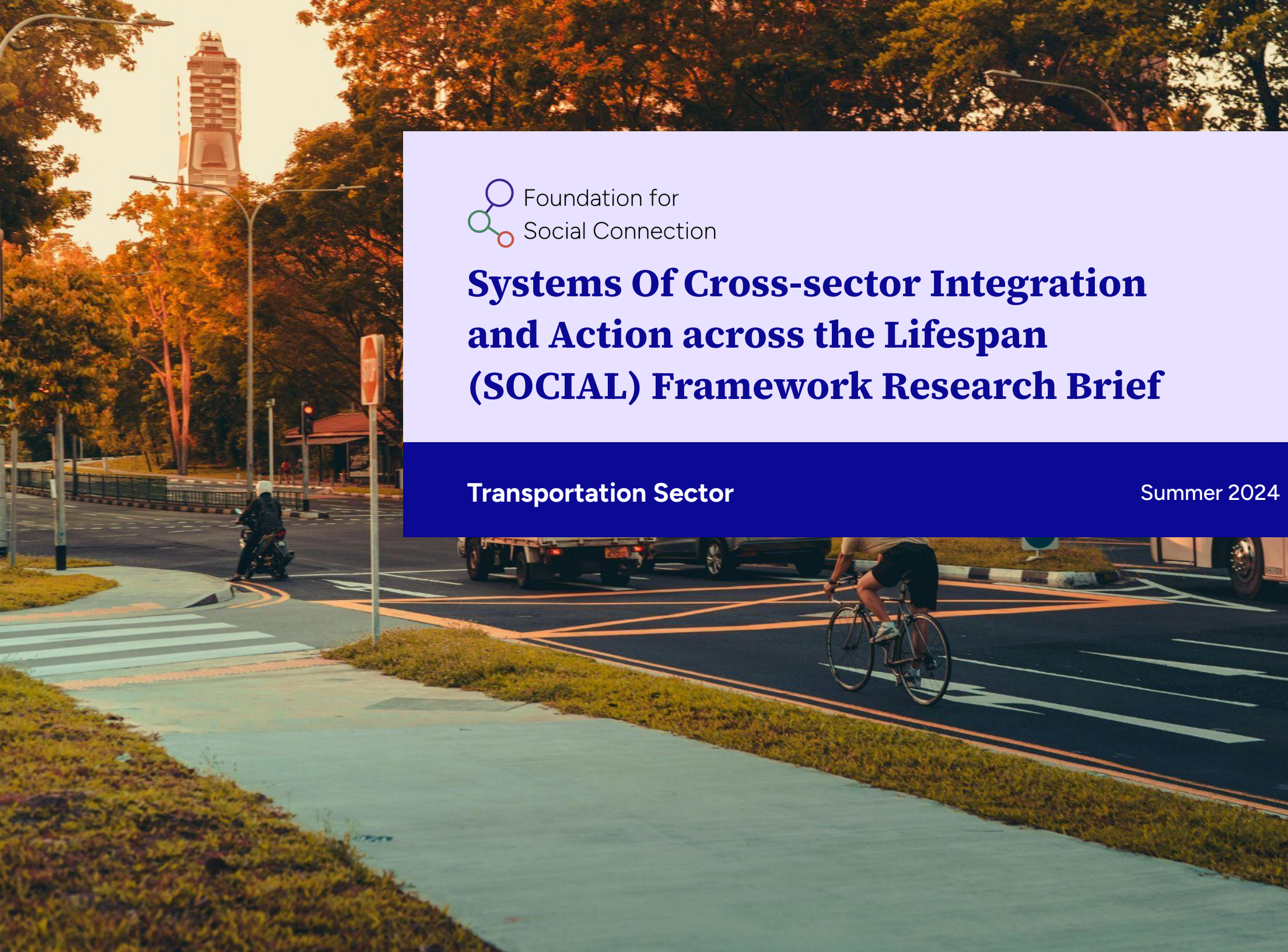

Foundation for
Social Connection

Systems Of Cross-sector Integration and Action across the Lifespan (SOCIAL) Framework Research Brief

Transportation Sector

Summer 2024

Research Brief Contents

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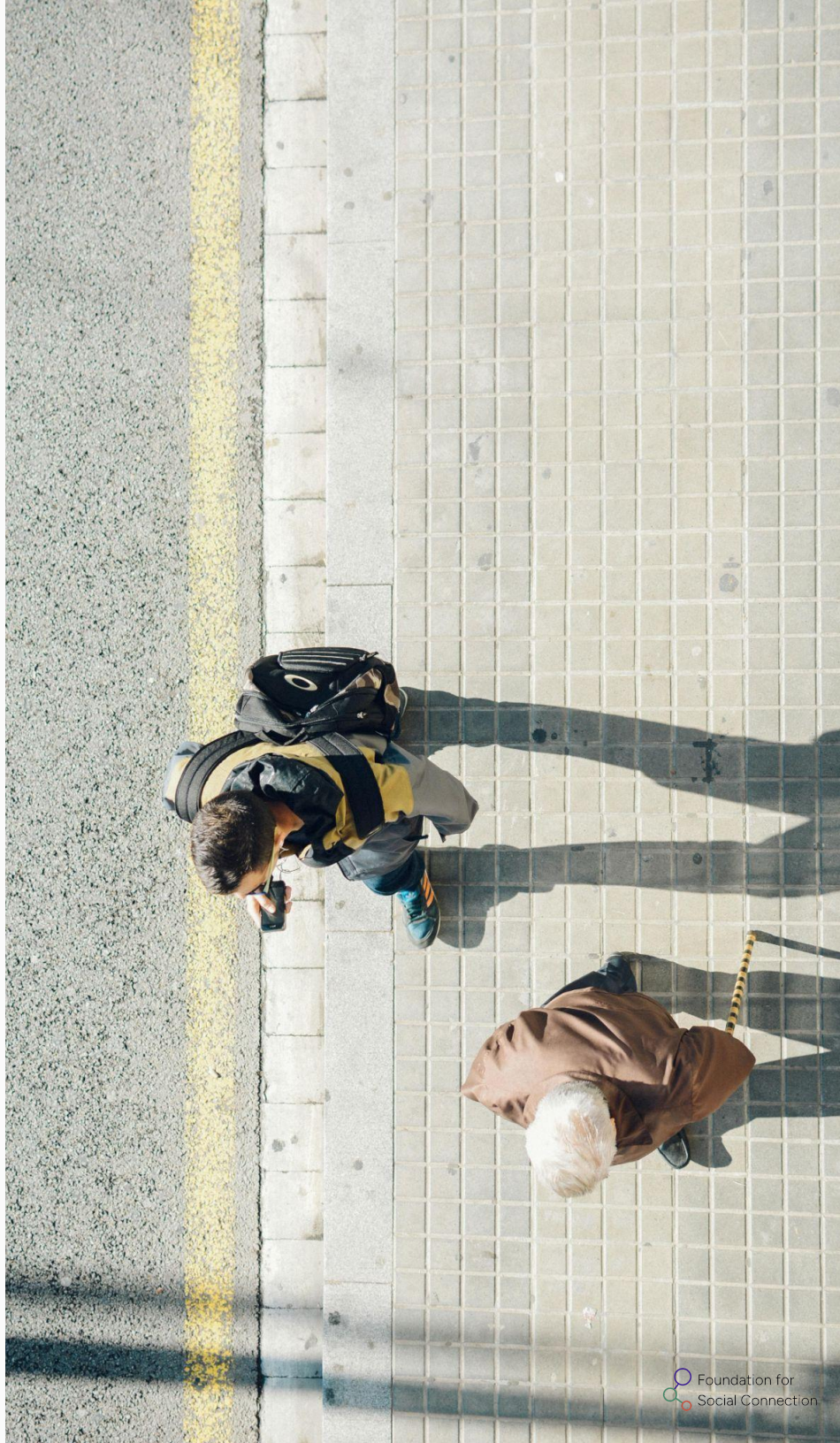


The Transportation Sector and the Role it Plays in Addressing Social Isolation, Loneliness, and Connection (SILC)

Mobility is a fundamental characteristic of human activities, enabling social, cultural, political, and economic interactions to occur.[1] When defining the transportation sector, we look at both the functional and social aspects of transport and mobility. Transportation can be defined as the means to access employment, goods, services, leisure, and social networks.[1] In short, transportation connects us to goods, services, and each other, and it enables the movement and interaction that are crucial for these activities to take place. The transportation sector encompasses both public and private modes of travel, including walking, cars, bikes, wheelchairs, and transit, as well as the infrastructure and systems that support these activities, such as roads, sidewalks, transit stops/stations, and traffic signs and signals. While it is not focused on in this report, transportation can also include any other means of getting from point A to point B, like air travel and commuter trains. Beyond serving as a functional necessity, transportation can also be a social experience that shapes daily interactions and quality of life.

Land use decisions play a complementary role in shaping transportation policies, as they often influence how and where transportation infrastructure is developed. While land use is not directly addressed in this report, it is important to acknowledge its significant impact on transportation access and community connectivity. Understanding this connection can provide deeper insights into how transportation design can be restructured to promote social inclusion and equity. The transportation sector plays a crucial role in addressing social isolation and loneliness, and fostering connections (SILC) by providing accessible and inclusive mobility options that enable people to engage with their communities and maintain social ties. However, inadequate transportation options also hinder social connectedness. For example, historically, highway development has intentionally dislocated and separated communities of color, resulting in severed social networks, polluted neighborhoods, and the stigmatization of active and public transportation options such as walking, wheelchairs, bicycles, and transit.[2] Structural and historical barriers, such as inaccessible infrastructure and societal attitudes, have long limited transportation access for people with disabilities, leading to social isolation and reduced community participation, particularly in rural areas where public transit options are scarce.(51) The layout of interstate highways has also caused significant damage to many communities, making it challenging to address the destruction caused. As a result, transportation design must now focus on equity to rectify past injustices and promote more inclusive and accessible mobility solutions. We can help reconnect and rebuild fragmented communities and support healthier, more inclusive social environments by reimagining and restructuring transportation infrastructure and initiatives to prioritize equitable access and connectivity.

The transportation sector plays a crucial role in addressing social isolation, loneliness, and fostering connections (SILC) by providing accessible and inclusive mobility options that enable people to engage with their communities and maintain social ties.

After reading this research brief, you will be able to:

- *Identify how the design, planning, policy, and use of the transportation sector can negatively or positively influence social connection.*
- *Share promising strategies for increasing social connectedness through design, planning, policy, and use of the transportation sector across levels of influence for various stakeholders.*

Scope and Objectives

This research brief explores the specific relationship between transportation and SILC by investigating how transportation options and infrastructure influence individuals' experiences and abilities to connect, as well as social connection within communities. It builds on the findings of the recently published SOCIAL Framework Built Environment Report, to further explore promising strategies for addressing social isolation, loneliness, and connection (SILC).

The strategies presented on the following pages offer further exploration and additional insights into related concepts discussed in the full report, enhancing understanding and application within the transportation sector. Strategies listed below come from the original report, and readers are encouraged to refer to it for additional context.

- Increase access to affordable, reliable public transportation (pg. 17)
- Activate streets as places (highlighting complete streets and open streets, also referred to as Ciclovía) (pg. 18)
- Reform local zoning codes and policies to allow for shared- or mixed-use, pedestrian friendly neighborhoods (pg. 19)
- Collective impact strategies that can be applied within the context of the transportation sector, such as co-creating solutions in partnership with community members, facilitating cross-boundary collaboration and investments, driving systemic change, addressing multifaceted issues collectively, and more (pg. 20-22)

It is also important to recognize that different strategies will be more effective in various contexts, such as urban versus rural settings. In the SOCIAL Framework Built Environment Report, page 11 introduces cross-cutting considerations aimed at ensuring inclusivity when developing, researching, and implementing these strategies. Additionally, page 20 outlines the significance of collaborating with community members, creating multi-solving solutions, and generating collective impact for lasting and equitable change across different populations and settings.

Read the SOCIAL Framework Built Environment Report

Addressing SILC Across Levels of Influence

The SOCIAL Framework identifies five levels of influence that should be considered when developing a systems-based approach to promoting social connection and addressing social isolation and loneliness. This table names the key stakeholders best positioned to take action and provides a definition of each level of influence.

Key Stakeholders Poised to Influence the Built Environment	
Level of Influence	*Key Stakeholders*
Individual *Individuals who have the ability to influence individual behavior and/or provide SILC resources that can be used by others.*	• Engaged community members • City planners/ regional planners/ economic development leaders • Architects and designers • Policymakers • Funders
Interpersonal *Interpersonal relationships that may influence behavior in the context of social networks and support systems.*	• Community member with community member (e.g., friends, families, neighbors for grassroots/ local efforts) • Sector leaders with sector leaders (e.g., collaboration and cross-sectoral partnerships for creation and operation of spaces) • Sector leaders with community members (e.g., co-creation of spaces)
Organizational/ Institutional *Entities with the power to influence organizational culture through the designing of policies, practices, and structures.*	• Second places (e.g., educational institutions, workplaces) • Community organizations/ nonprofits and third places (including arts, culture, and faith-based organizations, libraries) • Healthcare facilities (e.g., clinics/ hospitals, dialysis/infusion spaces) • Social service organizations (including mental health and addiction services) • Municipal services departments (including those who oversee and fund public infrastructure, housing policy, and community services, transportation, parks and recreations, housing authorities, zoning and coding officials) • Local businesses (e.g., grocery stores, restaurants, shops)
Community *Entities that can collaborate to bring groups of individuals together outside of any one specific organization and foster social connection.*	• Local government (e.g., elected officials, councils, parks and recreation) • Indigenous communities & councils • Infrastructure committees (including those focused on the development and maintenance of transit, utilities, public works) • Community/ neighborhood associations and advocacy groups (including groups that advocate for residents' needs and interests, serve specific priority populations; e.g., youth, older adults, racialized populations, individuals with disabilities)
Societal *Organizations, agencies, and departments with the ability to set or shift industry standards in ways that prioritize taking action to reduce SIL and foster connection.*	• State and federal government (e.g., legislators, regulatory agencies) • Indigenous nations • Professional associations & organizations with aligned mandates • National/ international organizations (e.g., World Health Organization) • Philanthropic organizations • Researchers • Media

Table 1: Key Influences & Stakeholders in the Built Environment

Promising Strategies for Addressing SILC Through Transportation

This table presents strategies for addressing SILC through transportation, the levels of influence for each strategy, and the associated social connection outcomes it addresses. Read more about each strategy and examples of community implementation, beginning on the next page.

Find these terms in the Glossary

Strategies for Addressing SILC within the Transportation Sector		
Strategy	*Level(s) of Influence*	*Social Connection Outcomes*
Plan and develop transportation infrastructure with a focus on equity to ensure fair access for all populations.		Social equity, community connectivity Reduced social isolation
Implement transit-oriented development to create accessible and vibrant communities connected by public transit.		Social capital, social interactions, sense of place
Increase access to affordable, reliable public transportation.		Social capital, social ties, social interactions Reduced social isolation, reduced loneliness
Activate streets as places for connection.		Social interactions, social capital, social connectedness, sense of community belonging, social cohesion
Promote active transportation options like walking, wheelchair use, biking, and transit to encourage healthier, more sustainable travel.		Social interactions, social inclusion, neighborhood trust
Develop safe routes to schools and parks to ensure children can travel safely within their communities.		Social capital, social cohesion, trust
Create community transit solutions tailored to the specific needs of local populations.		Social inclusion, social connectedness Reduced social isolation, reduced loneliness
Develop solutions like mobile health clinics and program outreach to bring essential services directly to neighborhoods.		Social equity Reduced social isolation, reduced loneliness
Expand shared mobility options such as ridesharing and carpooling to reduce traffic and enhance transportation access.		Sense of community Reduced loneliness, reduced social isolation

Plan and develop transportation infrastructure with a focus on equity to ensure fair access for all populations.

Including equity and accessibility in transportation infrastructure planning is vital for creating connected communities that are not further impacted by displacement. Historically, systemic racism influenced transportation infrastructure with highways routed directly through redlined neighborhoods, which created lasting environmental and social impacts on underserved communities and spatial exclusion.[3, 49] Acknowledging the harmful effects of past transportation policies is the first step toward creating infrastructure that is inclusive, equitable, safe, and environmentally friendly. Environmental impact analysis is also a requirement for securing federal funding. Equitable transportation planning ensures that all users can meet their transportation needs to access employment and essential services and maintain connections to their social circles.

The federal Reconnecting Communities Program is providing $185 million in technical assistance grants to address past harms imposed by the construction of roads and rail lines through the removal, mitigation, or replacement of eligible transportation facilities. This pilot program aims to foster community connectivity by removing barriers to mobility, access, or economic development.[4] Additionally, the U.S. Department of Transportation is taking steps to advance a more equitable, accessible, and inclusive transportation system through the Equity Action Plan that focuses on underserved, overburdened, and disadvantaged communities.[48] The Chicago Metropolitan Agency for Planning stands out for its inclusion of social equity in transportation planning, with innovations such as providing improved transportation choices to economically disadvantaged communities and providing financial incentives to low-income individuals residing in transportation-dense communities.[5]

Related Concept

Reconnecting Communities Program
Depending on the grant, State, local, and Tribal governments, as well as metropolitan planning organizations and nonprofits, may be eligible to apply for federal funding. However, some nonprofits may only qualify if they partner with an eligible government agency. These grants support projects related to traffic patterns, alternative roadway designs, green infrastructure, and mobility needs.

Learn more about third places and the role they play in advancing social connection on page 15 of the Built Environment SOCIAL Framework Report.

Denver, Colorado: The Mile High Connect (MHC) program is countering the displacement of low-income communities from expensive mixed-use developments centered around new transit stations. Building off of the FasTracks transit expansion, which added 122 miles of light rail service, 18 miles of bus transit, and enhanced regional bus service, MHC is ensuring that Denver's transit build-out benefits low-income communities and communities of color by connecting them to affordable housing options, quality education, well-paying jobs, health services, and grocery stores, among other services. MHC developed the Denver Regional Equity Atlas which is an interactive, online tool used for transportation planning that documents current population level disparities and outcomes across the region so the program can continue to address affordability and physical access in its infrastructure planning.

Portland, Oregon: Portland's transit agency, TriMet, involves the community in their transportation plans through the use of prototype bus stations. With the installation of new rapid transit lines along major streets, TriMet wanted to ensure the bus station shelters were accessible for individuals of all ability levels. During the prototyping phase, TriMet invited community members with disabilities or visual impairments to test the new designs. The agency then refined their design based directly on user feedback to create an inclusive and accessible bus service in the area. The American Public Transportation Association has outlined principles and best practices for implementing universal designs that promote equitable and accessible transit in the Transit Universal Design Guidelines report, chaired by BART Architect Tien Feng.

Implement transit-oriented development to create accessible and vibrant communities connected by public transit.

Transit-oriented development (TOD) can be defined by a grid-like pattern with diverse land use, high density, and well-connected street networks with residences that are within a 10-minute walking distance from a transit station.[6, 7] This model is primarily suited for urban and suburban contexts, where higher density and infrastructure make implementation easier, though it is more challenging to achieve in rural areas. TOD can increase local activity participation, social capital, and social interactions through well-designed road networks, small blocks, and side streets with direct accessibility to facilities and services, all of which ultimately encourage social activities.[6, 7] While the benefits of implementing TOD are significant, planning efforts need to consider lower-income residents and residents of color to avoid displacement that can occur from increased rent due to new, attractive amenities.[8] While the benefits of TOD typically outweigh the negatives, it is important to employ strategies that increase the level of investment in solving urban issues while also preserving long-term communities and residents.

Creative TOD approaches use new infrastructure to foster vibrant communities with innovations like using transit centers as third places. Transforming public streets into public open spaces can support social behaviors with elements such as seating outside of shops and restaurants, awnings and umbrellas to provide shade, and robust shop signs and displays to encourage social interactions and engagement.[9] Explore success stories of TOD being used to increase community engagement in a multitude of settings in this report from the New Haven-Hartford-Springfield Rail Program.

Related Concept

Long-Term Resident Tax Breaks
Tax breaks to long-term residents who live in a community undergoing redevelopment. These breaks would reduce the fear of social isolation through displacement and reduce the disruption of long-term neighborhood cohesion and connections.

Fruitvale, California: The Fruitvale community responded to plans of the Bay Area Rapid Transit to build a new parking structure by advocating for designing a place that would instead link local businesses to transit and increase pedestrian and bicycle traffic to redevelop their neighborhood. The result was an innovative integration of parking needs paired with pedestrian-oriented development that included local retail shops, a community center, 47 mixed-income housing units, and a senior center. The Fruitvale Transit Village is now a mixed-use village that bolsters community ties while also providing accessibility to rail transit.

Bartlett, Illinois: The Village of Bartlett in western Chicago implemented their Downtown Transit-Oriented Development Plan to revitalize a suburb with various transportation infrastructure investments. They promoted a compact, walkable community by enhancing pedestrian and bicycle access to the Metra station, revising zoning codes, adopting a Complete Streets policy, and supporting new business developments in Downtown to attract pedestrians. The plan also identified eight underutilized surface parking lots within walking distance of the Village that could be repurposed into social areas, like an outdoor beer garden and a live music performance stage.

Increase access to affordable, reliable public transportation.

Public transportation plays a vital role in connecting people to economic opportunities, health/recreation, social networks, and social connections. Different types of transit services are needed to meet the unique needs of various communities, as no single system works universally across all areas. However, when transportation services are not affordable and reliable, public transit becomes a barrier to accessing services and opportunities.[10] Low-income communities and communities of color rely more heavily on public transit and are most likely to experience social isolation if there is a barrier to using transit. In a study conducted on how transport disadvantage reinforces social exclusion, one respondent noted, "Well, not having a car like I said...I just don't go nowhere."[10]

Increasing access to quality public transportation options provides more communities with the means to access social connection. It enables social ties and increased social capital when individuals are able to travel easily for job opportunities and social events.[11] Public transit can alleviate loneliness and dependence in older adults, which often accompanies driving cessation.[12, 13] Geographic dispersion also needs to be considered during transportation planning efforts; without sufficient public transportation, rural communities may forgo opportunities for recreation and social gatherings because they are simply inaccessible.[14] Multiple studies show evidence that transit users can benefit from casual social interactions on transit itself, like the small conversations people have with one another on their way to work or even smiling at strangers on the bus.[15, 16]

Related Concept

Transit Disadvantage
Transit disadvantage can be defined as unequal access to transportation as a commodity, which is a necessity to be able to fully participate in society and its opportunities. This can lead to transit-related social exclusion and lower economic and educational opportunities.[10]

Learn more about public transportation and the role it plays in advancing social connection on page 17 of the Built Environment SOCIAL Framework Report.

Hillsborough, Florida: The Healthy Buddy Program in Hillsborough set up a partnership between students at the University of South Florida and older adults in local senior centers. Older adults are paired with a USF student who helps them craft a personalized transportation plan. Following driving cessation, many older adults in this community experienced social isolation due to limited knowledge about transportation options, mobility concerns, and cost barriers. Students worked with their buddy to overcome these barriers with innovative solutions including paratransit and local bus systems as well as physically accompanying their buddies on public transit rides to increase their comfort with utilizing their options. In addition to benefiting older adults, students gained valuable real-world experience and the opportunity to develop meaningful connections, fostering empathy and a deeper understanding of the challenges faced by older generations.

Tallinn, Estonia: Tallinn paved the way for affordable transportation in Estonia by establishing fare-free public transportation services in 2013, and since then the free fare model has expanded across Estonia. This program significantly increased the accessibility and use of public transportation options, and the city saw an overall increase in income and revenue as more people moved to regions with fare-free transit. Additionally, interviews noted that older adults experienced reduced loneliness as they were able to travel more for social outings and low-income residents had increased access to healthcare and other essential services.

Activate streets as places for connection.

Streets are an essential part of the built environment, which can be leveraged to create space for social interactions when streets are activated as places for connection. This concept is relevant in both rural and urban settings, as streets can be designed to meet the specific needs of each community. In urban areas, they may serve as key public spaces for gathering and recreation, while in rural areas, streets can be adapted to overcome geographic barriers and create accessible spaces for socialization and community events. Research indicates that in many urban and community settings, streets often represent the largest asset of publicly owned land in terms of acreage.[51] Multipurpose use opportunities for streets include complete streets, play streets, block parties, and traffic calming measures. Designating play streets provides safe, car-free zones for children and families to recreate and play in spaces that are easily accessible. In local, urban settings, play streets reduce the barrier of traveling for recreation, which is associated with higher physical activity levels and reduced health inequalities. Simultaneously, play streets can foster community connections between children and parents by creating space for socialization and building social capital.[17] Rural communities have also succeeded in implementing play streets as well, by incorporating play streets with other community events to increase participation where traveling across geographic dispersion is a barrier.[18]

When organized safely, block parties can foster neighborhood cohesion by stitching together socially isolated societies and encouraging neighbors to live more socially connected lives.[19] While there are known benefits to hosting block parties, many cities discourage the gatherings through extensive and expensive application processes. Seattle has taken steps to encourage block parties by implementing free applications and a simple permit process with short processing times, which leads to between 200-250 block parties hosted in the city each year. Neighborhood residents in Seattle report a strong sense of community following block parties, with increased neighborhood trust and lasting connections.[19]

High vehicle speeds in residential areas endanger people outside of vehicles and reduce the potential for social interactions on streets. Traffic calming measures can transform streets into public open spaces that facilitate social cohesion and connection.[20] Features such as raised crosswalks, narrowed vehicle lanes, and traffic gardens can increase safety for pedestrians, wheelchair users, and cyclists who are commuting or enjoying leisure activities. Safe routes for active transportation are recommended for creating age-friendly communities as they facilitate the ability of older adults to age in place and maintain their social networks.[21] Additionally, tactical urbanism is a tool to create social environments in dense urban areas, with examples such as pop-up stores, food trucks, and parklets.[21] Streets were originally designed for people, with many cities featuring wide sidewalks. It was only later that space was prioritized for cars. Creating more room for pedestrian activities is about honoring and restoring the historic street designs, returning streets to spaces where people can gather and interact.

Related Concept

Traffic Gardens
Green spaces with miniature networks of streets encourage cycling practice for bikers to be more comfortable riding on roads. Traffic gardens help to establish a sense of community by creating a gathering space for aspiring bikers.[22]

Tactical Urbanism
An approach to neighborhood building that uses short-term and low-cost interventions to revitalize spaces for community interaction. These interventions foster social capital and community engagement by bringing neighbors together.[22]

Learn more about activating streets as places through initiatives including complete streets and open streets on page 18 of the Built Environment SOCIAL Framework Report.

Barcelona, Spain: La Rambla Street in Barcelona maximizes its space by integrating quality public transport, walking facilities, and open space functions on an urban, main road. Users can explore vibrant green spaces, a multitude of shops and restaurants, walking access along the waterfront, and various spaces designed for sitting and socially interacting. Other areas in Barcelona use the Superblock Model to promote public space by closing several streets to traffic, which reduces noise and emissions and strengthens social interactions among neighbors. Reclaiming streets for social interactions improves Barcelona resident's community relations and sense of belonging.[23]

United States: National Night Out is an annual community-building campaign in the U.S. that promotes neighborhood camaraderie and relationships between residents and law enforcement to foster a sense of community. Millions of neighborhoods participate each summer across all 50 states by hosting block parties, festivals, parades, cookouts, youth events, and safety demonstrations. Since 1984, National Night Out has provided a mechanism to build safe communities, rediscover community, and triumph over a socially isolating culture.

Promote active transportation options like walking, wheelchair use, biking, and transit to encourage healthier, more sustainable travel.

Active transportation refers to any form of travel that requires physical activity, such as walking, biking, or using a wheelchair. It's a way of getting around that helps keep people moving while reducing reliance on cars or public transit. Active transportation options have many benefits ranging from increasing transportation access, engaging in physical activity, and creating a higher sense of engagement with one's community. Additionally, transit forms such as walking and biking promote more sustainable travel that can meet user's needs while reducing the greenhouse gas emissions that accompany motor vehicles.[24] Numerous studies call out the benefits of using active transportation such as greater neighborhood trust, higher levels of community participation, and increased opportunities for social interactions with neighbors.[22,24-26] Supporting active transportation measures is an option for expanding social inclusion in communities where other public transportation options are not available.

Many innovations can promote active transportation use. Safety of pedestrians and cyclists is a main concern during urban planning, and it can be enhanced through the use of colored and/or protected bike lanes with distinct lane markings, wide sidewalks for pedestrian safety, reducing vehicle speed limits, and narrowing vehicle lanes. Implementing road diets, which involve reducing the number of lanes reserved for cars to create a full size, flex lane for bikes has been successful in Boston, San Francisco, and Portland.[27] Bike share programs are increasing in popularity with over 800 cities offering them globally. These programs expand access to biking and promote active transportation in cities, with around 60% of bike share trips replacing sedentary modes of travel.[49] Performing walk audits along local streets should engage residents in the transportation planning process and help planners ensure routes are safe for users of all ages and abilities. Along pedestrian routes, benches and resting landscapes can create space for social interactions.[28]

Policy Highlight

Bikes on Transit
The Bay Area Rapid Transit district in San Francisco has changed their policies to encourage transit users to bike to and from stations. They've updated the commuter rail to include a car designated for bike storage and have included bike racks on the front of buses.

Columbus, Ohio: The city of Columbus developed the Healthy Places program that works to create a built environment that encourages walkability and bikeability. The program works with individual neighborhoods and school districts to create Safe Routes to School travel plans, land use zoning reforms, parking lot reforms, and biking and walking events among other interventions. The program spurred the creation of the Hanover Active Transportation Plan in nearby Licking County, Ohio, which proposes 21 miles of new sidewalks, 12 miles of new on-street bike lanes, and 44 miles of new walking paths. Discover more projects through the Healthy Places program here and learn more about neighborhood specific active transportation plans here.

Quito, Ecuador: Quito has committed to making city streets biking friendly through large-scale, cycling infrastructure projects that have increased the annual number of bicycle trips by 600%. Elements of success in Quito's active transportation revitalization plan include nine kilometers of new cycling lanes, and creating safe routes along some of the city's major, busy streets and highways. By promoting biking as a primary mode of transit, the city has seen reduced reliance on motorized vehicles as well as reduced vehicular-related emissions levels.

Develop safe routes to schools and parks to ensure children can travel safely within their communities.

Developing safe routes to schools, parks, and other spaces for socialization is a key component to enabling children's independence to travel within their communities. Research shows that children who are able to independently wander and socialize with other children are more socially connected than children who rely on transportation via automobile.(29) Active transportation in youth is impacted by neighborhood urban form and road density. Establishing clear boundaries within a neighborhood that facilitate a threshold of 5-10 minutes for independent travel is crucial to maintain safety in urban neighborhoods.(30)

The U.S. Safe Routes to School (SRTS) Program promotes walking and biking to school through infrastructure improvements, safety education, and incentives to encourage active transportation among children. Local schools, governments, and metropolitan planning organizations can partner with the SRTS program to receive educational materials for implementation in their districts. Strategies to create safe routes to school include a walking school bus, funding for bicycle helmets and safety vests, and SRTS presentations for parents. Schools that have implemented these program protocols successfully have seen between a 15% to 45% increase in the number of children who use active transportation to get to school.(31) The program also includes a plethora of maps that highlight safe routes around various school districts and states. Safe Routes to Parks is an initiative inspired by the Safe Routes to Schools program, aimed at creating safe, accessible pathways for people of all ages to walk or bike to local parks. Just like the school-based program, it focuses on improving infrastructure, such as sidewalks and crosswalks, to ensure that everyone, especially children and families, can safely access recreational spaces in their community.

Additionally, children and youth have travel needs that exceed simply going to school. Promoting safe, independent travel options can help youth access places like parks, friend's houses, recreation facilities, etc. that their parents or caregivers may not be able to take them to. Independent travel can expand beyond school so that children can maintain friendships and connections. An emerging program called Move Minnesota started a training program to teach middle school and high school students how to use public transit, which included interactive learning and guided field trips to boost student confidence in their abilities to use transportation on their own.(53) Another program called HopSkipDrive was created by parents in Los Angeles to offer a ride-share model similar to Uber and Lyft, but designed for children with highly vetted drivers and company supervision to help children travel to school and other extracurricular activities. This program offers broader flexibility for children's travel and has expanded into eight different U.S. states.(54)

Related Concept

Walking School Bus

A walking school bus is a group of children walking to school with one or more adults.(34) A similar initiative, bike buses, is led by parents through neighborhoods for parents and children to join the group to bike to school.(52) Both formats create an avenue for parents and children to socially interact and generate trust.

Alpine, Utah: Alpine Elementary School partnered with the SRTS program to address barriers their students faced walking to school, including traffic and safety concerns. With their federal funding they implemented school safety assemblies, held a poster contest to educate students, hosted pedestrian family safety walks, and hosted a bicycle rodeo to increase children's comfort on bikes. Additionally, the school motivated students to use active transportation with the incentive of every 10 miles they walked or cycled, Alpine donated 40 cents to their sister school, the Candle Light School in Kenya. Over the course of the program, students have raised enough donations to purchase three months worth of lunches for the entire Candle Light Student Body.

Los Angeles, California: The city of Whitter in Los Angeles County explored the concept of using greenways as an alternative and safer route to school than the traditional and often inadequate sidewalks and street infrastructure. They created a map including respondents' addresses of families in their school district that illustrated greenway routes to various schools and how best for families and children to access them. Parent and student feedback noted that using urban greenways provided an easier and safer path to walk or cycle to school.

Create community transit solutions tailored to the specific needs of local populations.

Transit users can be vulnerable to social exclusion through a variety of factors including geographic dispersion, economic environment, mobility options, and first and last-mile connectivity.[32] First and last-mile connectivity is the distance traveled to and from a residence to a transportation stop or station.[33] To equally meet the transportation needs of different, local populations, community transit solutions can bridge the gaps left by public transportation infrastructure. Community transit refers to alternative transportation options that are created to meet community mobility needs and support those who cannot use conventional transit services.[34] Public transportation options are typically designed to meet the demands of the masses, which include services that accommodate peak commuting times with fixed routes through central business districts. However, these systems lack flexibility to meet transportation needs for users who travel outside of peak hours, need additional transportation support, or live in less central areas. Transit-Oriented Development (TOD) along corridors, like the Green Line LRT in the Twin Cities, allows transit to serve multiple trip purposes throughout the day, making it more efficient and beneficial for residents accessing daily needs. Community transit solutions can alleviate social isolation in populations that need more flexibility in their travel options.[51]

Rural communities may have fewer fiscal or technical resources to implement transportation services. Coupled with lower population densities and greater distances between destinations, providing transportation services can be challenging. Creating flexible, community-based transportation options can help overcome geographic and infrastructure limitations for residents in rural regions.[35] Additionally, counties in Wisconsin and Quebec are making strides to create age-friendly communities that consider transit access for older adults in their transportation planning efforts. Programs that are helpful during the driving cessation transitions (the process of stopping or giving up driving, usually due to age, health issues, or safety concerns) involve the dissemination of education through healthcare professionals and legal professionals. These education programs can alleviate the isolation that accompanies driving cessations by providing older adults with viable options to continue to make meaningful social connections without a car.[36] Discover more age-friendly transportation programs across the country through the AARP network here.

Related Concept

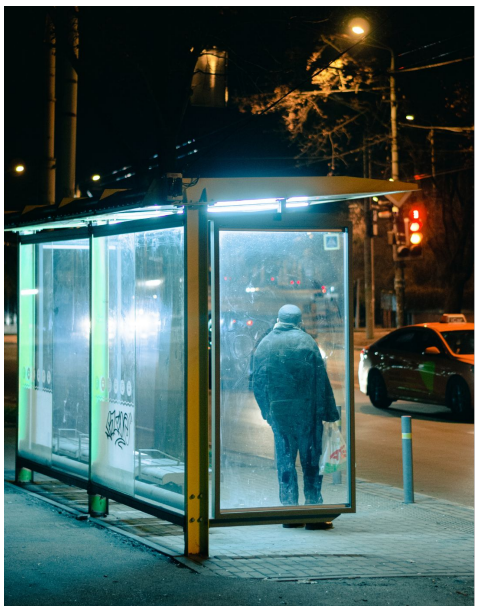
5311 Non-Urbanized Transit Grant Program
A program through the Federal Transit Administration that works to establish and maintain transit systems for rural communities with populations under 50,000 people. The grant program specifically assists with financial means to meet the transportation needs of older adults and people with disabilities.[51]

Policy Highlight

Accessible Placemaking Incentives
Provide an enhanced federal match for the U.S. Department of Transportation (DOT) projects that incorporate elements of accessible community placemaking such as: traffic calming, walkable areas, recreational facilities, public arts installations, and public gathering spaces.

New Brunswick, Canada: Originally started in rural New Brunswick, the Rural Rides program is a community transportation initiative that assists older adults, low-income individuals, and individuals with disabilities secure rides from rural areas. It operates as a volunteer driver program where the only charge is gas reimbursement. The trips can be used for any purpose, and the program has expanded into many other rural, Canadian regions. The program has seen great success in ridership and user responses indicating that the program lowered their social isolation.

Detroit, Michigan: Communities in Detroit have created a smart jitney program to enhance transportation access for residents of low income communities. A smart jitney operates similarly to real-time ridesharing options, such as Uber or Lyft, but with a significantly reduced cost and reduced car-specific requirements, like year or model limits. In addition to reducing payments, the smart jitney program has the option to include small tasks, like running an errand for the driver, as an alternative form of payment. This program is successful in increasing transportation access in areas where public or private transportation costs may be a barrier.



Develop solutions like mobile health clinics and program outreach to bring essential services directly to neighborhoods.

Transportation options and infrastructure are vital to allow communities to travel to employment, health care, and essential services, however, mobile solutions can also bring those services directly to communities and individuals who might not be able to travel. Solutions like community paramedicine and mobile health clinics play a role in reducing the social isolation and loneliness that can be associated with illness; connecting communities to these services in their home can increase the comfort of their care and reduce the costs of hospitalization that accompanies living with an illness.[37] Mobile health clinics can also serve to reduce health care disparities by traveling to traditionally, medically underserved areas that have limited access to healthcare due to factors such as race, ethnicity, poverty, and rurality.[38]

Similarly, services like mobile food pantries help to bring essential foods to communities or areas that lack access to healthy, nutritious, and affordable food, often concentrated in rural and low-income or racially and ethnically minoritized neighborhoods.[39] One in nine people in the U.S. lack a consistent source of food necessary to lead an active and healthy lifestyle, and transit disadvantage can reinforce this inequity, especially in immigrant and older adult populations.[40] Transit access and commute times can be a barrier for communities to access grocery stores, and mobile food pantries bring healthy options directly to communities, which can reduce the social inequity of food insecurity.[41] The American Library Association is also using transportation as a means to bring information and learning access to rural, urban, suburban, and Tribal areas through their Bookmobile programs.

Related Concept

Health Insurance Coverage for Home Visits and Mobile Health Services
While in-home care and mobile health services are significantly more cost efficient than traditional doctors or emergency department visits, paying out of pocket can be a barrier. Health insurance agencies should be encouraged to include home health care in their coverage through reduced coverage costs.[42]

Policy Highlight

Telehealth Expansion
Remove federal and state barriers that impede access to mental and behavioral health care services provided through telehealth and remote communication technology (RCT) for those socially isolated.

Kansas, United States: The Kansas Home Visiting Program and The Maternal, Infant, and Early Childhood Home Visiting programs serve multiple counties in Kansas to support expecting or new parents, promote healthy childhood development, and increase parenting knowledge and resources. These free programs make visits directly to the homes of parents who need support, which can reduce the socially isolating factor of having a new baby or a child with disabilities that may require attention. Program visitors can help with parenting advice, health equipment, health concerns, and education on local resources. A similar program, called Visiting Angels, is a nationwide program that operates in a similar manner, but with health and wellness care specifically for older adults.

Northeast Florida, United States: Baptist Health Cancer Center created the Buddy Bus Mobile Mammography clinic to increase access to breast cancer detection services across Northeast Florida. Organizations can request the bus to come to offices, events, or venues to provide 3D screening mammograms, which are read on site by breast radiologists. This program aids in reducing the breast cancer mortality disparity among individuals of color who have breasts.

Expand shared mobility options such as ridesharing and carpooling to reduce traffic and enhance transportation access.

Shared mobility options such as ridesharing and carpooling offer multi-purpose services that increase transportation access while promoting more sustainable travel with reduced traffic and reduced automobile-related emissions. Shared mobility options can provide flexibility based on user needs and preferences. Casual or flexible carpooling refers to an informal arrangement among strangers where drivers are reimbursed for driving costs and typically share a common origin and destination as their passengers. Real-time ridesharing or app-based carpooling allows users to arrange rides on demand and provides the driver with financial gain incentives. Vanpooling typically includes around 7-15 passengers who share the cost of the van as well as the driving responsibilities.[43] In many cases, vanpools are subsidized by employers or local transit agencies to encourage their use, making them more affordable for participants. Additionally, many park-and-ride facilities reserve spaces specifically for vanpools, making it easier for passengers to meet and continue their commute together.

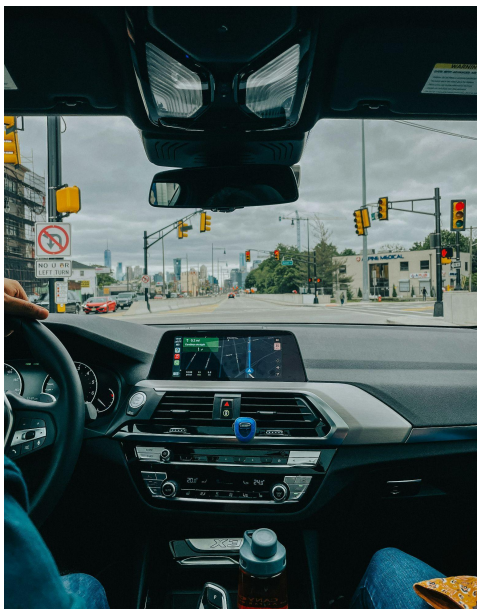
Benefits to using shared mobility options include enhancing transportation access for low-income individuals, immigrant households, communities of color, and other communities that may not have the financial means to own a personal automobile or obtain a driver's license. Nationally, only 40% of public transit-dependent households are able to access employment options with less than a 90-minute commute, which makes driving a more convenient option.[43] Additionally, travel time savings are associated with carpooling via HOV lane access that is available for automobiles with four or more passengers. Community-level benefits of carpooling can be seen through reduced traffic congestion and traffic-related emissions. In the US, 76% of all work commutes are single occupancy vehicles (SOV), so by increasing vehicle occupancy rates, the roads become less crowded.[44-45] Reducing traffic emissions not only functions to create more sustainable travel, but it also helps to reduce emission exposure disparities that are commonly and disproportionately placed upon low-income and ethnically minoritized households living along congested roadways.[46] Carpooling can also work to reduce loneliness that is associated with solo commuting and turn an otherwise isolating commute into a social space.[52]

Related Concept

Shared Mobility Public-Private Partnerships
Public transit agencies are encouraged to develop these partnerships to fill gaps in first and last-mile connectivity and to replace low-demand/high-cost service options. The King County Metro Carpool Incentive Fund in Seattle saw success in increasing carpool ridership by offering a monetary incentive to users.

United States, Canada, and Australia: The GoGo Grandparent program has been implemented widely spread across all 50 states and regions in Canada and Australia to facilitate initiative trips for people without smartphones and individuals who are unable to use traditional real-time ridesharing options.[47] Facilitated through a phone call, operators work to order rides for older adults and people with disabilities to connect them to essential services, recreation, and social events. This program has helped to reduce social isolation for individuals who are reliant on others for rides and increase independent living while fostering a sense of community.

Dakota County, Minnesota: The Dakota Area Resource Transportation Services Vehicle Coordination Program (DARTS) is a non-profit-led vehicle sharing program that aims to increase transportation access in rural areas through a bus pooling system. They lend buses to local organizations to help provide group transportation to places like churches, grocery stores, and restaurants. Discover other rural rideshare success stories here.



Gaps and Implications for Future Research

While this research brief sheds some light on the transportation sector's role in advancing social connection and addressing social isolation and loneliness, several gaps remain that merit further investigation. Transportation is often studied in isolation from other sectors, rather than the vital thread that connects communities and involves many actors. An intersectional approach should be used in future research to consider the relationship and influence between transportation and land use, health facilities, education, housing, and all other necessary destinations. While repurposing old transportation infrastructure into spaces for social interaction has been implemented, additional cross-sectoral partnerships should be explored to maximize transportation infrastructure, like using school buses for public transit after hours or in the summer months. Our research found that rural communities are more likely to experience transit disadvantage due to lower regional resources and higher geographic dispersion.[15, 35] Advancing public and community transportation options for people residing in rural areas shows promise for moving from car-dependency to more sustainable travel options. However, expanding these services requires significantly more funding to improve accessibility, frequency, and coverage, ensuring that rural populations have reliable alternatives to driving, which can be costly and isolating in these areas. Increased investment is crucial for building infrastructure and services that meet the unique transportation needs of rural communities.

Policy work has the opportunity to propel sustainability and equity by promoting active transportation modes and working to mitigate or remediate damage caused by policies of the past . Transportation infrastructure needs to be modified or replaced to support future equitable development. With greenhouse gas emissions on the rise, active forms of transportation, including walking and biking, offer a sustainable alternative to travel while creating opportunities for social interactions.[25] Regional policy initiatives should encourage active transportation by creating safe routes for those who walk/bike/roll or take transit. The transportation sector still has work to do in remedying the destruction of communities caused by highway infrastructure. Policies like the Reconnecting Communities Program should be highlighted and expanded as part of more equitable transportation policies. Similarly, Transit Oriented Development (TOD) may pose displacement threats to communities as areas are revitalized and become more desirable and possibly more expensive places to live.[8] These and other policy ideas should be explored further to preserve the sense of community and neighborhood connections

Conclusion

Transportation connects us to essential activities, including employment, education, health services, childcare and access to food. Additionally, it is a fundamental means to connect people to each other and to enable people to travel for social events, visits with friends and family, and maintain social connections.[11] Transportation infrastructure and modes of travel are not one size fits all, and transit planners and communities need to thoughtfully consider the specific needs, ability levels, and locations of their local populations in order to implement effective and equitable transit solutions. Accessible and equitable transportation options can reduce social isolation and loneliness by developing creative solutions that meet the needs of different age groups, income levels, and mobilities. Promoting public and active transportation options helps reduce car dependency, which fosters sustainability while providing increased opportunities for social interactions. Strategies designed to maximize the use and capabilities of the transportation sector show significant promise in creating flourishing systems that equally enable all users to lead socially connected lives.

SOCIAL Framework in Action

We hope that the SOCIAL Framework, the report on the Built Environment, and this supplemental research brief on the transportation sector serve as helpful resources for the existing evidence, approaches, and policies and that they spark ideas for new evidence-based approaches, policies, and future areas of investigation. We would love to learn about how you may take action based on the information reviewed in this report. Please share more by completing this brief form.

Provide Feedback

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