

## Community Cohesion As A Transport Planning Objective

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### Abstract

This paper describes the concept of *community cohesion*, which refers to the quantity and quality of interactions among people in a community, as indicated by the degree to which residents know and care about their neighbors. It discusses the value of community cohesion and how it is affected by transportation planning decisions. It describes planning strategies that can help increase community cohesion, including increased walkability, accessibility and affordability.

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## Introduction

*Community cohesion* refers to the quantity and quality of interactions among people in a community, as indicated by the degree to which residents know and care about their neighbors and participate in community activities (Cochrun, 1994; LGA, 2004; CASE). Community cohesion reflects the value of having acquaintances and friends who live and work nearby, and so are able to interact frequently and provide physical support.

There is evidence that community cohesion is declining. Surveys indicate that people have fewer close friends than a decade ago (McPherson, Smith-Lovin and Brashears, 2006). As people become wealthier, the relative value of nonmaterial goods, such as security and friendship, tends to increase. As described in a recent *National Geographic* article, in modern developed countries happiness does not require “more stuff.”

“What we really seem to want, according to the economists and psychologists conducting such research, is more community. Standard economic theory has long assured us that we’re insatiable bundles of desires. That may be true, but more and more it feels like our greatest wish is for more contact with other people. We’ve built the most hyper-individualized society the world has ever seen: According to some surveys, most Americans don’t know their next-door neighborhoods, which is truly a novel idea for primates.” (McKibben, 2006)

Transportation and land use planning decisions can affect community cohesion by influencing the location of activities and the quality of the *public realm* (places where people naturally interact, such as sidewalks, local parks and public transportation) and therefore the ease with which neighbors meet and build positive relationships.

It could be argued that increased mobility and electronic communication allow dispersed friendships that substitute for neighborhood relationships, reducing the value of local community. However, there are unique benefits to having geographically close social connections. For example, an Internet friend cannot loan a cup of sugar, watch your house (spotting suspicious activity or a dangerous leaning tree), provide quick physical assistance during an emergency, or join a spontaneous ball game.

This is not to say that current trends are entirely bad or that everybody wants to interact more with their neighbors. Some people value privacy and independence more than community connectedness. Community cohesion is, to some degree, a matter of individual preference and choice: People who value neighborliness can choose home locations and behaviors that maximize local friendships. However, to the degree that community cohesion is overlooked or undervalued in transport and land use planning, or community cohesion provides external benefits, planning decisions may provide less support for community cohesion than residents really want or is socially optimal.

This paper investigates how community cohesion should be considered in transport and land use planning, and describes planning strategies that can help increase community cohesion. This can help decision-makers incorporate public concerns and aspirations related to community cohesion into transport and land use planning decisions.

## **Valuing Community Cohesion**

Community cohesion provides both direct and indirect benefits. Many people value knowing their neighbors and having nearby acquaintances and friends. Increased community interaction tends to improve security, opportunities for sharing resources (such as tools) and fun. It can contribute to public health in several ways (Yates, Thorn & Associates, 2004). Some studies indicate that friendly interactions improve health directly (that is, people who spend time with friends have fewer illnesses). Increased friendships are associated with reduced depression, suicides and illness.

Increased community cohesion can help increase personal security, allowing people (particularly vulnerable residents such as seniors and people with disabilities) more opportunities to walk and participate in social activities (Bray, Vakil and Elliott, 2005).

The direct value of community cohesion is reflected by the frequency with which people searching for a home indicate preferences for a “friendly” or “safe” neighborhood. Communities with these attributes often command a price premium, reflecting the value people place on this attribute and suggesting that demand for neighborhoods with strong community cohesion significantly exceeds supply.

Market surveys indicate that many home buyers value neighborhoods with good walkability, parks and neighborhood services, reflected in higher prices for homes in such communities (Eppli and Tu, 2000). However, this analysis is complicated by confounding factors. In the U.S., automobile-dependent suburban neighborhoods sometimes display more community cohesion than more walkable, urban neighborhoods, due to the tendency of stable, middle-class households to move to suburbs, leaving many urban neighborhoods with concentrated poverty and social problems, and less community cohesion. However, when these factors are taken into account, for example, when neighborhoods with similar perceptions of security, public service quality, and demographics are compared, those that have a higher quality public realm and more community cohesion probably command a higher price.

Community cohesion can be particularly beneficial when it helps connect people from differing classes and backgrounds, thereby reducing prejudice, and when it improves the social and economic networks of physically, economically or socially disadvantaged people. For example, a person who depends on a wheelchair can benefit significantly from having accessible sidewalks and parks that are frequented by neighbors, allowing them to establish social relationships which provide practical and emotional support. Similarly, a child from an impoverished family may benefit significantly by establishing social networks with neighborhood households that are more economically established.

## Planning Impacts

Transport and land use patterns affect community cohesion in various ways. Residents of lower traffic volume streets, cul-de-sacs streets, and more stable neighborhoods are more likely to know and interact with their neighbors (Appleyard, 1981; SMARTRAQ, 2002) than residents with other street and neighborhood conditions.

Surveying residents of three suburbs in Columbus, Ohio, Nasar found significantly more sense of community in a mixed-use neighborhood compared with a nearby area that has single-use (residential only) land use (Nasar, 1995). Freedman (2001)) used cross-sectional survey data from Atlanta, Boston, and Los Angeles and 1990 Census data to examine the relationship between sprawl (measured through residential density and automobile dependence) and neighborhood social ties. He found that neighborhood social ties were unrelated to residential density but were negatively correlated with auto-dependence. Research by Hertzman (2002) and Gilbert and O'Brien (2005) suggest that children's emotional and intellectual development accelerates in more walkable, mixed use communities, probably due to a combination of increased opportunities for physical activity, independence and community cohesion.

On the other hand Brueckner and Largey (2006) found that social interactions are negatively correlated with density, suggesting that residents of lower-density suburban communities have healthier social lives than residents of higher density urban neighborhoods. This may reflect, at least in part, the effects of *sorting* (also called *self selection*), the tendency of people who value attributes such as community interaction to choose particular neighborhoods that attract others with similar preferences. Community cohesion is often higher in wealthier, automobile-dependent, suburban neighborhoods than in more mixed, multi-modal, urban neighborhoods. However, this reflects social rather than physical attributes. It does not indicate that automobile-dependent land use necessarily increases community cohesion.

That community cohesion declines with density reflects, in part, a self-fulfilling prophecy: as households with more resources and community involvement assume they are better off in lower density locations. This could change if housing markets change, for example, if urban neighborhoods attract more diverse income households with strong community preferences, as is occurring in some cities. This means, for example, that more compact urban neighborhoods could achieve levels of community cohesion equal or greater than occurs in suburbs. For a particular group or neighborhood, smart growth policies that improve walkability and land use mix probably increase overall community cohesion.

Increased neighborly interactions can help reduce local crime and poverty, provide support and safety, and increase property values, particularly if they involve vulnerable residents, such as people who are disabled or impoverished (Lucy and Phillips, 2006; Hillier and Sahbaz, 2006). For example, improved community cohesion can allow people with disabilities to receive more support from neighbors, and allow economically disadvantaged young people to gain encouragement, mentoring, and employment connections from more successful neighbors.

This research indicates that transportation and land use planning decisions affect community cohesion in the following ways:

- By affecting the quality of the public realm, particularly sidewalks, paths, streets and parking lots, and traffic volumes on local roads.
- By affecting the amount of walking that occurs in a neighborhood, and therefore the likelihood of neighbors interacting while walking.
- By affecting land use mix, such as locating stores, cafes, parks and schools within neighborhoods, and therefore the frequency of social interactions when running errands or participating in local activities.
- By affecting diversity of housing (type and price) and therefore demographic mix and opportunities for interaction among different income, ethnic and racial classes.

For planning purposes, community cohesion can be categorized as a *land use impact* (a factor related to community design), a *social impact* (a factor related to the way people in a community interact), and an important component of *community livability* (the environmental and social quality of an area as perceived by residents, employees, customers and visitors).

Many current planning practices tend to reduce community cohesion, by unintentionally favoring automobile travel over other modes, particularly walking. For example, traffic engineers generally evaluate transport 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 (Litman, 2003a). Current planning practices tend to undervalue nonmotorized travel ("Evaluating Nonmotorized Transport," VTPI, 2006). 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, 2006).

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 Community Cohesion

There are many ways to support community cohesion and help achieve other strategic planning objectives by improving land use accessibility, affordability and transportation diversity (Frank, Kavage and Litman, 2006). Examples are described below.

### Smart Growth

*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.

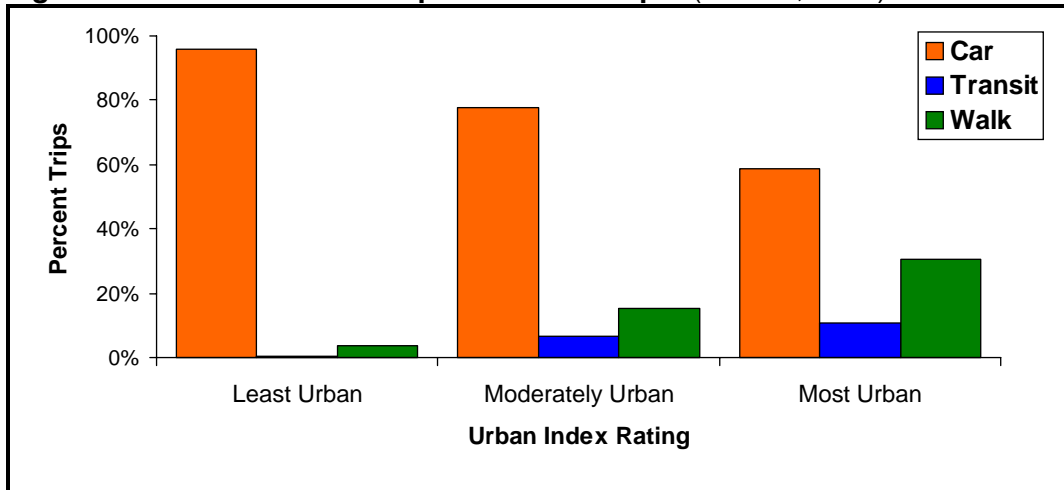
**Table 2 Comparing Smart Growth and Sprawl (Litman, 2004)**

	Smart Growth	Sprawl
Density	Compact development.	Lower-density, dispersed activities.
Growth pattern	Infill (brownfield) development.	Urban periphery (greenfield) development.
Land use mix	Mixed land use.	Homogeneous (single-use, segregated) land uses.
Scale	Human scale. Smaller buildings, blocks and roads. Careful detail, since people experience the landscape up close, as pedestrians.	Large scale. Larger buildings, blocks, wide roads. Less detail, since people experience the landscape at a distance, as motorists.
Public services (shops, schools, parks)	Local, distributed, smaller. Accommodates walking access.	Regional, consolidated, larger. Requires automobile access.
Transport	Multi-modal transportation and land use patterns that support walking, cycling and public transit.	Automobile-oriented transportation and land use patterns, poorly suited for walking, cycling and transit.
Connectivity	Highly connected roads, sidewalks and paths, allowing relatively direct travel by motorized and nonmotorized modes.	Hierarchical road network with numerous loops and dead-end streets, and unconnected sidewalks and paths, with many barriers to nonmotorized travel.
Street design	Streets designed to accommodate a variety of activities. Traffic calming.	Streets designed to maximize motor vehicle traffic volume and speed.
Planning process	Planned and coordinated between jurisdictions and stakeholders.	Unplanned, with little coordination between jurisdictions and stakeholders.
Public space	Emphasis on the public realm (streetscapes, pedestrian environment, public parks, public facilities).	Emphasis on the private realm (yards, shopping malls, gated communities, private clubs).

*This table compares Smart Growth with sprawl land use patterns.*

Figure 1 illustrates how land use factors affect travel behavior. Residents of more urbanized communities tend to walk much more than those who live in suburban and rural locations, and so have more opportunities for neighborly interaction and cohesion.

**Figure 1 Urbanization Impact On Mode Split** (Lawton, 2001)



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

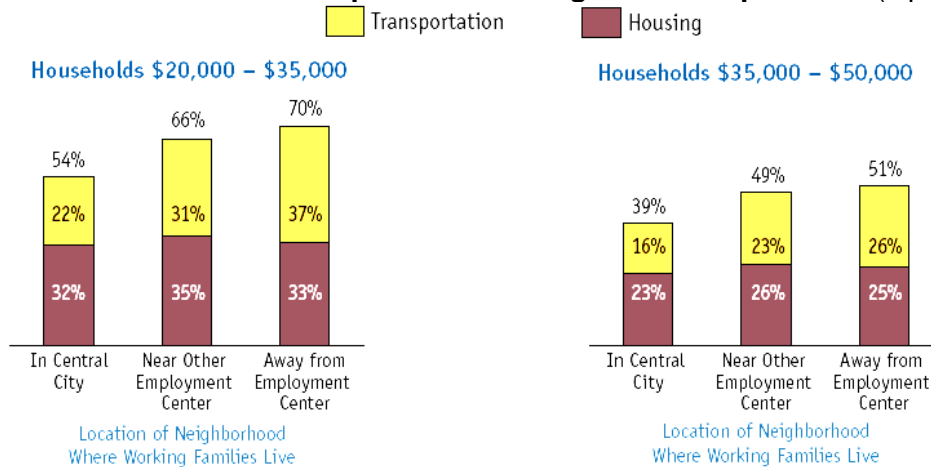
Various transportation and land use policies can support community cohesion, by increasing opportunities for people who live and work in an area to meet during normal daily activities (Appleyard, 1981; CASE). Below are examples.

- Maximize the quality of the public realm (public places where people naturally meet), including sidewalks, parks, plazas, neighborhood schools, local shops, and bus shelters.
- 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.
- Develop walking-scale neighborhoods.
- Encourage land use mixing at a fine grained scale, including mixed-use buildings (such as ground-floor retail with residential above), and mixing on a block or within a neighborhood.
- Manage parking to reduce the number of spaces required to serve destinations and to improve facility design.
- 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.

### 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 (Lipman, 2006). 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. Location efficient development can significantly reduce total household costs, as illustrated in Figure 3.

**Figure 3 Share Of Income Spent On Housing And Transportation (Lipman, 2006)**



*Lower income households often choose more distant residential locations to find affordable housing, but bear higher transport costs as a result. More flexible parking requirements can help increase overall affordability.*

### 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 (Lucas, 2004; Sawicki and Moody, 2000). Below are examples.

- 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.

## **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 (9). 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.

## **Conclusions**

Community cohesion, the technical name for the quality of interactions among people in a community, is an important attribute. People value living in a cohesive community where neighbors interact and care about each other. In addition, community cohesion can provide various indirect benefits, including increased safety, increased property values and economic productivity, and support for strategic planning objectives such as urban redevelopment, reduced vehicle travel and improved public health.

Transportation and land use planning decisions often affect community cohesion. Most planning professionals, public officials and residents intuitively recognize the importance of considering community cohesion in their decisions, but they often lack a clear vocabulary for discussing this value and incorporating into decision-making.

This paper provides an overview of community cohesion issues for consideration in planning. It identifies specific ways that transport and land use planning decisions can support community cohesion objectives. Efforts to enhance community cohesion both support and are supported by other planning objectives, including efforts to create more multi-modal communities, improve walkability, implement smart growth, increase housing affordability, and create healthier communities.

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