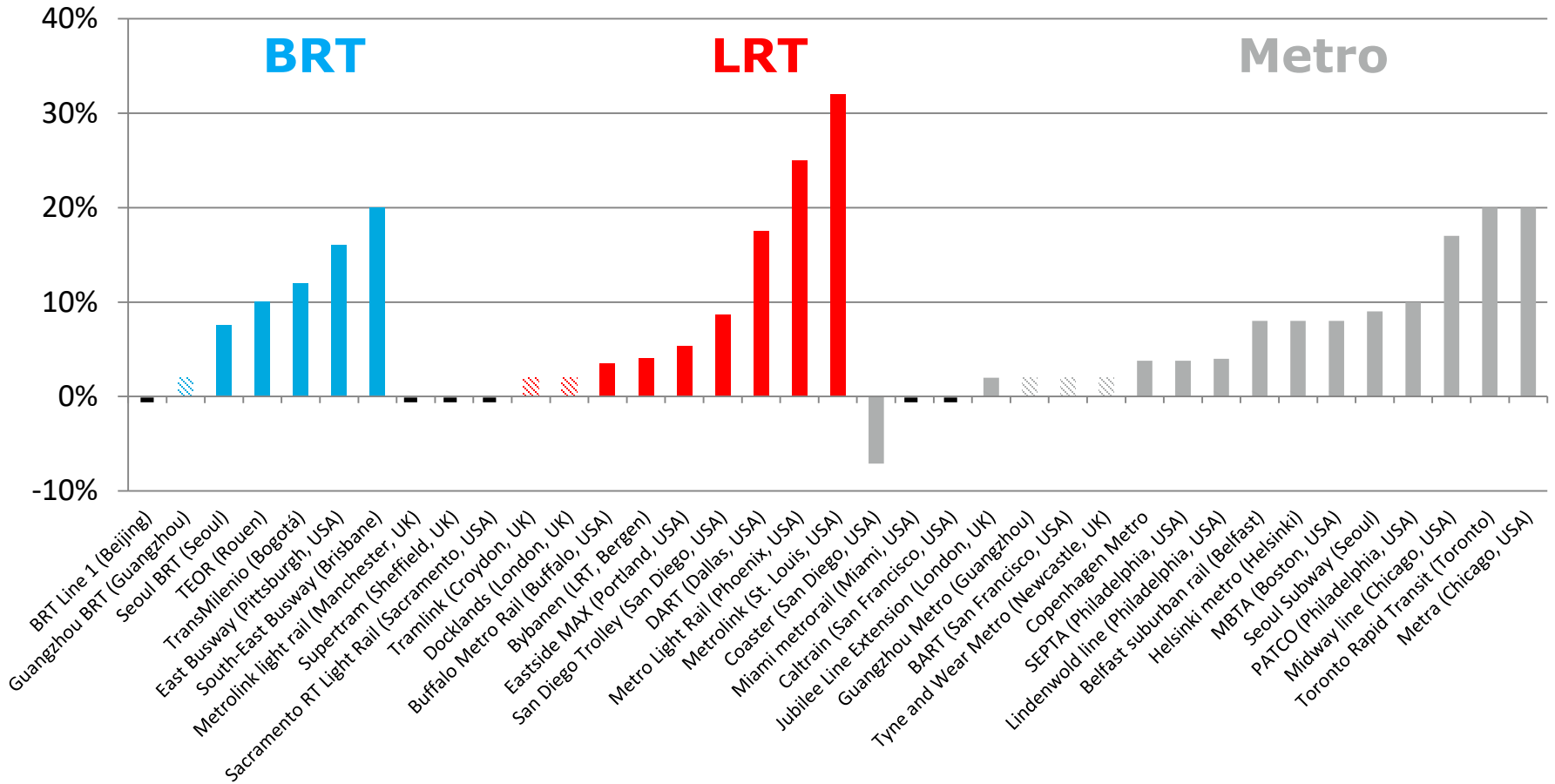
- Overflytning hvis attraktivt system...
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Strategiske effekter

- Store infrastrukturprojekter forbedrer tilgængelighed og skaber dermed mere attraktive områder
 - Udmønter sig i højere ejendomspriser
 - Incitament for byudvikling
 - Ofte større end rent trafikale effekter
- Ingen universel metodisk tilgang
 - De fleste anvender hedonisk prismodel (cross-sectional)
 - Pristype: udbudspris vs. reel pris
 - Ejendomstype: bolig vs. erhverv, leje vs. eje
 - Afstandsvariabel vs. stationsnær-dummy (forskellige afstande)

Strategiske effekter – Ejendomspriser



Strategiske effekter, tendenser

- Store stigninger og stor variation for alle systemer
 - Brisbane (30% rejsetidsreduktion)
 - Bogotá (ved udvidelse af netværk)
- Flere studier finder lavere pris helt tæt ved stationer
 - Støj, øget trængsel, bymiljø, og kriminalitet
- Størst effekt i lav-indkomst områder grundet større kollektiv-andel
- Dog store lokale forskelle flere steder (San Diego, Los Angeles, ...)

Konklusioner

- Trafikale og strategiske effekter kan opnås for alle transportformer, også BRT
 - Stor passagerstigninger ved stor forbedring ift. eksisterende system
 - Markant påvirkning af biltrafik kræver overflytning og kapacitet
 - Effekter afhænger af grad af forbedring rettere end systemvalg
 - Dog større udfordringer for BRT ift. letbane og (især) metro grundet eksternaliteter