Traffic's Human Toll

A Study of the Impacts of Vehicular Traffic
on New York City Residents

Transportation
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Traffic's Human Toll

Transportation Alternatives

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Chapter 1

Executive Summary

Every day, thousands of motor vehicles traverse the average New York City residential street. Though the economic and public health costs of heavy traffic have been the subject of increasing study, there has been virtually no research of how traffic impacts peoples' daily lives. Beginning in June of 2005, twenty-one Transportation Alternatives researchers set out to ascertain the impact of vehicular traffic on New Yorkers' quality of life.

Over a period of fourteen months, the researchers interviewed over 600 residents in four neighborhoods: Astoria, Queens; Brooklyn Heights, Brooklyn; Chinatown, Manhattan and High Bridge, the Bronx. In each neighborhood, the researchers interviewed residents on three kinds of streets: "heavy" traffic streets with over 5,000 vehicles per day; "medium" traffic streets with 2,000-3,000 vehicles per day; and "light" traffic streets with 1,000 or fewer vehicles per day.

Traffic's Human Toll reveals that high volume vehicular traffic has profoundly negative impacts on the lives and perceptions of residents who live near it. The results show that compared to their neighborhood counterparts living on streets with low traffic volumes, residents living on higher volume streets:

- harbor more negative perceptions of their block;

- possess fewer relationships with their neighbors;

- are more frequently interrupted during sleep, meals, and conversations;

- spend less time walking, shopping and playing with their children.

The study found that residents living on streets with lighter traffic have more positive environmental perceptions than residents that live on medium-traffic and heavy-traffic streets. On light-traffic streets, the ratio of overall positive to negative perceptions was 98:62. On the study's medium-traffic street, it was 74:63 and on the heavy traffic street it was 34:122 (See figure 1.1 on the following page).

In two of the study areas, residents of the heavy-traffic streets were found to possess fewer friends and acquaintances on their block than residents of the lighter-traffic streets. In all study areas, residents of the light-traffic streets had the most local friends and acquaintances (See figure 1.2 on the next page).

Forty-nine percent of all residents surveyed for *Traffic's Human Toll* stated that reducing the amount of cars that pass through their street would "totally improve" their quality of life. On heavier traffic streets, this percentage was even greater (62%) (See table 5.1 on page 28).

Seventy-three percent of heavy-traffic street residents mentioned too much traffic or some negative attribute of traffic (i.e. speeding) when describing the environment on their street (See table 1.2 on page 4).

Accordingly, this study calls upon the Mayor and the Commissioner of the Department of Transportation to make traffic reduction a top priority and set targets for switching 15% of current driving trips to transit, bicycling and walking; adopt proven traffic reduction strategies such as London-style congestion pricing and parking pricing and implement widespread traffic-calming measures that heretofore have only been applied

on a small percentage of city streets. These recommendations are consistent with those ratified by over 120 citywide community groups. For more information on these recommendations, visit *trafficrelief.org*.

Figure 1.1: Resident Images: Ratio of Positive vs. Negative Environmental Perceptions (EP) of Residents by Street Type

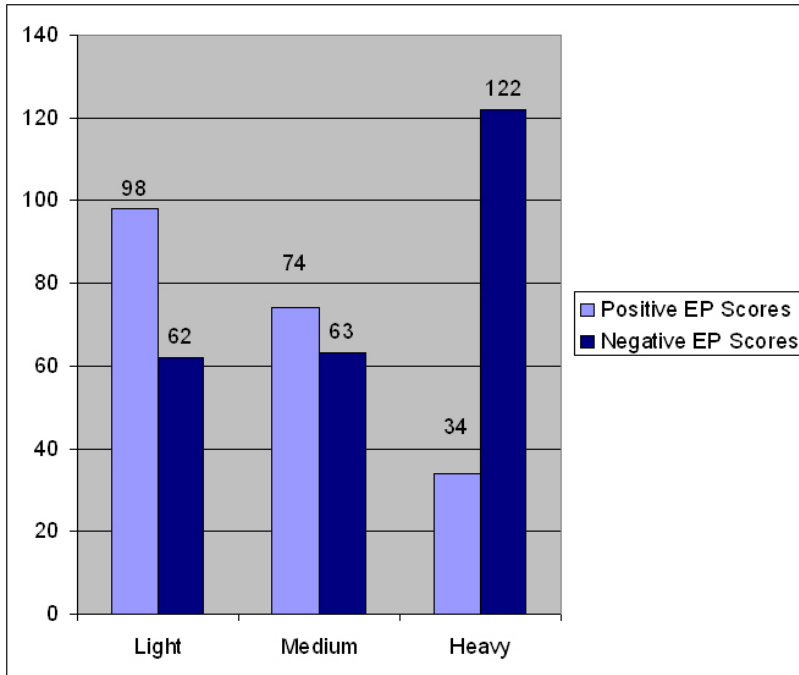

Figure 1.2: Average Number of Friends per Person by Neighborhood and Street Type
Averages include values ≤UIF value (non-outlyers) (Inter Quartile Range (IQR)=75th percentile - 25th percentile/Upper Inner Fence (UIF)=75th percentile + (IQR*1.5))
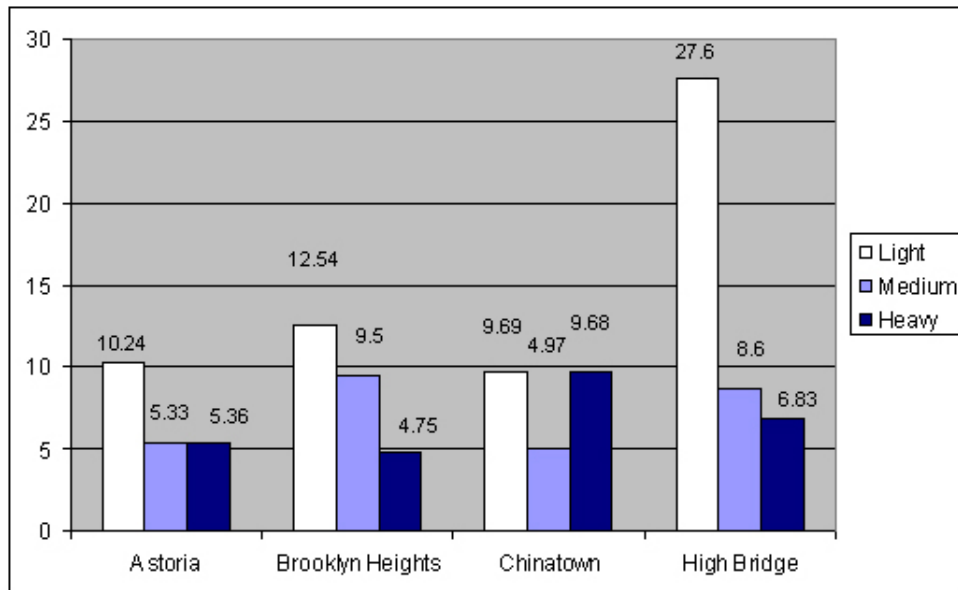
Table 1.1: Resident Recommendations: All Streets Combined
Light N=200, Medium N=192, Heavy N=200, All Streets Combined N=592
TI=Totally Improve, WMW=Would Make Worse

Totals	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Repair Sidewalks	60.0%	0.5%	58.9%	5.2%	70.0%	0.0%	63.0%	4%
Plant Trees	56.5%	1.5%	59.9%	3.6%	61.0%	1.5%	59.1%	28%
More Enforcement (police)	50.5%	1.0%	50.5%	11.5%	58.5%	2.5%	53.2%	5%
Additional Street Cleaners	48.0%	1.0%	52.1%	5.2%	58.5%	3.0%	52.9%	6%
Lower Speed Limit	41.5%	1.0%	48.4%	13.5%	64.5%	3.5%	51.5%	5%
Improve Surface (of the street)	54.5%	1.0%	46.9%	7.8%	53.0%	0.5%	51.5%	5%
Street Lighting	47.0%	2.0%	49.5%	13.5%	53.0%	3.0%	49.8%	24%
Cut Down Cars	40.0%	2.0%	44.8%	7.8%	62.0%	3.5%	49.0%	3%
Prohibit Trucks	43.0%	2.5%	47.9%	13.5%	44.0%	3.0%	44.9%	10%
Add Bicycle Lane (of any kind)	30.5%	7.5%	53.6%	12.0%	42.5%	9.5%	42.1%	6%
Add/Improve Traffic Signals	33.0%	4.0%	39.1%	10.9%	48.0%	1.5%	40.0%	14%
Add Speed Humps	49.0%	6.0%	34.4%	23.4%	34.5%	23.0%	39.4%	22%
Add Stop Signs	30.0%	2.0%	26.0%	9.9%	38.0%	3.0%	31.4%	4%
Add Mid-block Crossing	19.5%	6.5%	30.7%	20.8%	34.5%	16.0%	28.2%	30%
Add/Refurbish Crosswalk	23.0%	0.5%	32.8%	10.4%	28.5%	1.5%	28.0%	30%
Limit Parking (ex. Less spots, resident parking permits)	26.0%	28.5%	25.5%	31.3%	27.0%	30.0%	26.2%	17%
Prohibit Buses	21.0%	2.5%	18.2%	17.2%	30.0%	23.0%	23.1%	6%
Narrow Entrance to the Street (ex. curb extensions)	15.5%	11.5%	16.7%	25.0%	36.0%	19.0%	22.8%	2%
Add Diagonal Parking	16.0%	25.5%	27.1%	28.6%	21.0%	37.0%	21.3%	2%
Widen Sidewalks/Narrow Street	14.5%	18.5%	19.3%	29.2%	25.5%	18.5%	19.8%	3%
Widen Street/Narrow Sidewalk	28.0%	9.5%	13.5%	28.1%	16.5%	36.0%	19.4%	14%
Street Closure (partial or complete)	12.5%	17.0%	19.3%	31.3%	21.5%	35.5%	17.7%	18%
Make One-Way	2.0%	1.5%	3.1%	7.3%	5.5%	20.0%	3.5%	8%

Table 1.2: Environmental Perceptions: All Streets Combined

	Total Responses	Light	Medium	Heavy
Excessive Traffic	94	3	19	72
Dirty, Litter, Garbage	91	25	29	37
Quiet	90	32	35	23
General Street Characteristics(physical)	67	22	21	24
Nice/Pleasant Neighborhood	63	15	23	25
General Noise	56	9	16	31
General Street Characteristics(demographic)	54	20	9	25
Speeding Traffic	53	7	7	39
Busy/Crowded	52	7	10	35
People Friendly/Neighborly/Community	52	31	10	11
Traffic Danger	50	17	8	25
Parking Problems	50	16	14	20
Safe/No Violence/No Crime/No Vandalism	39	14	17	8
Location/Convenience/Proximity to Other Locations	38	10	16	12
No Response	28	2	19	7
Other (Neg.)	27	7	9	11
General Comments on Land Uses	26	7	9	10
Dangerous/Crime/Vandalism	26	13	10	3
Other (Neu.)	25	4	10	11
Clean, No Litter, Good Maintenance	25	9	9	7
Nice Trees/Greenery	22	1	11	10
Other (Pos.)	19	4	5	10
Activities Witnessed on Street	19	10	4	5
Traffic Noise	18	2	7	9
Architecture	12	0	8	4
Regular	12	3	6	3
Nostalgic	11	5	0	6
Housing Problems	11	1	8	2
Not Much Traffic	11	3	7	1
Dislike Neighbors/Neighbors not Nice	10	5	2	3
Historic	9	0	5	4
Cracks and Trip Hazards on Sidewalks/Poor Sidewalk Conditions	8	1	2	5
Aethetically Pleasing/Good Appearance	8	3	4	1
Good Transit Access	8	0	8	0
Eventful/Fun	7	2	4	1
Traffic Composition	6	2	2	2
Not Nice/Horrible/Unpleasant	6	6	0	0
Poor Appearance/Maintenance	5	0	0	5
Air Pollution	5	0	1	4
General Street Characteristics (socio-economic)	5	0	3	2
Not Busy	5	2	1	2
Traffic Safety	5	3	1	1
Transit Problems	5	0	5	0
Cracks and Potholes on Street	5	4	1	0
High Pedestrian Traffic	3	0	1	2
Needs More Green	3	1	0	2
Excessive Truck Traffic	3	0	2	1

Acknowledgements

About Donald Appleyard

Traffic's Human Toll was inspired by the work of Donald Appleyard, a former professor of Urban Design at the University of California at Berkeley. A trained architect and surveyor, Appleyard dedicated his academic career to studying the environmental perceptions of urban residents and in particular, the social impacts of traffic on people in his seminal work *Livable Streets*. He was a path-breaking researcher and urban planner, with a deep concern for the needs and expectations of urban communities. Appleyard passed away in 1982 a victim of a speeding motorist in Athens, Greece.

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Chapter 2

Introduction

On an average day, over 1 million motor vehicles[3] traverse New York City's 6,000 miles of streets .

Because the wear and tear that these vehicles inflict on the road-bed is well understood, the City of New York long ago imposed weight limits and truck restrictions on thousands of miles of City streets. Similarly, as the pulmonary health impacts of traffic pollution have become better understood, New York City has adopted increasingly stringent emissions standards and anti-idling regulations.

In contrast, the impact that vehicular traffic has on people's quality of life is very poorly understood. While much has been written about the relationship between traffic volumes and the subsequent frequency of potholes, only one study has examined how on-street traffic volumes affect the lives of the people who live there, and that study was conducted in San Francisco, California in the 1970's[1]. This dearth of knowledge about the human impact of traffic has contributed to the lack of political and public will to apply traffic reduction measures that have proven successful in London and in other big cities.

Seeking to fill this knowledge void, in June of 2005, Transportation Alternatives (T.A.) sent out twenty-one researchers to ascertain the effects of vehicular traffic on quality of life in New York City.

T.A. sent researchers to multiple streets in four very different neighborhoods in the City to talk to residents about their experiences of living on their block. In a period 14 months, the researchers interviewed over 600 residents on thirteen streets in Astoria, Queens; Brooklyn Heights, Brooklyn; Chinatown, Manhattan and High Bridge, the Bronx. The researchers have diligently recorded the residents' perceptions of their street, their relationships to their street and to each other and their opinions regarding the traffic and other environmental factors. *Traffic's Human Toll* is the culmination of all this work, and it shows mainly that across distinct neighborhoods vehicular traffic impacts residents' lives and perceptions in profoundly negative ways.

Chapter 3

Methodology

3.1 Procedure

The methodology for *Traffic's Human Toll* is closely based on that of the famous study *Livable Streets*. Conducted in the 1970's, *Livable Streets* made the world aware of the relationship between urban residents' quality of life and vehicular traffic. It revealed that high levels of traffic on a street could prevent urban residents from getting to know their neighbors and that safety from traffic and good walking conditions were highly valued characteristics for residential streets. The *Livable Streets* study conducted one-hour interviews of over 400 residents living on twenty-one different streets in San Francisco. The streets were identical in appearance. They varied only in their individual daily traffic volumes, which ranged from less than 600 to over 20,000 vehicles per day[1].

Traffic's Human Toll, analyzes the perceptions of 592 New York City residents living on one of 13 streets, each with unique daily traffic volumes. Each street belongs to one of four neighborhoods: Astoria in Queens, Brooklyn Heights in Brooklyn, Chinatown in Manhattan and High Bridge in the Bronx. Due to time and budget constraints, the study was not able to include a neighborhood in the fifth borough of Staten Island. However, according to a recent poll of 800 New York City residents, commissioned by the Tri-State Transportation Campaign, 82% of the residents surveyed in Staten Island were displeased with the Mayor's efforts to reduce traffic congestion. It is very likely that the impacts of traffic on residents in the other boroughs revealed through this study are experienced to an even larger degree by Staten Islanders.

The study looked at three streets in each neighborhood, one with light-traffic (0-1,000 vehicles per day), one with medium-traffic (2,000-3,000 vehicles per day) and one with heavy-traffic volumes (over 5,000 vehicles per day), with the exception of Brooklyn Heights where four streets were visited. On each street, Transportation Alternatives' researchers interviewed fifty residents. The exceptions were Elizabeth Street in Chinatown (medium-traffic street), where only 42 resident responses were obtained and Garden Place and Sydney Place in Brooklyn Heights (both light-traffic streets), where only 25 residents were interviewed per street for logistical reasons. Because the street groups were confined to particular neighborhoods, it was not necessary to control for cultural and socio-economic differences among the residents. Within each neighborhood the residents on each street were not significantly different from one another. T.A. recognizes that these are factors that influence an individual's perceptions. Nonetheless, the study concentrates on finding similarities in how residents from all backgrounds summarize their feelings for their street.

Transportation Alternatives (T.A.) works closely with community groups on all its community projects and so the first task in this study was to consult the community groups of Astoria, Brooklyn Heights, Chinatown and High Bridge, inform their leaders of the study and to engage them in the street selection process. T.A. began in Astoria by working with District Manager, George Delis of Community Board 1 in Queens. District Manager Delis made a few recommendations to T.A. for streets to include in the *Traffic's Human Toll* study. T.A. researchers performed preliminary counts and observations on each of his recommended streets. The traffic counts and preliminary observations were each conducted for a period of 15 minutes. T.A. then selected three streets from the set of streets recommended by District Manager Delis,

each with different daily traffic volume estimates and where access to residents would not be a problem for the researchers.

The streets in the remaining communities were selected with the input of Chauncy Young of the United Parents of High Bridge, Judy Stanton of the Brooklyn Heights Association and Barbara Mui, a 25 year community resident of Chinatown as well as a researcher for T.A. Preliminary traffic counts were performed in each of these neighborhoods to make sure that the recommended streets fitted the volume parameters that had been set, which were:

LIGHT-TRAFFIC 0-1,000 vehicles per day;

MEDIUM-TRAFFIC 2,000-3,000 vehicles per day;

HEAVY-TRAFFIC over 5,000 vehicles per day.

After selecting the streets for further study, T.A. deployed researchers to collect data for each street. In most cases, the researchers conducted basic speed counts and peak-hour traffic counts and took measurements of the streets, including the widths of the sidewalks and the road at various points along the blocks. In addition, the researchers observed and documented building characteristics, pedestrian activity, driveway activity and other features.

Recruiting residents to participate in *Traffic's Human Toll* was not an easy task. A total of twenty-one researchers, including a team of five graduate students from the Urban Affairs and Planning Program at Hunter College, contributed to this effort for a period of over one year. Researchers knocked on doors and rang buzzers in each of these neighborhoods to reach potential respondents. The majority of interviews with residents thus took place right at their front doors. The interviews ranged in length from about five to twenty minutes and were conducted in English, Spanish and Chinese (Cantonese and Mandarin).

On the Bowery in Chinatown (heavy-traffic street), all interviews were completed outside on the street. The residents of Confucius Plaza, a large residential building located on the Bowery, were approached as they were entering their building or relaxing in their courtyard and recruited to participate in the study. The same tactic was used during some of the warmer months to complete a few of the resident interviews on other streets in Chinatown, High Bridge and Astoria. In some cases, residents who had participated in the study referred T.A. to other residents on the same block that they believed would be interested in participating. This happened on 32nd Street in Astoria (light-traffic street) as well as in Brooklyn Heights.

The Hunter College graduate students were able to participate in *Traffic's Human Toll* thanks to Professor Jill Gross who allowed them to base their final group project for their Urban Development Seminar on the work they completed for this study. The graduate students used some different techniques to solicit resident responses in Brooklyn Heights. Prior to canvassing, they posted flyers throughout the neighborhood with dates and times that they would be canvassing specific blocks. On some streets, residents approached the students asking to be interviewed for the study. In some cases, the graduate students were able to drop off surveys and pick them up completed at a later date. A few surveys that the students had distributed (2), were even mailed back by residents to the T.A. office. The bulk of their data, however, was collected by way of the traditional canvassing methods mentioned above. Forty surveys collected by the graduate students were used in the analysis of this study.

3.2 Analysis

One of the goals of *Traffic's Human Toll* was to both reexamine and build upon the main findings of Donald Appleyard's seminal study *Livable Streets*. *Livable Streets* concluded that as traffic volumes increase on a residential street, residents have less friends and acquaintances[1]. As a result, *Traffic's Human Toll* attempts to measure community cohesion on each of the 13 study blocks, by documenting residents' relationships to other residents living on their same block.

Documenting the effects of traffic on people in New York City is a huge undertaking. Given that very little of this type of work has been done by the Department of Transportation, T.A. sought to contribute

what it could to this growing pool of knowledge. The study, therefore, pays careful attention at how traffic affects residents while performing activities on their block (both indoors and outdoors). It also documents the ways in which traffic causes residents to modify their behavior.

For the purposes of this study, quality of life is defined as the well-being derived from factors of the external environment and perceptions of the external environment. In numerous past studies, environmental perceptions have been linked to people's perceptions of their own quality of life[2, 1]. They have been shown to either influence or indicate something about the way people living on a street perceive their quality of life. In measuring how vehicular traffic affects residents' quality of life, *Traffic's Human Toll* takes a close look at how traffic affects this factor.

Finally, as residents are truly experts of their own environment, T.A. gave them an opportunity to share their ideas for how to improve the quality of life on their street. The survey asked residents to give examples of environmental or social changes that they would want for their street and to identify physical and regulatory measures, from a provided list, that would improve their quality of life.

Chapter 4

The Neighborhoods

4.1   Astoria, Queens

With the guidance of Community Board 1 District Manager, George Delis, Transportation Alternatives (T.A.) selected three streets in Astoria with varying traffic volumes for the *Traffic's Human Toll*. These streets were:

LIGHT-TRAFFIC 32nd Street between 21st Avenue and 20th Road;

MEDIUM-TRAFFIC 31st Street between 21st Avenue and 20th Road;

HEAVY-TRAFFIC 33rd street between 28th Avenue and Astoria Boulevard.

For a map of these locations, see figure 4.1 on the following page.

The light and medium-traffic streets, 31st Street and 32nd Street, respectively between 21st Avenue and 20th Road, are parallel to one another. Both streets are nearby and equidistant from a Con Edison plant. The medium-traffic street, however, serves as the main route for vehicles accessing this facility. In addition, 31st Street runs through the entire neighborhood of Astoria from north to south whereas this section of 32nd Street, leads only from 21st Avenue to 20th Road. The heavy-traffic street, 33rd Street between 28th Avenue and Astoria Boulevard, is close to an entrance for the Grand Central Parkway and the Triboro Bridge. As a result, many car commuters use the street to access the parkway and avoid traffic congestion on Astoria Boulevard and 31st Street. All the streets visited for this study are in close proximity to each other.

The majority of residents surveyed in Astoria were fairly new to the area. More than one third had lived in the neighborhood for less than 5 years. Nevertheless, a good number of the residents interviewed had lived there for longer than 5 years. Thirty-nine of the 150 Astoria residents had lived in the neighborhood for longer than 20 years. Astoria residents were also by far the most diverse neighborhood group included in this study. Some of the study participants came from countries as far as Egypt, Morocco and Poland.

4.2   Brooklyn Heights, Brooklyn

The Brooklyn Heights streets were selected with the help of Judy Stanton from the Brooklyn Heights Association and five graduate students of the Urban Affairs and Planning Program at Hunter College. The Brooklyn Heights' streets were:

LIGHT-TRAFFIC Garden Place between Joralemon & State Streets (A);

LIGHT-TRAFFIC Sydney Place between Joralemon & State Streets (B);

MEDIUM-TRAFFIC Hicks Street between Clark & Pierrepont Streets;

Figure 4.1: Astoria Streets
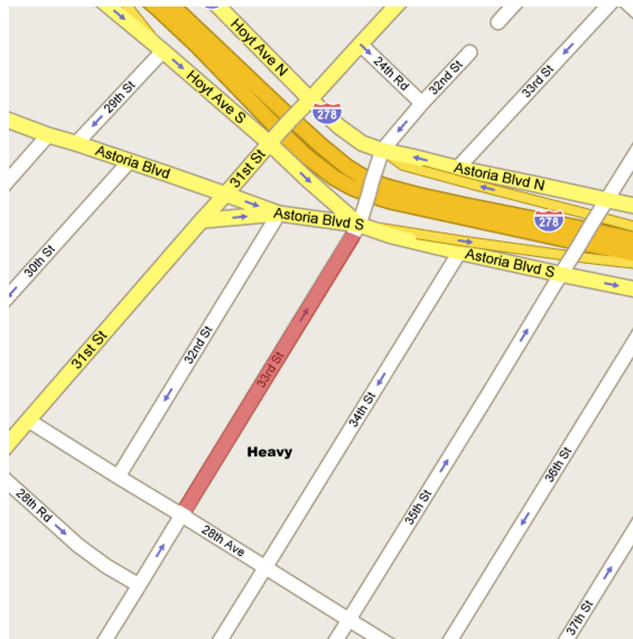
Figure 4.2: Brooklyn Heights Streets
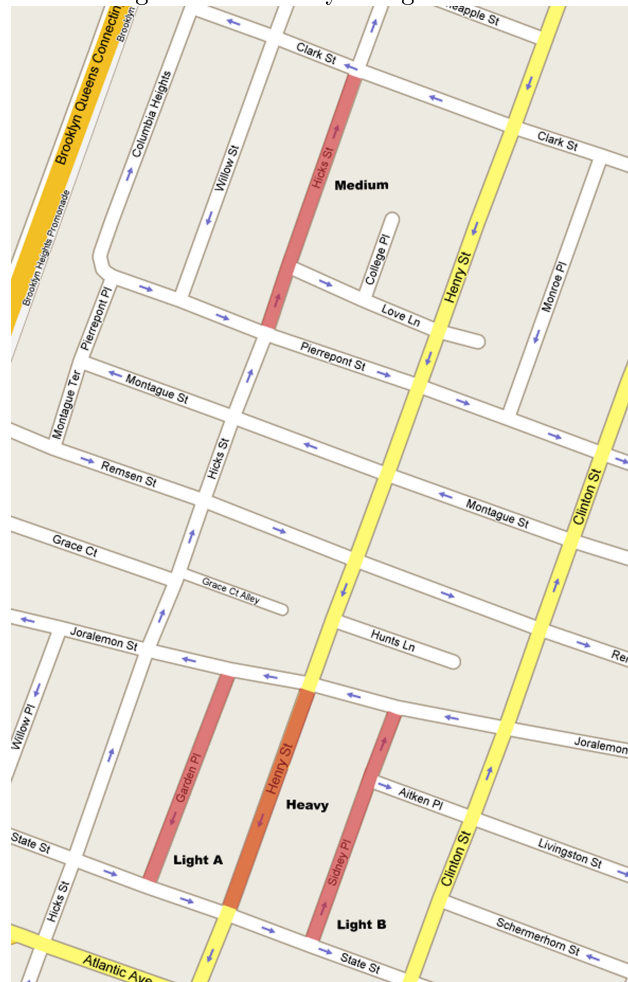
HEAVY-TRAFFIC Henry Street between Joralemon & State Streets.

For a map of these locations, see figure 4.2.

Both Hicks and Henry Street have similar issues with respect to traffic. Both are used by drivers to access the Brooklyn Queens Expressway and both run through the entire neighborhood of Brooklyn Heights from north to south. Henry Street also includes a bicycle lane and carries a large amount of bicycle traffic relative to the other three streets.

Garden Place and Sydney Place are both adjacent to Henry Street, one to the left and the other to the right, respectively. They are similar to each other in that they are streets that lead only from State Street to Joralemon Street. Sydney Place, however, offers access to Livingston Street, which can be used by drivers to access other major through corridors in the neighborhood (i.e. Court Street).

All the Brooklyn Heights streets are in close proximity to each other and all are almost entirely residential in character. Despite this similarity, however, the Hunter students reported that their surveying experiences on each street differed considerably. They found that residents on Hicks Street and Sydney Place (medium and light-traffic streets) were "substantially more willing to participate and interested in [the] research than were most residents of [Henry Street] (heavy-traffic street)," an experience that was consistent with that of other researchers on the heavy-traffic street in the High Bridge section of the Bronx.

4.3   Chinatown, Manhattan

The Chinatown streets were selected with the help of 25 year community resident and T.A. researcher Barbara Mui. Initially, Mott Street (between Bayard and Worth Streets) was selected as the medium-traffic street for Chinatown. However the researchers had great difficulty accessing residents of this street and so T.A. abandoned Mott Street in favor of Elizabeth Street instead. In the end, the following streets were selected for further study in Chinatown:

LIGHT-TRAFFIC Monroe Street between Catherine and Market Streets;

MEDIUM-TRAFFIC Elizabeth Street between Grand and Broome Streets;

HEAVY-TRAFFIC The Bowery between Bayard and Worth Streets.

For a map of these locations, see figure 4.3 on the following page.

Monroe Street is located in a less "touristy" and more remote section of Chinatown. It does not experience some of the heavy car and pedestrian traffic that the other streets in the neighborhood experience because it lies east of all the major bridge entrances and runs only from Catherine Street to Pike Street. The majority of the Monroe Street residents who participated in this study, live within the Knicker Bocker Village housing complex which runs the entire block's length on one side of Monroe Street.

Elizabeth Street is a lower density street. It is more typical of a street in the heart of Chinatown as it has smaller buildings, is relatively narrow and has a mixture of commercial and residential land uses. Elizabeth Street begins at Bayard Street and runs north past Chinatown. Many drivers use it to connect to Kenmare/Delancey Street which provides them with access to the Williamsburg Bridge. A few of the Elizabeth Street residents described their street as being more "upscale" than some of the other streets in Chinatown.

Compared to both Monroe and Elizabeth Streets, the Bowery is very different. Similar to 33rd Street in Astoria, the Bowery is adjacent to a major bridge entrance. The Manhattan Bridge, connects car commuters to the Brooklyn Queens Expressway on the other side of the East River. It is a wide street with three moving lanes of traffic. Pedestrian counts performed by T.A. in April of 2006 revealed that over 700 pedestrians cross some of the major intersections along the Bowery within a 15 minute period. The majority of the residents surveyed on the Bowery live in Confucius Plaza, a high rise housing complex.

4.4   High Bridge, the Bronx

Transportation Alternatives selected the streets in High Bridge with the help of Chauncy Young from the United Parents of High Bridge, who was kind enough to volunteer a few hours of his time to walk the entire neighborhood with a researcher. Thanks to his help, the following streets were selected:

LIGHT-TRAFFIC Merriam Avenue between 169th and 170th Streets;

MEDIUM-TRAFFIC Woodycrest Avenue between 167th and 168th Streets;

HEAVY-TRAFFIC Ogden Avenue between 166th and 167th Streets.

For a map of these locations, see figure 4.4 on page 20.

Both Woodycrest Avenue and Ogden Avenue run the entire length of High Bridge from north to south. Ogden Avenue, however is the main thoroughfare through the neighborhood. The main bus lines run along Ogden and most of the shops are located there as well. On the other hand, Merriam Avenue extends from Ogden Avenue for a few blocks until terminating at Martin Luther King Boulevard. The entire neighborhood of High Bridge is located on a rather steep hill. One huge draw to the area is Yankee Stadium, which on game nights, brings a huge amount of vehicle and pedestrian traffic to High Bridge.

Figure 4.3: Chinatown Streets

Figure 4.4: High Bridge Streets
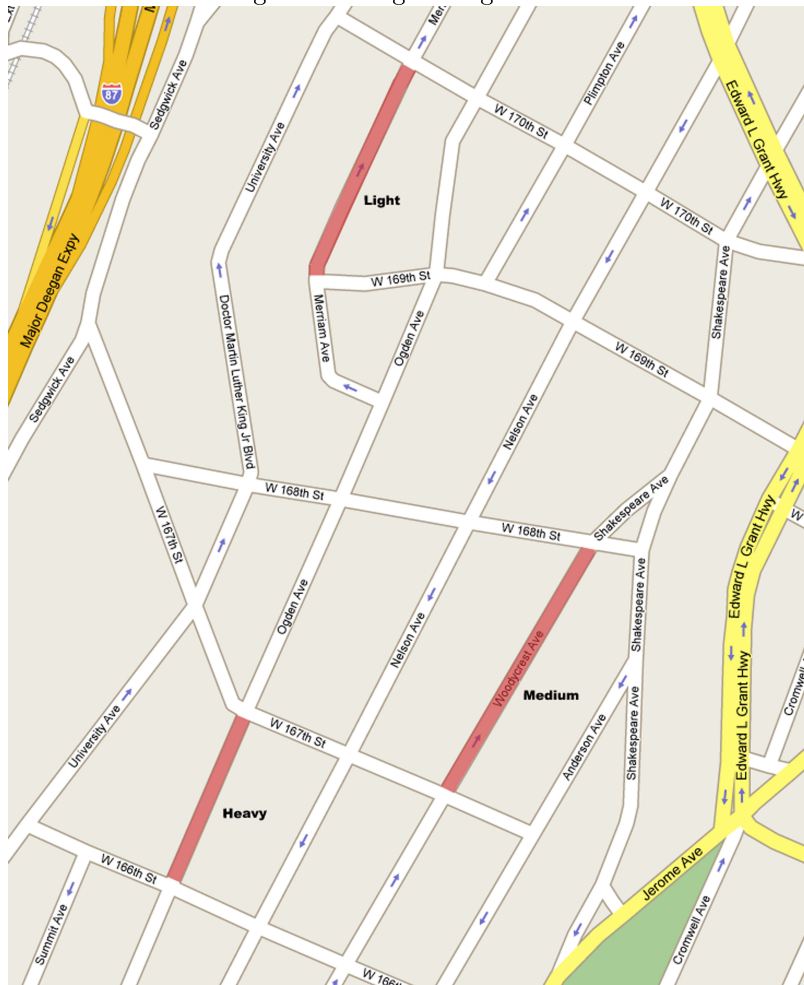
Chapter 5

Results

5.1 Environmental Perceptions

If you were to describe your street what are the first things that come to mind?

This was the very first question that the *Traffic's Human Toll* survey asked of residents in Astoria, Brooklyn Heights, Chinatown and High Bridge. The responses to this question give insight into how the residents of these neighborhoods perceive the environment on their street and furthermore, their quality of life. From the obtained responses an Environmental Perceptions score (EP) was calculated for each respondent. The EP score represents how positive (or negative) that resident perceives the environment on his or her block. This analysis compares the means of all light-traffic street, medium-traffic street and heavy traffic street EP values to one another in order to explore whether the variation in positive and negative responses are associated with the different levels in daily vehicular traffic on the streets.

Overall, the residents living on the streets with the lightest volumes of traffic had more positive environmental perceptions than the residents living on the medium-traffic and heavy-traffic streets. On the light traffic streets, the ratio of positive to negative EP scores was 98:62. On the medium-traffic street it was 74:63 and on the heavy-traffic street it was 34:122 (See figure 5.1 on the following page).

Figure 5.1: Resident Images: Ratio of Positive vs. Negative Environmental Perceptions (EP) of Residents by Street Type
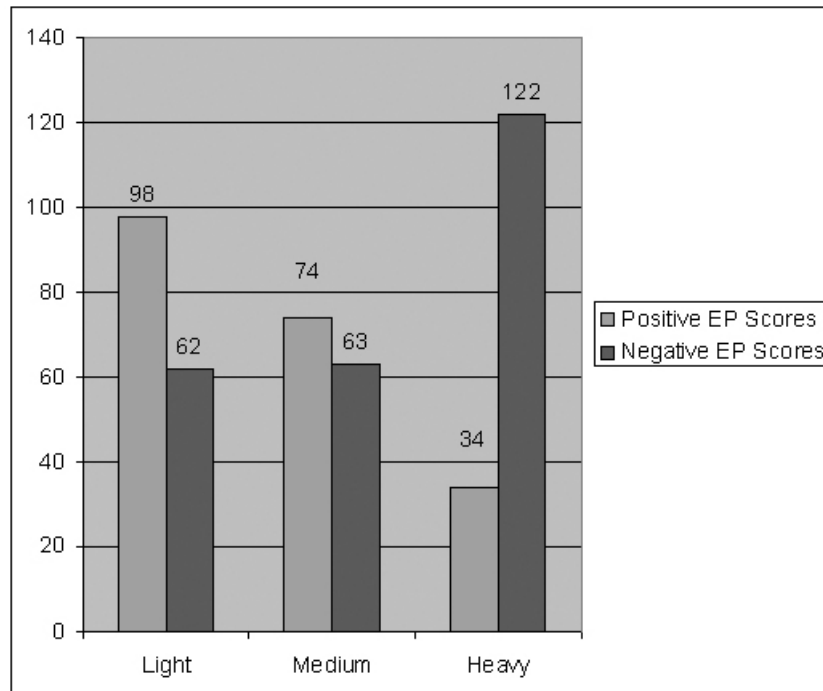
In three of our study areas, medium-traffic street residents had lower environmental perceptions on average than residents of the light-traffic streets. According to the data however, the jump from light to medium-traffic, does not significantly worsen the perceptions that residents have of their blocks. The real significant drop in environmental perceptions among residents occurs when moving from medium-traffic to heavy-traffic volumes (table A.2 on page 33, table A.3 on page 33).

For residents of the heavy-traffic streets, "too much traffic" on their street was by far the most common response to this question. Thirty-six percent of residents living on streets categorized as "heavy-traffic" described their street to the researchers as having "too much traffic." Among heavy-traffic street residents, negative responses associated with traffic and its spillover effects were even more common than "excessive noise" (16%) or the "dirtiness of their street' (19%), the top two quality of life issues as rated by 612 community residents and leaders in the latest Neighborhood Problems and Quality of Life Survey conducted by Etown Panel with Citizens for NYC[2]. Seventy-three percent of heavy-traffic street residents mentioned too much traffic or some negative attribute of traffic (i.e. speeding) as a response to this question, as compared to 14.5% of light-traffic street residents and 22.4% of medium-traffic street residents. The most common description given by light and medium-traffic street residents of their street was "quiet" (15% light-traffic, 16% medium-traffic, 12% heavy-traffic) (table A.5 on page 34).

5.2 Effects of Traffic on Community Residents

Very little information exists regarding the more insidious impacts of traffic on New York City residents. In order to learn more about these effects, we surveyed residents of Astoria, Brooklyn Heights, Chinatown and High Bridge about how often traffic bothered them when performing the following activities: watching television, walking in [their] neighborhood, sleeping, talking and having a conversation with someone (in person or on the telephone) at home, working at home, eating a meal at home, playing with [their] children outside and shopping in [their] neighborhood.

Figure 5.2 shows the percentage of residents living on each type of street category that reported being bothered traffic often or sometimes (as opposed to never) when performing any the aforementioned activities. The graph shows that as traffic volumes increase from light to heavy, residents are increasingly bothered by the traffic while performing basic indoor activities such as sleeping. The same appears to be true for basic outdoor activities such as playing with children outside, shopping and walking.

Figure 5.2: All Streets Combined: How often does traffic on your street bother you when you are doing the following? (%Often and Sometimes)
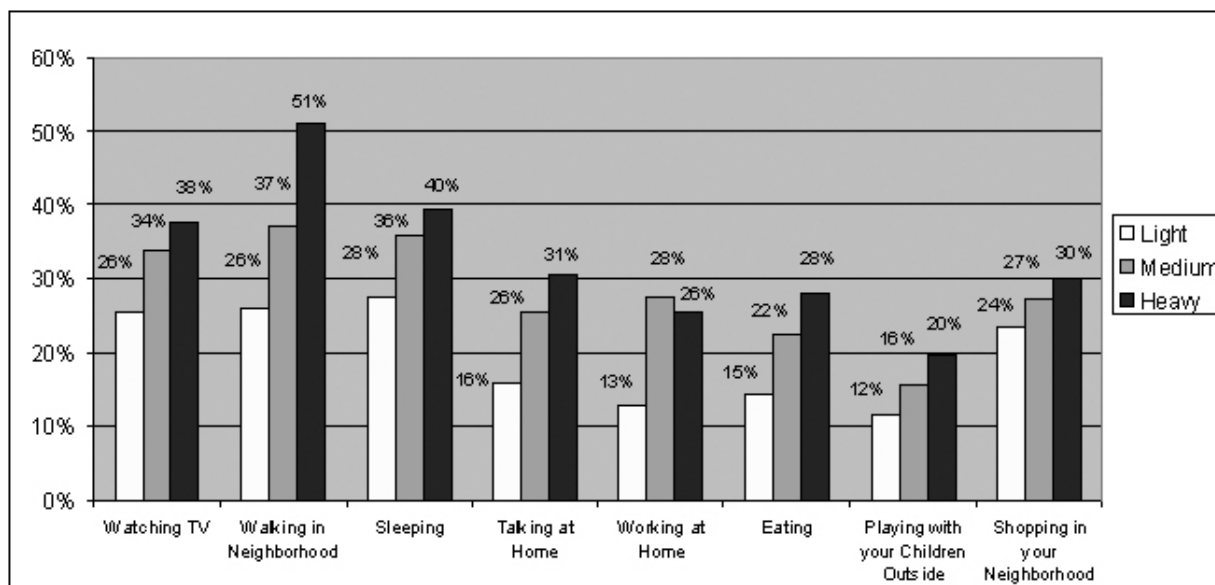
The statistical significance of these results was tested using a chi-square analysis. With this procedure, the pattern of responses (observed values), from one street were compared to an expected pattern of responses (expected values) derived from the average of all responses of that kind from all the residents who participated in the study. For example, resident responses from the light-traffic street in Astoria were tested against an expected response, derived from the mean of all responses by all residents to the same question. Statistically significant differences between the expected response and the observed responses were carefully examined to determine the meaning of this significance.

Overall, the results did not vary greatly from one neighborhood to another. As compared to the whole sample size, the residents of Astoria's light-traffic street were significantly less affected by traffic while watching television (often/sometimes: 2%/14%) and sleeping (2%/20%). The residents of Astoria's heavy-traffic street were significantly more bothered by traffic when working at home (22%/14%), having a conversation at home (26%/12%), watching television (34%/16%), sleeping (34%/14%), walking in their neighborhood (30%/22%) and shopping in the neighborhood (20%/8%) (table A.7 on page 35). See figure 5.3 for more details. Similarly, the residents of Brooklyn Height's light-traffic streets were significantly less affected by traffic while performing basic indoor and outdoor activities, while residents living on the heavy-traffic street in Brooklyn Heights were significantly more affected by the traffic. Such activities included sleeping (light: 0%/16%, heavy: 12%/34%), talking at home (0%/14%, 8%/30%) and eating a meal (0%/6%, 6%/30%) (table A.8 on page 35).

Figure 5.3: Astoria: How often does traffic on your street bother you when you are doing the following? (%Often and Sometimes)
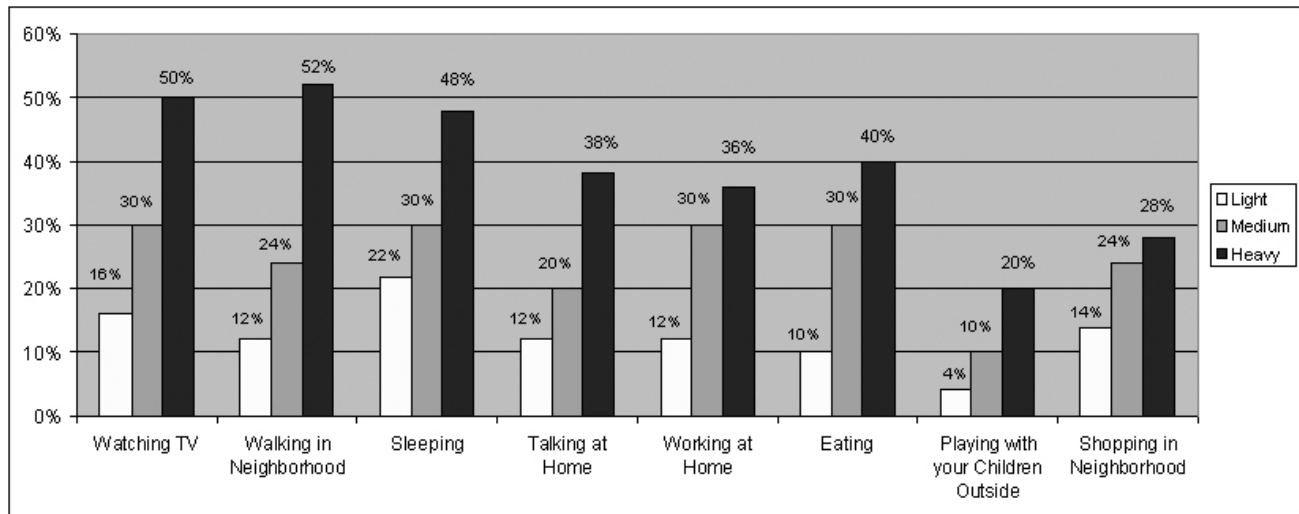
In comparison to the residents of the other neighborhoods, the residents of Chinatown were more bothered by traffic when sleeping. Thirty-nine percent of the 192 residents surveyed in Chinatown said they were bothered by traffic often or sometimes while sleeping. Aside from sleeping, Chinatown's medium-traffic street residents complained that traffic bothered them at least sometimes if not often when watching television (often/sometimes: 14%/45%), talking on the phone or having a conversation at home (12%/40%) and working at home (14%/33%). The residents of the heavy-traffic street complained that traffic bothered them watching television (28%/28%) and talking/having a conversation at home (22%/22%). Residents that lived on the heavy-traffic street were significantly more bothered by traffic when playing with children outside (18%/24%) and also when shopping in the neighborhood (20%/40%) (table A.9 on page 36).

The residents of High Bridge were the least affected by traffic while indoors. In High Bridge, very few residents reported being bothered by traffic while performing any of the activities listed above (table A.10 on page 36).

5.3 Behavior Modification

Figure 5.4 on the next page shows the percentage of residents living on each type of street that responded yes to the question: *Do you do any of the following because of traffic?*

The results show that many residents in the four study areas are modifying their behavior in some surprising ways to cope with the traffic on their street. In most cases these changes increase and become more prevalent as traffic increases. The study again uses the chi-square analysis technique to test the responses of the residents on a particular street to an expected response (mean of all responses by all residents to this question).

Figure 5.4: Do you do any of the following because of traffic? (%yes)
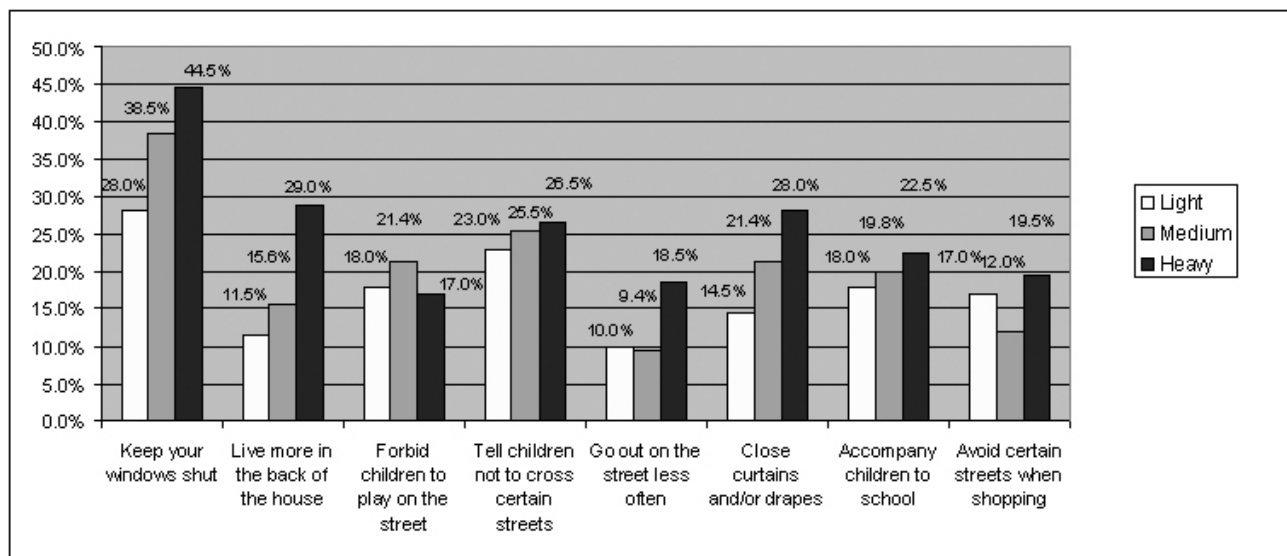
Overall, the study shows that heavy-traffic street residents modify their behavior to cope with traffic in some statistically significant ways. In Astoria, residents of the heavy-traffic street cope with the traffic by going out onto the street less often (yes: 32%) and spending more time in the back of the house (34%) (table A.12 on page 37). In Brooklyn Heights, residents living on the heavy-traffic street also cope with the traffic by spending more time in the back of the house (36%) and keeping their windows shut (56%) (table A.13 on page 37). The residents of Chinatown's heavy-traffic street deal with the heavy traffic by keeping their windows shut (72%), closing their curtains or drapes (38%), going out on the street less often (34%) and spending more time in the back of the house (46%). They also restrict their children because of traffic by telling them not to cross the street (48%), forbidding them to play out side on their street (30%) and accompanying them to school (52%) (figure5.5).

Close to a third of the parents in High Bridge also restrict their children's outdoor activity as a result of traffic: 27% forbid their children to play outside on their street because of traffic, 39% tell their children not to cross the street because of traffic, 29% accompany their children to school because of traffic. Most of the High Bridge parents that do so, however, live on the light and medium-traffic streets (table A.15 on page 38).

5.4 Community Cohesion

The 1970's *Livable Streets* study concluded that San Francisco residents living on streets with more traffic had less friends or acquaintances on their blocks. One of the goals of *Traffic's Human Toll* was to retest the validity of this conclusion in Astoria, Brooklyn Heights, Chinatown and High Bridge. The survey asked residents to indicate *how many friends and acquaintances they had both on their side of the block and on the opposite side as well.* T-tests for independent samples were then conducted to test for significant variations in the average number of friends and acquaintances that residents possessed from one street to another.

In Astoria, residents living on the medium and heavy-traffic streets did in fact have fewer friends on average on each side of the street and in total than those living on the street with light traffic (table A.16 on page 38, table A.20 on page 39). The residents of light-traffic street A in Brooklyn Heights also had more friends per person on average than those living on the streets with heavier traffic. Residents of Brooklyn Height's heavy-traffic street also possess significantly less friends on the opposite side of their street than their neighbors that live on light-traffic street A. When the two light-traffic streets in Brooklyn Heights were examined separately, however, the residents of light-traffic street B had the lowest average number of

Figure 5.5: Chinatown: Do you do any of the following because of traffic? (%yes)
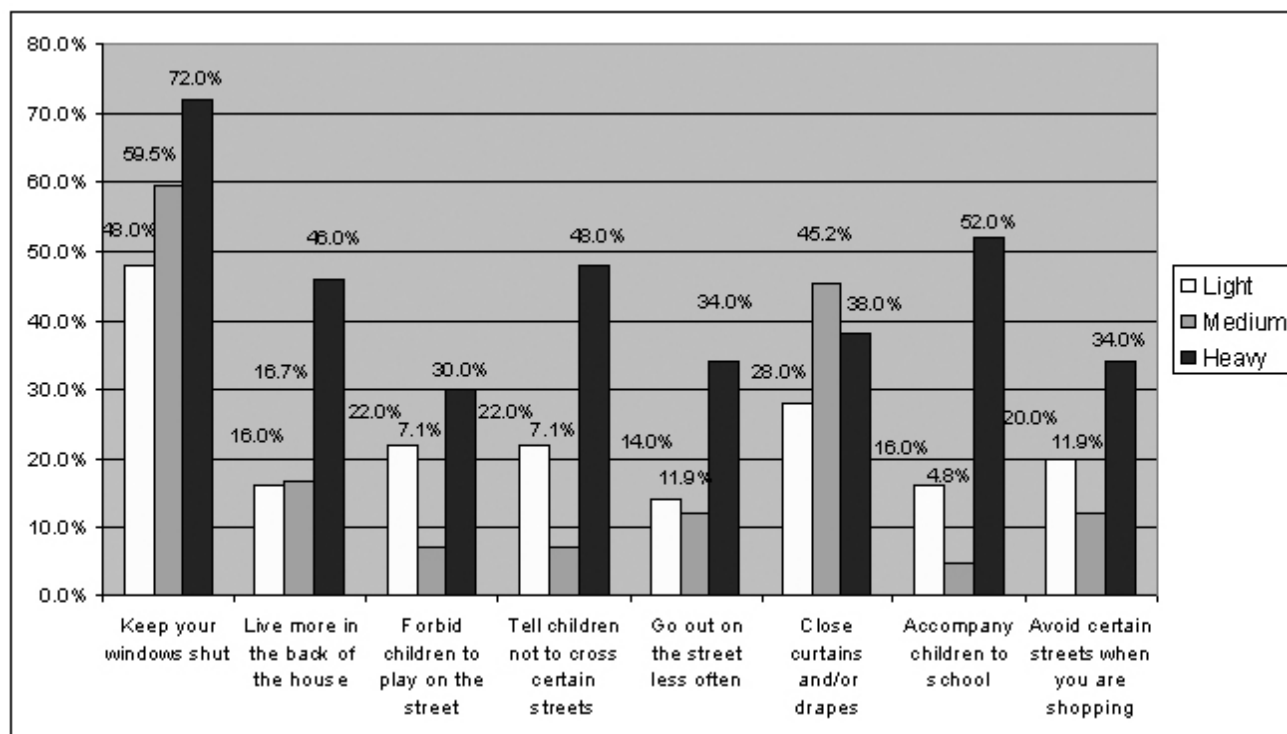
friends on their side of the street, on the opposite side of the street and in total for the entire neighborhood (table A.17 on page 38, table A.21 on page 39).

On average, residents of all streets in Chinatown had close to an equal number of friends on the opposite side of the street. Residents of the light-traffic street did in fact have more friends and acquaintances on average on their side of the street, the opposite side of the street and in total as compared to residents of the heavy and medium-traffic streets. Residents of the heavy-traffic street came in second in terms of average number of friends. Overall, the medium-traffic street residents of Chinatown had the least amount of friends (table A.18 on page 39, table A.22 on page 40).

In High Bridge, the residents of the light-traffic street had more friends on average on their side, the opposite side of the street and in total as compared to residents living on the medium and heavy-traffic streets. However, many of the heavy-traffic street residents' responses were ambiguous (i.e. few). Further testing is needed to determine if this finding is consistent with that of other neighborhoods (residents on the heavier-traffic streets have fewer friends (table A.19 on page 39, table A.23 on page 40).

5.5   Community Engagement

Which of the following have you done to bring about changes in your neighborhood?

To answer this question, residents were provided with a list of actions and asked to reply yes or no as to whether they had ever performed any of them. They were also free to mention any additional actions they had taken that were not included in the following list: talked to neighbors, attended meeting, signed petition, wrote/spoke to public figure, wrote to newspaper, drew up a petition, voted for candidate, organized or joined action group and filed lawsuit.

In Astoria, residents of the medium-traffic street reported being more active in trying to bring about changes in their neighborhood than those living on the light-traffic street and the heavy-traffic street, despite

the fact that residents of the heavy-traffic street had more complaints and more negative perceptions about the environment on their street (table A.25 on page 41, table A.5 on page 34).

In High Bridge, traffic did not have any significant effect on how active the residents of each street were in bringing about changes in their neighborhood. When it came to certain actions, such as signing a petition or voting, residents of the heavy-traffic street in High Bridge were in fact the most active (table A.28 on page 42).

In Brooklyn Heights, there also appeared to be no direct relationship between traffic volumes and how active the neighborhood's residents were in bringing about desired changes to their community. Similar to Astoria, however, the highest percentage of residents that reported being "active," in this sense, lived on the medium-traffic street. The largest percentage of residents in Brooklyn Heights that reported being "inactive," lived on the heavy-traffic street (table A.26 on page 41). In Chinatown, the opposite was true. Residents of the medium-traffic street were the least active by far in trying to bring about changes to their area (table A.27 on page 42).

Overall, the residents of the heavy-traffic streets were the most active with 65% having taken some action to bring about change in their community. Residents of the medium-traffic streets were the least active overall, with only 54% of the residents reporting having taken some action to bring about changes in their neighborhoods (table A.24 on page 40).

5.6 Maintenance Participation & Perceptions

Traffic's Human Toll tested to see if participation in maintenance activities and perceptions of maintenance were lower among residents of streets with heavier traffic. In their interviews, the researchers asked residents to rate the quality of the job that the City does in maintaining the cleanliness, appearance and pavement on their street. The residents were also asked to speculate as to how many residents they believed contributed to the maintenance of their street and finally whether they themselves contributed to the maintenance and up-keep of the street.

In Astoria, lower maintenance perceptions were not found to have any significant relationship to high volumes of traffic. Opinions regarding the quality of the City's job in maintaining the street were similar among residents of all streets. Medium-traffic street residents felt that not very many residents contributed to the up-keep of their street, however, many of them noted that this was because the super of their buildings was responsible (table A.29 on page 43).

In Brooklyn Heights, residents of the lighter traffic streets (light-traffic street A & B) believe that a larger percentage of residents contribute to the maintenance of their street in various ways than believe the residents of both the medium and heavy-traffic streets (table A.30 on page 43). The results confirm this by showing that in fact a larger percentage of residents on the light-traffic streets do contribute to the maintenance and up-keep of their street. Residents on the light-traffic street in High Bridge also contribute the most to the maintenance of their street. Residents on the heavy-traffic street in High Bridge have the worst opinions regarding the City's job in cleaning the street, maintaining the pavement on the road and taking care of the plantings and trees on the street (table A.32 on page 44).

In Chinatown, very few residents contribute to the maintenance of their block on all streets and perceptions of maintenance quality do not vary significantly from one street to another (table A.31 on page 43).

5.7 Activity Levels

The researchers asked residents in the four study areas to share whether they spent any leisure time on their block both indoors and outdoors and what those activities were. The results show that residents living on the higher-traffic streets participate in fewer outdoor activities than the residents of the lighter-traffic streets in all study areas with the exception of Chinatown where medium-traffic street residents participated in the least amount of outdoor activities on their block (table A.33 on page 44, table A.34 on page 45, table A.35 on page 45, table A.36 on page 46). Unfortunately, many of the responses given by the residents were impossible

to quantify. If there was any ambiguity about whether a resident's action took place indoors or outdoors, then the response was simply not counted. The study cannot, therefore make any definitive conclusions about how traffic volumes affect outdoor activity levels.

5.8   Resident Recommendations

Residents are experts of their environments and so who better to ask to get a sense of how to improve the quality of life on New York City blocks? The survey asked residents to indicate which elements from a predetermined list would improve the quality of life on their street. The majority of residents who participated in this study agreed that repairing sidewalks (totally improve: 63%), more police enforcement (53%) and planting trees (57%) would "totally improve" the quality of life on their street. These changes were all among the top answers for residents of each street type, light, medium and heavy-traffic. For more information see table 5.1.

Table 5.1: Resident Recommendations:All Streets Combined
Light N=200, Medium N=192, Heavy N=200, All Streets Combined N=592
TI=Totally Improve, WMW=Would Make Worse

Totals	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Repair Sidewalks	60.0%	0.5%	58.9%	5.2%	70.0%	0.0%	63.0%	4%
Plant Trees	56.5%	1.5%	59.9%	3.6%	61.0%	1.5%	59.1%	28%
More Enforcement (police)	50.5%	1.0%	50.5%	11.5%	58.5%	2.5%	53.2%	5%
Additional Street Cleaners	48.0%	1.0%	52.1%	5.2%	58.5%	3.0%	52.9%	6%
Lower Speed Limit	41.5%	1.0%	48.4%	13.5%	64.5%	3.5%	51.5%	5%
Improve Surface (of the street)	54.5%	1.0%	46.9%	7.8%	53.0%	0.5%	51.5%	5%
Street Lighting	47.0%	2.0%	49.5%	13.5%	53.0%	3.0%	49.8%	24%
Cut Down Cars	40.0%	2.0%	44.8%	7.8%	62.0%	3.5%	49.0%	3%
Prohibit Trucks	43.0%	2.5%	47.9%	13.5%	44.0%	3.0%	44.9%	10%
Add Bicycle Lane (of any kind)	30.5%	7.5%	53.6%	12.0%	42.5%	9.5%	42.1%	6%
Add/Improve Traffic Signals	33.0%	4.0%	39.1%	10.9%	48.0%	1.5%	40.0%	14%
Add Speed Humps	49.0%	6.0%	34.4%	23.4%	34.5%	23.0%	39.4%	22%
Add Stop Signs	30.0%	2.0%	26.0%	9.9%	38.0%	3.0%	31.4%	4%
Add Mid-block Crossing	19.5%	6.5%	30.7%	20.8%	34.5%	16.0%	28.2%	30%
Add/Refurbish Crosswalk	23.0%	0.5%	32.8%	10.4%	28.5%	1.5%	28.0%	30%
Limit Parking (ex. Less spots, resident parking permits)	26.0%	28.5%	25.5%	31.3%	27.0%	30.0%	26.2%	17%
Prohibit Buses	21.0%	2.5%	18.2%	17.2%	30.0%	23.0%	23.1%	6%
Narrow Entrance to the Street (ex. curb extensions)	15.5%	11.5%	16.7%	25.0%	36.0%	19.0%	22.8%	2%
Add Diagonal Parking	16.0%	25.5%	27.1%	28.6%	21.0%	37.0%	21.3%	2%
Widen Sidewalks/Narrow Street	14.5%	18.5%	19.3%	29.2%	25.5%	18.5%	19.8%	3%
Widen Street/Narrow Sidewalk	28.0%	9.5%	13.5%	28.1%	16.5%	36.0%	19.4%	14%
Street Closure (partial or complete)	12.5%	17.0%	19.3%	31.3%	21.5%	35.5%	17.7%	18%
Make One-Way	2.0%	1.5%	3.1%	7.3%	5.5%	20.0%	3.5%	8%

However each street's and neighborhood's residents had a few unique preferences.

Speeding traffic was a big concern for the residents of High Bridge. Sixty-two percent of all residents said that the overall speed of traffic on their street was too fast. Speed reducing measures were amongst the top requested measures to improve quality of life on all High Bridge streets. Eight-four percent of residents living on the light-traffic street said that a speed hump would improve their quality of life. The residents of the heavy-traffic street in High Bridge also strongly supported measures that would reduce speeding on

their street through other engineering improvements, such as bike lanes (72%) and narrowing the entrance to their street (60%). Sixty-four percent of residents on the medium-traffic street believed that lowering the speed limit would improve their quality of life, despite the existence of a speed hump on their street. On the heavy traffic street, 96% of residents said that lowering the speed limit would improve their quality of life and 71% of all residents surveyed in High Bridge supported lowering the speed limit on their respective streets (table A.32 on page 44).

When asked independent of a predetermined list what environmental or social element they would like to change about their block, the most common answers among the High Bridge residents by street type were as follows: light- traffic street residents said that they would like a cleaner street (11%) and improved parking availability (11%), medium-traffic street residents said that they would like a cleaner street (14%) and heavy-traffic street residents said that if they could change one thing it would be to minimize traffic (17%) on their street (table A.46 on page 56). The most commonly requested environmental or social change among heavy-traffic street residents in Astoria was also to "minimize traffic" (24%) (table A.43 on page 53). For the entire neighborhood, the most common answers for what would improve the quality of life from the list provided were: repair sidewalks (56%), plant trees (56%), add speed humps (49%) and prohibit truck traffic (47%) (table A.38 on page 48).

On the medium and heavy-traffic streets in Brooklyn Heights, the most requested environmental or social change was to minimize traffic (26% medium, 30% heavy). "Minimize traffic" was also the most requested change neighborhoodwide (19%). Residents of the light-traffic streets were, however, not concerned with reducing traffic on their street (2%), but rather with improving the availability of parking for residents of Brooklyn Heights (18%) (table A.44 on page 54). The most common answers for what would improve the quality of life on Brooklyn Heights streets from the list provided were: prohibit truck traffic (63%), reduce traffic (59%), repair sidewalks (55%) and plant more trees (55%) (table A.39 on page 49).

In Chinatown, the residents of each street were in agreement as to what would improve their quality of life. For the entire neighborhood, the top responses included: repair sidewalks (73%), plant trees (70%), have additional street cleaners (70%), have more enforcement or police (65%), add/improve traffic signals (63%) and reduce traffic (60%) (table A.40 on page 50).

5.9 Resident Predictions

The survey asked residents in the four study areas: *What do you think will happen to traffic on your block in the next five years?*

Overall, the residents have very grim outlooks with respect to the future of traffic in their neighborhoods. Only 10% of all residents surveyed believe that traffic could improve in the future. Thirty-six percent believe that it will get worse (Table A.47 on page 56). According to the researchers, many residents mentioned future developments in their neighborhood as a primary reason for why they believed traffic would worsen in the future. The Atlantic Yards development planned for Downtown Brooklyn was one example.

Chapter 6

Conclusion and Recommendations

Traffic's Human Toll shows that traffic affects New Yorkers in profoundly negative ways. Heavy traffic worsens resident perceptions of their blocks and limits residents' capacity to develop relationships with their neighbors. Heavy traffic bothers residents when they are sleeping, eating meals and engaging in normal conversation. It bothers residents so much that in many cases it motivates them to spend more time in the back of their homes, avoid certain streets on their shopping trips and restrict their children's outdoor playtime.

The majority of the residents that Transportation Alternatives (T.A.) interviewed for *Traffic's Human Toll* made it clear that their quality of life would improve if the City were to reduce and mitigate the impact of traffic on their lives. The Mayor and the Commissioner of the Department of Transportation should take notice and take action.

The simplest and broadest solution for reducing traffic's human toll is to reduce vehicular traffic in New York City. Forty-nine percent of all residents surveyed for *Traffic's Human Toll* stated that reducing the amount of cars that pass through their street would "totally improve" their quality of life. On heavier traffic streets, this percentage was even greater (62%). Many other residents agreed that less traffic would improve their quality of life, however, they were more pessimistic and stated that reducing traffic on their block was an impossible goal to achieve (13% from all streets combined).

Among the residents of the different neighborhoods, there was also strong support for various traffic reducing and calming measures such as lowering the speed limit (71% in High Bridge), adding/improving traffic signals (63% in Chinatown), reducing vehicular traffic (59% in Brooklyn Heights, 60% in Chinatown), adding speed humps (49% in Astoria) and prohibiting truck traffic (63% in Brooklyn Heights, 47% in Astoria).

Reducing traffic in a big city like New York is difficult, but it is by no means impossible. A first step to reducing traffic volumes would be for the Mayor and the Department of Transportation to set real goals for reducing driving and provide drivers with inducements to switch their trips such as faster, more reliable buses, wider sidewalks, more time to cross the street and safer bicycling options.

A growing coalition of community groups the Citywide Coalition for Traffic Relief, has put forth some salient ideas for how to achieve this goal. Each member of this coalition has signed a charter which asks the City to commit to reducing volumes by 15% by the year 2009 through implementing a range of proven traffic demand management strategies for New York City. The charter asks the City to use traffic calming measures and other speed reducing measures to "redesign streets so that they are safer for walkers" and "discourage cut-through traffic, speeding and driving in general." The residents of Astoria, Brooklyn Heights, Chinatown and High Bridge, agree that expanding the use of traffic calming measures such as speed humps (39%) and bike lanes (42%) would improve the quality of life on their residential streets. Indeed, speed humps have been found to have the important benefit of improving traffic safety for children. A comprehensive five year study by a team of Oakland, California doctors published in the American Journal of Public Health found that children living on blocks with speed humps have a 53% to 60% lower chance of being injured or killed by motorists[7]. Bike lanes have also been shown to have similar benefits. When the New York City Department of Transportation studied the impacts of the Oriental Boulevard bike lane, it discovered that the bike lane

had the effect of reducing motorist speeds on the Boulevard by 9%. As an added benefit, the bike lane also resulted in a decrease in traffic on Oriental Boulevard by 18% and on the adjacent Shore Boulevard by 20% [6].

In addition to expanding its traffic calming program, the City could take even bolder steps to reduce traffic. The Citywide Coalition for Traffic Relief has recommended parking reforms as an effective tool to reduce traffic. By charging market rate for curbside parking and by eliminating free parking perks for tens of thousands of city employees, many drivers would be induced to make the switch to more efficient and less intrusive modes.

Another idea that has been put forth by the Citywide Coalition for Traffic Relief as well as the Partnership for New York City, the City's leading business organization, is congestion pricing. Congestion pricing is a traffic demand management strategy that has had great success to date in London, a city with a transportation mix, land use and population size closely resembling that of New York City.

Congestion pricing, or "congestion charging" as it is called in London, was introduced in February 2003. The London congestion charging scheme requires drivers to pay £8 ($15) per day during the schemes hours of operations. The program ensures that drivers pay for the privilege of using valuable road space in Central London. The revenue from the London congestion charge is reinvested in the public transport system to ensure that those who do change their travel patterns have a reliable and comfortable alternative for accessing destinations within the congestion charging zone.

According to the recent monitoring report published by Transport for London, traffic congestion in the charging zone has decreased by an average of 26% since its implementation[9]. This is much higher than the 10-15% decrease in congestion that Transport for London had projected prior to its implementation.

Any and all measures that yield a similar decrease in congestion in New York City would certainly improve the quality of life of its residents and reduce traffic's human toll.

Appendix A

Select Results

For the complete results of the study, e-mail research@transalt.org.

A.1   Environmental Perceptions

Q1a: If you were to describe your street what are the first things that come to mind?

All residents' responses to this question were coded and then compared. Positive responses received a value of +1, neutral responses a value of 0 and negative responses received a value of -1. Each survey then received an EP score (EP stands for Environmental Perceptions) based the interviewees responses. The EP scores of all residents living on a particular street type (light-traffic, medium-traffic and heavy-traffic) were then compared to each other using basic statistics. Mean, median, and 25th and 75th percentile EP values for each street were determined and compared. The significance of the theoretical difference between the mean EP values for each street category was tested using a t-test for independent samples. Light-traffic street mean EP values, medium-traffic street mean EP values and heavy-traffic street mean EP values were compared to one another in order to explore whether the variation in positive and negative responses could be associated with the different levels in daily vehicular traffic on the streets.

Table A.1: EP Score Statistics (All Streets Combined)

	Light	Medium	Heavy
# Postive EP Scores	98	74	34
# Negative EP Scores	62	63	122
75th Percentile	2	1	0
Median	1	0	-1
25th Percentile	-1	-1	-3
Mean	0.350515464	0.107954545	-1.082901554

Table A.2: T- Test Assuming Equal Variances (Comparing light-traffic EP scores to medium-traffic EP scores)

	Light	Medium
Mean	0.350515464	0.107954545
Variance	3.565621495	2.691136364
Observations	194	176
Pooled Variance	3.149765794	
Hypothesized Mean Difference	0	
df	368	
t Stat	1.312919305	
P(T<=t) one-tail	0.095014135	
t Critical one-tail	1.649004811	
P(T<=t) two-tail	0.190028269	
t Critical two-tail	1.966431195	
Significance Level	Not Significant	

Table A.3: T- Test Assuming Equal Variances (Comparing medium-traffic EP scores to heavy-traffic EP scores)

	Medium	Heavy
Mean	0.107954545	-1.082901554
Variance	2.691136364	3.086841537
Observations	176	193
Pooled Variance	2.898153784	
Hypothesized Mean Difference	0	
df	367	
t Stat	6.711512101	
P(T<=t) one-tail	3.66283E-11	
t Critical one-tail	1.649016151	
P(T<=t) two-tail	7.32567E-11	
t Critical two-tail	1.966448874	
Significance Level	beyond 99.9%	

Table A.4: T- Test Assuming Equal Variances (Comparing light-traffic EP scores to heavy-traffic EP scores)

	Light	Heavy
Mean	0.350515464	-1.082901554
Variance	3.565621495	3.086841537
Observations	194	193
Pooled Variance	3.326853308	
Hypothesized Mean Difference	0	
df	385	
t Stat	7.730004868	
P(T<=t) one-tail	4.73297E-14	
t Critical one-tail	1.648821068	
P(T<=t) two-tail	9.46594E-14	
t Critical two-tail	1.966144741	
Significance Level	beyond 99.9%	

Table A.5: Environmental Perceptions: All Streets Combined

	Total Responses	Light	Medium	Heavy
Excessive Traffic	94	3	19	72
Dirty, Litter, Garbage	91	25	29	37
Quiet	90	32	35	23
General Street Characteristics(physical)	67	22	21	24
Nice/Pleasant Neighborhood	63	15	23	25
General Noise	56	9	16	31
General Street Characteristics(demographic)	54	20	9	25
Speeding Traffic	53	7	7	39
Busy/Crowded	52	7	10	35
People Friendly/Neighborly/Community	52	31	10	11
Traffic Danger	50	17	8	25
Parking Problems	50	16	14	20
Safe/No Violence/No Crime/No Vandalism	39	14	17	8
Location/Convenience/Proximity to Other Locations	38	10	16	12
No Response	28	2	19	7
Other (Neg.)	27	7	9	11
General Comments on Land Uses	26	7	9	10
Dangerous/Crime/Vandalism	26	13	10	3
Other (Neu.)	25	4	10	11
Clean, No Litter, Good Maintenance	25	9	9	7
Nice Trees/Greenery	22	1	11	10
Other (Pos.)	19	4	5	10
Activities Witnessed on Street	19	10	4	5
Traffic Noise	18	2	7	9
Architecture	12	0	8	4
Regular	12	3	6	3
Nostalgic	11	5	0	6
Housing Problems	11	1	8	2
Not Much Traffic	11	3	7	1
Dislike Neighbors/Neighbors not Nice	10	5	2	3
Historic	9	0	5	4
Cracks and Trip Hazards on Sidewalks/Poor Sidewalk Conditions	8	1	2	5
Aethetically Pleasing/Good Appearance	8	3	4	1
Good Transit Access	8	0	8	0
Eventful/Fun	7	2	4	1
Traffic Composition	6	2	2	2
Not Nice/Horrible/Unpleasant	6	6	0	0
Poor Appearance/Maintenance	5	0	0	5
Air Pollution	5	0	1	4
General Street Characteristics (socio-economic)	5	0	3	2
Not Busy	5	2	1	2
Traffic Safety	5	3	1	1
Transit Problems	5	0	5	0
Cracks and Potholes on Street	5	4	1	0
High Pedestrian Traffic	3	0	1	2
Needs More Green	3	1	0	2
Excessive Truck Traffic	3	0	2	1

A.2 Effects of Traffic

Q6: Please indicate how often the traffic on your street bothers you when you are doing the following (O=Often, S=Sometimes, N=Never, NR/NA=No Response/Not Applicable)

Table A.6: Effects of Traffic: All Streets Combined
Light N=200, Medium N=192, Heavy N=200

Activities	Light O	Light S	Light N	Light NR/NA	Medium O	Medium S	Medium N	Medium NR/NA	Heavy O	Heavy S	Heavy N	Heavy NR/NA
Watching TV	7.0%	18.5%	69.5%	5.0%	9.9%	24.0%	65.1%	1.0%	18.5%	19.0%	60.5%	2.0%
Walking in Neighborhood	7.0%	19.0%	69.0%	5.0%	12.0%	25.0%	62.5%	0.5%	19.0%	32.0%	47.0%	2.0%
Sleeping	9.0%	18.5%	66.5%	6.0%	14.1%	21.9%	63.0%	1.0%	20.0%	19.5%	59.0%	1.5%
Talking at Home	4.5%	11.5%	76.5%	7.0%	6.3%	19.3%	72.4%	2.1%	14.0%	16.5%	68.5%	1.0%
Working at Home	3.5%	9.5%	79.0%	8.0%	6.3%	21.4%	69.8%	2.6%	11.0%	14.5%	72.0%	2.5%
Eating a Meal at Home	3.0%	11.5%	78.5%	7.0%	6.3%	16.1%	76.0%	1.6%	9.5%	18.5%	70.5%	1.5%
Playing with your Children Outside	2.5%	9.0%	63.5%	25.0%	4.7%	10.9%	54.2%	30.2%	10.0%	9.5%	55.0%	25.5%
Shopping in Neighborhood	7.0%	16.5%	48.0%	28.5%	7.8%	19.3%	59.4%	13.5%	13.0%	17.0%	40.0%	30.0%

Table A.7: Effects of Traffic: Astoria
Light N=50, Medium N=50, Heavy N=50

Activities	Light O	Light S	Light N	Light NR/NA	Medium O	Medium S	Medium N	Medium NR/NA	Heavy O	Heavy S	Heavy N	Heavy NR/NA
Watching TV	2%	14%	82%	2%	10%	20%	68%	2%	34%	16%	46%	4%
Walking in Neighborhood	0%	12%	86%	2%	12%	12%	74%	2%	30%	22%	46%	2%
Sleeping	2%	20%	76%	2%	14%	16%	68%	2%	34%	14%	46%	6%
Talking at Home	2%	10%	86%	2%	4%	16%	74%	6%	26%	12%	58%	4%
Working at Home	2%	10%	86%	2%	2%	28%	66%	4%	22%	14%	60%	4%
Eating a Meal at Home	0%	10%	88%	2%	6%	24%	68%	2%	18%	22%	56%	4%
Playing with your Children Outside	2%	2%	84%	12%	6%	4%	54%	36%	14%	6%	38%	42%
Shopping in Neighborhood	2%	12%	32%	54%	6%	18%	44%	32%	20%	8%	44%	28%

Table A.8: Effects of Traffic: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50

Activities	Light O	Light S	Light N	Light NR/NA	Medium O	Medium S	Medium N	Medium NR/NA	Heavy O	Heavy S	Heavy N	Heavy NR/NA
Watching TV	0%	10%	88%	2%	6%	20%	72%	2%	10%	30%	58%	2%
Walking in Neighborhood	0%	22%	78%	0%	8%	42%	50%	0%	22%	32%	46%	0%
Sleeping	0%	16%	82%	2%	18%	22%	58%	2%	12%	34%	54%	0%
Talking at Home	0%	4%	94%	2%	4%	14%	80%	2%	8%	30%	62%	0%
Working at Home	0%	4%	94%	2%	6%	16%	76%	2%	14%	22%	64%	0%
Eating a Meal at Home	0%	6%	92%	2%	2%	16%	78%	4%	6%	30%	62%	2%
Playing with your Children Outside	0%	12%	72%	16%	2%	22%	48%	28%	8%	2%	50%	40%
Shopping in Neighborhood	6%	28%	66%	0%	2%	28%	66%	4%	12%	18%	64%	6%

Table A.9: Effects of Traffic: Chinatown
Light N=50, Medium N=42, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy	Heavy
Activities	O	S	N	NR/NA	O	S	N	NR/NA	O	S	N	NR/NA
Watching TV	12.0%	32.0%	54.0%	2.0%	14.3%	45.2%	40.5%	0.0%	28.0%	28.0%	42.0%	2.0%
Walking in Neighborhood	20.0%	24.0%	52.0%	4.0%	21.4%	33.3%	45.2%	0.0%	24.0%	42.0%	28.0%	6.0%
Sleeping	22.0%	30.0%	42.0%	6.0%	16.7%	35.7%	47.6%	0.0%	34.0%	22.0%	44.0%	0.0%
Talking at Home	12.0%	22.0%	56.0%	8.0%	11.9%	40.5%	47.6%	0.0%	22.0%	22.0%	56.0%	0.0%
Working at Home	10.0%	14.0%	66.0%	10.0%	14.3%	33.3%	47.6%	4.8%	8.0%	20.0%	68.0%	4.0%
Eating a Meal at Home	10.0%	18.0%	62.0%	10.0%	14.3%	21.4%	64.3%	0.0%	14.0%	20.0%	66.0%	0.0%
Playing with your Children Outside	6.0%	12.0%	36.0%	46.0%	7.1%	7.1%	38.1%	47.6%	18.0%	24.0%	42.0%	16.0%
Shopping in Neighborhood	14.0%	22.0%	54.0%	10.0%	21.4%	23.8%	47.6%	7.1%	20.0%	40.0%	38.0%	2.0%

Table A.10: Effects of Traffic: High Bridge
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy	Heavy
Activities	O	S	N	NR/NA	O	S	N	NR/NA	O	S	N	NR/NA
Watching TV	14%	18%	54%	14%	10%	14%	76%	0%	2%	2%	96%	0%
Walking in Neighborhood	8%	18%	60%	14%	8%	14%	78%	0%	0%	32%	68%	0%
Sleeping	12%	8%	66%	14%	8%	16%	76%	0%	0%	8%	92%	0%
Talking at Home	4%	10%	70%	16%	6%	10%	84%	0%	0%	2%	98%	0%
Working at Home	2%	10%	70%	18%	4%	10%	86%	0%	0%	2%	96%	2%
Eating a Meal at Home	2%	12%	72%	14%	4%	4%	92%	0%	0%	2%	98%	0%
Playing with your Children Outside	2%	10%	62%	26%	4%	10%	74%	12%	0%	6%	90%	4%
Shopping in Neighborhood	6%	4%	40%	50%	4%	8%	78%	10%	0%	2%	14%	84%

A.3   Behavior Modification

Q7: Do you do any of the following in response to traffic? (yes/no)

Table A.11: Behavior Modification: All Streets Combined
Light N=200, Medium N=192, Heavy N=200

Reactions to Traffic	Light	Medium	Heavy
Keep your Windows Shut	28.0%	38.5%	44.5%
Live More in the Back of the House	11.5%	15.6%	29.0%
Forbid Children to Play on the Street	18.0%	21.4%	17.0%
Tell Children not to Cross Certain Streets	23.0%	25.5%	26.5%
Go Out on the Street Less Often	10.0%	9.4%	18.5%
Close Curtains and/or Drapes	14.5%	21.4%	28.0%
Accompany Children to School	18.0%	19.8%	22.5%
Fenced or Walled in Yard	4.0%	4.2%	3.0%
Planted Trees or Shrubs	3.5%	2.6%	5.5%
Avoid Certain Streets When Shopping	17.0%	12.0%	19.5%

Table A.12: Behavior Modification: Astoria
Light N=50, Medium N=50, Heavy N=50

Reactions to Traffic	Light	Medium	Heavy
Keep your Windows Shut	12%	24%	48%
Live More in the Back of the House	8%	12%	34%
Forbid Children to Play on the Street	4%	10%	20%
Tell Children not to Cross Certain Streets	6%	18%	22%
Go Out on the Street Less Often	2%	6%	32%
Close Curtains and/or Drapes	2%	4%	40%
Accompany Children to School	4%	12%	18%
Fenced or Walled in Yard	4%	4%	8%
Planted Trees or Shrubs	2%	4%	14%
Avoid Certain Streets When Shopping	14%	6%	22%

Table A.13: Behavior Modification: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50, Light A N=25, Light B N=25

Reactions to Traffic	Light Combined	Medium	Heavy	Light A	Light B
Keep your Windows Shut	20%	46%	56%	16%	24%
Live More in the Back of the House	10%	18%	36%	8%	12%
Forbid Children to Play on the Street	6%	28%	14%	0%	12%
Tell Children not to Cross Certain Streets	14%	26%	16%	16%	12%
Go Out on the Street Less Often	4%	6%	6%	0%	8%
Close Curtains and/or Drapes	14%	20%	32%	8%	20%
Accompany Children to School	10%	24%	12%	8%	12%
Fenced or Walled in Yard	4%	4%	2%	0%	8%
Planted Trees or Shrubs	2%	4%	8%	0%	4%
Avoid Certain Streets When Shopping	18%	12%	22%	20%	16%

Table A.14: Behavior Modification: Chinatown
Light N=50, Medium N=42, Heavy N=50

Reactions to Traffic	Light	Medium	Heavy
Keep your Windows Shut	48%	60%	72%
Live More in the Back of the House	16%	17%	46%
Forbid Children to Play on the Street	22%	7%	30%
Tell Children not to Cross Certain Streets	22%	7%	48%
Go Out on the Street Less Often	14%	12%	34%
Close Curtains and/or Drapes	28%	45%	38%
Accompany Children to School	16%	5%	52%
Fenced or Walled in Yard	8%	0%	2%
Planted Trees or Shrubs	2%	2%	0%
Avoid Certain Streets When Shopping	20%	12%	34%

Table A.15: Behavior Modification: High Bridge
Light N=50, Medium N=50, Heavy N=50

Reactions to Traffic	Light	Medium	Heavy
Keep your Windows Shut	32%	28%	2%
Live More in the Back of the House	12%	16%	0%
Forbid Children to Play on the Street	40%	38%	4%
Tell Children not to Cross Certain Streets	50%	48%	20%
Go Out on the Street Less Often	20%	14%	2%
Close Curtains and/or Drapes	14%	20%	2%
Accompany Children to School	42%	36%	8%
Fenced or Walled in Yard	0%	8%	0%
Planted Trees or Shrubs	8%	0%	0%
Avoid Certain Streets When Shopping	16%	18%	N/A

A.4   Community Cohesion

Q: How many friends or acquaintances do you have that live on this side of the block? (Inter Quartile Range (IQR)=75th percentile - 25th percentile/Upper Inner Fence (UIF)=75th percentile + (IQR*1.5))

Table A.16: Community Cohesion: Astoria
Light=41 responses counted, Medium=45, Heavy=47

# of Friends	Light	Medium	Heavy
Average A (includes all values)	11.05	8.82	7.19
Average B (values≤UIF)	6.42	5.83	4.73
Median	4	5	3
25th Percentile	2	2	0.5
75th Percentile	12	10	10
UIF	27	22	24.25

Table A.17: Community Cohesion: Brooklyn Heights
Light=47 responses counted, Light A=24, Light B=23, Medium=48, Heavy=48

# of Friends	Light Streets (Combined)	Light A	Light B	Medium	Heavy
Average A (includes all values)	5.276595745	8.666666667	1.739130435	2.897959184	2.770833333
Average B (values≤UIF))	5.276595745	8.666666667	0.952380952	1.162790698	1.302325581
Median	2	7	0	0	0.5
25th Percentile	0	0.75	0	0	0
75th Percentile	10	15	2.5	3	3.25
UIF	25	36.375	6.25	7.5	8.125

Table A.18: Community Cohesion: Chinatown
Light=49, Medium=41, Heavy=48

# of Friends	Light	Medium	Heavy
Average A (includes all values)	23.24489796	5.463414634	9.895833333
Average B (values≤UIF)	7.302325581	2.916666667	6.976744186
Median	5	2	7
25th Percentile	2	0	3.75
75th Percentile	20	5	10.75
UIF	47	12.5	21.25

Table A.19: Community Cohesion: High Bridge
Light=41, Medium=47, Heavy=15

# of Friends	Light	Medium	Heavy
Average A (includes all values)	38.70731707	16.0212766	9.866666667
Average B (values≤UIF)	13.91428571	6.023809524	6.384615385
Median	10	4	5
25th Percentile	2	2	2
75th Percentile	40	15	12.5
UIF	97	34.5	28.25

Q: How many friends or acquaintances do you have that live on the opposite side of the block?

Table A.20: Community Cohesion 2: Astoria
Light=40 responses counted, Medium=44, Heavy=47

# of Friends	Light	Medium	Heavy
Average A (includes all values)	10.13	2.25	2.04
Average B (x is less than or equal to UIF value)	3.63	0.49	0.95
Median	2	0	0
25th Percentile	0	0	0
75th Percentile	10	2	2
UIF	25	5	5

Table A.21: Community Cohesion 2: Brooklyn Heights
Light=47 responses counted, Light A=24, Light B=23, Medium=49, Heavy=48

# of Friends	Light Streets (Combined)	Light A	Light B	Medium	Heavy
Average A (includes all values)	5.276595745	8.666666667	1.739130435	2.897959184	2.770833333
Average B (x is less than or equal to UIF value)	5.276595745	8.666666667	0.952380952	1.162790698	1.302325581
Median	2	7	0	0	0.5
25th Percentile	0	0.75	0	0	0
75th Percentile	10	15	2.5	3	3.25
UIF	25	36.375	6.25	7.5	8.125

Table A.22: Community Cohesion 2: Chinatown
Light=50 responses counted, Medium=41, Heavy=50

# of Friends	Light	Medium	Heavy
Average A (includes all values)	2.96	2.073170732	2.62
Average B (x is less than or equal to UIF value)	0.534883721	0.527777778	1.477272727
Median	0	0	1
25th Percentile	0	0	0
75th Percentile	1.75	2	3
UIF	4.375	5	7.5

Table A.23: Community Cohesion 2: High Bridge
Light=44 responses counted, Medium=47, Heavy=24

# of Friends	Light	Medium	Heavy
Average A (includes all values)	13.52272727	6.319148936	1.625
Average B (x is less than or equal to UIF value)	5.512820513	2.720930233	0
Median	2	2	0
25th Percentile	0	0	0
75th Percentile	12.75	5.5	0.25
UIF	31.875	13.75	0.625

A.5   Community Engagement

Q14: Which of the following have you done to bring about changes in your neighborhood?

Table A.24: Community Engagement: All Streets Combined
Light N=200, Medium N=192, Heavy N=200

Actions	Light	Medium	Heavy
Talked to Neighbors	19%	16%	14%
Attended Meeting	13%	10%	11%
Signed Petition	12%	12%	15%
Wrote/Spoke to Public Figure	8%	8%	3%
Wrote Newspaper	4%	3%	1%
Drew up a Petition	2%	1%	0%
Voted for a Candidate	11%	11%	21%
Organized or Joined Action Group	7%	10%	4%
Called 311 to Complain	2%	0%	1%
Filed Lawsuit	1%	1%	0%
No Response	2%	1%	2%
None	42%	45%	33%
Other	1%	1%	0%

Table A.25: Community Engagement: Astoria
Light N=50, Medium N=50, Heavy N=50

Actions	Light	Medium	Heavy
Talked to Neighbors	18%	46%	34%
Attended Meeting	6%	22%	6%
Signed Petition	10%	24%	10%
Wrote/Spoke to Public Figure	4%	24%	2%
Wrote Newspaper	0%	24%	6%
Drew up a Petition	0%	10%	2%
Voted for a Candidate	12%	22%	12%
Organized or Joined Action Group	0%	6%	4%
Called 311 to Complain	2%	4%	4%
Filed Lawsuit	0%	8%	0%
No Response	2%	2%	2%
Spoke to Community Board	0%	2%	0%
Called the Mayor	0%	0%	2%
None	66%	46%	54%
Other	2%	16%	6%

Table A.26: Community Engagement: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50

Actions	Light	Medium	Heavy
Talked to Neighbors	34%	34%	24%
Attended Meeting	24%	22%	12%
Signed Petition	30%	32%	30%
Wrote/Spoke to Public Figure	12%	18%	10%
Wrote Newspaper	4%	8%	2%
Drew up a Petition	0%	2%	0%
Voted for a Candidate	22%	26%	24%
Organized or Joined Action Group	24%	32%	14%
Called 311 to Complain	0%	0%	2%
Filed Lawsuit	0%	0%	0%
No Response	2%	2%	6%
Spoke to Community Board	0%	0%	0%
None	40%	30%	44%
Other	2%	0%	0%

Table A.27: Community Engagement: Chinatown
Light N=50, Medium N=42, Heavy N=50

Actions	Light	Medium	Heavy
Talked to Neighbors	20%	10%	18%
Attended Meeting	10%	5%	16%
Signed Petition	8%	7%	8%
Wrote/Spoke to Public Figure	8%	7%	0%
Wrote Newspaper	4%	2%	0%
Drew up a Petition	2%	2%	0%
Voted for a Candidate	4%	5%	8%
Organized or Joined Action Group	2%	2%	0%
Called 311 to Complain	6%	0%	0%
Filed Lawsuit	2%	0%	0%
None	66%	90%	66%
Other	2%	0%	0%

Table A.28: Community Engagement: High Bridge
Light N=50, Medium N=50, Heavy N=50

Actions	Light	Medium	Heavy
Talked to Neighbors	20%	20%	14%
Attended Meeting	18%	14%	16%
Signed Petition	10%	8%	22%
Wrote/Spoke to Public Figure	10%	6%	0%
Wrote Newspaper	6%	0%	0%
Drew up a Petition	6%	0%	0%
Voted for a Candidate	16%	12%	50%
Organized or Joined Action Group	2%	4%	2%
Called 311 to Complain	2%	0%	0%
Filed Lawsuit	2%	2%	0%
No Response	6%	0%	0%
None	60%	68%	20%
Other	0%	4%	0%

A.6 Maintenance Participation

Q1h: Do you maintain any parts of this street (i.e. sweeping in front of house)?

Table A.29: Maintenance Participation: Astoria
Light N=50, Medium N=50, Heavy N=50

Resident Maintenance	Light	Medium	Heavy
Just in Front of My Property/Just My Property	26%	6%	6%
In Front of My Building	0%	4%	2%
Shovel Snow	0%	6%	6%
General Sidewalk Maintenance	12%	8%	4%
Sweep Sidewalk	4%	0%	10%
Wash Sidewalk	0%	0%	8%
Pick Up Trash/Help Clean Up Litter	8%	8%	2%
Front Yard/Maintain Greenery	10%	2%	2%
None	34%	70%	56%
Ambiguous Response	16%	0%	2%
No Response	4%	2%	2%

Table A.30: Maintenance Participation: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50

Resident Maintenance	Light	Medium	Heavy
Just in Front of My Property/Just My Property	20%	6%	6%
Adjacent Properties	2%	0%	0%
Shovel Snow	2%	8%	2%
Wash Sidewalk/Street	2%	0%	0%
Sweep Sidewalk	26%	16%	30%
Rake Leaves	0%	2%	0%
Pick Up Trash/Help Clean Up Litter	0%	4%	6%
Maintain Trees and Tree Pit	12%	6%	2%
Front Yard/Maintain Greenery	22%	6%	16%
Painting	0%	0%	2%
None	32%	66%	50%
Ambiguous Response	4%	6%	2%
No Response	0%	0%	6%

Table A.31: Maintenance Participation: Chinatown
Light N=50, Medium N=42, Heavy N=50

Resident Maintenance	Light	Medium	Heavy
Sweep Sidewalk	2%	5%	0%
Pick Up Trash/Help Clean Up Litter	0%	2%	2%
Maintain Trees and Tree Pit	0%	0%	2%
Clean up After Dogs	2%	0%	0%
None	58%	81%	82%
Ambiguous Response	0%	0%	2%
No Response	38%	10%	2%

Table A.32: Maintenance Participation: High Bridge
Light N=50, Medium N=50, Heavy N=50

Resident Maintenance	Light	Medium	Heavy
Just in Front of My Property/Just My Property	0%	0%	0%
Planted/Maintain Trees	2%	2%	0%
Clean/Maintain Park	6%	0%	0%
Pick Up Trash/Help Clean Up Litter	2%	0%	2%
Clean/Sweep Sidewalk	2%	0%	0%
Clean/Sweep Street	2%	2%	0%
Clean/Maintain Building	0%	0%	4%
Ambiguous Response	4%	2%	0%
None	62%	80%	90%
No Response	16%	18%	4%

A.7   Activity Levels

Q1b: Do you ever spend any of your leisure time on this block?

Table A.33: Activity Levels:Astoria
Light N=50, Medium N=50, Heavy N=50

Activity	Light	Medium	Heavy
% Outdoor of Total Activities by Street	66%	62%	46%
Walking	16%	16%	22%
Walking the Dog	4%	4%	4%
Sweeping/Cleaning (outside)	4%	2%	0%
Gardening/Working on Yard	10%	2%	0%
Sitting Outside (on stoop/porch)	10%	12%	8%
Standing (outside)	0%	0%	2%
Sitting in Yard (front)	4%	0%	0%
Talking with Neighbors (outdoors)	0%	8%	0%
Bicycle Riding	2%	0%	2%
Making Chalk Drawings	0%	0%	2%
Running/Jogging	2%	2%	0%
Playing Football	2%	0%	0%
Playing Baseball	0%	0%	2%
Skateboarding	0%	2%	0%
Playing with Friends (outside)	0%	14%	0%
Playing with my Kids (outside)	4%	0%	0%
Supervising my Kids (outside)	0%	0%	2%
Working on the Car	2%	0%	0%

Table A.34: Activity Levels:Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50

Activity	Light	Medium	Heavy
% Outdoor of Total Activities by Street	70%	68%	53%
Walking	10%	36%	26%
Walking the Dog	6%	2%	8%
Sweeping/Cleaning (outside)	2%	0%	2%
Gardening/Working on Yard	4%	4%	8%
Sitting Outside (on stoop/porch)	38%	30%	24%
Eating on Stoop	0%	0%	0%
Sitting in Yard (front)	0%	0%	0%
Talking with Neighbors (outdoors)	0%	0%	0%
Bicycle Riding	0%	0%	0%
Block Parties and Events (outdoors)	8%	0%	0%
Running/Jogging	2%	4%	0%
Playing Sports	2%	0%	0%
Playing Ball	2%	2%	0%
Riding a Bicycle	0%	2%	6%
Playing with Friends (outside)	0%	2%	0%
Playing with my Kids (outside)	36%	10%	0%
Supervising my Kids (outside)	0%	0%	0%
Walk to the Corner Deli	0%	0%	2%

Table A.35: Activity Levels:Chinatown
Light N=50, Medium N=42, Heavy N=50

Activity	Light	Medium	Heavy
% Outdoor of Total Activities by Street	43%	20%	42%
Walking	24%	7%	18%
Walking the Dog	2%	2%	0%
Sweeping/Cleaning (outside)	0%	0%	0%
Gardening/Working on Yard	0%	0%	0%
Sitting Outside (on stoop/porch)	0%	5%	0%
Riding Bicycle	0%	0%	2%
Sitting Outside	4%	0%	14%
Talking with Neighbors (outdoors)	0%	5%	0%
Go to the Senior Center	0%	2%	0%
Going to Church	0%	0%	2%
Running/Jogging	4%	0%	6%
Playing Basketball	2%	0%	0%
Playing Handball	2%	0%	0%
Skateboarding	0%	0%	0%
Playing with Friends (outside)	0%	0%	0%
Playing with my Kids (outside)	10%	2%	8%
Supervising my Kids (outside)	0%	0%	0%
Working on the Car	0%	0%	0%

Table A.36: Activity Levels:High Bridge
Light N=50, Medium N=50, Heavy N=50

Activity	Light	Medium	Heavy
% Outdoor of Total Activities by Street	48%	23%	6%
Walking	0%	4%	0%
Walking the Dog	2%	2%	0%
Sitting Outside (on stoop/porch)	8%	12%	0%
Talking with Neighbors (outdoors)	2%	0%	0%
Outside in the Park	24%	2%	2%
Playing Basketball	8%	0%	4%
Playing Football	0%	2%	0%
Playing Baseball	2%	0%	0%
Playing/Spending Time with Friends (outside)	4%	0%	0%
Playing with my Kids (outside)	0%	4%	0%
Supervising my Kids (outside)	0%	0%	0%
Block Parties/Cook-outs (outdoors)	6%	0%	0%

A.8   Resident Recommendations

Q13: Which of the following elements would improve the quality of life on your street?

Table A.37: Resident Recommendations: All Streets Combined
Light N=200, Medium N=192, Heavy N=200, All Streets Combined N=592
TI=Totally Improve, WMW=Would Make Worse

Totals	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Repair Sidewalks	60.0%	0.5%	58.9%	5.2%	70.0%	0.0%	63.0%	4%
Plant Trees	56.5%	1.5%	59.9%	3.6%	61.0%	1.5%	59.1%	28%
More Enforcement (police)	50.5%	1.0%	50.5%	11.5%	58.5%	2.5%	53.2%	5%
Additional Street Cleaners	48.0%	1.0%	52.1%	5.2%	58.5%	3.0%	52.9%	6%
Lower Speed Limit	41.5%	1.0%	48.4%	13.5%	64.5%	3.5%	51.5%	5%
Improve Surface (of the street)	54.5%	1.0%	46.9%	7.8%	53.0%	0.5%	51.5%	5%
Street Lighting	47.0%	2.0%	49.5%	13.5%	53.0%	3.0%	49.8%	24%
Cut Down Cars	40.0%	2.0%	44.8%	7.8%	62.0%	3.5%	49.0%	3%
Prohibit Trucks	43.0%	2.5%	47.9%	13.5%	44.0%	3.0%	44.9%	10%
Add Bicycle Lane (of any kind)	30.5%	7.5%	53.6%	12.0%	42.5%	9.5%	42.1%	6%
Add/Improve Traffic Signals	33.0%	4.0%	39.1%	10.9%	48.0%	1.5%	40.0%	14%
Add Speed Humps	49.0%	6.0%	34.4%	23.4%	34.5%	23.0%	39.4%	22%
Add Stop Signs	30.0%	2.0%	26.0%	9.9%	38.0%	3.0%	31.4%	4%
Add Mid-block Crossing	19.5%	6.5%	30.7%	20.8%	34.5%	16.0%	28.2%	30%
Add/Refurbish Crosswalk	23.0%	0.5%	32.8%	10.4%	28.5%	1.5%	28.0%	30%
Limit Parking (ex. Less spots, resident parking permits)	26.0%	28.5%	25.5%	31.3%	27.0%	30.0%	26.2%	17%
Prohibit Buses	21.0%	2.5%	18.2%	17.2%	30.0%	23.0%	23.1%	6%
Narrow Entrance to the Street (ex. curb extensions)	15.5%	11.5%	16.7%	25.0%	36.0%	19.0%	22.8%	2%
Add Diagonal Parking	16.0%	25.5%	27.1%	28.6%	21.0%	37.0%	21.3%	2%
Widen Sidewalks/Narrow Street	14.5%	18.5%	19.3%	29.2%	25.5%	18.5%	19.8%	3%
Widen Street/Narrow Sidewalk	28.0%	9.5%	13.5%	28.1%	16.5%	36.0%	19.4%	14%
Street Closure (partial or complete)	12.5%	17.0%	19.3%	31.3%	21.5%	35.5%	17.7%	18%
Make One-Way	2.0%	1.5%	3.1%	7.3%	5.5%	20.0%	3.5%	8%

Table A.38: Resident Recommendations: Astoria
Light N=50, Medium N=50, Heavy N=50, All Streets Combined N=150

	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Add/Refurbish Crosswalk	18%	0%	20%	0%	24%	2%	21%	1%
Street Closure (partial or complete)	12%	20%	18%	18%	24%	22%	18%	20%
Add Stop Signs	14%	0%	26%	0%	20%	10%	20%	3%
Lower Speed Limit	30%	0%	40%	0%	58%	8%	43%	3%
Add/Improve Traffic Signals	10%	10%	20%	0%	22%	2%	17%	4%
More Enforcement (police)	42%	4%	44%	4%	52%	2%	46%	3%
Widen Street/Narrow Sidewalk	26%	12%	4%	26%	14%	34%	15%	24%
Improve Surface (of the street)	64%	0%	24%	4%	36%	2%	41%	2%
Make One-Way	2%	4%	10%	24%	0%	2%	4%	10%
Prohibit Trucks	36%	2%	40%	4%	64%	2%	47%	3%
Prohibit Buses	30%	0%	18%	6%	40%	2%	29%	3%
Widen Sidewalks/Narrow Street	10%	24%	20%	12%	22%	34%	17%	23%
Cut Down Cars	20%	4%	22%	2%	62%	2%	35%	3%
Limit Parking (ex. Less spots, resident parking permits)	12%	32%	20%	30%	22%	44%	18%	35%
Add Diagonal Parking	6%	22%	42%	14%	32%	30%	27%	22%
Add Speed Humps	44%	8%	50%	6%	52%	24%	49%	13%
Street Lighting	42%	0%	52%	2%	36%	0%	43%	1%
Repair Sidewalks	66%	0%	54%	0%	48%	0%	56%	0%
Plant Trees	56%	4%	38%	6%	74%	2%	56%	4%
Additional Street Cleaners	42%	4%	56%	0%	36%	8%	45%	4%
Add Mid-block Crossing	4%	12%	20%	8%	40%	28%	21%	16%
Narrow Entrance to the Street (ex. curb extensions)	4%	14%	14%	10%	38%	32%	19%	19%
Add Bicycle Lane (of any kind)	34%	6%	56%	0%	38%	22%	43%	9%

Table A.39: Resident Recommendations: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50, All Streets Combined N=150

	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Add/Refurbish Crosswalk	16%	0%	26%	0%	12%	4%	18%	1%
Street Closure (partial or complete)	14%	14%	26%	20%	28%	10%	23%	15%
Add Stop Signs	12%	4%	24%	4%	12%	0%	16%	3%
Lower Speed Limit	34%	0%	50%	0%	44%	0%	43%	0%
Add/Improve Traffic Signals	6%	2%	22%	4%	26%	0%	18%	2%
More Enforcement (police)	24%	0%	32%	6%	30%	2%	29%	3%
Widen Street/Narrow Sidewalk	2%	20%	6%	22%	6%	20%	5%	21%
Improve Surface (of the street)	32%	4%	38%	0%	26%	0%	32%	1%
Make One-Way	0%	0%	2%	0%	0%	0%	1%	0%
Prohibit Trucks	38%	4%	76%	0%	76%	0%	63%	1%
Prohibit Buses	16%	2%	14%	0%	32%	0%	21%	1%
Widen Sidewalks/Narrow Street	6%	12%	18%	32%	12%	10%	12%	18%
Cut Down Cars	32%	2%	70%	0%	76%	0%	59%	1%
Limit Parking (ex. Less spots, resident parking permits)	50%	8%	26%	12%	42%	18%	39%	13%
Add Diagonal Parking	6%	26%	8%	36%	10%	32%	8%	31%
Add Speed Humps	30%	14%	40%	24%	38%	18%	36%	19%
Street Lighting	24%	4%	38%	8%	26%	6%	29%	6%
Repair Sidewalks	54%	2%	52%	0%	60%	0%	55%	1%
Plant Trees	50%	2%	50%	0%	66%	0%	55%	1%
Additional Street Cleaners	20%	0%	16%	2%	28%	0%	21%	1%
Add Mid-block Crossing	8%	0%	24%	6%	8%	14%	13%	7%
Narrow Entrance to the Street (ex. curb extensions)	6%	6%	12%	12%	12%	14%	10%	11%
Add Bicycle Lane (of any kind)	28%	6%	64%	8%	6%	0%	33%	5%

Table A.40: Resident Recommendations: Chinatown
Light N=50, Medium N=42, Heavy N=50, All Streets Combined N=142

	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Add/Refurbish Crosswalk	24%	0%	36%	48%	60%	0%	40%	14%
Street Closure (partial or complete)	4%	22%	12%	55%	34%	28%	17%	34%
Add Stop Signs	42%	2%	43%	40%	58%	2%	48%	13%
Lower Speed Limit	48%	4%	38%	60%	60%	6%	49%	21%
Add/Improve Traffic Signals	56%	0%	52%	40%	80%	2%	63%	13%
More Enforcement (police)	72%	0%	62%	36%	60%	2%	65%	11%
Widen Street/Narrow Sidewalk	32%	2%	24%	55%	42%	8%	33%	20%
Improve Surface (of the street)	64%	0%	69%	31%	56%	0%	63%	9%
Make One-Way	0%	0%	0%	2%	18%	30%	6%	11%
Prohibit Trucks	56%	2%	33%	52%	24%	4%	38%	18%
Prohibit Buses	10%	6%	12%	60%	46%	12%	23%	24%
Widen Sidewalks/Narrow Street	22%	16%	17%	50%	24%	16%	21%	26%
Cut Down Cars	58%	2%	52%	33%	68%	8%	60%	13%
Limit Parking (ex. Less spots, resident parking permits)	14%	46%	24%	52%	36%	28%	25%	42%
Add Diagonal Parking	16%	40%	10%	45%	42%	12%	23%	32%
Add Speed Humps	38%	2%	29%	64%	38%	12%	35%	24%
Street Lighting	54%	4%	43%	50%	54%	6%	51%	18%
Repair Sidewalks	62%	0%	76%	24%	80%	0%	73%	7%
Plant Trees	62%	0%	88%	10%	62%	4%	70%	4%
Additional Street Cleaners	66%	0%	76%	21%	70%	4%	70%	8%
Add Mid-block Crossing	30%	10%	19%	71%	42%	2%	31%	25%
Narrow Entrance to the Street (ex. curb extensions)	30%	18%	10%	64%	34%	22%	25%	33%
Add Bicycle Lane (of any kind)	24%	8%	38%	40%	54%	12%	39%	19%

Table A.41: Resident Recommendations: High Bridge
Light N=50, Medium N=50, Heavy N=50, All Streets Combined N=150

	Light	Light	Medium	Medium	Heavy	Heavy	Total	Total
Proposed Change	TI	WMW	TI	WMW	TI	WMW	TI	WMW
Add/Refurbish Crosswalk	34%	2%	50%	0%	18%	0%	34%	1%
Street Closure (partial or complete)	20%	12%	20%	36%	0%	82%	13%	43%
Add Stop Signs	52%	2%	14%	0%	62%	0%	43%	1%
Lower Speed Limit	54%	0%	64%	2%	96%	0%	71%	1%
Add/Improve Traffic Signals	60%	4%	64%	4%	64%	2%	63%	3%
More Enforcement (police)	64%	0%	66%	4%	92%	4%	74%	3%
Widen Street/Narrow Sidewalk	52%	4%	22%	14%	4%	82%	26%	33%
Improve Surface (of the street)	58%	0%	60%	0%	94%	0%	71%	0%
Make One-Way	6%	2%	0%	2%	4%	48%	3%	17%
Prohibit Trucks	42%	2%	40%	4%	12%	6%	31%	4%
Prohibit Buses	28%	2%	28%	10%	2%	78%	19%	30%
Widen Sidewalks/Narrow Street	20%	22%	22%	26%	44%	14%	29%	21%
Cut Down Cars	50%	0%	36%	0%	42%	4%	43%	1%
Limit Parking (ex. Less spots, resident parking permits)	28%	28%	32%	34%	8%	30%	23%	31%
Add Diagonal Parking	36%	14%	46%	22%	0%	74%	27%	37%
Add Speed Humps	84%	0%	18%	6%	10%	38%	37%	15%
Street Lighting	68%	0%	64%	0%	96%	0%	76%	0%
Repair Sidewalks	58%	0%	56%	0%	92%	0%	69%	0%
Plant Trees	58%	0%	68%	0%	42%	0%	56%	0%
Additional Street Cleaners	64%	0%	64%	0%	100%	0%	76%	0%
Add Mid-block Crossing	36%	4%	58%	6%	48%	20%	47%	10%
Narrow Entrance to the Street (ex. curb extensions)	22%	8%	30%	20%	60%	8%	37%	12%
Add Bicycle Lane (of any kind)	36%	10%	54%	4%	72%	4%	54%	6%

Q1e: If you could change on environmental or social thing about your block, what would it be?

Table A.42: Resident Recommendations 2: All Streets Combined
Light N=200, Medium=192, Heavy=200, Total Responses=592

Resident Recommendations	Light	Medium	Heavy	Total Responses
Add Traffic Calming Device	4%	4%	3%	4%
Change Demographics	5%	1%	1%	2%
Change Land Uses	4%	3%	3%	3%
Change Neighbors	4%	3%	1%	3%
Change Parking Regulations	0%	0%	1%	0%
Change Sanitation Procedures	1%	0%	1%	0%
Cleaner Street	11%	14%	8%	11%
Improve Appearance	4%	3%	1%	2%
Improve Parking Availability	11%	5%	6%	7%
Improve Pedestrian and Bicycling Amenities	0%	0%	1%	0%
Improve Sidewalk Conditions	3%	3%	2%	3%
Improve Snow Removal	1%	0%	0%	0%
Improve Street Lighting	0%	1%	0%	0%
Improve Street Surface	1%	1%	2%	1%
Improve Traffic Safety	2%	2%	2%	2%
Improve Safety/Reduce Crime	4%	2%	0%	2%
Less Double Parking	1%	0%	0%	0%
Less Police	0%	0%	1%	0%
Limit Parking to Residents	1%	1%	2%	1%
Minimize Traffic	2%	8%	17%	9%
Minimize Truck Traffic	0%	3%	2%	2%
More Commercial Activity	3%	2%	1%	2%
More Enforcement of Traffic Rules	0%	1%	1%	1%
More Greenery/Trees	6%	5%	5%	5%
More Police & Enforcement	2%	2%	0%	1%
More Spaces/Opportunities for Entertainment	2%	2%	6%	3%
Reduce Air Pollution	1%	2%	3%	2%
Reduce Housing Problems	4%	2%	2%	2%
Reduce Noise	3%	0%	3%	2%
Reduce Speeding	1%	2%	7%	3%
Reduce Traffic Noise	3%	1%	4%	2%
Other	10%	9%	13%	10%
Nothing	15%	19%	11%	15%
No Response	6%	8%	8%	7%

Table A.43: Resident Recommendations 2: Astoria
Light N=50, Medium N=50, Heavy N=50, Total Responses N=150

Resident Recommendations	Light	Medium	Heavy	Total Responses
Add Traffic Calming Device	6%	2%	8%	5%
Change Demographics	6%	4%	0%	3%
Change Land Uses	2%	4%	2%	3%
Change Neighbors	4%	8%	0%	4%
Cleaner Street	30%	20%	6%	19%
Improve Parking Availability	18%	2%	6%	9%
Improve Sidewalk Conditions	4%	2%	2%	3%
Improve Snow Removal	4%	0%	0%	1%
Improve Street Surface	2%	0%	2%	1%
Less Police	0%	0%	4%	1%
Minimize Traffic	0%	2%	24%	9%
More Commercial Activity	2%	2%	2%	2%
More Enforcement of Traffic Rules	0%	0%	4%	1%
More Greenery/Trees	14%	6%	12%	11%
More Spaces/Opportunities for Entertainment	4%	4%	0%	3%
Reduce Air Pollution	4%	2%	2%	3%
Reduce Noise	2%	2%	0%	1%
Reduce Speeding	0%	2%	4%	2%
Reduce Traffic Noise	0%	0%	8%	3%
Other	8%	10%	2%	7%
Nothing	12%	18%	12%	14%
No Response	6%	8%	10%	8%

Table A.44: Resident Recommendations 2: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50, Total Responses N=150

Resident Recommendations	Light A	Light B	Medium	Heavy	Total Responses
Add Traffic Calming Device	4%	0%	4%	4%	3%
Change Demographics	8%	0%	0%	0%	1%
Change Land Uses	0%	0%	2%	2%	1%
Change Neighbors	0%	8%	2%	0%	2%
Change Parking Regulations	0%	0%	0%	4%	1%
Change Sanitation Procedures	4%	0%	0%	2%	1%
Cleaner Street	4%	8%	4%	6%	5%
Improve Appearance	4%	0%	0%	0%	1%
Improve Pedestrian and Bicycling Amenities	0%	0%	0%	4%	1%
Improve Parking Availability	12%	16%	8%	8%	10%
Improve Sidewalk Conditions	4%	0%	6%	4%	4%
Improve Street Lighting	0%	0%	4%	0%	1%
Improve Street Surface	0%	0%	0%	0%	0%
Improve Traffic Safety	0%	0%	0%	0%	0%
Improve Safety/Reduce Crime	0%	0%	2%	0%	1%
Limit Parking to Residents	4%	4%	2%	8%	5%
Minimize Traffic	4%	0%	26%	30%	19%
Minimize Truck Traffic	0%	0%	12%	6%	6%
More Commercial Activity	4%	0%	0%	0%	1%
More Enforcement of Traffic Rules	0%	0%	2%	0%	1%
More Greenery/Trees	8%	8%	6%	2%	5%
More Spaces/Opportunities for Entertainment	0%	0%	0%	2%	1%
Reduce Air Pollution	0%	0%	0%	2%	1%
Reduce Housing Problems	0%	0%	0%	0%	0%
Reduce Noise	0%	4%	0%	2%	1%
Reduce Speeding	0%	0%	2%	2%	1%
Reduce Traffic Noise	0%	0%	2%	8%	3%
Other	12%	8%	6%	10%	9%
Nothing	8%	20%	18%	12%	15%
No Response	0%	24%	6%	0%	6%

Table A.45: Resident Recommendations 2: Chinatown
Light N=50, Medium N=42, Heavy N=50, Total Responses N=142

Resident Recommendations	Light	Medium	Heavy	Total Responses
Add Traffic Calming Device	0%	0%	0%	0%
Change Demographics	0%	0%	2%	1%
Change Land Uses	8%	2%	6%	6%
Change Neighbors	2%	0%	2%	1%
Cleaner Street	4%	24%	6%	11%
Improve Appearance	0%	7%	2%	3%
Improve Parking Availability	6%	0%	0%	2%
Improve Safety/Reduce Crime	4%	2%	4%	4%
Improve Sidewalk Conditions	4%	0%	0%	1%
Improve Snow Removal	0%	0%	0%	0%
Improve Street Surface	0%	2%	0%	1%
Improve Traffic Safety	8%	0%	6%	5%
Less Double Parking	4%	0%	0%	1%
More Police & Enforcement	2%	0%	2%	1%
Minimize Traffic	6%	2%	12%	7%
More Commercial Activity	8%	5%	2%	5%
More Enforcement of Traffic Rules	0%	0%	0%	0%
More Greenery/Trees	2%	7%	4%	4%
More Spaces/Opportunities for Entertainment	0%	0%	0%	0%
Reduce Air Pollution	0%	5%	4%	3%
Reduce Housing Problems	16%	5%	4%	8%
Reduce Noise	8%	0%	0%	3%
Reduce Speeding	0%	0%	0%	0%
Reduce Traffic Noise	8%	0%	0%	3%
Other	10%	5%	20%	12%
Nothing	24%	14%	12%	17%
No Response	4%	12%	16%	11%
Ambiguous Response	0%	7%	0%	2%

Table A.46: Resident Recommendations 2: High Bridge
Light N=50, Medium N=50, Heavy N=50, Total Responses N=150

Resident Recommendations	Light	Medium	Heavy	Total Responses
Add Traffic Calming Device	6%	10%	0%	16%
Change Demographics	8%	0%	0%	8%
Change Land Uses	4%	2%	0%	6%
Change Neighbors	6%	2%	2%	10%
Cleaner Street	4%	10%	12%	26%
Improve Appearance	12%	4%	0%	16%
Improve Parking Availability	6%	10%	8%	24%
Improve Sidewalk Conditions	2%	2%	2%	6%
Improve Snow Removal	0%	0%	0%	0%
Improve Street Surface	2%	0%	4%	6%
Improve Traffic Safety	0%	6%	2%	8%
Improve Safety/Reduce Crime	14%	4%	0%	18%
More Police	6%	8%	0%	14%
Minimize Traffic	0%	2%	0%	2%
More Commercial Activity	0%	2%	0%	2%
More Enforcement of Traffic Rules	0%	0%	0%	0%
More Greenery/Trees	0%	0%	0%	0%
More Spaces/Opportunities for Entertainment	2%	2%	20%	24%
Reduce Air Pollution	0%	0%	2%	2%
Reduce Housing Problems	0%	2%	2%	4%
Reduce Noise	2%	0%	2%	4%
Reduce Speeding	2%	2%	22%	26%
Reduce Traffic Noise	2%	0%	0%	2%
Other	10%	10%	18%	38%
Nothing	10%	24%	6%	40%
No Response	0%	8%	4%	12%

A.9   Resident Predictions

Q12: What do you think will happen to traffic on your block in the next five years?

Table A.47: Resident Predictions: All Streets Combined
Light N=200, Medium N=192, Heavy N=200, Total Responses N=592

Resident Prediction	Light	Medium	Heavy	Total Responses
Improve	9.5%	8.3%	12.0%	10.0%
Stay the Same	55.0%	50.0%	29.5%	44.8%
Get Worse	25.5%	30.7%	53.0%	36.5%
No Response	10.0%	10.9%	5.5%	8.8%

Table A.48: Resident Predictions: Astoria
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Prediction	Light	Medium	Heavy	Total Responses
Improve	0.0%	6.0%	4.0%	3.3%
Stay the Same	60.0%	44.0%	32.0%	45.3%
Get Worse	34.0%	28.0%	58.0%	40.0%
No Response	6.0%	22.0%	6.0%	11.3%

Table A.49: Resident Predictions: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Prediction	Light	Medium	Heavy	Total Responses
Improve	2.0%	4.0%	4.0%	3.3%
Stay the Same	76.0%	56.0%	42.0%	58.0%
Get Worse	14.0%	32.0%	46.0%	30.7%
No Response	8.0%	8.0%	8.0%	8.0%

Table A.50: Resident Predictions: Chinatown
Light N=50, Medium N=42, Heavy N=50, Total Responses N=142

Resident Prediction	Light	Medium	Heavy	Total Responses
Improve	18.0%	7.1%	38.0%	21.8%
Stay the Same	54.0%	69.0%	40.0%	53.5%
Get Worse	24.0%	19.0%	16.0%	19.7%
No Response	4.0%	4.8%	6.0%	4.9%

Table A.51: Resident Predictions: High Bridge
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Prediction	Light	Medium	Heavy	Total Responses
Improve	18.0%	16.0%	2.0%	12.0%
Stay the Same	30.0%	34.0%	4.0%	22.7%
Get Worse	30.0%	42.0%	92.0%	54.7%
No Response	22.0%	8.0%	2.0%	10.7%

A.10   Resident Observations

Q11: In what way has traffic changed on your block over the last few years?

Table A.52: Resident Observations: All Streets Combined
Light N=200, Medium N=192, Heavy N=200, Total Responses N=592

Resident Observation	Light	Medium	Heavy	Total Responses
Improved	4.5%	8.3%	9.5%	7%
Stayed the Same	66.5%	57.3%	42.5%	55%
Gotten Worse	20.5%	22.9%	39.5%	28%
No Response	8.5%	11.5%	8.5%	0%

Table A.53: Resident Observations: Astoria
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Observation	Light	Medium	Heavy	Total Responses
Improved	0.0%	2.0%	0.0%	0.7%
Stayed the Same	66.0%	56.0%	58.0%	60.0%
Gotten Worse	26.0%	26.0%	34.0%	28.7%
No Response	8.0%	16.0%	8.0%	10.7%

Table A.54: Resident Observations: Brooklyn Heights
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Observation	Light	Medium	Heavy	Total Responses
Improved	0.0%	6.0%	0.0%	2.0%
Stayed the Same	82.0%	54.0%	42.0%	59.3%
Gotten Worse	10.0%	26.0%	36.0%	24.0%
No Response	8.0%	14.0%	22.0%	14.7%

Table A.55: Resident Observations: Chinatown
Light N=50, Medium N=42, Heavy N=50, Total Responses N=142

Resident Observation	Light	Medium	Heavy	Total Responses
Improved	14.0%	4.8%	30.0%	16.9%
Stayed the Same	66.0%	64.3%	58.0%	62.7%
Gotten Worse	20.0%	19.0%	10.0%	16.2%
No Response	0.0%	11.9%	2.0%	4.2%

Table A.56: Resident Observations: High Bridge
Light N=50, Medium N=50, Heavy N=50, Total Responses N=200

Resident Observation	Light	Medium	Heavy	Total Responses
Improved	4.0%	20.0%	8.0%	10.7%
Stayed the Same	52.0%	56.0%	12.0%	40.0%
Gotten Worse	26.0%	20.0%	78.0%	41.3%
No Response	18.0%	4.0%	2.0%	8.0%

Appendix B

Demographic Data

B.1 Astoria

Table B.1: Ethnicity of Astoria Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy
Ethnicity	Woman	Man	Total	Woman	Man	Unknown	Total	Woman	Man	Total
African-American	1	0	1	1	0	0	1	0	0	0
Asian	2	1	3	1	0	0	1	0	1	1
Bangladeshi	0	0	0	1	0	0	1	0	0	0
Caucasian	17	12	29	8	11	0	19	9	23	32
Egyptian	0	0	0	0	1	0	1	0	0	0
Greek-American	3	1	4	0	1	0	1	1	1	2
Hispanic	1	1	2	1	4	0	5	5	5	10
Hungarian	0	0	0	1	0	0	1	0	0	0
Indian	0	1	1	0	2	0	2	0	0	0
Irish	0	0	0	0	1	0	1	0	0	0
Italian-American	0	0	0	0	1	0	1	0	0	0
Middle-Eastern/Arab	0	1	1	0	3	0	3	0	0	0
Montenegrin	0	0	0	0	0	0	0	0	0	0
Moroccan	0	0	0	0	1	0	1	0	0	0
Other/Unclear	3	4	7	4	4	2	10	1	0	1
Polish	0	0	0	0	0	0	0	1	0	1
South East Asian	0	0	0	0	1	0	1	1	2	3
Turkish	0	0	0	1	0	0	1	0	0	0

Table B.2: Age of Astoria Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy
Age	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total	Woman	Man	Total
Under 19	0	0	0		2	6	0	8	0	0	0
19-54	15	16	0	31	12	17	0	29	14	27	41
55 and Over	9	2	0	11	4	7	0	11	4	5	9
Unknown	3	3	2	8	0	0	2	2	0	0	0

Table B.3: Length of Residence for Astoria Residents
Light N=50, Medium N=50, Heavy N=50

Length of Residence	Light	Medium	Heavy
under 1 year	9	8	5
1-4 years	10	13	11
5-9 years	2	9	12
10-14 years	6	5	7
15-19 years	1	2	2
20-24 years	6	1	2
25-29 years	1	2	2
30-34 years	3	0	1
35-39 years	0	2	1
40-44 years	0	2	6
45-49 years	4	1	1
50-54 years	2	0	0
55-59 years	0	0	0
60-64 years	0	1	0
65-69 years	0	0	0
70-74 years	0	0	0
75-79 years	1	0	0

B.2   Brooklyn Heights

Table B.4: Ethnicity of Brooklyn Heights Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy	Heavy
Ethnicity	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total
African-American	1	0	0	1	0	0	0	0	1	1	0	2
Asian	0	1	0	1	0	0	0	0	0	0	0	0
British	0	0	0	0	0	0	0	0	1	1	0	2
Caucasian	23	22	0	45	26	22	0	48	25	13	0	38
French	0	0	0	0	0	0	0	0	1	0	0	1
Hispanic	1	0	0	1	1	0	0	1	0	0	0	0
Korean	0	0	0	0	0	0	0	0	1	0	0	1
Other/Unclear	0	0	2	2	0	0	1	1	1	1	4	6

Table B.5: Age of Brooklyn Heights Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy	Heavy
Age	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total
Under 19	0	0	0	0	0	0	0	0	0	0	0	0
19-54	22	21	0	43	18	14	0	32	23	13	0	36
55 and Over	3	2	0	5	9	8	0	17	6	2	0	8
Unknown	0	0	2	2	0	0	1	1	1	1	4	6

Table B.6: Length of Residence for Brooklyn Heights Residents
Light N=50, Medium N=50, Heavy N=50

Length of Residence	Light	Medium	Heavy
under 1 year	7	7	12
1-4 years	13	17	13
5-9 years	8	5	5
10-14 years	5	5	2
15-19 years	3	4	6
20-24 years	1	0	1
25-29 years	5	2	1
30-34 years	2	3	3
35-39 years	2	5	1
40-44 years	2	1	1
45-49 years	0	0	1
50-54 years	0	1	1
55-59 years	0	0	0
60-64 years	0	0	1
65-69 years	0	0	0
70-74 years	0	0	0
75-79 years	0	0	0

B.3   Chinatown

Table B.7: Ethnicity of Chinatown Residents
Light N=50, Medium=42, Heavy N=50

	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Ethnicity	Woman	Man	Total	Woman	Man	Total	Woman	Man	Total
African American	2	1	3	0	0	0	0	0	0
Caucasian	5	5	10	3	4	7	1	0	1
Chinese	18	15	33	21	10	31	29	19	48
Israeli	0	0	0	1	0	1	0	0	0
Italian-American	1	1	2	0	0	0	0	0	0
Irish	0	0	0	0	0	0	0	0	0
Other/Unclear	1	0	1	1	0	1	0	1	1
Russian	1	0	1	0	1	1	0	0	0

Table B.8: Age of Chinatown Residents
Light N=50, Medium=42, Heavy N=50

	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Age	Woman	Man	Total	Woman	Man	Total	Woman	Man	Total
Under 19	1	4	5	3	1	4	4	3	7
19-54	17	13	30	20	11	31	17	12	29
55 and Over	10	5	15	3	4	7	9	5	14
Unknown	0	0	0	0	0	0	0	0	0

Table B.9: Length of Residence for Chinatown Residents
Light N=50, Medium=42, Heavy N=50

Length of Residence	Light	Medium	Heavy
under 1 year	1	2	2
1-4 years	10	6	10
5-9 years	8	1	7
10-14 years	4	1	11
15-19 years	6	2	7
20-24 years	8	1	4
25-29 years	2	0	3
30-34 years	3	2	4
35-39 years	1	2	2
40-44 years	2	0	0
45-49 years	1	0	0
50-54 years	3	0	0
55-59 years	0	0	0
60-64 years	1	0	0

B.4   High Bridge

Table B.10: Ethnicity of High Bridge Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Medium	Medium	Medium	Medium	Medium	Heavy	Heavy	Heavy
Ethnicity	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total	Woman	Man	Total
African-American	7	9	0	16	5	12	0	17	31	9	40
Hispanic	18	10	2	30	18	5	2	25	4	6	10
Jamaican	0		0	0	0	1	0	1	0	0	0
Other/Unclear	1	1	2	4	3	2	2	7	0	0	0

Table B.11: Age of High Bridge Residents
Light N=50, Medium N=50, Heavy N=50

	Light	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy	Heavy
Age	Woman	Man	Unknown	Total	Woman	Man	Unknown	Total	Woman	Man	Total
Under 19	2	3	2	7	2	0	0	2	0	2	2
19-54	21	15	1	37	18	13	0	31	29	12	41
55 and Over	1	2	0	3	1	6	2	9	0	0	0
Unknown	2	0	1	3	5	1	2	8	0	0	0
No Response	0	0	0	0	0	0	0	0	6	1	7

Table B.12: Length of Residence for High Bridge Residents
Light N=50, Medium N=50, Heavy N=50

Length of Residence	Light	Medium	Heavy
under 1 year	11	2	0
1-4 years	13	13	2
5-9 years	5	7	9
10-14 years	4	13	13
15-19 years	3	8	9
20-24 years	3	3	4
25-29 years	4	0	2
30-34 years	3	1	1
35-39 years	0	1	0
40-44 years	0	0	0
45-49 years	0	0	0
50-54 years	0	0	0
55-59 years	0	0	0
60-64 years	0	0	0
65-69 years	0	0	0
70-74 years	1	0	0
75-79 years	0	0	0

Appendix C

Vehicle Counts

C.1   Astoria

Table C.1: Astoria Traffic Counts
The following table shows average AM/Midday/PM traffic counts for each street listed above.

		Light	Medium	Heavy
Right Turning Movement	Total	6	13	77
	Car	5	6	45
	Van/SUV	1	6	27
	Light Truck	0	1	3
	Heavy Truck	0	0	1
	Bicycle	0	0	0
	Bus	0	0	0
	Other (i.e. motorcycle)	0	0	0
Left Turning Movement	Total	3	18	26
	Car	2	9	15
	Van/SUV	1	7	9
	Light Truck	0	3	1
	Heavy Truck	0	0	0
	Bicycle	0	0	0
	Bus	0	0	0
	Other (i.e. motorcycle)	0	0	1
Through Movement	Total	N/A	238	634
	Car	N/A	137	382
	Van/SUV	N/A	73	225
	Light Truck	N/A	19	16
	Heavy Truck	N/A	3	5
	Bicycle	N/A	4	1
	Bus	N/A	1	1
	Other (i.e. motorcycle)	N/A	2	5
Total	All Types	8	269	737
	Car	7	151	442
	Van/SUV	2	86	261
	Light Truck	0	23	20
	Heavy Truck	0	3	5
	Bicycle	0	4	1
	Bus	0	1	1
	Other (i.e. motorcycle)	0	2	6

C.2 Brooklyn Heights

Table C.2: Brooklyn Heights Traffic Counts
The following table shows average AM/Midday/PM traffic counts for each street listed above.

		Light A	Light B	Medium	Heavy
Right Turning Movement	Total	N/A	1	N/A	N/A
	Car	N/A	0	N/A	N/A
	Van/SUV	N/A	0	N/A	N/A
	Light Truck	N/A	0	N/A	N/A
	Heavy Truck	N/A	0	N/A	N/A
	Bicycle	N/A	1	N/A	N/A
	Bus	N/A	0	N/A	N/A
	Other (i.e. motorcycle)	N/A	0	N/A	N/A
Left Turning Movement	Total	18	53	93	205
	Car	13	27	9	112
	Van/SUV	3	23	80	50
	Light Truck	0	3	1	33
	Heavy Truck	0	0	1	0
	Bicycle	1	1	0	6
	Bus	1	0	2	2
	Other (i.e. motorcycle)	1	0	0	2
Through Movement	Total	N/A	N/A	240	294
	Car	N/A	N/A	128	155
	Van/SUV	N/A	N/A	92	95
	Light Truck	N/A	N/A	11	19
	Heavy Truck	N/A	N/A	1	1
	Bicycle	N/A	N/A	5	13
	Bus	N/A	N/A	2	5
	Other (i.e. motorcycle)	N/A	N/A	1	6
Total	All Types	18	55	333	499
	Car	13	27	137	267
	Van/SUV	3	23	171	145
	Light Truck	0	3	12	52
	Heavy Truck	0	0	2	1
	Bicycle	1	2	5	19
	Bus	1	0	5	7
	Other (i.e. motorcycle)	1	0	1	8

C.3   Chinatown

Table C.3: Chinatown Traffic Counts
The following table shows average AM/Midday/PM traffic counts for each street listed above.

		Light	Medium	Heavy
Right Turning Movement	Total	N/A	N/A	593
	Car	N/A	N/A	149
	Van/SUV	N/A	N/A	303
	Light Truck	N/A	N/A	99
	Heavy Truck	N/A	N/A	13
	Bicycle	N/A	N/A	3
	Bus	N/A	N/A	7
	Other (i.e. motorcycle)	N/A	N/A	21
Left Turning Movement	Total	76	104	682
	Car	39	45	278
	Van/SUV	30	44	268
	Light Truck	4	11	61
	Heavy Truck	0	0	11
	Bicycle	0	4	19
	Bus	3	0	36
	Other (i.e. motorcycle)	1	0	10
Through Movement	Total	N/A	88	215
	Car	N/A	44	103
	Van/SUV	N/A	38	69
	Light Truck	N/A	5	28
	Heavy Truck	N/A	1	0
	Bicycle	N/A	0	5
	Bus	N/A	0	9
	Other (i.e. motorcycle)	N/A	0	3
Total	All Types	76	192	1489
	Car	39	89	529
	Van/SUV	30	82	640
	Light Truck	4	16	187
	Heavy Truck	0	1	23
	Bicycle	0	4	27
	Bus	3	0	51
	Other (i.e. motorcycle)	1	0	33

C.4 High Bridge

Table C.4: High Bridge Traffic Counts

The following table shows average AM/Midday/PM traffic counts for each street listed above.

		Light	Medium	Heavy
Right Turning Movement	Total	33	49	94
	Car	17	32	55
	Van/SUV	13	14	25
	Light Truck	3	1	10
	Heavy Truck	0	0	2
	Bicycle	0	2	1
	Bus	0	0	1
	Other (i.e. motorcycle)	0	0	0
Left Turning Movement	Total	N/A	30	56
	Car	N/A	16	29
	Van/SUV	N/A	10	20
	Light Truck	N/A	4	7
	Heavy Truck	N/A	0	0
	Bicycle	N/A	0	0
	Bus	N/A	0	0
	Other (i.e. motorcycle)	N/A	0	0
Through Movement	Total	11	124	348
	Car	6	98	225
	Van/SUV	5	24	95
	Light Truck	0	2	26
	Heavy Truck	0	0	0
	Bicycle	0	0	0
	Bus	0	0	12
	Other (i.e. motorcycle)	0	0	6
Total	All Types	44	203	514
	Car	23	146	309
	Van/SUV	18	48	140
	Light Truck	3	7	43
	Heavy Truck	0	0	2
	Bicycle	0	2	1
	Bus	0	0	13
	Other (i.e. motorcycle)	0	0	6

Appendix D

Press Round-up

WCBS October 5, 2006

Study: Traffic Gets New Yorkers Angry
WCBS

Heavy traffic has profoundly negative impact on New Yorkers' quality of life.

A new study shows that heavy traffic has a big negative impact on the lives of New Yorkers. Compared to neighborhoods with low traffic volumes, residents living on higher volume streets:

– Have more negative perceptions of their block; – Have fewer friends in the neighborhood; – Are more often interrupted during sleep, meals and conversation; – Spent less time walking, shopping and playing with their children.

According to the 14-month study by the nonprofit Transportation Alternatives, 49 percent of all residents said that reducing the amount of cars that pass through their streets would "totally improve" their quality of life. On heavier traffic streets, this percentage was even greater – at 62 percent.

The researchers recommend that the city make traffic reduction a top priority and set targets for reducing traffic volumes by 15 percent by 2009. The researchers suggest more mass transit, bicycling and walking – and fewer cars.

It also recommends implementing "traffic calming measures," such as reducing speeds and expanding the use of speed bumps and adding bike lanes.

New York Times October 6, 2006

On the Road Not Taken, Happiness
By Clyde Haberman

The group known as Transportation Alternatives believes in trying to "reclaim New York City's streets from the automobile." Not an unreasonable notion, many New Yorkers would say. Check the traffic outside your window. It may well be ugly and gnarled at this very moment.

Transalt, to use the group's space-saving Web moniker, wishes the government would do more on behalf of bicyclists and pedestrians, who in many respects are the natural enemies of those riding in cars.

This being New York, however, relationships can be complicated. The city's bicyclists and pedestrians are no more natural allies than Iraq's Shiites and Kurds are just because they both have problems with Sunnis.

Ask anyone who gets around town on foot what he or she thinks of cyclists who ride on the sidewalks, or who believe red lights are suggestions that do not apply to them, or who insist on pedaling the wrong way along one-way streets. For their part, New York pedestrians are a thrill and a half when they hop into the street from between parked cars, cross against the light, or walk slowly with make-my-day defiance to stymie cars trying to make a legal turn.

Still, where is it written that alliances must be love affairs?

It is the automobile that fouls the air, maims people in large numbers and, often enough, kills. Very few bikes, and even fewer pedestrians, do any of those things.

Now Transalt says that cars also do harm in more mundane ways.

The group's researchers interviewed about 600 people in four New York neighborhoods - Brooklyn Heights, Astoria, High Bridge and Chinatown - and found that the heavier the traffic, the less pleasant the life.

In this study, made public yesterday, people living on streets with relatively heavy traffic told of many more problems than people living on nearby streets where fewer cars zipped by.

We'll spare you the statistics - they'll just make you dizzy - but residents of well-trafficked streets were more likely to think ill of where they lived. They were more likely to have their sleep, meals and conversations interrupted by street noise. They were less disposed to letting their children play outdoors. They tended to have fewer friends in the neighborhood, being more likely to stay in their apartments and not hang out on the street to schmooze.

"To have people say they're going out on the street less often really surprised me," said Karla Quintero, a leader of the study.

But the findings, over all, weren't really a great surprise. Cars make noise, noise interrupts sleep, interrupted sleep irritates people, people become unhappy, and so on in a natural progression.

Nor was it surprising that Transalt's recommended solutions included various "traffic calming" measures, new motorist fees falling under the rubric of congestion pricing, and invigorated efforts to encourage the use of mass transit. In some instances, as with city promises to increase the number of bike lanes, relief may be on the way.

Even so, getting most elected officials to consider restrictions on automobiles is almost as tall an order as getting Madonna to consider self-restraint. Reclaiming the city from the automobile is tough enough. Reclaiming the automobile from some of our politicians may be tougher yet.

There is certainly no shortage of vehicle-related abuse.

By now, everyone knows about the state comptroller, Alan G. (for Got My Check? It's in the Mail) Hevesi. He had to be publicly shamed before he paid back $82,000 he owed the state for having a public employee drive Mr. Hevesi's wife around for three years.

There is Ada L. Smith, the coffee-tossing state senator from Queens, whose idea of sound automobile use was to speed past a security checkpoint in Albany.

Don't forget Kevin S. Parker, a state senator from Brooklyn, so attached to his car and his privileged status, the police say, that he punched a traffic agent in the face for daring to write a summons for double-parking.

Other examples abound. None encourage a belief that public officials, as a group, are vastly interested in getting themselves, or anyone else, out of their cars and into buses and trains.

An optimistic Paul Steely White, Transalt's executive director, said yesterday that "the trend is really turning our way." Few who took part in his study were as confident, though. You want to know how many expected to see traffic become less of a burden where they live? All of 10 percent.

International Herald Tribune October 6, 2006

No friends? Blame the Traffic, says New York City Study
By (AP)

Heavy traffic on the street where you live severely limits your ability to know your neighbors and to enjoy the outdoors, according to a study released Thursday.

The 14-month study entitled "Traffic's Human Toll" showed that heavy vehicular traffic has profoundly negative impact on the lives of New Yorkers, and found that 49 percent of the residents interviewed said reducing traffic would "totally improve" their quality of life.

On heavier traffic streets, the percentage was even greater - 62 percent.

It found that compared to neighborhoods with low traffic volume - 1,000 or fewer cars per day - residents living on streets with more than 5,000 vehicles per day have more negative feelings about their block, have fewer friends in the neighborhood and are more interrupted during sleep, meals and conversation.

It also found that they spend less time walking, shopping and playing with their children.

The study was conducted by Transportation Alternatives, a nonprofit group that advocates biking, walking and better mass transit.

Residents living on the heaviest-traveled streets tended to keep their windows shut and their curtains drawn; live more in the rear of the house; forbid children to play on the street; and avoid certain streets when shopping, the study found.

Researchers recommended that the city reduce traffic by 15 percent by 2009 by improving mass transit and adding bike paths.

It also recommended implementing "traffic calming measures," such as reducing speeds, expanding the use of speed bumps and prohibiting truck traffic.

And, copying an effort in London, England, it proposed "congestion pricing," where motorists are charged a flat daily fee for driving through designated zones at certain times of the day. That revenue would be reinvested in public transit.

In Central London, where congestion pricing was introduced in 2003, traffic congestion was reduced by an average 26 percent, Transportation Alternatives said.

In the study, 21 researchers interviewed more than 600 residents in four neighborhoods: Astoria, Queens; Brooklyn Heights, Brooklyn; Chinatown, Manhattan; and High Bridge, the Bronx.

New York Post October 6, 2006
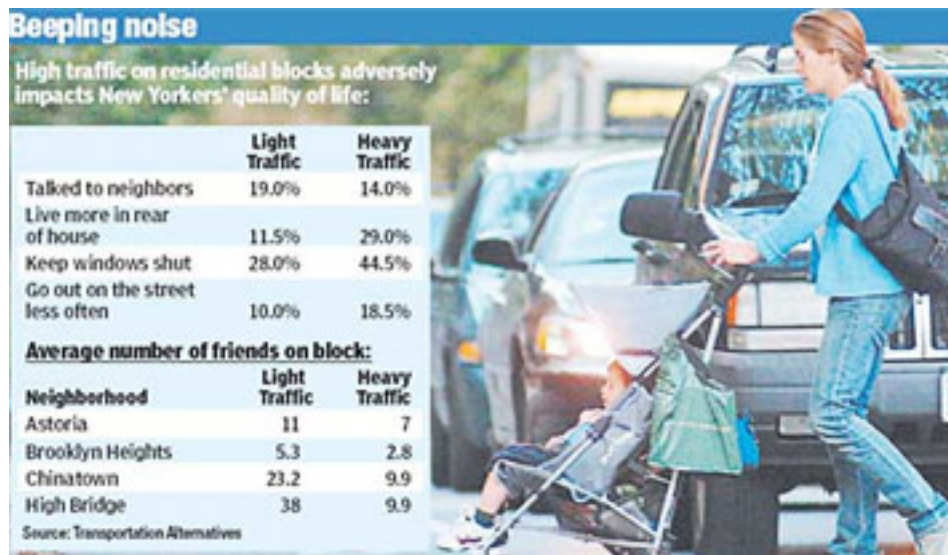
Nervous-Wreck Traffic Zones
Living on Busy Street Makes You Grouchy
By Jeremy Olshan

Traffic may be bad for your social life, according to a study released yesterday.

New Yorkers who live on blocks with heavy traffic are less friendly toward their neighbors and more likely to stay indoors than those who live on quieter streets, according to the report by the advocacy group Transportation Alternatives.

They also get less sleep and have more trouble enjoying a television show or a family meal.

Beeping noise

High traffic on residential blocks adversely impacts New Yorkers' quality of life:

	Light Traffic	Heavy Traffic
Talked to neighbors	19.0%	14.0%
Live more in rear of house	11.5%	29.0%
Keep windows shut	28.0%	44.5%
Go out on the street less often	10.0%	18.5%

Average number of friends on block:

Neighborhood	Light Traffic	Heavy Traffic
Astoria	11	7
Brooklyn Heights	5.3	2.8
Chinatown	23.2	9.9
High Bridge	38	9.9

Source: Transportation Alternatives

Dubbed "Traffic's Human Toll," the 14-month study zeroed in on a range of residential blocks in four neighborhoods in order to measure the effect all that honking and exhaust has on quality of life.

The study found that 49 percent of the people interviewed said less traffic would "totally improve" their quality of life. On heavier-traffic streets, the percentage rose to 62 percent.

Residents of the heavily trafficked blocks in the survey said they experienced no shortage of road rage in their living rooms.

"This should be a quiet street, not an access road to the BQE," said Charles Thompson, who lives on an often-bumper-to-bumper block of Henry Street in Brooklyn Heights. "It's a nightmare."

It's hard to love thy neighbor amid all the honking, others on the block said.

"I know my neighbors, but I don't want to stand out there talking much," said Doris Kirtzman. "It wasn't anything like this when I moved here 30 years ago - I can barely hear the Yankee game with all the trucks or SUVs on this street."

The endless river of trucks and ambulances are out of place on the tree- and brownstone-lined block, residents said.

Part of the problem is that New Yorkers have grown resigned to the idea that traffic is simply an unavoidable fact of life in the big city, said Paul Steely White, director of Transportation Alternatives.

"We hope to raise expectations and make people aware that the traffic problem is in fact solvable," he said. "New Yorkers are not aware that many other cities are at least giving it a go."

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The group advocates rerouting trucks from residential streets, encouraging greater use of mass transit and charging motorists a premium to drive in certain neighborhoods.

But like most complaints about life in New York, many residents said the traffic nuisance is all relative.

"Compared to where I lived on Mercer Street in Manhattan for years, here we have nothing to complain about," said Rick Albert, who lives on Henry Street in Brooklyn. "Sure, the kids can't play ball in the street, but compared to the heart of Manhattan, this is downright pasture land."

NY1 October 6, 2006

Study Finds City Traffic Lowers Quality Of Life
NY1

A new study says the city traffic can actually lower quality of life.

The Transportation Alternatives group found New Yorkers living on high traffic streets were more likely to harbor negative perceptions of their neighborhood. They also spent less time outside and developed fewer relationships with neighbors.

The group is encouraging alternatives to using cars.

"Sixty percent of the traffic in Manhattan below 59th Street is personal vehicles," said Paul Steely White of Transportation Alternatives. "In the center of Midtown, you see a lot more trucks, but in Manhattan as a whole a lot of it is personal vehicles. Switching those trips to transit trips will free up a lot more space. Managing our parking better will reduce the troll in the trucks as they're looking for that elusive curbside spot. "

The group defines high traffic streets as those that see more than 5,000 vehicles each day.

WNBC.com October 5, 2006

No Friends? Blame Traffic, Says NYC Study
By (AP)

Heavy traffic on the street where you live severely limits your ability to know your neighbors and to enjoy the outdoors.

That's the conclusion of a new study, released Thursday, that shows heavy vehicular traffic has profoundly negative impact on the lives of New Yorkers. Compared to neighborhoods with low traffic volume − 1,000 or fewer cars per day − residents living on streets with more than 5,000 vehicles per day:

* have more negative perceptions of their block
* have fewer friends in the neighborhood
* are more often interrupted during sleep, meals and conversation
* spend less time walking, shopping and playing with their children

According to the 14-month study, "Traffic's Human Toll," by Transportation Alternatives, a nonprofit group that advocates biking, walking and better mass transit, 49 percent of the residents interviewed said reducing traffic would "totally improve" their quality of life. On heavier traffic streets, the percentage was even greater − 62 percent.

The study found that residents living on the heaviest-traveled streets tended to keep their windows shut and their curtains drawn; live more in the rear of the house; forbid children to play on the street; and avoid certain streets when shopping.

The study's researchers recommended that the city reduce traffic by 15 percent by 2009 by improving mass transit and adding bike paths.

It also recommended implementing "traffic calming measures," such as reducing speeds, expanding the use of speed bumps and prohibiting truck traffic.

And it proposed "congestion pricing," where motorists are charged a flat daily fee for driving through designated zones at certain times of the day. That revenue would be reinvested in public transit. In Central London, where congestion pricing was introduced in 2003, traffic congestion was reduced by an average 26 percent, Transportation Alternatives said.

In the "Traffic's Human Toll" study, 21 researchers interviewed more than 600 residents in four neighborhoods: Astoria, Queens; Brooklyn Heights, Brooklyn; Chinatown, Manhattan; and High Bridge, the Bronx.

Staten Island Advance October 6, 2006

Din of Traffic Amplifies Life's Misery
Living near busy roads hurts sleep, eating, and friendships, study says
By Maura Yates

Oakwood resident Margaret D'Angelo lies awake in bed at night in her Malone Avenue home, waiting for the sound of a car crash.

Having sweet dreams interrupted by such worries is only one of the drawbacks of living along a thoroughfare like Hylan Boulevard.

According to a new study, those who live on busy streets (5,000 vehicles per day) harbor more negative feelings about their block, have fewer friendships with neighbors, are more often interrupted during sleep, meals and conversations, and spend less time walking, shopping and playing with their children than do folks who live on streets with lighter traffic, defined as 1,000 vehicles per day.

The study, "Traffic's Human Toll," was released yesterday by Transportation Alternatives, a non-profit group that advocates bicycling, walking and public transit.

It showed that people who live on the busiest streets tend to keep their windows closed and curtains drawn, to block out the traffic, and spend more time in areas of the house farther from the street.

The study was conducted over 14 months in four neighborhoods: Astoria, Queens; Brooklyn Heights; Manhattan's Chinatown, and High Bridge in the Bronx. Of residents surveyed, 49 percent said reducing traffic would "totally improve" their quality of life.

Though Staten Island wasn't included in the study, residents of the borough's busiest streets can easily relate to its findings.

"Years ago, you used to be able to play football on a Sunday afternoon on Hylan Boulevard," said Jennifer Patton, whose Oakwood home borders Hylan. "Now, you're lucky if you don't get killed."

The negative effects of living near a major street can have far-reaching consequences, with public health implications due to residents venturing out of their homes less often, said the study's author, Karla Quintero.

After four crashed cars found their way into her backyard over the last 15 years, Ms. Patton won't even let her daughter stand on the corner by herself.

A car knocked Ms. Patton down last year while she was crossing the street, and Ms. D'Angelo has nearly been hit.

The constant whoosh of cars flying along Hylan pervades the interior of residents' homes.

"The bedrooms face Hylan, and we can't sleep with the windows open. There's so much noise just from traffic," Ms. Patton said.

Ms. D'Angelo's bedroom is at the far side of the house, away from the boulevard, but she still hears the noise, she said.

"If I'm watching a movie, I'll close the windows," said Ed Valdez, whose front door opens onto Hylan. But other than that "traffic is traffic," the Oakwood resident said. "I tune it out."

Perhaps Valdez's tolerance for constant loud noise is less surprising in light of where he used to live – near John F. Kennedy Airport.

Maura Yates covers transportation news for the Advance. She may be reached at myates@siadvance.com.

1010 Wins October 5, 2006

NYC Study: Lonely? Overweight? Blame Traffic
By (AP)

Heavy traffic on the street where you live severely limits your ability to know your neighbors and to enjoy the outdoors.

That's the conclusion of a new study, released Thursday, that shows heavy vehicular traffic has profoundly negative impact on the lives of New Yorkers. Compared to neighborhoods with low traffic volume, 1,000 or fewer cars per day, residents living on streets with more than 5,000 vehicles per day:

* Have more negative feelings about their block;
* Have fewer friends in the neighborhood;
* Are more often interrupted during sleep, meals and conversation;
* Spend less time walking, shopping and playing with their children.

According to the 14-month study,"Traffic's Human Toll," by Transportation Alternatives, a nonprofit group that advocates biking, walking and better mass transit, 49 percent of the residents interviewed said reducing traffic would "totally improve" their quality of life. On heavier traffic streets, the percentage was even greater, 62 percent.

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Curbed October 6, 2006

Crappy Social Life? It's Not Your Fault, It's the Traffic
By Robert

No friends? Today is your day to feel better about yourself, at least, if you live on a street with a lot of traffic. That's because Transportation Alternatives has released a study saying heavy traffic makes it harder to have friends in your nabe, among other things. Okay, so it doesn't totally get you off the hook, but it says that if you live on a high-traffic street, you're going to feel worse about where you live, be more isolated, get interrupted more when you try to sleep or talk (big surprise) and tend to keep your windows closed (bigger surprise). Now, if you shower at least once a week, clean the crib quarterly and pick up the tab for dinner every now and then, you'll start solve the rest of the problem.

Newsday October 5, 2006

No friends? Blame the traffic, says NYC study
By (AP)

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Gothamist October 6, 2006

Your Street Might Be Why You're a Hermit or Social Butterfly
By Jen Chung

Earlier this week, Transportation Alternatives released a study that finds relationships between people's behavior and the neighborhoods they live in. For instance, someone who lives on a high traffic street is less likely to go outside and enjoy the neighborhood or let the children play while someone on a quieter street would get to do those things. Plus:

The study finds that New Yorkers on high traffic streets harbor more negative perceptions of their block, are more frequently disturbed during sleep, meals, and conversations, and, in two of the four study areas, possess significantly fewer relationships with their neighbors compared to residents on low and medium traffic streets. Based on these findings, it is no surprise that 49% of all respondents stated that reducing the number of cars traversing their street would "totally improve" their quality of life. Of those respondents residing on heavy traffic streets, that figure jumps to 62%.

The residents surveyed live in Astoria, Brooklyn Heights, Chinatown, and High Bridge (and spoke to people on streets of varying traffic in each neighborhood).

Transportation Alternatives naturally has suggestions for how to improve quality of life under the umbrella of reducing traffic: Improve mass transit and bike paths; lower speed limits and add more speed bumps; and use congestion pricing. The NY Times' Clyde Haberman devoted a column to the study today and noted the number of automobile-related scandals that have plagued local politicians.

Gothamist does believe the streets affect our behavior (there's nothing like yelling at a driver for turning on red) but the quality of the sidewalks are another layer (our morning walk to the subway is along one very quiet street that seems to be where all the dogs like to poop and their owners like to leave it).

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