Cycling & Walking:

GGR424 - Transportation Geography & Planning

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Today:

- Benefits of active travel
- Safety issues and other concerns
- "Micro" design improvements
- Designing "complete streets"
- Networks & connectivity

Active travel - non-motorized mobility

e.g. walking and cycling, but also rollerblading, skateboarding, ice-skating, kick scooters, cross-country skiing, etc.

Can be ...

- for recreation
- for travelling to a location

Benefits of Active Travel

Can replace trips by other modes (driving, transit), meaning reduced congestion, pollution, GHG emissions, etc.

https://pubmed.ncbi.nlm.nih.gov/19261210/

Benefits of Active Travel

Plenty of research highlights health benefits of active travel, e.g.

Journal List › Am J Public Health › v.100(10); Oct 2010 › PMC2937005

American Public Health Association — Promoting Public Health Research, Policy, Practice and Education — American Journal of PUBLIC HEALTH

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Am J Public Health. 2010 October; 100(10): 1986–1992.
doi: 10.2105/AJPH.2009.189324
PMCID: PMC2937005
PMID: 20724675

Walking and Cycling to Health: A Comparative Analysis of City, State, and International Data

John Pucher, PhD,[corresponding] Ralph Buehler, PhD, David R. Bassett, PhD, and Andrew L. Dannenberg, MD, MPH

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This article has been cited by other articles in PMC.

Abstract

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Objectives. We sought to determine the magnitude, direction, and statistical significance of the relationship between active travel and rates of physical activity, obesity, and diabetes.

Methods. We examined aggregate cross-sectional health and travel data for 14 countries, all 50 US states, and 47 of the 50 largest US cities through graphical, correlation, and bivariate regression analysis on the country, state, and city levels.

Results. At all 3 geographic levels, we found statistically significant negative relationships between active travel and self-reported obesity. At the state and city levels, we found statistically significant positive relationships between active travel and physical activity and statistically significant negative relationships between active travel and diabetes.

Am J Public Health

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Walking, cycling, and obesity rates in Europe, North America, and Australia. [J Phys Act Health. 2008]

Adult active transport in the Netherlands: an analysis of its contribution to physical activity requirements. [PLoS One. 2015]

Active travel to work and cardiovascular risk factors in the United Kingdom. [Am J Prev Med. 2013]

Improving health through policies that promote active travel: a review of evidence to support integrated health [Environ Int. 2011]

Environmental correlates of walking and cycling: findings from the transportation, urban design, and planning [Ann Behav Med. 2003]

See reviews...

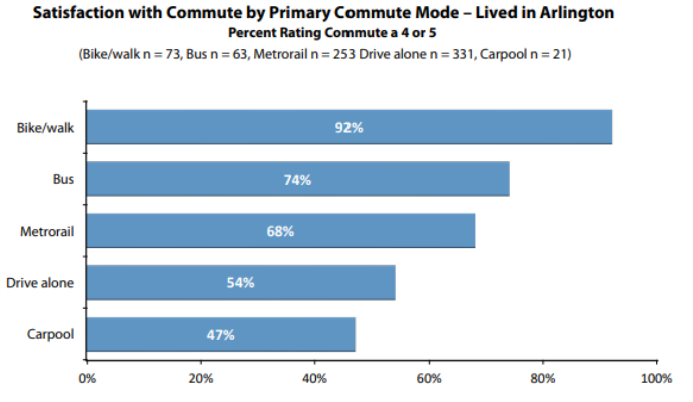
See all...

Cited by other articles in PMC

Climate Solutions Double as Health Interventions [International Journal of Envir...]

Benefits of Active Travel

Increased "enjoyment" or "satisfaction" of travel



https://mobilitylab.org/2020/09/29/the-pursuit-of-happiness-how-commute-mode-affects-commute-mood/

Benefits of Active Travel

"studies indicate that creating or improving active travel facilities generally has positive or non-significant economic impacts on retail"

TRANSPORT REVIEWS
2021, VOL. 41, NO. 4, 401–431
https://doi.org/10.1080/01441647.2021.1912849

Economic impacts on local businesses of investments in bicycle and pedestrian infrastructure: a review of the evidence

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ABSTRACT

Local officials in North America frequently face opposition to new or expanded bicycle or pedestrian facilities. The most vocal opponents are usually motorists and local business owners who fear that the removal of or reductions in vehicular parking or travel lanes will reduce patronage from motorists and that any increased patronage from pedestrians or cyclists will not offset the lost revenues. A lack of direct evidence on the economic impacts of facilities on local businesses has made it difficult to support or debunk such fears. A lack of quantitative evidence in particular has prevented the incorporation of such impacts into cost–benefit analyses. The issue has received enough attention from researchers in recent years that a review of the evidence is now warranted. We reviewed the relevant literature and identified 23 studies, focusing on the US and Canada, that either (1) quantified and compared consumer spending between active travellers and automobile users ($n = 8$), or (2) quantified an economic impact to local businesses following the installation of bicycle or pedestrian facilities ($n = 15$). Taken together, the studies indicate that creating or improving active travel facilities generally has positive or non-significant economic impacts on retail and food service businesses abutting or within a short distance of the facilities, though bicycle facilities might have negative economic effects on auto-centric businesses. The results

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KEYWORDS
Bicycle facilities; pedestrian facilities; active travel; local business; economic impacts

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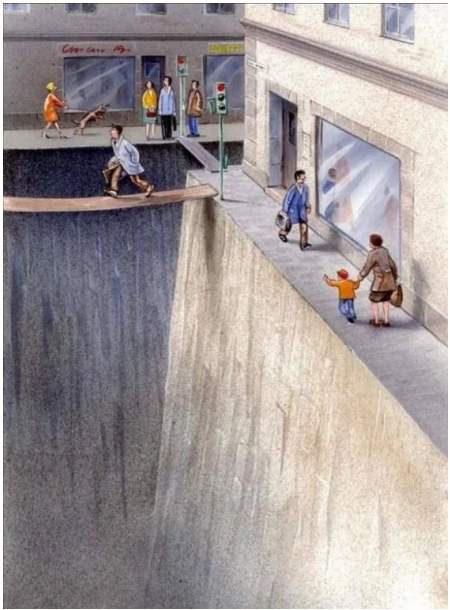
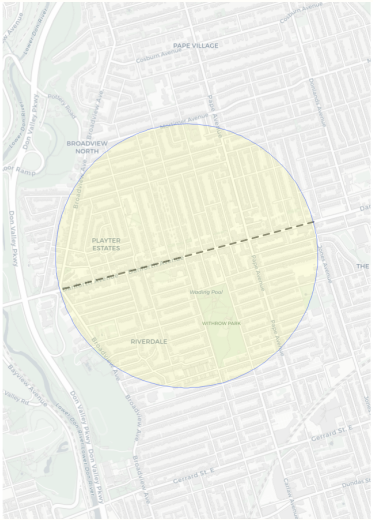
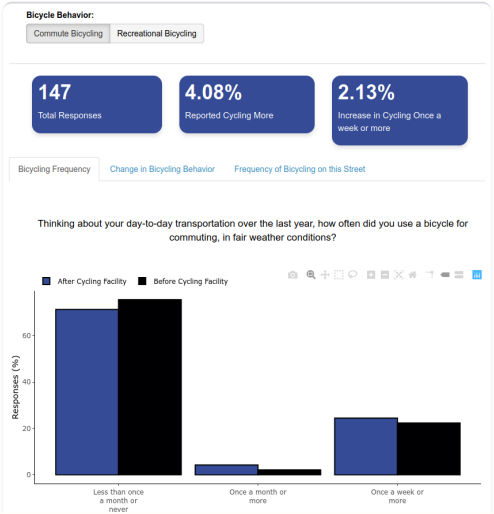
What deters active travel?

Image by Karl Jilg, commissioned by the Swedish Road Administration in 2014
https://archive.attn.com/stories/17066/illustration-nails-pedestrian-problem-cities



Induced demand, not just for cars!





https://transformlab.shinyapps.io/CyclingInGTHA/

Next Week

Public Transit

- etc.