Abstract

This paper discusses how cities support social inclusion by improving accessibility and opportunity, particularly for people who are physically, economically and socially disadvantaged. It describes planning strategies that can help achieve social inclusion objectives, including increased accessibility, transportation diversity, and affordability.
Introduction

The theme of this paper is, Cities Connect, recognizing that cities create social and economic value by connecting people and activities. These connections reflect accessibility, that is, the general ability to obtain goods and services, and participate in activities. Cities bring people and activities together and expand transport options. These connections are particularly important to people who are physically, economically and socially disadvantaged. As a result, cities help achieve social inclusion, that is, they increase social and economic opportunities for disadvantaged people.

The term social inclusion is seldom used in North America. Planners here are more likely to say that it is important to provide basic mobility, which refers to transport for goods, services and activities that have high social value, such as:

- Emergency services (police, fire, ambulances, etc.).
- Health care.
- Essential shopping.
- Education and employment (commuting).
- Public services, mail, and freight distribution.
- A certain amount of social and recreational activities.

Social inclusion is both an efficiency and an equity issue. People who are excluded from social and economic opportunities suffer directly, and are less productive, more dependent on social programs, and more likely to be involved in criminal and self-destructive behavior. Social inclusion therefore provides multiple benefits, including economic development, public cost savings, and reduced crime.

Figure 1 Social Exclusion Results From Multiple Challenges

A combination of overlapping factors contribute to social exclusion. The more challenges a person faces, the more they are excluded from important activities and opportunities.
Cities increase accessibility by orders of magnitude. For example, from a rural location, 30-minutes of non-automobile travel can typically access a small store and elementary school, and a few dozen neighbors. From a suburban location, 30-minutes of non-automobile travel can typically access a small commercial center and a few hundred neighbors, although walking may be difficult due to limited sidewalks and heavy road traffic. But from an urban location 30-minutes of non-automobile travel can typically access hundreds of businesses and many thousands of jobs and neighbors. In cities, sidewalks connect most destinations, public transit service is frequent, and there are convenient links to airports and train stations for longer distance trips.

Increased accessibility tends to increase overall economic opportunity and productivity, reflecting efficiencies of agglomeration. This means workers have a larger pool of potential jobs; employers have a larger pool of potential workers; there are more education options; professionals have more opportunities to share information; businesses have more potential customers; and increased competition forces businesses to improve service quality. Increased accessibility tends to reduce transportation costs to individual consumers, businesses and regional economies, providing economic development benefits (“Economic Development Impacts,” VTPI, 2005).

Figure 2  Urbanization Impact On Mode Split (Lawton, 2001)

The portion of trips made by transit and walking increase as an area becomes more urbanized.

Urban environments tend to reduce per capita motor vehicle use and increase nonmotorized travel, as indicated in Figure 2. These travel impacts provide a variety of economic, social and environmental benefits, including reductions in total transportation costs, per capita traffic accidents, energy consumption and pollution emissions, and increases physical fitness and public health (Litman, 2005; Frank, Kavage and Litman, 2006). Urban environments designed for walking and social interactions also tend to increase community cohesion, the quality of relationships among people in a community, as indicated by the frequency of positive interactions, the number of neighborhood friends and acquaintances, and their sense of community connections, particularly among people of different economic classes and social conditions (Appleyard, 1981).
Table 1

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved accessibility</td>
<td>Improved accessibility among people and economic activities.</td>
</tr>
<tr>
<td>Facility cost savings</td>
<td>Reduced per capita road and parking facility costs.</td>
</tr>
<tr>
<td>Consumer savings</td>
<td>Reduced per capita transportation costs.</td>
</tr>
<tr>
<td>Transport diversity</td>
<td>Improved transportation options, particularly for non-drives.</td>
</tr>
<tr>
<td>Road safety</td>
<td>Reduced per capita traffic crash rates.</td>
</tr>
<tr>
<td>Environmental protection</td>
<td>Reduced pollution emissions and habitat degradation.</td>
</tr>
<tr>
<td>Efficient land use</td>
<td>More compact development, reduced sprawl.</td>
</tr>
<tr>
<td>Economic development</td>
<td>Efficiencies of agglomeration, increases productivity and wealth.</td>
</tr>
<tr>
<td>Community cohesion</td>
<td>Positive interactions among people in a community.</td>
</tr>
<tr>
<td>Public health</td>
<td>More physical activity (particularly walking) increases fitness and health.</td>
</tr>
</tbody>
</table>

More compact, mixed, connected land use patterns provide a variety of benefits.

The benefits of urbanization are not limited to large cities – they exist to various degrees in smaller cities, towns and villages that have compact, mixed and connected land uses, and transportation diversity, particularly walkability and adequate public transit service.

The benefits of improved accessibility, transportation system diversity, and community cohesion are particularly important for people who are physically, economically or socially disadvantaged and so rely on non-automobile transportation. As a result, urban environments are more equitable than automobile-dependent suburban and rural land use patterns that isolate non-drivers and increase transportation costs.

Some people may be skeptical. They associate cities with problems such as poverty, conflict, crime and high living costs. Some urban areas do have these problems, but it is inaccurate to conclude that cities cause them. Urban problems result from urban flight (wealthier residents moving to suburbs), which causes segregation and urban blight (degraded neighborhoods). But such problems are not inherent to urban environments, many city neighborhoods are prosperous, mixed and healthy. Urban degradation would be far worse if cities lacked the economic and social benefits described in this paper.

In addition, many features that make cities productive, such as density, mix and reuse (or creative destruction) increase some costs, including land values, construction costs, and conflicts among neighbors. As a result, suburban development often seems easier and cheaper. However, these are short-term savings, offset by higher long-term transport costs and social exclusion problems. Urban redevelopment provides long-term benefits, including improved opportunity, reduced transportation costs, greenspace preservation and increased community cohesion. Considering all impacts urban redevelopment is often more cost effective and beneficial than suburban sprawl.

To illustrate this, consider the ideal home location for somebody who is poor and cannot drive, but wants to work or attend school, and be involved in their community. They are best off in a compact, mixed, walkable urban neighborhood with plenty of services and activities, provided it is safe and friendly. Affordable housing in such a neighborhood is a valuable gift to disadvantaged people.
Roots of Current Problems

Many current transportation and land use policies contribute to social exclusion. These include transport planning practices that unintentionally favor automobile travel, and undervalue alternative modes (“Comprehensive Transport Planning,” VTPI, 2005), and land use policies that unintentionally favor automobile-oriented sprawl, and discourage more urban land use development (“Smart Growth Reforms,” VTPI, 2005).

For example, current travel surveys tend to undercount non-motorized trips, because they undercount short trips, recreational trips, travel by children, and the walking links of motorized trips. Such surveys generally indicate that walking and cycling represent just 5-10% of total trips, justifying relatively modest investment in nonmotorized facilities. More comprehensive surveys indicate that 15-25% of total urban area trips are by walking or cycling, justifying more public support for these modes.

Current planning practices also tend to undervalue public transit travel by focusing on just one or two planning objectives. For example, transportation project evaluation tends to focus on congestion reduction and vehicle operating costs, ignoring other benefits that result when travelers shift from automobile to public transit, such as parking cost savings, reduced vehicle ownership, crash reductions, improved mobility for non-drivers, and improved public health (“Transit Evaluation,” VTPI, 2005). Conventional planning also tends to ignore or undervalue mobility management strategies, such as parking and road pricing reforms that encourage more economically efficient travel behavior. Many jurisdictions have funding dedicated to parking and roadway improvements that cannot be used for other types of transportation facilities and services, even if they are more cost effective and equitable overall.

Current roadway planning practices tend to emphasize increasing motor vehicle traffic speeds and volumes, at the expense of the pedestrian environment. For example, traffic engineers generally evaluate transportation system quality based on vehicle traffic speeds and roadway level-of-service, which only considers vehicle travel, rather than indicators that reflect personal mobility and accessibility, or roadway level-of-service from a pedestrian’s perspective. This results in planning decisions that degrade the pedestrian environment, reducing mobility options for non-drivers and community cohesion.

Similarly, many current planning practices stimulate automobile-oriented sprawl, reducing mobility options for non-drivers and increasing social segregation. These include generous minimum parking requirements, building setback requirements, and restrictions on land use mix. Infrastructure funding and pricing practices tend to favor urban expansion over infill development (“Smart Growth Reforms,” VTPI, 2005).

Although individually these biases and distortions may seem modest and justified from a narrow perspective, their effects are cumulative, particularly over the long-term. The result is a significant increase in automobile dependency and sprawl, reduced opportunity for non-drivers, degraded urban environments, and reduced community cohesion.
Strategies For Increasing Social Inclusion

There are many ways to support social inclusion and help achieve other strategic planning objectives by improving land use accessibility, affordability and transportation diversity. Examples are described below. For more information see the Online TDM Encyclopedia (VTPI, 2005).

Smart Growth (“Smart Growth,” VTPI, 2005)

Smart growth (also called new urbanism and transit-oriented development) refers to planning policies that increase land use density, mix, connectivity and walkability. Table 2 compares smart growth with sprawl development patterns. There are many specific ways of encouraging smart growth, including development policy and planning reforms, infrastructure funding and pricing changes, roadway design, and open space preservation.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Comparing Smart Growth and Sprawl (“Smart Growth,” VTPI, 2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Density</strong></td>
<td>Compact development.</td>
</tr>
<tr>
<td><strong>Growth pattern</strong></td>
<td>Infill (brownfield) development.</td>
</tr>
<tr>
<td><strong>Land use mix</strong></td>
<td>Mixed land use.</td>
</tr>
<tr>
<td><strong>Scale</strong></td>
<td>Human scale. Smaller buildings, blocks and roads. Careful detail, since people experience the landscape up close, as pedestrians.</td>
</tr>
<tr>
<td><strong>Public services (shops, schools, parks)</strong></td>
<td>Local, distributed, smaller. Accommodates walking access.</td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td>Multi-modal transportation and land use patterns that support walking, cycling and public transit.</td>
</tr>
<tr>
<td><strong>Connectivity</strong></td>
<td>Highly connected roads, sidewalks and paths, allowing relatively direct travel by motorized and nonmotorized modes.</td>
</tr>
<tr>
<td><strong>Street design</strong></td>
<td>Streets designed to accommodate a variety of activities. Traffic calming.</td>
</tr>
<tr>
<td><strong>Planning process</strong></td>
<td>Planned and coordinated between jurisdictions and stakeholders.</td>
</tr>
<tr>
<td><strong>Public space</strong></td>
<td>Emphasis on the public realm (streetscapes, pedestrian environment, public parks, public facilities).</td>
</tr>
</tbody>
</table>

This table compares Smart Growth with sprawl land use patterns.
Location Efficient Development

Location efficient development means that activities are located together to increase accessibility and reduce vehicle travel. Current planning practices often consider housing and transportation costs separately, resulting in “affordable” housing being located in less accessible areas where transport costs are high. Location-efficient development locates affordable housing in compact, mixed-use, multi-modal neighborhoods where non-drivers experience a high level of accessibility and transportation costs are relatively low. It takes advantage of reduced vehicle ownership rates to reduce parking requirements, providing additional opportunities for savings.

True Housing Affordability – by Jim Lazar

Housing decisions affect household budgets in many ways, besides rent or mortgage payments. A truly affordable home is one that:

1. Is located close to transit, shopping, schools and employment, reducing vehicle ownership and operating costs. This can save $2,000 - $5,000 annually.
2. Is energy efficient. This can save $500 - $1,500 annually.
3. Is built with quality materials. This can reduce annual maintenance and replacement costs.
4. Is built with non-toxic materials, which helps prevent respiratory illnesses. This can save 2-10 sick days annually.
5. Supports community cohesion (friendly neighborly interactions), which tends to increase security, reduce expenses such as childcare, and improve residents’ quality of life.

Figure 3 Affordability Index (CTOD, 2006)

Total household costs tend to be lower in urban areas due to reduced transport costs.
**Improving Transport System Diversity and Affordability**

There is much that can be done to create a more balanced and affordable transport system that provides a high level of mobility to non-drivers. Below are examples (VTPI, 2005).

- Improve walking and cycling conditions.
- Improve public transit, ridesharing and taxi services.
- Cash-out and unbundled parking, so people who rely on alternative modes are able to capture the resulting parking cost savings.
- Increased carsharing (vehicle rental services designed to substitute for vehicle ownership), so people have a convenient alternative to private vehicle ownership.
- Distance-based pricing, which converts fixed vehicle charges, such as ownership taxes, registration fees and insurance premiums, into mileage-based charges.

**Special Commuter Programs**

Special programs can provide commuter services for disadvantaged people (Sawicki and Moody, 2000). These can include special ridesharing and transit services from lower-income neighborhoods to employment centers, and incentives such as parking cash out and commuter benefits, which provides additional financial benefits to non-drivers.

**Universal Design**

*Universal Design* (also called *Inclusive Design, Accessible Design* or just *Accessibility*) refers to facility designs that accommodate the widest range of potential users, including people with mobility and visual impairments (disabilities) and other special needs. Although Universal Design standards address the needs of people with disabilities, it is a comprehensive concept that can benefit all users. For example, wider sidewalks, curb cuts and ramps, and low-floor buses can improve convenience for many types of travelers, not just those who use wheelchairs or walkers.

Universal Design planning includes:

- Standards for pedestrian facilities, transit vehicles and other transportation services adopted by local, state/provincial or federal governments.
- Programs to educate planners and designers on incorporating Universal Design into planning.
- Special projects and funding to reduce barriers and upgrade facilities to meet new accessibility standards.
- Parking facility design standards that dedicate spaces for vehicles used by people with disabilities, and include extra large spaces for vans with lifts.
- Development of *Multi-Modal Access Guides*, with maps and wayfinding information to a particular destination, including availability of transit and taxi services, and the quality of walking conditions.
Support Community Cohesion

Community cohesion refers to the quantity and quality of positive social interactions within a community, particularly among people of different economic classes and social conditions. Various transportation and land use policies can support community cohesion, by increasing opportunities for people who live and work in an area to meet during normal daily activities (“Livability,” VTPI, 2005). Below are examples.

- Create human-scale, mixed-use urban villages, with clearly defined geographic areas and unique identities (“New Urbanism,” VTPI, 2005).

- Maximize walkability. Design streets with high-quality sidewalks, crosswalks, and paths. Incorporate features such as pedestrian-oriented street lighting, landscaping, benches, public art, and other design features that attract people of diverse incomes and cultural backgrounds.

- Implement traffic calming and streetscaping to reduce vehicle traffic speeds and volumes, and create a more attractive and secure street environment for pedestrians and residents.

- Maximize the quality of the public realm (public places where people naturally meet), including sidewalks, pocket parks, plazas, neighborhood schools, local shops, and bus shelters.

- Encourage land use mixing at a fine grained scale, including mixed-use buildings (such as ground-floor retail with residential above), mixing on a street, and mixing within a neighborhood.

- Manage parking to reduce the amount of parking required to serve destinations and to improve parking facility design. Orient buildings to the sidewalks, rather than behind large parking lots.

- Support local services, such as neighborhood schools, shops, banks, and police stations.

- Address security concerns. Encourage residents to work together to improve security.

- Support neighborhood events and activities, such as street parties and fairs, and local sporting and cultural events.

- Create more multi-modal transportation systems and more accessible land use development patterns. Correct policy and planning distortions that favor automobile travel and sprawl.
Bibliography

Donald Appleyard (1981), Livable Streets, University of California Press.

Center for the Analysis of Social Exclusion (CASE), (http://sticerd.lse.ac.uk/case) is a specialized research organization at the London School of Economics dealing with social equity issues.


Environmental Justice Website (www.fhwa.dot.gov/environment/ej2.htm), by the USDOT, provides information on methods for incorporating environmental justice into transport planning.


Litman, Todd (2005), Transportation Land Use Impacts, VTPI (www.vtpi.org).


Social Exclusion and Transport Website (www.art.man.ac.uk/transres).

Social Exclusion & Transport Toolkit (www.geocities.com/transport_research/socexclu0.htm).

Transportation Equity Tools (www.civilrightsproject.harvard.edu/resources/transportation.php).