Shopping, Parking and Transportation In the East Village

A study by
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EXECUTIVE SUMMARY

This study examines the transportation habits, shopping and spending patterns of residents and visitors on 2nd Avenue between Houston Street and 14th street in the East Village. This avenue, lined with shops, bars and restaurants, is heavily trafficked by pedestrians, bicyclists and vehicles. The study assesses people's modes of travel and constituencies' associated spending. The study also assesses how specific changes in street use and allocation of space will affect the attractiveness of 2nd Avenue as a place to shop and visit. Results show that the majority of visitors and residents rely on walking, biking, and public transit when getting to, moving about, and leaving from the study area. Based on 500 random interviews with survey respondents on 2nd Avenue, the study finds that:

- Survey respondents on 2nd Avenue arrive primarily by public transportation or non-motorized modes. In all, 45% of pedestrians interviewed come to the area by subway or bus and an additional 43% by walking or bicycle.

- Few people travel to the area by private automobile; only 7% drive to the area in a private car. An additional 5% arrive by taxi.

- Respondents arriving to the survey area by private car have the lowest average spending per capita by a significant margin. Private car drivers spend on average $82.20 per capita per week while non-drivers spend on average $154.13 per capita per week.

- Aggregate weekly spending by all respondents totals $74,690 while aggregate weekly spending by all drivers totals $2,712. Thus, respondents arriving by private car constitute only 3.6% of the overall aggregate spending of respondents in the study area.

- Residents of the study area hardly drive private cars. Of the 228 respondents that were residents, only 1.3% reported driving in the study area.

- The number of visits to the study area by non-car modes exceeds the number of personal car visits by 38:1.

- Respondents that drive a private car to the area average 1.7 visits a week whereas all other respondents average 4.6 visits a week. Thus, respondents that drive a private car to the area visit 2.7 times less often than all other respondents.

- 90% of respondents would come to the area more often or about the same if there were fewer on-street parking spaces available. 10% of respondents would come to the area less often under those circumstances. 31.4% would come more often if there were faster and more frequent bus service.

The findings indicate that the constituency using private cars in the study area contributes marginally to business revenues. The proposed reallocation of space due to the implementation of Select Bus Service (SBS) on 2nd Avenue would provide a majority of constituents with numerous benefits. Improved bus travel times have been demonstrated with SBS programs already. The Fordham Road SBS decreased travel time by 19% in the Bronx, and the 34th Street SBS witnessed a 17% improvement in bus speeds in Manhattan. The Fordham Road SBS also increased its ridership by 32%. A 2nd Avenue SBS could produce comparable results and it may help the study area attract new visitors and shoppers as ridership increases. The improved design aims to make the street safer for all users and will likely attract more bicyclists and pedestrians which have shown strong per capita spending in the survey area. Businesses should support the SBS project on 2nd Avenue as it is expected to create a safer and more attractive environment that will generate increased revenues.

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INTRODUCTION

New York City's Department of Transportation (DOT) and the Metropolitan Transit Authority (MTA) are looking to introduce a Select Bus Service (SBS) route heading north on 1st Avenue and south on 2nd Avenue between Houston Street and 125th Street. The East Side corridor lacks a subway line and is heavily trafficked. The only current bus line along 1st and 2nd Avenues is the exceedingly crowded M15, which happens to be the busiest bus route in the United States with 16.5 million riders a year (53,358 riders on a given weekday).

A 2nd Avenue subway line is planned for the long-term but will only come online sometime after 2016. Subway projects, as a rule, are expensive undertakings and take long to build even for world class cities such as New York, while the corridor remains in need of better transit. The advantage of the SBS project is its low relative cost per mile of transit service provided in comparison with other alternatives such as subway or light-rail. At the same time, the SBS buses are not secured to a track, enabling more liberty and maneuverability on the busy Manhattan streets.

SBS buses increase travel time and efficiency compared to regular buses. The SBS buses are equipped with transit signal priority along certain stretches, a system that signals the approach of the bus to the stoplights which automatically turn green. Along many parts of its proposed route, the SBS lane is an exclusive lane that prohibits other vehicles from entering, providing the bus with a congestion-free lane. Off-board fare machines will be placed at the bus stops to greatly reducing the time lost while the bus is waits for passengers to pay their fare on board. In addition, SBS buses feature three doors for boarding instead of two to give passengers more options for getting on or off more quickly. Since passengers pay the fare before boarding they may choose any of the three doors to enter, eliminating the boarding line. Because SBS buses are equipped with near curb level floors they eliminate the added time of climbing stairs and make it easier for the elderly as well as the disabled to board the bus. The SBS buses will run even faster than the limited buses because stops are to be placed farther apart.

Studies indicate that SBS would improve overall ridership and pedestrian safety. The Fordham Road SBS decreased travel time by 19% in the Bronx, and the 34th Street SBS witnessed a 17% improvement in bus speeds in Manhattan. The Fordham Road SBS also increased its ridership by 32%. A survey of customers on the Fordham SBS returned a 98% rate of response of “satisfied” or “very satisfied” by the new service. A 2nd Avenue SBS could produce comparable results and it may help attract new visitors and shoppers as ridership increases along 2nd Avenue.

Background

The blueprints for the SBS lane along 2nd Avenue include loss of parking along certain stretches in order to accommodate the curbed bus lane (bus lane directly along the curb). The majority of the SBS lane will not line the curb directly, and for this reason much on-street parking is unaffected. However, the stretch on 2nd Avenue between Houston Street and 14th Street includes a curbed bus lane which will involve reducing parking along the avenue.

In Manhattan, parking is a highly charged issue on personal and political levels because the demand for parking exceeds supply. Businesses often oppose the loss of parking when they believe that their customers are arriving by car and parking in the vicinity. Businesses may also oppose parking if they use it themselves throughout the day, arriving early to open shop and occupy spots.

Our study is an analysis of 500 surveys gathered from pedestrians at random along 2nd Avenue between Houston Street and 14th Street dealing with transportation and spending habits among visitors and residents of the East Village, particularly aimed at finding who spends money in the East Village, how much and how frequently, what modes of transportation they use, if parking really matters for the benefit of business owners, and how the implementation of SBS will affect visiting habits.

Our study finds that businesses are expected to gain by the implementation of SBS. We urge them to support the project which will benefit them and their community at large.

METHODOLOGY

This study examines the transportation and spending patterns of residents and visitors in the East Village (for survey see appendix). We surveyed 500 individual pedestrians at random on 2nd Avenue between Houston Street and 14th Street between the the beginning of March and the middle of April in 2010. The study evaluates the reactions of pedestrians in regards to proposed street changes associated with the Select Bus Service (SBS) project. The study also extrapolates the effects of SBS implementation on businesses in the area.

The study gathered information on:

- Origins and destinations of pedestrians
- Primary and usual means of transportation to/in the corridor
- Frequency of visits
- Spending levels
- Reactions to proposed faster and more frequent bus service along 2nd Avenue
- Reactions to the proposed reduction of on-street parking spots

Data collection took place every day of the week as follows:

- Monday from 4:00 p.m. to 4:30 p.m.

- Tuesday from 10:00 a.m. to 4:00 p.m. and from 5:00 p.m. to 6:30 p.m.

- Wednesday from 9:00 a.m. to 2:30 p.m. and from 5:00 p.m. to 6:00 p.m.

- Thursday from 11:00 a.m. to 3:00 p.m., from 5:00 p.m. to 6:00 p.m., and from 7:00 p.m. to 7:30 p.m.

- Friday from 12:00 p.m. to 5:00 p.m.

- Saturday from 12:00 p.m. to 4:00 p.m.

- Sunday from 3:00 p.m. to 4:00 p.m.

The surveys thus capture both variability throughout the time of day and day of week. The end of February was considerably cold but by April it was warm, so the surveys also reflect seasonal variability from winter to spring.

The study methodology, data collection, data analysis and final design were conducted by Elaine Cheng, Chelsey Grygorcewicz, Joshua Rowley, Antya Waegemann and Mark Miretsky as part of the Transportation Capstone Seminar in the Environmental Studies Program at New York University in consultation with Transportation Alternatives and Colin Beavan, adjunct professor and recent author of *No Impact Man.*

RESULTS

Data collection took place on 2nd Avenue between Houston Street and 14th Street in Manhattan, New York. For the purposes of this report, this is defined as the "study area." The study area is located in zip code 10003. It takes a maximum of 15 minutes by foot to get from the farthest location within the study area's zip code to the study area itself. The "vicinity of the study area" is defined as the study area's zip code and all directly neighboring zip codes to the study area's zip code. Thus the vicinity of the study area includes zip codes 10002, 10009, 10010, 10011, 10012, and the study area's zip code, 10003. It takes at most 40 minutes by foot to get from the farthest location within the vicinity of the study area to the study area itself. That farthest point, however, is located in zip code 10011, and only three individuals surveyed out of 500 reported living in the zip code. Otherwise, the next farthest location within the vicinity of the study area from the study area itself is a 25-minute walk. For the purposes of this study, "residents" are considered to be all those residing within the vicinity of the study area. Since only three respondents reported living in zip code 10011, at most 1.3% of residents involved in this study may live as far as a 40-minute walk from the study area. The remaining 98.7% of residents live within a 25-minute walk of the study area. "Visitors" are considered to be all respondents who live outside the vicinity of the study area. This means visitors may live in any Manhattan zip code other than 10002, 10003, 10009, 10010, 10011, 10012, or may be from any of the other four boroughs of New York City, or from outside of the city, or from out of state.
(The survey itself can be found in the appendix)

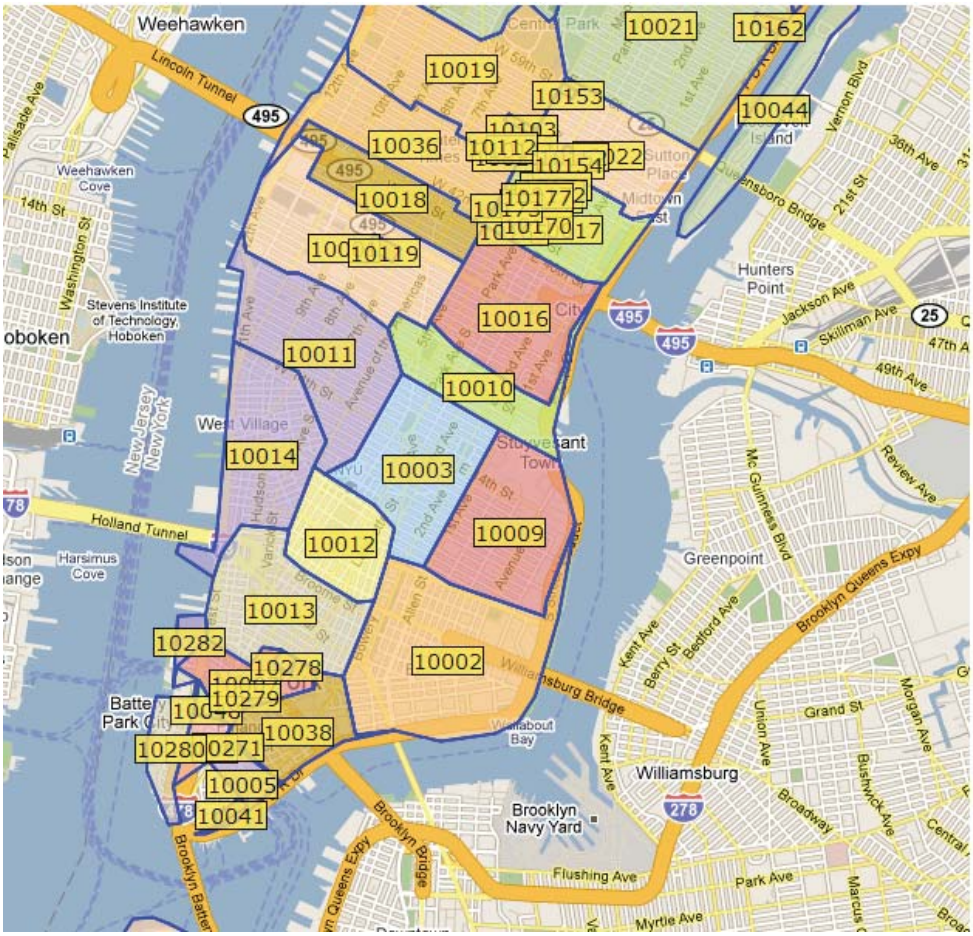

Figure 1 - Zip Code Overlay of Lower Manhattan

DIRECT SURVEY RESULTS

Survey question #1: First, what is your zip code?

- 53.8% of respondents surveyed live in Manhattan
- 45.6% of respondents surveyed live within the vicinity of the study area (at most a 40 minute walk, and thus comprise the entirety of the group referred to as residents)
- 22.2% of respondents surveyed live in the same zip code as the study area (10003, at most a 15 minute walk and are thus also considered residents)
- 54.4% of respondents surveyed live outside the vicinity of the study area (and are thus considered visitors)
- 24% of respondents surveyed live in one of the other four boroughs (71.6% of which live in Brooklyn, 20.8% live in Queens, 4.1% live in the Bronx and 3.3% live in Staten Island)
- 22.2% of respondents surveyed are from out of town (21% of which are from New Jersey)

Survey question #2: Why are you in the area today?

- 33.2% answered “I am shopping/eating out”
- 27.8% answered “I am heading home”
- 21.4% answered “I am heading to work”
- The remaining 17.6% answered “other” (primarily going to school, taking a stroll, walking their dog, or meeting a friend)

Survey question #3: What was your primary means of transportation to this neighborhood today?

- 38.8% took the subway
- 37.4% walked
- 6.6% arrived by car
- 6.6% took a bus
- 5.8% biked
- 4.8% took a taxi

Survey question #4: What is your usual means of transportation to this neighborhood? (see Fig. 2)

- 43.4% usually take the subway
- 34.2% usually walk
- 6.6% usually drive a car
- 6.4% usually take the bus
- 6.2% usually bike
- 3.2% usually take a taxi

Survey question #5: How often do you visit this neighborhood on a weekly basis?

- 12.8% come less than once a week
- 9% come once a week
- 7% come twice a week
- 7% come three times a week
- 5.2% come four times a week
- 2.8% come five times a week

- 0.4% come six times a week
- 2% come seven times a week
- 37% live in the area
- 16.8% work in the area

Survey question #6: How much do you spend on average per visit in this area?

- 39.9% spend less than $20
- 39.9% spend between $20 and $49
- 11.2% spend between $50 and $99
- 9% spend more than $100

Survey question #7: Would you visit the area more or less often if there were faster and more frequent bus service? (see Fig. 3)

- 31.4% replied “more often”
- 2.6% replied “less often”
- 66% replied “about the same”

Survey question #8: Would you visit the area more or less often if there were fewer on-street parking spots available? (see Fig. 4)

- 12% replied “more often”
- 10% replied “less often”
- 78% replied “about the same”

End of survey

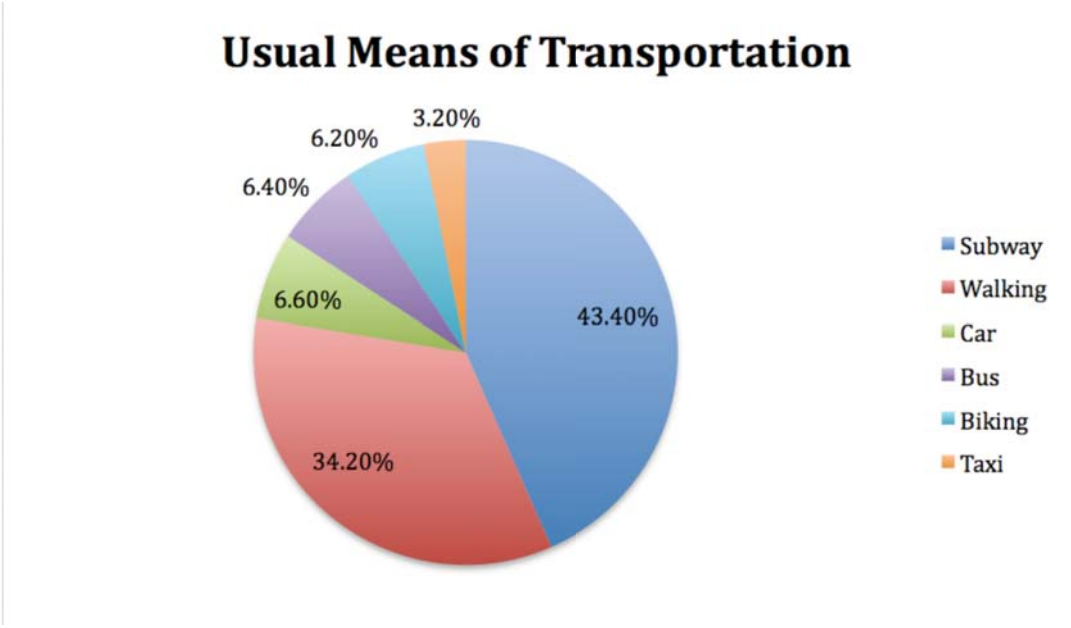

Figure 2 - Responses to Survey Question #4: What is your usual means of transportation to this neighborhood?

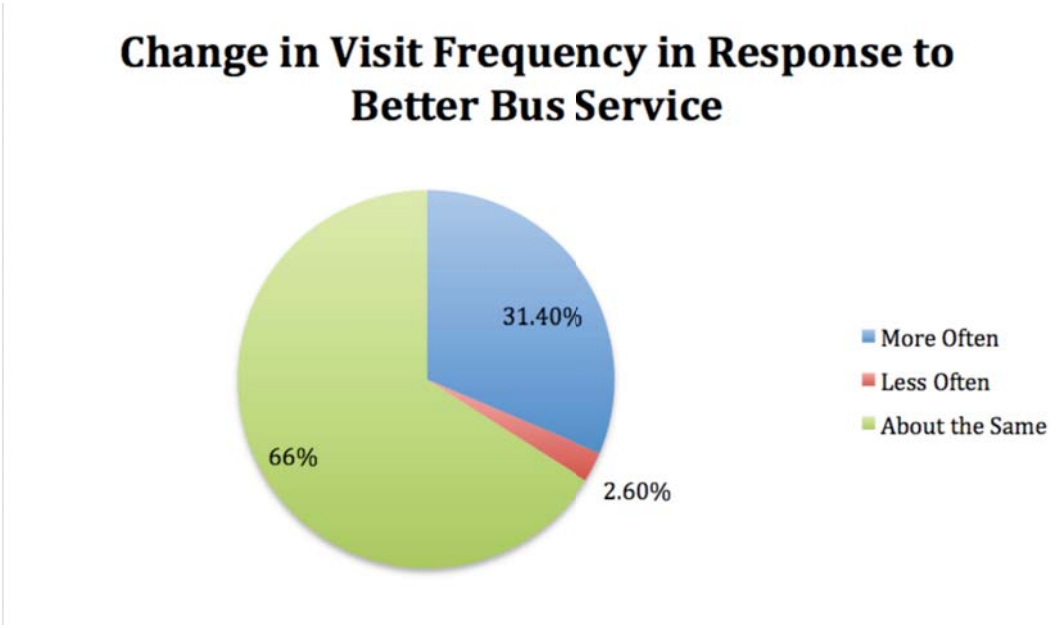

Figure 3 – Responses to Survey Question #7: Would you visit the area more or less often if there were faster and more frequent bus service?

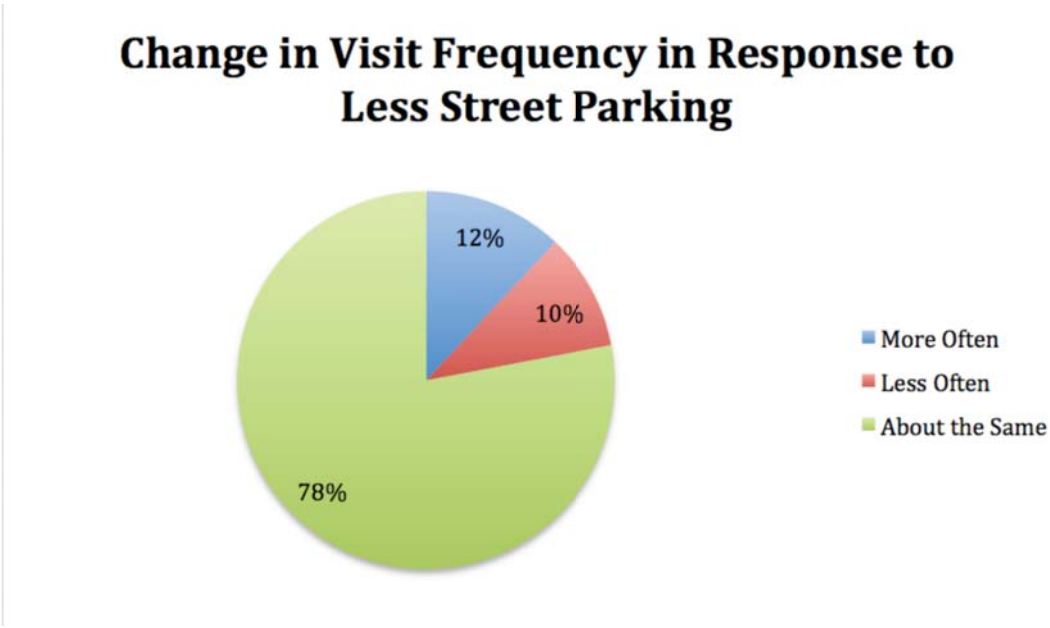

Figure 4 – Responses to Survey Question #8: Would you visit the area more or less often if there were fewer on-street parking spots available?

EXTRAPOLATED RESULTS

Residents

45% of all respondents are residents (they live within the vicinity of the study area zip codes 10002, 10003, 10009, 10010, 10011, 10012, which is at most a 40 minute walk from the study area). Residents responded as follows to the question: “What is your usual means of transportation to this area?”

- 61% said walking
- 24.1% said subway
- 7% said bus
- 5.3% said biking
- 1.3% said car
- 1.3% said taxi

22.2% of all respondents live in the study area's zip code, 10003. They too are residents and so are included in the previous question, but it takes them at most 15 minutes by foot to get to the study area. Residents responded as follows to the question “What is your usual means of transportation to this area?”:

- 64.9% said walking
- 19.8% said subway
- 7.2% said bus
- 5.4% said biking
- 1.8% said taxi
- 0.9% said car

23.4% of all respondents live outside the study area's zip code, 10003, but within the rest of the vicinity of the study area (meaning they live only in area codes 10002, 10009, 10010, 10011, 10012). They too are residents and are included in the first question of the “Residents” section. Residents responded as follows to the question “What is your usual means of transportation to this area?”:

- 57.3% said walking
- 28.2% said subway
- 6.8% said bus
- 5.1% said biking
- 1.7% said car
- 0.9% said taxi

Based on the frequency of visits and average spending per visit, we were able to calculate the relative aggregate weekly spending of respondents. To calculate this, we assigned mean dollar values to the ranges of “average spending per visit” answers. Meaning when a respondent said they spend “less than $20” on average per visit, we counted that as $10 spent per visit. When the answer was “between $20 and $49” on average per visit, we counted it as $35 spent per visit. When the answer was “between $50 and $99” on average per visit, we counted it as $75 spent per visit. When the answer was “over $100” on average per visit, we counted it as $100 spent per visit.

In addition to this, we assigned factors to the responses regarding average weekly visiting frequencies. Meaning when a respondent answered that they visit the area “less than once a week,” we assigned that a frequency of 0.5 visits per week, an assumption that this group would average a visit once every two weeks.

When a respondent answered "I live in the area," we counted this as seven visits per week. When a respondent answered "I work in the area," we counted this as five visits per week. When a respondent answered that they visit the area one, two, three, four, five, six, or seven times a week, we used those frequencies themselves.

Thus, by multiplying our assigned average spending amounts per visit with our frequency of visits, we were able to extrapolate not only the relative aggregate spending of a specific constituency in the study area, but also average per capita weekly spending across constituencies and average spending per visit.

Of all residents, the responses to "Would you visit the area more or less often if there were faster and more frequent bus service?" break down as follows:

- 24.1% responded "more often." Aggregate weekly spending of this group is $11,595
- 3.5% responded "less often." Aggregate weekly spending of this group is $1,540
- 72.4% responded "about the same." Aggregate weekly spending of this group is $37,725

Of all residents, the responses to "Would you visit the area more or less often if there were fewer on-street parking spots available?" break down as follows:

- 8.7% responded "more often." Aggregate weekly spending of this group is $4,855
- 5.3% responded "less often." Aggregate weekly spending of this group is $2,815
- 86% responded "about the same." Aggregate weekly spending of this group is $43,190

Visitors

54.4% of all respondents live outside the vicinity of the study area (meaning they live outside of area codes 10002, 10003, 10009, 10010, 10011, 10012). They are visitors. In answer to the question "What is your usual means of transportation to this area?" visitors responded:

- 59.5% said subway. Aggregate weekly spending of this group is $1,515.75; average weekly per capita spending is $9.36
- 12.1% said walking. Aggregate weekly spending of this group is $2,102.50; average weekly per capita spending is $65.70
- 11% said car. Aggregate weekly spending of this group is $1,957.50; average weekly per capita spending is $65.25
- 7% said biking. Aggregate weekly spending of this group is $2,410; average weekly per capita spending is $126.84
- 5.8% said bus. Aggregate weekly spending of this group is $1,182.50; average weekly per capita spending is $73.90
- 4.6% said taxi. Aggregate weekly spending of this group is $1,020; average weekly per capita spending is $78.46

To get a better picture of visitors coming by car and those using all other modes of transport:

- 11% of visitors drive to the study area. Aggregate weekly spending of this group is $1,957.50; average weekly per capita spending is $65.25
- 89% of visitors do not drive to the study area. Aggregate weekly spending of this group is $21,872.50; average weekly per capita spending is $90.38

Of all visitors (respondents that live outside of the vicinity of the study area), the responses to "Would you visit the area more or less often if there were faster and more frequent bus service?" break down as follows:

- 37.5% replied "more often" (63.7% subway, 10.8% bus, 8.8% walking, 6.8% biking, 3.9% car, 6% taxi). Aggregate weekly spending of this group is $8,347.50
- 1.8% replied "less often" (20% subway, 40% bike, 40% car). Aggregate weekly spending of this group is $1,175
- 60.7% replied "about the same" (58.2%, subway, 3% bus, 14% walking, 6% biking, 14.6% car, 4.2% taxi). Aggregate weekly spending of this group is $14,307.50

Of all visitors (respondents that live outside of the study area vicinity), the responses to "Would you visit the area more or less often if there were fewer on-street parking spots available?" break down as follows:

- 14.7% replied "more often" (50% subway, 10% bus, 5% walking, 25% bike, 2.5% car, 7.5% taxi). Aggregate weekly spending of this group is $4,592.50
- 13.9% replied "less often" (21% subway, 2.6% bus, 2.6% walking, 2.6% biking, 55.2% car, 15.8% taxi). Aggregate weekly spending of this group is $2,375
- 71.4% replied "about the same" (69% subway, 5.7% bus, 15% walking, 4.1% biking, 4.1% car, 2% taxi). Aggregate weekly spending of this group is $16,862.50

Car Drivers

- 6.6% of respondents drive to the study area. Aggregate weekly spending of this group is $2,712.50; average per capita weekly spending is $82.20
- 1.3% of residents drive. Aggregate weekly spending of this group is $755; average per capita weekly spending is $251.60
- 11% of visitors drive. Aggregate weekly spending of this group is $1,957.50; average per capita weekly spending is $65.25

Resident car drivers responded in the following ways to "Would you visit the area more or less often if there were faster and more frequent bus service?"

- 33.3% responded "more often." Aggregate weekly spending and average per capita weekly spending of this group is $35
- 33.3% responded "less often." Aggregate weekly spending and average per capita weekly spending of this group is $700
- 33.3% responded "about the same." Aggregate weekly spending and average per capita weekly spending of this group is $20

Resident car drivers responded in the following ways to "Would you visit the area more or less often if there were fewer on-street parking spots available?"

- 33.3% responded "more often." Aggregate weekly spending and average per capita weekly spending of this group is $700
- 66.6% responded "less often." Aggregate weekly spending of this group is $55, and average per capita weekly spending is $27.5
- 0% responded "about the same"

Visitor car drivers responded in the following ways to "Would you visit the area more or less often if there were

faster and more frequent bus service?"

- 13.3% responded "more often." Aggregate weekly spending of this group is $190; average per capita weekly spending is $47.50
- 6.7% "less often." Aggregate weekly spending of this group is $55; average per capita weekly spending is $27.50
- 80% "about the same." Aggregate weekly spending of this group is $1,712.50; average per capita weekly spending is $71.35

Visitor car drivers responded in the following ways to "Would you visit the area more or less often if there were fewer on-street parking spots available?"

- 3.3% "more often." Aggregate weekly spending of this group is $37.5; average per capita weekly spending is $37.50
- 70% "less often." Aggregate weekly spending of this group is $1,325; average per capita weekly spending is $63.10
- 26.7% "about the same." Aggregate weekly spending of this group is $595; average per capita weekly spending is $66.11

All Respondents

Of all 500 pedestrians surveyed:

- Aggregate weekly spending by all respondents is $74,690 per week; per capita weekly spending is $149
- Aggregate weekly spending by all respondents who are non-drivers is $71,977.50 per week; per capita weekly spending is $154
- Aggregate weekly spending by all respondents who are drivers is $2,712.50 per week; per capita weekly spending is $82

Out of all 500 respondents:

- 7.9% of non-drivers reported spending $100 or more per visit, whereas
- 24.2% of drivers reported spending $100 or more per visit

- 10.9% of non-drivers reported spending between $50 and $99 per visit, whereas
- 15.1% of drivers reported spending between $50 and $99 per visit

- 48.5% of drivers reported visiting the area less than once a week, whereas
- 10.2% of non-drivers reported visiting the area less than once a week

- 18.2% of drivers reported visiting the area only once a week, whereas
- 8.4% of non-drivers reported visiting the area only once a week

And conversely:

- 9% of drivers reported living in the area (which counts statistically as spending 7 days a week)

- 48% of non-drivers reported living in the area

- 21.2% of drivers reported working in the area (which counts statistically as spending 5 days a week)
- 21.4% of non-drivers reported working in the area

- 75% of drivers who reported spending over $100 per visit come to the area less than once a week
- 27% of non-drivers who reported spending over $100 per visit come to the area less than once a week

Respondents' reactions to proposed changes to the street:

To the question: “Would you visit the area more or less often if there were faster and more frequent bus service?” the following percentages were collected from all 500 respondents:

- 31.4% replied “more often.” Aggregate spending of this group is $19,942.50 per week
- 2.6% replied “less often.” Aggregate spending of this group is $2,715 per week
- 66% replied “about the same.” Aggregate spending of this group is $52,032.50 per week

To the question: “Would you visit the area more or less often if there were fewer on-street parking spots available?” the following percentages were collected from all 500 respondents: (see Fig. 5)

- 12% replied “more often.” Aggregate spending of this group is $9,447.50 per week
- 10% replied “less often.” Aggregate spending of this group is $5,190 per week
- 78% replied “about the same.” Aggregate spending of this group is $60,052.50 per week

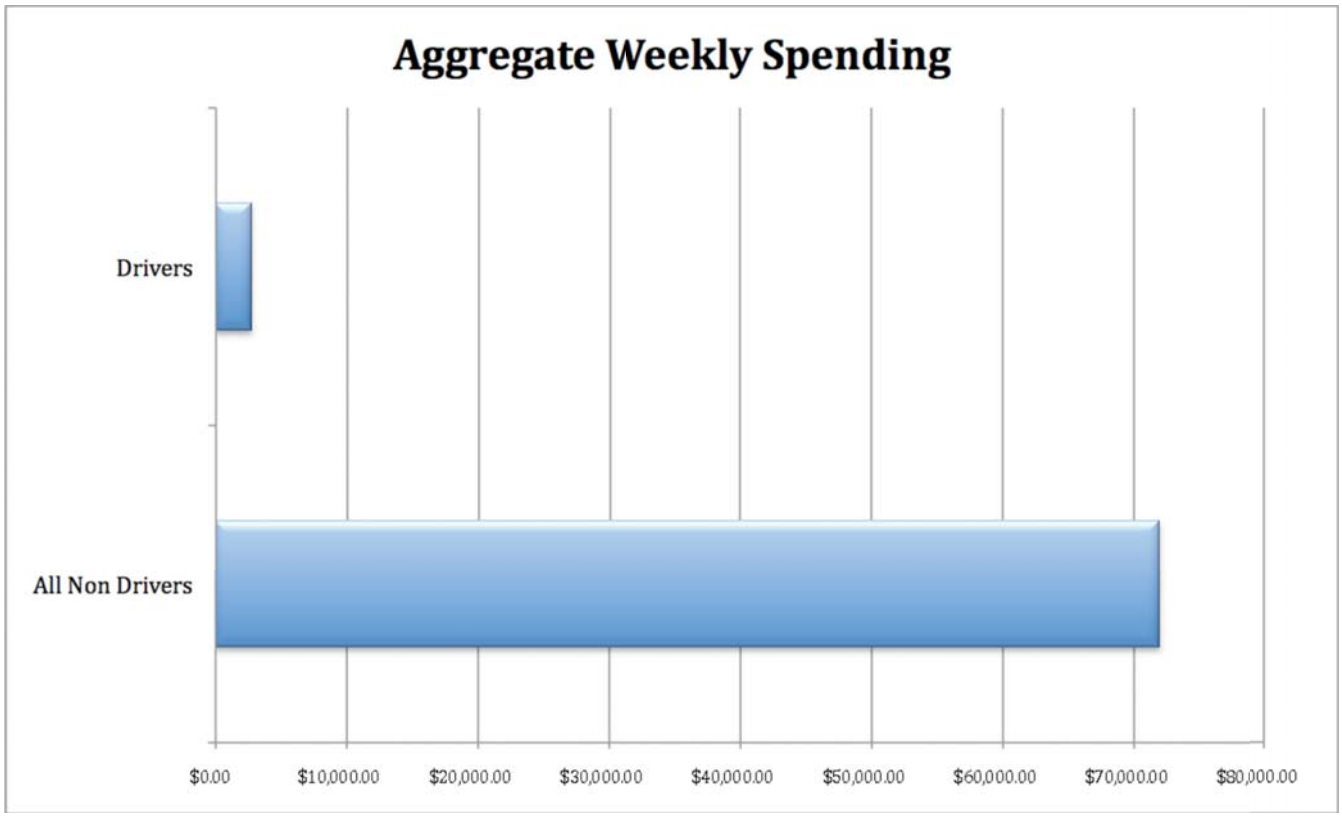

Figure 5 - Bar chart showing aggregate weekly spending of survey participants in response to questions about changes in visit frequency to neighborhood in response to reduction of parking or improvement of bus service.

DISCUSSION

"Drivers" are defined as those who responded that their usual mode of transportation to the area was by car. Taxi users are not considered drivers.

Car Drivers:

The data collected from randomly stopped individuals along 2nd Avenue between Houston Street and 14th street shows that drivers are a minority of overall respondents, and do not contribute much to the study area's economy:

- 6.6% of respondents drive in the study area. This percentage is significantly lower for residents (0.9% for the study area's zip code; 1.7% for the vicinity of the study area's zip code but excluding the study area's zip code; and 1.3% for overall residents). This figure reaches 11% for visitors. Out of 500 respondents, 33 are drivers. Of all drivers, three are residents and the remaining 30 are visitors.

The data shows that visitor drivers outnumber resident drivers by 10 to 1, so it is no surprise that aggregate weekly spending is higher by visitor drivers. However, resident drivers' per capita weekly spending is 4 times greater.

When visitor car drivers answered the question "Would you visit the area more or less often if there were faster and more frequent bus service?" more individuals responded "more often" than "less often" by a factor of 2. Those that replied "more often" outspent those that replied "less often" by a factory of 3.5. In addition to this, those replying "more often" had a per capita spending level 1.7 times greater.

When visitor car drivers answered the question "Would you visit the area more or less often if there were fewer on-street parking spots available?" more individuals responded "less often" than "more often" by a factor of 21. Those responding "less often" outspent those responding "more often" by a factor of 35. In addition to this, those responding "less often" had a per capita spending 1.7 times greater than that of those responding "more often."

Taking visitor drivers and resident drivers together, aggregate weekly spending behind the answer "more often" to "Would you visit the area more or less often if there were faster and more frequent bus service?" equals $225 per week, while that of "less often" equals $755 per week. This represents a net $530 per week in favor of visiting the study area less often with faster and more frequent bus service implementation on the part of all drivers.

Taking visitor drivers and resident drivers together, aggregate spending behind the answer "more often" to "Would you visit the area more or less often if there were fewer on-street parking spots available?" equals $72.5 per week, while that of "less often" equals $2045 per week. Thus, this represents $1,972.50 per week in favor of visiting the study area less often with reduced on-street parking spots.

- All drivers taken together represent a net spending of $530 per week in favor of visiting the area less often with faster and more frequent bus service
- All drivers taken together represent a net spending of $1,972.50 per week in favor of visiting the area less often with reduced on-street parking spots

However, this represents a fraction of the overall aggregate spending and represents a minority group (6.6% of respondents):

- Of all survey respondents, non-drivers' aggregate weekly spending exceeds that of drivers by 26.5 times

Such an enormous aggregate spending difference in the two constituencies is explained by several factors. First, there are roughly 14 times more non-drivers than drivers in the sample. Thus, if the two constituencies had equal spending patterns, we would expect non-drivers' aggregate spending to be 14 times greater than drivers' aggregate spending. However, this is not the case as that amount is actually 26.5 times greater. Thus, drivers are being outspent significantly.

But drivers spend more on a per visit basis than non-drivers:

- Drivers spend on average $50 per visit
- Non-drivers spend on average $34 per visit

On a *per visit* basis, drivers are the bigger spenders. But their average weekly spending per capita falls far behind that of non-drivers:

- Non-drivers spend on average $154.13 per capita per week
- Drivers spend on average $82.20 average per capita per week

The indicator that explains these different averages is the *frequency of visits.* Drivers simply do not visit the area as often as non-drivers:

- The number of visits to the study area by non-drivers exceeds the number of visits by drivers by 38:1
- Respondents that drive a private car to the area average 1.7 visits a week whereas all other respondents average 4.6 visits a week
- Respondents that drive a private car to the area visit 2.7 times less often than all other respondents
- Driver's constitute only 3.6% of the aggregate spending of all respondents

Thus, though drivers have higher spending per visit, their visiting frequencies are so low in comparison to non-drivers that their resulting per capita weekly spending is almost half that of non-drivers, and even though there are 14 times more non-drivers than drivers, the aggregate weekly spending by non-drivers is 26 times greater than the aggregate weekly spending of drivers. Simply put, drivers spend more per visit, but visit significantly less often than non-drivers. Drivers thus contribute less to the study area's economy on an aggregate and per capita basis.

Visitors:

In the same manner it is possible to calculate the associated aggregate spending behind each constituency's answers to the questions about faster and more frequent bus service and fewer on-street parking spots.

- Visitors represent a net $6,462.60 per week in favor of visiting the study area more often with implementation of faster and more frequent bus service
- Visitors represent a net $1,967.50 per week in favor of visiting the study more often area with fewer on-street parking spots.

Residents:

- Residents represent a net $6,732.50 per week in favor of visiting the study area more often with implementation of faster and more frequent bus service
- Residents represent a net $2,040 per week in favor of visiting the study area more often with fewer on-street parking spots

All Respondents

- All respondents represent a net $17,227.50 per week in favor of visiting the study area more often with implementation of faster and more frequent bus service
- All respondents represent a net $4,257.50 per week in favor of visiting the study area more often with fewer on-street parking spots

It is clear from the above results that the constituencies that anticipate visiting less often with implementation of faster and more frequent bus service and reduced on-street parking spots are not only in the minority, but these constituencies also contribute the least amount to aggregate spending.

Respondents who anticipate visiting more often with improved bus service outspent those who anticipate visiting less often by a factor of 7.3. The net aggregate dollar value per week on the part of respondents who said they would visit more often with faster and more frequent bus service is $17,227.50.

Respondents that anticipate visiting the study area more often with reduced on-street parking spots outspent those who anticipate visiting less often by a factor of 1.8. The net aggregate dollar value per week on the part of respondents who said they would visit more often with less on-street parking is $4,257.50.

An overwhelming 97.4% of all respondents said that they would either visit more often or about the same with faster and more frequent bus service. An overwhelming 90% said they would either visit more often or about the same with reduced on-street parking. By supporting the SBS implementation, business owners would align themselves not only with the overwhelming majority of their shoppers (those who anticipate visiting the area more often or about the same), but also with the constituencies that spend the most money in aggregate terms. By supporting the SBS plan, businesses would enable respondents to visit more often.

Thus for businesses to increase the visits of the majority of their shoppers as well as of the group that contributes most to their revenues, businesses should support the Select Bus Service project which aims to provide a dedicated lane for new and improved bus service along 2nd Avenue at the cost of reduced on-street parking spots.

Though the information gathered does not enable us to make an exact prediction on how spending will change, it is nevertheless reasonable to expect spending to increase in the area if the Select Bus Service plan comes into effect. It is likely that people will spend more money if they visit the study area more often or move about the study area more often, thus raising business revenues in the area.

RECOMMENDATIONS AND FUTURE

This report establishes the benefit of the SBS plan to businesses and the community in the study area, showing that the respondents who anticipate visiting the area "more often" with faster and more frequent bus service outnumber those who anticipate visiting "less often" by a factor of 12 and outspent them by a factor of 7.3; and the group that anticipates visiting more often with reduced on-street parking is 20% greater than the group that anticipates visiting less often. The group responding “more often” to reduced on-street parking also outspent the the group responding “less often” by a factor of 1.8.

The study finds that drivers constitute a minority of the people in the study area (6.6%) and that they spend the least per capita and contribute the least in aggregate spending to business revenues by a significant margin. Drivers also visit the area significantly less often than all other groups, but they are the single largest group that anticipates visiting the area less often with reduced parking.

Conversely, the majority of respondents will either visit more often or will visit about the same if changes associated with the SBS are implemented. An overwhelming 97.4% of all respondents said that they would either visit more often or about the same with faster and more frequent bus service. An overwhelming 90% said they would either visit more often or about the same with reduced on-street parking.

31.4% of respondents said they would visit more often with faster and more frequent bus service, and 12% said they would visit more often with reduced parking spots. Thus, a significant number of respondents anticipate visiting the area more often if SBS is implemented. Because more visiting will likely lead to more spending, we expect business revenues to increase with the SBS implementation.

Reduction in parking will prompt a minority group to visit less often. The biggest single constituency in this group is car drivers. They are mostly concerned with reduced on-street parking, but because their per capita weekly spending is almost half that of non-drivers, and because they visit the area 2.7 less often than non-drivers, and because their aggregate spending constitutes a fraction (3.6%) of overall aggregate spending, and because they are a minority group overall (6.6% of respondents), they are not a convincing argument against reduced parking or SBS implementation. This group is not a significant contributor to businesses and is in fact holding back the potential growth that businesses are expected to encounter with SBS implementation from all the other respondents that expect to visit more often.

We hope that the work carried out through this study is noted by opponents of SBS implementation. As well as benefitting businesses, the SBS plan represents a benefit to the community as a whole by providing improved transit service. We hope the benefits of the SBS plan to businesses and to the community have been clarified through this study. We recommend that businesses support the project, and we recommend that Community Board 3 specifically, and community board 6, 8, and 11 more broadly, vote in favor of the project. The plan will not only provide the area with much needed improved public transit, but is also expected to increase ridership along the 1st and 2nd Avenue corridor, bringing more visitors into the area and thus attracting an increase in revenues.

APPENDIX

Survey

East Village Pedestrian Survey

Thank you for taking this survey!

First, what is your home zip code?_____

Why are you in this area today?
a. I am shopping/eating out. b. I am heading to work. d. Other:_____

What was your ***primary*** means of transportation to this neighborhood today?
a. Subway b. Bus c. Walking d. Biking e. Car f. Taxi

What is your ***usual*** means of transportation to this neighborhood?
a. Subway b. Bus c. Walking d. Biking e. Car f. Taxi

How often do you visit this neighborhood on a weekly basis?
_____times OR a. I live here. b. I work here

How much do you spend on average per visit in this area?
a. Less than $20 b. $20 - $49 c. $50 - $99 d. $100 or more

Would you visit the area more or less often if there were faster and more frequent bus service?
a. More often b. Less often c. About the same

Would you visit the area more or less often if there were fewer on-street parking spots available?
a. More often b. Less often c. About the same

Time:_____
Location:_____

Date	n = 500
March 2	91
March 4	42
March 5	10
March 10	11
March 11	62
March 12	32
March 13	21
March 15	5
March 16	11
March 17	36
March 18	34
March 19	34
March 20	14
March 21	6
March 24	33
March 26	6
March 30	27
March 31	13
April 1	3
April 13	9

Figure 6 – Survey Collection Dates