

01 Executive Summary and Major Findings

02 The Case for Bike-Share in NYC

03 Case Studies

04 NYC Bicycling Conditions

05 NYC Bicycling Demand

06 Paying for a NYC Bike-Share

07 Implementation

08 Appendices

04 NYC Bicycling Conditions

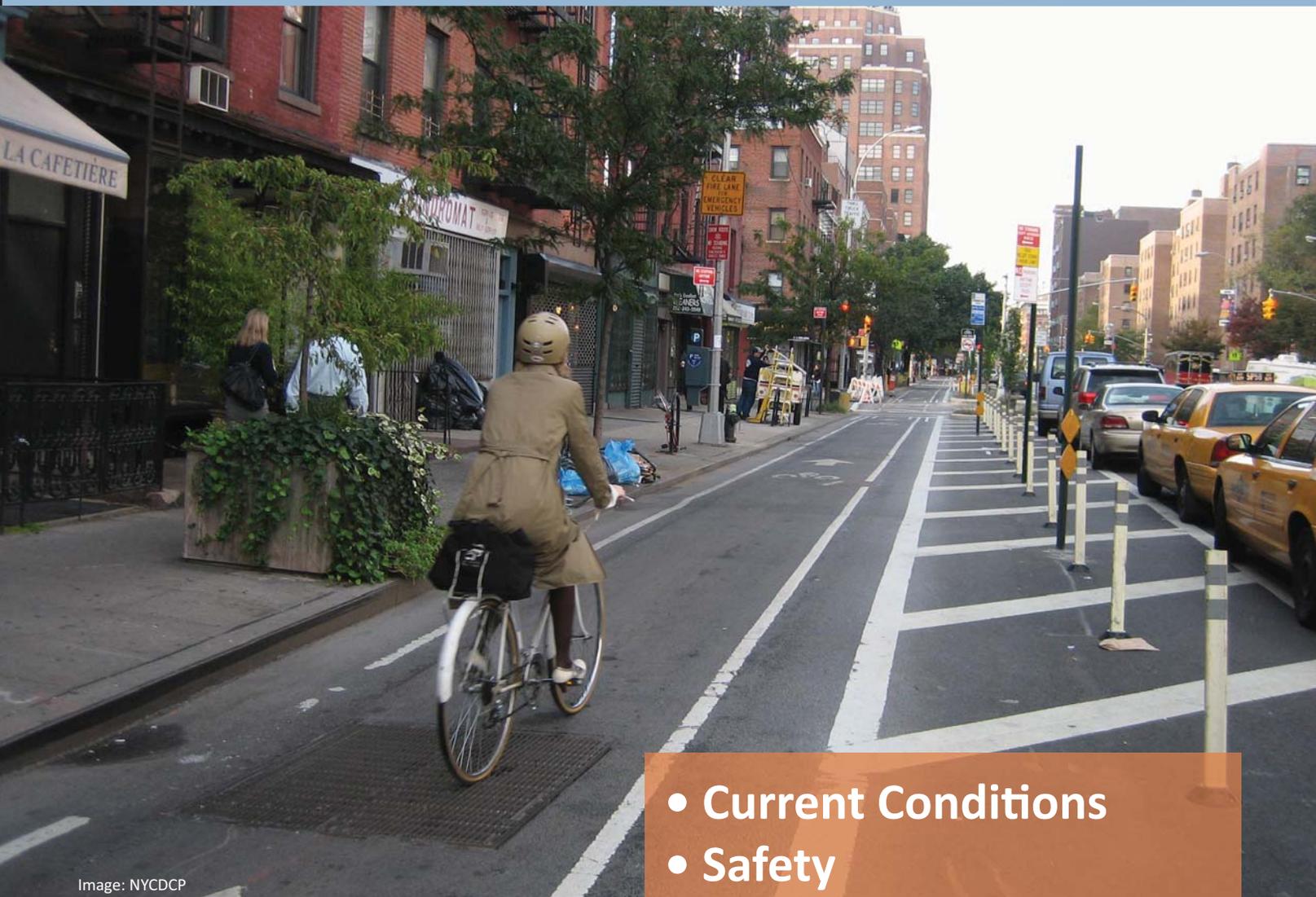


Image: NYCDCP

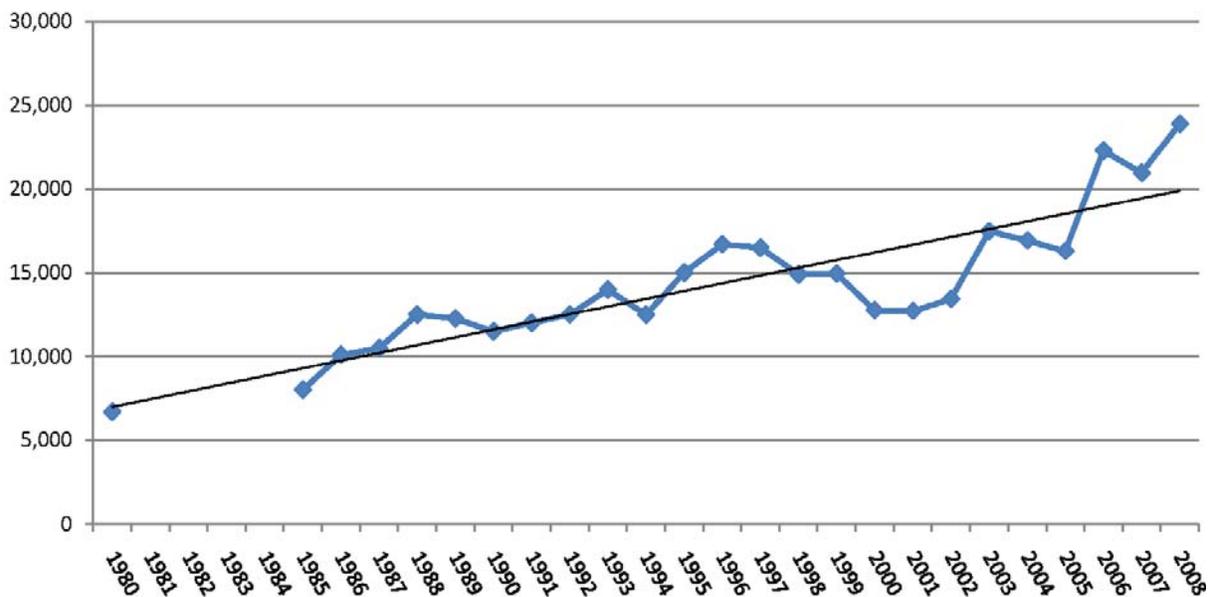
- Current Conditions
- Safety
- Other Bicyclist Concerns

CURRENT BICYCLING CONDITIONS IN NYC

Bicycle riding in New York City is at its highest recorded level. Spurred by the construction of bicycle facilities citywide, increased attention from residents, political leaders and city officials, rising fuel and gas costs, as well as greater awareness on the part of the public of the costs of traffic and transit congestion, bicycles are increasingly part of New York's pantheon of transportation modes.

Assessing the exact number of bicyclists in New York is difficult. However, data shows that bicycle ridership has been steadily increasing in New York City for the past 3 decades. The 2000 US Census indicated that over 15,000 New Yorkers bicycle to work each day, more than any other city in the nation. The 2006 American Community Survey, conducted six years later, reported almost 20,000 bicycle commuters in New York City daily, a 33% increase. NYC Dept. Transportation's (NYCDOT) Screenline Counts (now called the Commuter Cycling Indicator), which count all bicyclists coming into Manhattan below 50th Street on a given day in the summer or early fall, recorded 22,700 bicyclists in 2008. Based partially on the Screenline Counts, Transportation Alternatives, an advocacy group, puts the number of daily bicyclists in New York in 2007 at 131,000.¹ The 2007 Community Health Survey found that about 9% of adult New Yorkers (543,000 people) are regular cyclists, meaning they rode a bicycle in New York City several times a month in the last 12 months.²

NYC Daily Commuter Bicyclists
1980-2008 (NYCDOT Screenline)



¹ Transportation Alternatives, (<http://transportationalternatives.org/>); Accessed 9/8/08

² NYC Department of Health & Mental Hygiene, Community Health Survey (CHS).

The CHS is a cross-sectional telephone survey that samples approximately 10,000 adults aged 18 and older from NYC neighborhoods.

Since they have been conducted since the early 1980's NYCDOT's Screenline Counts provide an excellent look at the rate of increase in commuter bicycling over the past two decades.³ The Screenline suggests a 3.43% average annual increase in bicyclists since the count began. Over the same period, New York City's total population grew by about 0.7%. Commuter bicycling has especially accelerated in recent years. NYCDOT estimates that commuter cycling has grown by 77% between 2000 and 2007 and 35% between 2007 and 2008.⁴ Part of the discrepancy between Census/American Community Survey numbers and the Screenline Count comes presumably because the Screenline includes people who use bicycles for non-work trips, bike-messengers and delivery-people and multi-modal commuters who bicycle for only part of their commute.⁵



NYCDOT's protected on street bike lane on 9th Avenue in Manhattan. Image: NYCDOT

With the new citywide focus on green initiatives and sustainability as outlined in the Mayor's 2030 PlaNYC, bicycling in New York has received increased attention. The 2030 plan calls for "pursu[ing] strategies to encourage the growth of cycling across the city," and the completion of the 900 mile Bicycle Master Plan.⁶ NYCDOT Commissioner Janette Sadik-Kahn has prioritized pedestrian and bicycle safety and her agency is working to increase New York's bicycle mode split to 3% by 2020, up from less than 1% today.⁷ To further these goals, NYCDOT installed 60 miles of bike lane in 2007 alone, higher than the PlaNYC target, and another 80 miles, including protected on street bike lanes, in 2008. NYCDOT is also increasing outdoor public bicycle parking and is working with community boards and agencies including NYC Department of City Planning (NYCDCP) and the MTA to identify locations.

The NYCDCP is also initiating policies and implementing projects to encourage bicycle use. In November, 2007, a NYCDCP zoning text amendment was passed by the City Council requiring one bicycle parking space for every car parking space up to 200 spaces in all commercial and community facilities zones.⁸ Additional zoning text amendments to encourage the provision of bicycle facilities are currently in progress. NYCDCP is also developing a comprehensive internet application that will allow users to search and create bicycle routes, find bicycle parking and find bicycle tours throughout the city.

3 NYC DOT Website, "Bicycle Counts;" (<http://www.nyc.gov/html/dot/html/bicyclists/nycbicyclescrct.shtml>); Accessed 11/7/08

4 NYCDOT, "Sustainable Streets: Strategic Plan for the New York City Department of Transportation 2008 and Beyond." 2008, p.15 & NYCDOT Website, "Bicyclists: Bicycle Counts;" (<http://www.nyc.gov/html/dot/html/bicyclists/nycbicyclescrct.shtml>); Accessed 2/3/09

5 NYCDOT, "2008 Commuter Cycling Indicator;" (http://www.nyc.gov/html/dot/downloads/pdf/commuter_cycling_indicator_and_data_2008.pdf); Accessed 2/3/09

6 PlaNYC, Transportation Initiatives, "9: Promote Cycling;" p. 87, (http://www.nyc.gov/html/planyc2030/html/plan/transportation_promote-cycling.shtml); Accessed 9/8/08

7 New York City Department of Transportation, "Sustainable Streets: Strategic Plan for the New York City Department of Transportation, 2008 and Beyond," April 2008

8 NYC Department of City Planning, "Commercial and Community Facility Parking Lot Text Amendment;" (http://www.nyc.gov/html/dcp/html/parking_lots/index.shtml); Accessed 9/8/08



Thousands of bicyclists, runners, rollerbladers and walkers shared the streets during NYCDOT's 2008 Summer Streets pilot program. Image: NYCDCP

The prevalence of policies aimed at increasing bicycling is not unique to New York. Indeed, programs to increase urban space for bicyclists and pedestrians are taking off around the globe. In addition to the bike-share programs, bicycle and pedestrian events, such as Ciclovía in Bogotá or ParisPlage in Paris which close major car thoroughfares for specific days during the summer months, are now being tested around the US in cities like Portland, El Paso, and most recently, New York. New York's "Ciclovía" pilot, proposed by NYCDOT, debuted in August, 2008, with renowned success. Called "Summer Streets," it created a car-free bicycle and pedestrian network in Manhattan from the Brooklyn Bridge to Central Park over the course of three consecutive Saturdays. Throughout New York, civic organizations such as the Forum for Urban Design, Lower Manhattan Development Corp. and Friends of Governor's Island have proposed small, area specific, bicycle rental programs at reduced rates in order to encourage bicycling around the city.

SAFETY

Despite this growth in cycling in the city over the past 3 decades and the increased attention to bicycles and pedestrians on a policy level, safety while riding on New York City’s streets is one of the main concerns of New York’s current cyclists. Perceptions about bicycle safety are likely to be the major deterrent to cycling for many “would be” cyclists. NYCDCP’s 2006 Survey of Bicycle Needs found that traffic and poor driver behavior were the 2nd most important issues for 48% of potential bicycle commuters.⁹ Bicyclists face inattentive or aggressive drivers and high traffic flows. Double parking and using marked bike lanes as driving lanes are commonplace in all of the city’s on street bike lanes, forcing bicyclists out into traffic. As in Paris, bicyclists themselves often fail to heed the rules of the road, increasing the risk to themselves and others.

Increasing the number of separated bike lanes—like the one recently installed on 9th Avenue in Manhattan that provides a physical barrier between the bike lane and moving traffic—is one way to address these issues. But even protected greenways can be insufficient without adequate adherence to and enforcement of basic traffic laws. In 2006, two bicyclists were killed on the Hudson River Park protected bicycle greenway, one by a drunk driver mistaking the greenway path for a road and the second by an NYPD tow-truck failing to yield while making a turn across the bike lane.¹⁰

Bicyclist safety may be increasing. Data collected and released by NYC Dept. Health and Mental Hygiene (NYCDHMH) and NYCDOT indicate the number of serious bicyclist injuries (defined as injuries that require the bicyclist to be taken to the hospital) declined 46% from 1996 to 2003.¹¹ While the NYCDOT/NYCDHMH report did not speculate on reasons for this decline, some possibilities present themselves including improvements in bicycle lanes and bicycle signage around the city.

Data on bicyclist fatalities also points to increasing bicyclist safety although conclusions about the causes are harder to draw. Bicyclist fatalities made up 6% (255) of the total number of traffic fatalities in New York City between 1996 and 2005, indicating that bicyclists, when compared to other road users, are disproportionately affected by fatal transportation-related crashes.¹² The overwhelming majority of bicy-



Despite increased awareness, blocked bicycle lanes are common throughout the city as motorists use them for additional driving and parking lanes. Image: NYCDCP

9 NYC Department of City Planning, Transportation Division, “The New York City Bicycle Survey,” May 2007; p.13

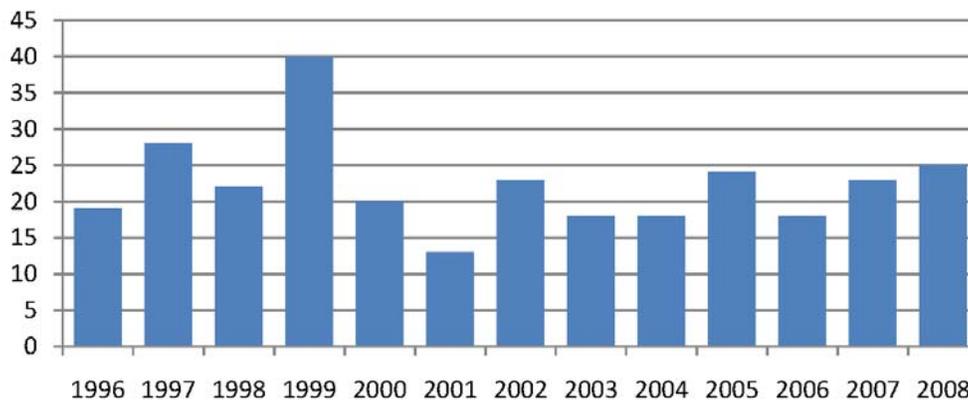
10 Confessore, Nicholas & Kate Hammer, “Drunken Driver Kills Rider on Bicycle Path, Police Say,” *The New York Times*, 3 December 2006

11 New York City Depts. Of Health and Mental Hygiene, Parks and Recreation, Transportation, and the New York City Police Department. “Bicycle Fatalities and Serious Injuries in New York City, 1996-2005”; p. 22

12 New York City Depts. Of Health and Mental Hygiene, Parks and Recreation, Transportation, and the New York City Police Department. “Bicycle Fatalities and Serious Injuries in New York City, 1996-2005”; p. 12; Data comes from the NYCDOT Fatality Database and is cross-referenced with the NYPD Accident and Investigations Squad

clist fatalities involve interactions with cars. However, there does not seem to be a general trend in deaths from year to year. Instead, bicyclist deaths reached a high in 1999 with 40 deaths and have fluctuated between the low-teens and low-20's each year since then. As seen in the NYC-DOT Screenline Counts, the number of bicyclists increased overall over the same time period. Findings from the NYCDOT/NYCDHMH report cannot confirm the correlation among bicyclist fatalities, number of bicycle lanes and the number of bicyclists.

New York City Bicyclist Fatalities 1996-2008 (NYCDOT)



Importantly, public health data and evidence from Paris collected over Velib's first year, suggests that increased bicycle use and the presence of bike-share programs, which may bring in more inexperienced bicyclists, did not increase bicycle accidents and, in fact, may lower bicycle accident rates per cyclist. NYCDHMH's Bureau of Chronic Disease Prevention and Control found numerous public health studies that correlated increased numbers of bicyclists and pedestrians and reduced numbers of bicyclist fatalities. Data shows that heavier bike and pedestrian traffic is linked to lower collision rates with automobiles, and that policies which increase the numbers of people who walk and bike appear to be effective for improving the safety of walkers and cyclists.¹³ Underscoring this data, in 2007, the city of Paris reported 24% increase in bicycling in the city but only a 7% increase in bicycle accidents. To date, there have been 3 Velib' deaths out of over 30 million Velib' trips.¹⁴ This relative increase in bicyclist safety can be partially attributed to increased attention and awareness of bicyclists in Paris; drivers see more bicycles on a daily basis and thus are more aware of their presence on the street.

To address these safety issues, NYCDOT and other city agencies have worked aggressively to improve street conditions for bicyclists. In 1997, the New York City Bicycling Map, a joint project by NYCDOT, NYCDOT and NYC Dept. Parks and Recreation (NYCParks), was released indicating

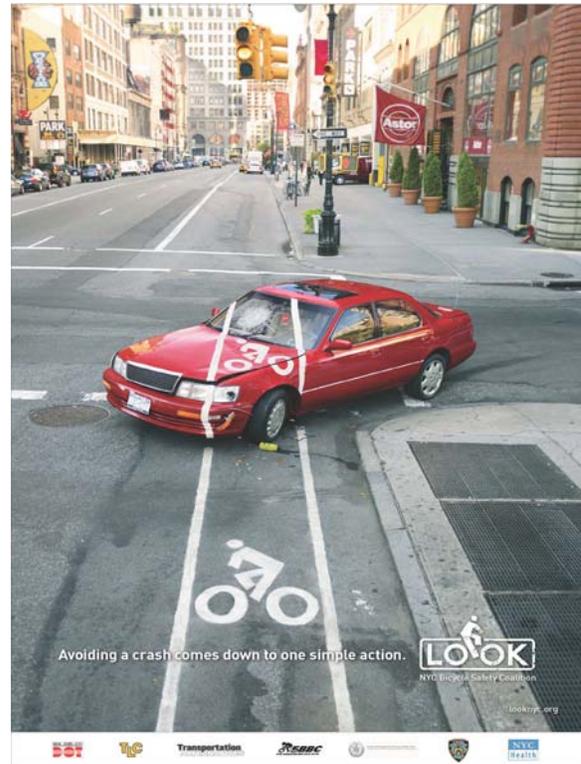
Database.

¹³ Jacobsen, P.L., *Safety in numbers: more walkers and bicyclists, safer walking and bicycling*. Inj Prev, 2003. 9(3): p. 205-9 & Freudenberg, N., S. Galea, and D. Vlahov, eds. *Cities and the Health of the Public*. 1 ed. 2006, Vanderbilt University Press: Nashville

¹⁴ Erlanger, Steven, "A New Fashion Catches On in Paris: Cheap Bicycle Rentals," *The New York Times*, 13 July 2008 & Bremner, Charles & Marie Tourres, "A year on, the cycle experiment has hit some bumps," *The London Times*, 8 July, 2008

safe bicycle routes around the city. That map is updated yearly and over 1 million maps have been distributed. In 2007, after findings were released that showed that 94% of bicycle fatalities were due to human error, drivers unaware of bicyclists or failing to yield and bicyclists ignoring traffic lights, the NYC Bicycle Safety Coalition, a partnership between NYCDOT, NYCDHMH, NYPD, Taxi and Limousine Commission (TLC), Transportation Alternatives and civic and bicycle advocacy groups, introduced the “LOOK” campaign educate bicyclists and drivers and address rider safety issues.¹⁵ LOOK campaign posters are featured on bus shelters, buses, phone kiosks, and taxis and distributed as postcards. Magazines and local radio stations will feature the campaign as well. NYCDOT has also initiated its GET FIT-TED campaign which distributes bicycle helmets for free around the city. The helmets, designated as the “Official New York City Bicycle Helmet,” are sponsored by Target and designed by NYC and Co., New York City’s official tourism organization. To date, thousands of helmets have been distributed.¹⁶

The city has also worked to increase the amount and quality of bicycle infrastructure throughout the city. In 1997, NYCDOT and NYCDCP released the New York City Bicycle Master Plan which called for a 900 mile comprehensive network of bike-routes throughout the city. Since then, NYCDOT has added 216 miles of bicycle lanes and on street bicycle lanes and signed routes.¹⁷ With the mandate from PlaNYC, NYCDOT plans to add 200 additional miles of on street bicycle paths and 15 miles of protected on street bicycle lanes by July 2009.¹⁸ As of January 1st, 2009, over 150 miles had been completed. A protected on street bicycle lane is in place on 8th and 9th Avenues in Manhattan and has received much positive attention.



New York City’s “LOOK” Campaign posters encourage bicyclists and drivers to pay attention. Image: LOOK Campaign



Bicyclists in particular are encouraged to wear light colored or reflective clothing and to use lights to increase their visibility on the road. Image: LOOK Campaign

¹⁵ New York City Depts. Of Health and Mental Hygiene, Parks and Recreation, Transportation, and the New York City Police Department, “PRESS RELEASE: City Announces Unprecedented City-Wide Bicycle Safety Improvements,” (http://home2.nyc.gov/html/dot/downloads/pdf/pr06_50.pdf); Accessed 9/8/08

¹⁶ NYCDOT Website, “Bicyclists,” (<http://home2.nyc.gov/html/dot/html/bicyclists/officialhelmet.shtml>); Accessed 9/8/08

¹⁷ New York City Depts. Of Health and Mental Hygiene, Parks and Recreation, Transportation, and the New York City Police Department. “Bicycle Fatalities and Serious Injuries in New York City, 1996-2005” p. 6

¹⁸ New York City Department of Transportation, “Sustainable Streets: Strategic Plan for the New York City Department of Transportation, 2008 and Beyond,” April 2008, p. 53

Bicycle riders themselves also share in the responsibility for safer riding conditions. While many bicyclists remain alert and obey the rules of the road as laid out in the New York State Drivers Manual, other bicyclists create unsafe conditions for pedestrians, other bicyclists and drivers by riding on sidewalks, riding against traffic and failing to obey traffic signals.

OTHER BICYCLIST CONCERNS

The lack of secure bicycle parking at work was the most common reason why New York’s “would be” bicycle commuters in the NYCDP Bike Survey said that they did not commute via bicycle.¹⁹ While the city provides over 4,700 CITYRACKS, these are outdoor, unmonitored parking spaces, and theft is often an issue. Indoor, monitored facilities are few and far between.

While bicycles are allowed on New York’s subways, getting them there is a challenge; cyclists must navigate stairs and a turnstile just to reach the platform. New York’s subways do not have designated spaces for bicycles or bicycle hooks. MetroNorth and LIRR require bicycle permits and do not allow bicycles at peak times. Bicycles are not allowed on any of New York City’s buses.

Enhancing bicycle access over the city’s major bridges may also lead to an overall increase in bicycling in New York. While there are multiple, bicycle-friendly connections between lower Manhattan and Brooklyn or upper Manhattan and the Bronx, there are fewer options between Queens and Manhattan and only one connection, the TriBorough Bridge, which is inhospitable to bicycles or pedestrians, between Queens and the Bronx. It is impossible to bicycle to Staten Island from New York, although bicycles are allowed on the Staten Island Ferry. Even the most bicycle-friendly bridges often have long on- and off-ramps that require bicyclists to travel potentially significant distances out of their way. In Queens, in particular, numerous highways and high-speed boulevards can also pose safety hazards to bicyclists.

¹⁹ NYC Department of City Planning, Transportation Division, “The New York City Bicycle Survey,” May 2007