Liveable Communities, Housing and Health Toolbox

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Creating Paradise

Paradise is not a distant destination, it is something we create in our own communities.
Sustainability emphasizes the integrated nature of human activities and therefore the need to coordinate planning among different sectors, jurisdictions and groups.
Preventing Problems

Sustainability planning is to development what preventive medicine is to health: it anticipates and manages problems rather than waiting for crises to develop.
Cycle of Automobile Dependency

- Increased Per Capita Motor Vehicle Travel
- Automobile-Oriented Transport Policies and Planning Practices
- Reduced Non-Automobile Travel Options
- Social Stigma Associated With Alternative Modes
- Suburbanization and Degraded Urban Neighborhoods
- Automobile-Oriented Land Use Planning
- Generous Parking Supply
- Automobile-Oriented Land Use Patterns
Trends Supporting Multi-Modalism

- Motor vehicle saturation.
- Aging population.
- Rising fuel prices.
- Increased urbanization.
- Increased traffic and parking congestion.
- Rising roadway construction costs and declining economic return from increased roadway capacity.
- Environmental concerns.
- Health Concerns
During the last century automobile travel grew significantly while travel by alternative modes stayed stagnant. During the next century automobile travel growth will decline while use of other modes will increase.
Small shifts from automobile to alternative modes causes large increases in walking, cycling and public transit demand.

For example, a 5-point shift can increase use of alternative modes by 50%.
Between the 1940s and 1980s the population became more suburbanized. Now, about half of North Americans live in suburbs.
Many households want highway access and good walking and cycling facilities.
Although prospective home buyers preferred single-family homes, many would choose smaller lots and higher density neighborhoods to improve accessibility and transport options.

### Housing Preferences (PPIC 2002)

<table>
<thead>
<tr>
<th>Housing Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to live in a single-family, detached home.</td>
<td>86%</td>
</tr>
<tr>
<td>Actually live in a single-family, detached home.</td>
<td>65%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Type Tradeoff</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you choose to live in a small house with a small backyard, if it means you have a short commute to work?</td>
<td>49%</td>
</tr>
<tr>
<td>Would you choose to live in a large home with a large backyard, even if it means you would have a long commute to work?</td>
<td>47%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neighborhood Type Tradeoff</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you choose to live in a mixed-use neighborhoods where you can walk to stores, schools, and services?</td>
<td>47%</td>
</tr>
<tr>
<td>Would you choose to live in a residential-only neighborhood, even if it means you have to drive a car to stores, schools and services?</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Transit Access Tradeoff</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you choose to live in a high-density neighborhood where it was convenient to use public transit when you travel locally?</td>
<td>31%</td>
</tr>
<tr>
<td>Would you choose to live in a low-density neighborhood where you would have to drive your car when you travel locally?</td>
<td>66%</td>
</tr>
</tbody>
</table>
Energy prices and road congestion accelerate the move back into metropolitan-area interiors as more people crave greater convenience in their lives. They want to live closer to work and shopping without the hassle of car dependence... Apartment and townhouse living looks more attractive, especially to singles and empty nesters—high utility bills, gasoline expenses, car payments, and rising property taxes make suburban-edge McMansion lifestyles decidedly less economical.” (Urban Land Institute 2009)
Hope for the best but prepare for the worst:

- *Physical disability* – diverse and integrated transport with universal design (accommodates people with disabilities and other special needs).
- *Poverty and inflation* – affordable housing in accessible, multi-modal locations.
- *Higher energy prices* – improve efficient modes (walking, cycling and public transport).
- *Isolation and loneliness* – community cohesion (opportunities for neighbors to interact in positive ways).
The current supply of large-lot suburban is approximately adequate to satisfy demand for the next two decades. Prices for such housing is currently depresses and a significant amount will become available as baby boomers downsize.

Most growth will be in smaller-lot and multi-family housing.
Questions

What do these trends imply about transport and land use planning objectives?

How well are these factors considered in current policies and planning?

What reforms are needed to better respond to future travel demands?
Housing Needs

*Emergency shelters* - Short-term housing for homeless people

*Transitional housing* - Medium-term housing for previously homeless or addicted people

*Social housing* - Subsidized housing for people with disabilities and other special needs.

*Affordable rental housing* - Rental housing affordable to low- and medium-income households

*Affordable home ownership* - Housing affordable for purchase by low- and medium-income households
Transport and housing are unaffordable to most lower-income households.
Vehicle & Facility Costs

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cost Per Passenger-Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>$0.00</td>
</tr>
<tr>
<td>Heavy Rail</td>
<td>$0.20</td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>$0.40</td>
</tr>
<tr>
<td>Light Rail</td>
<td>$0.60</td>
</tr>
<tr>
<td>Automobile - Small City</td>
<td>$0.80</td>
</tr>
<tr>
<td>Auto - Medium City</td>
<td>$1.00</td>
</tr>
<tr>
<td>Auto - Large City</td>
<td>$1.20</td>
</tr>
</tbody>
</table>

- **Parking Costs**
- **Roadway Costs**
- **Vehicle Operation**
Gasoline Expenditures

Where gasoline prices hit hardest

The counties where motorists spend the highest percentage of their income on gasoline tend to be in poor, rural areas. While California has some of the highest gas prices, its residents spend a smaller fraction of their income for gasoline.

Holmes County, Miss. 15.6%

HIGHEST: Wilcox County, Ala. 16.0%

Note: Monthly fuel costs were calculated using each county's average gas price multiplied by the average number of miles driven by drivers in that state, a figure estimated by the Transportation Department. The resulting dollar figure was divided by each county's median income, from the Census, giving the estimated share of income spent on gasoline shown here.
Housing Foreclosures

Housing foreclosure rates are much higher in automobile-dependent locations.
This figure compares the costs of various types of housing in three locations. The dashed line indicates maximum housing and transport costs considered affordable for a $2,400 monthly household budget.
Housing Affordability Checklist

• Adequate housing costs less than 32% of household budgets
• Transport and housing total less than 45% of household budgets.
• Accessible location (within 10-minute walk):
  • Medical services
  • Affordable food stores
  • Schools
  • Parks
  • Public Transit
• Multi-modal (high quality walking, cycling and public transit).
• Energy efficient (to reduce costs and maintain comfort).
• Some units designed to accommodate people with disabilities.
• Affordable telephone and Internet service.
• Unbundled parking.
Affordable Housing Types

• Small-lot urban neighborhood housing (3,000 to 6,000 sf lots).

• Secondary suites and accessory units.

• Duplexes and townhouses (row houses).

• Lowrise (2-4 story) apartments and condominiums.

• Highrise (5+ stories) apartments and condominiums.

• Residential-over-commercial.

• Parking lot redevelopment.

• Conversions of non-residential buildings.
<table>
<thead>
<tr>
<th>Strategies</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ineffective and Sometimes Harmful</td>
<td></td>
</tr>
<tr>
<td>Cheap suburban development</td>
<td>Reduces housing costs but increases transport and sprawl costs</td>
</tr>
<tr>
<td>Rent control</td>
<td>Benefits existing residents but reduces the incentive to build more lower-priced housing</td>
</tr>
<tr>
<td>Forbidding rental-to-owner conversions</td>
<td>Benefits existing residents but reduces the incentive to build more lower-priced housing</td>
</tr>
<tr>
<td>Urban blight (allow some neighborhoods to become undesirable)</td>
<td>Reduces housing costs but harms communities and concentrates poverty</td>
</tr>
<tr>
<td>Targeted housing subsidies</td>
<td>Benefits people who receive subsidies, but not others</td>
</tr>
<tr>
<td>Effective But Costly</td>
<td></td>
</tr>
<tr>
<td>General housing construction and purchase subsidies</td>
<td>Reduces total housing costs, but does little to increase overall affordability</td>
</tr>
<tr>
<td>Inclusionary zoning</td>
<td>Helps some households purchase homes but seldom includes rentals and may reduce new dev.</td>
</tr>
<tr>
<td>Large social housing developments</td>
<td>Concentrates poverty</td>
</tr>
<tr>
<td>Subsidizing suburban transportation</td>
<td>Requires significant subsidies and imposes external costs</td>
</tr>
<tr>
<td>Most Effective and Beneficial</td>
<td></td>
</tr>
<tr>
<td>Affordable housing targets</td>
<td>Encourages communities to accept affordable housing</td>
</tr>
<tr>
<td>Address community concerns</td>
<td>Reduces neighborhood opposition to affordable housing</td>
</tr>
<tr>
<td>Density bonus</td>
<td>Encourages developers to build more affordable housing</td>
</tr>
<tr>
<td>Density requirements</td>
<td>Encourages developers to build more housing</td>
</tr>
<tr>
<td>Structure fees and taxes to favor affordable-accessible development</td>
<td>Reduces the costs of affordable-accessible housing compared with more costly and sprawled housing</td>
</tr>
<tr>
<td>Allow and encourage secondary suites</td>
<td>Encourages homeowners to provide rental housing</td>
</tr>
<tr>
<td>Improve design process</td>
<td>Improves design quality which can reduce opposition</td>
</tr>
<tr>
<td>Affordable housing maintenance and rehabilitation programs</td>
<td>Preserves existing affordable housing stock</td>
</tr>
<tr>
<td>Smart growth reforms</td>
<td>Encourages more accessible, compact development, and reduces some costs, such as parking</td>
</tr>
<tr>
<td>Improve affordable transportation options</td>
<td>Improves accessibility and reduces household costs</td>
</tr>
<tr>
<td>Implement transportation management policies</td>
<td>Supports use of efficient modes</td>
</tr>
<tr>
<td>Expedite development review</td>
<td>Reduces affordable housing development costs and delays</td>
</tr>
<tr>
<td>Reduced and more accurate parking requirements</td>
<td>Reduces parking costs, particularly for affordable-accessible housing</td>
</tr>
<tr>
<td>Unbundle parking</td>
<td>Reduces housing costs for households that minimize vehicle ownership</td>
</tr>
<tr>
<td>More accessible, multi-modal suburban development</td>
<td>Reduces housing and transportation costs in suburban areas</td>
</tr>
<tr>
<td>Identify parcels suitable for affordable-accessible development</td>
<td>Helps developers find sites for affordable, infill development</td>
</tr>
<tr>
<td>Dynamic zoning</td>
<td>Allows development policies and zoning codes to respond to changing demands</td>
</tr>
<tr>
<td>Brownfield remediation</td>
<td>Makes contaminated land available for development</td>
</tr>
<tr>
<td>Provide free or inexpensive land</td>
<td>Encourages development of affordable housing</td>
</tr>
<tr>
<td>Resource efficiency design</td>
<td>Reduces occupant utility costs</td>
</tr>
<tr>
<td>Targeted tax and fee exemptions</td>
<td>Reduces affordable-accessible housing costs</td>
</tr>
<tr>
<td>More favorable tax policies</td>
<td>Reduces affordable-accessible housing costs</td>
</tr>
</tbody>
</table>
## Neighborhood Concerns

<table>
<thead>
<tr>
<th>Problem</th>
<th>Potential Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of lower-income neighbors</td>
<td>Education about the types of households that occupy affordable housing and their neighborhood risks.</td>
</tr>
<tr>
<td>Traffic congestion</td>
<td>Analysis about the relatively low trip generation rates of affordable-accessible housing residents (typically half or quarter of average units).</td>
</tr>
<tr>
<td>Parking congestion</td>
<td>Analysis of affordable-accessible housing parking demand (typically less than half of average units), and improved parking management and enforcement.</td>
</tr>
<tr>
<td>Increased noise</td>
<td>Improved noise regulation enforcement.</td>
</tr>
<tr>
<td>Shading from tall buildings</td>
<td>Consider solar access in building design to minimize shading.</td>
</tr>
<tr>
<td>Reduced property values</td>
<td>Research concerning actual property value impacts (in many situations property values actually increase if higher density development is allowed).</td>
</tr>
<tr>
<td>Higher property taxes (if property values increase)</td>
<td>Offer tax deferments, so residents do not pay higher taxes until they sell their property.</td>
</tr>
</tbody>
</table>
Parking Management

Various strategies that result in more efficient use of existing parking resources:

- Sharing parking facilities.
- Reduced and more flexible parking requirements.
- Unbundling parking from building space. For example, rather than renting an apartment for $1,000 per month with two “free” parking spaces, rent the apartment for $800 plus $100 for each space.
- Price parking.
Unbundle Parking

Rent and sell parking spaces separately from building units. For example, rather than renting an apartment with two free parking spaces for $1,000 per month, rent the unit for $800, and each parking space for $100 per month.
Parking Facility Costs

Annualized Cost Per Space

- Suburban, Surface
- Suburban, 2-level Structure
- Urban, On-Street
- Urban, Surface
- Urban, 3-level Structure
- CBD, 4-level Structure
- CBD, Underground

O & M Costs
Construction Costs
Land Costs
Parking costs are a major portion of development costs, particularly for lower-priced housing in urban areas with high land prices.
Residential parking costs are a major portion of household expenditures for lower-income households.
Example - Soma Apartments

Mixed-use development:
- 74 affordable family apartments
- 88 small studios
- Child care center
- Market

246 bedrooms and 24,000 sq-ft commercial space would normally require 250-350 spaces.

Contains 66-spaces, with unbundled parking, significantly reducing rents.
Questions

What is the value of affordable-accessible housing?

What are the barriers to affordable-accessible housing?

What reforms can help create more affordable-accessible housing?
• Project employment impacts.
• Reducing business transport costs (congestion, parking, taxes) increases productivity and competitiveness.
• Reducing vehicle expenditures and expanding transit service increases regional employment and business activity.
• Agglomeration efficiencies.
• Supports strategic land use development objectives.
• Increases affordability, allowing businesses to attract employees in areas with high living costs.
• Changes in household expenditures on vehicles and fuel.
Productivity tends to decline with increased mobility. (Each dot is a U.S. urban region.)

Bureau of Economic Analysis and FHWA data
**Per Capita GDP and Transit Ridership**

Productivity tends to increase with transit ridership. (Each dot is a U.S. urban region.)

Bureau of Economic Analysis and FHWA data
Productivity tends to increase with population density. (Each dot is a U.S. urban region.)

Bureau of Economic Analysis and Bureau of Transportation Statistics Data

\[ R^2 = 0.1083 \]
Smart Growth Development

- Compact (density)
- Mixed development (proximity)
- Urban villages
- Connectivity
- Walkability/bikability
- Public transport
- Public realm
- Parking management
Smart Growth Benefits

**Economic**
- Increased resource efficiency
- Lower development costs
- Lower public service costs
- Road and parking cost savings
- Economies of agglomeration
- More efficient transportation

**Social**
- Improved transport options, particularly for nondrivers
- Improved housing options
- Community cohesion
- Preserves unique cultural resources
- More opportunities to exercise

**Environmental**
- Greenspace & habitat preservation
- Reduced air pollution
- Increased energy efficiency
- Reduced water pollution
- Reduced “heat island” effect
**Impacts on Housing Affordability**

**Reduces Affordability**
- Urban growth boundaries (reduces developable land supply).
- Increased design requirements (curbs, sidewalks, sound barriers, etc.).

**Increases Affordability**
- Higher density reduces land requirements per unit.
- Reduced parking and setback requirements.
- More diverse, affordable housing options (secondary suites, rooms over shops, loft apartments).
- Reduces property taxes and utility fees for clustered and infill housing.
- Improved accessibility reduces transport costs.
Sprawl Is Costly

- Increases infrastructure and public service costs.
- Increases transportation costs and reduces travel options.
- Environmental costs (reduced greenspace and wildlife habitat).
Social Equity

Equity objectives:

• An equal share of public resources for people with equal needs.

• Savings and benefits to lower-income people.

• Increased opportunity to people who are physically, socially or economically disadvantaged.

• Basic mobility.
Community Livability & Cohesion

*Community Livability* refers to the environmental and social quality of an area as perceived by residents, employees, customers and visitors.

*Community Cohesion* refers to the quantity and quality of positive interactions among people in a community.

Streets that are attractive, safe and suitable for walking and cycling increase community livability and cohesion.
U.S. Crash Rates

![Graph showing the relationship between per capita annual vehicle mileage and traffic fatalities per 100,000 population, with data points for rural and urban areas.](image-url)
Traffic Fatalities

Traffic Fatalities Per 100,000 Residents

- Automobile Dependent
- Multi-Modal

Annual Per Capita Transit Passenger-Miles

[Graph showing the relationship between annual per capita transit passenger-miles and traffic fatalities per 100,000 residents for automobile dependent and multi-modal transportation modes.]
Safety Benefits (U.S. Cities)

![Graph showing the relationship between traffic fatalities per 100,000 population and percent non-motorized commute trips. The graph indicates a negative correlation with an R^2 value of 0.2649.]
Smart Growth Safety Impacts

Annual Traffic Deaths Per 100,000 Population

- Most Sprawled
- Smartest Growth

Locations:
- New York County, NY
- Kings County, NY
- Queens County, NY
- County, CA
- Hudson County, NJ
- Suffolk County, MA
- Baltimore City, MD
- Wake County, NC
- Mature County, KS
- Davi County, WV
- Yavapai County, AZ
- Forsyth County, NC
- Fulton County, GA
- Clayton County, GA
- Gwinnet County, CH

Graph shows varying levels of annual traffic deaths per 100,000 population across different locations, with some areas marked as 'Most Sprawled' and others as 'Smartest Growth'.
What Gets People Moving?

Recommended minimum: 20 minutes of moderate exercise a day.

Although there are many ways to be physically active, active transportation is one of the most common, and improving active transportation conditions is a practical way to increase physical activity.
Land Use Impacts On Travel

Average Daily Minutes

Urban Index Rating

- Automobile
- Transit
- Walk

Health Target
Questions

Are decision-makers aware of the benefits of alternative mode and smart growth land use development?

What are the barriers?

How can we better communicate these benefits?
Choosing Transportation Futures

- Walking/cycling programs
- Transit service
- Transit-oriented development
- Parking management & pricing
- Commute trip reduction
- School transport management
- Smart growth policies
- PAYD insurance
- Road pricing
Multi-Modal Transportation

<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>Automobile Dependent</th>
<th>Transit Oriented Development</th>
<th>Carfree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work commuting</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂</td>
</tr>
<tr>
<td>School commuting</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂</td>
</tr>
<tr>
<td>Work-related business</td>
<td>♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂</td>
</tr>
<tr>
<td>Personal travel (errands)</td>
<td>♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂ ♂</td>
</tr>
<tr>
<td>Social and recreation</td>
<td>♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂ ♂</td>
<td>♂ ♂ ♂ ♂ ♂ ♂</td>
</tr>
<tr>
<td><strong>Total car trips</strong></td>
<td>21</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total transit trips</strong></td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total non-motorized trips</strong></td>
<td>3</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total trips</strong></td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
International Mode Split

(Bassett, et al. 2008)
US Mode Split

Commute Share

Bike
Walk

Madison
Ann Arbor
San Francisco
New York
Pensacola
Boston
Honolulu
Lansing
Syracuse
South Bend
Colorado Sp.
Lincoln
Boise City
New Haven
Portland
Tucson
Harrisburg
Pittsburgh
Anchorage
Philadelphia
Seattle
More comprehensive travel surveys typically increase the portion of nonmotorized travel 2-6 times by counting currently overlooked walking and cycling trips.
Mode Split Trips (UK Data)

A small portion of distance but a large portion of travel time.
Conventional Transport Indicators

- Roadway Level-of-Service (LOS)
- Average traffic speeds.
- Per capita congestion delay.
- Parking occupancy rates.
- Traffic fatalities per billion vehicle-miles.
- Traffic fatalities per 100,000 population.
## Multi-Modal Level-Of-Service (LOS)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Level of Service Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>Sidewalk/path quality, street crossing conditions, land use conditions, security, prestige.</td>
</tr>
<tr>
<td>Cycling</td>
<td>Path quality, street riding conditions, parking conditions, security.</td>
</tr>
<tr>
<td>Ridesharing</td>
<td>Ridematching services, chances of finding matches, HOV priority.</td>
</tr>
<tr>
<td>Public transit</td>
<td>Service coverage, frequency, speed (relative to driving), vehicle and waiting area comfort, user information, price, security, prestige.</td>
</tr>
<tr>
<td>Automobile</td>
<td>Speed, congestion delay, roadway conditions, parking convenience, safety.</td>
</tr>
<tr>
<td>Telework</td>
<td>Employer acceptance/support of telecommuting, Internet access.</td>
</tr>
<tr>
<td>Delivery services</td>
<td>Coverage, speed, convenience, affordability.</td>
</tr>
</tbody>
</table>
Multi-Modal LOS (Jacksonville)

Cycling LOS

Pedestrian LOS
Conventional Evaluation

Generally Considered
- Congestion impacts
- Vehicle operating costs
- Per-mile crash impacts
- Per-mile pollution emissions.

Often Overlooked
- Parking costs
- Total consumer costs
- Downstream congestion
- Crash, energy & pollution impacts of changes in mileage
- Land use impacts
- Impacts on mobility options for non-drivers/equity impacts
- Changes in active transport and related health impacts
### Comparing Benefits

<table>
<thead>
<tr>
<th>Planning Objectives</th>
<th>Expand Roadways</th>
<th>Efficient and Alt. Fuel Vehicles</th>
<th>Shifts from Auto Alternative Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vehicle Travel Impacts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce traffic congestion</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Roadway cost savings</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Parking cost savings</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Consumer cost savings</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Improve mobility options</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Improve traffic safety</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Energy conservation</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pollution reduction</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Land use objectives</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Public fitness &amp; health</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
High quality public transit typically requires about $268 in additional subsidies and $104 in additional fares annually per capita, but provides vehicle, parking and road cost savings averaging $1,040 per capita, plus other benefits:

- Congestion reductions
- Accident reductions
- Pollution reductions
- Improved mobility for non-drivers,
- Improved fitness and health
More balanced transport policy is no more "anti-car" than a healthy diet is anti-food. Motorists have every reason to support these reforms:

- Reduced traffic and parking congestion.
- Improved safety.
- Improved travel options.
- Reduced chauffeuring burden.
- Often the quickest and most cost effective way to improve driving conditions.
Questions

What are the barriers to more comprehensive planning?

What reforms are needed?

How can we better communicate the value of these reforms?
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