

Planning for Quality of Life

Considering Community Cohesion and Related Social Goals

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by

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Abstract

Most people want their communities to be friendly, fair, affordable, healthy, comfortable and beautiful, and want these *quality of life, social* or *livability* goals to be considered in planning. Current transportation planning focuses on economic goals and sometimes environmental goals but tends to overlook and undervalue social goals such as community cohesion, equity, affordability, public fitness, personal security and public realm attractiveness. These omissions bias planning decisions to overinvest in faster but expensive modes and underinvest in slower but more affordable, inclusive and resource-efficient transport options. This report investigates these issues. It analyzes social goals, describes ways to evaluate them, and identifies strategies that can help achieve these goals and improve overall livability. This research indicates that better social impact analysis can help transportation agencies better respond to consumer preferences and community goals, providing more health and happiness.

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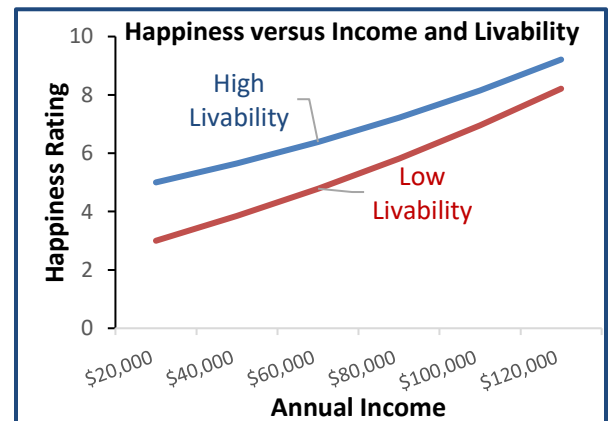
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Preface – The Economics of Happiness

Imagine that you support a family on a modest income, say \$50,000 per year, living in an inexpensive apartment in a compact, walkable, friendly, livable neighborhood where you don't need a car. Now, imagine you are offered a similar job in a distant auto-dependent suburb that lacks affordable housing and local services. What pay increase would you need to offset the higher costs and lower quality of life?

Renting a single-family house typically costs \$6,000 more annually than a comparable quality apartment, and driving everywhere also adds about \$6,000, so you need at least \$12,000 more income to offset these expenses. If your family includes adolescents or non-driving adults, living in an auto-dependent area increases your chauffeuring burdens, and because walking is uncommon you may need to spend time and money exercising at a gym. If residents seldom walk or hang out in local parks and shops you may have trouble connecting with neighbors and making friends, causing you to feel isolated and lonely. If you are a rational worker with normal preferences, moving from a livable neighborhood to an auto-dependent sprawled area requires \$15,000 to \$25,000 more income to maintain your current happiness level.

This is an example of money versus quality of life trade-offs. These values can be substantial. For example, corporations pay their executives about 10% more, averaging about \$500,000 annually, to live in less livable areas (Deng and Gao 2013). Planning decisions that create more affordable, safer, healthier, friendlier and attractive communities are equivalent to substantial income gains, particularly for lower-income households, as illustrated to the right. This is an important new planning issue. Planners can provide more value to their communities by incorporating livability goals in decision-making. This report explores how.



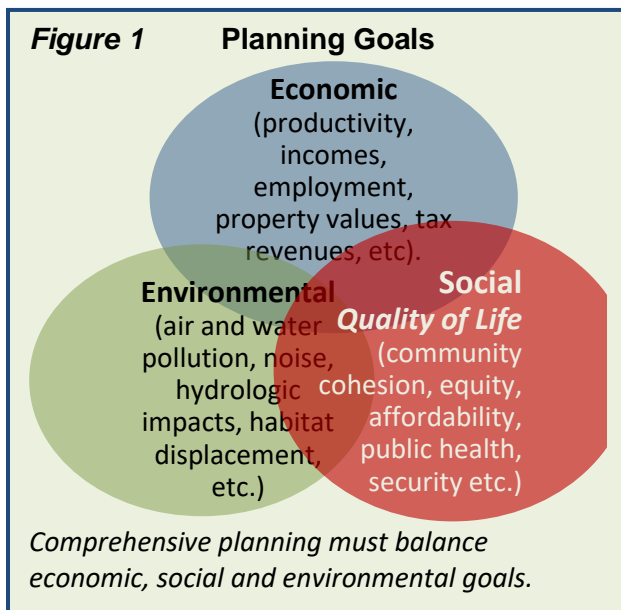
Introduction

Most people care significantly about *quality of life* (also called *social* or *livability*) factors such as those listed in the box to the right. However, transportation planning often gives them little consideration.

Conventional planning prioritizes economic goals such as travel time savings and freight transport efficiency, and increasingly considers environmental goals such as reducing pollution and habitat disruption, but lacks tools for evaluating social goals. This is a significant omission: social conditions directly affect people's quality of life and therefore their happiness. To be efficient and equitable, planning must balance economic, environmental and social goals, as illustrated in the figure below. Planning that overlooks and undervalues social conditions results in suboptimal decisions.

Quality of Life (Social) Factors

- Community cohesion (quality of interactions among neighbors).
- Equity and fairness.
- Affordability
- Public fitness and health.
- Personal security.
- Attractive public realm (public spaces where people interact).



Transportation planning decisions affect social goals by influencing travel conditions, household costs, physical activity and health, the attractiveness of the public realm, and therefore opportunities for neighbors to interact.

Livability is a general term of the quality of the human-community interface: how residents and visitors experience the urban environment including convenience, comfort, affordability and welcomeness. One important livability factor is *community cohesion* which refers to *friendliness*, the quality of interactions among people in an area, and therefore the strength of connections among them, indicated by the portion of residents who know, trust, enjoy and spend time with their neighbors. Community livability and cohesion are important themselves and help achieve other goals such as personal security, health and economic development.

This is a timely issue. Many communities perform poorly in terms of social goals; they are unfriendly, inequitable and unaffordable, and residents are unhealthy, insecure and unhappy. Many people want policies that improve these conditions; planners have a responsibility to respond to these concerns.

Current transportation planning primarily considers economic factors such as travel time and vehicle operating costs, crash and emission rates. These impacts are relatively easy to evaluate using physical indicators such as travel speed, productivity, employment, emissions and habitat disruption. Social impacts are more challenging to evaluate because they are affected by peoples' feelings and relationships. However, new research can help planners understand and evaluate quality of life impacts.

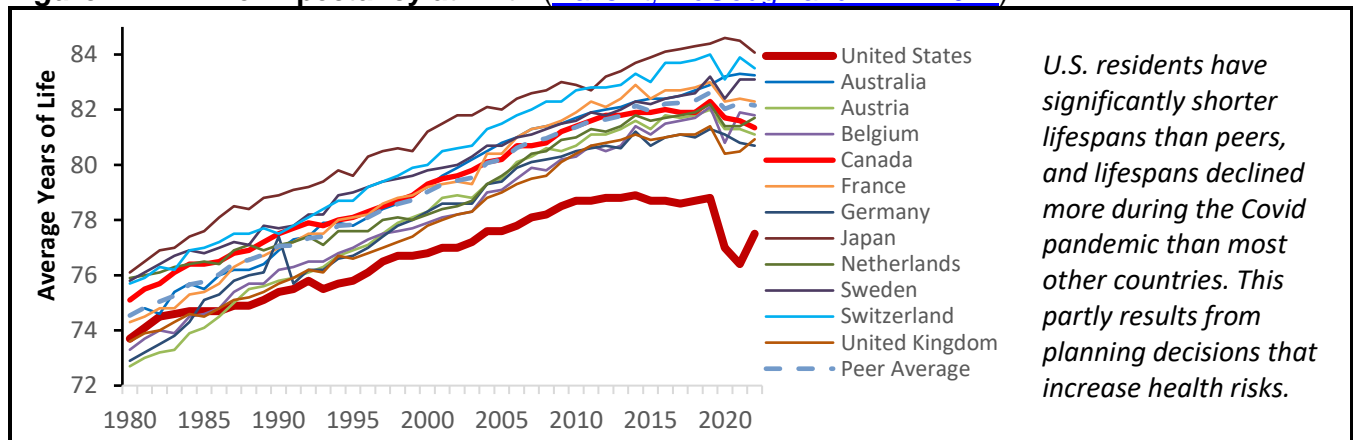
This report examines these impacts and describes practical ways to incorporate livability and community cohesion goals into transportation planning. It builds on a growing body of research concerning the valuation of social impacts and ways to achieve social goals. This should be of interest to policy makers, planners, developers, advocates and residents that wants a more livable community.

Evidence of a Problem

Auto-dependent, sprawled communities tend to perform poorly in terms of many social goals, and since a larger portion of North American families live in such communities than in other regions, the United States and Canada perform poorly compared with peers (Ewing and Hamidi 2014; Litman 2023). Compared with the 20% most compact communities (those typically built before 1950) residents in sprawled communities typically:

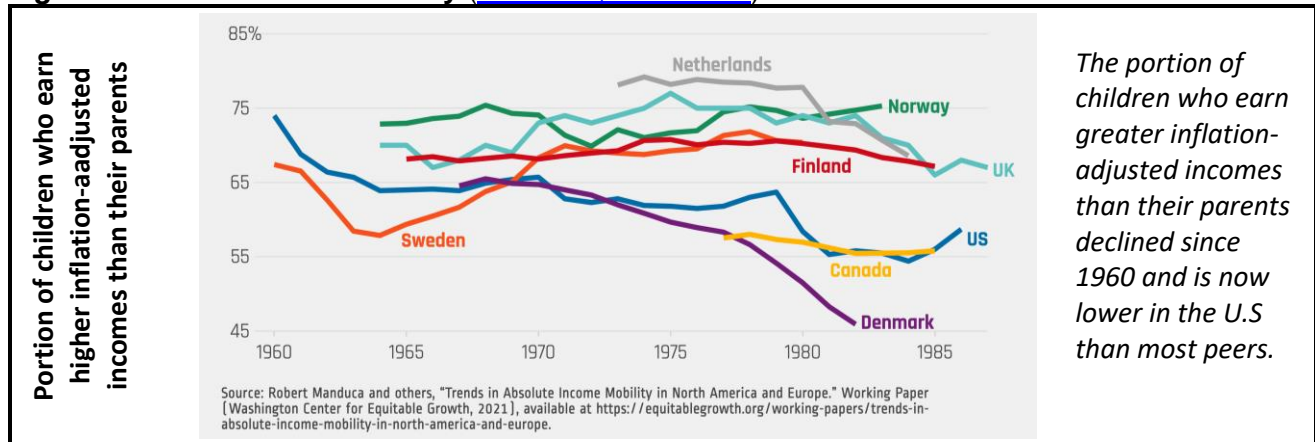
- Drive 30-70% more and use active modes 70-90% less.
- Have 20% to 80% higher traffic casualty rates.
- Are less physically active, have higher heart disease and diabetes rates and die two to four years younger.
- Spend significantly more time and money on transportation.
- Are less economically productive and have lower rates of economic mobility (chances that children born in lower-income households earn more than their parents as adults).

Figure 2 Life Expectancy at Birth (Rakshit, McGough and Amin 2024)



Although car ownership directly benefits owners, particularly in automobile-dependent areas (Mouratidis 2025), it imposes significant costs and increases community problems. Because most North Americans live in automobile-dependent, sprawled areas, the U.S. and Canada perform poorly in terms of social goals: they have shorter lifespans and less economic mobility than peer countries, as these graphs illustrate. Better analysis of social impacts can improve health, opportunity and happiness.

Figure 3 Economic Mobility (Manduca, et al. 2021)



Examples of Unresponsive Planning

Poor social outcomes partly result from planning that undervalues social goals. Below are examples.

Urban Highway Construction

During the last century transportation agencies built urban highways – grade-separated freeways and high-speed arterials – in most cities. In recent years these projects have been criticized for displacing, dividing and degrading urban communities, particularly lower-income minority neighborhoods (Litman 2022). Critics describe them as racist (Reft, du Lucas and Retzlaff 2023), and unnecessary since improving space-efficient modes (walking, bicycling and public transit) is a more cost-effective way to improve urban accessibility (Brinkman and Lin 2019). Many transportation agencies are now removing or covering these roads (USDOT 2024).

Although these decisions reflect structural racism and classism – low-income minority neighborhoods were described as *slums* and *ghettos* that deserve clearance – the mechanism that allowed transportation agencies to justify and finance costly urban highway projects was their planning process that valued the travel time savings that urban highways provided to suburban motorists, while ignoring the social costs those projects imposed on urban communities. Measured that way, urban highways were an improvement, and the displacement and loss of accessibility to urban residents was invisible.

Table 1 Highway Project Analysis Scope

Recognized (Economic Impacts)	Ignored (Social Impacts)
<ul style="list-style-type: none"> • Motorists' travel time and delay • Vehicle operating costs • Distance-based crash rates 	<ul style="list-style-type: none"> • Non-auto accessibility • Inequity and unaffordability • Community cohesion • Public fitness and health • Public realm quality

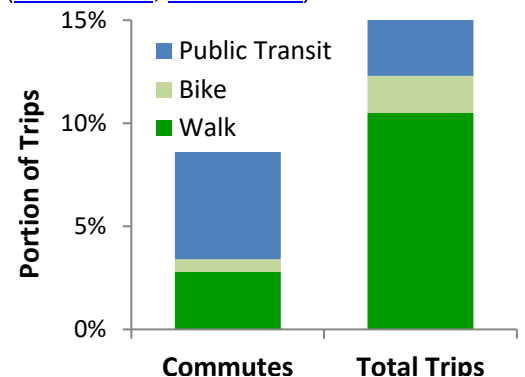
Planners valued urban highway travel time, vehicle savings and crash rates, but ignored community degradation costs.

Non-Auto Mode Underinvestment

Walking, bicycling and public transit are the most basic, inclusive (they don't require licenses) and resource-efficient modes, but conventional planning underestimates their demands and undervalues their benefits. This may partly reflect *elite bias*, the fact that most policy makers and planning practitioners are busy professionals who drive and seldom depend on non-auto modes. It also reflects planning methods.

For example, planners often cite commute mode share data indicating that only 8% of trips are by non-auto modes, although more comprehensive travel surveys show that they actually serve about 15% of total trips, as illustrated to the right. About 20% of U.S. households are car-deficit, meaning they have more drivers than vehicles, and during a typical week 7% of Americans rely entirely on non-auto modes, about half of Americans use non-auto modes at least three times, and 25% use a non-auto mode seven or more times (Buehler and Hamre 2015; Litman 2022). Non-auto travel often increases substantially after their travel conditions are improved indicating latent demands (travellers want to use these modes but are dissuaded by infrastructure underinvestment).

Figure 4 Non-Auto Mode Shares
(2017 NHTS; US Census)



Improving non-auto modes can provide many benefits including road and parking facility cost savings, more independent mobility for non-drivers and other social equity goals, cost savings and affordability (savings to lower-income households), improved public fitness and health, noise and air pollution reductions, and improved public realm, to name a few. However, conventional planning tends to ignore or undervalue many of these impacts; its evaluation practices were designed to justify and prioritize major transportation projects such as bridges, railroads, highways and urban rail networks, but are unsuitable for evaluating active travel, multimodal projects or transportation demand management programs. This occurs because conventional evaluation tends to overlook or undervalue many automobile costs and many non-auto mode benefits, as illustrated in the table to the right. For example, conventional planning usually ignores parking subsidies and therefore most parking cost savings that result if travellers shift from driving to non-auto modes. Conventional transportation economic evaluation ignores other social impacts such as mobility for non-drivers, affordability, health and community livability.

Table 2 Multimodal Evaluation

Usually Considered	Often Ignored or Undervalued
<ul style="list-style-type: none"> • Vehicle operating cost savings • Motorists' travel time savings • Emission rates • Crash rates 	<ul style="list-style-type: none"> • Parking costs and subsidies • Mobility for non-drivers (equity) • Affordability • Public fitness and health • Community cohesion • Public realm quality

Transportation agencies ignore many non-auto mode benefits, resulting in their underinvestment.

Neighborhood Livability

Conventional planning tends to undervalue and underinvest in quality of life factors such as cultural and recreational amenities, environmental quality, personal security and urban environmental (Ahlfeldt, et al. 2024). Improving these factors is equivalent to increased incomes.

Parking Mandate Analysis

Parking facilities are a critical part of a transportation system: vehicles are typically parked about 23 hours per day and require parking at each destination. To serve these demands most governments require property owners to provide a minimal number of off-street parking spaces based on recommended minimums published by professional organizations such as Institute of Transportation Engineers. These facilities impose large economic, environmental and social costs; they are costly to construct, reduce housing affordability, induce more vehicle travel and sprawl, increase stormwater loads and heat island effects, displace greenspace and uglify communities (Litman 2023; Shoup 2005). Despite these effects, planners seldom evaluate parking mandate costs; they don't calculate their total costs and subsidy requirements, or compare them with alternative solutions to parking problems. Failing to consider these impacts and options results in excessive parking mandates, and therefore excessive subsidies for motorists, and underinvestments in management programs and non-auto modes.

Table 3 Parking Mandate Evaluation

Usually Considered	Often Ignored or Undervalued
<ul style="list-style-type: none"> • Motorists' convenience • Local business activity 	<ul style="list-style-type: none"> • Total facility costs • Equity (impacts on non-drivers) • Effects on housing affordability • Vehicle traffic and sprawl costs • Public health impacts • Stormwater management and heat island effects of increased pavement • Public realm impacts (uglification)

Planners overlook most parking mandate costs.

Current and Emerging Social Impact Analysis

In the past, transportation planners often dismissed social impacts as *intangibles*, implying that they are unimportant and unmeasurable, but evidence described in this report indicates that they are highly valued and with a little research are as easy to measure as travel time, risk and environmental damages.

It would be inaccurate to say that transportation agencies totally ignore social impacts, in fact, many practitioners might claim that social concerns dominate current planning. Most agencies now have equity goals, are implementing programs such as the *Reconnecting Communities Grant Program* and active mode projects, and most planning processes include public engagement that consider social impacts. However, these activities occur after major prioritization and funding decisions have been made. Despite their best intentions, most transportation agencies continue to overlook or undervalue social goals, resulting in most of their resources being spent on automobile-oriented infrastructure.

Transportation organizations have published social impact analysis guides. For example, the *Guidebook for Assessing the Social and Economic Effects of Transportation Projects* (Forkenbrock and Weisbrod 2001) described ways to evaluate non-auto travel demands, accessibility, community cohesion, traffic noise, and equity concerns. The Federal Highway Administration's *Livability in Transportation Guidebook* (FHWA 2010) described how planning can consider quality of life, transport and housing diversity, affordability, environmental protection and economic vitality impacts, but these practices are seldom applied to major projects.

Some transportation evaluation frameworks provide better social impact analysis guidance. For example, the Australia Department of Infrastructure's *Australian Transport Assessment and Planning Guidelines* (ATAP 2020) describes how to evaluate and where possible monetize equity effects, barrier effects (delay that roads impose on pedestrians and bicyclist), active mode public fitness and health benefits, and sprawl-related costs. The UK Department for Transport's *Transport Analysis Guidance*, (DfT 2018-2024) includes detailed guidance for social and distributional analysis, environmental assessment, and monetization of social impacts suitable for multimodal planning including equity and option values (the value of having currently unused travel options) and unique benefits provided by walking and bicycling.

The New Zealand Transport Agency's *Monetized Benefits and Costs Manual* (Waka Kotahi 2021) provides guidance for assessing 12 impacts of proposed transportation projects including active travel health benefits, traffic noise, hydrologic impacts (changes in water quality and flow) and other ecological impacts, community severance and isolation, visual impacts and impacts on Ta Ao Māori (traditional Māori culture).

The US Department of Transportation has no universal benefit-cost analysis framework, but its *Benefit-Cost Analysis Guidance for Discretionary Grant Programs* (USDOT 2024) specifies the analysis required for federal funding applications. It describes a recommended benefit cost analysis (BCA) framework, identifies data sources for various analysis inputs, and includes suggestions for including emerging benefit categories for which the USDOT has not yet developed analysis methods or data.

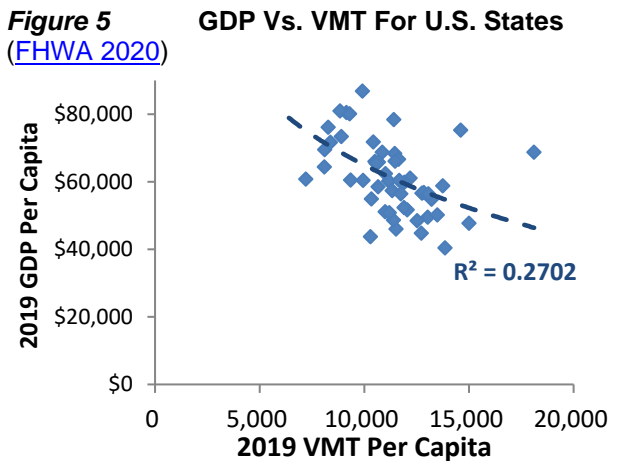
These examples demonstrate that transportation organizations and practitioners *can* evaluate social impacts with a similar level of accuracy as commonly considered impacts, but seldom do because these impacts are not traditionally considered important.

Evaluating Social Impacts and Happiness

Current transportation planning focuses on economic goals such as travel time and vehicle operating cost savings, based on the assumption that faster travel increases productivity and incomes which increase health and happiness. There are good reasons to question these assumptions.

Contrary to popular assumptions, wealthy countries economic productivity does not increase with vehicle travel, in fact, the relationship is negative, as illustrated to the right. Areas where residents drive fewer annual miles tend to be more productive than those where residents drive more. This reflects economies of agglomeration, the increased productivity provided by more compact development that reduces the travel distances and transport costs required for productive activities. More multimodal transportation planning and compact development tend to increase economic productivity more than expanding roads (Litman 2023).

Figure 5
(FHWA 2020)



Per capita economic productivity increases as vehicle travel declines. (Each dot is a U.S. state.)

Various factors tend to affect happiness including individual wealth (especially relative to others), family relationships, work, community and friends, health, personal freedom and individual values, plus various community factors including affordability, access to shops, cultural and recreation facilities (libraries and parks), public transport, attractive and safe neighborhoods (including safety walking at night and clean drinking water), and conditions suitable for raising children (Leyden, Goldberg and Michelbach 2011). Auto-oriented planning may help support some of these conditions but contradict others.

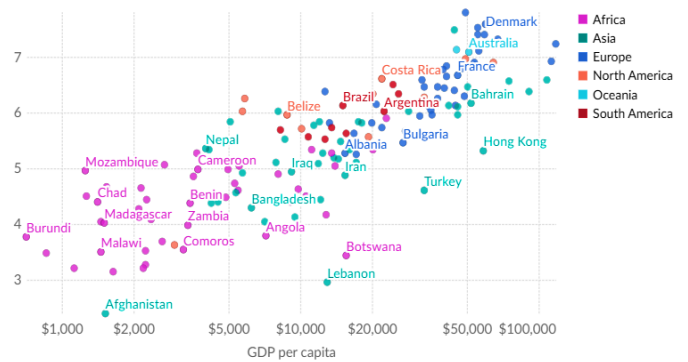
A recent literature review, *Transportation's Influences on Wellbeing* (Bouck, et al. 2025) found that higher levels of driving correlate with lower physical and mental wellbeing, active travel correlates with higher wellbeing, and public transit has mixed results. Long duration commutes tend to reduce (Wild, et al. 2021) and active mode commuting tends to increase happiness (Wild and Woodward 2019). The study "Does Car Dependence Make People Unsatisfied With Life?," found that driving for more than half of out-of-home trips is associated with significant reductions in life satisfaction (Saadaoui, et al. 2024). Using the *American Time Use Survey's Well-Being Module* data, Gimenez-Nadal and Molina (2019) found that a 1% increase in commute duration increased stress 12%, fatigue 13%, and increased sadness 5%. The British *Understanding Society* survey indicates that longer commute durations are associated with lower job and leisure time satisfaction, increased strain and poorer mental health; walking to work is associated with increased leisure time satisfaction and reduced strain; and working from home is associated with increased job satisfaction and leisure time satisfaction (Clark, et al. 2020). Utilitarian bicycling tends to increase life satisfaction and reduce psychological distress (Ma and Ye 2021).

Community planning decisions can affect life satisfaction by affecting community livability. As a *National Geographic* article explains, "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" (McKibben 2006). Households willingly pay significantly higher housing costs or accept much lower incomes to live in more livable communities (Albouy and Lue 2015; Deng and Gao 2013).

The graph to the right from the *Happiness and Life Satisfaction* website shows that life satisfaction (an indicator of happiness) increases with Gross National Product (GDP), but the GDP values are logarithmic, which exaggerates this relationship. The figure below shows the same data using a standard scale, which indicates that above about \$20,000 GDP per capita the relationship is weak and peaks at about \$50,000, above which it becomes negative, probably because some factors that boost productivity, such as long work hours, plus the increased household costs and reduced community livability from automobile dependency. This suggests that efforts to increase productivity and incomes should focus on lower-GDP regions and lower-income households; at high levels further increases do little to increase happiness and may reduce it if they require longer work hours and more driving.

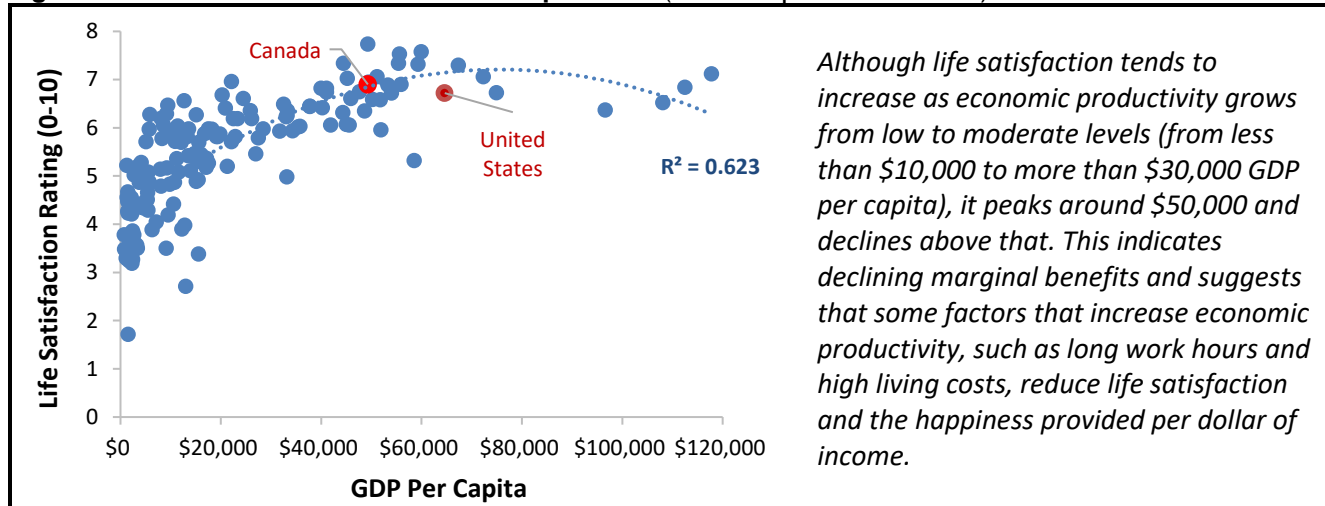
Figure 6 Life Sat. Vs. GDP (Ortiz-Ospina and Roser)

Life satisfaction (country average; 0-10)



This widely cited graph suggests that life satisfaction increases with Gross Domestic Product but the GDP values are logarithmic which exaggerates this effect.

Figure 7 Life Satisfaction Versus Per Capita GDP (Ortiz-Ospina and Roser)



This indicates that in mature economies, increasing road capacity does not necessarily increase productivity and increased productivity does not necessarily increase happiness, and are likely to reduce overall happiness if they increase workhours or the cost of living, reduce physically activity and socializing, or make communities unhealthy, unfriendly or ugly. Planning that overvalues economic goals and undervalues social goals will invest in the wrong infrastructure, reducing happiness, as summarized below.

Table 4 Distortions Caused by Undervaluing Social Impacts

Overinvest	Underinvest
<ul style="list-style-type: none"> Higher speed modes and roadway expansions. Urban-fringe development. Parking subsidies and mandates. 	<ul style="list-style-type: none"> Slower but affordable, inclusive and safer modes. Compact and mixed community development. Public realm improvements.

Planning that undervalues social goals will overinvest in automobile infrastructure and underinvest in non-auto modes, reducing community quality of life and happiness.

Evaluating Individual Social Impacts

This section examines specific social impacts, how planning decisions affect them, and supportive policies.

Community Cohesion

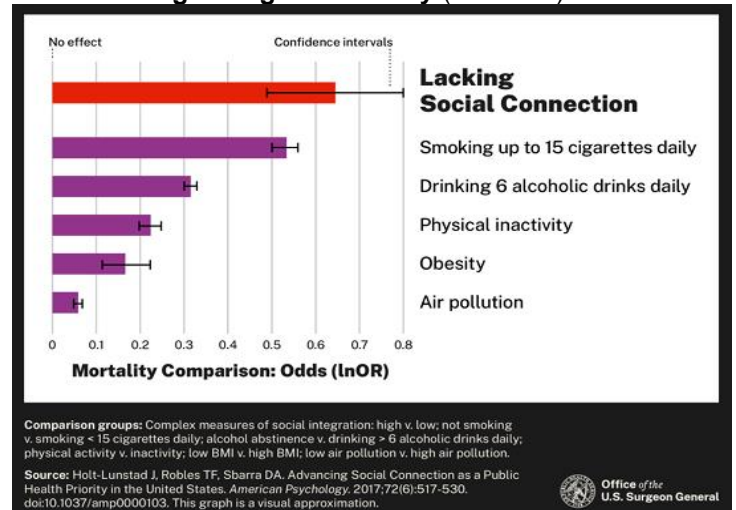
Community cohesion (also called *neighboring*, *placemaking* or *social capital*) refers to the quality of social interactions among community members as indicated by the degree that they know and care about neighbors and participate in community activities. It is the opposite of isolation and loneliness. A cohesive community allows people of all ages, abilities, backgrounds, races and classes to feel comfortable interacting in various realms: on sidewalks, at schools, in parks and recreation centers, shops, and homes. It is the functional way that communities become integrated by ability, income and race, which tends to reduce related inequities. Cohesive communities care for vulnerable members and help disadvantaged children develop social connections and role models that increase their lifelong success. The following are typical community cohesion indicators:

- Strangers engaging in spontaneous conversation.
- People assisting strangers (such as offering directions or searching for a lost article).
- Neighbors cooperating on community projects.
- Children playing in public.
- People with diverse incomes, ages, abilities and cultures interacting in public.
- Community events and activities that attract diverse participants.
- Children, seniors and people with disabilities travelling independently.

Humans are a social species that value relationships and are harmed by excessive isolation and loneliness (Braren 2022; SG 2023). Residents of socially connected neighborhoods report better physical health, mental health, and well-being (Sones 2022). Researchers Leyden, Goldberg and Michelbach (2011) conclude 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.”

Of course, most people want privacy and personal time and may sometimes feel anti-social, but overall people want diverse connections with acquaintances, colleagues and close friends. Having positive relationships with neighbors tends to make people happier, safer and healthier, and helps reduce crime and insecurity. Socially isolated people are vulnerable to exploitation, criminal activity and extremism (LGA 2019). Social isolation and loneliness are health risks. Poor social connections are associated with significant increases in heart disease, strokes, anxiety, depression and dementia, and may increase susceptibility to viruses and respiratory illness. The U.S. Surgeon General estimates that social isolation increases the risk for premature death by 29%, which is equivalent to the risk of smoking up to 15 cigarettes a day, which is even greater than the health risks associated with obesity and physical inactivity as illustrated to the right.

Figure 8 Lacking Social Connections is More Harmful than Smoking 15 Cigarettes Daily (SG 2023)



How Planning Affects Community Cohesion

Community cohesion tends to increase with better walking conditions, more attractive public realm (sidewalks, paths and other public spaces where people interact), local services and institutions (schools, shops, clubs, parks, etc.) and pedestrian-oriented buildings (houses with porches and shops with windows) (Steuteville 2024). Transportation and land use planning decisions affect community cohesion by affecting opportunities for social interactions and friendliness (Mouratidis 2017; PPS 2016; SfQL 2024; van Burgsteden, Grigolon and Geurs 2024). For example, safe and attractive sidewalks, paths, and parks allow neighbors to meet, particularly if they are attractive to families with children and pets. Neighborhood shops, cafes and restaurants (described as *third places* because they are neither home nor worksites), local schools and recreation programs allow neighbors to build long-term friendships. Safe sidewalks and bikeways allow children to independently and spontaneously visit their friends' homes. These opportunities build on each other: saying hello to a neighbor passing on a sidewalk may lead to conversations at a local cafe or pub that over time blossoms into a friendship.

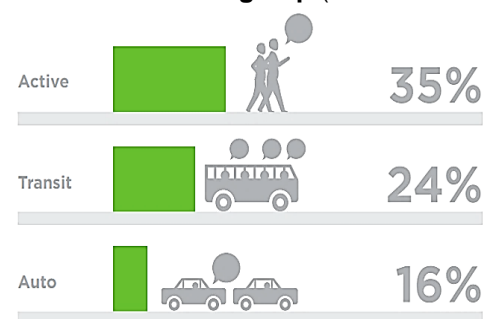
Detailed analysis of social media activity indicates that urban highways tend to increase longer-distance social connections, typically over 20 kilometers, but reduce shorter distance connections, typically of less than 5 km (Aiello, et al. 2025). Highways therefore tend to benefit suburban motorists but isolate and harm urban residents, particularly those who rely on active travel and value local community social connections. The researchers explain, "In concrete terms, this means that if two people live on different sides of an urban highway, it is less likely that there will be social contact between them."

Mouratidis (2017) found that in Oslo, Norway social wellbeing increases with city center proximity, density, and land use mix, and personal relationships are better in compact neighborhoods than lower-density suburbs. The study found that compact urban forms enable residents to maintain larger social networks, socialize more with friends and family, receive more social support, meet more acquaintances, and enjoy better physical health, but reduces community cohesion and increases anxiety due to less perceived safety, quiet and cleanliness; after controlling for these factors compact neighborhoods are found to significantly increase life satisfaction.

Leyden (2023) found that residents of walkable, mixed neighborhoods have greater social capital than in car-oriented suburbs: walkable neighborhood residents were more likely to know their neighbors, participate politically, trust others and be socially engaged, suggesting that policies that increase walking, public transit use, and land use mix tend to increase community cohesion. MIT researcher Paige Bollen found that street networks that facilitate casual pedestrian interactions tend to reduce prejudice and increase community cohesion in African urban areas (Zimmerman 2022). Freeman (2001) found that neighborhood social tie formation by adults in Atlanta, Boston, and Los Angeles was unrelated to density alone, but was significantly inversely related to residents' automobile travel; more driving reduces local social connections. These studies suggest that community cohesion tends to increase with density and mix, but this can be offset if denser areas have concentrated poverty, and lower-density suburbs and gated communities can have high levels of cohesion if residents are heterogeneous, stable and relatively affluent.

Active and public transport trips tend to create more friendly interactions than automobile travel, as illustrated to the right. A meta-analysis found social cohesion increases significantly with local accessibility, walkability, diversity and neighborhood design, and decreases or has unclear relationships with population density (Mazumdar, et al. 2017). A study of six typical U.S. cities (Baltimore,

Figure 9 Likelihood of Friendly Interactions During Trip (Vancouver 2016)

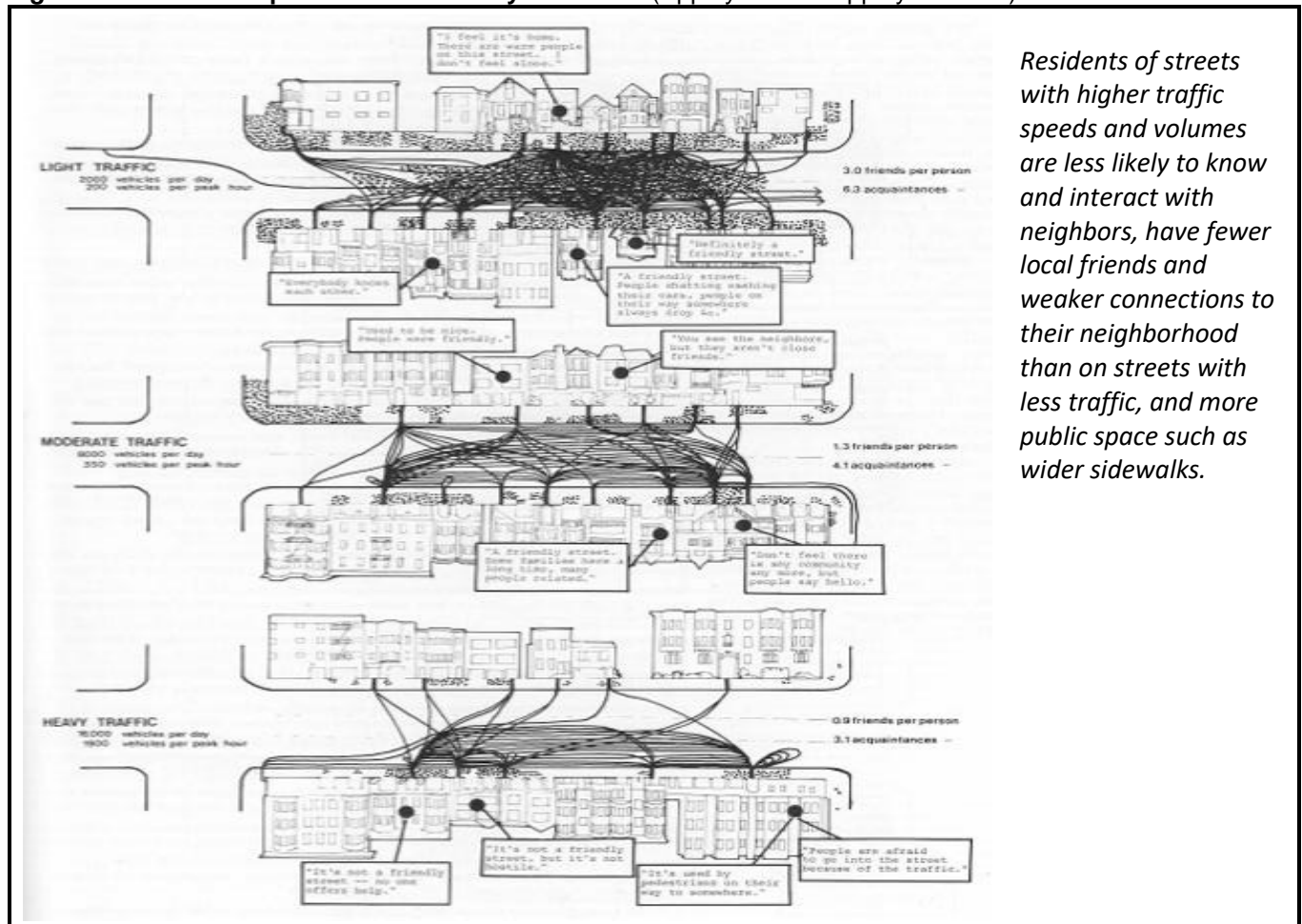


Active and public transport mode trips have far more friendly interactions than automobile travel.

Boston, Los Angeles, Orlando, Phoenix and the Twin Cities) found that social cohesion increases with development mix but declines at high densities (Sonta and Jiang 2023). Frank, et al. (2019) found that compared with car dependent areas, people living in walkable areas are 24% to 47% more likely to have a strong sense of community. Walkability increases Dutch residents' sense of community directly, and indirectly by increasing local social interactions (van den Berg, et al. 2022). Carson, et al (2023) also found that walkability is positively related to social interactions with neighbors, and with residents' sense of community.

Walking and public transit travel tend to encourage more friendly interactions than automobile travel (Brömmelstroet, et al. 2017; Kent, Rugel and Bower 2024). Residents are more likely to know and interact with neighbors on lower traffic volume streets in stable neighborhoods than other street and neighborhood conditions (Appleyard and Appleyard 2021; TA 2006). A survey of 1,886 Vancouver region residents that accounted for other demographic factors found no evidence that population density or compact housing types (duplexes, townhouses or apartments) reduce health, happiness, or social connection but did find negative effects from basement suites and units smaller than 300 square feet. It also found that shared apartment building amenity space is linked with stronger social ties among residents, and park access is linked with greater neighborhood trust (Happy Cities 2024). The researchers conclude that amenity-rich, affordable, dense urban environments can support a high quality of life for residents, particularly with appropriate design features. Higher traffic speeds tend to reduce community cohesion as illustrated below.

Figure 10 Traffic Impacts on Community Cohesion (Appleyard and Appleyard 2021)



Kamruzzaman, et al. (2014) found that residents of compact and walkable transit-oriented developments (TODs) had significantly higher levels of trust, reciprocity and connections with neighbours compared with residents of other neighborhood types. A study by Wood, Frank and Giles-Corti (2010), “Sense of Community and its Relationship with Walking and Neighborhood Design,” found that Atlanta, GA residents’ sense of community was positively associated with leisurely walking, home ownership, seeing neighbors when walking, the presence of interesting sites, higher commercial floor space to land area ratios (FAR) (a proxy for walkable site design), the amount of surface parking, and urban design of an area, and negatively associated with more mixed use and perceptions of steep hills.

Community Cohesion Planning Objectives

- Improve walking conditions and encourage walking activity.
- Create compact communities where most activities are within a 15-minute walk.
- Create mixed housing types to allow diverse demographic groups (low- and high income, young and old, small and large families) to live close together.
- Create compact housing with shared common spaces suitable for children and family activities.
- Support TDM incentives such as commute trip reduction and school transport management programs.
- Create neighborhood parks, including dog-parks, and recreation facilities that serve diverse users, particularly people with disabilities and lower-income families with children.
- Support local services and institutions, such as public shops, schools and recreation programs.
- Orient buildings to sidewalks with porches and shop windows.
- Support neighborhood identity and events.
- Implement targeted programs to integrate isolated groups.

The National Association of City Transportation Officials’ *Designing Streets for Kids* (NACTO 2020) and the report, *Child in the City: Planning Communities for Children & Their Families* (Agnello 2020) provide specific guidance for planning and design to accommodate diverse demographic groups. The Local Government Association’s *Building Cohesive Communities* (LGA 2019) describes policies and programs to integrate isolated groups into communities in order reduce conflicts and extremism.

Social Equity

Social equity refers to the distribution of impacts and whether that distribution is considered fair and appropriate (Litman 2022). The following table summarizes various equity objectives and targets.

Table 5 Typical Transportation Equity Objectives (Litman 2022)

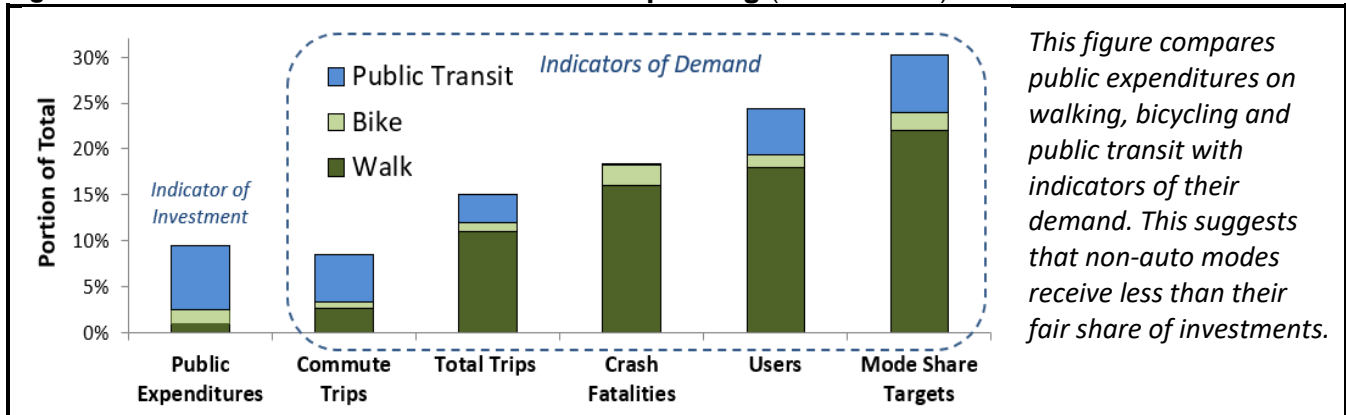
	Fair Share	External Costs	Inclusivity	Affordability	Social Justice
Goals	<i>Treat similar people similarly</i>	<i>Minimize costs imposed on others</i>	<i>Serve everybody</i>	<i>Serve people with low incomes</i>	<i>Help correct historical injustices</i>
Targets	<ul style="list-style-type: none"> Everybody contributes to and receives comparable shares of public resources. Planning serves non-drivers as well as drivers. Affected people are involved in planning. 	<ul style="list-style-type: none"> Minimize external costs. Favor resource-efficient modes that impose less congestion, risk and pollution on others. Compensate for external costs. 	<ul style="list-style-type: none"> Accommodate people with disabilities and other special needs. <i>Basic access</i> (ensure everybody can reach essential services and activities). 	<ul style="list-style-type: none"> Favor affordable modes. Provide discounts and exemptions for lower-income users. Provide affordable housing in high-accessibility neighborhoods. 	<ul style="list-style-type: none"> Protect and support disadvantaged groups (women, youths, minorities, low-income, etc.). Correct for past injustices with affirmative action policies and programs.

This table identifies equity objectives and targets. Equity analysis should generally consider multiple objectives.

How Planning Affects Equity

Planning decisions can affect transportation equity by affecting the distribution of funding and road space between different types of travellers, affecting the quality of non-auto travel and therefore the mobility and accessibility of non-drivers, affordability, external costs and social justice objectives. Currently, transportation agencies tend to invest far more in automobile infrastructure than other modes. Although total expenditures are difficult to determine and vary from one area to another, each year a typical community spends less than \$50 annually per capita on sidewalks, bikeways and paths, about \$200 on public transit subsidies, about \$1,000 on roads and traffic services, and more than \$2,000 on government-mandated off-street parking facilities. Active modes receive far less than their share of trips, crashes and users (people who use a mode at least three times per week), or their potential share if their conditions are improved, as illustrated below.

Figure 11 Demand Indicators and Public Spending (Litman 2022)



This is unfair (horizontally inequitable) and because physically, economically and socially disadvantaged groups often rely on non-auto modes, it is regressive (vertically inequitable).

Travel conditions affect people's access to economic opportunities such as education, employment and affordable goods, and therefore their long-term economic success. A growing body of research examines how local social and environmental conditions affect economic mobility. The study, *Changing Opportunity: How Changes in Children's Social Environments Have Increased Class Gaps and Reduced Racial Gaps in Economic Mobility* (OIT 2024) found that reducing concentrated poverty and racial segregation, and improving cross-class and race interactions are effective ways to increase economic mobility. Ewing, et al. (2016) and Wei, Xiong and Carlston (2023) found that intergenerational economic mobility tends to increase with neighborhood walkability, density, mix and accessibility, and declines with sprawl, but these are offset in areas with concentrated poverty and racial segregation. Oishi, Koo and Buttrick (2018) found that walkable cities have smaller employment and income disparities between drivers and non-drivers. *National Household Travel Survey* data indicates that people of color, low-income households and rural residents have particularly high travel burdens including unmet mobility needs and excessive financial burdens (Espeland and Rowangould 2024).

A comparison of 66 European cities found less inequality between residents' life satisfaction levels in areas with more mixed development and green space, suggesting that improved access to services and activities helps reduce the gaps between economically-deprived and affluent residents (Olsen et al. 2019). The authors concluded that mixed neighborhoods increase residents' quality of life by responding to residents' diverse demands. When normalized for income, density and commute duration have no significant effect on happiness, and happiness tends to *increase* with housing prices, which probably reflects increased economic opportunities, and improved neighborhood-related amenities, which in turn increase happiness.

Social Equity Planning Strategies

- Analyze the distribution of benefits and costs, particularly possible harms to disadvantaged groups.
- Support multimodal planning. Ensure that non-drivers receive their fair share of public investments.
- Favor affordable, inclusive and resource-efficient modes.
- Support efficient pricing so travellers "get what they pay for and pay for what they get" unless subsidies are specifically justified.
- Reduce parking minimums so non-drivers are not forced to pay for costly facilities they do not need.
- Provide affordable mobility and access, including affordable housing in accessible areas.
- Support economic opportunity and development for economically disadvantaged groups.

America Walks Mobility Justice Resources (<https://americawalks.org/resources/mobility-justice>) provides various information on transportation social justice issues. The European Union's *Guidelines & Roadmap for EU Equity Planning* (Di Ciommo 2018) offers detailed information on methods and tools for analyzing the distribution of impacts, particularly for developing urban mobility plans. The report, *Evaluating Transportation Equity* (Litman 2022) provides information on ways to achieve transportation equity goals. *Transportation Equity Toolkit* (Williams, et al. 2021) provides a framework for equity needs and project prioritization analysis. It describes a *Transportation Equity Audit Tool* and a *Transportation Equity Scorecard*, a spreadsheet tool to assist planning agencies in prioritizing equity projects.

Affordability

Affordability refers to costs relative to incomes and households' ability to purchase essential goods such as food, shelter, transportation and healthcare. Housing and transportation are the two largest expenditure categories in most household budgets; although housing is larger on average, transportation is more variable, occasionally imposing large and unpredictable expenses due to mechanical failures, crashes or traffic citations.

Unaffordable transportation creates problems: it forces lower-income families to forego desired travel and opportunities, use inferior (inconvenient, uncomfortable and sometimes dangerous) travel options, or overspend on mobility, as illustrated to the right. Described in a positive way, more affordable transportation can increase opportunity, freedom and happiness.

In the past affordability was often defined as households spending no more than 30% of budgets on housing, but since they often face trade-offs between housing and transport costs experts now define affordability as spending no more than 45% of household budgets on housing and transport combined, which recognizes that a cheap house is not truly affordable if located in an isolated area with high transport costs, and households can rationally spend more than 30% on a house in an accessible, multimodal area where transportation costs can be minimized (CNT 2018). In the U.S., most low- and moderate-income households spend more than is considered affordable on housing and transport.

Figure 12 Problems of Unaffordable Transportation (Litman 2024)

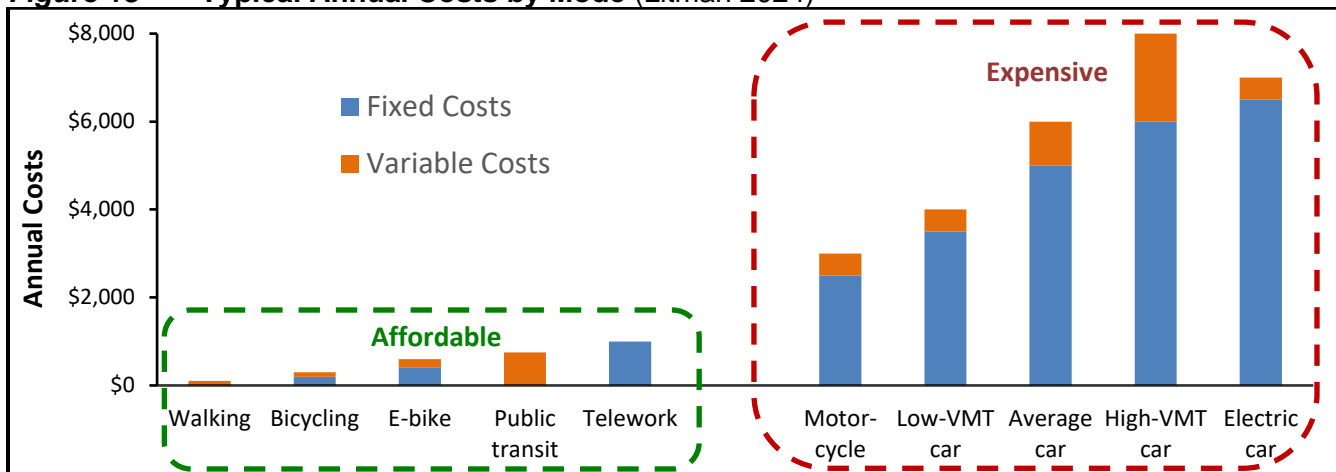


Unaffordable transport is inefficient and unfair.

How Planning Affects Affordability

Automobile travel costs far more than walking, bicycling and public transit, as illustrated below. Planning decisions that favor higher-cost modes reduce affordability, and planning that improves lower-cost modes increases affordability. The amounts can be substantial, allowing households to own one less vehicle typically provides \$3,000 to \$5,000 annual savings, and more if it reduces residential parking facility costs.

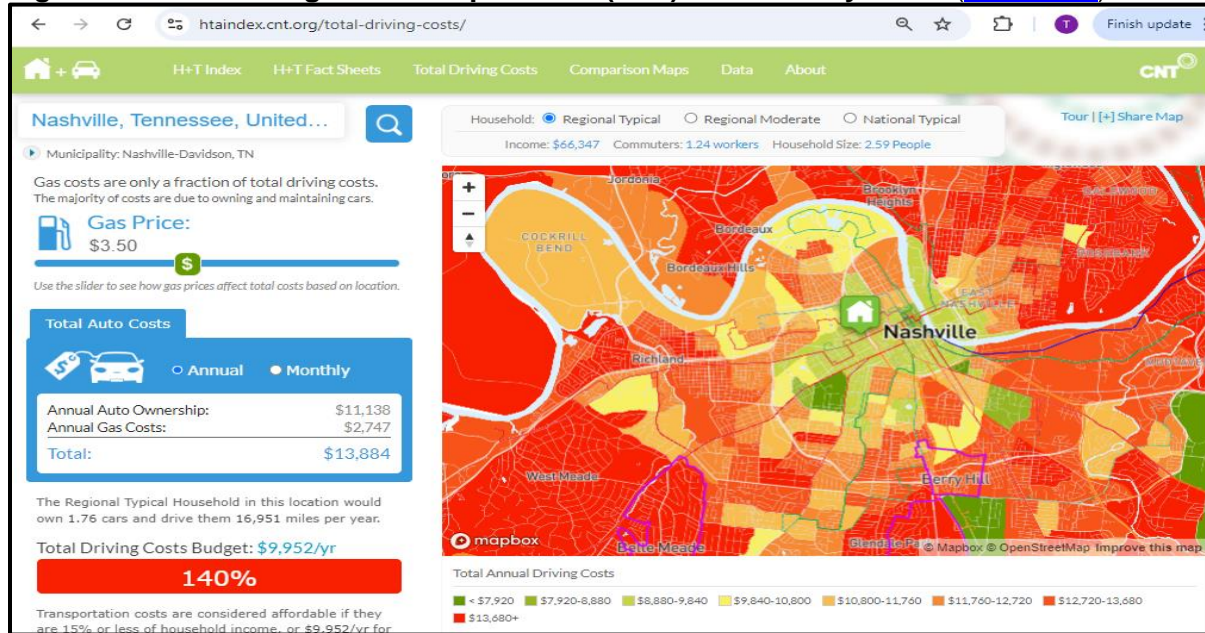
Figure 13 Typical Annual Costs by Mode (Litman 2024)



Walking, bicycling (including e-bikes) and public transit are more affordable than automobile travel. Most vehicle costs are fixed so vehicle owners save little from marginal reductions in annual mileage, but owning one less automobile can typically save \$3,000 to \$5,000.

Household transportation expenditures tend to increase with automobile dependency and sprawl, and decline in more compact, multimodal development. The Housing and Transportation (H+T) Affordability Index produces color-coded heat maps which show these costs relative to incomes by neighborhood, as illustrated below. This type of analysis can be used to determine truly affordable communities.

Figure 14 Housing and Transportation (H+T) Affordability Index (CNT 2018)



This map shows household transportation costs in the Nashville region. The most affordable areas, shown in green, tend to be central, multimodal neighborhoods where residents can minimize driving.

Affordability Planning Strategies

- Improve affordable travel modes (walking, bicycling and public transit).
- Complete sidewalk, crosswalk and bikeway networks.
- Reduce traffic speeds to levels that are safe and comfortable for non-auto modes.
- Provide affordable housing in accessible, multimodal neighborhoods.
- Upzone to allow lower-cost housing types (attached and multifamily housing) in accessible, multimodal neighborhoods where it is easy to access services and activities with affordable modes.
- Reduce or eliminate parking minimums to increase housing affordability.
- Support TDM incentives such as parking unbundling and cash out, and commute trip reduction programs.
- Support multimodal planning and Smart Growth to create accessible and affordable communities.

The H+T Affordability Index (CNT 2018), *Location Affordability Index* (HUD 2019), *Evaluating Transportation Affordability* (Litman 2024), and *Coordination of Public Transit Services and Investments with Affordable Housing Policies* (TCRP 2022) provide guidance for improving affordable transportation and housing options. The report, *Evaluating Transportation Affordability* (Litman 2024) describes ways to measure and improve affordability in planning.

Public Fitness and Health

Public fitness and health refers to the degree that people are physically active, such as the portion that meet the Center for Disease Control's targets for at least 150 minutes per week (about 22 daily minutes) of moderate physical activity for adults and more for youths (CDC 2021).

How Planning Affects Public Fitness and Health

Although there are many ways to exercise, most require special time, expense and effort which discourages their use, particularly by currently sedentary and overweight people. For many, the most practical way to achieve exercise targets is to walk and bike for utilitarian trips and recreation, and since most public transit trips include active mode links, it also increases physical fitness.

Residents of compact, multimodal neighborhoods tend to be more physically active, healthier and safer (Iravani and Rao 2019; Litman 2023; Rachele, et al. 2018). Using sophisticated statistical analysis that accounts for various demographic and economic factors, Hamidi, et al. (2018) found that compact, multimodal communities have lower rates of obesity and associated health problems, and greater longevity; doubling their Sprawl Index increased life expectancy approximately 4%, which translates into an average three-year difference in life expectancy between less compact and more compact areas. They found that sprawl increases mortality both directly, and indirectly, by reducing physical activity, increasing total travel, traffic speeds and emergency response times, and reducing access to health care services and healthy foods. Using U.S. national travel survey data and accounting for demographic factors, Dong (2020) found higher rates of utilitarian walking and bicycling in central neighborhoods, suburbs and rural areas than in outer suburbs. Frederick, Riggs and Gilderbloom (2017), found that healthier behaviors, more leisure quality, less sedentary living, fewer Years of Potential Life Lost (an indicator of longevity and overall health), and higher birth weights (an indicator of infant health) tend to increase with modal diversity (the portion of trips made by non-auto modes). The study, *Linking Neighborhood Walkability to the Independence and Quality of Life of Older Adults* (Redelmeier, et al. 2023) found that neighborhood walkability is a key element in enabling older adults to maintain independence and happiness.

Planning decisions can support mental health by increasing physical activity, community cohesion, safety and security, affordability, quiet and access to greenspace such as parks and playgrounds (Litman 2021; Happy Cities 2024). The following table summarizes health benefits provided by increased neighborhood walkability and park access from the study, "Where Matters Health & Economic Impacts of Where We Live."

Table 6 Health Impacts of Walkability and Park Access (Frank, et al. 2019)

	Walkable Compared with Auto-Dependent	Many Parks Compared with No Parks
Physical Activity	45% more likely to walk and 17% more likely to meet physical activity targets.	20% more likely to walk for leisure or recreation and 33% more likely to meet the physical activity targets.
Obesity	42% less likely to be obese.	43% less likely to be obese.
Diabetes	39% less likely to have diabetes.	37% less likely to have diabetes.
Heart Disease	14% less likely to have heart disease.	39% less likely to have heart disease.
Stress	23% less likely, to have stressful days.	19% less likely to have stressful days.
Sense of Community	47% more likely to have a strong sense of community and belonging.	23% more likely to have a strong sense of community and belonging.

This study found significant positive relationships between walkability, park accessibility and health.

The *Health Economic Assessment Tool* (HEAT) (WHO 2024) and the *Dynamic Modeling for Health Impact Assessment* (DYNAMO-HIA) (Mansfield and Gibson 2015) calculate monetized values of policies and projects that improve and increase walking and bicycling, including savings from avoided driving, improved public fitness and health, reduced congestion and pollution, changes in traffic crash risks and consumer welfare. The DYNAMO-HIA methodology accounts for changing population health characteristics over time, which results in significantly lower benefit estimates than the HEAT Tool, so they can be used to reflect lower- and higher-bound values.

Public Fitness and Health Planning Strategies

- Improve and encourage active travel (walking and bicycling).
- Support TDM incentives such as commute trip reduction and school transport management programs.
- Implement Smart Growth policies that create compact, multimodal neighborhoods where most commonly used services and activities are accessible by walking and bicycling.
- Complete sidewalk, crosswalk and bikeway networks, and amenities such as bike parking.
- Create urban villages where commonly used services are accessible by active modes.
- Reform parking policies to encourage non-auto travel.
- Support health improvement programs for disadvantaged groups.

Active Living Convergence Partnership's *Transportation and Health Toolkit* (www.convergencepartnership.org/th101) provides guidance for healthier community planning. The report, *Enabling Better Places: A Handbook for Improved Neighborhoods* (AARP and CNU 2021) describes how to create more accessible, walkable neighborhoods. The *Health Impact Assessment Website* (www.ph.ucla.edu/hs/health-impact) provides information on ways to systematically evaluate and communicate potential health impacts in policy and planning analysis. Urban Design for Health (<http://urbandesign4health.com>) develops practical tools for incorporating health objectives into community planning. *Building Healthy Places Initiative* (<http://americas.uli.org/health>) is an *Urban Development Institute* program to plan healthier communities.

Personal Security and Resilience

Personal security refers to the absence of risks of assault, accidents and self-harm. There are often discrepancies between perceived and actual risks. For example, although public transit travel may seem dangerous because it requires travelling with strangers in confined and sometimes crowded vehicles and stations, and because transit crimes and crashes tend to receive excessive media coverage, transit travel is actually safer than driving considering all risks including road rage and vehicle thefts and vandalism (APTA 2016). Similarly, many people have the perception that cities are more dangerous than rural areas due to their high murder rates, but these are more than offset by high rural traffic fatality and suicide rates, resulting in lower overall risks in cities (Litman 2021; Myers, et al. 2013).

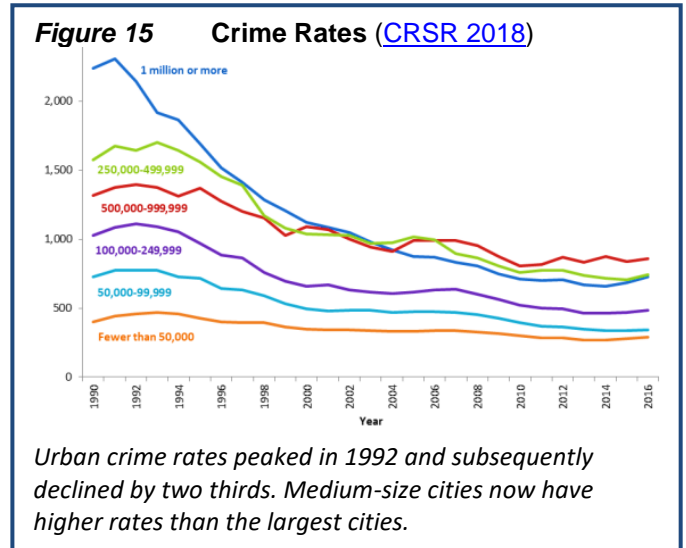
Resilience refers to people's ability to respond to unexpected shocks including natural disasters such as hurricanes, earthquakes and fires, and personal shocks such as injuries, disabilities, reduced incomes or sudden increases in household expenses. Improving transportation and housing options, and providing special support programs for people with disabilities, low incomes and other special needs tends to increase household resilience.

Improving personal security and resilience in a community tends to reduce residents' fear and stress, improving their health and quality of life. Communities can sometimes increase security by providing accurate information about risks that correct excessive fears.

How Planning Affects Personal Security and Resilience

Although many factors affect crime risks, crime rates tend to decline with passive surveillance provided by pedestrians, businesses and homes with windows that face a street, called “eyes on the street” (Hillier and Sahbaz 2006; Chang and Jacobson 2017; Humphrey, et al. 2019). This can create a self-reinforcing cycle of more people and security in a community. Crime rates tend to increase with city size, although this effect is declining, as illustrated to the right.

Within a city, population density is not significantly associated with violent crime and negatively associated with non-violent crime (Humphrey, et al. 2019). High-resolution analysis of crimes in Chicago during 2008–2013 found that commercial uses, particularly liquor stores and late-hour bars, can increase nearby street crime but this declines with density; compact mixed-use areas are safer than most residential areas (Twinam 2017). High quality public transit tends to reduce local crime rates (Devries, et al. 2018). Cities have features that can reduce crime risks: all else being equal, crime rates decline in more compact, mixed, walkable neighborhoods due to more passive surveillance by non-criminal passers-by, better economic opportunities for disadvantaged residents, and more specialized policing (Litman 2021).



Most communities have resilience plans to minimize disaster risks with design requirements to protect buildings and public infrastructure from extreme weather, earthquakes, fires and other risks, plus emergency response plans to provide support during and after a disaster occurs. Communities can help increase household resilience by improving affordable mobility and housing options, and special programs that help residents with disabilities and low incomes maintain a high quality of life.

Security and Resilience Planning Strategies

- Create compact, mixed, walkable neighborhoods to increase community cohesion and passive surveillance.
- Improve the public realm (streets, plazas and parks) to attract non-criminal visitors and “eyes on the street.”
- Design and manage transportation facilities (sidewalks and paths, stations, buses and trains, etc.) for security, including appropriate lighting, surveillance, alarm and emergency response systems (Rudin 2022).
- Develop and support urban pedestrian and public transit passenger anti-harassment campaigns that include anti-harassment education, and encourage harassment reporting (Ceccato 2017).
- Support economic opportunity and development for economically disadvantaged groups.
- Apply community and individual resilience planning that prepares for possible physical and economic shocks.

Collective Action for Safe Spaces (www.collectiveactiondc.org/our-work/wmata-anti-sexual-harassment-campaign) is an official Washington Metropolitan Area Transit Authority campaign to prevent sexual harassment and assault on the DC metro. *International Crime Prevention Through Environmental Design Association* (www.cpted.net) provides support for enhancing professional development in CPTED and related disciplines.

Public Realm Attractiveness

The *public realm* refers to public spaces where people interact such as sidewalks and paths, parks, public plazas and buildings. Public realm attractiveness is affected by its convenience, comfort and aesthetics, as summarized below.

Table 7 Public Realm Attractiveness Factors

Convenience	Comfort	Aesthetics
<ul style="list-style-type: none">• Ease of access (by all modes)• Commonly used services• Compact (activities are proximate)• Wayfinding (user information)• Parking convenience	<ul style="list-style-type: none">• Walkability• Shade and rain protection• Welcoming• Universal design• Sense of security (low crime)	<ul style="list-style-type: none">• Cleanliness• Quiet and calm• Interesting buildings (shop windows)• Activities• Street furniture and art

Many factors can affect public realm attractiveness.

Increasing public realm attractiveness can provide many benefits.

- Increases community cohesion which provides many previously described benefits.
- Provides comfort and enjoyment to residents and visitors.
- Supports local economic development by attracting more residents, businesses and visitors.
- Increases security (reduces crime risk) by attracting more non-criminals and increasing passive surveillance.
- Encourages walking, bicycling and public transit, which increases transportation system efficiency.
- Improves public fitness and health by increasing active travel.

How Planning Affects Public Realm Attractiveness

Planning often involves design and funding decisions that affect the public realm quality, including the design of paths, roads and parking facilities, landscaping and facility design, wayfinding (direction signs), shade, street furniture (benches, garbage cans, drinking fountains, shelters, etc.), plus the availability and price of services. *Streetscaping* refers to designing streets to be inclusive and attractive. *Universal design* refers to ensuring that transportation facilities and services accommodate diverse users including people with disabilities or using strollers and hand carts.

Public Realm Planning Strategies

- Apply high standards to public facility design, cleaning, maintenance and operations.
- Apply universal design standards.
- Include comfort features such as benches, shade and rain protection.
- Include aesthetic and fun features that attract and engage diverse people.

The report, *Enabling Better Places: A Handbook for Improved Neighborhoods* (AARP and CNU 2021) describes how to create more accessible and attractive neighborhoods. *Complete Streets* (www.completestreets.org) promotes multimodal and attractive street design. Our *Cities Ourselves: 10 Principles for Transport in Urban Life* (Gehl Architects 2010) provides guidance for improving urban spaces. The *Global Designing Cities Initiative* (globaldesigningcities.org), works to improve urban transport planning and roadway design. *Walkability and Mixed Use - Making Valuable and Healthy Communities* (Knight Frank 2020) describes how to improve the public realm. *Project for Public Spaces* (www.pps.org) provides guidance for more livable and attractive communities. *Tools for Measuring Public Life* (gehlpeople.com/tools) helps evaluate street conditions and performance.

Summary of Social Goals and Strategies

This analysis identifies various social goals and planning strategies that help achieve them. There is significant overlap between them; many of these strategies help achieve multiple goals, as summarized in this table.

Table 8 Planning Strategy Impacts

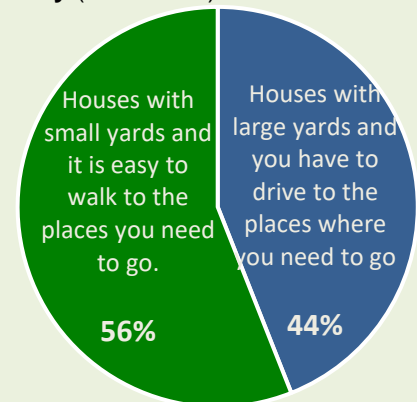
Planning Strategies	Community Cohesion	Equity	Afford-able	Fitness & Health	Personal Security	Public Realm
Multimodal planning	✓	✓	✓	✓	✓	✓
Active travel improvements	✓	✓	✓	✓	✓	✓
Traffic reduction incentives	✓	✓	✓	✓		✓
Compact neighborhoods	✓	✓	✓	✓	✓	✓
Affordable infill	✓	✓	✓	✓		✓
Local shops and restaurants	✓	✓	✓	✓	✓	✓
Local schools	✓	✓	✓	✓	✓	✓
Local parks and recreation	✓	✓	✓	✓	✓	✓
Public realm improvements	✓	✓		✓	✓	✓
Efficient parking management		✓	✓			✓
Community identity & activities	✓	✓	✓	✓	✓	✓

Strategies that create compact, mixed, multimodal, attractive neighborhoods achieve multiple social goals.

These strategies help create compact, multimodal, attractive neighborhoods. Compared with automobile-dependent, sprawled areas such communities are far more accessible, they require less vehicle travel which reduces household transportation costs, provides more independent mobility for non-drivers, and increases physical activity and fitness. Non-auto travel requires less pavement for roads and parking facilities which increases housing affordability and frees up land for greenspace. They are also more resource-efficient, they require less land per home and provide more efficient public services. Together, these factors support social goals such as friendliness, inclusivity, affordability, health, safety and a more attractive public realm.

This planning also tends to respond to consumer preferences. Surveys indicate that most people want to live in compact, walkable and attractive communities but many cannot due to limited supply. For example, the National Association of Realtor's *Community Preferences Surveys* indicate that most households would choose a compact house located in a walkable neighborhood over a large-lot house in an automobile-dependent, sprawled area with higher transportation costs, as illustrated to the right. Other surveys find similar results. Huang, Parker and Minaker (2021) found that 37% of suburban Kitchener, Canada residents would prefer living in a more transit-oriented area. Zhou, Reid and Carroll (2024) found that home values increased on average 3% and up to 20% for being in proximity to a brewpub/taproom, indicating consumer demands for neighborhood social activities.

Figure 16 Community Preferences Survey (NAR 2023)



National Association of Realtor surveys indicate that most people prefer compact homes in walkable neighborhoods over houses with larger yards in sprawled areas.

Achieving Social Goals

This section describes implementation policies for achieving social goals.

The table below summarizes planning strategies and public policies that help achieve social goals. These tend to have synergistic effects: they tend to be more effective and efficient if implemented as an integrated program. Together they can be called Smart Growth, New Urbanism, Urban Villages, placemaking or traditional neighborhood design, depending on context. They are the opposite of automobile dependency and sprawl. Many of these policies are win-win solutions that also support economic and environmental goals by increasing economic efficiency and productivity, and by reducing pollution emissions and habitat degradation.

Table 9 Policies for Achieving Social Goals

Strategies	Description	Implementation Policies
Multimodal planning	Invest in each mode according to demands, benefits and costs, and community goals, including social goals.	Apply a sustainable transportation hierarchy that favors affordable, resource-efficient modes in planning and funding.
Active travel improvements	Improve walking and bicycling conditions and encourage their use.	Increase sidewalk, crosswalk and bikeway funding, and reduce excessive traffic speeds.
Safe traffic speeds	Achieve less than 20 mph on local streets and less than 30 mph on urban arterials.	Reduce and enforce speed limits. Implement traffic calming and complete streets policies.
Traffic reduction incentives	Reduce excessive vehicle travel.	Establish vehicle travel reduction targets and policies to achieve them, with TDM programs.
Compact neighborhoods	Create compact, mixed urban villages where commonly used services are accessible without driving. Achieve a Walk Score over 70.	Upzone to allow compact housing (attached and multifamily) and mixed development.
Affordable infill	Encourage affordable housing development in urban villages.	Upzone and adjust development fees to favor affordable infill. Eliminate parking minimums.
Local shops and restaurants	Encourage development of local services in neighborhood centers.	Upzone and eliminate restrictions on mixed development.
Local schools	Support local public schools.	Support local schools and active travel to them.
Local parks and recreation	More than 10% of neighborhood is public parks. Parks are within 5-minute walk of most homes.	Plan and fund neighborhood parks plans.
Public realm improvements	Streets, parks and other public facilities are attractive to diverse people.	<i>Complete streets</i> and streetscaping planning. Support local parks and tree planting.
Efficient parking management	Manage parking to minimize the supply needed to serve demands and parking subsidies.	Eliminate parking minimums and implement parking management programs.
Community identity & activities	Create a unique identity and activities in each neighborhood.	Support neighborhood activities and events that attract diverse participants.

These strategies help achieve community social goals.

Implementation should be tailored to specific conditions. Existing high quality of life neighborhoods can increase affordable housing supply so more low- and moderate-income households can enjoy their benefits. Sprawled, auto-dependent areas can apply *sprawl repair* principles to become more compact and multimodal, for example, by redeveloping shopping malls and campuses into compact, mixed urban villages (Tachieva 2010).

Conclusions

To respond to consumer demands and community goals, planning must balance economic, environmental and social goals. Current planning focuses on economic goals, and increasingly on environmental goals, but tends to undervalue social goals such as community cohesion, equity, affordability, public fitness, personal security and public realm attractiveness. This biases planning to favor faster modes over more affordable, inclusive, healthy and resource-efficient modes, and sprawl over affordable compact development. The table below indicates planning practices that tend to support or contradict social goals.

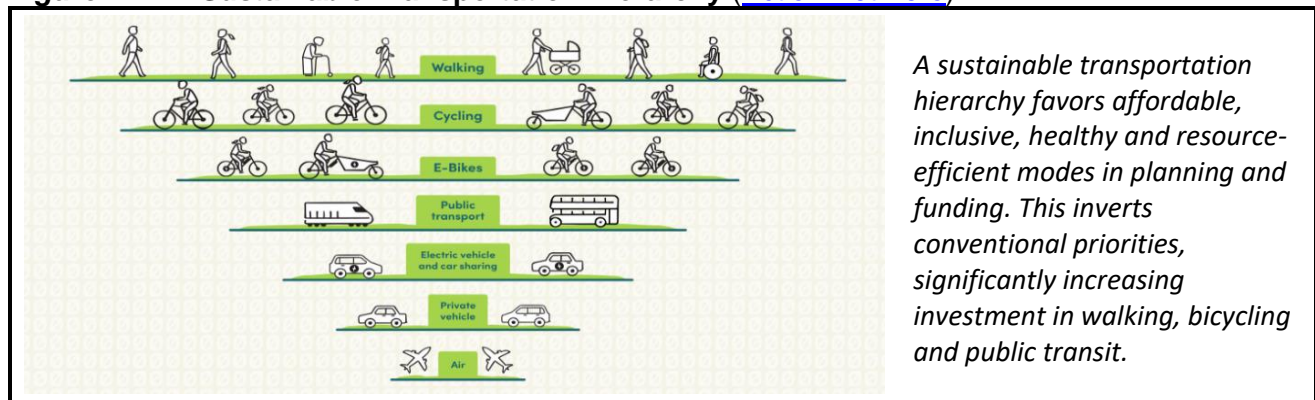
Table 10 Impacts on Social Goals

Supports	Contradicts
<ul style="list-style-type: none"> Create compact, mixed neighborhoods. Multimodal transport planning (especially walkability). Upzoning to encourage affordable infill. Neighborhood schools and parks. Eliminating parking minimums. 	<ul style="list-style-type: none"> Automobile-oriented planning (urban roads designed to maximize traffic volumes and speeds). Underinvestment in non-auto modes. Sprawled development (policies that support urban expansion and restrict compact infill). Development and utility fees that favor sprawl over infill.

Planning that favors compact, affordable infill in walkable, multimodal neighborhoods tends to support social (quality of life) goals. Planning that favors automobile travel and sprawl tends to contradict these goals.

A century of auto-oriented planning has made communities more auto-dependent and sprawled than is optimal. Correcting this requires planning that prioritizes affordable, resource-efficient modes, called a sustainable transportation hierarchy, as illustrated below.

Figure 17 Sustainable Transportation Hierarchy ([Action Net Zero](#))



This is not to suggest that everybody must live in compact neighborhoods and forego driving. Some people are unsuited to urban living because they have large pets, enjoy gardening or are uncomfortable in crowds. Sprawled, automobile-dependent areas can provide a high quality of life for people with the ability and money to drive. However, Surveys indicate that many people want to live in more compact, walkable, attractive neighborhoods where they spend less time and money driving, rely more on affordable modes and have more social interactions, but cannot due to inadequate supply; everybody benefits if public policies help respond to those unmet demands. This research indicates that incorporating quality of life goals in planning can create healthier, more successful and happier communities.

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