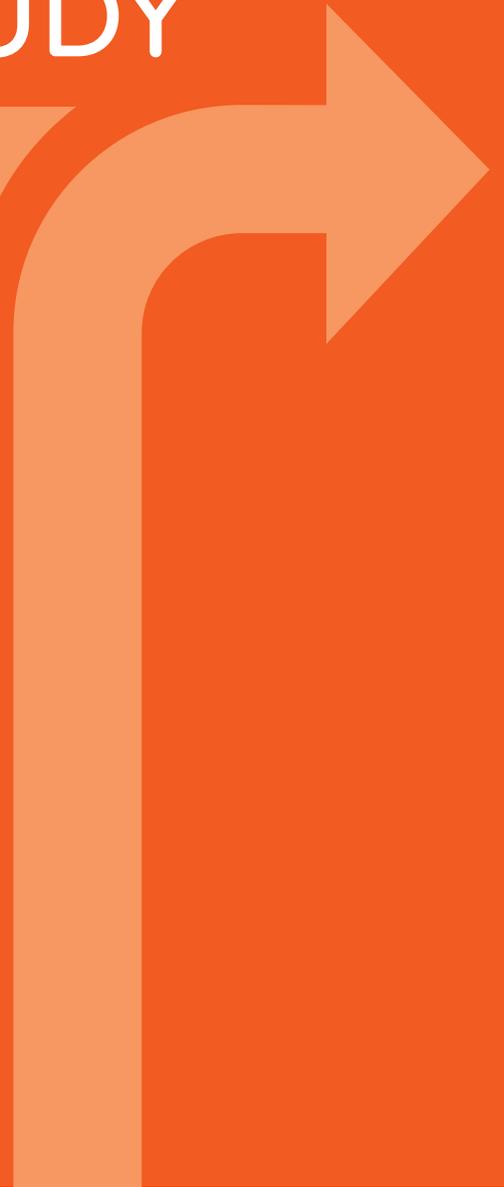


EAST VILLAGE SHOPPERS STUDY

A SNAPSHOT OF TRAVEL AND SPENDING PATTERNS
OF RESIDENTS AND VISITORS IN THE EAST VILLAGE



TRANSPORTATION
ALTERNATIVES

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SUMMARY



Bicyclists help drive the retail economy in the East Village.

THIS STUDY OFFERS A SNAPSHOT OF THE TRAVEL AND SPENDING PATTERNS OF RESIDENTS AND VISITORS in Manhattan's East Village. Through individual surveys with 420 pedestrians, this study also assesses the inclination of residents and visitors to use the recently-installed protected bike lanes and Select Bus Service on First and Second avenues, and their perception of the bike and bus lanes' impact on the neighborhood.

Based on surveys with 420 pedestrians interviewed on First and Second Avenues between Houston and 14th Streets, this study identifies the following trends:

- The vast majority of respondents rely on public transit and non-motorized transportation modes to get to and navigate the neighborhood. In the neighborhood, 55 percent of respondents walk or bike as their usual means of transportation, while 40 percent take the bus or subway.
- Fewer than five percent of the respondents arrive by car or taxi.
- Aggregate weekly spending by public transit and non-motorized transportation users account for 95 percent of retail dollars spent in the study area.
- Drivers and motorized transportation users spend only 5 percent of the total retail dollars in the neighborhood.
- People on bike and foot spend the most per capita per week, \$163 and \$158, respectively, at local businesses. Car and subway users spend less per capita, \$143 and \$111, respectively, although the volume of subway riders makes them the second highest total spenders of any transportation mode.
- People who travel by foot or bike as their usual mode of transportation visit the neighborhood the most often. Sixty-one percent of walkers and 58 percent of bicyclists visit the neighborhood more than five times a week, compared to 44 percent of drivers and 34 percent of subway riders.
- The First and Second Avenue protected bike lanes and local bike network have spurred a dramatic increase in bicycle ridership in the study area. Twenty-four percent of respondents indicate bicycling as their usual mode of transportation in the neighborhood. This is higher than the 1 percent of New Yorkers who use a bicycle on a regular basis. Almost two-thirds of the respondents say they are more inclined to ride a bike with the addition of the protected bike lanes.
- The majority of customers in the East Village are local. Seventy-four percent of respondents live in Manhattan, with 53 percent from the neighborhood.
- More women ride a bike regularly in the neighborhood than in New York City.



NYC Bike Friendly Business owners in the East Village - like Dominique Camacho, of the small retail business Sustainable NYC - know that a growth in bicycling bolsters their bottom line.

Women comprise 45 percent of respondents who list bicycling as their usual mode of transportation in the neighborhood. City-wide, between 15 and 35 percent of bicyclists are women. Women are also more inclined to ride a bike because of the protected bike lanes than their male counterparts. Sixty-seven percent of women report that they are more inclined to ride a bike with the new lanes in place, compared to 56 percent of men.

- Seventy-three percent of respondents report that the protected bike lanes on First and Second avenues have a positive or very positive impact on the neighborhood.
- Respondents note a lack of enforcement of dangerous driving as the biggest barrier to riding a bike (accounting for 42 percent of responses).

These findings underscore the positive impact of bicycling, walking and public transit on the bottom lines of local businesses. Because the majority of local residents and visitors choose these modes of transportation, and spend the most per capita, it behooves local business owners to continue to support amenities like protected bike lanes, bike parking, pedestrian safety improvements and reliable public transit.

This study also reflects the well-documented trend that more and better bicycling infrastructure leads to higher rates of bicycle ridership. Since the introduction of the protected bike lanes on First and Second avenues, more New Yorkers in the study area are choosing bicycling as their usual mode of transportation. Moreover, the protected bike lanes appear to lead more women to choose bicycling. Both of these trends suggest that the city is meeting its goals of increased bicycle ridership while also fostering a more equitable use of healthy and sustainable transportation choices between genders.

Special thanks to Louis Bernier-Heroux and Jono Ryan for their help authoring this project.



Protected bike lanes and Select Bus Service lanes on 1st Avenue in the East Village. Image courtesy NYC DOT

BACKGROUND

IN 2010, THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION (DOT) INSTALLED SELECT BUS SERVICE (SBS) on the M15 route, with dedicated bus lanes, off-board fare collection and protected bike lanes on First and Second avenues. One year after the completion of what are considered New York City's first "Complete Streets," traffic flow and street safety had drastically improved. Bus ridership along the M15 route increased by 9 percent, while bus speeds improved by 15 to 18 percent. Bicyclist ridership increased by 177 percent on 1st Avenue and 54 percent on 2nd Avenue, while traffic injuries for all street users decreased by 14 percent.

Previous studies have demonstrated the positive economic benefits of streets that prioritize biking and walking, including boosts in retail sales and an increase in property values. Herald and Times squares, for example, both received major pedestrian and bicycle infrastructure improvements and now have some of the highest retail rents in New York City.

The recent implementation of protected bike lanes and Select Bus Service on First and Second avenues in the East Village provides an opportunity to measure the economic benefits of bike lanes and state-of-the-art public transit for business owners and communities in the East Village. This snap shot identifies the travel and spending patterns of residents and visitors in the East Village. In addition, this snap shot examines residents' and visitors' inclination to use the protected bike lanes and Select Bus Service and their perceptions of how the protected bike lanes and bus service have impacted the community.

METHODOLOGY



A bicyclist rides on the 1st Avenue protected bike lane.

Surveys were distributed randomly to 420 individual pedestrians on First and Second avenues between Houston and 14th streets, between July 15 and July 30 in 2012 (Table 1). The snap shot area is defined as ZIP codes 10003 and 10009, encompassing the entire East Village and some of the surrounding neighborhoods. Survey data was collected by members of Transportation Alternatives staff and volunteers. See Appendix A for survey questions.

Respondents' relative aggregate weekly spending was calculated by assigning mean dollar values to the ranges of "average spending per visit" answers they provided (Table 2). Respondents' average spending per visit was then multiplied by the number of visits that each respondent makes per week. If a respondent answered "I live in the area," their average spending per visit was multiplied by seven (for every day of the week) and divided by two (to reduce the weight of the residents' aggregate spending). If they indicated "I work in the area," their response was multiplied by five.

Table 1: DATA COLLECTION LOCATIONS AND TIMES

DATE	LOCATION	TIME
July 15	1st Avenue at St Marks Place	12 to 4 pm
July 18	2nd Avenue at 4th Street	12 to 4 pm
July 19	1st Avenue at 4th Street	5 to 9 pm
July 22	2nd Avenue at St Marks Place	12 to 4 pm
July 28	2nd Avenue at 9th Street	9 am to 1pm
July 29	1st Avenue at St. Marks Place	10 am to 4 pm
July 30	2nd Avenue at 9th Street	5 to 9 pm

Table 2: MEAN DOLLAR VALUES

RANGE OF AVG SPENDING PER VISIT	MEAN DOLLAR VALUE
Less than \$20	\$10
Between \$20 and \$49	\$35
Between \$50 and \$99	\$75
Over \$100	\$100

RESULTS

Place of Residence

Respondents were asked to report their home ZIP code. This snap shot found that most respondents were residents of the East Village.

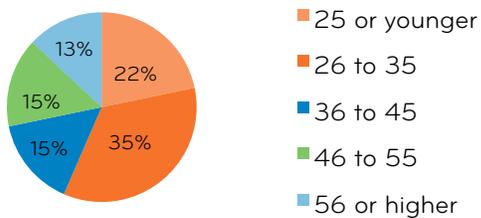
- Seventy-four percent of the respondents lived in Manhattan, including 53 percent in Zip codes 10003 and 10009 and 21 percent in the rest of Manhattan.
- Twenty-one percent of the respondents lived in other boroughs, primarily Brooklyn (16 percent) and Queens, three percent.
- Five percent of the respondents lived outside of New York City, primarily in New Jersey (two percent) and Long Island (one percent).

Age and Gender

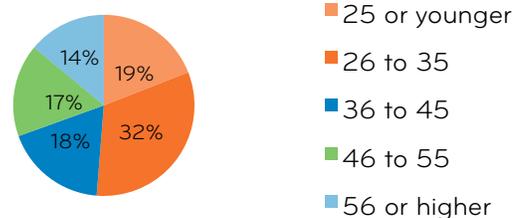
Overall, respondents skewed younger and male.

- Only 44% of respondents were female.
- Respondents between the ages of 26 and 35 represented the majority of those surveyed.
- A higher proportion of female respondents (72 percent) were under 46 years old. Only 69 percent of males were under 46.

Female Respondents
(n=184)



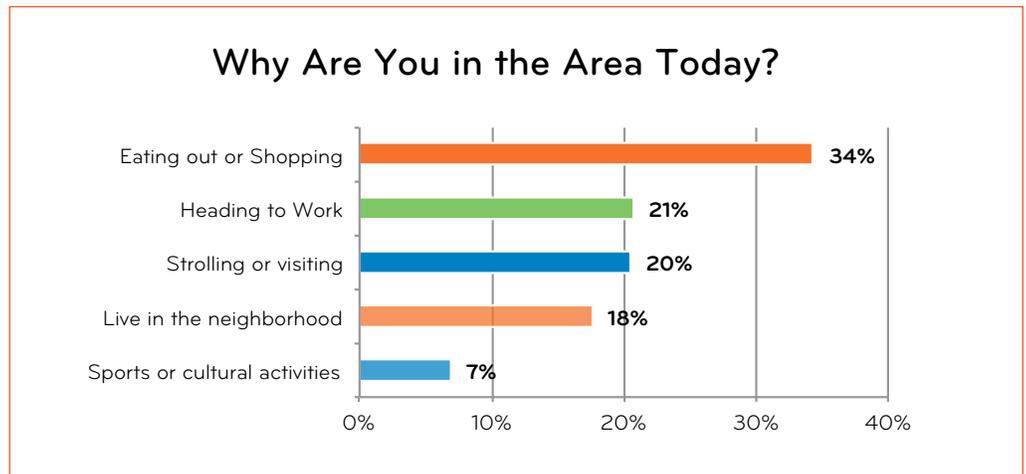
Male Respondents
(n=236)



Reasons for Visiting the Neighborhood

Over half of respondents lived in the snap shot area, but many indicated other reasons for visiting the neighborhood on the day that they were interviewed.

- Over one-third of respondents said that they came to the East Village to eat or shop, while most others indicated that they were heading to work, visiting the neighborhood or that they lived there.



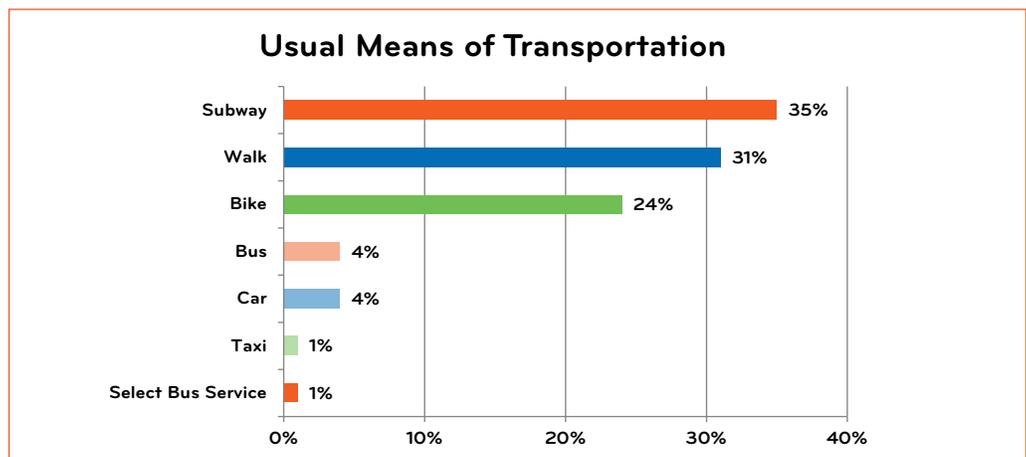
Travel Patterns

Respondents were asked two questions concerning their travel patterns:

1. What is your primary means of transportation to this neighborhood today?
2. What is your usual means of transportation to this neighborhood?

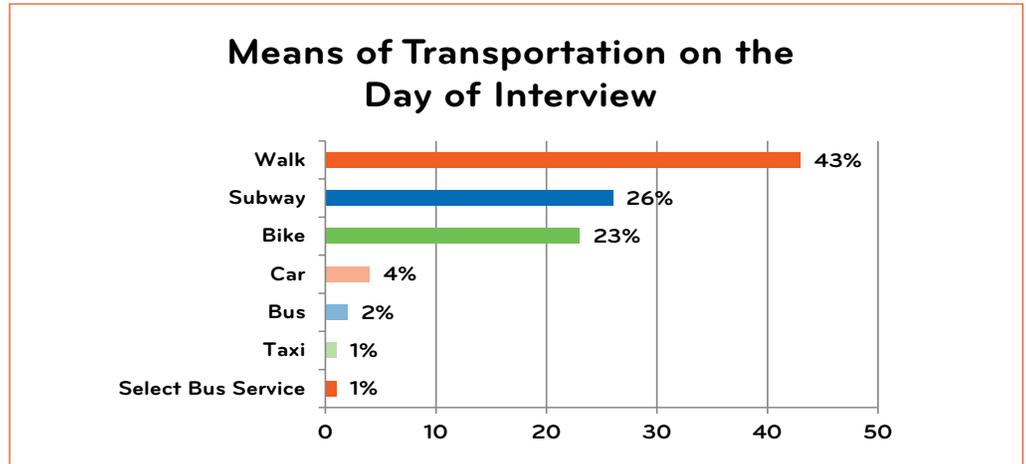
The vast majority of respondents used public transportation, walked or rode a bike as their usual means of transportation to the East Village.

- Fewer than five percent arrived by car or taxi.
- A plurality of respondents, 36 percent, indicated that the subway was their usual mode of transportation to the neighborhood, followed by foot.
- Nearly a quarter of respondents indicated that bicycling was their usual mode of transportation.



Respondents' choice of transportation on the day of their interview largely reflected their usual modes of transportation.

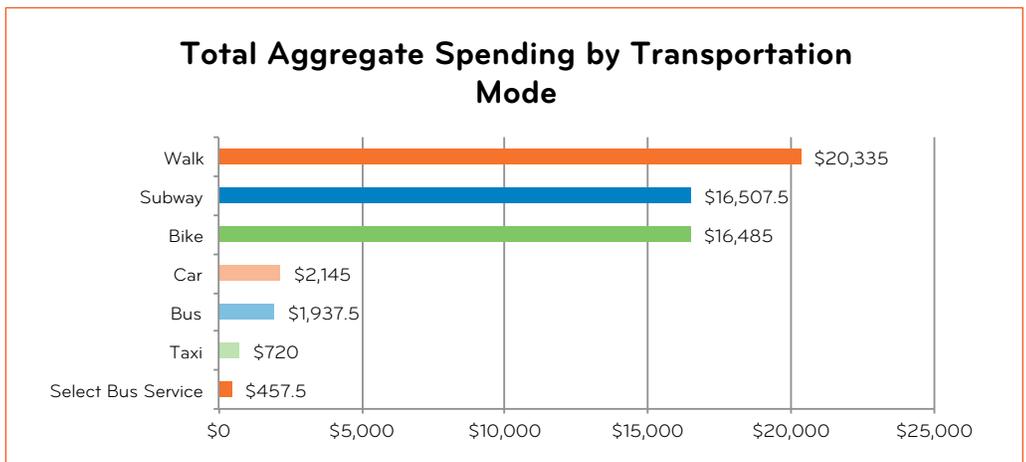
- Forty-three percent of respondents indicated walking as their means of transportation on the day of the interview, while 26 percent said they took the subway.
- Twenty-three percent of respondents indicated that they used a bike to travel to the study area on the day of their interview, while driving and taxis combined accounted for only five percent of respondents' transportation choices.



Spending Patterns

The vast majority of the money spent in the neighborhood was by people who arrive either on foot, by subway or by bike. Residents spent more overall than visitors.

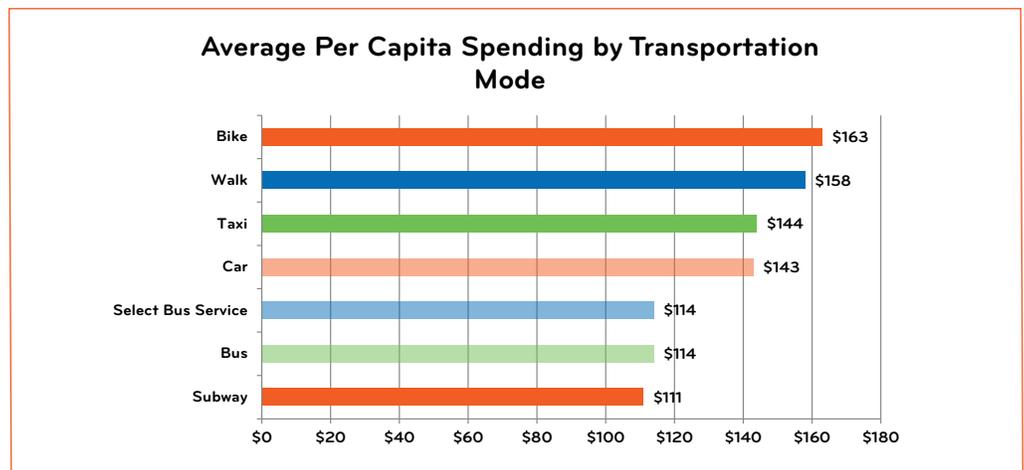
- The aggregate spending of all respondents was \$58,587.50, with an average weekly spending of \$139.50 per respondent.
- Respondents who bicycle, walk or take public transit as their usual mode of transportation spent over 95 percent of retail dollars in the snap shot area.
- Pedestrians accounted for 35 percent of the money spent in the neighborhood, while subway users and bicyclists each spent roughly 28 percent.
- Drivers accounted for less than 4 percent of retail dollars spent in the neighborhood.
- The residents of the East Village spent 60 percent of retail dollars while visitors from other Manhattan neighborhoods spent 18 percent. Visitors from other boroughs spent 17 percent and visitors from outside New York City spent five percent.



Bicyclists and Pedestrians Spent the Most Per Capita

- Pedestrians and bicyclists spent almost the same amount per capita per week (\$163 and \$158, respectively).
- Subway riders spent less money per person, \$111. The subway, however, was the second highest contributor to total Aggregate spending in the neighborhood due to its high ridership.
- Car drivers, bus riders, Select Bus Service riders and taxi users were not sampled in large enough quantities to be statistically significant.

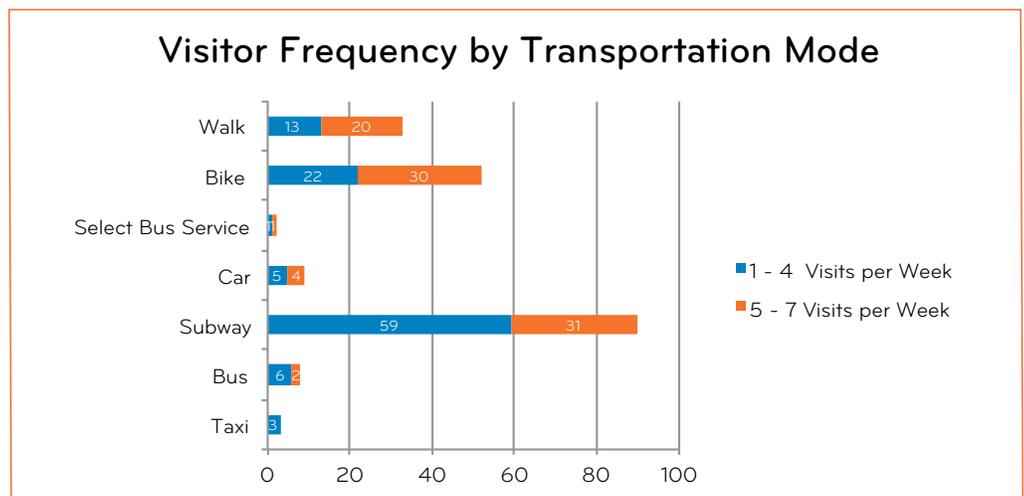
The per capita spending of those transportation mode users presented below represent the particular respondents' spending patterns, but can not be used with complete confidence to draw conclusions about the per capita spending habits of other people using the same modes in New York City.



Visitor Frequency

Respondents traveling by bike and on foot visited the neighborhood most often.

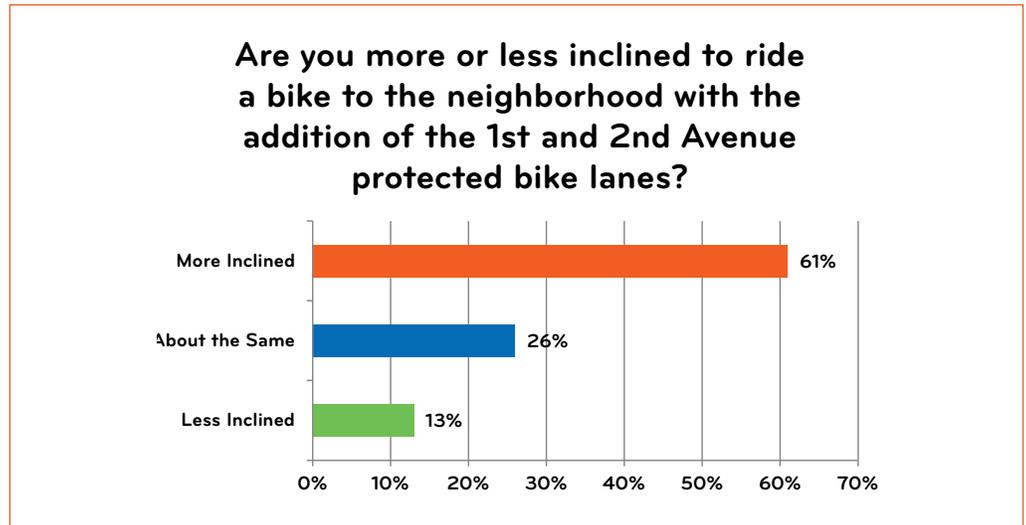
- Almost two-thirds of pedestrians and bicyclists visited five or more times a week, while only 44 percent of drivers visited more than five times a week.
- Subway riders represented almost half of respondents, but only one-third visited the neighborhood five or more times a week.



First and Second Avenue Protected Bike Lanes

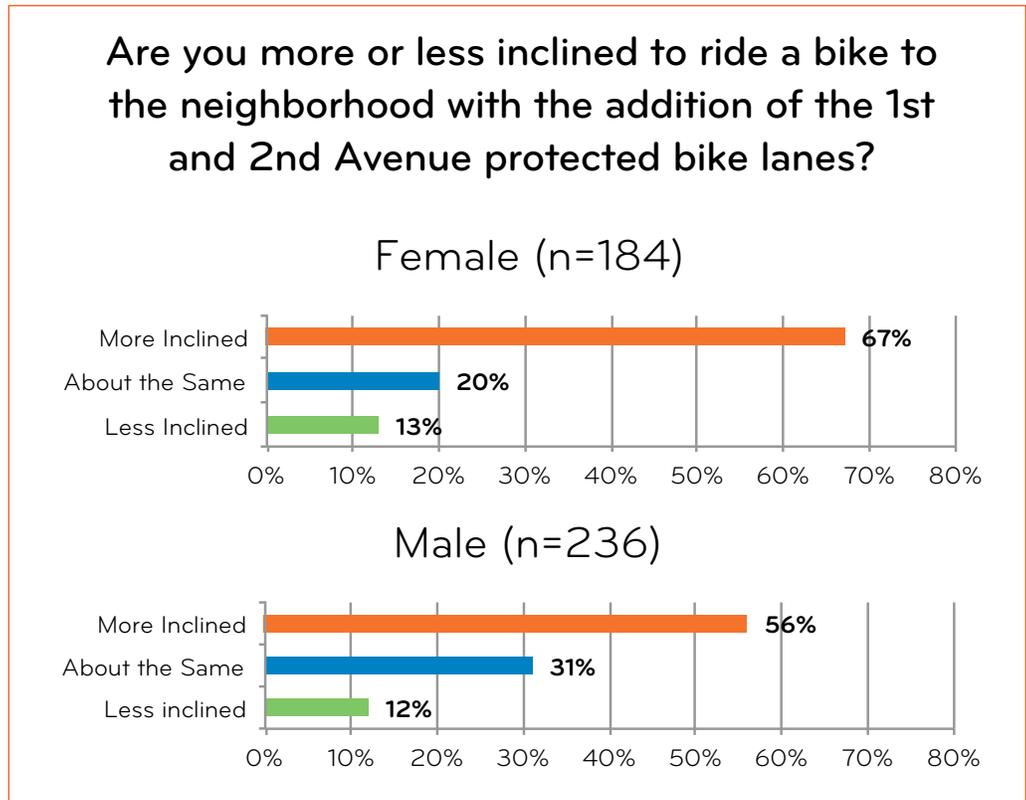
The protected bike lanes on First and Second avenues encouraged local residents and visitors to ride their bikes more often.

- Sixty-one percent of respondents reported being more inclined to ride a bike after the addition of the protected lanes, while only 13 percent said they were less inclined.



The protected bike lanes also encouraged women to ride their bikes more often.

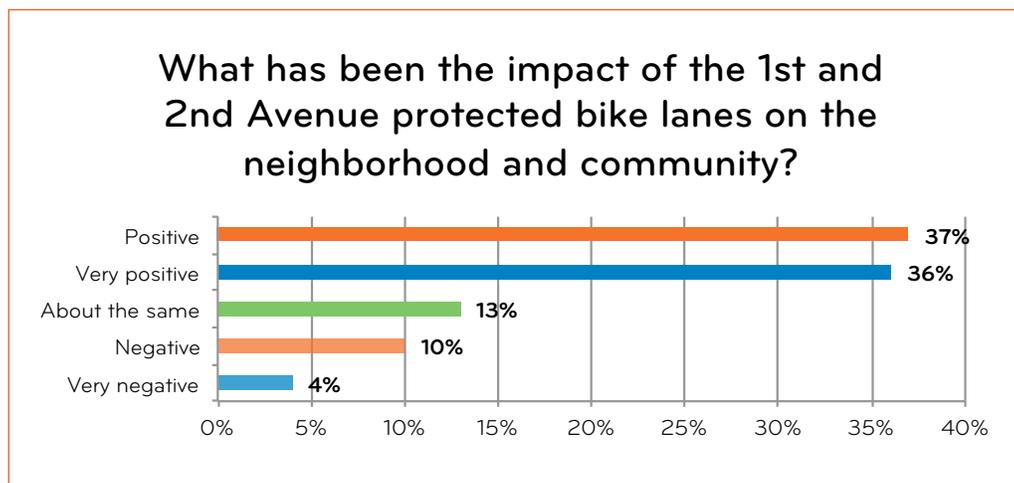
- Sixty-seven percent of women said they were more inclined to ride a bike with the addition of the protected bike lanes, while 56 percent of men were more inclined.



The 2008 New York City Department of City Planning Bicycle Survey found that female bicyclists represent only 15 percent of bicyclists in ‘on-street bike lanes’ with no physical separation from traffic. In this snap shot, however, 45 percent of respondents who listed bicycling as their usual mode of transportation were female – far higher than the city average.

Across the board, respondents felt that the protected bike lanes have a positive impact on the neighborhood and community.

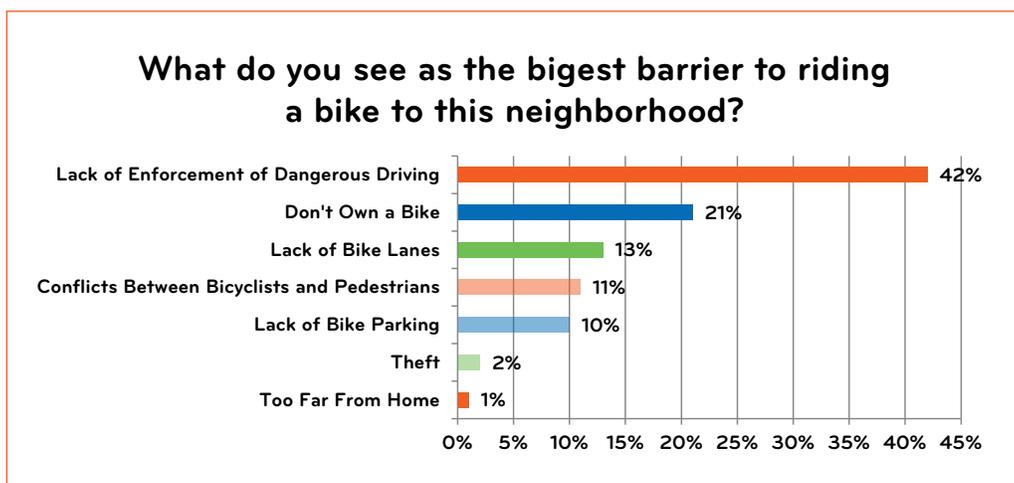
- The majority of respondents (73 percent), believed the protected bike lanes have a positive or a very positive impact, while only a minority (14 percent) considered that they have a negative or very negative impact.



Barriers to Bike Riding

For nearly half of respondents (42 percent) the lack of enforcement of dangerous driving was the biggest barrier to riding a bike to the East Village.

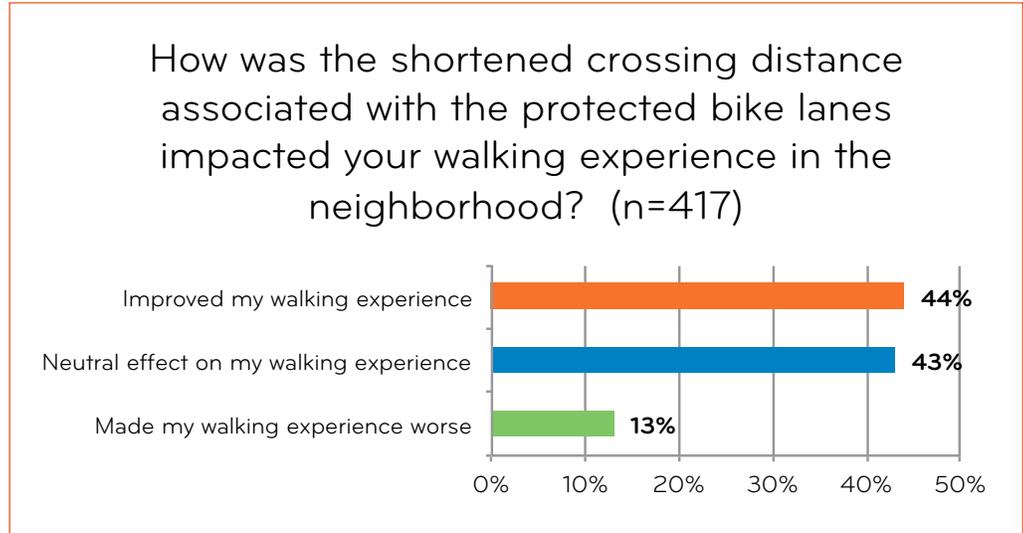
- Not owning a bike (21 percent) lack of bike lanes (13 percent) conflict with pedestrians (11 percent) and lack of bike parking (10 percent) were also listed as prevalent concerns.
- Among respondents who do not use bikes as their usual mode of transportation, not owning a bike was the biggest barrier to riding more often, accounting for 27 percent of responses.



Bike Lanes and Street Safety

Pedestrian safety refuges that accompany protected bike lanes narrow the crossing distance for pedestrians at intersections – an amenity that proved popular with respondents.

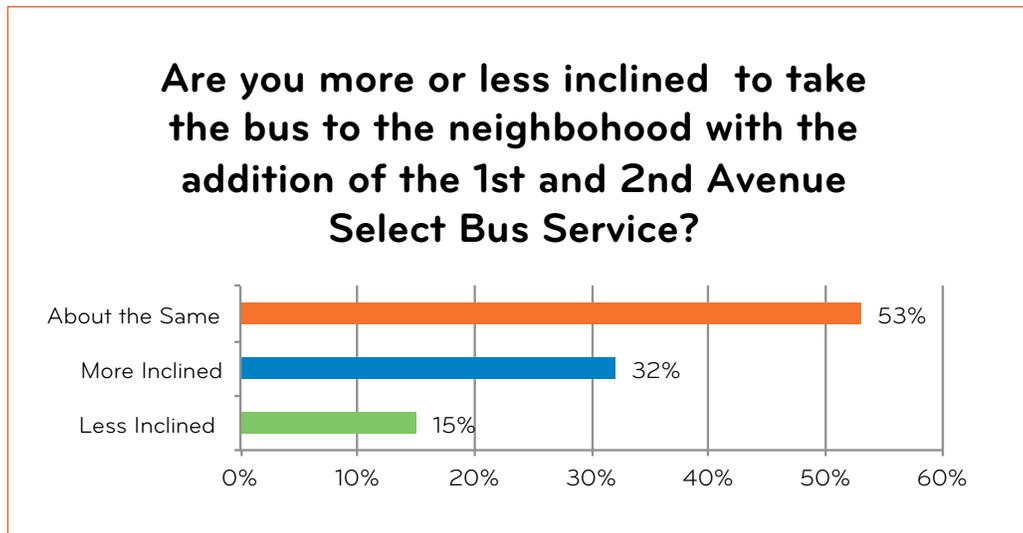
- Forty-four percent of respondents indicated that the shortened crossing distance associated with the protected bike lanes improved their walking experience.
- Only 13 percent of respondents indicated that the shortened crossing distance had a negative impact on their walking experience.



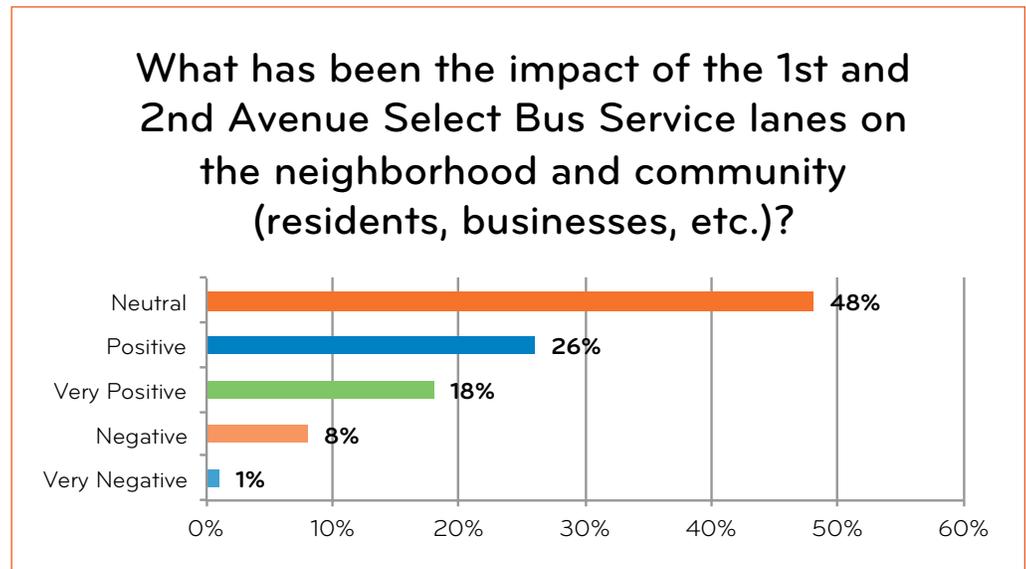
M15 Select Bus Service

The Select Bus Service in the snap shot area appears to have less of an impact on respondents' transportation choices than the First and Second Avenue protected bike lanes.

- Over half of respondents indicated that the new bus service will not impact the likelihood of visiting the neighborhood by bus.
- However, twice as many respondents indicated that they were more inclined to take the bus with the addition of the SBS service than those who said they were less likely to do so.



The majority of respondents (92 percent) feel that the First and Second Avenue Select Bus Service has either a neutral, positive or very positive impact on the neighborhood.



Analysis

This snap shot demonstrates that streets that prioritize bicycling, walking and public transit positively impact the health of local businesses. The majority of residents and visitors travel to and within the snap shot area by non-motorized transit. These people spend the vast majority of retail dollars, and, in the case of pedestrians and bicyclists, visit more often. Drivers, by contrast, account for a very small portion of potential customers and spend less per capita than their walking and bicycling counterparts. While regular subway riders spend less per capita, they account for the majority of residents and visitors and constitute the second highest aggregate spending group of any travel mode.

Because drivers, bus riders, Select Bus Service users and taxi users accounts for such a small percentage of respondents, our analysis of their spending habits is not statistically significant and only represents the particular drivers, taxi passengers or bus riders interviewed. However, the small number of drivers (n=14), randomly sampled in this snap shot, in particular, demonstrates the relatively small economic impact that these street users have in supporting local businesses. People who rely on bicycling, walking and the subway, by contrast, contribute far more aggregate retail dollars to local stores and restaurants.

The First and Second Avenue protected bike lanes spurred a sharp rise in bicycling in the snap shot area, bringing a new wave of potential customers to the neighborhood. The physically separated bike lanes also appear to encourage more women to ride bikes regularly, or at least be more inclined to ride than their male counterparts, supporting a more equitable use of healthy, sustainable transportation choices. It is important to note, however, that nearly 60 percent of respondents were male. Since males account for the majority of regular bicyclists in New York City, our results likely indicate a slightly more prevalent rate of bicycling than actually exists in the study area. Still, the fact that such a high portion (45 percent) of self-identified “usual bicyclists” in the study were

female suggests that the protected lanes encourage more women to ride.

Protected bike lanes and pedestrian refuge islands are popular with residents and visitors and improve the local walking experience.

A lack of enforcement of dangerous driving is the biggest barrier to riding a bike in the neighborhood, suggesting that local precincts could do more to hold dangerous drivers accountable. After a lack of enforcement, the second biggest barrier to riding a bike is not owning one. The upcoming Citi Bike program will eliminate this barrier for many New Yorkers, fostering higher bike ridership in the neighborhood and throughout the City.

While there is a very positive perception of the First and Second Avenue Select Bus Service among respondents, very few actually noted Select Bus Service as their usual mode of transportation. While it's impossible to deduce the exact reason for this trend, we offer these potential explanations: First, the M15 only stops on 2nd and 14th streets in the snap shot area, and the majority of data collection occurred between 4th and 9th streets on First and Second avenues, several blocks from the nearest bus station. And second, the Select Bus Service is a relatively new program, and respondents may not have been familiar with the program, or may have not known the difference between the M15 Select Bus Service and other bus lines in the area.

Were this study to be replicated in the future, it is recommended that residents be asked to gauge their average weekly spending, rather than their daily spending patterns. Multiplying estimated daily spending by seven, and dividing by two, if respondents report living in the area, or by five, if respondents work in the area, is an adequate, but relatively imprecise mode of estimating weekly spending. In addition, it is recommended that respondents who live or work in the study area be asked how many times per week they visit local businesses, rather than how many times they visit the neighborhood.

CONCLUSION

THIS SNAP SHOT DEMONSTRATES THAT RESIDENTS AND VISITORS IN THE EAST VILLAGE rely heavily on walking, bicycling and public transit to get to and around the neighborhood. People who use these modes of transportation spend the vast majority of retail dollars, and are increasing in number thanks to the implementation of protected bike lanes and pedestrian safety improvements along First and Second avenues. These amenities are popular with residents and visitors, and encourage more women to ride bikes, or feel inclined to do so. Given these findings, we recommend that local business owners and the New York City Department of Transportation continue to support the expansion of New York City's bike network – including a more robust network of protected bike lanes and bike parking. Investments in public transit also pay big dividends for local businesses.



Bicyclists outside of NYC Bike Friendly Business Veselka on 2nd Avenue.

CONTACT INFORMATION

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APPENDIX

Survey Questions

What is your zip Code?

Which category below indicates your age?

- 25 or younger
- 26-35
- 36-45
- 46-55
- 56 or higher

What is your gender?

- Female
- Male

Why are you in this area today?

- I am shopping/eating out
- I am heading to/coming from work
- Other(Please specify)

What was your primary means of transportation to this neighborhood today?

- Subway
- Bus
- Select Bus Service
- Biking
- Walking
- Car
- Taxi

What is your usual means of transportation to this neighborhood?

- Subway
- Bus
- Select Bus Service
- Biking
- Walking
- Car
- Taxi

How many times do you visit this neighborhood on a weekly basis?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 or more
- I live here
- I work here

How much do you spend on average per visit in this area?

- Less than \$20
- \$20-\$49
- \$50-\$99
- \$100 or More

Are you more or less inclined to ride a bike to the neighborhood with the addition of the 1st and 2nd Avenue protected bike lanes?

- More inclined
- Less inclined
- About the same

Are you more or less inclined to take the bus to the neighborhood with the addition of the 1st and 2nd Avenue Select Bus Service?

- More inclined
- Less inclined
- About the same

What has been the impact of the 1st and 2nd Avenue protected bike lanes on the neighborhood and community (residents, businesses, etc.)?

- Very positive
- Positive
- About the same
- Negative
- Very negative

What has been the impact of the 1st and 2nd Avenue Select Bus Service on the neighborhood and community (residents, businesses, etc.)?

- Very positive
- Positive
- About the same
- Negative
- Very negative

What do you see as the biggest barrier to riding a bike to this neighborhood?

- Lack of bike parking
- Lack of bike lanes
- Lack of enforcement of dangerous driving
- Don't own a bike
- Other (please specify)

How has the shortened crossing distance associated with the protected bike lanes impacted your walking experience in the neighborhood?

- It's improved my walking experience
- It's made my walking experience worse
- It's had a neutral effect on my walking experience

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