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Community Cohesion As A Transport Planning Objective

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by
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Abstract

This report 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. This report describes planning strategies that can help increase community cohesion by increasing walkability, accessibility and affordability.

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Introduction

Community cohesion (also called *social capital* and *neighboring*) refers to the quantity and quality of interactions among people in a community, as indicated by the degree residents know and care about their neighbors and participate in community activities (Cochrun 1994; LGA 2004; CASE). It reflects the value of having nearby friends and acquaintances with whom a person can interact and provide physical support if necessary.

Human happiness requires a balance of material wealth and non-material goods such as friendship, security and purpose. As people become wealthier, the relative value of nonmaterial goods tends to increase. According to life satisfaction expert Professor John Helliwell, "The single biggest factor (into why people are happy) is the extent to which people think their neighbours can be trusted…Your income is an important determinant of happiness, not a huge one, but statistically important, (but) it's being offset by other features of life…Cities home to established neighbourhoods with high levels of local engagement and lots of trust among neighbours will tend to have pretty satisfied residents. Neighbourhoods that work, in the sense of producing trusting neighbours, are ones where they spend a lot of time with each other, thinking about each other and doing things with each other. In places where that's natural or easier to achieve, it happens more readily." (Warnica 2007).

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)

Some research suggests that community cohesion is declining. Surveys indicate that people have fewer close friends than in previous decades (McPherson, Smith-Lovin and Brashears 2006), and social connection diversity is declining due to geographic segregation (Mutz 2007). As a result, increasing community cohesion can provide significant benefits.

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 reduce the value of local community by allowing more dispersed friendships. However, there are unique benefits to having geographically close social connections. For example, an Internet friend cannot loan a cup of sugar, report suspicious activity or other domestic hazards, provide immediate emergency physical assistance, or join a spontaneous ball game.

Community cohesion is partly a matter of individual preference: People who value neighborliness can choose home locations and behaviors that maximize local friendships. However, to the degree that transport or land use planning undervalues community cohesion, or community cohesion provides external benefits, planning decisions may fail to support community cohesion the socially optimal amount. This report investigates the value of community cohesion, factors that affect community cohesion, and specific ways to incorporate community cohesion objectives into transport and land use planning.

Valuing Community Cohesion

Community cohesion provides both direct and indirect benefits. Many people value knowing their neighbors and having nearby acquaintances and friends. Increased neighborly interactions can help reduce local crime and poverty, provide support and safety, and increase property values (Lucy and Phillips 2006; Hillier and Sahbaz 2006; CIFAR 2007). Increased friendly interactions reduce depression, suicides and illness (Stanley, et al. 2010; Yates, Thorn & Associates 2004). Increased community cohesion can also help increase personal security, allowing people (particularly vulnerable residents such as seniors and people with disabilities) more safety and opportunities to exercise and participate in social activities (Bray, Vakil and Elliott 2005). McDonald (2007) found higher rates of children walking to school in more cohesive neighborhoods, after controlling for other factors such as income and land use.

Rogers, et al. (2010) use a case study approach to evaluate the impacts of walkable social capital. Residents living in neighborhoods of varying built form and thus varying levels of walkability in three communities in New Hampshire were surveyed about their levels of social capital and travel behaviors. The results indicate that levels of social capital are higher in more walkable neighborhoods.

The direct value of community cohesion is reflected by the importance many people place on living in a safe and friendly 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 (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.

Although homogenous communities (consisting of similar people, such as gated communities or ghettos) are often relatively cohesive, there are additional benefits from cohesion within heterogeneous communities, which connects people from differing classes and backgrounds, thereby reducing prejudice and increasing disadvantaged people's social and economic networks. For example, a wheelchair user can benefit from

developing social relationships with neighbors that provide practical and emotional support, and children from impoverished families can benefit by developing social networks with more economically established neighbors who can provide positive role models, mentors and practical support obtaining education and employment.

Community Engagement More Important To Happiness And Productivity Than Material Wealth
By Terry Hadley, Wosk Centre for Dialogue, 14 March 2006 (www.sfu.ca/dialog/pdf/helliwell_article.pdf)

According to life satisfaction expert John F. Helliwell, "We overstate the importance of material consumption." Relationships with family and friends and even joining community groups are more related to happiness and satisfaction than material wealth, and in the end, that affects productivity in the workplace and the bottom line.

Helliwell, a leading researcher on people's happiness and well-being, presented his latest research based on surveys of more than 100,000 people in Canada and around the world. He is director of the Canadian Institute for Advanced Research *Social Interactions, Identity and Well-Being Program*. He showed how new research results highlight the significance of a society's well-being, or *social capital* — the value of people's social connectedness and engagement in their community. Calling himself a "student of well-being," he admitted he had originally been a skeptical economist who had become convinced by the evidence. "We got these first results out and they blew my mind," he said.

Using an *Index of Life Satisfaction*, tens of thousands of people, were asked to rank from one to 10 all aspects of how satisfied they are with their lives. The studies were then carried out systematically around the world. "This is taking economics back to its roots — the utility of people," said Helliwell. "Social capital, where it exists, is extremely important."

To illustrate his results, Helliwell put a dollar figure to give a recognizable value to how important certain factors are to well-being. Factors measured were engagement (how connected people are with others); employment (paid or not); family, friends and neighbours; good health; high quality of government at all levels, and adequate income (relative to expectations). Results showed that being a member of an organization, in terms of increasing well-being, is valued at the equivalent of around $25,000, seeing family frequently at $125,000, and seeing friends frequently at more than $100,000. Trust towards others is valued at nearly $80,000 while negative evaluations included being separated from your spouse at minus almost $70,000 and illness topping the negativity list at minus $320,000.

Citing Robert Putnam, author of *Bowling Alone* he reported that social capital increased in the first 70 years of the last century but has declined during the last 30 years. Helliwell warned that disengagement, or isolation and disconnectedness from people in the community, continues to be on the increase, as cities have transformed into global centres attracting a high turnover of people from all over the world.

"Community takes time to build," he said. "That is even tougher in the high-turnover, modern urban neighbourhoods of today." Helliwell added that most violent crime is committed by people who tend to be "ill-connected." "We have to worry more about the people falling off becoming engaged," he said.

Planning Decision Impacts

Transport and land use planning decisions can affect community cohesion in various ways (Ewing and Hamidi 2014, pp. 92-101). Residents of lower traffic volume streets, cul-de-sacs streets and stable neighborhoods are more likely to know and interact with their neighbors than residents of other street and neighborhood conditions (Appleyard and Appleyard 2012; TA 2006; Hart 2008). Berke, et al (2007) found a significant association between neighborhood walkability and depressive symptoms in older men.

Leyden, Goldberg and Michelbach (2011) use data collected in an international, multi-city survey to identify factors that affect self-reported happiness. Consistent with other studies they found that wealth and income (especially as perceived in relation to that of others), family relationships, work, community and friends, health, personal freedom and personal values all affect reported happiness. They also investigated the impacts of various urban conditions. They found that access to convenient public transportation, and cultural (entertainment facilities and libraries) and leisure amenities (parks and sports facilities) contribute significantly to residents' happiness. They also found that access to shops; affordability; and urban environments considered attractive, clean, safe (including safety walking at night and healthy public drinking water), and suitable for raising children are all associated with increased happiness (see additional discussion in Benfield 2012).

Based on findings from this survey and prior research the researchers concluded that a feeling of connectedness was a key factor in predicting happiness, and posit that the extent to which urban design fosters community cohesion may be an important additional determinant of happiness. They conclude:

> "Do connections with place affect happiness? Does the design of the city and its neighborhoods and the way those places are maintained have an effect on happiness? We hypothesize that the way cities and city neighborhoods are designed and maintained can have a significant impact on the happiness of city residents. The key reasons, we suggest, are that places can facilitate human social connections and relationships and because people are often connected to quality places that are cultural and distinctive. City neighborhoods are an important environment that can facilitate social connections and connection with place itself."

A long-term study of more than 200,000 people in Sweden found a positive correlation between urban residence and increased prevalence of schizophrenia (Zammit, et al. 2010). City residents were found to have a 41% greater likelihood of psychosis compared with rural residents. However, the analysis indicates that this reflected the higher rates of mobility and resulting social fragmentation among urban residents, who were less likely to remain in a neighborhood or live among culturally similar neighbors. The study found that social fragmentation at the school level -- reflected in the proportion of children who were immigrants, changed cities between the ages of 8 and 16, or were raised in a single-parent household -- were the most important risk factors.

Freeman (2001) analyzed data from a cross-sectional survey of adults in Atlanta, Boston, and Los Angeles concerning their social interactions. The analysis indicates that, although the rate of neighborhood social tie formation was unrelated to land use density alone, it was significantly inversely related to the degree to which residents of a neighborhood relied on their automobiles. Leyden (2003) found that residents of walkable, mixed-use neighborhoods have higher levels of social capital compared with those living in car-oriented suburbs. Walkable neighborhood residents were more likely to know their neighbors, participate politically, trust others and be socially engaged, suggesting that polices and projects that support walking and public transit use, and increase land use mix, tend to increase community cohesion. Similarly, surveying residents of three Columbus, Ohio suburbs, Nasar (1995) found significantly more sense of community in a mixed-use neighborhood than a nearby residential only area.

Williamson (2002) analyzed data from the Harvard University *Saguaro Seminar* which involved interviews with nearly thirty thousand Americans living in various communities to assess how geographic location affects community engagement, including participation in political or civic organizations, local friendships, trust in other people, and overall happiness. The results indicate that community engagement and overall satisfaction in life is negatively correlated with automobile travel, and increases for residents in older (and therefore more pedestrian and transit-oriented) neighborhoods. He concludes,

> This preliminary analysis thus suggests that there is good reason, from a civic point of view, to encourage forms of community design that reduce commuting time and to encourage the preservation and increased livability of both our older neighborhoods and our central cities. (The case for increased density per se, however, is much more ambiguous.) However, the biggest payoff, at least from a political participation point of view, appears to be in getting Americans out of their cars.

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.

Farber and Páez (2009) used the 1994 Portland Household Activity and Travel Behavior Survey to investigate the differences in social activities between people who do and do not rely on automobile transport. They found that automobile reliance increases social activity by people who are less mobile (home-makers and unemployed people), but decreases social activity in more mobile subgroups (full time workers). Automobile reliance is found to have a strong negative impact on the probability of visiting friends and participating in out-of-home sports and cultural activities, but a positive effect on in-home and potentially asocial amusements such as television viewing.

Podobnik (2002) found that Orenco Station (a new urbanist neighborhood) residents have an unusually high level of community cohesion, as well as increased local consumption, walking, and the use of public transportation. This study supports to the assertion that new urbanist communities can foster more socially and environmentally sustainable lifestyles, and that residents value compact, mixed community design.

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. Since this reflects social rather than physical attributes, it does not indicate that automobile-dependent land use necessarily increases community cohesion.

A study by the Corporation for National and Community Service (an organization that promotes community volunteerism and involvement), found that, although suburbs and rural areas have higher volunteer rates (29%) than central cities (24%), this can be explained by higher rates of poverty and lower rates of home ownership in urban neighborhoods, and that longer commuting duration limits opportunities for volunteering by limiting the time people have for volunteering and by decreasing community interactions (CNCS 2007). The report concludes that volunteering tends to increase with shorter commutes, higher education levels, higher levels of homeownership, higher rates of volunteer retention, and the number of nonprofit organizations in the community.

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.

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 opportunities for neighborly interactions.
- 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* (related to the way people interact in a community), and a *community livability impact* (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 mobility over local accessibility and automobile travel over alternative modes such as walking, cycling and public transit. For example, traffic engineers generally evaluate transport system quality based on vehicle traffic speeds and roadway level-of-service, which only considers motorized travel, and ignores negative impacts that increased vehicle traffic has on nomotorized access (Litman 2003a). This results in planning decisions that increase motor vehicle traffic volumes and speeds even if this degrades the pedestrian environment, reducing 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.

Indicators of Community Cohesion

The following are indicators of community cohesion:

- People assisting strangers (such as helping find their way or search for a lost article).
- Strangers engaging in spontaneous conversation.
- Neighbors cooperating on community projects.
- Children playing in public.
- Diversity in the public realm, people of different incomes, ages, cultures and physical abilities in public places.
- Community events and activities that attract diverse participants.
- Children, seniors and people with disabilities traveling independently.

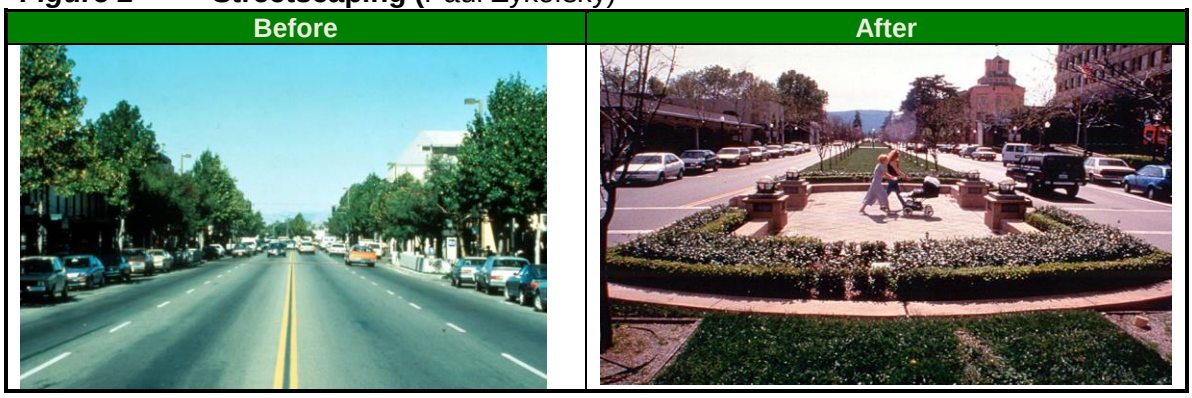
Planning Strategies For Increasing Community Cohesion

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.

Pedestrian Improvements

Of particular importance for community cohesion is the security and attractiveness of walking conditions, including the quality of sidewalks and crosswalks, minimal motor vehicle traffic volumes and speeds, and amenities such as shade and shelter from rain, landscaping and the presence of other pedestrians. These factors can be improved through *streetscaping* (improving the function and aesthetics of streets), *traffic calming* (designing streets to reduce excessive traffic speeds and volumes), *road diets* (reducing the number of traffic lanes on arterial streets), and *home zones* (designing residential streets for mixing pedestrians, cyclists and low-speed vehicle traffic), and security improvements (VTPI 2008). Biddulph (2012) found that properly designed residential streets attract more recreational and socializing activities.

Figure 2 **Streetscaping (**Paul Zykofsky)



Streetscaping can create a safer and more attractive pedestrian environment, increasing opportunities for community cohesion.

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 (Litman, 2007; Lucas, 2004; Sawicki and Moody, 2000). Below are specific 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.

Public Transportation

High quality public transportation can support community cohesion directly by providing opportunities for people to interact, and indirectly by supporting more compact and pedestrian-oriented local development patterns. The following specific transit planning strategies can support community cohesion:

- High quality (convenient, comfortable, secure and affordable) service that attracts a broad cross-section of community members.
- Comfortable and quiet transit vehicles to facilitate conversation.
- Comfortable transit waiting areas (stations and stops).
- Marketing and promotion programs that emphasize the community benefits of using public transportation.
- Transit oriented development, which uses transit stations as community centers, and emphasizes compact, mixed, pedestrian-oriented development.

Convivial Urban Spaces

The public realm can be designed and management to support interaction, for example, by designing sidewalks, streets and parks to encourage social interactions; by supporting neighborhood shops and schools; and by supporting activities such as street parties and neighborhood fairs (Shaftoe 2008). The organization *City Repair* (www.cityrepair.org) describes a variety of design practices and activities that support community interaction.

Community Support (Particularly For New Residents)

Research by Zammit, et al. (2010) found that people who experience social exclusion at a young age, because they are immigrants or move to a new community between the ages of 8 and 16, experience mental stress. Targeted efforts to build social inclusion for such people, with neighborhood schools and parks, support for special ethnic community centers and shops, and targeted in-school and out-of-school programs, may help new residents build security and friendships, and therefore community cohesion and mental health.

Transit Riders Turn Boring Commute Into A Social Community On Wheels
'Bus Buddies' Use Hour-Long Ride For Fun And Games
Joanne Hatherly 28 December 2008, *Victoria Times Colonist*
(www.timescolonist.com/Transit+riders+turn+boring+commute+into+social+community+wheels/1120130/story.html)

A group of Sooke bus riders has put a new twist on their hour-long work commute to and from Victoria every day on the No. 61. Instead of spending the ride in solitary silence, nosing into a book or staring out the windows, the commuters race against each other to complete crossword puzzles, buy and sell wares, and plan social events with each other -- which they get to by bus, of course.

Tracey Lyons, 45, started riding the bus in 2004 when her car broke down. She sat at the front of the bus and soon noticed a noisy bunch of people behind her. They weren't animated teenagers, but other adults headed to work in Victoria. "There was no way you could sleep," said Lyons, who works at B.C. Pensions. Soon she was drawn into the conversation and into Sooke's community on wheels that dubs itself "the bus buddies." "It's a small town unto itself," Lyons said.

And like a small town, it has what Phil Bulled, who has been riding the bus since 1990 when a snowstorm first prompted him to leave his car at home, calls "a brisk trade." One rider sells free-range eggs. At times, others bring in crafts to sell. The bus is also a good place to get the scoop on community events. "There's nothing that goes on in Sooke that you don't hear about on the bus," said Bulled.

Riders recently started a crossword club, where they catch the Express bus armed with Times Colonist's daily crosswords for the ride home. Sometimes the passengers work collaboratively at the puzzle. Other times, they break into teams to race against each other to finish the puzzle first.
Goodies get handed out, such as at Christmas when Lyons distributes home-baked treats to the other riders, those she knows and those she doesn't.

Randi Jonasson, 43, a 17-year veteran of the commute, organizes dinners and keeps an e-mail distribution list of other riders. This year's Bus Buddy Christmas dinner attracted 40 riders and family members. One year, they arranged a pub crawl that started at the Sticky Wicket in Victoria, from where they bused to the Six Mile Pub, then the 17-Mile Pub and finished at Mulligan's restaurant in Sooke. Another rider sometimes hands out music sheets for sing-alongs. Other times, riders get goofy and do the wave as the bus weaves down the winding Highway 14. "I felt silly doing that," Lyons said, "but the bus driver later told me he was having a bad day and that we made him smile."

Milt Wright, 56, who started riding in 1995, speculates the newer buses with quieter rides have enhanced the community atmosphere. "The new buses are air conditioned, the seats are more comfortable, they're much quieter than the old buses. You start to feel like it's your living room," Wright said, "and that's created a social networking opportunity."

B.C. Transit spokeswoman Joanna Morton said this is the first time the company has heard of the community-on-wheels aspect of bus commuting. "It's given us a nice warm fuzzy. The bus isn't just for getting you from point A to point B," Morton said. "It's giving you the opportunity to get to know people in your community."

The sociable aspect has turned the bus ride from a time to be endured into a vital part of the commuters' day. "You wouldn't think a bus is more than a piece of equipment," Wright said.
"But you can't sit on the 61 and not somehow get involved."

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 1 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.

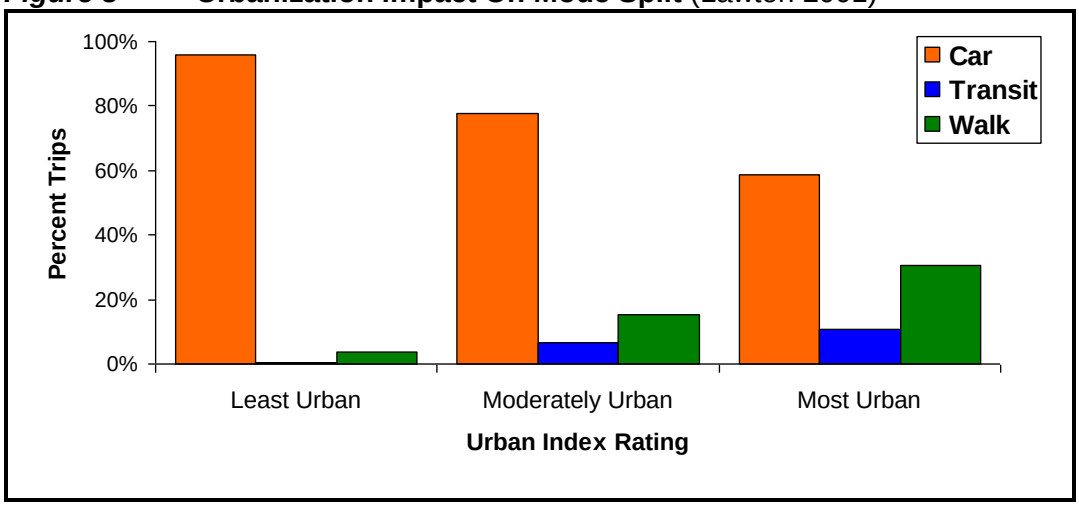
Table 1 **Comparing Smart Growth and Sprawl** (Litman 2004)

	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.

Land use factors affect travel behavior (Litman 2006). Residents of more urbanized communities tend to walk more, and so have more opportunities for neighborly interaction, than suburban and rural residents, as illustrated in Figure 3.

Figure 3 **Urbanization Impact On Mode Split** (Lawton 2001)



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

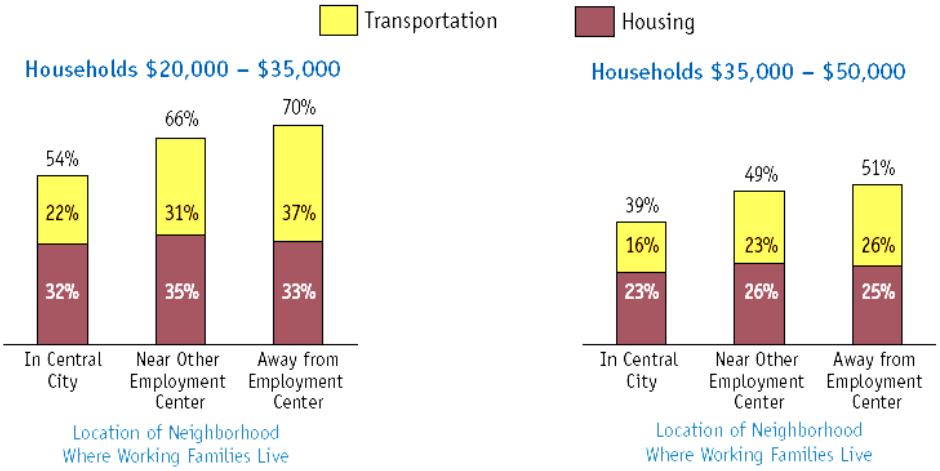
Various transportation and land use policies can support community cohesion, by increasing opportunities for people who live and work in an area to meet during normal daily activities (Appleyard and Appleyard 2012; CASE; Hart 2008). Below are examples.

- Improve the quality of the public realm, including sidewalks, parks, plazas, neighborhood schools, local shops, and bus shelters.
- Improve 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 efficiently to allow more compact, walkable development.
- 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 advantaged 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 2.

Figure 2 **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.

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 health, safety and property values, and support for strategic planning objectives such as urban redevelopment and reduced vehicle travel.

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 report 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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