



Time Versus Money

How overvaluing travel time savings overvalues motorized travel to the detriment of slower, cheaper, resource-efficient modes

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Travel Speed Trade-Offs

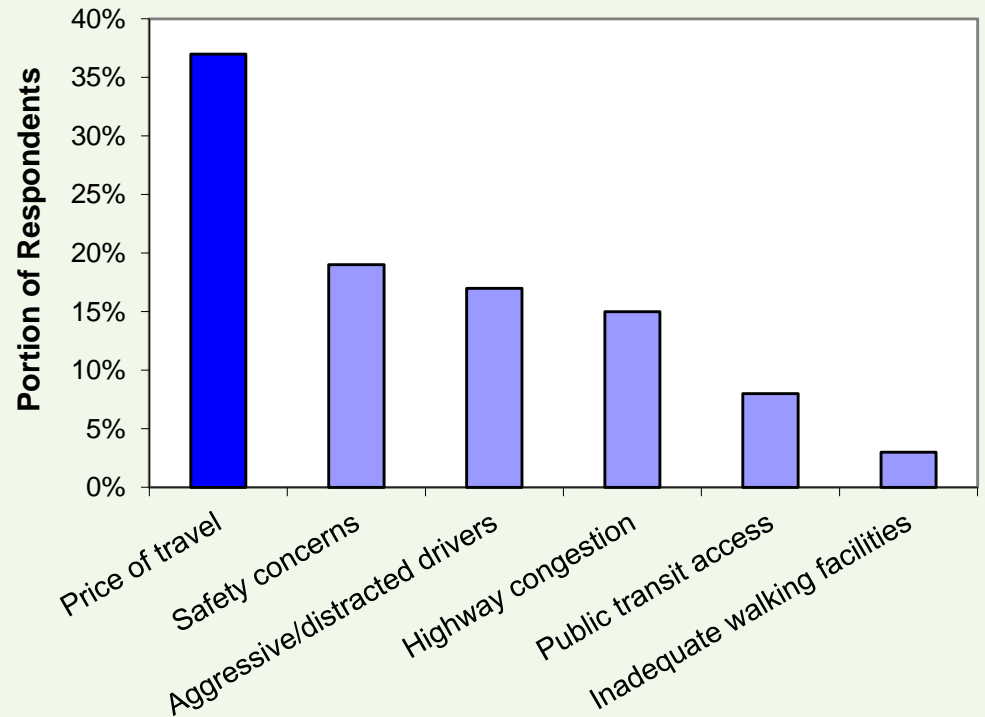
Individuals	Public Policies
<ul style="list-style-type: none">• Choosing faster, expensive modes (automobiles and airplanes) versus slower but affordable modes (walking, bicycling and public transport).• Travel time versus work time.• A smaller, more expensive home in a crowded urban neighborhood versus an urban fringe home that requires more travel time and money.	<ul style="list-style-type: none">• Investments in faster mode over slower modes.• Higher roadway design speeds versus roads designed for slower traffic, multiple modes and more local access.• Speed versus safety.• Sprawl versus compact development.

Planning: Speed Versus Affordability

Conventional transport planning evaluates transport system performance based primarily on automobile travel conditions, using indicators such as average traffic speed, congestion delay and roadway level of service (LOS)

This assumes speed is our primary priority. It results in planning decisions that favor speed over other goals, motor vehicle travel over other modes, and sprawl over compact development.

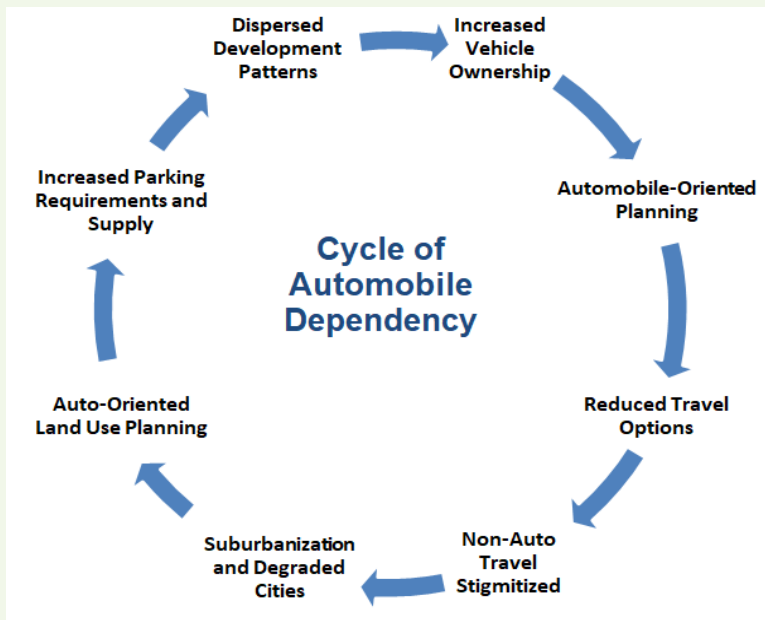
Affordability is not generally considered a transport planning goal.



2009 National Household Travel Survey respondents ranked the "Price of Travel" most important of the six transport issues considered.

Policies Favor Speed over Affordability

Common planning practices favor faster but expensive and resource-intensive modes over cheaper and more efficient modes, and sprawl over compact infill.



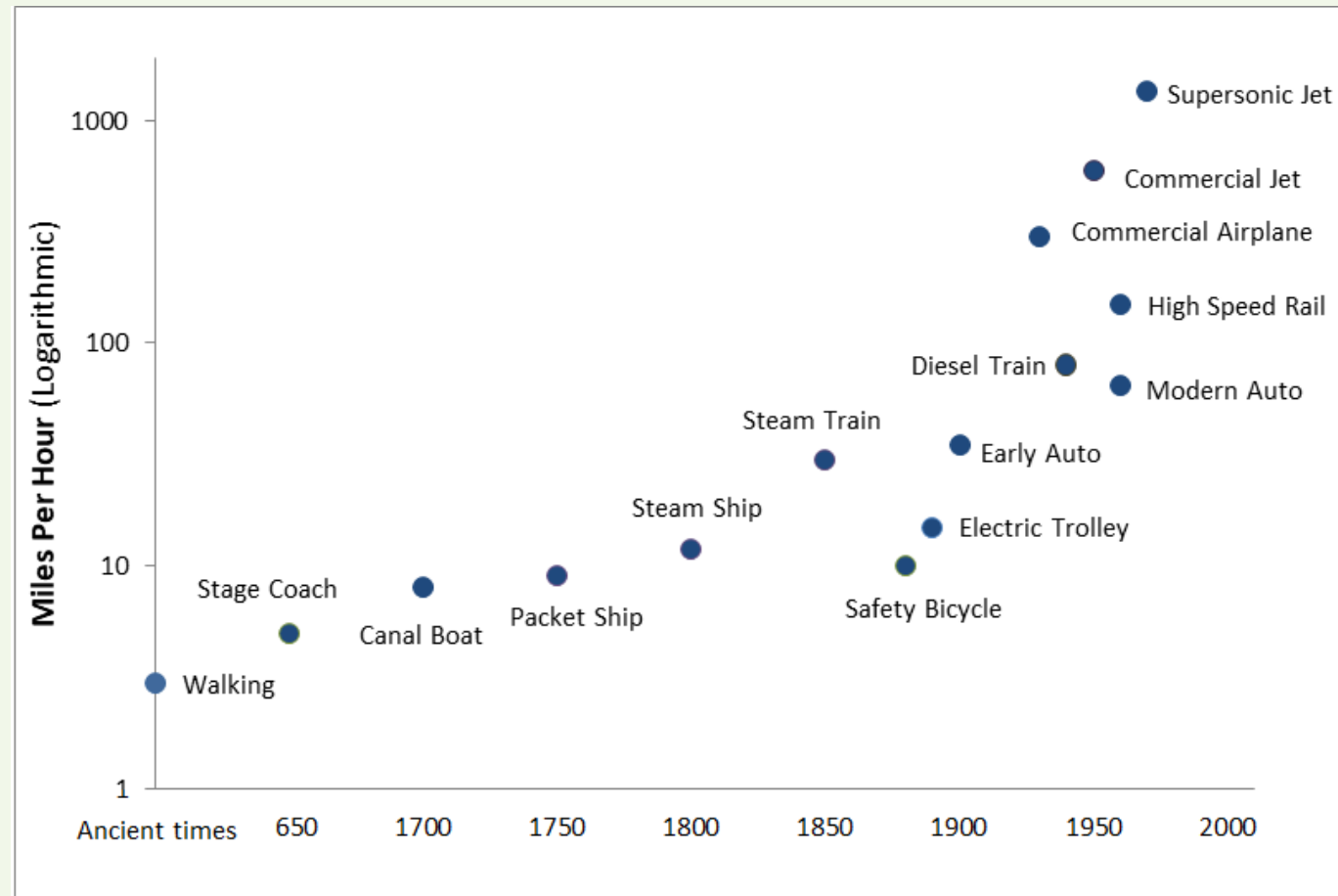
Common Policies that Cause Automobile Dependency and Sprawl

- Transportation planning that favors traffic speed over other goals (affordability, public health, social equity, community livability, environmental protection, etc.).
- Roadway design that gives little consideration to walking, bicycling and public transit needs.
- Zoning codes that limit density and compact housing types, such as townhouses and apartments.
- Development policies that favor urban expansion over compact infill.
- Parking minimums which mandate abundant parking supply, and other parking subsidies.
- Public facilities (schools, post offices, courts, etc.) located to maximize automobile access.
- Dedicated roadway funding, which favors roadway spending over investments in other modes.
- Fuel production subsidies and low fuel taxes.
- Transportation planning that undercounts, overlooks and undervalues non-auto travel.
- Travel models that ignore induced travel impacts, which exaggerates roadway expansion benefits.

Newer Was Faster

For most of transportation history, newer modes were faster.

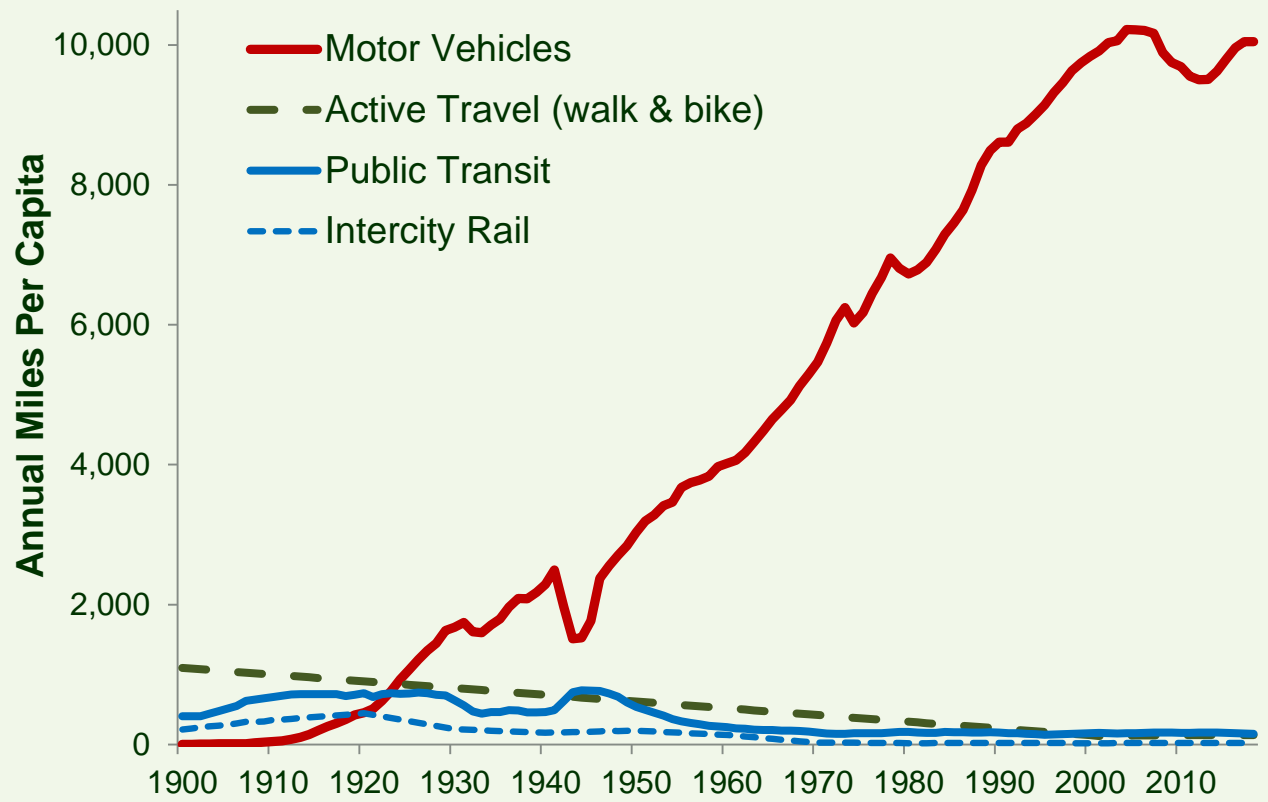
Note that this graph shows speed on a logarithmic scale so small increases in height indicate large increases in speed.



Travel Trends

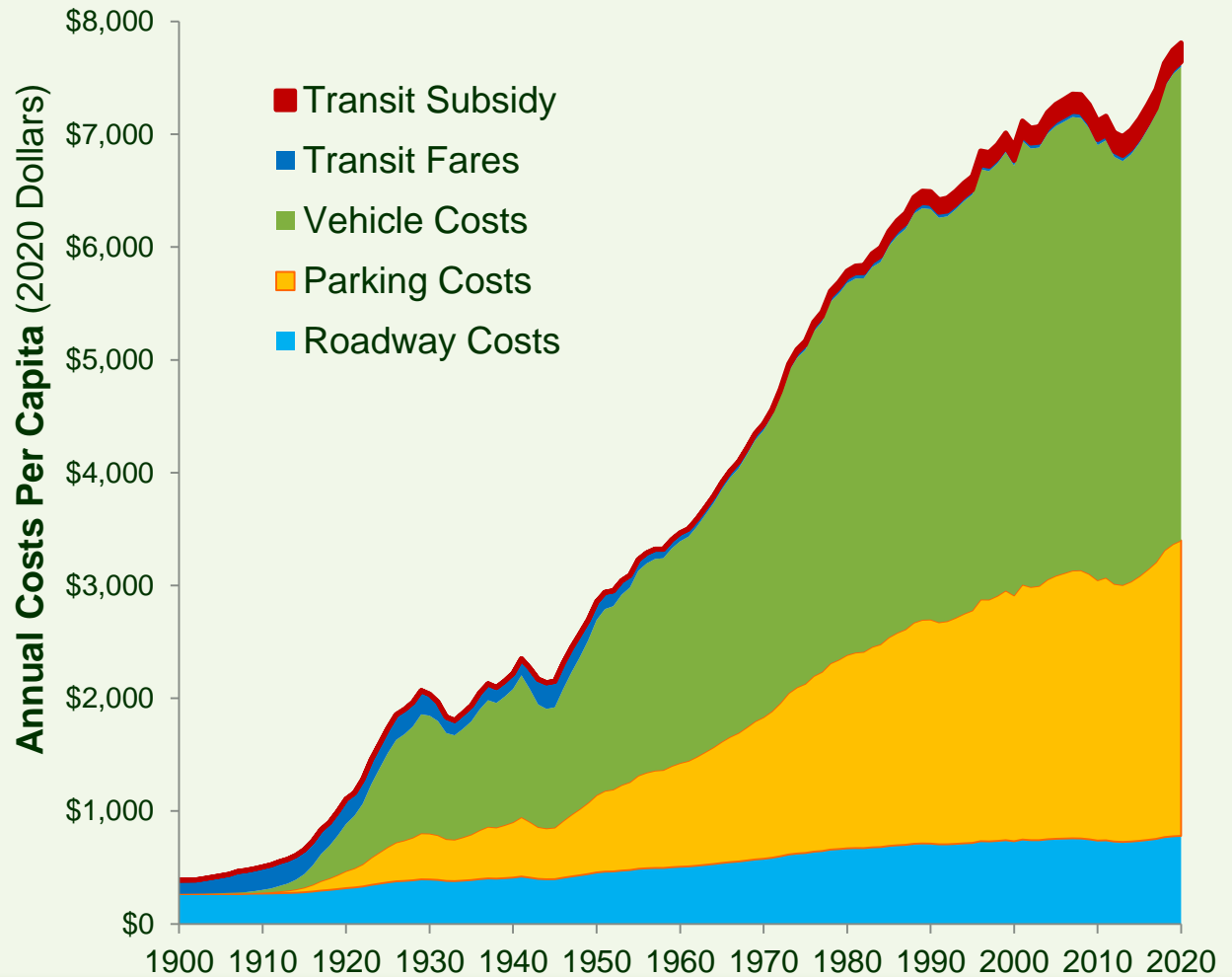
Before 1900 people relied primarily on walking, averaging about 1,000 annual miles, with occasional bicycle and rail trips.

Motor vehicle travel grew steadily during the Twentieth Century. It now averages about 10,000 annual miles per adult.



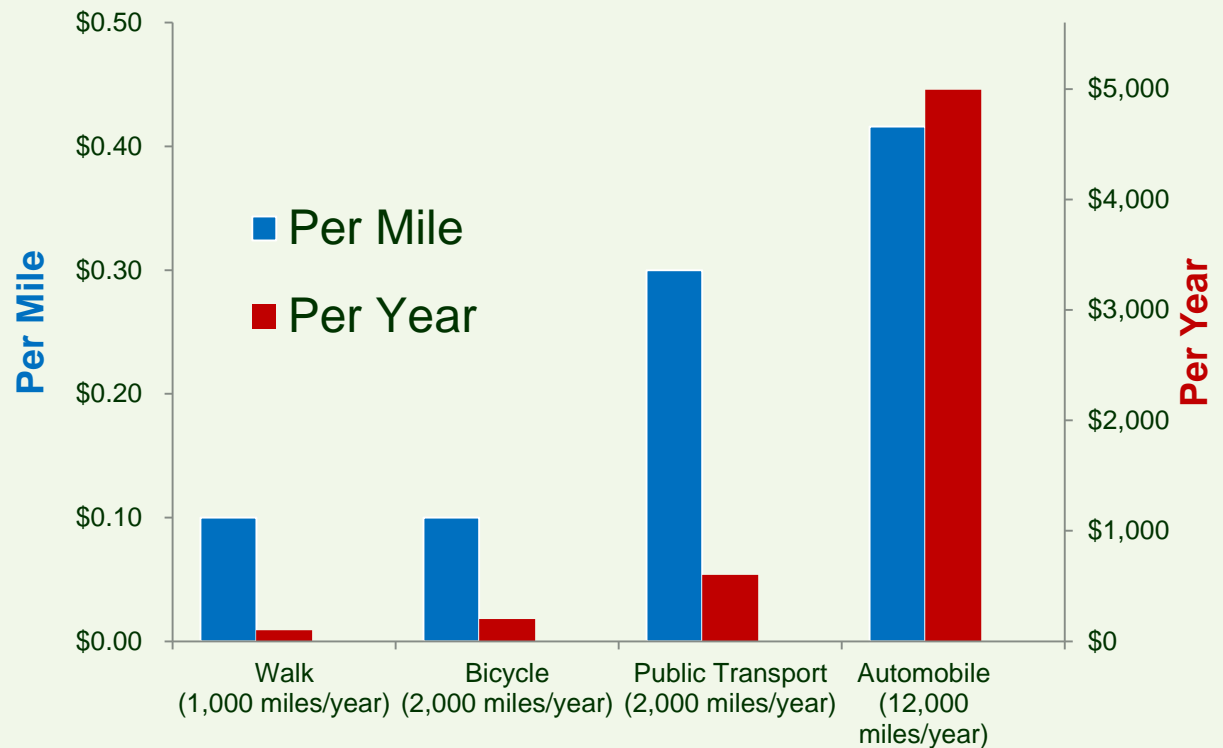
Estimated Vehicle and Infrastructure Costs

As automobile travel grew during the last 120 years, per capita vehicle, road and parking facility costs increased significantly.



Typical User Costs Per Mile and Year

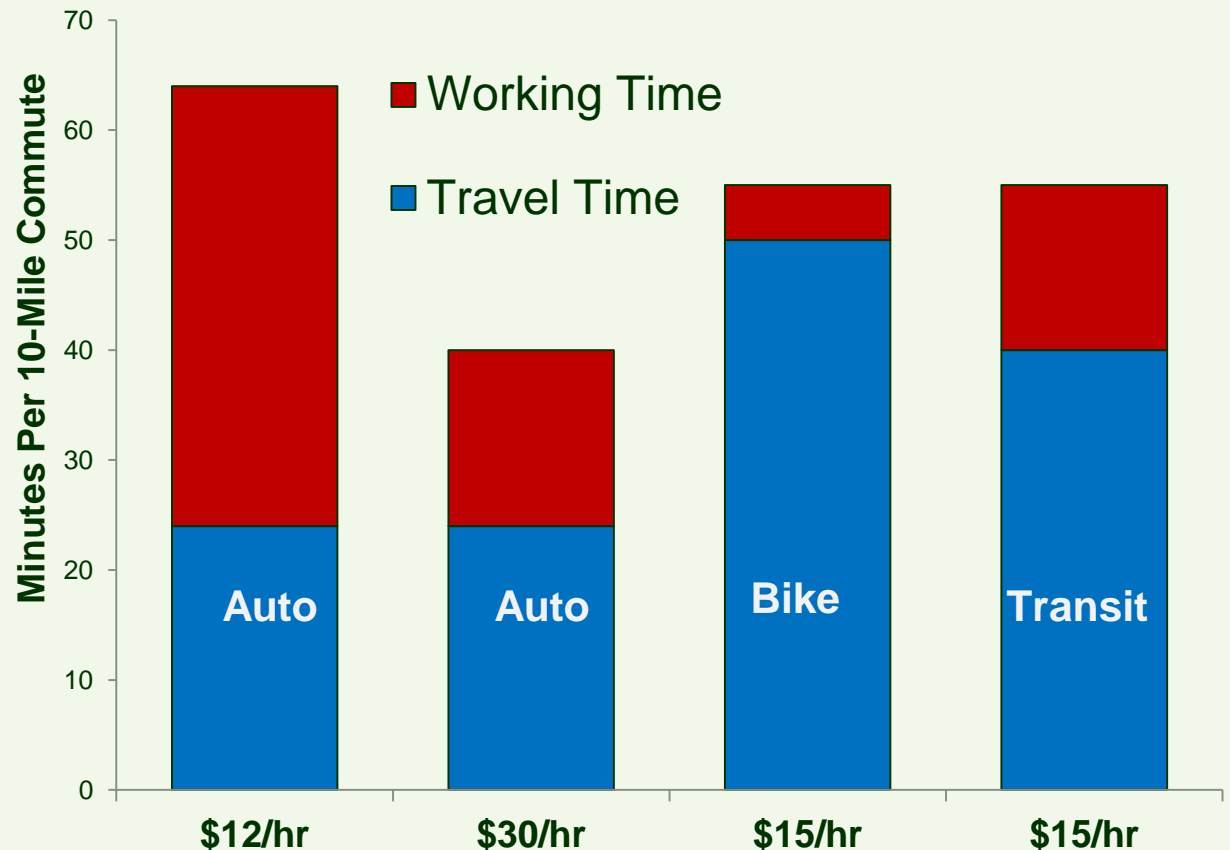
Automobile travel tends to be somewhat more costly per mile, and far more costly per year because automobile ownership and sprawl increase annual mileage.



Effective Commute Speeds

Effective speeds, measures time spent travelling plus time spent working for money to pay travel expenses.

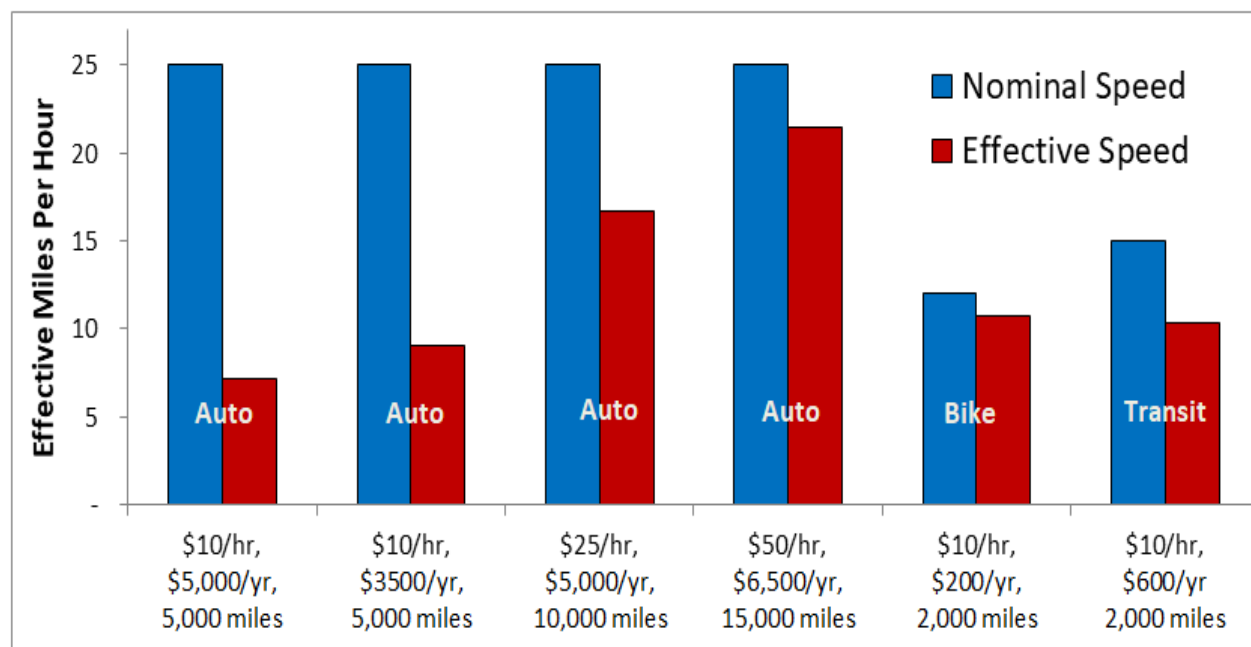
Many lower-wage motorists spend more time earning money to pay their travel expenses than they spend travelling. Bicycling and transit are generally faster than driving overall.



Nominal Versus Effective Speed

Effective speeds are much lower than nominal speed for lower-wage motorists.

This indicates that policies which favor faster but expensive modes over slower but cheaper modes are regressive. Planning that evaluates transportation quality based on nominal rather than effective speeds harms poor people.

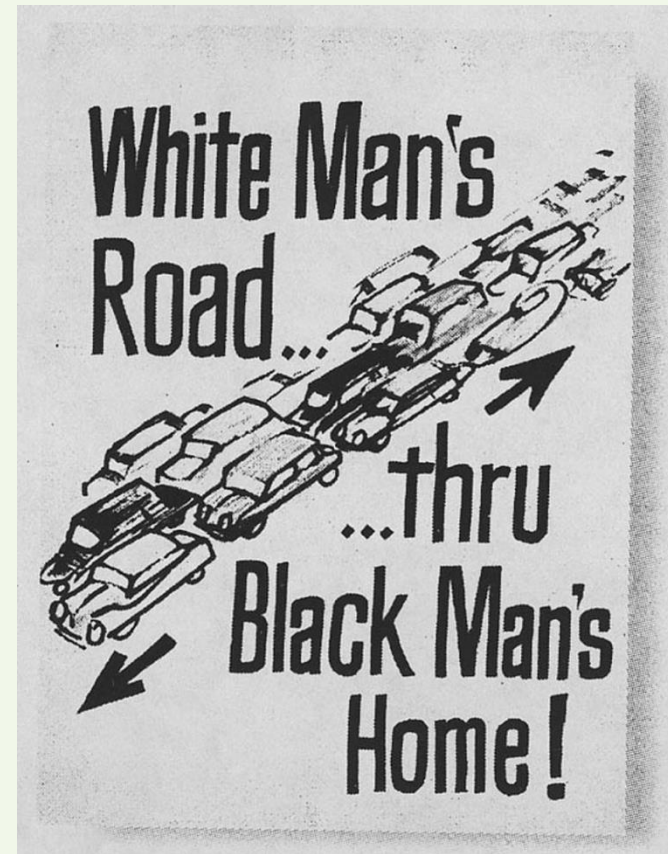


Example – Neighborhood Displacement

During the last century many high-accessibility neighborhoods were destroyed by urban freeways in order to improve automobile travel between suburbs and city centers, and also harmed by parking minimums.

These benefitted wealthier motorists, but harmed poorer people by spoiling neighborhoods and reducing affordable accessibility options.

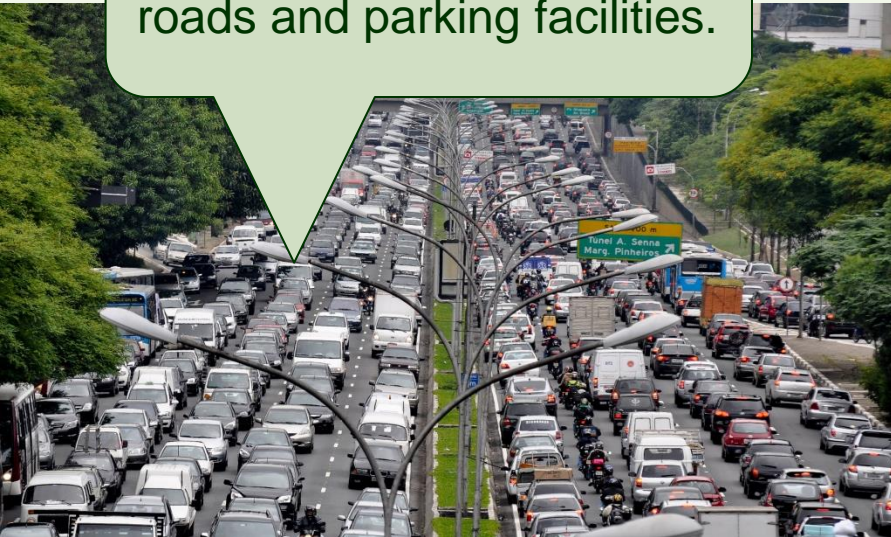
Transportation engineers' emphasis on travel time savings was the mechanism that made this happen. They assumed that everybody, or at least everybody who matters, prefers faster travel over slower but more affordable accessibility options.



A Fair Share for Everyone

For fairness sake (**horizontal equity**), communities should invest at least as much on affordable modes as on automobile trips, and for vertical equity sake, we should be willing to spend even more to help physically and economically disadvantaged travellers.

I want my infrastructure dollars spent on more roads and parking facilities.



I want my infrastructure dollars spent on increased public transit services, better vehicles and stations, and improved walking and bicycling conditions.



Recommendations

- Use *effective* rather than *nominal* speeds, and generalized costs, in transport planning.
- Recognize affordability as a planning goal. Give as much priority to affordable as faster modes.
- Recognize the unfairness and regressivity of policies that favor speed over affordability, and automobile travel over more affordable and inclusive modes.
- Evaluate transportation based on accessibility rather than mobility. For example, recognize that more compact and multimodal locations provide more accessibility with less mobility.





“Our World Accelerated: How 120 Years of Transportation Progress Affects our Lives and Communities”

“Autonomous Vehicle Implementation Predictions”

“The New Transportation Planning Paradigm”

“Transportation Cost and Benefit Analysis”

“Are VMT Reduction Targets Justified?”

“The Future Isn’t What It Used To Be”

“The Mobility-Productivity Paradox”

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