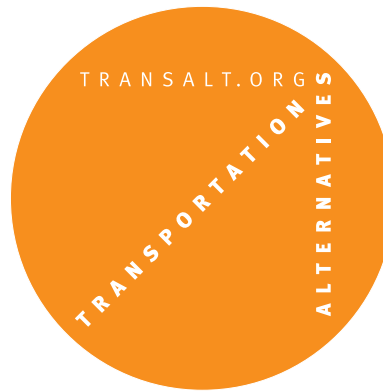


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Streets to Live By

How livable street design can bring economic, health and quality-of-life benefits to New York City

August 2008



Lindsey Lusher, Mark Seaman, Shin-pei Tsay

Executive Summary

Many critical issues faced by New York City, including public health, environmental sustainability and long-term economic viability are best addressed at street level. Following the lead of cities across the globe, the City is now employing livable streets as a central strategy to nurture a healthy population and support local economies in all five boroughs. This report analyzes the potential economic and quality-of-life benefits that an expanded livable streets initiative could bring New York City.

A livable street prioritizes people and all their activities – sitting, strolling, resting, shopping and observing city life. Cities such as San Francisco and London have embarked on large-scale livable streets initiatives to encourage people to walk, ride a bike or hop on the train rather than get behind the wheel of a private automobile. In turn, livable street improvements are bringing striking economic and quality-of-life benefits to those cities. For example, pedestrian-friendly retail zones are drawing large numbers of new shoppers and quiet and traffic-calmed streets are bringing higher property values, less crime and greater social cohesion among neighbors.

Livable streets have demonstrated the following effects on local economies:

- Pedestrian zones in city centers have boosted foot traffic by 20-40% and retail sales by 10-25%.¹
- Property values have increased by nearly one-third after traffic calming measures were installed.²
- Property values on quiet streets are generally higher than those on noisy streets. In the extreme, the value of a house on a quiet street would be 8-10% higher than the same house on a noisy street.³
- Public recreational and gathering space increases property values. Apartment prices near community gardens in New York City are 7% higher than comparable apartments in the same neighborhood.⁴

Many important quality-of-life benefits also arise with livable streets. Increased outdoor activity and reduced air pollution translate into better public health. More people walking about and enjoying sidewalk space creates a livelier city and is the first step towards stronger neighborhoods. Demonstrable progress toward these goals can be measured: lower obesity and diabetes rates, lower noise and air pollution levels, and increases in the size of residents' social networks.

In New York City, where most residents have a retail district within walking distance and everyone has a favorite store just a train ride away, livability initiatives have a high chance of success. In the last year,

¹University of Oxford, 2003.

²Bagby, 1980.

³Nelson, 1982.

⁴Voicu and Been, 2006.

new livability pilot programs by the Department of Transportation (DOT) – such as Broadway Boulevard, the 9th Avenue Cycle Track, and the Public Plaza Initiative – have revealed highly positive results.

But there is more to be done. To make the city's streets more livable and achieve the economic, health and quality-of-life benefits that other cities have experienced, leadership and coordination are required. Unlike most policies that fall within the jurisdiction of only one City agency, livable streets policies require agency staff to work together in completely new ways.

To this end, we offer the following recommendations:

- 1. Make livable streets the rule.** The Mayor should mandate livable streets as the overarching goal for all city streets. Improvements that support livable streets, whether through new construction, street rebuilding or zoning amendments, should be the standard, not the exception.
- 2. Increase the amount of walking in NYC.** A walking city is a healthy, livable city. The DOT should set a citywide goal to increase the share of city travel taken on foot by 10% by 2015.
- 3. Promote livable streets on the basis of public health.** The Department of Health and Mental Hygiene (DOHMH) should continue conducting research on the connection of livable streets to better public health and stand beside DOT in explaining the benefits to the public.
- 4. Promote livable streets in business districts.** The Department of Small Business Services (SBS) should develop educational materials for Business Improvement Districts (BIDs) to help local businesses understand the connection between livable street designs and economic vitality.
- 5. Put livable streets on the agenda of all New York City Community Boards.** Community Boards with livable streets champion received the most livability improvements. Organizations like Transportation Alternatives should create a Community Board training program to educate board members on the value of livable streets and encourage board members to make them a top priority.
- 6. Create Parking Benefit Districts.** The City should create Parking Benefit Districts like the ones adopted by Washington, D.C. In a Parking Benefit District, meter prices in commercial corridors are increased on the basis of demand (to achieve 85% occupancy) and a portion of the new revenue generated by the higher meter rates is directed back to the districts in the form of pedestrian, cycling and surface transit improvements.
- 7. Reduce congestion in neighborhoods.** A residential parking permit program, similar to the program developed by the DOT during the congestion pricing proposal, would reduce park-and-ride congestion in transit-rich neighborhoods.
- 8. Promote car sharing.** The DOT should partner with the New York City Economic Development Corporation (EDC) to incentivize car-sharing in the city and track its effect on travel behavior.

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Introduction

Building on the experiences of cities around the world, this report examines the costs and benefits of a wide-ranging livable streets program in New York City. Other cities have launched similar initiatives, all with a common set of objectives:

- Environmental sustainability
- Public transit use
- Street life
- Social interaction
- Public health
- Economic vitality



The Brooklyn Promenade

On a neighborhood level, a subset of livable street benefits is particularly relevant – street life, social interaction, public health, and the local economy. This is our focus. This report is divided into three sections: The Livable Streets Movement; Streets for a Strong Community; Streets for a Strong Economy; and Making New York City Livable. Part One defines the current livable streets movement and presents the model outcomes of livability. Part Two examines the goals and outcomes of livable streets programs in other cities aimed at public health and environmental goals. Part Three focuses on the relationship between livable streets and local economies. Finally, action steps for making New York City healthier and more livable are introduced.

The Livable Streets Movement

The livable streets movement is changing the way cities around the world work. From Paris to Melbourne, cities are dedicating increasing amounts of public space to pedestrians, bicyclists, and public transit: London pedestrianized part of Trafalgar Square; Vienna closed its central streets to vehicle traffic; Copenhagen built an extensive bicycle network; Bogotá chose busses over highways. In the United States, cities, states and now Congress have either passed or are considering legislation that would require transportation planners to consider the needs of all users – not just those in motor vehicles. As New York sets out to fulfill PlaNYC’s promise of dozens of new pedestrian plazas and hundreds of miles of bike lanes, the city is poised to be at the forefront of this historic movement.



Bogotá, Colombia

In the U.S., the livability movement is nothing short of a sea change in government transportation policies that have been singularly focused on motor vehicles for decades. The driving force of this movement continues to be a growing recognition of the economic and environmental costs of existing policy and a search for alternatives. Livable streets encourage walking, cycling and transit trips, cut into these costs and also advance important societal goals. London’s Walking Plan, for example, argues that walking contributes to “health and well-being” and to the “vibrancy” of the city, while other programs point to benefits such as a stronger sense of community.⁵

The economic benefits of livable streets, despite their growing importance in transportation policy planning, are presently not well understood. This is due in part to a paucity of research: there have been almost no published studies in the U.S. on economic impacts, and only a handful in Europe. In addition, it has been difficult to untangle the specific impact of measures such as new pedestrian amenities or parking regulations from other civic improvements put in place simultaneously.

What are livable streets?

In New York City, streets represent one quarter of land area. The majority of this space is dedicated to only one use – private motorized vehicular transportation. People who walk are pushed off to the edges, and bicyclists are, in most places, given no space at all.⁶ In the Central Business District as well as many other neighborhoods throughout the city, sidewalks are only wide enough to accommodate forward motion. As the Danish planner Jan Gehl noted, New Yorkers are always heading from Point A to Point B.⁷

⁵Transport for London, 2004a, p. 2.

⁶ By law, bicycles are allowed to ride along with vehicles on New York City roadways; however, high levels of traffic congestion in addition to the speed and generally aggressive behavior of drivers creates an inhospitable environment for the average cyclist.

⁷ Gehl is a leading urban designer and has consulted for Copenhagen, Melbourne, London, and New York (currently), Gehl 2007.



Pedestrians on 42nd Street in Manhattan

Cities that have embraced livable streets, on the other hand, seek to create engaging public spaces that draw people in.⁸ Cities achieve this, as one author writes, “by increasing [the street’s] aesthetic appeal, as well as minimizing the negative impacts of automobile use on pedestrians.”⁹

Creating a place where residents want to walk and ride a bike is critical. Design measures that enhance the pedestrian environment include expanding sidewalks, planting trees and installing benches or other seating. The impacts of automobiles can be directly addressed by cutting traffic speeds and volumes – for example, by removing or narrowing traffic lanes. Other important safety improvements include the adjustment of signal timing to provide adequate time for pedestrians to cross a street and building separated lanes for bicyclists. Providing alternatives to the automobile with improved transit facilities is also a necessity. As a planner

from Gehl Architects pointed out, building livable streets is a “self-enforcing process.” As a city enhances its public transportation and pedestrian environment, traffic will naturally lessen, “experience from around the world proves that when you provide invitations [for people to walk and enjoy their streets], people make wonderful use of them.”¹⁰

Melbourne, Australia (population 3.8 million) is a prime example of a city that has made livability a top priority. In the 1990s, that city embarked on an ambitious program to improve its public spaces and attract people downtown.¹¹ The city center faced competition from attractions on its outskirts and was regarded no more than “a daytime destination for commuting office workers who could not get home quickly enough.”¹² In response, the city expanded and improved sidewalks on the main commercial streets, turned some side streets into permanent or part-time (e.g., lunch hour only) pedestrian zones and added new public plazas. Over ten years, public space for pedestrians grew by 71%. Hundreds of new trees, major public art works and a consistent and elegant suite of street furniture – newsstands, drinking fountains, information pillars, public toilets – improved the aesthetic appeal of downtown. The result was a huge upsurge in street life. In ten years, pedestrian volume on the main street jumped 50% and surpassed that of London’s busiest commercial street, Regent Street. The number of outdoor cafes nearly quadrupled, and the number of cafe seats nearly tripled. In 2004, *The Economist* ranked Melbourne first among the world’s most livable cities.¹³

⁸ Project for Public Spaces, 2006.

⁹ Dumbaugh, 2005.

¹⁰ Jeff Risom, 2008.

¹¹ City of Melbourne and Gehl Architects, 2004.

¹² Millar, 2003 .

¹³ “Melbourne ‘World’s Top City,’” 2004.



Melbourne, Australia

On a smaller scale, cities in Europe and the U.S. have redesigned streets to allow pedestrians and bicyclists to share space with motor vehicles. One such design, known as a “living street”, or *woonerf* in Dutch,¹⁴ is tailored for urban residential areas. This design, called a “home zone” in the United Kingdom, gives pedestrians and motor vehicles equal rights to the street by eliminating the curb boundary between a sidewalk and the vehicle right-of-way. Narrow travel lanes, landscaping and trees, intermittent parking spaces (i.e., parking that is not continuous), and other traffic calming features force drivers to travel slowly – around 10 miles per hour – and be aware of people walking, playing or riding a bike. This design is also appealing because it preserves vehicle

access and parking for residents and businesses. Case studies suggest that *woonerven* are transformative. In one residential neighborhood in Manchester, UK vehicles speeds dropped from 17 mph to 11 mph, traffic volume fell 29% and residents reported feeling safer. Another example in Goteborg, Sweden turned a dull back alley into a vibrant mixed-use district and a popular local destination.¹⁵



A woonerf in Amsterdam, Holland

The economic, social and public health successes of these measures and the urgency of addressing environmental and public health concerns have led governments to encourage the wider application of livable streets improvements. London has set a goal of becoming “one of the world’s most walking-friendly cities” by 2015, with specific targets for increasing the proportion of trips that are taken on foot. Its plan supports context-sensitive designs such as *woonerven*, and commits specific funds to improving walkability.¹⁶ New York recently joined the list of cities and states adopting “complete streets” policies that consider the needs of all users, not just motorists. “Complete Streets” are streets that incorporate the needs of all users by design.

¹⁴ Other names for these streets: “home zone in the United Kingdom, “shared zone” in Australia, Verkehrsberuhigter Bereich in Germany.

¹⁵ Nelson-Nygaard, 2007.

¹⁶ Transport for London, 2004a.

How do you measure livable streets?

The success of a livable street does not necessarily arise from one particular design or policy, but is rather measured by its outcomes, with public health and environmental sustainability at the forefront. Although good street design and policy reforms are necessary to achieve livability, they do not guarantee it. It is important to distinguish outcomes from techniques when discussing the benefits of livable streets. For instance, traffic calming measures such as narrow traffic lanes, wide sidewalks and rows of trees are among the tools that planners use in designing streets, but are not ends in and of themselves. These techniques are discussed at length in other forums, such as the compendium of traffic calming measure published by the Institute for Transportation Engineers.

Outcomes are, of course, what inspire major cities to embark on such ambitious and far-reaching livability reforms. For example, the street design guidelines set out by Portland, Oregon, point to increased community activity and greater use of walking, bicycling and transit as key outcomes. Table 1 identifies the desired outcomes from the citywide livability initiatives of London, Melbourne, Portland and Oxford.

Table 1.
Goals of Selected Livable Streets Programs

Program	Goals or benefits cited
London's Walking Plan (2004)	Greater use of public transport; A better environment; Healthier lifestyles; Social inclusion; An improved economy.
Melbourne, Australia (1994, 2004)	Economic revitalization; Attracting more people to the city center.
Portland, Oregon street design guidelines (2002)	Greater use of walking, bicycling, transit; Community activity.
Oxford (England) Integrated Transport Strategy (1993)	Reduce congestion; Reduce pollution; Improve general quality of life; Improve relative attractiveness of car alternatives; Improve safety; Improve economic vitality; Provide access for mobility-impaired people.

Are New York City Streets “livable”?

New York City is perfectly primed to be one of the most livable cities in the world: it has high density, relatively well-mixed land uses, a world class transit system, and large population already accustomed to walking to the store and taking transit to work. These amenities and cultural norms set New York City ahead of other city in the U.S., but there is still much room for improvement. New York still suffers from the Robert Moses-era reconstruction that wholly reconfigured city streets for the quick and efficient movement of cars. With 4-lane avenues, lights perfectly timed for uninterrupted movement, free bridge access and plenty of parking, Manhattan couldn't be more welcoming to the private automobile. In other boroughs the situation is no better: where semi-trucks rumble through residential streets, zoning accommodates more and more car-friendly box stores, traffic calming projects are put on hold, and ever important shipping docks are paved over for parking.



New public plaza at 9th Avenue and 14th Street, Manhattan

A city built for cars isn't just inhospitable: it's also dangerous and unhealthy. The number of pedestrians and cyclists that have been injured or killed by cars in New York is tragic – in 2007, 136 pedestrians and 23 cyclists were killed by cars and, in 2006, 14,161 pedestrians and cyclists were injured by cars. These statistics do not characterize a livable place.

The good news is that New York City is finally making a turnaround. Greater public awareness and increased action over the last two decades have brought traffic reduction and pedestrian and cyclist safety to the forefront of New York City's agenda. In the past year, this trend has become even more pronounced, with new leadership at the Department of Transportation introducing new programs and projects with livability at their core:

- DOT's Strategic Plan, released in Spring 2008, commits to the development of Complete Street design standards.
- Under Local Law 23 (Intro 199), DOT will issue an annual report to monitor and evaluate volumes of traffic, bike, and ferries in addition to multimodal travel data on key corridors where DOT has undertaken changes in street design and/or operations. This report will thus demonstrate the effectiveness and impacts of DOT projects including complete streets, road diets, new bike facilities, new plazas, bus rapid transit, bus priority, and curb pricing.

- The City has made many striking new efforts to reclaim street space for pedestrians. In Summer 2008, the DOT introduced two temporary pedestrian street pilot programs in Brooklyn, a new model for neighborhood play streets in Queens and the ambitious “Summer Streets” program that will create a pedestrian corridor on city streets from the Brooklyn Bridge to Central Park.
- The DOT has also introduced parking protected bike lanes or “cycle track” bike lanes on 9th Avenue in Manhattan. This new street programming has been a resounding success for the safety and comfort of pedestrians and cyclists. It has brought a 50% decline in traffic related injuries, a 41% decrease in total crashes and a 36% decline in crashes involving pedestrians. The new cycle track has also spurred a 57% increase in cyclists on 9th Avenue. Plans have been unveiled for future lanes on 8th Avenue and Grand Street, also in Manhattan.
- Under PlaNYC, the DOT has initiated a comprehensive program to build public plazas in all city Community Districts. This initiative follows successful pedestrian plaza reclamations in DUMBO, the Meatpacking District and Willoughby Street that offer safe, attractive and comfortable places for people to sit and gather.
- The DOT will start a trial “Peak Rate Parking” program in Fall 2008 to test the effect of meter prices on local traffic congestion and turnover.
- On the iconic stretch of Broadway in Midtown Manhattan, DOT has begun to reclaim the roadbed for pedestrian and cyclist use with a protected bike lane and pedestrian amenities such as café tables, chairs and umbrellas. These projects are slated to be complete by the end of summer 2008.

Streets for Strong Communities

Livable streets lay the groundwork for a healthy community – they bring people outside and keep them there. They provide amenities like seating, play areas, good sidewalks and trees that make children, adults and seniors feel safe and comfortable. The extent to which any street is livable can be measured by its street life, social contacts between neighbors and public health indicators. The following section breaks down these three important characteristics and how they each define a great street and a happy community.

Street Life

The most fundamental measure of success is street life, and the simplest benchmark of this outcome is the number of pedestrians on the street during a given period of time. The most radical street treatment, in which streets are closed to vehicular traffic, has generally had a significant and positive impact on pedestrian counts. New pedestrian districts in Germany in the 1960s and 1970s were shown to boost pedestrian counts by 20-40% in the first four years, with some cities seeing growth of as much as 92%. Some cities have seen continuing growth over longer periods; for example, Munich's core saw the number of pedestrians grow from 72,000 in 1967 to 175,000 in 1978, six years after the creation of a pedestrian zone.



Bedford Ave., Brooklyn

The simple number of pedestrians, however, may not indicate whether a place is livable. Times Square attracts hundreds of thousands of visitors every day, but with its congested streets and sidewalks overcrowded with pedestrians fighting over precious space, few would call it livable. Many local residents purposely avoid this area because it is simply too uncomfortable. In an area with such a high pedestrian volume, a complimentary indication of livability is whether the place allows a diverse range of people to voluntarily engage in a wide variety of activities. Times Square fails this test. On most evenings, there are thousands and thousands of people, but space is so limited that it is impossible to stop, rest or do anything but keep going. Times Square would be an ideal location for a New York City pedestrian zone.

Simply eradicating cars does not guarantee a livable street. The success of pedestrian-only streets also depends on programming and the presence of popular destinations. Model pedestrian streets have several popular destinations, or “public life magnets” anchoring either end and are integrated into a wider network of attractive and pedestrian-friendly public spaces. Successful pedestrian zones are generally not larger than ½ square mile.¹⁹

¹⁸ Hass-Klau, 1993, p. 22.

¹⁹ Jeff Risom, 2008.

The Lively Street

Planners have developed several methods to measure livability based on street life : who is walking, who is talking, who is shopping, and who is playing. Jan Gehl has developed sophisticated measures of street life that have been used in the planning and design of many cities including, most recently, New York. The following outlines three measures of street life including pedestrian volume, stationary activities and pedestrian diversity that characterize a livable street.

Pedestrian volume

Streets that are more attractive to pedestrians should draw more people for discretionary trips in the middle of the day, in the evening and on weekends. Thus, counts should be taken at various times of the day and night, and on weekends as well as weekdays. Gehl has also suggested calculating the ratio between summer and winter pedestrian volumes. He theorizes that if the street is only a conduit, and not a place for activity, these counts should not be significantly different. But a street that is a destination in itself is likely to attract more people when the weather is good.²⁰



Crowded pedestrians on Prince Street, Manhattan

At a certain point, high pedestrian volumes exceed sidewalk capacity, thereby degrading a street's livability, similar to the Times Square experience. In his work *Great Streets*, University of California Professor Allan Jacobs demonstrates that there is an ideal rate of pedestrian activity where sidewalks are neither too crowded nor too sparse. Based on this target, Jacobs suggests volume guidelines, measured in pedestrians-per-minute-per-meter (of sidewalk) width (ppm). From his measurements, at volumes above 13 ppm pedestrians are unable to walk at their own pace, but must rather walk within flow and speed of existing pedestrian traffic. Jacobs finds that a volume of 7-9 ppm is the most comfortable rate of pedestrian traffic, allowing people to occasionally stop, increase speed and vary their pace as needed. A sidewalk with less than 2 ppm seems empty.²¹ Based on this metric, cities can easily use pedestrian counts to determine where sidewalks need to be widened to better manage pedestrian traffic.

²⁰ Gehl Architects, 2004.

²¹ Jacobs, 1993.



Simple benches encourage street life, Manhattan

The Transportation Research Board’s (TRB) Highway Capacity Manual provides some guidance, where it rates the performance of sidewalks with Levels of Service (LOS) from A to F based on numbers of pedestrian-per-minute-per-foot. LOS A is “unrestricted flow” and LOS F is described as “no movement is possible within the queue.” This potentially leads to the misconception of equating no foot traffic with a highly successful sidewalk because there are no restrictions in the flow of pedestrians. The TRB method of determining the success of sidewalks fails to incorporate the fact that successful sidewalks

are busy sidewalks. Within TRB’s metric, Jacobs’ Great Streets – among the world’s most timeless and successful – would get a low grade. Although pedestrian activity on these streets is lively, they would only be rated LOS C, just bearable, “within the range of personal comfort.” It would behoove transportation planners to recognize the LOS of lively sidewalks and not adhere to convention.



Shopping, Brooklyn

Stationary activities

When people enjoy spending time on the street, they will generally engage in a variety of activities. Gehl’s study of New York streets counted people standing, waiting for transport, sitting on benches, sitting on cafe chairs, sitting on secondary sitting-possibilities, sitting on folding chairs, lying down, children playing and people engaged in commercial, cultural, and physical activities.

Pedestrian diversity

Women, children and the elderly may be more sensitive than others to street qualities such as comfort, safety and accessibility. For this reason,

streets that attract a diverse cross-section of the population – including women, children and the elderly – are more likely to be livable. Project for Public Spaces, a non-profit firm that specializes in helping communities create vibrant public places, suggests measuring livability by comparing the population distribution of pedestrians by age and gender on a particular street against neighborhood or city distributions.²²

²² Ethan Kent, 2008.

Social interaction

When people spend time on streets, they have the opportunity to interact. The United Kingdom's walking and cycling plan notes that "both modes allow us to stop and chat or just say 'hello' in a way which it is difficult to do when closeted in the car. As such, they improve our sense of community." On the best residential streets, these contacts can be repeated over time and relationships can develop. In a 1970s study in San Francisco, Donald Appleyard found that on streets with lower levels of traffic, residents had more friends and acquaintances in the neighborhood than on higher-traffic streets. More recent studies in New York have confirmed these findings.

Community interactions are an important contributor to individual well-being. John Helliwell, an economist at the University of British Columbia, argues that the eye contact that people make when biking or on foot increases individuals' sense of trust. That trust translates into higher levels of happiness and civic-mindedness.²⁵ With this in mind, it's probably no accident that Denmark, one of the most livable places on Earth is also considered the happiest.²⁶ Emmanuel Mongon, designer of the Parc Astérix theme park in France, argues that "the best cities guide people to intersecting moments." Driving, on the other hand, creates a physical barrier between individuals, and drivers stuck in traffic are likely to feel animosity rather than trust.²⁷



Neighbors redesign an intersection in Portland, Oregon

The Friendly Street

The degree to which a given street supports a strong social network has been measured in the number of friends people have on a given street. Another potential method is taking note of residents' ownership of a street.

Social contacts

In a Transportation Alternatives' (T.A.) survey of New York streets, residents were asked how many friends and acquaintances they had in their

neighborhood. While the T.A. study compared results across streets, residents' number of friends and acquaintances could also be useful for determining the effect of improvements on a single street. These effects likely develop slowly, so a post-improvement survey could be done several years later.

Ownership

Especially within the context of the United States, the feeling of ownership and pride one exhibits towards a neighborhood may be another indicator of livability. As seen in many New York neighborhoods, neighbors build local livability on their own with the construction of community gardens, benches and the hosting of block parties and public gatherings right on their own street. In Portland, Oregon neighbors even engage in "intersection repair," street murals that calm traffic in addition to the construction of community gathering areas around the particular intersection. These types of interventions on a local block are an excellent indicator of a strong social network and a developing or high level of livability.

²³ UK Ministry of Transport, 2004, p. 3.

²⁴ Bosselman, 1999; Transportation Alternatives, 2006. The Bosselman study looked specifically at Eastern Parkway and Ocean Parkway in Brooklyn, as well as a boulevard in Chico, California. The Transportation Alternatives study looked at streets in three New York City neighborhoods.

²⁵ Cited in Montgomery, 2008.

²⁶ White, A., 2007

²⁷ Ibid.

²⁸ Transportation Alternatives, 2006.

Public Health

A number of recent studies have established a connection between the built environment and public health. Several studies have shown that people are less likely to be overweight if they live in more walkable areas. Other studies have shown that people who live in walkable areas are less likely to drive and thus less likely to contribute to harmful air pollution.²⁹ New York's PlaNYC argues that open space improvements such as public plazas can help lower obesity and asthma rates.³⁰ Livable streets that maximize the comfort, ease and practicality of walking (including the availability of transit) promote physical activity.



Bogotá, Colombia

Livable streets also influence public health by reducing traffic injury and fatality rates, cutting noise levels and reducing air pollution. All of these are significant hazards in New York City. In 2007, 136 pedestrians and 23 bicyclists were killed in traffic crashes. Noise is the number one complaint of callers to the City's 311 hotline, and chronic exposure to high levels of noise has been linked to elevated stress and poorer memory recall in children.³¹ Air pollution from traffic is a major contributor to health problems throughout the city, with some neighborhoods suffering the highest asthma hospitalization rates in the country.³² These same hazards not only directly endanger the health of New Yorkers, but they discourage residents from spending time outdoors.

The Healthy Street

There are many ways to measure public health, but only a few are directly relevant to street conditions. Furthermore, the street environment is only one factor affecting physical activity, and physical activity is only one factor affecting conditions such as obesity. Still, improvements in the street environment that promote physical activity could lower the incidence of obesity. The following are easily accessible public health indicators that are linked with good street design:

Traffic injuries

Tracking traffic injuries and fatalities is the simplest metric for livable streets. Data on traffic injuries and fatalities, with the date and location of the crash, is available from the state and is currently used in Transportation Alternatives' CrashStat application (crashstat.org). While crash statistics can speak to pedestrian and cycling safety, they do not always capture the nuances of street design and conflict, especially in New York City, where crash reports are written manually (unlike much of the rest of the country and state, where crash reports are entered into a computerized system that can then be used to analyze sites and identify potential problems).

²⁹ Frank, 2006.

³⁰ City of New York, 2007, p. 30.

³¹ Evans, 1995.

³² Environmental Defense, 2007.

Obesity

Data on obesity, diabetes, and other health conditions related to physical activity are available from the DOHMH by Community District. Given the large size of city Community Districts, it may be necessary to collect data in specific areas to determine the benefits of localized livability improvements.

In Salt Lake, Utah researchers found that more walkable neighborhoods decreased the risk of obesity. People who walked to work were found to decrease their risk of obesity by up to 10%. Pedestrian-friendly street



9th Avenue, Manhattan

networks, defined by neighborhoods with intersections within .25 miles of each address, were related to lower risks of obesity in three of four models. A short distance from an intersection generally implies that a person's walking trips are more direct and convenient, and that traffic is slower because cars have more stopping points.

³³

While modal splits are not typically a measure of public health, they do measure physical activity that can contribute to public health.³⁴ The census collects information on the mode people use in commuting to work, but this data is collected infrequently (every 10 years) and does not capture how residents travel to retail and recreational districts. More detailed household surveys are

important to accurately capture the activity level of a given neighborhood.

Noise and air pollution

Noise levels and air pollution can be measured for an entire day, week or longer period. Air pollution, of course, is not a single quantity: there are many pollutants with different consequences for human health. The most important for the sake of livability may be those such as ozone that restrict breathing and make it difficult for people to spend time outdoors. Truck noise and honking are among New Yorkers' constant complaints about the street environment.

Vehicle speeds

While speed is not a public health outcome, it is a prime factor affecting injury and fatality rates, and the effects of traffic calming on speed are visible before injury accidents occur. The speed of vehicles has a direct impact on the ability of a pedestrian to survive a crash: at every 10 miles per hour increase in speed, the risk of a fatality from a crash doubles. Furthermore, crashes with seniors disproportionately result in a fatality.

³³ Smith, 2008.

³⁴ Frank, 2006.

Traffic Volume

The volume of automobile traffic strongly affects livability, but is a less useful measure of the success of a street. The ideal traffic volume, clearly dependant on the purpose of the street, is such that cyclists and pedestrians feel safe riding a bike on the street and crossing at intersections. When traffic volumes are too high, there may be excessive road noise and air pollution, and social networks may deteriorate. On the other hand, the absence of automobile traffic from Main Streets in the U.S. frequently signals their decline. Rather than a quantitative measure of livability, the appropriate level of automobile traffic is a precondition of a livable street.

Practical Considerations and Caveats

In selecting and applying the above measures of any street's success, a few caveats apply. First, some outcomes such as obesity rates are determined by a wide range of factors beyond the control of transportation planners, such as diet and education. This complicates the process of comparing outcomes across streets, since the outcomes may vary for reasons not related to street conditions.

Second, some data are clearly more difficult to measure than others. Obesity rates, social contacts and mode splits cannot be easily observed in the same way as, for example, pedestrian counts. One technique for addressing this is to collect all of this information in a single household survey. The survey requires a significant effort but can yield valuable information.

Finally, the same behaviors that are difficult to measure also tend to change slowly. Social contacts, for example, can take years to develop and obesity may be difficult to reverse. Thus, while it is important to take baseline measurements before a street improvement is made, the post-improvement survey can probably be put off for at least a year and maybe much longer. On the other hand, pedestrian behavior, vehicle speeds, and noise and air pollution, which are likely to change quickly, can be measured more easily.

Streets for a Strong Economy

Beyond improving quality of life, livable streets also support strong local economies. For instance, traffic calming improvements that increase safety, reduce road noise and make being outside more pleasant and safe can increase home values. In commercial districts, pedestrian street amenities draw more foot traffic, new shoppers and higher retail sales.



Stone Street, Manhattan

This section reviews existing research on the impact of livable streets on local economies. In the United States, very little research exists on the economic impacts of traffic calming and pedestrianization, reflecting the long dominance of the automobile in American planning. Somewhat more research has been conducted in Europe, where pedestrianization and traffic calming have a longer history. To supplement these studies, this section also looks at research into the economic impacts of related neighborhood characteristics, such as noise and open space. This research presents the range and magnitude of impacts that have been seen. Full results are presented in Table 2.

Table 2. Economic Outcomes of Livable Street Improvements

Measure	Range of outcomes
Residential property values	<ul style="list-style-type: none"> • 85% reduction in traffic translated to 5% increase after one year and 30% after 13 years (Bagby) • Streets with no through traffic command 9% price premium (Hughes) • Quiet streets command 8-10% premium over noisy streets (Nelson) • Community gardens boost nearby apartment prices 7% (Voicu and Been)
Retail sales	<ul style="list-style-type: none"> • Pedestrianization boosts sales 10-25% in first year (University of Oxford)
Pedestrian volumes	<ul style="list-style-type: none"> • Pedestrianization boosts pedestrian traffic 20-40% in first year (University of Oxford)

Researchers of potential economic outcomes face numerous challenges. First, any infrastructure renewal project – resurfacing a street, for example – might improve economic outcomes, regardless of its impact on livability, because people tend to place a higher value on places that are updated and perceived to be well-maintained. Second, it is conceivable that neighborhoods with rising property values or retail sales are more likely than others to demand and receive street improvements. A comparison of economic indicators before and after the project may show a strong gain, but this gain might have occurred anyway due to the changing character of a neighborhood. Finally, the results of some studies may not be generalizable, if there were unique conditions driving the economic gains. For example, outcomes in smaller cities, suburbs, and in new developments may not be relevant to conditions in New York and particularly Manhattan, where walking accounts for an unusually high relative share of travel.

Controlling these variables is clearly the biggest challenge in researching livability. Like the oft-cited milestone study of traffic calming in Grand Rapids, Michigan, the ideal study compares two very similar streets over time, one with traffic calming and one without.³⁵ The difficulty, of course, is finding two streets inhabited by similar communities, where similar physical and land use characteristics exist, and yet where only one street receives traffic improvements.

A more likely approach, a hedonic pricing study, would look at a large number of streets with widely varying characteristics.³⁶ Multiple regression analysis would estimate the relationship between each characteristic and property values or rents. This type of study might demonstrate that rents are \$10 per square foot higher for every foot of sidewalk beyond the standard sidewalk width. That said, it's quite unlikely that any one particular characteristic would produce such a clear effect on rent. More likely, a package of changes that includes, for example, more trees, wide sidewalks, seating areas, and programming may have an effect.

Property values

The difficulty of carrying out such studies – and in the U.S., the scarcity of examples – has meant that most researchers have used less robust methodologies to analyze livable streets improvements. More rigorous techniques, however, have been applied in studies linking property values to environmental attributes that are outcomes of livable streets, such as noise, traffic volume and the provision of open space. These case studies provide indicators for real property value in U.S. cities, and therefore infer the type of value that livable streets, in general, provide to all neighborhoods.

³⁵ Bagby, 1980.

³⁶ A hedonic pricing study calculates the influence of each of an item's characteristics on its value. For example, a housing pricing study estimates the extent to which factors such as size, quality, appearance, and school quality determine the price of a house.

Traffic diverters (Grand Rapids)

The earliest research on property values looked at the effects of traffic diversion in Grand Rapids, Michigan. In the early 1950s, the adjacent Dickinson and Burton Heights neighborhoods suffered high crash rates from through traffic. When a six-year old boy was killed by a speeding truck in the Dickinson neighborhood, the city responded by installing diverters to discourage through traffic.

As a result of these diverters, through traffic on neighborhood streets dropped by as much as 85%, and the accident rate dropped 95% over four years. Home prices were also affected by traffic reduction. Home prices in Dickinson increased more quickly than in Burton Heights. Before the installation of the diverters, prices in Dickinson were about seven percent higher than in Burton Heights. One year later, the gap in the average sales price had grown by another five percent and by 1965, the gap had grown to 30%.³⁷

Traffic volume (Baton Rouge)

A 1992 study in Baton Rouge, Louisiana, estimated the relationship between housing prices and traffic volumes. The researchers gathered data on home sales and traffic levels in two neighborhoods. Data was gathered from two different sites, one from an urban area and one from a suburban neighborhood. Traffic on these streets ranged from 1,000 to as high as 18,000 cars per day. Using a hedonic pricing model, the researchers estimated that home prices increased by 1.05% for every reduction in traffic of 1,000 cars. They also found that homes on streets with exclusively local traffic, such as cul-de-sacs, were worth 8.8% more than other homes.³⁸

Road noise (U.S.)

A number of researchers have studied the impact of noise, and especially road noise, on property values. Noise levels as perceived by humans are measured on the A-weighted decibel (dB) scale, where a ten dB increase in sound corresponds to a sound level that is ten times louder. Daytime background levels in U.S. residential neighborhoods are typically 45-55 dB, and the noisiest streets are about 25 db louder.³⁹

A 1982 review of this research found a statistically significant relationship between noise levels and property values. Houses further away from a noisy highway sold for more than those nearby, with prices increasing by 0.4% for every decibel reduction in noise. In the extreme, the value of a house on a quiet street would be 8-10% higher than the same house on a noisy street.

³⁷ Bagby, 1980.

³⁸ Hughes, 1992.

³⁹ Nelson, 1982.



Red Shed Community Garden,
Brooklyn

Community gardens (New York)

A 2006 study by New York University researchers looked at the relationship between housing prices and the development of community gardens. The researchers examined apartment prices near 636 gardens that were developed mostly on vacant lots in New York City between 1977 and 2000. Before the gardens were established, the vacant lots had depressed nearby property values, such that apartments adjacent to the lots sold for 11% less than comparable apartments 1000 feet away.

Development of the community gardens boosted the adjacent property values, and after five years the gap in prices relative to the more distant properties had shrunk to less than 4%.⁴⁰

Pedestrian environment (London)

In the United Kingdom, the Commission for Architecture and the Built Environment (CABE) measured the quality of the pedestrian environment in 10 London commercial districts, and attempted to link this measure to apartment prices and retail rents. The pedestrian environment on the main streets in these districts was ranked on a scale of -3 to +3. Regression analysis hinted at a relationship between an improved environment and higher property values and rents, although the results were not statistically significant.⁴¹



Neal Street, London

The results of these studies suggest that homebuyers are willing to pay a premium for some of the outcomes that livable streets provide: reduced noise, improved public spaces and improved street safety. For the New York City, increases in property values suggest a possible means for financing such improvements. In the case of the community gardens, for example, the estimated increase in property tax revenues would have more than paid for the capital outlays and maintenance for the 636 gardens. At the same time, a rapid rise in property values could drive out renters – a distinctly negative livability outcome.

⁴⁰ Voicu and Been, 2006.

⁴¹ Commission for Architecture and the Built Environment, 2007.

Retail sales

In commercial districts, both the nature of the improvements and the outcomes that have been studied are different from those in residential areas. First, while most of the studies of housing prices looked at the value of reduced traffic or noise, many studies of retail impacts have looked at pedestrianization programs, where traffic has been entirely eliminated. The following briefly reviews the effect of traffic calming on retail sales within U.S. cities and then tracks the mixed results of pedestrian zones in the U.S. and Europe as illustrative of the potential and requirements of a successful – and profitable – pedestrian environment.

U.S. Commercial Districts

U.S. cities have found that reducing traffic volume and speed has a positive effect on commercial districts. Although the studies are few, anecdotal evidence is positive:⁴²



South Street Seaport, Manhattan

- Mountain View, California, widened sidewalks on its main street, removed parking spaces and planted trees. The street has since drawn \$150 million in private investment in residential and office units, and has become a regional attraction with its restaurants, bookstores, and cafes.
- West Palm Beach, Florida, converted its one-way main street to two-way operation, narrowed the street at points and raised intersections. In five years, vacancy rates fell from 70% to 20%, while commercial rents increased from \$6 to \$30 per square foot.
- Removing traffic lanes in Orlando, Florida, helped transform a commercial street into a popular dining destination.

With many of these projects, it is not possible to say that street changes alone were responsible for the economic improvements, since they were often part of a larger package of civic improvements. For example, Mountain View's upgrades to its pedestrian environment were accompanied by development of a new city hall and performing arts center, which themselves have likely drawn new business downtown. Yet in all of these cases, street changes were likely integral to the success of the schemes. If the cities had not expanded sidewalks and slowed down traffic, outdoor dining would have been much less attractive and the retail and restaurant booms might have been much weaker.

European Pedestrian Zones

The U.S. and Europe have had very different experiences with pedestrianization efforts. In the U.S. in the 1960s and 1970s, about 200

⁴² Local Government Commission Center for Livable Communities (2005); McCann, 2007.

cities converted their downtown streets into pedestrian zones in a last-ditch attempt to slow the flight of shoppers to suburban malls. But most of these conversions failed – the exodus of shoppers and stores continued – and only thirty or so pedestrian zones remain. In most cases, there simply were not enough people living within walking distance of the downtowns to support those districts, and the cities did not have high quality transit to bring in customers from outside. The few places in the U.S. where pedestrianization has succeeded appear to have a large number of captive users, such as residents, students or workers; have good public transit links; are actively managed and programmed by solid leadership; and have strong attractions such as cultural establishments, retail anchors and public events.⁴³

In Europe, on the other hand, pedestrian zones have found success. By the end of the 1970s, Germany alone had about 500 pedestrian zones in 300 towns.⁴⁴ Focus on pedestrian programs and amenities has continued to rise in recent decades, so that large parts of many city centers are entirely or mostly car-free. Munich, for example, has 7 kilometers of car-free streets.⁴⁵

A comprehensive review in 1993 of studies on pedestrianization projects in Germany and the United Kingdom found that these projects generally brought positive results for retailers. A 2003 review confirmed these findings based on more recent studies in the United Kingdom. These studies found an average 32% increase in the number of visitors to stores in the first year after pedestrian zones were created, and a jump in sales of 10-25%.⁴⁶ London's business leaders see improving the pedestrian environment as critical to sustaining the capital's international status.⁴⁷

A survey of retailers in eleven German cities that created pedestrian zones in the 1970s found that 83% of retailers inside the zones reported higher sales, while retailers outside the zone on balance saw essentially no change. A study in Leicester, England, found a statistically significant relationship between lower traffic volumes and reduced store vacancies. These results are not conclusive, since it may be that pedestrian zones tend to be built where retail sales are already strongest. Yet the same review found a 20-40% increase in pedestrian traffic in the first year after a pedestrian zone was created; this increased traffic could represent potential new customers.⁴⁸

New York Opportunities

With its high density, mixed land use, and extensive transit network, New York already has in place many of the key ingredients for successful pedestrian zones. Unlike America's main streets thirty years ago, New York City's retail districts are generally flourishing. Its transit system provides good access to most parts of the city and especially to the Manhattan core. At the same time, in many parts of the city, retailers can draw on thousands of customers who live, work, or study within walking distance.

⁴³ Flisram, 2000.

⁴⁴ Hass-Klau, 1993, p. 23.

⁴⁵ Cameron et al, 2004.

⁴⁶ Transport Studies Unit, 2003.

⁴⁷ Central London Partnership, 2003

⁴⁸ Hass-Klau, 1993.

The prevalence of pedestrian shopping in New York, and especially Manhattan, is borne out in several surveys. A 2007 study of pedestrians on SoHo’s Prince Street, for example, found that 30% lived or worked in the neighborhood. Of those who traveled to SoHo, 78% took transit, biked, or walked and only ten percent arrived in their own car.⁴⁸ On Columbus Avenue on the Upper West Side, a 2007 survey of people on the street found that only two percent had driven there.⁵⁰ For Manhattan, this low share for auto trips is not unusual. The 1997-1998 household travel survey by the New York Metropolitan Transportation Council showed that six percent of Manhattan shopping trips are by auto, and 70% are by foot or bike. In the boroughs, the auto share is higher but varies significantly across boroughs (see Figure 2). On average, 50% of shopping trips in New York City are by foot or bike, and 36% are by car.⁵¹

By these measures, the experience of European cities is much more relevant for New York than for most of the United States. In Amsterdam in 1994, for example, 75% of shopping trips in the historical core and the inner city were on foot or by bike.⁵² In Vienna, 30% of all trips are on foot or by bike; for Munich, the comparable figure is 35%.⁵² In New York, 37% of all trips are on foot, while in the United States as a whole, walking accounts for fewer than 9% of all trips.⁵⁴

In summer 2008, New York City is experimenting with temporary pedestrian streets in Brooklyn, Queens and Manhattan. Although the retail impact of these closures has yet to be evaluated, the preliminary findings are encouraging. Bedford Avenue, in Williamsburg, Brooklyn, is now closed to pedestrians from 12pm-7pm for 4 consecutive Saturdays. The street closure was inspired by a request by a local business owner and support from community leaders, the local community board and the DOT. Called “Williamsburg Walks,” the closure has little programming other than a few additional tables and chairs on the street, free valet bicycle parking, and extended use of the sidewalk by local stores. On the first Saturday alone, Transportation Alternatives recorded a 50% increase in foot traffic.

⁴⁹ Schaller, 2006. Twelve percent traveled by taxi or livery.
⁵⁰ Project for Public Spaces, 2007, p. 10.
⁵¹ Analysis of New York Metropolitan Transportation Council’s Regional Travel-Household Interview Survey, 1998.
⁵² Amsterdam Jaarboek, 1994.
⁵³ Federal Highway Administration, 2003; Winkler, 2006.
⁵⁴ Hu and Reuscher, 2004a and 2004b.

Figure 1. Mode Share for Soho Pedestrians on Saturdays

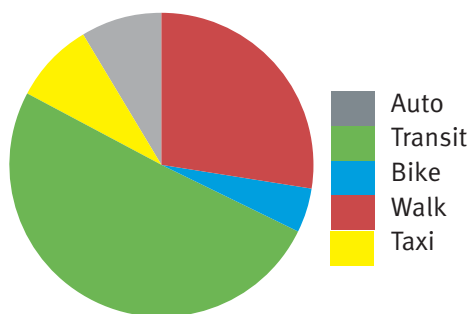
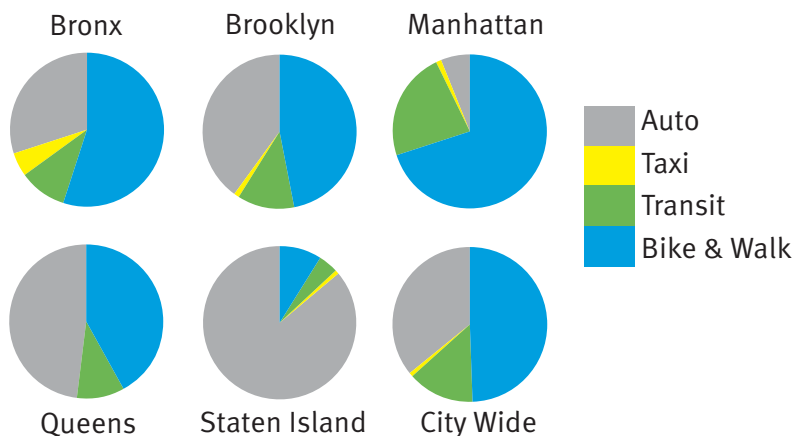


Figure 2. Mode Share for Shopping Trips, by Borough



Making New York City Livable

Worldwide experience suggests that the adoption of livable streets principles in New York would enliven the city and give a significant boost to local retailers. As can be seen from the experiences of other cities, New York could use pedestrian zones and traffic calming to attract new customers to retail districts. Most significantly, the prioritization of pedestrians through traffic calming, wider sidewalks, lower speed limits, and spatial restrictions on vehicle use (such as closing the street to vehicular traffic during specific times of the day) would engender many of the benefits of the completely pedestrianized streets in Europe. With thousands of residents a short walk or bike ride away from most retail districts and millions more with good transit access, the city is ideally suited to these improvements.



Williamsburg Walks, Brooklyn

In developing a livable streets program, the city can additionally expect a wide range of quality of life benefits – the very benefits that end up making neighborhoods more attractive and boosting property values. These outcomes – more children playing outside, cleaner air, stronger neighborhood social networks – can be measured and tracked over time. Citywide data gathering and the development of a livability index that combines several measures could pinpoint neighborhoods and streets with the greatest needs. Finally, setting livability outcomes as the program’s goals, instead

of using traditional technical goals, would ensure the program’s success in improving the quality of life.

The real/tangible economic benefits that flow from livable streets can positively affect the City’s budget. To the extent that street improvements translate into higher real estate values and retail sales, the City would collect more property and sales taxes. For example, community gardens, another type of neighborhood improvement, are estimated to have increased property values by a total of \$1.3 billion and property tax collections by \$503 million over twenty years.⁵⁵ It is certainly conceivable that the incremental tax collections from livable streets could meet or exceed the initial capital investment and operational expenses.

Neighborhood Concerns and Policy Options

Because only half of New York City households own automobiles and many of those households still depend on public transit for commuting and other trips, New Yorkers generally support improvements that make walking and cycling more pleasant. Nevertheless, perceptions that new traffic calming or the removal of traffic lanes and parking will increase traffic congestion are still strong. The following are a set of frequent questions from community members and how to address them.

⁵⁵Voicu and Been, 2006. Estimate a net present value of \$503 million in increased tax revenues over twenty years. They estimate that capital costs and twenty years’ maintenance, mostly privately provided, have a net present value of \$177 million.

Won't this just create more traffic?

While traffic calming or pedestrianization may shift some traffic to alternate routes, experience shows that overall traffic levels are not necessarily impacted significantly, and can even be reduced. For years, traffic planners assumed that “nothing will make people get out of their cars – they’ll always try and find another way round, and, if necessary, they’ll just sit and wait in the traffic.”⁵⁶ But the evidence from dozens of cities around the world has shown the contrary. Some of the traffic displaced by traffic calming or pedestrianization actually disappears, and the remaining traffic is typically dispersed and does not create a long-term disruption.

For example, after two streets in the center of Cambridge, England, were closed to through traffic, daily traffic levels in the core fell from 77,119 vehicles to 69,792, with no apparent effect on retail trade.⁵⁷ New York City has had its own experience with disappearing traffic. When the West Side Highway collapsed in 1972, overall traffic on the highway and on parallel routes fell by 40,000 vehicles per day.⁵⁸ In general, the evidence suggests that some traffic will move to parallel routes when a street is closed, but that careful planning can minimize the impacts.⁵⁹

Where will I park?

In some instances, pedestrian improvements may require the removal of on-street parking spaces in residential areas. Residential parking permits may alleviate this concern by reducing park-and-ride pressure in transit-rich neighborhoods and car sharing is emerging as an innovative method to help urban residents actually get rid of their cars.

Residential parking permits (RPP) are a tool to reduce parking demand. These programs restrict neighborhood parking to local residents and their guests (who must display a permit in their vehicle). Several cities in the U.S. and internationally have implemented RPP. These programs, which would require State approval, could complement any proposals to raise metered parking rates on commercial streets, since they would prevent shoppers from hunting for free parking on nearby residential streets.

Car sharing is a relatively new strategy for reducing parking demand. Members of car sharing programs can reserve a nearby vehicle by the hour for a fee that covers gas, insurance and maintenance (cars are typically parked in nearby garages or in reserved spaces on the street, so members do not spend time hunting for a space when they return the car). In cities such as Philadelphia and San Francisco, each car share vehicle replaces as many as 22 new and existing cars, as members typically sell their existing car or forego the purchase of a new car, thereby reducing the number of sources for additional vehicle trips or for traffic generated by parking searches.⁶⁰ The City could encourage this shift by dedicating space for car share vehicles when it eliminates parking as part of livable street improvements. In new residential and commercial developments, the City could follow the example of cities such as San Francisco and Boston by requiring developers to dedicate spaces to car sharing vehicles.

⁵⁶ Cairns, 2001.

⁵⁷ European Commission, 2004, pp. 42-45.

⁵⁸ Cairns, 2001.

⁵⁹ Cairns, 2001.

⁶⁰ Millard-Ball et al, 2005.

Where will my customers park?

When pedestrianization or traffic calming schemes are proposed, retailers are frequently among the most vocal opponents. Traffic calming and pedestrianization might result in drivers shopping elsewhere, and retailers may believe that these customers are the largest fraction of their customers. Even if there is an upsurge in pedestrian traffic, retailers may fear that pedestrians spend less than drivers.

Evidence from London and other cities suggests that these fears are unfounded. As the research cited above suggests, where business is already thriving, traffic calming and pedestrianization have tended to boost sales. Some customers undoubtedly take their business elsewhere, but those losses are more than offset by the increase in pedestrian traffic.

Two surveys in Europe suggest that some of retailers' fears are based on a poor understanding of their customers' travel choices. A 1991 study in Graz, Austria, found that retailers thought that a majority of their customers arrived by car, and only 25% on foot. In fact, 32% arrived by car and 44% on foot. Sustrans (2004) found a similar discrepancy in Bristol, UK. This misperception may fuel anxiety about changes that increase pedestrian access at the expense of drivers.

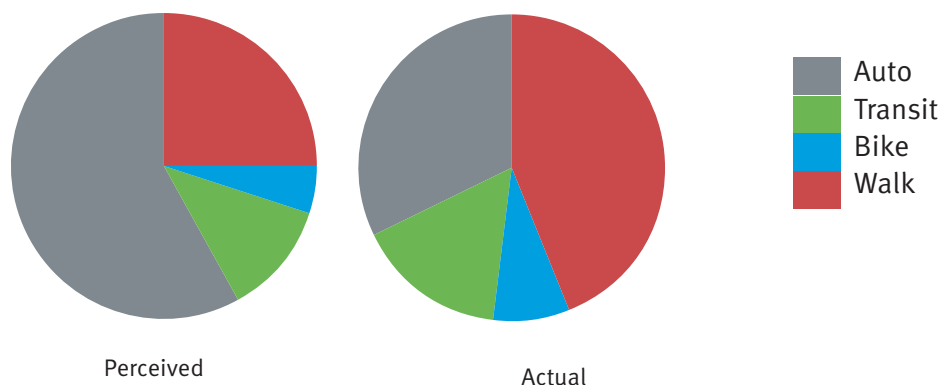
Studies in London also suggest that pedestrians spend more than drivers. A survey of shoppers in central London shopping districts found that those who walked to the store spent about the same (£41) as those who drove (£43), but that over the course of a week, those who walked spent much more (£104) than those who drove (£73).⁶² These findings were confirmed in a study on London's Kensington High Street, which found that walkers shopped more frequently than drivers and accounted for 35% of retail spending, compared with 10% for drivers.⁶³ The ability of customers to take home heavy or bulky goods – another possible concern of retailers – is apparently a minor issue for central London shoppers, at least: only one percent chose their travel mode because they had to carry heavy bags.

⁶⁰ Hass-Klau, 1993.

⁶² Transport for London, 2004b.

⁶³ Transport for London, 2004a, p. 19.

Figure 3. Perceived and actual mode shares for shopping trips in Graz, Austria



Market-rate parking pricing, or performance parking, is a key strategy used by several U.S. cities to alleviate parking problems in commercial districts. At \$1 to \$1.50 per hour, curbside parking in New York is underpriced and far less expensive than garage parking in much of the city. Increasing this price would encourage some drivers to use other means of transportation, freeing up spaces and making it easier for the remaining drivers to find parking.

Getting there

Making New York City streets livable is no small challenge. More than just making select improvements, it is shifting the longstanding paradigm that city streets are meant for the quick and efficient movement of automobiles. This paradigm is still pervasive within City leadership, many City agencies and, most distressingly, the public mind.



Queens volunteers talk to neighbors about congestion pricing

Pilot projects, like those initiated by the DOT over the last year, have begun to change this. Experimentation with temporary street closures, including the Bedford Avenue and Montague Street commercial districts in Brooklyn and the new play street model initiated in Jackson Heights, Queens, offer New Yorkers the opportunity to inhabit and travel in public space that is normally reserved for cars. These street closures are also the first, critical step to subverting the existing paradigm that streets are for cars by showing New Yorkers that people can have priority and that it's fun and comfortable to have more room.

With the benefits of projects like the 9th Avenue Cycle Track, Broadway Boulevard and the Public Plaza Initiative already clear, an expansion is justified. These pilots have required an enormous amount of effort and political will because they are the exception. To get beyond individual pilot projects and capture the benefits of livable streets more broadly, a holistic and interagency livable streets policy is necessary.

To this end, we offer the following recommendations:

- 1. Make livable streets the rule.** The Mayor should mandate livable streets as the overarching goal for all city streets. Improvements that support livable streets, whether through new construction, street rebuilding or zoning amendments, should be the standard. Coordination and creative problem solving between City agencies, including the Department of City Planning (DCP), Office of Management and Budget (OMB), Department of Design and Construction (DDC), Economic Development Corporation (EDC), Department of Environmental Protection (DEP), and Department of Sanitation (DOS) would be best led by the DOT and the Mayor's Office of Planning and Sustainability.
- 2. Increase the amount of walking in NYC.** A walking city is a healthy, livable city. Similar to DOT's goal to double the number of bicycle commuters by 2015, the DOT should set a citywide goal for the share of city travel taken on foot. In 2004, Transport for London set a goal of increasing both the share of walking for trips less than two miles and the average number of trips made on foot each year by 10% by the year 2015. In 2002, a survey conducted by the New York Metropolitan Transportation Council found that one-third of trips made by New Yorkers included walking or bicycling. As a starting point for discussion, we recommend that agency match London's targets by 2020. The greatest gains can be made in neighborhoods that lack safe and well-maintained pedestrian facilities, such as the neighborhoods with Department of Health and Mental Hygiene's (DOHMH) District Public Health Offices.
- 3. Promote livable streets on the basis of public health.** The DOHMH should continue conducting research on the connection of livable streets to better public health and stand beside DOT in explaining the benefits to the public: testify at hearings; monitor the health impacts; and provide general context to support DOT implementation of livable streets.
- 4. Promote livable streets in business districts.** The Department of Small Business Services (SBS) should promote livable street design as a driver of local economic development. To do so, we encourage SBS, in collaboration with DOT, to develop educational materials for Business Improvement Districts (BIDs) to help local businesses understand the connection between livable streets designs and economic vitality. Livability improvements could also be successfully integrated into existing economic development programs (e.g. Avenue NYC) and would be complemented by BID metrics, such as shoppers' mode share (how shoppers travel to and from business districts) and the age and gender composition of shoppers at different times of day.

- 5. Put livable streets on the agenda of all New York City Community Boards.** Community Boards that have a livable streets champion have received the most livability improvements. These champions organize their neighbors and fellow Community Board members to bring new bike lanes, public plazas, and traffic calming improvements to their neighborhoods. Building on this model, organizations like Transportation Alternatives should create a Community Board training program to educate Community Board members on the value of livable streets and inspire Community Board members to make livable streets a top priority. Furthermore, Borough Presidents and Council Members who want livable street improvements should make a particular effort to recruit enthusiastic and proactive Community Board members.
- 6. Create Parking Benefit Districts.** In the U.S., parking reform is most successful when coupled with a program to return meter revenue (or other benefits) to the community. The City should create Parking Benefit Districts such as the ones that has been adopted by Washington, D.C. In a Parking Benefit District, meter prices in commercial corridors are increased on the basis of demand (to achieve 85% occupancy) and a portion of the new revenue generated by the higher meter rates is directed back to the districts in the form of pedestrian, cycling and surface transit improvements. Community Boards and local City Council Members would have an opportunity to comment on and prioritize these improvements. The DOT has already begun to study the effect of pricing on cruising and demand with two “Peak Rate Parking” pilots in the West Village, Manhattan and Kings Highway, Brooklyn.
- 7. Reduce congestion in neighborhoods.** A residential parking permit program would reduce park-and-ride congestion in transit-rich neighborhoods, as would commercial district pricing reform (see 6). Similar to the robust program developed by the DOT during the congestion pricing proposal, the City should create an opt-in program for interested Community Districts.
- 8. Promote car sharing.** Car-sharing is rapidly emerging as an effective tool to reduce the length and frequency of car trips as well as the number of cars owned by an average household.⁶⁴ The DOT should partner with the EDC to incentivize car-sharing in New York and track its effect on travel behavior.

⁶⁴ Millard-Ball et al, 2005.



Block party, Manhattan

This report is written at a time when leadership at the DOT and the Mayor's Office have made significant strides to show the promise of livable streets. To move this agenda beyond 2009, the next Mayor must select agency commissioners who embrace the potential of a livable streets policy and will lead their staff towards making it a reality. With a strong foundation set, New York City is now presented with the historic opportunity to be the global standard for a livable streets transformation.

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