Metropolitan Transportation Authority

2008 New York Customer Travel Survey

Final Report

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Executive Summary

This report documents the methods and results of the 2008 New York Customer Travel Survey. The survey was conducted via telephone and a mailout/mailback survey among a random sample of New York City residents May through November 2008. NuStats conducted 16,186 interviews by telephone or by entering completed mailback surveys. NuStats conducted the survey under contract to Metropolitan Transportation Authority (MTA). Following this Executive Summary, the remainder of this report details the survey effort.

Survey Purpose

The survey was conducted to collect data on travel origins and destinations, trip purposes, and travel characteristics of New York City residents with the aim of collecting survey information that would be sufficient to:

1. Comply with Federal Transit Administration guidance by demonstrating that the MTA's Regional Transit Forecasting Model (RTFM) evaluates networks appropriately and generates transit trip tables that match observed travel patterns.

2. Help upgrade MTA's travel model by providing an up to date, rich database of travel patterns of New York City residents who are New York City Transit (NYCT) customers as well as other travelers of other modes of transportation, and people who do not use transit.

3. Gain a better understanding of who our customers are and how they travel.

A primary goal of the survey was to capture a minimum of 20,000 linked transit trips that represented travel of residents of the five boroughs. A linked trip is defined as a one going from a point of origin to an ultimate destination. The table below shows the demographic composition of the final completed interviews/surveys as compared to the U.S. Census Bureau totals for the New York City region.

Table E1: Demographic Composition of Sampled Households Compared to the Census

Demographics of Completes	Total		
	Count	Percent	Census
Household Imputed Income[1] *(Under $25K Target: >2000 or 15%)*	(n=13609)		
Less than $25,000	3,367	25%	30%
$25,000 to $50,000	3,555	26%	23%
$50,000 to $75,000	2,405	18%	17%
$75,000 to $100,000	1,471	11%	10%
$100,000 to $150,000	1,587	12%	10%
$150,000 to $200,000	576	4%	4%
$200,000 or more	648	5%	5%
Household Ethnicity *(Minority Target: >6150 or 45%)*	(n=13609)		
Non-Hispanic	10743	79%	74%
White	5979	44%	37%
African American, Black	2793	21%	22%
Asian	1057	8%	12%
Other	914	7%	2%
Hispanic (Any Race)	2533	19%	26%

	Total		
DK/RF	333	2%	--
Respondent Gender	(n=16186)		
Male	6496	40%	47%
Female	9684	60%	54%
DK/RF	6	0%	--
Respondent Age *(65+ Target: <2200 or 16%)*	(n=16186)		
18-24	1203	7%	12%
25-54	9666	60%	59%
55-64	3526	22%	13%
65+	1727	11%	16%
DK/RF	64	0%	--
Type of Phone for Household	(n=13609)		
Landline Only	2908	21%	--
Both	9185	67%	--
Cell Only	1462	11%	--
Neither	54	0%	--

Survey Methods

The survey population was comprised of New York City residents aged 18 and older. These individuals were sampled based on their home addresses. The survey sample was drawn from an up-to-date listing of residential postal addresses within New York City that were then matched to telephone numbers (about 60 percent of addresses were matched to a telephone number). The survey was executed in English and Spanish. Each sampled household had the choice of participating in the survey by telephone or by mail. Households without a matched telephone number (unlisted or cell phone only users) were offered incentives to participate. About 60 percent of completed interviews were by telephone and 40 percent were by mail.

Whether responding by telephone or by mail, the survey instrument captured information about the household, persons within the household, and trips made by persons age 18 and older. The survey used a retrospective survey approach in which respondents reported on their travel "yesterday." The survey covered weekdays, Saturday and Sundays. The telephone interviewing used TripTracer™, a specialized software with an embedded interactive mapping functionality that enabled interviewers to accurately capture origin, destination, boarding, alighting, and transfer locations. In addition to travel information, other data captured in the survey include household demographic composition, usual modes to work and school, work and school locations, incidence of different transportation benefits or subsidies, and fare type used for subway and bus travel. After collection, the data were processed, validated using TrueRoute, and weighted and expanded to represent the survey population.

Active telephone data collection was halted between June 27 and September 7, 2008, when typical travel patterns change and when New York City area schools are closed for summer vacation[1]. NuStats continued data entry on diary packets received[2] but did not engage in active phone interviewing during this hiatus. NuStats also used this time to carefully review the data quality and sample performance and propose modifications to the survey methodology.

[1] Travel behavior and patterns are frequently altered during times when school is not in session, since children are not going to or being taken to school. In addition, families tend to travel outside their hometown for family vacations which also disrupts travel habits and patterns. In other words, summer travel is likely not "typical" travel.

[2] Any diary packets entered during the summer hiatus that had travel dates after June 27th were included in the dataset but flagged as being outside the normal date range for the study.

Results

The 2008 New York Customer Travel Survey provided a rich source of information about the travel behavior of New York City residents. This survey captured detailed information on the travel of 16,186 residents in 13,609 households throughout the five boroughs. When expanded, these survey data represent 3.02 million households. Travel information was reported only by adults age 18 and older in the participating households. Not all adults in all households reported travel—either because they did not travel on the appointed travel day or because they refused to participate in the survey. Data was gathered for 42,900 linked trips, of which 21,161 were linked transit trips.

This section shows select survey results.

Household Linked Trip Rates (Adults Only)

Table E2 presents weekday and average weekend trip rates by borough. Manhattan households reported the highest weekday household trip rates (3.59 linked trips and 2.06 linked transit trips). Households in the Bronx reported the lowest weekday trip rates by all modes (3.38 linked trips), whereas households on Staten Island reported the lowest weekday transit trip rates (1.12 linked transit trips).

Table E2: Summary Weighted Household Linked Trip Rates by Borough – Weekday and Weekend (Mean Trips)

Borough	Week Day		Weekend Day	
	Linked Trips (All Modes)	Linked Transit Trips	Linked Trips (All Modes)	Linked Transit Trips
Brooklyn	3.52	1.94	2.90	1.26
Bronx	3.28	2.03	2.64	1.52
Manhattan	3.59	2.06	3.24	1.40
Queens	3.38	1.80	3.02	1.12
Staten Island	3.48	1.12	3.33	.54

Adults in 1,622,850 households reported making a weekday work trip; those in 154,212 households reported making a weekday school trip. These rates of weekday travel compares to adults in 588,183 households who reported a weekend work trip and in 69,824 households who reported a weekend school trip (on an average weekend day).

Person Linked Trip Rates

The survey was designed to capture the travel information from at least one adult in all participating households. In some households, more than one adult reported travel information. When expanded, the 16,186 adults captured in the trip reports represented 3.02 million New York City residents[3]. Table E3 shows the person trip rates by day for these reporting adults. Based on all linked trips reported during an appointed 24-hour period, travel was heaviest on Saturday.

[3] This represents only adults who reported travel.

Table E3: Summary Weighted Person Linked Trip Rates by Day (Mean Trips)

Day	Linked Trips (All Modes)
Monday	3.00
Tuesday	3.16
Wednesday	3.04
Thursday	3.00
Friday	3.07
Saturday	3.44
Sunday	3.02

Commutation Travel

A total of 1,849,890 reporting adults (expanded) made a work trip on their assigned travel day (61%), and 155,512 reporting adults (expanded) made a school trip (5.1%). More than two-thirds (69%) of respondents were employed. Most respondents (51%) identified Manhattan as the borough of their work location (see Table E4). Brooklyn (18%) and Queens (13%) were mentioned more frequently than the Bronx (7%) or Staten Island (3%) for work locations. Persons living in Manhattan were most likely to work in their borough of residence (87%), compared to residents of Brooklyn (51%), Bronx (45%), Staten Island (43%), or Queens (40%). About 12 percent of the adult respondents were in school with the same relative distribution of borough of school locations as work.

Table E4: Boroughs of Home to Work Travel for Reporting Adults

Work Borough/ Location	Percent of Total Work Locations	Percent by Borough of Home Residence				
		Bronx	Brooklyn	Manhattan	Queens	Staten Island
Bronx	7.3	44.6	1.2	3.0	1.9	1.7
Brooklyn	18.0	3.1	50.9	2.1	7.4	15.0
Manhattan	50.8	40.3	37.4	87.4	38.4	27.7
Queens	13.4	2.9	5.4	1.9	39.9	3.4
Staten Island	2.6	0.2	0.6	0.1	0.1	43.4
Other	7.7	8.9	4.6	5.5	12.3	8.9
Total Reporting Adults	100.0	100.0	100.0	100.0	100.0	100.0

In terms of commuting to work or school, most reporting adults traveled by New York City subway. Auto driver was the second most prevalent mode to work, but a New York City or MTA bus was the second most prevalent mode to school. The main reasons why people used an auto instead of public transit for their work commute (in ranked order) were that it was difficult for them to get to a transit stop or station, driving was faster for them, or they needed a car for work or to carry equipment.

Table E5: Usual Commute Modes (Weighted Data)

Mode	Percent of Work Modes (69% of Sample)	Percent of School Modes (12% of Sample)
New York City Subway	44.5	49.4
Auto Driver	23.1	13.1
New York City Transit Bus or MTA Bus	12.6	16.9
Walk	9.3	10.6
Home Work/School	4.2	0.3
Taxi, Limo, Car Service	1.2	0.2
Auto Passenger	1.1	0.9
Bike	1.0	1.9
All Others	3.0	6.7
Total	100.0	100.0

Data run using EXP21 weight, intended to expand the person data file of reporting adults for weekday trips.

The usual commute modes for work varied considerably by borough (see Table E6). Subway usage for the work commute was greatest in Brooklyn and Manhattan. The Bronx and Staten Island also showed high usage of New York City Transit or MTA buses for the work commute relative to other boroughs. Driving was highest among workers in Staten Island and Queens. Across all boroughs, about 69 percent of reporting adults had a driver's license. Non-motorized (walk and bike) was highest in Manhattan by a considerable margin relative to other boroughs.

Table E6: Usual Commute Modes by Home Borough of Reporting Adults (Weighted Data)

Work Commute Mode	Percent by Borough of Home Residence				
	Bronx	Brooklyn	Manhattan	Queens	Staten Island
New York City Subway	44.6	53.2	48.2	39.5	8.2
Auto Driver	24.6	20.8	5.0	35.6	56.9
New York City Transit or MTA Bus	16.6	11.1	10.3	12.1	23.7
Walk	6.2	6.6	20.7	4.2	0.2
Work at Home	3.1	3.2	7.1	3.5	1.4
Taxi, Limo, Car Service	0.6	0.3	3.5	0.3	0.3
Auto Passenger	1.2	1.9	0.4	1.1	1.0
Bike	0.4	1.3	1.7	0.6	0.0
All Others	2.7	1.6	3.1	3.1	8.3
Total	100.0	100.0	100.0	100,0	100.0

The incidence of various subsidies is presented in Table E7. In all work location boroughs but Manhattan, free parking was the most widely received transportation benefit. The pre-tax contributions to a transportation account was significantly higher in Manhattan than in other boroughs and was also the single most widely received benefit.

Table E7: Commute Subsidies by Work Borough of Reporting Adults (Weighted Data)

Subsidy Type	Percent by Borough of Work Location					Total
	Bronx	Brooklyn	Manhattan	Queens	Staten Island	
Reimbursement for Tolls	3.3	2.9	3.4	4.5	4.3	3.9
Reimbursement for Parking	3.2	3.7	2.8	3.6	4.5	3.4
Reimbursement for Public Transit	5.2	6.6	8.6	5.7	2.9	7.8
Use of Company Vehicle for Travel To/ From Work	2.9	4.0	2.3	2.3	3.5	3.0
Business Expense Account	3.6	3.0	7.0	4.0	2.5	5.8
Pre-Tax Contributions to Transportation Account	5.3	6.2	22.2	5.9	4.6	16.5
Free Parking	15.8	9.7	2.5	18.1	22.2	8.0
Discounted Parking	2.3	2.1	2.0	2.7	0.5	1.9

Incidence of Travel Modes – All Travel

Two-thirds of all reporting adults used some category of public transit on their appointed travel day (see Table E8). About half used a NYCT subway, and about one-third used a NYCT or MTA bus. Half ONLY used some form of transit or walked on their appointed travel day, compared to less than one percent who only used an auto.

Table E8: Use of Mode Categories for Any or All Travel[4] by Reporting Adults (Weighted Data)

Mode Category	Number of Reporting Adults	Percent of Reporting Adults
USED AT ALL FOR ANY TRIPS		
NYCT Subway, SIRR, PATH, AIRTRAIN, NYCT or MTA bus, LI Bus, Westchester Bee Line, NJ Transit, Private, Paratransit, MNRR, LIRR, or NJT Rail	2,172,340	66.3
NYCT Subway, SIRR, PATH, AIRTRAIN, NYCT or MTA bus, LI Bus, MNRR, LIRR or Paratransit	2,163,050	66.0
NYCT Subway	1,598,496	48.8
NYCT or MTA Bus	1,094,696	33.4
NY		
ONLY USED FOR ALL TRIPS		
NYCT Subway, SIRR, PATH, AIRTRAIN, NYCT or MTA bus, LI Bus, Westchester Bee Line, NJ Transit, Private, Paratransit, MNRR, LIRR, NJT Rail, or Walk	1,734,913	52.9
Auto Driver or Passenger	28,927	0.9

[4] All reported travel on weekdays and weekends.

Conclusions

The 2009 New York Customer Travel Study provided a rich source of information about the travel of 16,186 New York City adult residents. It used innovative techniques for sampling, capturing trip information, and monitoring the representativeness of the participants. The following sections of this report will go into detail about these topics, but it is important to emphasize several points up front.

First the use of an address-based sampling plan ensured that residents in all five boroughs of New York City had an equal chance of being selected for inclusion in the study regardless of the availability of a landline telephone. This is different from traditional Random Digit Dial telephone surveys because those could only capture households within a specific area code exchange (i.e. 212 or 718 in New York City). While this may have been effective in the past, there is an increasing number of households that choose to eliminate landlines completely (using only cellular service), and/or transfer telephone numbers with an out of area exchange through the use of new internet-based phone service providers such a Vonage. Using an address based sample virtually eliminated the potential for bias from cellular phone only households and households with out of area exchanges. Households without a landline telephone and households with a landline phone but no matching number had other ways to participate in the study, e.g., in-bound phone calls to survey hotline and a mail back option.

Another important point to note is that all sampled households received the study packet which included the survey instruments and travel logs. This not only provided respondents an immediate method of participation, but also gave them an explanation of the study and an understanding of the types of questions that would be asked if they took the telephone survey. This is important for assisting in retrospective recall where respondents relate their travel in the past 24 or 48 hours, because the questionnaire and travel log serve as prompters or memory joggers. The net effect is better recall of trip departure and arrival times, and more accurate trip detail, such as side trips and missed trips.

Another unique feature of this survey was the use of TripTracer software, which uses a powerful mapping tool to provide a comprehensive database of locations and addresses. TripTracer allowed a more accurate capture and geocoding of addresses in real time. Additionally, interviewers engaged in an interactive dialog with respondents to pinpoint exact locations on the map and had the ability to ask important probing, follow-up questions, such as, “Is that near the Bank of America?” In the end, the geocoded data is more accurate than traditional geocoding done after the survey has been completed. The primary benefit of this method is the data requires less post-processing because the geocoded locations are more precise.

The continuous monitoring of sample representativeness was another critical element in the success of the study. Each week during data collection, the results of the survey were compared with New York City population data (from the 2006 Census estimates) to assess our progress in meeting the target goals for borough of residence, gender, age, ethnicity, income, and other key demographic characteristics. Prompt adjustments in the sampling protocols, such as limiting the number of females over age 65, led to a data set that was already well balanced on many demographic factors. This meant that the data in post processing did not have to be heavily weighted. In essence, the data was highly representative of the population of New York City, which means the data used for travel modeling purposes will be more reflective of the travel patterns of New Yorkers.

The resultant databases from this study are highly usable for recalibrating and validating the accuracy of the modeling tools used by the MTA, understanding the characteristics of transit users and non-users, and examining the travel patterns of New York City residents. All of these are critical to helping the MTA plan for and provide better service to a constantly changing population of New Yorkers.

The remainder of this report contains details about the methods, project management, sample design, pretest, full study data collection, data processing, weighting, and conclusions.

Survey Purpose and Goals

This section of the report provides information on the 2008 New York Customer Travel Survey purpose and goals. The remainder of this report contains details about the methods, project management, sample design, pretest, full study data collection, data processing, weighting, and the results.

In 2008, NuStats conducted an origin-destination survey of New York City residents, aged 18 and older, to collect data on travel origins and destinations, trip purposes, and travel characteristics of riders and non-riders. These data were needed to meet dual objectives: (1) to recalibrate the MTA's Regional Transit Forecasting Model (RTFM) and (2) to satisfy anticipated Federal Transit Administration (FTA) requirements for improvements in data collection and accuracy of travel forecasts in support of major transit projects.

The primary goal of this survey effort was to develop a combined data collection and data mining system that integrates household travel survey data with MetroCard transaction records to meet the dual objectives described above. Key elements of this work effort were as follows:

- Develop a survey approach for collecting transit and non-transit traveler information,
- Develop supporting survey instruments/methodologies,
- Develop a sampling plan,
- Develop a survey expansion plan,
- Conduct a survey pretest and revise the approach and instruments, as necessary,
- Administer the survey,
- Code (including geographic coding) and weight survey results,
- Produce a final report documenting survey methodology, expansion, and overview of results, and
- Provide an electronic data set containing all data.

Each survey goal is discussed more fully below.

The RTFM Recalibration required collection of sufficient information to prepare an "assignable" transit trip table. To accomplish this, the survey collected data on trip origins and destinations, trip purposes, and travel characteristics of transit riders. In addition, information on boarding and alighting stations was needed to validate modeled paths. This transit trip table is used to (1) confirm that it properly represents the major markets for transit and (2) confirm that the networks and network path-building procedures properly represent how people travel over the transit network to complete their trips. With these two objectives met, the transit trip table can be used as a point of comparison to the output transit trip table developed by the RTFM. The characteristics of modeled transit trips (purpose, geography, traveler characteristics, and path characteristics) are compared to survey results to determine the degree to which the model represents observed behavior.

The FTA's requirements necessitated collection of data from all existing travel markets and travel services. The FTA desires transit ridership survey information that allows development of a cross-classification table that arrays the number/percentages of travelers by service type, travel characteristics, and socioeconomic classifications.

To meet both the RTFM and FTA requirements, the survey was based on a statistically sound sampling plan designed to expand the data to represent the entire population of weekday and weekend New York City Transit Customers. Because some travel markets and traveler behaviors are directly related to specific geographic areas, a relatively large sample of transit trips was required. Under this contract, NuStats delivered 21,161 linked transit trips.

To capture a minimum of 20,000 linked transit trips, a total of 42,900 linked trips were captured. These linked trips included auto, walk, and transit trips. A trip was defined as travel from point of origin to ultimate destination, one-way. A linked transit trip was any trip for which at least one segment was via transit (i.e., subway or bus). To deliver the 20,000+ linked transit trips, interviews were conducted with 16,186 New York City residents, aged 18 and older.

Methodology Overview

This section of the report provides an overview of the survey research methods employed in carrying out the 2008 New York Customer Travel Survey. A technical memorandum with a detailed description of the survey methodology is in Appendix J.

Conducting this survey required collecting data on trip origins and destination, trips purposes, and travel and socioeconomic characteristics from New York residents in the five boroughs comprising New York City: Manhattan, Bronx, Queens, Brooklyn, and Staten Island. It was originally estimated that the 20,000+ linked transit trips required to be part of the final survey database could be captured from a sample size of 13,650 interviews (people). Participation rates and the number of linked transit trips captured during survey administration were carefully monitored, and recommendations were made to the MTA, including increasing the number of interviews (eventually to 16,186 people[5]) to achieve the requisite number of linked transit trips.

Survey Approach

The survey employed a retrospective recall approach. A detailed survey packet was mailed to every address in the sample file, which included matched and unmatched households[6]. For matched households, one of the specially trained travel survey interviewers called the household one to three days following the arrival of the survey materials packet. Matched households could also complete and mail back the paper survey. Unmatched households had the option to complete the survey on paper and return it to NuStats or to use the toll-free dedicated hotline to take the survey via telephone.

Options Considered and Methods Selected

Consideration #1 – Diary Approach: Traditional vs. Retrospective Recall

Based on the original RFP, a "traditional" travel diary approach was considered. That methodology involves a multi-stage survey design: advance letter, telephone recruitment, mailing the travel log/survey packet, and calling the household back to retrieve the travel data. Each stage presents opportunities for non-response, which could compound the existing problem of declining response rates across the survey research industry. One of the benefits to a diary approach is detailed trip data because respondents record their travel for a specific, assigned travel day and are requested to take the diary with them to enter accurate trip details such as addresses and times.

With retrospective recall, non-response opportunities are minimized as all data collection takes place during the first and only phone call (not including callbacks). During this one phone call, respondents relay their travel over the past 24 hours.[7] With this approach, item non-response may be more prevalent if respondents are not able to accurately recall their travel, even if it was relatively recent. This effect is mitigated with probing questions from interviewers, such as, "Did you go anywhere else?" and "Did you stop for gas or coffee?" throughout the travel-capture process.

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[5] These interviews with individuals comprise 13,609 households.

[6] The address-based sample frame captured residents with landline telephone numbers and those without. Sample records matched to a landline telephone number were called "matched sample." The remaining addresses were called "unmatched sample." Unmatched cases include households that use an unlisted landline phone, use an unlisted landline and cell phone, or use only cell phones.

[7] As noted in this section of the report, the approach was modified near the end of the fielding period to allow for travel in the past 48 hours and to capture Friday travel if the call was on Saturday, Sunday, or Monday.

Additionally, as a result of sending all households an advance packet with the trip log and other materials, the potential for item non-response was further diminished. Since respondents would visually see the kind of information requested, their recall of trip specifics was triggered. For households that completed and mailed back the paper survey and trip log, item non-response was low, comparatively.

Based on the above analysis the retrospective recall method was adopted.

Consideration #2 – Random Digit Dial vs. Address-based Sample Frame

Another survey methodology consideration was whether to use a Random Digit Dial (RDD) sample or an address-based sample was addressed. In the RFP, the MTA noted its preference for an RDD sample frame. However, after reviewing the difficulties in contacting cell phone only households using an RDD sample frame the use of address-based sample was adopted.

Consideration #3 – Language Choice for Fielding Study

A final consideration was whether to field the study in languages other than English and Spanish. A preliminary review indicated that the probability of encountering a household in which either English or Spanish was not spoken was low enough to warrant interviewing in English or Spanish only. (Nonetheless, the incidence of language barriers was monitored weekly and language barrier dispositions were reported to MTA regularly to determine if additional languages should be included in the survey. The incidence of non-English or non-Spanish speaking households was found to be low enough, and given the significant cost to complete non-English or non-Spanish interviews, a subset of already completed households[8] was re-contacted to ask about other languages spoken at home besides English, rather than interview those households in other languages such as Russian and Chinese.

Use of Incentives

Matched and unmatched households have different socioeconomic and travel behavior characteristics. Because the unmatched sample could not be proactively contacted by telephone (this is referred to as "passive sample"), an incentive-based strategy to increase participation in the survey was used for such households. Twenty-five dollars was offered per adult in an unmatched household who completed the survey, in addition to entering their names into a weekly drawing to win $500. Matched households were entered into the weekly drawing but received no additional monetary incentive.

Incentive Overview

$25 Incentive for Unmatched Sample

Via Mail
Respondent filled out survey and sent back to NuStats. NuStats reviewed for completeness. If incomplete and respondents provided a phone number, NuStats called to get more information. If log was complete, NuStats entered the data.

Via Telephone *(if respondent called in)*
Respondent completed survey; name automatically entered into the database.

$500 Drawing
Once a week, a person was randomly selected from the list of completed surveys (matched and unmatched sample) for the $500 cash prize.

By Phone

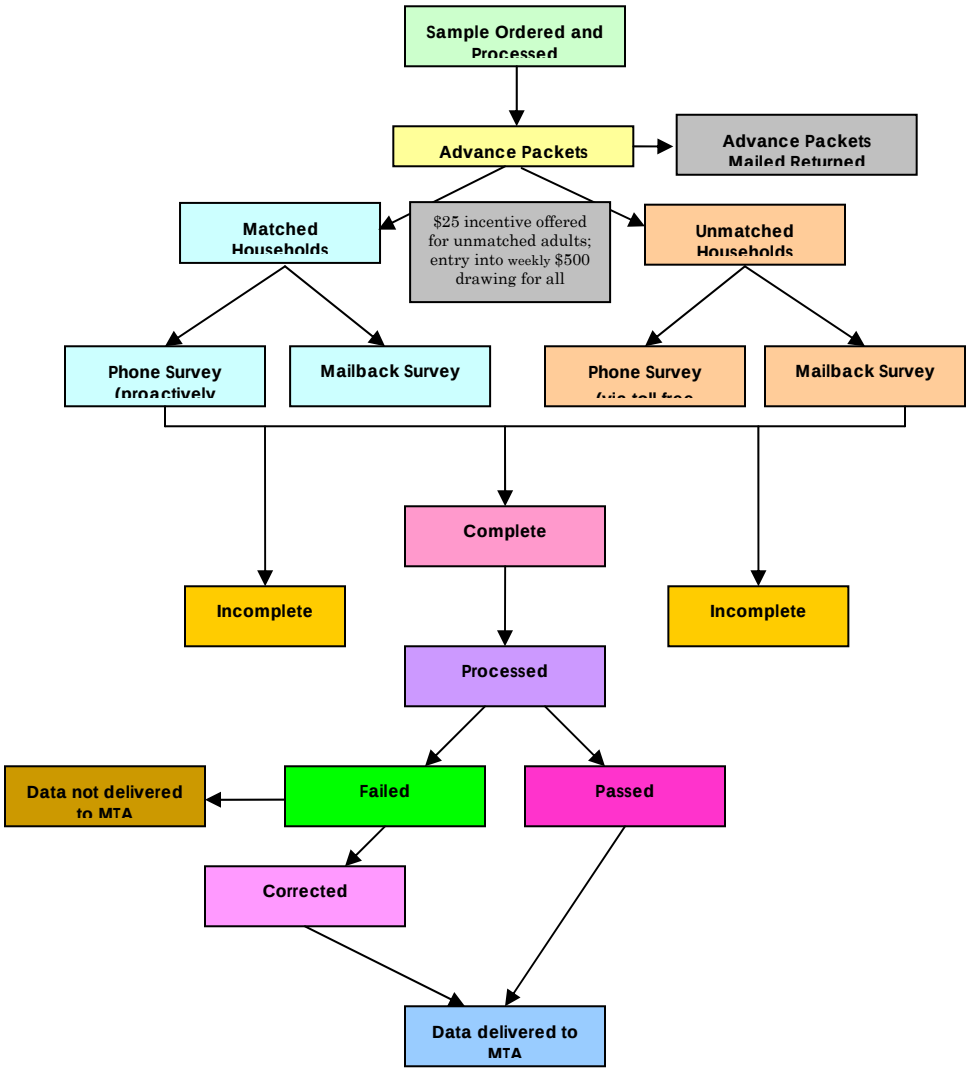
Once on line, qualifying respondents were asked about their travel "yesterday," starting at 4 a.m., or the time they awoke, until the time they went to sleep within a 24-hour timeframe. The one-stage retrospective approach, as opposed to a "traditional" household behavior survey with multiple stages and points of contact, ensured that once a willing respondent was on the line, the likelihood that they would be lost at a later stage of the survey process was reduced.

[8] This effort was in conjunction with another callback effort regarding MetroCard fare payment methods. Calls took place in the fall of 2008.

By Mail

PTV-DataSource performed manual data entry of all completed survey instruments mailed back from matched and unmatched households. In cases where data was incomplete or inconsistent and the respondent provided a phone number, they were re-contacted to correct or complete the information. Households with no contact number were mailed a reminder postcard asking them to contact PTV-DataSource to complete the survey.

Figure 2.1: Flow Chart of Survey Process



As seen in the process flow chart in Figure 2.1 above, address samples were ordered, processed (i.e., files were prepared), and advance packets were mailed to households. About 2,600 packets were returned due to an undeliverable address; these went no further in the survey process. Both matched and unmatched households had the choice of responding by mail or by phone. Some households did not move to the processing stage because they were incomplete; (an incomplete record was either one without contact information, or one where attempted callback efforts were unsuccessful, e.g., busy, no answer, answering machine).

Completed households advanced to the processing stage, where they were checked for accuracy, mistakes, etc. If no errors were found, the forms were placed into the final deliverable data file. One attempt was made to correct forms with errors. If successful, the record was included in the deliverable file. Records that could not be corrected were not delivered to MTA. A total of 119 records were undeliverable (about half of one percent of the total number of records).

Advance Mailer Content

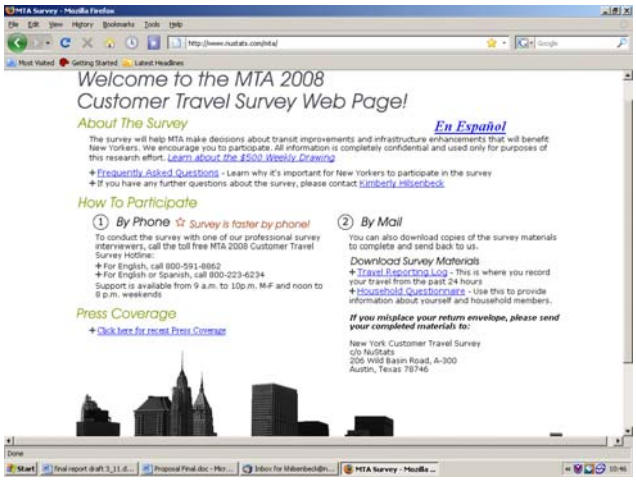
The advance survey packet contained the following items, which are shown in Appendix F:

- Letter from MTA describing the study, the reasons for taking part, and how to participate
- Household questionnaire
- Person questionnaire
- Travel logs (two logs in each unmatched packet, one log in matched packets)[9]
- Return envelope with pre-paid postage

Website

All advanced mailing materials contained instructions for accessing a project participant website for the 2008 New York Customer Travel Survey (see Figure 2.2 below). The website provided information in English and Spanish about the study purpose, sponsor, media coverage, and contact information. The website was not designed to collect responses, but rather to give information on how to complete the survey by phone or mail.

Figure 2.2: Respondent Website Screen Shot



Languages

The MTA Travel Survey was conducted in both English and Spanish. A total of 2,597 New Yorkers who speak other languages were contacted, with the majority of these being Chinese and Russian speakers.

[9] NuStats calculations for the number of logs assumed that more matched households would participate by phone; sending one log was a cost savings tool. NuStats mailed Spanish materials along with English to households with Hispanic surnames. Households could also call to request materials in Spanish if they only received them in English.

Use of Reminders

Households that did not respond to initial attempts to participate in the survey received reminder postcards.[10] An example of a reminder card is in Appendix F. A reminder was typically sent 10 to 14 days after the initial mail packet or phone call attempts. Up to two reminders were mailed out to each address.

[10] During spring data collection phase, a sample of households received reminder cards. In the fall, all non-responding household received a reminder card.

Project Management

This section of the report provides an overview of the project management including the four firms on the research team and the tasks assigned to each firm. Technical Memo #1: Contract Management Plan, found in Appendix K, describes the key staff and their responsibilities.

The Survey Team

NuStats was the prime contractor on this survey. NuStats provided leadership of the team and ensured coordination between work items and tasks. Johanna Zmud, president of NuStats, had overall responsibility for this contract. She served as the primary point of contact to MTA and oversaw the administrative requirements as well as work on each task of the project. Kim Hilsenbeck, a senior associate at NuStats, provided key management support during survey data collection. NuStats was responsible for overall study management, quality assurance, and documentation. NuStats executed the work in survey design, survey administration, database development, and survey data analysis and reporting.

Subcontractors included PTV-DataSource, PB Americas, and PTV-America. PTV-DataSource conducted telephone data collection, fulfillment, and entry of the survey data. PTV-America produced the passenger count database (used to validate the transit trip data expansion) and processed the survey data in TrueRoute™, a data quality assessment tool that checks the plausibility of a survey respondent's reported transit trips. PB produced a technical memorandum on how information from surveys and counts will support the MTA's modeling needs (see Appendix D), developed the weighting and expansion plan, and applied the expansion approach to produce the survey expansion weights.

For management purposes, the project work was organized into three phases: Design, Execution, and Analysis. The survey team, though comprised of separate firms, operated as a single entity responsible for achieving study objectives as discussed below.

Design Tasks

The primary objectives for the Design tasks were to finalize the survey methodology, produce the sampling plan, develop the survey instruments, translate, program, test the instruments in preparation for data collection, and conduct and assess the results of the pretest. As project director, Johanna Zmud led the overall survey design in close collaboration with the MTA project manager. Bob Donnelly led the PB team; Wolfgang Scherr led the PTV-America team, and Kelly Castleberry led the PTV-DataSource team.

The pretest was a complex endeavor that assessed surveyor performance, the CATI program with TripTracer™ interface, and the utility of the mailback questionnaire for the cell phone only (no landline) sample. The pretest was a random split sample with half of the sample assigned to PTV-DataSource and half to another call center in the New York area in order to determine which center could produce the most satisfactory results (i.e. better knowledge of geography, etc.). It was determined that DataSource yielded the best work product. The Pretest section of this report provides more information on the approach; the Pretest results are in Appendix H.

Data Collection/Integration Tasks

The primary objectives for the Data Collection/Integration Tasks were to collect and compile the requisite data to fulfill the survey objectives. As such, these tasks were to develop a passenger count database and to administer the survey.

PTV-America had primary responsibility for developing the passenger count data by service, route, stop or station, day of week, and time of day (Task 2 of the scope). These data were used to validate expansion of the transit trips. Control data were acquired from New York City Transit (NYCT).

The survey administration process required an integrated system between PTV-DataSource and NuStats' analysts, allowing for continuous quality assurance. This continuous data flow (CDF) system was able to:

- Track and report survey progress on a daily basis
- Generate daily reports that reflected the status of respondent records
- Notify staff that data were ready for the next stage of the process
- Identify respondents requiring specific intervention
- Summarize the aggregate status of the sample against target quotas, response rates, geographic, and travel day period allocations
- Provide other diagnostic views to track survey progress relative to quality, timeline, and budget

An overriding objective of the CDF system is to perform continuous tests of data plausibility and logic in as close to real time as possible. During survey data collection, statistical data were compiled in weekly reports that were shared and reviewed with MTA staff in weekly conference calls.

Analysis and Reporting Tasks

The objectives for the Analysis and Reporting Tasks were to develop, check, expand, validate, and deliver the survey database and to prepare the final documentation and reports associated with the survey.

Survey data coding and error checking were conducted simultaneously with data collection. All survey records designated as being of "deliverable" quality were subjected to TrueRoute™ processing. Weighting and expansion factors were then developed for the fully deliverable unweighted data file (N=16,186) the. Once MTA approved the weighting scheme, the survey weights were applied to expand the data to the total survey population of users and non-users of New York City Transit (NYCT) and to a detailed representation of total NYCT ridership by market segment and by line and route. While there are no absolute tests of a survey's validity, the survey results were validated against American Community Survey (ACS) data, ridership counts, and MetroCard based O-D estimates. The information generated in validating the database is presented in Appendix E. The data were delivered to MTA in both Microsoft Access and SPSS formats.

Sampling Plan

This section of the report describes the survey sample design.

Sampling Objectives

The survey data set contained the survey respondents' travel on all modes(e.g., auto, walk, bike). In addition to the total number of transit trips to be captured, the survey had the following important sub-objectives that affected the sample design:

- Inclusion of travelers who rely on a mobile phone only (do not have a landline phone at their residence).
- Inclusion of specific demographic groups identified by age (65+ years old); minority status (Hispanics, African Americans, and Asians); language (non-English speaking, especially Spanish); and household income (below $30,000).
- Appropriate distribution by day of week, including weekend.
- Appropriate distribution by time of day.

Table 4.1 shows the anticipated "minimum" number of cases to be included in the final data set.[11] NuStats achieved each of these targets. (See the unweighted data frequencies in Appendix B.)

Table 4.1: Target Sample Sizes by Specified Subgroup or Transit Trip Characteristic

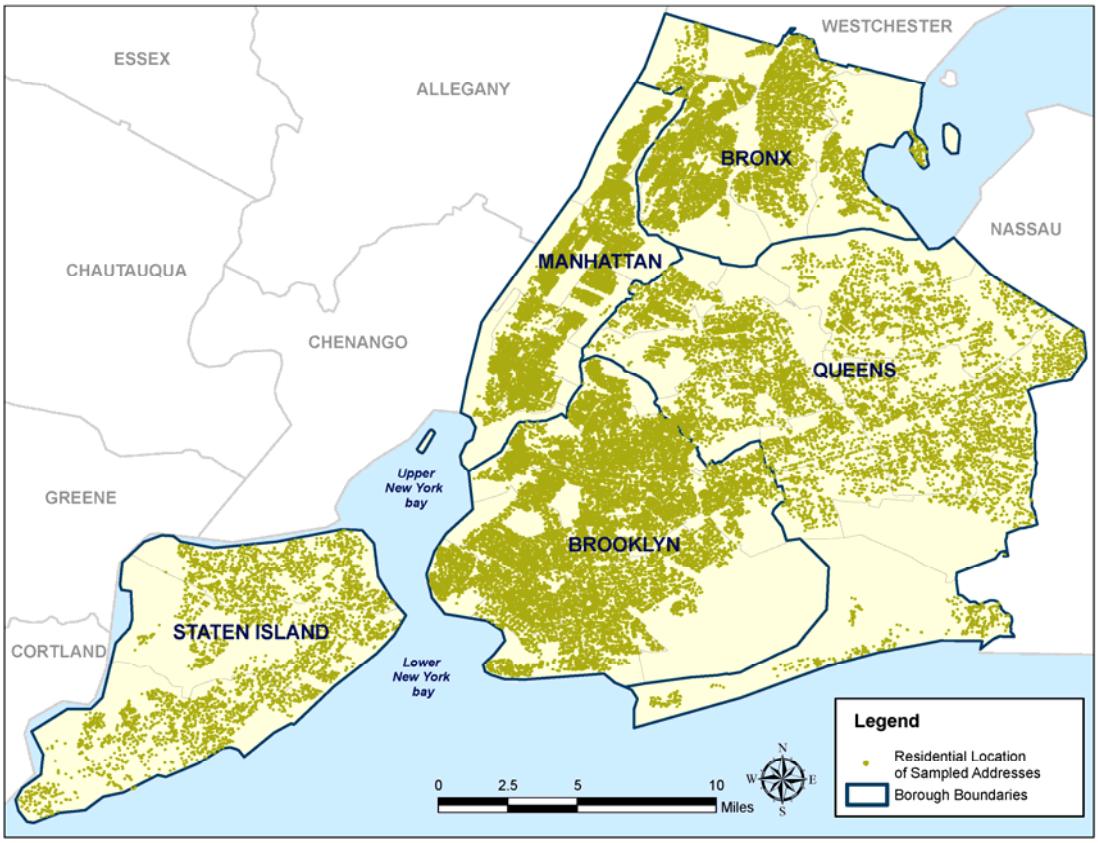
Population segment	**Target Sample**	
Cell phone only	Actual incidence is about 14%; survey target was 400	
Older residents (65+ years of age)	ACS proportion is 15,5%; survey target was 3,200	
Minority residents (Hispanic, Black, Asian, Native American)	ACS proportion is 57% (adults); survey target was 10,800	
Language – Spanish	ACS proportion is about 25% Spanish speakers, of which 50% speak English well or very well (adults); survey target was 3,500	
Language – Other than Spanish or English	Other language speakers about 25%, of which 70% speak English well or very well. There was no set[12] target	
Low-income (household income under $30K)	ACS estimates about 25%; survey target was 5,100	
Trip Time of Day Segment	**Subway Linked Trip Target**	**Bus Linked Trip Target**
Monday to Friday – AM Peak	3,280	1,880
Monday to Friday – Mid-day	3,100	1,740
Monday to Friday – PM Peak	3,420	1,850
Monday to Friday – Evening	1,480	750
Saturday	900	500
Sunday	700	400

[11] NuStats recommended the minimum number of cases for population segments based on American Community Survey (ACS) and recommendations for trip characteristic targets from RTFM estimates, rounded to the nearest hundred.
[12] More about this is provided in the data collection section of this report.

Sampling Approach

The sample design used an address-based frame. The frame for this survey was the up-to-date listing of all deliverable city and rural route residential postal addresses within New York City. The data are regularly maintained and accessed by the sampling vendor. In total, 135,784 sample records[13] were procured. Figure 4.1 below displays the spatial distribution of these sample addresses within the five boroughs of New York City.

Figure 4.1: Distribution of Sampled Households in Study Area



The sampling vendor provided basic appending of resident names and landline telephone numbers for published listings in their database. The sampled addresses with no matched name/telephone number were processed for additional appending of names and telephone numbers by more specialized vendors. The final sample database of 135,784 can be classified into three groups, with the actual proportions shown as percent of the total:

1. Cases with address, name and landline telephone number: 60 percent
2. Cases with address and name: 23 percent
3. Cases with only an address: 17 percent

Sample Size

Information on mode share and trip generation per adult was used to generate estimates of the total number of interviews needed to produce a data set of 20,000 linked transit trips. Based on the New York Metropolitan Transportation Council (NYMTC) regional travel model and the 2006 ACS, a set of key characteristics by borough was calculated to estimate transit trip making, shown in Table 4.2.

[13] This is the final number after processing and removing duplicate data.

Table 4.2: Characteristics by NYC Borough, 2006 ACS and NYMTC Model

Borough	Households	Adults 18+	Trips Per Adult	Transit Share	Adults per HH
Manhattan	735,637	1,276,708	3.7	37%	1.74
Bronx	470,839	923,427	3.1	34%	1.96
Brooklyn	872,186	1,817,430	3.0	31%	2.08
Queens	775,118	1,731,801	2.8	27%	2.23
Staten Island	166,501	350,370	3.8	15%	2.10
Total NYC City	3,020,281	6,099,736	3.2	31%	2.02

Based on an average transit share of 31 percent, it was determined that 64,927 total trips would yield about 20,000 transit trips. Based on an average of 1.1 transit trips per adult[14], it was estimated that 20,606 adults would need to be interviewed to capture the required transit trips. An estimate of 13,650 households was also derived based on the assumptions that it was unlikely that all the adults in all the households would be interviewed and that more than a single adult interview per household would be interviewed in some cases. Refer to Table 8.1 on page 25 for additional detail.

When executed, the survey yielded 16,186 adult interviews in 13,609 sampled households, as shown in Table 4.3 below.

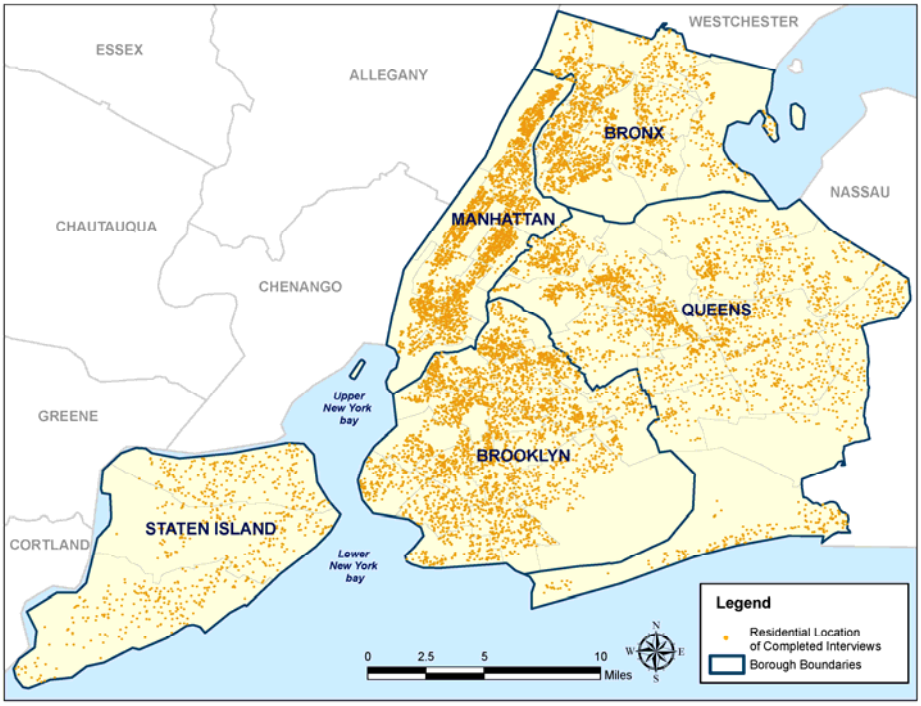
Table 4.3: Resultant Samples (Unweighted), New York Customer Travel Survey Results

Borough	Total Linked Trips	Linked Transit Trips	Adults Interviewed	Total Households
Manhattan	11,648	6,180	4,014	3,433
Bronx	6,516	3,621	2,599	2,234
Brooklyn	12,342	6,252	4,704	3,944
Queens	10,395	4,522	4,058	3,336
Staten Island	2,305	586	811	662
Total NYC City	43,206	21,161	16,186	13,609

The total number of linked trips captured was 42,900, of which 21,161 were linked transit trips. The distribution of these completed interviews in New York City is displayed in Figure 4.2 on the next page.

[14] Estimated based on the New York Metropolitan Transportation Council (NYMTC) regional travel model and the 2006 ACS.

Figure 4.2: Distribution of Completed Household Interviews in the Study Area



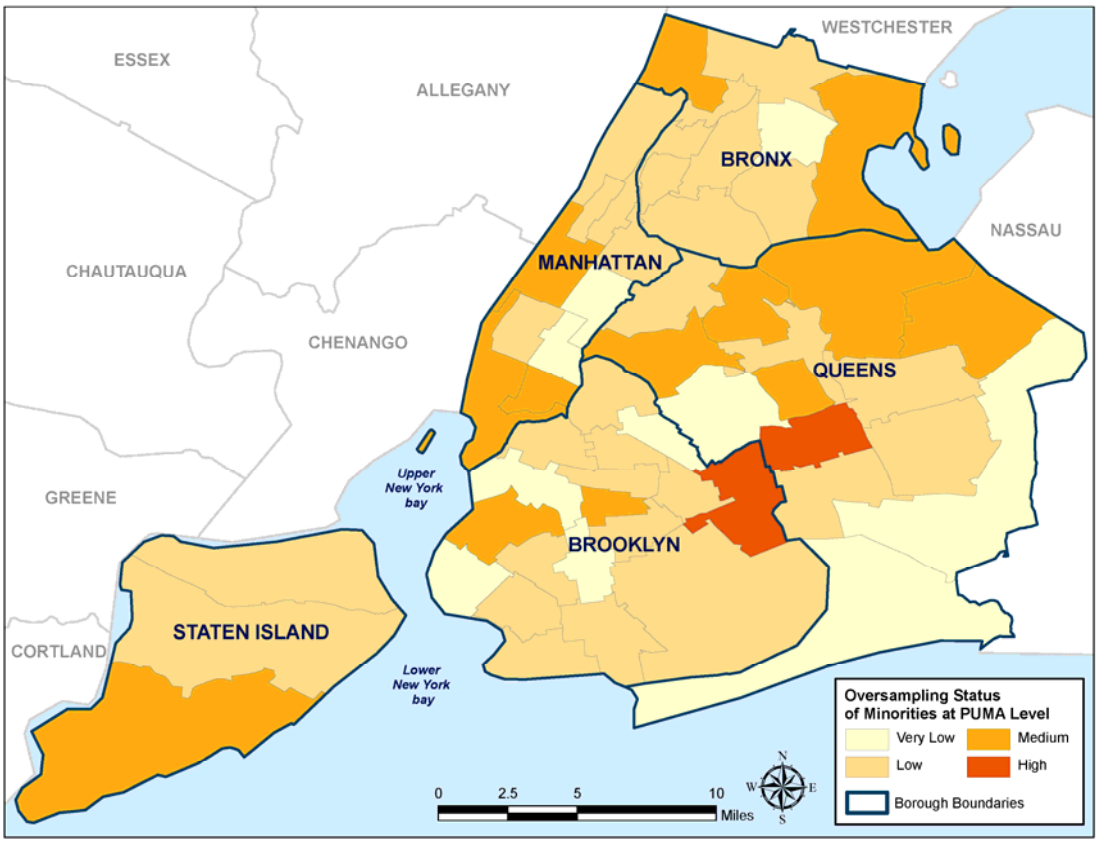
Survey Plan and Stratification

The optimal survey plan balances efficiency and compliance with required sample sizes by segment of interest. Forty percent of the required sample was initially drawn and was fully proportional to the population design. These samples were stratified by 2006 ACS Public Use Microdata Area (PUMA); there are 55 PUMAs in New York City, and have substantial demographic and travel behavior variability. Data collection was suspended during the 2008 summer months (July and August). During this time, with about 60 percent of the data collection achieved, the actual distributions for demographic characteristics of respondents and characteristics of their trips were examined in order to estimate the gaps between actual and desired distributions. The results of this analysis were used to design and generate sample to complete the remainder of the data collection, which began in the fall of 2008.

Specifically, a comprehensive analysis of the data indicated that low-income households (less than $25,000), Hispanics, Non-Hispanic Asians, and young respondents were under-represented in the survey database with 60 percent of data collection completed. In order to measure the extent of this under-representation, the interim unweighted survey data was compared to the Census distributions of these target population groups. Then, the overall extent of under-representation of the target population groups at the PUMA level was assessed and the level of need for oversampling was mapped. The level of need for oversampling was classified into five categories–very low, low, medium, high, and very high. Specifically, PUMAs with the widest gap in concentration of low-income households (Hispanics, Non-Hispanic Asians, and young respondents) between the census and the survey data were classified as PUMAs with a 'very high' need for oversampling, as they had the highest degree of under-representation of these groups. On the other hand, PUMAs with the narrowest gap in concentration of one of the four target population groups were classified as PUMAs with a 'low' need for oversampling as they had low levels of under-representation of the these groups. The PUMAs with 'medium', 'high', and 'very high' needs for oversampling were oversampled with appropriate percentages to fill the gaps between the expected proportions from ACS and the actual proportions from the survey data.

Figure 4.3 displays how well the survey represented special population segments. In only two PUMAs was there a high gap between the actual distribution of special populations and their capture in the survey. The final, unweighted survey data matched the ACS data quite closely on these population characteristics of interest.

Figure 4.3: Special Population Segments Gap Distribution



Supporting Data Resources

As noted above, the primary data source for the sampling task was the 2006 ACS. Also, the Public Use Microdata Sample (PUMS) data set containing 25,126 and 61,890 unweighted cases for households and persons, respectively, was used. This PUMS data set is very helpful for calculating disproportionate sample designs because it is quite recent, robust as to sample size, and geographically connected to demographically meaningful areas—Public Use Microdata Areas (PUMAs). The following three tables were created from the data set, and these are found in Appendix I

- An origin and destination matrix for Journey to Work trips
- Characteristics of Households
- Characteristics of Persons

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Survey Instrument

Most of the interviews were conducted using a computer-assisted telephone interviewing (CATI) instrument, allowing interviewers to use an electronic map to collect trip information and to easily follow complex skip patterns, skipping different questions depending on various respondent characteristics. Some respondents opted to complete a paper version of the questionnaire and return it via a postage-paid envelope. The paper questionnaire and the CATI instrument contained the same questions. (The CATI questionnaire can be found in Appendix A and the paper materials can be found in Appendix F.)

Interviews/Questionnaires

Questions were organized into six categories: (1) Introduction and Screening, (2) Household Information, (3) Person Information for Adult #1, (4) Trip Information for Household Adult #1, (5) Person Information for Other Persons in Household, and (6) Trip Information for Other Adults in Household.

1) **Introduction:** The interviewer identified him/herself, the MTA as the survey sponsor, and the study purpose. The interviewer asked to speak with someone in the household 18 years of age or older. This person became the informant for household and person data. The interviewer verified the household address. If the person refused the interview or someone else in the household refused for the adult, the interviewer recorded who refused and the reason for refusal.[15]

2) **Household Information:** The household informant was then asked questions about the household, including: Household Size; Number of Vehicle Available; Telephone Type; Race/ Ethnicity; and Household Income.

3) **Person Information for Reporting Adult #1:** Person-level questions were asked of the household informant, including: Name or initials; Gender; Age; Employment Status; Usual Mode to Work; Ever Take Transit to Work and Why Not; Borough of Work; Status if not Employed (e.g., retired, homemaker, disabled); Driver's License; School Status; Borough of School; and Usual Mode to School.

4) **Detailed Trip Information for Reporting Adult #1:** The household informant was then asked about his/her travel yesterday, including: Day of Week; Total Trips; Confirm Zero Trip; Reason for Zero Trips; Trip Origin Type; Trip Departure time; Trip Destination Type; Trip Arrival Time at Destination; Trip Purpose; Waypoint Location; Waypoint Type; Travel Mode to Waypoint; IF AUTO: Vehicle Occupancy; IF TRANSIT: Route/Line #; Used Subway or Bus; Transit Fare Type; MetroCard Serial Number; and Employer-Provided Travel Subsidies.

5) **Person Roster for All Other Household Members:** The household informant was asked to provide the same information as indicated in #3 above for all household members, regardless of age. If the household member was under the age of 16 and was an auto passenger to school, an additional item was asked: Who Usually Drives this Child to School?

6) **Detailed Trip Information for All Other Reporting Adults:** If there was more than one adult (18+) in the household, the interviewer attempted to collect trip information (as detailed in #4 above) from those persons by either speaking to them immediately after interviewing Adult #1 or calling the household at a later date. However, no more than three callback attempts were made to speak to another adult in the household (refer to footnote #14 below).

[15] NuStats/DataSource attempted each phone record an average of 3.57 times to obtain contact. This does not include specific callbacks at the request of the household; NuStats established a protocol to callback up to three times to speak with a particular household member.

In the paper mail back version of the survey, two trip logs were provided for each unmatched household and respondents were encouraged to get other adults in the household to fill them out as well. Household members were encouraged to complete travel logs for the same day, however, after consultation with the modeling team, different travel dates for household members were allowed.

For all parts of the interview, except the collection of trip data, interviewers read scripted text on the CATI screen and entered the reported responses. For the trip data, the interviewer used the TripTracer™ software and conversational interviewing rather than scripted questions. This was a more flexible interviewing technique designed to allow the respondent to report on his or her trips comfortably and accurately. This technique also allowed interviewers to use methods to guide respondents through memory lapses, to probe in a non-leading way for the level of detail required to code trips, and to redirect respondents who provided unnecessary information. The interviewers were trained to ensure the respondent reported travel from the previous day, not activities done on a "usual" day. Interviewers did this by placing continual emphasis on the word "yesterday" throughout the interview. Interviews were monitored by NuStats, PTV-Datasource, and MTA staff.

Questionnaire Documentation

Once the questionnaires were finalized, appropriate documentation was produced. This included (1) a data items matrix, which delineates each variable, where it comes from, what are valid responses, and what skips are associated with it, (2) the data codebook, (3) coding specifications, and (4) a copy of the questionnaire with the variables embedded in it.

Pretest

This section of the report details the 2008 New York Customer Travel Survey Pretest effort. A pretest is essentially a dress rehearsal of the full study, objectively assessing the effectiveness, efficiency, and appropriateness of all data collection instruments, materials, and procedures. For this survey effort, the pretest was intended to evaluate the sample design, telephone interview, TripTracer™, respondent materials including travel diaries, mailing procedures, data processing procedures, and the effectiveness or necessity of a NYC-based call center.

Below are the specific goals for the pretest, conducted March 12 through March 21, 2008:

- Determine whether the length of the interview in any way contributes to non-response,
- Assess the clarity of question wording and response categories,
- Gauge the likely number of adults per household that would be interviewed,
- Test the use of TripTracer™ within the CATI interview to ensure the trip detail needed to meet project objectives were captured,
- Determine the utility of providing a paper, mailed-back version of the questionnaire,
- Evaluate the capability of the CATI center in Texas to effectively and productively interview New Yorkers, as compared with a CATI center in New York City (see 'Use of Local Call Center' below),
- Assess the incidence of contacting and completing the pricing questions with adults who drive into the CBD of Manhattan, and
- Identify languages other than English and Spanish encountered during interviewing.

Use of Local Call Center

At the request of MTA, NuStats contracted with a local call center in Queens, New York, to conduct a portion of the pretest. Half of the pretest interviews were conducted by PTV-DataSource, while the other half were conducted by the local center. The purpose of the split pretest approach was to determine if the two firms generated significant differences in the quality of the survey results

The pretest goal was 160 completed interviews with each call center conducting approximately 80. PTV-DataSource conducted interviews in Manhattan and Brooklyn in English and Spanish, while the local call center conducted interviews in Queens in English. Each firm initially received an equal amount of sample (for the English interviews). Due to lagging participation rates, the local call center was given additional sample early on in the pretest. The additional sample allowed them to complete the pilot within the prescribed time frame. The local call center accessed the CATI survey remotely from the PTV-DataSource server via a web-based connection and secure login.

Training of Staff and Examples of Training Materials Used

Training sessions were conducted at both facilities following the same methods and approaches. The training encompassed three modules:

- Study Overview/General Training,
- Local Geography, and
- TripTracer™.

Training sessions were conducted at both call centers on the first two modules: general/study overview and geography of the New York City region; a third session focused on TripTracer™ training and was conducted in Queens and in in San Marcos (with a live phone/web conference with interviewers in South Texas). The general training agenda covered the study purpose and background, research goals, and study methods. The local geography module covered area roads, bridges, and points of interest, as well as neighborhoods within each borough, including colloquial pronunciations and "slang", e.g., the 59th Street Bridge is actually the Queens Borough Bridge.

For the TripTracer™ portion of the training, interviewers got an instructor-led demonstration and then hands-on practice in effectively using the software. Staff from MTA attended both training sessions. A copy of the training manual is in Appendix G and the Pretest Report can be found in Appendix H.

Interviews at both firms were monitored during the pretest. Monitoring sessions included a written assessment by the listener of how well the interviewer did. This qualitative measurement tool showed how well an interviewer performed on 14 different factors, such as 'Did not articulate words clearly' and 'Failed to show local geographic knowledge.' A copy of the Interviewer Performance Metrics evaluation sheet is in Appendix G.

Problems Encountered and Resolutions

Several issues surfaced during the pretest, highlighting the local call center's inability to properly field the survey and the following was observed: the local call center completed fewer surveys than PTV-DataSource, required more time to pick up the practice of effectively using TripTracer™ to gather trip data, had longer interview lengths than PTV-DataSource, particularly early on in the pretest, and did not allow for easy monitoring of the interviewers. Overall, the quality of the local call center's interviewing was poorer than that of PTV-DataSource and it was problematic to effectively monitor their interviewers.

To overcome the issues and problems described above, several approaches were taken. Regular feedback on interviewer performance and ongoing technical support to staff was provided. More sample was purchased for a total of 1,800 records at the local call center, compared to 800 for PTV-DataSource. For the monitoring issue, repeated requests were made for a modification of the local call center's process to allow more flexibility by reducing the lead time for scheduling a call, eliminating the need for a staff person to be on the call, and extending the monitoring times to accommodate more MTA staff. The issues were never satisfactorily resolved, and monitoring continued to be problematic during the pretest.

Pretest Outcomes

At the conclusion of the pretest, the MTA received a written report summarizing the effort. A copy of that report is in Appendix D. Various options were discussed regarding the use of a New York-based local call center to conduct a portion of the full study, but ultimately, the MTA opted to have only PTV-DataSource conduct the full study.

Other modifications were also implemented for the full survey. Below is a list of the issues and their final resolution as determined from the pretest:

Issue #1: Long interview length and elevated refusal rates prior to capturing trip data. After assessment of this issue, it was determined that respondents were ending the interview before providing their trip data.

Resolution: Moving the TripTracer™ portion of the interview closer to the beginning so that it occurred immediately after the household questions and prior to the person-level questions. This also helped the survey flow in a more logical manner, as respondents expected to provide trip data; and once that task was satisfied, they were able to answer other types of questions. In the full study, the incidence of termination prior to collecting trip data was reduced.

The overall length of the survey instrument was also reduced by eliminating any unnecessary or redundant questions. An example was combining questions about if a respondent did "X" and how many times into one question.

Issue#2: In the RFP, MTA requested data on trips into the Central Business District (CBD) of Manhattan, defined as south of 60th Street. This seemed to cause confusion for respondents with respect to use of the term "CBD."

Resolution: During the pretest, interviewers were re-trained and the script was modified to avoid using the term "CBD" and instead just indicating if any trips were to Manhattan south of 60th Street. In the full study, this requirement was eliminated, due to that information no longer being needed. (This step also helped with reducing the overall survey length.)

Issue #3: Materials design. For the pretest, the respondent materials in the advance mailer packet were not developed by a graphic designer due to scheduling conflicts and time constraints. While the materials used in the pretest were professional looking, they were not as polished and easy to read/ complete as they could have been. The data from the pretest was not included in the final data set.

Resolution: The advance packet materials were completely redesigned for the full study.

Survey Data Collection

This section of the report describes the full survey effort by stages, including the advance notification/placement of materials, data collection, and problems and resolutions.

The full study began on May 1, 2008, and continued through November 24, 2008, with no active telephone data collection between June 27th and September 7th.[16] During this summer period, a thorough assessment of the data collected to date and the methods employed to evaluate areas for improvement or opportunities to enhance the data quality was conducted. Data entry of returned logs also took place during the summer. Questionnaires and travel logs with a travel date after the spring cut-off (June 27th) were entered and included in the final database with a flag indicating the data was from the summer time period. The determination to use those cases was made by the modeling team during data validation and weighting.

Advance Notification/Placement of Materials

All households in the sample to which a notification packet was mailed (N=134,072) received a letter from the MTA, a person questionnaire, a household questionnaire, a trip log[17], and a Business Reply Mail return envelope. The advance mailing materials are included in Appendix F.

The letters differed depending on whether the sample was matched or unmatched. For matched households, the letter advised the household that it had been randomly selected and would be receiving a call regarding the study. The letter also informed respondents they could instead opt to complete and return the enclosed survey materials by mail. It provided information about the study sponsor, introduced PTV-DataSource as the company that would be calling/or who the respondents could call, and provided a web address and a telephone number where additional information could be obtained. It also informed potential respondents that they would be entered into a weekly drawing for $500 for completing the survey.

For unmatched households, the mailer advised that the household was selected randomly, provided information about the study sponsor, provided a web address and a telephone number where additional information could be obtained, and offered two ways to participate in the study: 1) complete the written survey materials and return them to NuStats, or 2) call the toll-free number of the data collection firm (PTV-DataSource) to take the survey by phone. Unmatched letters also informed respondents about a $25 incentive per adult in the household for completing the survey, in addition to being entered in the same weekly drawing as matched households to win $500.

Data Collection

As noted elsewhere in this report, a retrospective recall approach was employed for the 2008 New York Customer Travel Study, meaning that upon initial phone contact, trip data for the previous 24-hours[18] along with household and person-level data was gathered. If telephone contact was made with a household household-level demographic information including income, household size, vehicle ownership, and other household characteristics were initially collected. Next, data in TripTracer™ for the primary respondent's travel during the past 24 (or 48) hours was captured. In addition, demographic

[16] This time period encompassed summer break for public schools because school breaks disrupt "normal" travel. However, NuStats entered trip data from survey logs with travel dates after June 27th. NuStats also avoided collecting trip data on major holidays and other school closings.
[17] Unmatched households received two logs, matched received one.
[18] Near the end of the fall data collection period, NuStats, with MTA approval, extended the period of valid trip data to the past 24 or 48 hours; the main reason was to reduce zero-trip response. If the call was made on Saturday, Sunday, or Monday, interviewers asked about Friday travel to minimize weekend travel data, which at that point was higher than necessary for modeling purposes.

characteristics were obtained for each member of the household, such as age, gender, employment, and school status (see Appendix A for the CATI survey instrument).

The average number of call attempts across all sample was 3.76, meaning that more than three calls were made[19] before completing an interview with one or more household members. Interviews lasted an average of 22 minutes, with longer times for larger households. The table below shows the average interview length and number of call attempts for various household sizes.

Table 7.1: Interview Length by Household Size

Household Size	N (Households)	Interview Length (min)	Avg. # of Call Attempts
1 person	4,097	18.44	3.90
2 persons	4,166	22.41	3.61
3 persons	2,278	24.37	3.69
4+ persons	3,068	24.71	3.81
Total	13,609	22.06	3.76

Geocoding/TripTracer™

In traditional household travel surveys, geocoding of key addresses (such as home, work, and school) and secondary locations (all other trip points) is done post-survey using geocoding software such as ArcView. With this method, it is common to achieve 100 percent of home addresses and 95 percent of work and school addresses, and slightly less for all other points.

With the introduction of TripTracer™, the trip points were automatically geocoded in real time during the interview or in the data entry stage if paper logs were returned. TripTracer™ uses a database of regional points of interest, tourist attractions, restaurants, retail businesses, banks, and other locations that are graphically displayed on the interviewer's screen. One of the main benefits of TripTracer™ is it allows interviewers to easily find a specific location, cross-streets or address, and to verbally converse with respondents about it, making the placement of a trip origin, destination, or waypoint more accurate. Improved accuracy yeilds higher-quality trip data; however, the need for processing and data validation is still required. Nonetheless, geocoding is achieved at 100 percent for all addresses, whether they are trip origins, destinations, or waypoints.

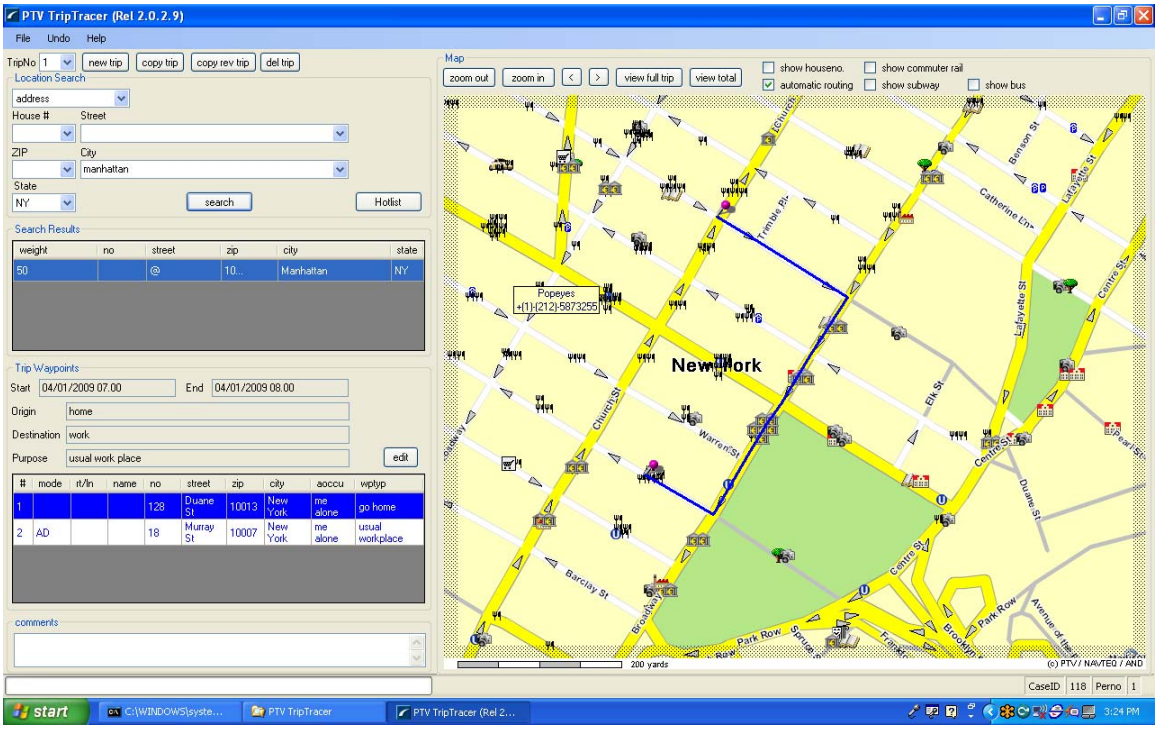
The TripTracer™ program transforms respondents' verbal descriptions of their trips into exact digitized routes, beginning with an origin, ending with a destination, and plotting all waypoints along the route. A waypoint is basically one part of the overall trip that is within the origin and destination points. For example, a respondent leaves home (origin), stops for coffee (waypoint), and continues on to work (destination).

- For the MTA study, a trip file containing 42,900 TripTracer™ records and a waypoint file containing 148,494 records were created. Every address contained an X and Y coordinate. Once an interviewer selected a location on the map, or searched an address using the search tool, and placed a point on the map, an X and Y coordinate was immediately assigned to that location. Additional fields were added during post-processing, which included the TAZ, and the county/borough, state, tract, RTFM zone, and PUMA.

Below is a screen shot of TripTracer™.

[19] Assumes outbound calling only and does not take into account respondents that called NuStats to participate in the survey.

Figure 7.1: Screen Shot of TripTracer™



Edits to Survey Instrument

Over the course of the data collection period, several edits were made to the survey instrument. In most cases, the edits were minor and related to providing clarification to respondents. The major change to the instrument was in the section on fare payment. In the originally fielded version, the payment structure question language read as follows, where text in all CAPS was not read aloud to respondents:

Original Survey Instrument Text Regarding MetroCard Fare Payment

USE BUS OR SUBWAY: USSOB

Universe: IF TRAVELED YESTERDAY

3.16 DID [RESPONDENT] USE SUBWAY OR BUS ANY TIME? COMES UP AUTOMATICALLY

Used MetroCard: FARE

Universe: IF USED SUBWAY OR BUS

3.17 IF SUBWAY OR BUS USED: How did you pay your fare?

1 SINGLE RIDE TICKET
2 CASH

METROCARD – PAY-PER-USE
3 REGULAR METROCARD— ($ ON CARD - $ DEBITED PER USE)
4 REGULAR METROCARD WITH BONUS ($ > THRESHOLD; GET X-TRA RIDES)

METROCARD – UNLIMITED USE ON BUSES AND SUBWAY
5 SINGLE DAY FUNPASS (UNLIMITED ONE DAY)
6 7-DAY PASS (UNLIMITED 7 DAYS)
7 14-DAY PASS (UNLIMITED 14 DAYS)
8 30-DAY PASS (UNLIMITED 30 DAYS)
9 7-DAY EXPRESS BUS PASS PLUS (INCLUDES EXPRESS BUSES)

METROCARD – NEVER RUNS OUT
10 EASY PAY XPRESS (AUTO CHARGES CREDIT CARD TO KEEP $ ON CARD)

METROCARD FOR SENIORS AND DISABLED
11 REDUCED FARE EASY PAY

OTHER
12 METRO NORTH – PASS OR CASH
13 LONG ISLAND RAILROAD - PASS OR CASH
14 PATH TRAIN– QUICKCARD/SMARTLINK OR CASH
15 NEW JERSEY TRANSIT– PASS OR CASH
98 DON'T KNOW
99 REFUSED

Revised Survey Instrument Text Regarding MetroCard Fare Payment

In the modified version, the question was expanded per direction from MTA to be as follows:

Used MetroCard: FARE
Universe: IF USED SUBWAY OR BUS

3.19 IF USED SUBWAY OR BUS: Did you use a MetroCard to board the subway or bus yesterday?
1 Yes
2 No

3.20 IF NO to Q 3.18: Did you use cash to board the bus yesterday?

1 Yes
2 No – IF NO PROBE TO MAKE SURE DIDN'T USE METROCARD

3.21 IF YES to 3.18: What type of MetroCard did you use?
1 Unlimited Ride MetroCard
2 Regular Pay-per-Ride MetroCard
3 Single Ride Ticket
4 Easy Pay Express
5 Reduced Fare Easy Pay [seniors and disabled]
6 Other type of MetroCard (specify) [this should include students and people that use other systems as well, like MNR or PATH]
8 Don't Know

3.22 IF UNLIMITED RIDE METROCARD: What type of Unlimited Ride MetroCard was it?
1 1-Day (Fun Pass)
2 7-Day Unlimited Ride
3 7-Day Express Bus Plus Unlimited Ride
4 14-Day Unlimited Ride
5 30-Day Unlimited Ride
6 Annual Premium TransitCheck
7 Other type of Unlimited MetroCard (specify)
8 Don't Know

In addition to the change in the fare payment question prior to beginning the fall data collection, MTA requested that a subset of households from the spring phase be re-contatced and asked about their most recent type of fare payment. During this phone call, an additional question about languages other than English spoken in the household was asked:

Language Spoken at Home Callback Effort

Language Spoken at Home: HLANG
Universe: ALL

2.15 Are there any other languages besides English spoken at your home?

1 YES	9 REFUSED
2 NO	

2.16 What other languages are spoken? MULTIPLE RESPONSE

1 CHINESE	7 ITALIAN
2 RUSSIAN	8 FRENCH
3 KOREAN	9 HINDI
4 POLISH	10 GREEK
5 JAPANESE	11 TAGALOG
6 ARABIC	12 FRENCH CREOLE

97 OTHER (Specify) _____

Data Collection Outcomes

The unweighted data from the 13,609 completed households contain details about 16,186 individuals and details regarding 21,161 linked transit trips during a 24-hour period. In all, an average of 3.15 trips per household per day and 2.65 trips per person per day were reported.

Table 8.1 shows the number of completed surveys by either telephone or mail for both the matched and unmatched samples. A total of 5,421 completed paper surveys were received and 8,188 telephone interviews completed.[20] The average telephone interview length was 22 minutes.

As expected, matched households completed more surveys by phone, and unmatched households completed more surveys by mailback. As a percentage, matched households where three or more adults completed the survey accounted for 45 percent of all CATI surveys (N=8,188) compared to 27 percent of one-person matched households. The distribution of unmatched households was fairly consistent regardless of the number of adults who completed the survey within each household. The difference could be attributed to the fact that in the CATI survey, interviewers were able to more easily persuade multiple members of a household into completing the study by emphasizing the incentive that each member would receive, whereas with the paper version, that information may not have had as great an impact.

Table 8.1: Completed Surveys (Phone or Mail) by Sample Type

	Final Data			
	Matched Sample	Unmatched Sample	Total	Percent of Total
Completed Surveys				
Total CATI	7,271	917	8,188	**60%**
1 person	1,863	332	2,195	27%
2 persons	2,021	283	2,304	28%
3 persons	3,387	302	3,689	45%
Total Mailback	2,303	3,118	5,421	**40%**
Log Complete- 1 person	883	1,019	1,902	35%
Log Complete- 2 people	712	1,150	1,862	34%
Log Complete- 3+ people	708	949	1,657	31%
Total CATI & Mailback	**9,574**	**4,035**	**13,609**	**100%**

[20] Phone surveys could be with matched or unmatched sample; likewise, paper surveys could be completed by either method.

Table 8.2 shows the final sample outcomes, or dispositions, of all sample records dialed.

Table 8.2: MTA Sample Dispositions

Disposition	Count	Percent
Answering Machine	15,270	18%
Complete	13,714	16%
Hang Up	11,008	13%
Disconnect	9,682	12%
First Refusal	10,192	12%
No Answer	9,215	11%
Final Refusal	3,465	4%
Language Barrier, Deaf/TTY	2,597	3%
Invalid Age	1,784	2%
Partial Refusal	1,206	1%
Fax/Modem	1,135	1%
Busy	1,079	1%
Respondent Mailed In Logs	804	1%
Business/Government	727	1%
Unresolvable Record	508	1%
Respondent Moved	182	<1%
Partial Complete	145	<1%
Callback, Household	119	<1%
Wrong Number	78	<1%
Caller ID	70	<1%
Spanish Callback	54	<1%
Callback, Respondent	47	<1%
Log Received	35	<1%
Spanish Partial Complete	3	<1%
Total (dialed records in CATI)	**83,119**	**100%**

Table 8.3 below shows the final response rate for each sample type and an overall total response rate.

Table 8.3: Survey Response Rates for Matched, Unmatched, and Total Sample

Matched Sample	Unmatched Sample	Total
24%	10%	20%

Problems Faced

Surveys of this type and size are challenging, even in optimal conditions. Response rates are declining across the industry and the increasing use of cellular phones as a primary phone among U.S. households presents additional challenges for researchers. The New York Customer Travel Survey posed many of these challenges. To meet the study goals and achieve 20,000 linked transit trips, the following strategies were implemented:

Issue #1: Item non-response. The response rate for travel during the previous 24 hours was lower than expected.

Resolution: Extending the data collection period to the past 48 hours. MTA approved this action and the protocol was implemented.

Issue #2: Achieving the required 20,000 linked transit trips. Initial estimates of the matched and unmatched samples were not accurate; the first sample order had a 77 percent unmatched rate, though 60 to 65 percent was expected. Following the second sample order, the proportion was closer but still not the anticipated proportion.

Resolution: Increasing the number of interviews from 13,650 to 15,650 to achieve 20,000 linked transit trips. In the later part of fall/Phase II collection, the total number of interviews was revised again to 16,100. In November 2008, MTA requested that NuStats continue to interview to ensure that the 20,000 linked transit trips threshold was achieved.

Below are additional modifications to the research approach:

- Households with more than one adult were re-contacted.
- Respondents who partially completed a survey were re-contacted.
- Respondents contacted in the first phase but who did not respond were re-contacted.
- Additional sample was obtained using an oversampling strategy in certain PUMAs.[21]
- New quotas for Saturday travel were established because the number of Saturday trips was under the required threshold. This practice was stopped once the Saturday threshold was achieved.

Issue #3: Regular monitoring of the spring sample revealed a disproportionately high number of respondents age 65 or older, which contributed to higher zero-trip households and fewer men in the overall sample mix, as women over age 65 are the most likely cohort to participate in surveys.

Resolution: In the spring data collection phase, interviewing of respondents aged 65 or older was discontinued. In the fall phase, interviewing of persons aged 65 or older was restricted to every fourth person in that age group and additional emphasis was placed on interviewing males. Respondents aged 65 or older who were previously terminated from the spring sample were re-contacted for participation, again adhering to the every fourth person criteria.

[21] Discussed in more detail in the Sampling section of this report.

Table 8.4 below depicts the number of respondents who reported no travel "yesterday." The data show that 88 percent of survey respondents traveled in the past 24 (or 48) hours. Among the 12 percent of those who did not report any travel during the survey period, more than 60 percent were not employed. Almost 80 percent of travel occurred on a weekday.

Table 8.4: Zero-Trip Monitoring

	Final Data			
	Respondent Traveled		Respondent Did Not Travel	
	Count	%	Count	%
Day Type				
Weekday	11,209	79%	1,255	63%
Weekend	2,975	21%	747	37%
Employment Status				
Employed	9,802	69%	777	39%
Not Employed	4,381	31%	1,225	61%
RF	1	0%	0	0%
Total	14,184	88% of total	2,002	12%of total

Table 8.5 shows the reasons for non-travel based on answers from respondents, cross tabulated by age.

Table 8.5: Reasons for Non-Travel

Reason Did Not Travel	Age					
	18-24	25-54	55-64	65+	DK/RF	**Total**
No plans, No need to leave	45	223	128	142	0	**538**
Sick – personal	20	81	56	48	0	**205**
No reason to travel	12	70	43	57	6	**188**
Advanced age – no place to go	4	13	57	85	0	**159**
Other	11	84	30	23	0	**148**
Mobility Disability	1	49	48	39	3	**140**
Weather	15	52	26	22	0	**115**
Not scheduled to work	12	78	18	4	1	**113**
Homemaker who takes care of kids	3	56	8	1	1	**69**
Out of area on travel	3	30	20	5	0	**58**
Don't Know/Refused	4	28	16	3	0	**51**
Worked from home	4	31	14	1	0	**50**
Relaxing or resting	5	20	10	1	1	**37**
Religious reasons	6	21	4	2	0	**33**
Cleaning or chores around the house	0	16	6	2	0	**24**

Reason Did Not Travel	Age					
	18-24	25-54	55-64	65+	DK/RF	**Total**
Sick – family member	1	12	5	2	0	**20**
Does not travel on Sundays	0	11	2	3	0	**16**
Not employed	0	10	3	1	0	**14**
Visitors	1	5	3	2	0	**11**
No money, things too expensive	2	5	2	0	0	**9**
School or studying	1	2	1	0	0	**4**
Total	**150**	**897**	**500**	**443**	**12**	**2,002**

Sample Validation

The purpose of this section is to review the survey results regarding general population parameters as reflected in the 2006 Census ACS data, focusing on key demographic characteristics. The data shown in Table 8.6 below shows that the sample design yielded a reasonably close approximation of the New York City population parameters on several demographic questions, with a few notable exceptions: Income—the survey slightly underrepresented low-income households, defined for survey purposes as less than $25,000 annually. The difference was slightly more pronounced in Manhattan and Brooklyn. The survey data also slightly underrepresented people under age 24. The survey data also slightly overrepresented non-Hispanic households, as well as females.

Table 8.6: Distribution of Key Census Variables by Borough

Demographics of Completes	Manhattan			Queens			Bronx			Total		
	Count	Percent	Census	Count	Percent	Census	Count	Percent	Census	Count	Percent	Census
Household Imputed Income[1] *(Under $25K Target: >2000 or 15%)*	(n=3433)			(n=3336)			(n=2234)			(n=13609)		
Less than $25,000	700	20%	27%	596	18%	23%	857	38%	42%	3,367	25%	30%
$25,000 to $50,000	709	21%	17%	881	26%	25%	730	33%	28%	3,555	26%	23%
$50,000 to $75,000	540	16%	15%	705	21%	21%	307	14%	16%	2,405	18%	17%
$75,000 to $100,000	386	11%	9%	442	13%	12%	163	7%	7%	1,471	11%	10%
$100,000 to $150,000	478	14%	11%	469	14%	12%	124	6%	5%	1,587	12%	10%
$150,000 to $200,000	209	6%	7%	164	5%	4%	31	1%	2%	576	4%	4%
$200,000 or more	411	12%	14%	79	2%	2%	22	1%	1%	648	5%	5%
Household Ethnicity *(Minority Target: >6150 or 45%)*	(n=3433)			(n=3336)			(n=2234)			(n=13609)		
Non-Hispanic	2770	81%	76%	2762	83%	74%	1334	60%	50%	10743	79%	74%
White	1901	55%	51%	1532	46%	33%	386	17%	14%	5979	44%	37%
African American, Black	422	12%	13%	461	14%	18%	780	35%	30%	2793	21%	22%
Asian	246	7%	11%	494	15%	21%	50	2%	4%	1057	8%	12%
Other	201	6%	1%	275	8%	3%	118	5%	2%	914	7%	2%
Hispanic (Any Race)	573	17%	24%	485	15%	26%	857	38%	50%	2533	19%	26%
DK/RF	90	3%	--	89	3%	--	43	2%	--	333	2%	--
Respondent Gender	(n=4014)			(n=4058)			(n=2599)			(n=16186)		
Male	1626	41%	47%	1756	43%	48%	966	37%	44%	6496	40%	47%
Female	2385	59%	53%	2301	57%	52%	1633	63%	56%	9684	60%	54%
DK/RF	3	0%	--	1	0%	--	0	0%		6	0%	--
Respondent Age *(65+ Target: <2200 or 16%)*	(n=4014)			(n=4058)			(n=2599)			(n=16186)		
18-24	259	6%	8%	280	7%	12%	211	8%	15%	1203	7%	12%
25-54	2470	62%	64%	2305	57%	58%	1527	59%	59%	9666	60%	59%
55-64	788	20%	13%	938	23%	14%	633	24%	13%	3526	22%	13%
65+	483	12%	16%	513	13%	16%	218	8%	13%	1727	11%	16%
DK/RF	14	0%	--	22	1%	--	10	0%	--	64	0%	--
Type of Phone for Household	(n=3433)			(n=3336)			(n=2234)			(n=13609)		
Landline Only	641	19%	--	616	18%	--	650	29%	--	2908	21%	--
Both	2193	64%	--	2371	71%	--	1431	64%	--	9185	67%	--
Cell Only	590	17%	--	336	10%	--	140	6%	--	1462	11%	--
Neither	9	0%	--	13	0%	--	13	1%	--	54	0%	--

Table 8.6: Continued

Demographics of Completes	Brooklyn			Staten Island			Total		
	Count	Percent	Census	Count	Percent	Census	Count	Percent	Census
Household Imputed Income[1] *(Under $25K Target: >2000 or 15%)*	(n=3944)			(n=662)			(n=13609)		
Less than $25,000	1124	29%	35%	90	14%	18%	3,367	25%	30%
$25,000 to $50,000	1117	28%	24%	118	18%	21%	3,555	26%	23%
$50,000 to $75,000	717	18%	17%	136	21%	18%	2,405	18%	17%
$75,000 to $100,000	374	9%	10%	106	16%	15%	1,471	11%	10%
$100,000 to $150,000	371	9%	9%	145	22%	18%	1,587	12%	10%
$150,000 to $200,000	131	3%	3%	41	6%	5%	576	4%	4%
$200,000 or more	110	3%	3%	26	4%	5%	648	5%	5%
Household Ethnicity *(Minority Target: >6150 or 45%)*	(n=3944)			(n=662)			(n=13609)		
Non-Hispanic	3283	83%	81%	594	90%	87%	10743	79%	74%
White	1703	43%	38%	457	69%	70%	5979	44%	37%
African American, Black	1076	27%	32%	54	8%	8%	2793	21%	22%
Asian	232	6%	10%	35	5%	8%	1057	8%	12%
Other	272	7%	2%	48	7%	1%	914	7%	2%
Hispanic (Any Race)	566	14%	19%	52	8%	13%	2533	19%	26%
DK/RF	95	2%	--	16	2%	--	333	2%	--
Respondent Gender	(n=4704)			(n=811)			(n=16186)		
Male	1795	38%	46%	353	44%	47%	6496	40%	47%
Female	2907	62%	54%	458	56%	53%	9684	60%	54%
DK	2	0%	--	0	0%	--	6	0%	--
Respondent Age *(65+ Target: <2200 or 16%)*	(n=4704)			(n=811)			(n=16186)		
18-24	412	9%	14%	41	5%	13%	1203	7%	12%
25-54	2888	61%	57%	476	59%	58%	9666	60%	59%
55-64	976	21%	13%	191	24%	15%	3526	22%	13%
65+	415	9%	16%	98	12%	15%	1727	11%	16%
DK/RF	13	0%	--	5	1%	--	64	0%	--
Type of Phone for Household	(n=3944)			(n=662)			(n=13609)		
Landline Only	907	23%	--	94	14%	--	2908	21%	--
Both	2652	67%	--	538	81%	--	9185	67%	--
Cell Only	370	9%	--	26	4%	--	1462	11%	--
Neither	15	0%	--	4	1%	--	54	0%	--

Data Processing, Cleaning, and Analysis

Data processing is an ongoing and integral part of the overall study. Processing began with the creation of the advance notification mailout. Next, the sample was processed for recruitment, i.e., the survey. During data collection, recruitment data was processed on a regular basis, including performing quality control on the data. A master control file tracked the progress of each household through the various survey stages, with codes to allow immediate identification of problem cases that were not progressing according to schedule, as well as to confirm that cleared cases moved along appropriately. The routine data checks that were performed are detailed below.

Table 9.1 provides the household data collected and delivered by borough. Cleaned and delivered data ranged from 85.8 percent to 143 percent towards the goal. The cleaning specifications are in Appendix E.

Table 9.1: MTA Study Household Data by Borough

Borough	Proportions	Goal	Collected	Cleaned and Delivered	Percent Distribution	Percent of Goal
Manhattan	29.5	4,015	3,465	3,433	25.2%	85.5%
Brooklyn	28.6	3,892	3,971	3,944	29.0%	101.3%
Bronx	16.4	2,232	2,255	2,234	16.4%	100.1%
Queens	22.1	3,007	3,364	3,336	24.5%	110.9%
Staten Island	3.4	463	673	662	4.9%	143.0%
Total	100	13,609	13,728	13,609	100%	100%

Routine Data Processing Checklist

Below are the routine data checks performed:

- Data range checks to ensure data was inside the expected ranges for each variable and that there was agreement across data files (for example, if the household had two adult persons, there should be two adult records in the person file and two records in the CATI trip file). The minimum requirement was to capture trip and person data from at least one adult in each household.
- Confirmation that travel data were collected from all adult members that traveled or, if not, that the adult member provided a valid reason for non-travel.
- If a person reported no travel, the household was flagged for manual review; in this check, the reason for non-travel was confirmed to determine if it was appropriate, given both the demographic characteristics of the household member; e.g., such as age and employment status. The day of the week was also cross checked to determine the likelihood of non-travel.
- Within the person data, the following was verified:
    - Confirmation that each employed person had data for all employee-related variables such as work borough and usual mode to work, etc.
    - Confirmation that each student had data for all necessary school information variables such as school borough and usual mode to school.
    - Confirmation if that subsidy questions in the TRIP file for employed persons were not blank. Confirmation that the subsidy questions were blank for unemployed persons.
    - Verified that the driver's license variable was blank for people under age 16.

- Within the travel data, including the TripTracer™ files, several items were checked. The following are examples of the conditions researched within the trip data:
    - Did each trip begin and end at a different location? Loop trips (those that have the same origin and destination) might be neighborhood walks, which were left in the trip file, but flagged as a loop trip.
    - Did each person return home at the end of the travel day? If not, did the final recorded destination make sense within the context of the household and person characteristics?
    - Verified that the 'reason for no travel' variable is blank when a person traveled and that it has data when a person did not travel.
    - Confirmed that all persons are 18 or older within this file.
    - Confirmed that if the variable for 'did you travel yesterday' is yes, there should be TripTracer™ data.
    - Confirmed that destination and trip purpose were logical. If not, then the record was flagged for further research.
    - Confirmed that departure times were prior to arrival times.

Data Checking and Interim Data and Report Delivery

This section provides the details of the customized computer system controls, post-processing data checks, audit reviews, and interim data and report deliveries that were employed in the New York Customer Travel Survey to ensure quality.

Computer System Customization and Quality Control Features

A Computer-Assisted Telephone Interviewing (CATI) data collection system for household travel inventories was used for this study. In-house CATI systems allow for online clarification of inconsistent respondent information and multiple data checks. Logic errors were avoided because the appropriate skip patterns and valid answer ranges were programmed into the system. Innovative and standard CATI features employed for the MTA Project included:

- Household information was available for the retrieval portion of the interview since both recruitment and retrieval information was collected in one CATI program and also since it would often take more than one evening to collect all needed information for each requested household adult member. The electronically controlled system allows interviewers to view the name, age of each household member, and his/her interviewing status. When all appropriate data were collected for at least one adult in the household, the household disposition automatically labeled the record as complete. An attempt was made to capture the data for all adults in the household, with a minimum requirement of interviewing at least one adult in the household.
- Online time checks were performed. For each trip, respondents could not provide an end time that was before a start time, or a start time that was before the previous trip's end time.
- Transit systems stops and locations were displayed within TripTracer™. The routes/lines were also displayed within TripTracer™ to allow interviewers to select valid information for these fields. The interviewer selected the transit stop/location and placed their mouse over the stop, showing the valid routes/lines. This helped avoid common spelling mistakes and allowed for valid routes/lines to be selected.
- Previously reported locations were automatically recorded. For example, once the interviewer collected a work or home location/address, that same address could be selected again later in the interview as needed (e.g., home, work, lunch, work, home) without having to re-ask the respondent for the information or re-type the address. This utility reduced the duration of the interview, as well as frustration and respondent burden because it minimized or eliminated redundancy in data collection.

- Many other checks were either automatic or customized within the CATI system. For example, not allowing inconsistent answers, such as someone under the age of 16 driving alone, an unemployed person reporting work trips, and consistency in mode changes.
- The process ensured that person counts were equal to or less than the reported household size.[22] When individual person information was collected, the CATI program ensured the number of people for whom information was reported matched or was less than the reported household size. If household size did not match or was greater, the program prompted the interviewer to review, with the respondent, the number of persons in the household and then add or subtract from the reported household size appropriately.
- Client remote and on-site access to the CATI system and reports assured quality control with respect to interviewing. Using a modem and standard remote connection software, the MTA client could access the CATI system. MTA staff were invited to visit the interviewing locations in San Marcos and Edinburg, Texas, and/or monitor interviewing remotely via telephone.[23]

Households That Did Not Travel on Assigned Days

If a person reported that no trips were taken in the past 24 or 48[24] hours, the CATI program skipped to a question asking the respondent for additional clarification about the reasons or circumstances for not taking any trips. The records of all persons reporting no trips were reviewed as a part of the interim reports to determine whether the reasons/circumstances were valid. The report data on no trip households included such variables as home borough, age, work status, and reasons given for no trips. This rate was closely monitored during the weekly meetings and documented within the weekly reports.

Audit Reviews and the Interim Report and Data Delivery Process

During the data collection phase, all of the data was audited by the modeling consultant (Parsons Brinkerhoff) to ensure that results met or exceeded modeling requirements. Complete interim data files were submitted for audit review and then to the MTA after 997 HH completes; 5,571 HH completes; 7,454 HH completes; 9,151 HH completes; and 13,609 HH completes.

The statistics of the final deliverable files are listed below:

a) HH_Analysis_final.sav - The Household Analysis file, which contains 13,609 records. This file was revised.

b) PER_Analysis_final.sav - The Reported Adult Person file, which contains 16,186 records. This file was revised

c) LTRIPS_SHORT_EXP123_WKD.sav - The Short version of Weekday trips file, which contains 49,167[25] records.

d) LTRIPS_LONG_EXP123_WKD.sav - The Long version of Weekday trips file, which contains 49,167 records. The modelers may use this file.

e) TT_WAY_WKD1_EXP123.sav - The Trip Tracer Waypoint location information for the Weekday trips, which contains 119,912 records.

f) LTRIPS_SHORT_EXP13_SAT_FINAL.sav - The Short version of Saturday trips file, which contains 4,530 records.

g) LTRIPS_LONG_EXP13_SAT.sav - The Long version of Saturday trips file, which contains 4,530 records.

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[22] This study did not require capturing data for all persons living within the household.
[23] Interviewers are not aware they are being monitored.
[24] Once NuStats modified the interviewing protocols.
[25] Represents imputed data.

h) TT_WAY_SAT1_EXP13_SAT.sav - The Trip Tracer Waypoint location information for the Saturday trips, which contains 14,025 records.

i) LTRIPS_SHORT_EXP13_SUN_FINAL.sav - The Short version of Sunday trips file, which contains 4,755 records.

j) LTRIPS_LONG_EXP13_SUN.sav - The Long version of Sunday trips file, which contains 4,755 records.

k) TT_WAY_SUN1_EXP13_SUN.sav - The Trip Tracer Waypoint location information for the Sunday trips, which contains 14,553 records.

l) Mta_final_deliv.mdb - ACCESS database, which contains all of the 8 SPSS files except for the "LTRIPS_LONG_" files.

Quality Control Steps

All data captured via CATI and during post-processing were subjected to manual and automated data coding and error checking. The data was compared and validated against Census figures continuously during the survey process, and support was provided to the sub-consultants who were conducting the validation and expansion activities.

The audit flagged trips for problems relating to errors in time, origin, destination, routes, modes, and other items listed above. This was accomplished by viewing the completed records within the TripTracer™ software and verifying that the trips were logical between origin and destination and also using the edit check program to flag potential errors. Out of the 13,728 households collected, less than 1 percent of trips failed the error checks (N=119).

Flagged trips were marked with problem codes pertaining to: origin/destination problems, time reporting problems, mode problems, and route/line reporting problems. Flagged records were evenly distributed among the various categories and were examined individually to determine the cause of the error. Trips flagged with errors were examined in the context of the other trips made by the same household in addition to trips made by the same individual. Routes and lines were fixed for incorrect spellings by examining the modes selected by the respondent. All open ends were recoded into their appropriate codes where possible.

Trips flagged for a time reporting problem were examined for errors in the reported travel day and for problems with military time conversion. These types of errors were easily corrected and did not require calling back households for clarification or additional information.

Data Verification and Correction with TrueRoute

TrueRoute was also used for quality checks for the transit trip portion of reported travel. “TrueRoute” is the working name of a solution/service package for public transit survey projects that provides a data quality assessment tool which checks the plausibility of a survey respondent’s one-way travel within the context of a public transit trip. TrueRoute utilizes a VISUM transit network and its Passenger Survey Module (PSM) to automatically add a plausibility score to each survey record. The program evaluates the sequence of routes used in the exact order of the one-way trip (as indicated by the respondent on the survey). Data from the survey are used to inform the plausible sequence of routes used including origin location, destination location, transfer information, access mode, egress mode, bus stop on location, bus stop off location, and the route network (routes, direction, and valid transfer points are used). The route sequence is run through the TrueRoute program, and any implausible sequences are flagged. The trip record is then reviewed for any possible corrections or left as is if no solution is determined. While a small number of cases did not pass through the TrueRoute processing, those records were left in the data set following a second pass that verified the data were valid.

An additional benefit of the TrueRoute application is that as a final product, all survey transit trips are represented in a VISUM network model by the direct assignment procedure. This allows visualizing the surveyed transit trips on the links as well as the number of boarding, alighting, and transfers at stations.

The TrueRoute Process

The processing steps include:

- Create a basic transit network, by importing TransCAD files into VISUM and adding complementary network data so that the final model represents 24 hours of routes and service schedule.
- Allocate the X and Y coordinates of waypoints to the nearest stop. Create a relationship between each waypoint and stop, and between each waypoint and zone. Continuous improvement of the stop finding process.
- Post-process survey data transit trips.
  - ✓ Create a line name lookup table to convert surveyed line name (and various spellings from the mailback surveys) to the unique names used in VISUM. Continuous improvement of this line name lookup—this is a major effort in the entire process.[26]
  - ✓ Convert the waypoint data into VISUM format (automated process based on database queries and python script).
- Use TrueRoute routine to feed the survey records into the VISUM network and verify the survey records, and finally to conduct the direct assignment of the verified trips.
- Adjust and calibrate the network model (add zone connectors, enable additional transfers, especially in Manhattan) to allow more survey records to be accepted.
- Eventual manual/automated correction of survey records that are rejected by TrueRoute (implausible records)

TrueRoute Summary

A total of 21,160 linked transit trips were processed with TrueRoute for this study. From these processed transit trips, approximately 82 percent achieved the best possible verification by TrueRoute, graded with flag 1 in Table 9.2. Flag 1 stands for a perfect match of the transit trip information with the network, including stop ID, line ID, possibility of transfers and connections, and the sequence of all waypoints. A major effort of the data-processing was to improve line name lookup and stop allocation to achieve flag 1 for as many records as possible. For another 17 percent, TrueRoute proposes different levels of auto-corrections, as shown in Table 9.2. Only 1.6 percent of the records obtained flag 4, which indicates additional review and possible manual correction would be needed.

[26] TripTracer made some corrections of the line names; however, it did not provide the operator's name for bus lines. For example: it does not indicate whether bus #14 belongs to Manhattan or Queens.

Table 9.2: Summary of TrueRoute Validation

Flag	Quality Statement	Linked Transit Trips		TrueRoute Status		
		# of Records	Percentage	Stops	Sequence of way points	Lines
1	Perfect Match	17,290	81.7%	V	V	V
2	TrueRoute has corrected records (by replacing line names)	1,718	8.1%	V	V	C
3	TrueRoute has corrected records (by performing path search, replace at least one path let with additional way points)	1,816	8.6%	V	C	V/C
4	No correction found (not processed)	336	1.6%	U	U	U
	Total	**21,160**	**100.0%**			

Notes: V = verified, C = corrected by TrueRoute, U = not processed

Visualization of TrueRoute Results

One of the unique benefits from TrueRoute is that it uses the interactive flow analysis to visualize the survey results. This feature helps to better understand the complexity of transit trips in New York City. Beginning on the following page, graphical representations of the VISUM flow analysis showing the survey results are presented.

Figures 9.1A through 9.1D show screen shots of the number of the average weekday subway boardings, alightings, and transfers by each time-of-the-day period. The results are obtained from the VISUM direct assignment. The red bar represents the boarding numbers while the green bar represents the alighting numbers. The blue bar on the bottom represents the subway-to-subway transfers at the station level. This figure also shows the magnitude of subway link ridership numbers, as displayed in yellow.

Figure 9.2 below is a typical example of VISUM link flow analysis. It represents the travel patterns of the people who use the selected transit line/link. In this figure, riders of the Lexington Avenue (4, 5, and 6) subway line who utilize the highlighted link (in purple) going to the Manhattan CBD, are represented as the blue bar. The width of the bar represents the magnitude of the number of the riders. As indicated in the figure, the majority of the trips are from the Bronx and the Upper East Side of Manhattan, both of which are served by this line. The red pies represent the origin zones, and the green pies represent the destination zones of the trips. It should be noted that these trips may use other modes of transportation to access/egress the subway. Similar to Figure 9.2, Figure 9.3 shows the inbound bus trips from Queens into the Manhattan CBD using the Queens Midtown Tunnel.

In reality, people will use varying routes to reach the same destination. Figure 9.4 shows a good example of TrueRoute validating the multiple paths for the same origin/destination. In this figure, one survey record took the M96 crosstown bus to the B train, while the other record took the M86 crosstown bus to the 5 train and then the Shuttle between Grand Central and Times Square.

Figure 9.1A: VISUM Direct Assignment Results –
Visualization of Subway Ridership by Time-of-the-Day Periods

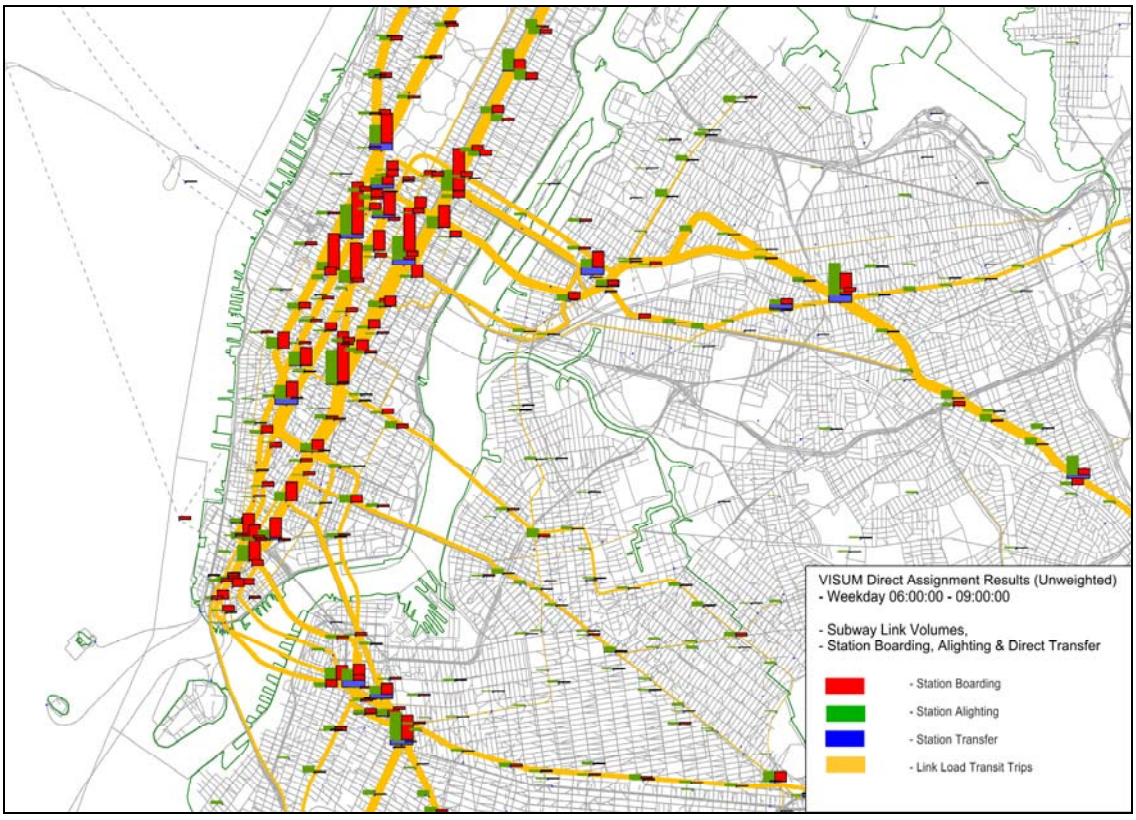


Figure 9.1B: VISUM Direct Assignment Results – Visualization of Subway Ridership by Time-of-the-Day Periods

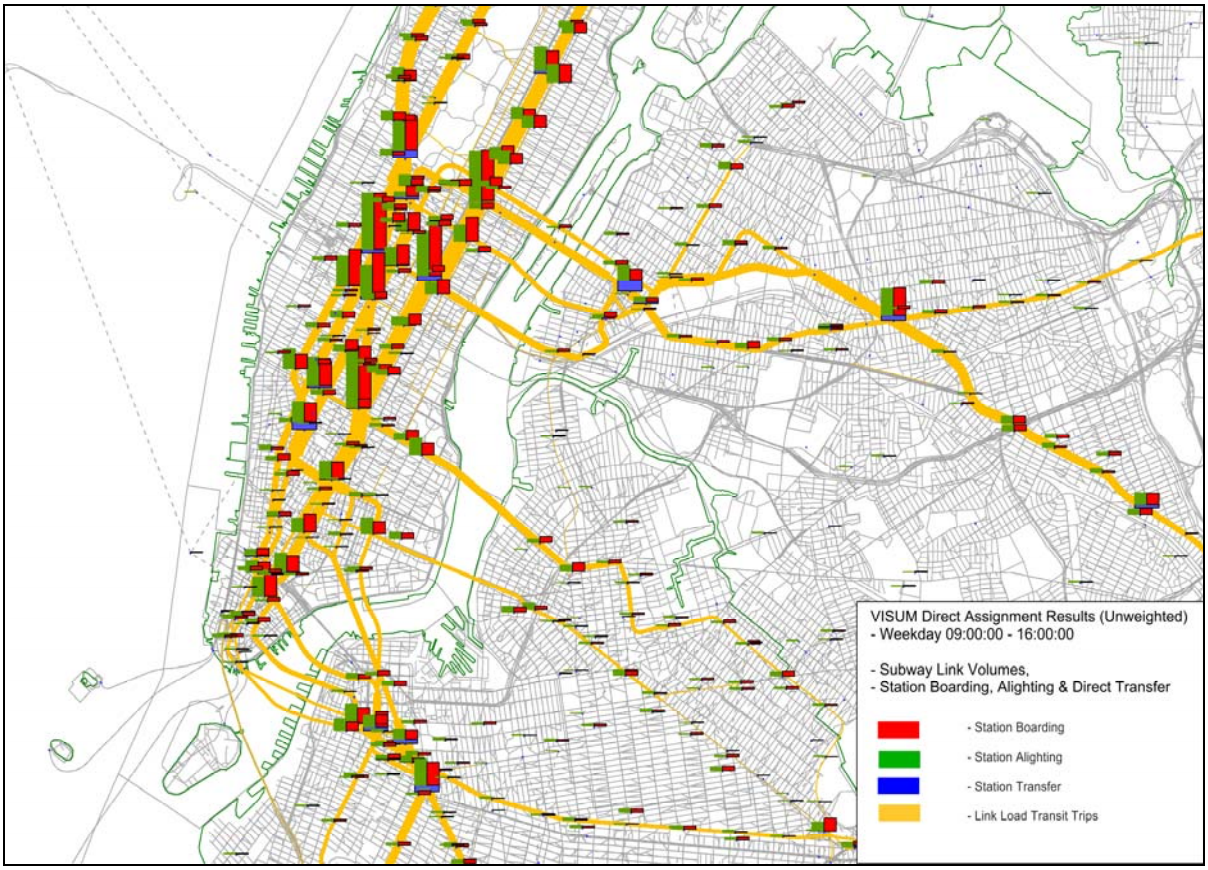


Figure 9.1C: VISUM Direct Assignment Results – Visualization of Subway Ridership by Time-of-the-Day Periods

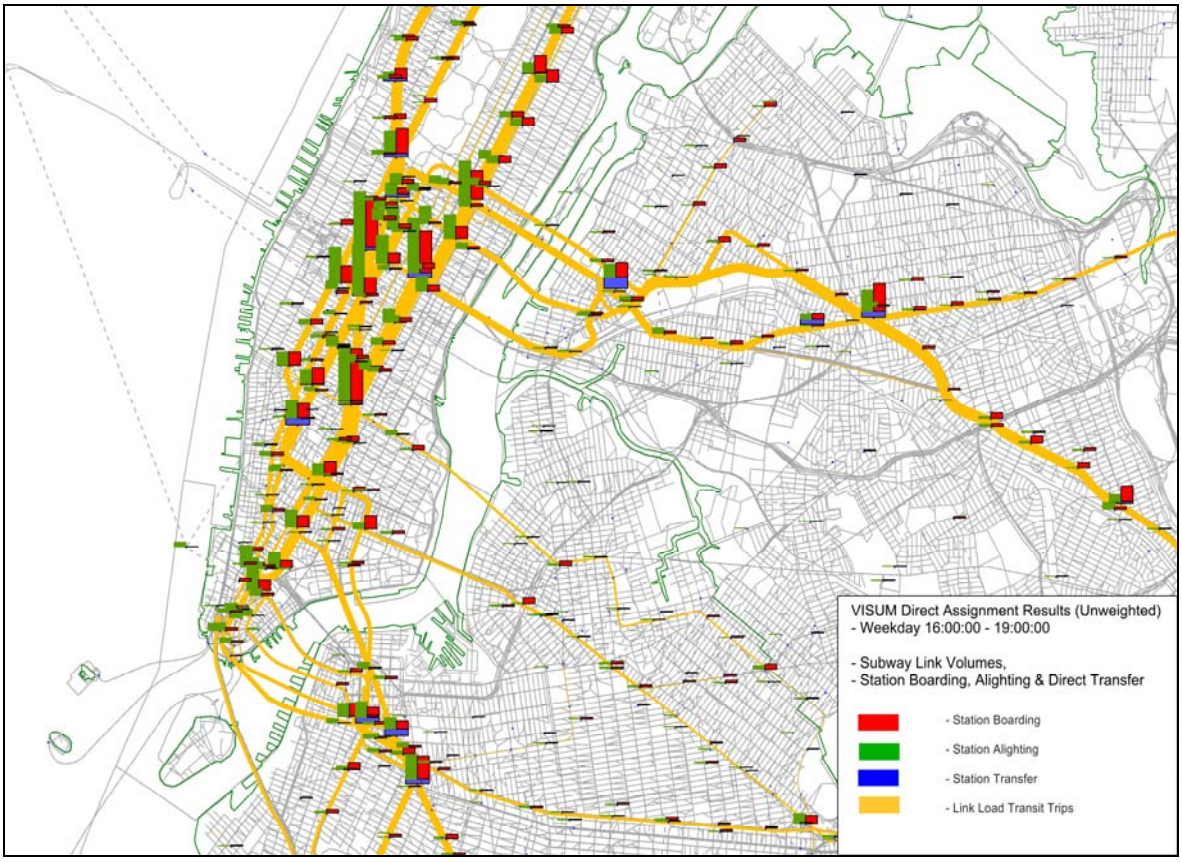


Figure 9.1D: VISUM Direct Assignment Results – Visualization of Subway Ridership by Time-of-the-Day Periods

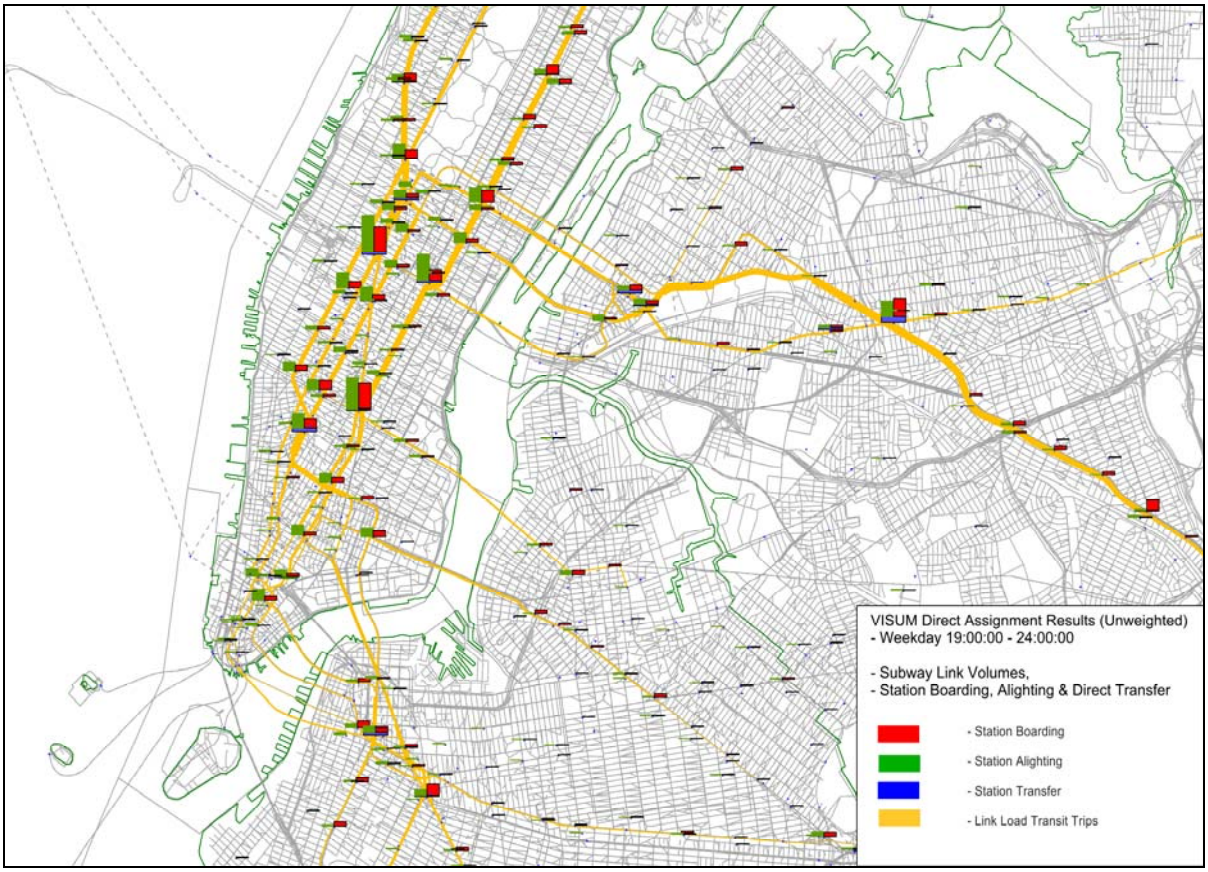


Figure 9.2.: VISUM Flow analysis – Visualization of Inbound subway trips using line 4-5-6 into Manhattan Hub

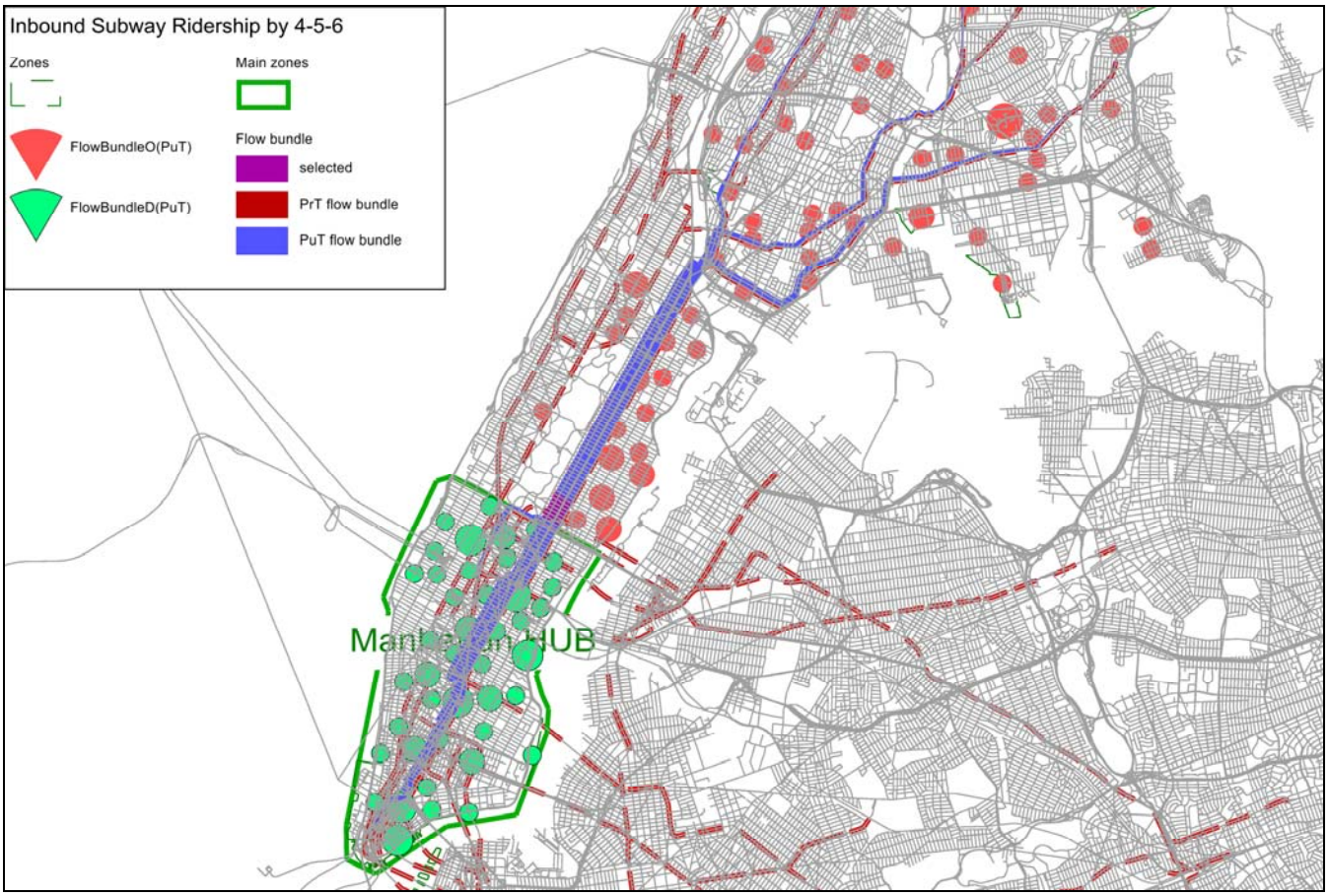


Figure 9.3: VISUM Flow Analysis – Visualization of Inbound Bus Trips through Queens Midtown Tunnel to Manhattan HUB

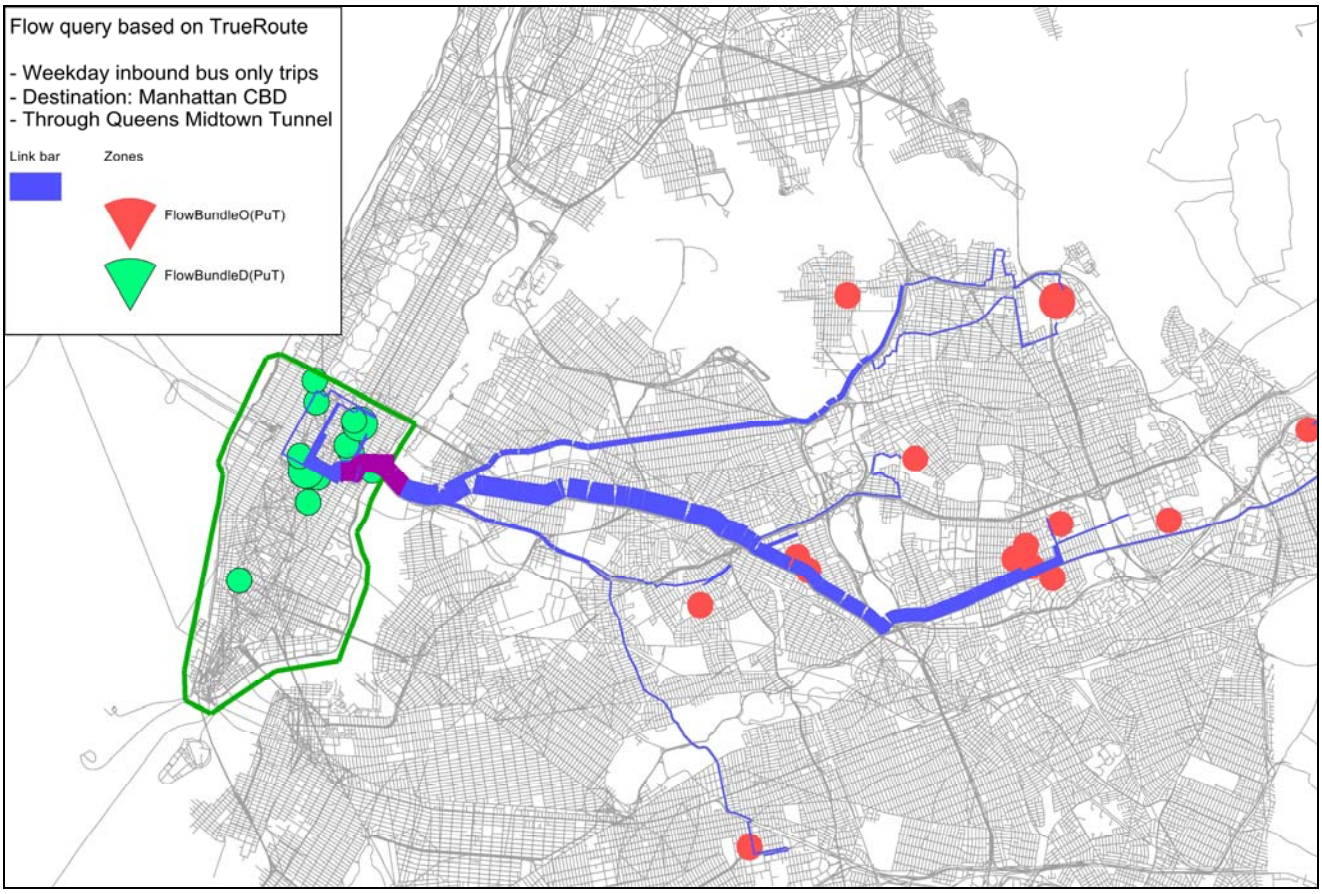
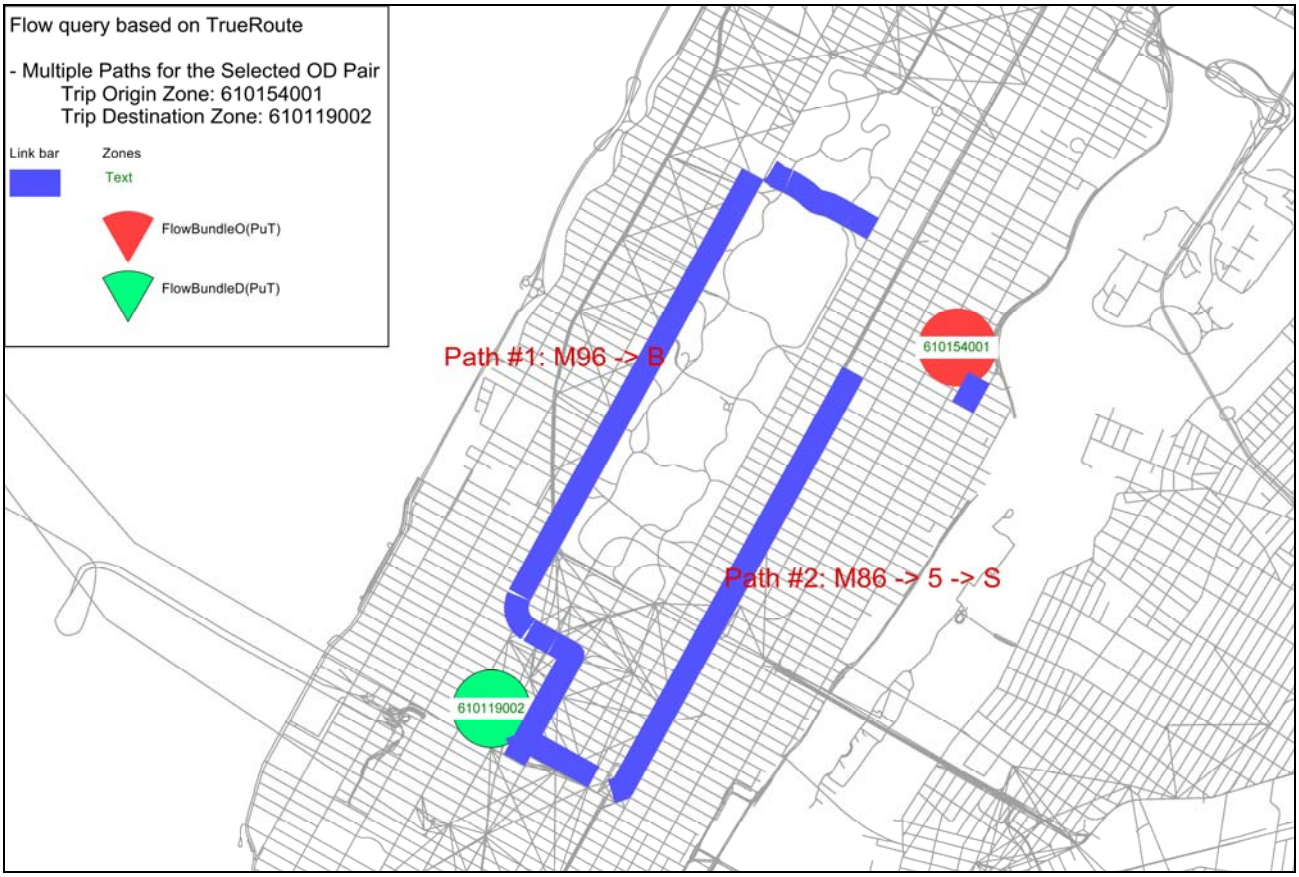


Figure 9.4: VISUM Flow Analysis - Visualization of Multiple Paths of an O-D Pair



Problems and Solutions

Ninety-nine percent of the flagged trips were updated with new information. Problematic records that were not able to be fixed were not delivered to the client, which was .9% (119 Households) of the Households collected.

The major impediments to correction of time, mode and route issues were as follows: Some records that indicated a route problem did not contain enough specific information to choose the correct location and/or mode in order to correct the trip. For example, if a respondent reported taking an illogical trip (i.e., walking across the East River to a bus stop), other trips made by that respondent were examined to see if the illogical trip could be corrected. If not, then that person's trip data was not delivered. Records with these types of reporting problems were far more difficult to correct than records with other types of errors.

Weighting

This section provides a brief overview of the survey data weighting, expansion, and validation. When weighted and expanded, the data represent 3.02 million households. A detailed description of the procedures for weighting, expansion, and validation can be found in Appendix C. The discussion in this section is organized around each of the three levels of weighting of the survey data that were developed:

- Level 1: Household-based Expansion
- Level 2: Person-based Weighting
- Level 3: Transit Trip Level Weighting

Level 1: Household-Based Expansion Factors

The Level 1: Household-based expansion factors expand the data based on the proportion of actual New York City households that were included in the sample. Since the survey sample includes travel made on each day of the week, four different Level 1 expansion factors were developed. The expansion factors were applied in the analysis of the survey data by appending the expansion weight for the appropriate travel day type set of travel survey records by linking to the household ID (SAMPN) in the survey file, which specifies the reported travel day[27].

- Weekday [WKD] – 10,587 sample households
- Weekend (Average Day) [WKN] – 3,298 sample households
- Saturday Only [SAT] – 1,535 sample households
- Sunday Only [SUN] – 1,788 sample households

For example, 10,587 households reported weekday travel in the survey, representing about 0.35 percent of the total estimated 3.02 million households in New York City (ACS: 2006), so that a weekday survey household represents on average about 285 households (1.000 / .035). The weights were developed using a 4-way joint distribution of New York City households in the 2006 ACS by:

- Borough of Residence – Five boroughs
- Household Size – number of all persons in household (including children) with values 1, 2, 3, 4+ persons
- Number of Workers with values 0, 1, 2+ workers
- Income Group with values $25K, $25-$50K, $50-$100K, $100+ K[28]

This is a relatively straightforward factoring procedure that was implemented with SPSS scripts to generate an expansion weight for each household in each of the 240 cells in this multi-dimensional segmentation of households.

27 For most households, all persons reporting travel did so for the same day, but not in all cases. Households are considered a part of the Weekday, Saturday, Sunday, or Weekend sample if any person in the household reported travel on the corresponding day type. Consequently, a given household may be in more than one day-type sample.

28 Based on reported and imputed household income categories.

The expansion factor for NYC residents with the final completed survey data can be summarized:

- Weekday [EXP1_FINAL_WKD] – Average: 285.2
- Weekend (Average Day) [EXP1_FINAL_WKNDAY] – Average: 912.5
- Saturday Only [EXP1_FINAL_SAT] – Average: 1,945.1
- Sunday Only [EXP1_FINAL_SUN] – Average: 1,688.7

The MTA sample and the ACS "universe" data are shown, and the process for the Level 1 expansion is illustrated, and its results validated in Appendix C: Section 1 – Household Level Expansion**,** in a set of Tables C1 through C8 for each of the four travel day types.

Level 2: Person-Based Weighting and Expansion

The person-based weights were used to adjust the weekday (only) trip data to account for two types of travel bias. This weight was applied "on top" of the Level 1 household-based expansion factors. See Appendix C: Section 2B for more details.

1. *Public Transit Travel:* The survey data overrepresented public transit users relative to their proportion in journey-to-work data for workers as reported in the ACS (2006). Unweighted data indicated a higher level of usual transit work trips (about 65 percent) compared to ACS data (55 percent). A set of person-level balancing factors were developed that when applied to the survey data yield a distribution of usual mode to work similar to the ACS data, controlled by Borough of Residence and Borough of Work.

2. *Adults in Households Not Reporting Their Travel:* The survey design did not require all adults in a household to report their travel, and this design feature resulted in households with reporting adults and non-reporting adults. Consequently, the second aspect of the Level 2 weighting accounted for this "missing" travel through a "Hot Deck" imputation method, not uncommon in this type of work, which attributes trips to these non-reporting adults based on matching relevant household, person, and home/work geographic attributes.

The products of the Level 2 weighting and expansion is a set of two data fields that are incorporated in any of the survey travel files that can be used to expand the data to account for both the first level and the second level of analysis, for Weekday sample only.

- EXP21_FINAL_WKD: HH Expansion plus Person Level Weight for Reporting Adults *only*.
- EXP22_FINAL_WKD: HH Expansion plus Person Level Weight with Imputed Travel for Non-Reporting Adults

Level 3: Transit Trip Level Weighting

The Level 3 weights serve as a final set that adjust the weekday (only) public transit trips in the survey data to approximate NYCT and MTA bus and subway boarding counts. These weights were developed using Average Weekday (School Day) NYCT subway and bus, and MTA bus counts, from the spring of 2008. The details and results of the Level 3 weighting are found in Appendix C: Section 3.

The products of the Level 3 weighting and expansion is a set of two additional data fields that are incorporated in any of the survey travel files that can be used to expand the weekday[29] NY transit survey trip data (only), and that account for both the first two levels of analysis, as well as a final

[29] PB also created weights for weekend travel expansion. All weighting variables are defined in the documentation submitted with the delivered data files.

incremental set of weights that are used so that the survey transit trips approximate NYCT and MTA boarding counts.

- EXP31 FINAL WKD: Transit Trip Level Weight - Including EXP21 – Option (1) with no trip imputation
- EXP32 FINAL WKD: Transit Trip Level Weight - Including EXP22 – Option (2) with trip imputation

Data Validation

A validation of the transit survey data comes from a comparison of the linked survey trip data, with each of the three levels of expansion applied and compared with the best available MetroCard-based borough-to-borough flow estimates (April 2004), as summarized by borough of origin in Tables 10.1, 10.2, and 10.3, for all NYC Transit subway and bus-only estimated linked trips. Comparisons on a borough-to-borough flow basis of the same data and results can be found in Appendix C: Section 4.

In looking at these tables, it is important to remember that the expansion factors developed on the three levels are not independent, but are incrementally developed and are applied cumulatively. That is to say, Level 2 factors were developed "on the top" of Level 1 factors and are applied as the product of Level 1 expansion and Level 2 adjustment factors. Similarly, Level 3 factors were developed on the top of the product of Level 1 and 2 factors and applied as the product of Level 1 expansion and Level 2 and adjustment factors. Level 2 and 3 factors essentially act as correction factors that account for structural travel details missing in the basic obtained sample.

Table 10.1 shows how the number of survey estimated 2008 weekday linked transit trips change with each of the three levels of expansion, and how these estimates compare to the 2004 MetroCard estimated transit flows, improving the Level 1 estimate only, when the Level 2 and 3 corrective factors are applied[30]. The same information is provided in Tables 10.2 and 10.3, but broken-down for Subway and Bus Only linked weekday trips.

Table 10.1: Linked Transit Trip Comparison with Levels 1, 2 and 3 Expansion

MTA Survey Weekday vs. MetroCard Weekday – ALL METROCARD TRANSIT

	From					Total NYC
	Manhattan	Queens	Bronx	Brooklyn	Staten Island	
MetroCard 2004	2,873,352	855,441	618,546	1,278,177	87,892	5,713,408
MTA Survey 2008 - Linked Trips with Weights Applied						
Weight: Level 1 Only	3,173,584	1,136,685	885,212	1,542,246	146,436	6,884,163
Weight: Level 2 (1 x 2)	2,988,855	1,069,361	814,160	1,498,675	125,869	6,496,920
Weight: Level 3 (1 x 2 x 3)	3,074,649	1,100,646	695,980	1,521,575	104,363	6,497,213
MTA Survey 2008 - Incremental Expansion - % Over MetroCard 2004						
Weight: Level 1 Only	10%	33%	43%	21%	67%	20%
Weight: Level 2 (1 x 2)	4%	25%	32%	17%	43%	14%
Weight: Level 3 (1 x 2 x 3)	7%	29%	13%	19%	19%	14%

[30] Comparable 2008 MetroCard data were not available for this comparison. Difference between the 2008 survey estimates and the MetroCard flow estimates reflect both changes in transit use in the past 4 years, as well as differences in the two methods.

Table 10.2: Linked Transit Trip Comparison with Levels 1, 2 and 3 Expansion

MTA Survey Weekday vs. MetroCard Weekday – SUBWAY (including with BUS connections)

	From					Total NYC
	Manhattan	Queens	Bronx	Brooklyn	Staten Island	
MetroCard 2004	2,506,194	633,766	386,360	929,093	23,182	4,478,595
MTA Survey 2008 - Incremental Expansion - Linked Trips						
Weight: Level 1	2,550,953	775,109	438,539	1,087,667	47,504	4,899,772
Weight: Level 2	2,388,596	712,108	393,833	1,033,373	41,688	4,569,598
Weight: Level 3	2,658,285	838,029	467,062	1,157,132	43,124	5,163,632
MTA Survey 2008 - Incremental Expansion - % Over MetroCard 2004						
Weight: Level 1	2%	22%	14%	17%	105%	9%
Weight: Level 2	-5%	12%	2%	11%	80%	2%
Weight: Level 3	6%	32%	21%	25%	86%	15%

Table 10.3: Linked Transit Trip Comparison with Levels 1, 2 and 3 Expansion; MTA Survey Weekday vs. MetroCard Weekday – BUS only

	From					Total NYC
	Manhattan	Queens	Bronx	Brooklyn	Staten Island	
MetroCard 2004	367,158	221,675	232,191	349,084	64,710	1,211,606
MTA Survey 2008 - Incremental Expansion - Linked Trips						
Level 1	622,632	361,574	446,672	454,580	98,935	1,984,393
Level 21	464,773	241,876	293,174	336,710	53,068	1,389,601
Level 22	600,261	357,253	420,327	465,303	84,181	1,927,325
Level 31	418,125	260,457	218,282	362,388	52,121	1,311,373
Level 32	416,364	262,618	228,920	364,443	61,238	1,333,583
MTA Survey 2008 - Incremental Expansion - % Over MetroCard 2004						
Level 1	70%	63%	92%	30%	53%	64%
Level 21	27%	9%	26%	-4%	-18%	15%
Level 22	63%	61%	81%	33%	30%	59%
Level 31	14%	17%	-6%	4%	-19%	8%
Level 32	13%	18%	-1%	4%	-5%	10%

Conclusions

The 2008 New York Customer Travel Study was conducted from May 2008 through November, 2008. The survey objectives were to:

1) Provide data to assist in the recalibration of MTA's Regional Transit Forecasting Model (RTFM). Collect survey information sufficient to demonstrate that the RTFM evaluates networks appropriately and generates transit trip tables that matches observed transit trips tables.

2) Satisfy Anticipated FTA requirements for "on-board" transit surveys. Understand the characteristics of transit customers in terms that can be compared to the travel forecasting models to confirm that the behavior represented in the forecasts match observed behavior patterns.

The survey was a joint effort among MTA planning, NYC Transit and MTA bus. The survey database provided a rich source of information about the travel of 16,186 New York City adult residents in 13,609 households. The survey was conducted in English and Spanish; about 7 percent of interviews were in Spanish.

The survey was conducted using a retrospective recall of travel "yesterday". An address-based sampling frame was used to mitigate coverage bias, obtaining excellent participation from non-telephone and cell phone only households. The survey methods included the use of an advance notification mailing with a paper travel log, mail and telephone survey instruments, continuous data processing, and fine-tuned quality assurance data checks. A software program, TripTracer™, was used to capture detailed information about the origins and destinations of travel on all modes of transportation and to conduct real-time electronic geocoding.

The 16,000+ randomly selected participating adults provided information about their household composition, personal attributes, and detailed trip-making for a 24-hour period. A total of 42,900 linked trips and 21,161 linked transit trips were captured. After weight adjustment, the survey data represented 3.02 million households in New York City. Their travel represented 6,521,592 linked transit trips (5,198,987 linked subway trips, and 1,322,605 linked bus-only trips). These linked trips include those within New York City and out of area.

These data on the travel patterns of New York City adults indicated that for all days, all purposes, and all modes of travel trips generated in each borough tend to remain in that borough. However, for weekday work trips, Manhattan is a common destination. On weekdays, Manhattan is the destination for 39 percent of work trips, 61 percent of transit work trips, and 64 percent of transit work trips between 6am and 10am. Reverse commuters (i.e., those traveling outside of New York City) are a relatively small market. About 6 percent of weekday work trips were to destinations outside of the five boroughs. While work is the predominant purpose for all weekday AM Peak trips (between 6am and 10am), during the other times of the day "other" purposes predominate. Nearly two-thirds of all weekday trips are for non-work purposes. Weekday transit-only trips are evenly split between work and "other" purpose trips. Travel subsidies are prevalent in the work commute market. More than one-third of auto commuters (forty-four percent) receive some type of subsidy, and the most common type of subsidy for them is free parking. About one-third of subway or bus users (thirty-one percent) receive a subsidy, and the most common type is pre-tax transportation account.

Limitations of the Data

Despite the comprehensiveness of this survey and the use of a representative sample, there are some important limitations to the data. These are discussed below.

Target Population. An important limitation of the data is that they are only designed to describe the target population of the survey – adults 18 years of age or older residing at New York City residential addresses. It excludes subpopulations that may have very different travel patterns. For example, the survey excludes youth under the age of 18 who are frequent and independent users of the transportation system. The MTA opted not to conduct interviews with anyone younger than 18 years of age due to a potential for decreased accuracy of the data gathered and also because data on school travel already exists.

Response Rate and Survey Non-response. Some level of non-response occurs in every voluntary survey. Low response rates are attributable to a variety of factors, including growing resistance among U.S. householders to surveys in general and telephone surveys in particular; the changing patterns of telephone usage and access in American households; and the growing number of households in which English is not a first language – making telephone communication for survey respondents who are not native English speakers difficult.[31] Household travel surveys are particularly susceptible to non-response. This survey was complex, requiring reporting of a full 24-hours of travel by as many adult household members as would participate. The response rate was 20 percent of all sampled households. It was slightly higher for those households that could be proactively reached by telephone (24%). Because the methodology for the MTA study was different from other similarly sized household travel studies in major metro areas of the United States, it would be hard to compare the response rates. However, given the nature and complexity of the study as well as the hard to reach subpopulations, we believe the overall 20 percent response rate was very reasonable.

Accuracy of Trip Reporting. The collection of travel information is a core data requirement in travel surveys. It is quite burdensome to collect, and involves the collection of geographic information to describe the locations of all trips made by all respondents. Most travel surveys collect detailed address information but present the information only in geographic coded form (i.e., x, y coordinates). The quality of geocoded locations varies with the completeness and accuracy of the address information from which the geocodes were derived. To enhance the accuracy of the location information, this survey used the TripTracer™ program to perform geocoding interactively – at the time that a respondent is completing the travel survey interview. TripTracer™ has the capability to identify, collect, and validate location information in real-time using a visual representation of respondents' travel. However, as with other recall based surveys, the estimates of trip-making presented in this report were based on self-reports by survey participants, and their accuracy depends on respondents' truthfulness and/or memory.

Response Bias. Surveys are prone to non-response errors due to the fact that certain types of households selected in a sample do not participate in surveys, or individual household members fail to answer an item in an interview. While a comparison of the survey sample indicated that it represented the demographic diversity of New York City, the survey did not do as well in representing the true distribution of travel modes. The survey tended to over-represent transit users relative to auto users. Since a large transit agency sponsored this survey, those not using transit for their travel may have felt like they did not need to participate. This distortion was mitigated to a degree in the weighting and expansion.

Lessons Learned

Surveys of this magnitude and geographic scope are not commonly conducted and require a significant amount of planning and development of procedures and instruments. The knowledge gained and lessons learned can be helpful for the next iteration of this survey or for other agencies considering a similar undertaking.

[31] The survey was designed to include English and Spanish speakers only.

- The percent of persons who do not have landline telephone service and only rely on a cell-phone has been steadily increasing. At the time of this survey, that percent was estimated to be between 15 -18 percent. This survey indicated that this cell-phone only market can be reached using an address-based sampling approach, plus a monetary incentive. A $25 incentive was offered to participating adults if a landline telephone number could not be obtained. In all, 11 percent of the households and 13 percent of the reporting adults in the delivered databases were cell-only users.

- Careful sample management, use of targeted sample from the start of project, continuous checking of sample distribution (actual versus expected), and weekly reporting of sample characteristics were extremely valuable procedures for ensuring the representativeness of the final sample. Specifically, a comprehensive analysis of the early data relative to census distributions indicated that low-income households, Hispanics, Non-Hispanic Asians, and young respondents were under-represented in the survey database. Assessing the overall extent of under-representation at the PUMA level and mapping out the level of need for oversampling in subsequent interviewing was an important feature of the survey. It enabled appropriate identification and execution of the oversampling percentages needed to meet the gaps between the expected proportions from census vs. the actual proportions from the data.
- MTA, NYC Transit, and MTA Bus reviews of specific question wording and coded categories of responses, production and review of the data dictionary during and immediately after survey instrument finalization (prior to the start of any data collection) were essential in ensuring that the resultant data would meet the project objectives. Even so, during the first phase of the survey, there was an issue with the capture of accurate fare category information resulting from respondents' lack of knowledge about the specific fare media that was used. The fare category question should always be close-ended (i.e., not open-ended) with detailed descriptions of the categories to be used an aide for the interviewers.

- The pretest was essential for finalizing the survey procedures and enhancing the respondent-friendliness of the survey interview. An evaluative pre-test that included close MTA participation and continuous monitoring ensured that the interviewing process was efficient and effective in capturing the required information. The pretest documented that experienced travel interviewers, even though Texas-based, were better at capturing the detailed trip reports than New York City-based interviewers who were not as familiar with the techniques required to capture detailed travel information. The TripTracer software program did enable the Texas-based interviewers to be "virtually local." Several significant changes in methods and procedures were made subsequent to the pretest, and so it is imperative to schedule time to analyze pretest results prior to moving into the main survey.

- The survey design called for at least one adult household member to be interviewed, and stipulated that the capture of trip information from other adult members was desirable. Most of the households represented in this survey had only one adult member represented. While this situation probably resulted in a higher unit response rate, it created the need for a more complex weighting and expansion methodology. Therefore, the trade-off between response and statistical complexity should be considered prior to implementing a comparable survey design.

- This survey did exceedingly well in capturing transit trip-making among the sampled respondents. However, it underrepresented auto trip-making. In hindsight, it appears that the very visible sponsoring of the survey by the MTA might have biased the sample in the direction of transit users relative to users of other modes. This bias was addressed in the weighting and expansion procedures but future iterations of the survey should address this bias in the communications about survey sponsorship.

Appendices

Appendix A – Survey Instruments (CATI and TripTracer™ Scripts)

The survey instrument shown in this appendix is the version used to field the majority of cases for the MTA Travel Study.

Overview of Questionnaire

Introduction – Make contact with respondent (Adult #1)

1. **Household Information**
   - 1.1. Household Size
   - 1.2. Number of Vehicle Available
   - 1.3. Household Landline
   - 1.4. Personal Cell Phone
   - 1.5. Race/ Ethnicity

2. **Person Information for Self** – Respondent = Adult #1
   - 2.1. Person name or initials
   - 2.2. Relationship to Respondent (NOT ASKED)
   - 2.3. Gender
   - 2.4. Age
   - 2.5. Employment Status
   - 2.6. Usual Mode to Work
   - 2.7. Ever Take Transit to Work
   - 2.8. Borough of Work
   - 2.9. Status if not Employed
   - 2.10. Driver's License
   - 2.11. School Status
   - 2.12. Borough of School
   - 2.13. Usual Mode to School
   - 2.14. Household Income

3. **Detailed Trip Information** – Respondent = Adult #1

   - 3.1. Day of Week
   - 3.2. Confirm Zero Trips
   - 3.3. Reason for Zero Trips
   - 3.4. Total Trips

ENTER TRIPTRACER PROGRAM

   - 3.5. Trip Origin Type
   - 3.6. Trip Departure time
   - 3.7. Trip Destination Type
   - 3.8. Trip Arrival Time at Destination
   - 3.9. Trip Purpose

3.10. Waypoint Location
3.11. Waypoint Type
3.12. Travel Mode to Waypoint
3.13. IF AUTO: Vehicle Occupancy
3.14. IF TRANSIT: Route/ Line #

EXIT TRIPTRACER PROGRAM

3.15. Used Subway or Bus
3.16. Transit Fare Type
3.17. MetroCard Serial Number
3.18. Employer Subsidy

4. **Person Roster for Other Household Members** – Respondent = Adult #1
   4.1. Person name or initials
   4.2. Relationship to Respondent
   4.3. Gender
   4.4. Age
   4.5. Employment Status
   4.6. Usual Mode to Work
   4.7. Ever Take Transit to Work
   4.8. Borough of Work
   4.9. Status if not Employed
   4.10. Driver's License
   4.11. School Status
   4.12. Borough of School
   4.13. Usual Mode to School
   4.14. IF UNDER AGE 16 and AUTO PASSENGER: Who Usually Drives this Child to School

IF OTHER ADULT: MAY COMPLETE SECTION 3

INTRODUCTION
Universe: ALL

HELLO
Universe: Someone answers the telephone or someone calls into the telephone center

INTRO
Universe: All

IF INCOMING CALL: Thank you for calling in. My name is _____ from [call center].

MATCHED SAMPLE IF OUTGOING CALL(INT01):
Hi, this is _____ conducting a survey for the MTA. If you complete this survey, you will be entered into a weekly drawing to win $500. Am I speaking with an adult member of the Household who is at least 18 years old? [IF NEEDED; THE MTA IS THE AGENCY THAT OPERATES THE SUBWAYS, BUSES, AND TRAINS IN NEW YORK CITY.]

UNMATCHED SAMPLE IF OUTGOING CALL(INT01):
Hi, this is _____ conducting a survey for the MTA. If you complete this survey, you will be entered into a weekly drawing to win $500 and receive a $25 check. Am I speaking with an adult member of the Household? [IF NEEDED; THE MTA IS THE AGENCY THAT OPERATES THE SUBWAYS, BUSES, AND TRAINS IN NEW YORK CITY.]

WAIT FOR ADULT THEN:

NOTE: IF YOU REACH A HH MEMBER, SUCH AS A YOUNG ADULT (18+) BUT NOT HEAD OF HOUSE WHO CAN'T ANSWER QUESTIONS ABOUT THEIR HH, ASK FOR A HEAD OF HEADHOLD. IF NONE AVAILABLE, DO NOT CONTINUE BUT SCHEDULE A CALLBACK TO REACH HEAD OF HH OR OTHER ADULT WHO CAN ANSWER QUESTIONS.

NEW PERSON INTRO:

Hi, this is _____ conducting a survey for the MTA. If you complete this survey, you will be entered into a weekly drawing to win $500 [AND IF UNMATCHED] and receive a $25 check. I'd just like to confirm some information provided by the person I just spoke with in your household. SKIP TO 1.1 AND BEGIN. CONFIRM DATA, CHANGE AS NEEDED.

NOTE: IN THIS SECTION YOU WOULD SAY,
There are X people living in your household?
There are X motor vehicles in working condition that are owned, leased, or available for regular use by the people who currently live in your household?
Your household does/does not have standard land-based telephone service?

THEN GOTO WITH 1.4 AND CONTINUE.

IF NEEDED, PROVIDE ADDITIONAL DETAIL ABOUT THE STUDY (LETTR)

Did you receive our letter explaining the importance of the survey and requesting your participation? (INT02)

1 YES [CONTINUE WITH ADDRESS VERIFICATION]

2 NO-[GO TO H_LETTER]

9 REFUSAL [GO TO S_REFTYP]

IF THE RESPONDENT CONFIRMS RECEIPT OF THE LETTER, THE INTERVIEW CONTINUES WITH ADDRESS VERIFICATION (BELOW):

Before we get started, I need to verify that your address is still [ADDRESS]? (ADVER)

1 SAME ADDRESS [GO TO INTRO_B]

2 MOVED, NOT SAME ADDRESS [GO TO MOVED]

3 INCORRECT ADDRESS [CORRECT ADDRESS, GO TO INTRO_B]

IF THE RESPONDENT INDICATES THAT HE OR SHE HAS NOT RECEIVED THE LETTER, THEN THE INTERVIEWER READS THE FOLLOWING TEXT (SEE H_LETTER):

LETTR
Universe: INTRO = 2
This survey is called the New York Customer Travel Survey. It measures how people living in New York City travel to do activities, like work, school, family, and other activities. The survey will help planners at the MTA to understand people's travel patterns better so they can make good decisions about future transportation improvements. We need to include someone from your household in the survey. All your answers are confidential.

1 RETURN TO INTRO AND VERIFY ADDRESS

MOVED(INT03)
Universe: Address verification in INTRO = 2

Since we selected an individual at this address for inclusion in the survey and we are not following people when they move, no interview is needed of you at this time. Thank you for your time.

1 TERMINATE INTERVIEW AND RECORD OUTCOME IN INTERVIEWER NOTES [NUSTATS RESEARCHES WHO IS NOW AT SAMPLED ADDRESS]

RFTYP(INT09)
Universe: HELLO = Refused OR INTRO = Refused OR INTRO_B = 3
CODE TYPE OF REFUSAL

1 HARD [GO TO S_REFWHY]

2 SOFT [TERMINATE INTERVIEW, RECORD OUTCOME]

RFWHY (INT09)
Universe: S_REFWHO = 1

If necessary ask: Would you please tell me the main reason you don't want to participate in this survey?

1 TIRED OF DOING SURVEYS [TERMINATE INTERVIEW, RECORD OUTCOME]

2 NOT INTERESTED IN TOPIC [TERMINATE INTERVIEW, RECORD OUTCOME]

3 TOO BUSY, SURVEY TAKES TOO LONG [TERMINATE INTERVIEW, RECORD OUTCOME]

4 TOPIC IS TOO PERSONAL/ NONE OF GOVERNMENT'S BUSINESS [TERMINATE INTERVIEW, RECORD OUTCOME]

5 NOT A TRANSIT USER (ENCOURAGE TO PARTICIPATE)

7 OTHER - SPECIFY [RECORD VERBATIM RESPONSE, TERMINATE INTERVIEW, RECORD OUTCOME]

LANG(ILANG)
Universe: ALL
CODE LANGUAGE OF INTERVIEW

1 ENGLISH

2 SPANISH

7 OTHER: SPECIFY

[PROGRAMMER: COMPUTE NON-ENGLISH SPEAKING = <1]

1: HOUSEHOLD INFORMATION – RESPONDENT = ADULT #1

Household Size: HHNUM
Universe: All

1.1 How many people, including yourself, live in your household?
ENTER NUMBER [RANGE 1-15]

Household Vehicles: HHVEH
Universe: ALL

1.2 How many motor vehicles in working condition are owned, leased, or available for regular use by the people who currently live in your household?

ENTER NUMBER [RANGE ZERO – 7]

Landline Telephone Service: LTELE
Universe: Only Unmatched sample; skip if matched sample

1.3 Does your household have standard land-based telephone service?

1 YES
2 NO
9 REFUSED

Cellular Telephone Service: CTELE
Universe: ALL

1.4 Do you personally have a cell phone?

1 YES
2 NO
9 REFUSED

PROGRAMMER: COMPUTE CELL-ONLY 2.3=2 and 2.4 = 1 CCTEL

Internet Usage: HINET
Universe: ALL

1.4b Do you currently use the Internet?

1 YES
2 NO
9 REFUSED

Race: HMRAC
Universe: All

1.5 What is the race/ethnicity of persons in this household? ROTATE ANSWER CHOICES

1 White
2 African American, Black
3 Hispanic
4 Asian
5 American Indian, Alaskan Native
6 Pacific Islander?
7 MULTIRACIAL [NOT READ BY INTERVIEWER – ONLY USED IF RESPONDENT SAYS WITHOUT PROMPTING – TO HELP WITH POST PROCESSING]
97 OTHER - SPECIFY
99 REFUSED

PROGRAMMER: COMPUTE MINORITY = >1 CCMIN

2: PERSON INFORMATION – ASK FOR RESPONDENT ONLY (ADULT #1)
Universe: ALL

Household Member ID: HMNA1
Universe: All

2.1 What is your first name or initials?

ENTER NAME OR INTIALS [_____]

Relationship to Respondent: RELA1
Universe: All

2.2 What is this person's relationship to you? DO NOT ASK – THIS IS ALWAYS SELF FOR RESPONDENT

1 SELF

Gender: HMSE1
Universe: All

2.3 DO NOT ASK RESPONDENT

1 MALE

2 FEMALE

9 REFUSED

Age: HMAG1
Universe: All

2.4 How old are you?

ENTER NUMBER [RANGE 1-99]

998 DON'T KNOW

999 REFUSED

PROGRAMMER: COMPUTE SENIOR = 65+; CCSEN COMPUTE ADULT = 18+ CCADU

IF HMAG1 = 65 OR OLDER, ASK IF THERE IS ANOTHER PERSON IN HOUSEHOLD WHO IS UNDER AGE 65 YOU CAN SPEAK TO. IF YES, GO BACK TO NEW PERSON INTRO AND CONFIRM THE DATA WE ALREADY HAVE. BE SURE TO CHANGE ANY VARIABLES, PARTICULARLY GENDER, AS NEEDED.

IF HMAG1 < 18, ASK IF THERE IS ANOTHER PERSON IN HOUSEHOLD WHO IS OLDER THAN 18 YOU CAN SPEAK TO. IF YES, GO BACK TO NEW PERSON INTRO AND CONFIRM THE DATA WE ALREADY HAVE. BE SURE TO CHANGE ANY VARIABLES, PARTICULARLY GENDER, AS NEEDED.

IF NO ONE ELSE AVAILABLE, TERMINATE:

Thank you very much for your time, those are all the questions I have for you today.

Employment Status: HMEM1
Universe: IF AGE 16+

2.5 We know that people who work travel differently than others. So, my next questions are about employment status. Are you employed?

1 YES

2 NO

Usual Mode to Work: WMOD1
Universe: IF AGE 16+ AND EMPLOYED

2.6 How did you usually get to work last week? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]

1 AUTO DRIVER
2 AUTO PASSENGER
3 TAXI, LIMO, CAR SERVICE
4 VAN SERVICE

SUBWAY

5 NEW YORK CITY SUBWAY
6 STATEN ISLAND RAILROAD
7 PATH TRAIN
8 AIRTRAIN

BUS

9 NEW YORK CITY TRANSIT BUS OR MTA BUS
10 LONG ISLAND BUS
11 WESTCHESTER BEE LINE
12 NJ TRANSIT BUS
13 PRIVATE BUS
14 PARATRANSIT SERVICE (ACCESS-A-RIDE)

COMMUTER RAIL

15 METRO-NORTH RAILROAD
16 LONG ISLAND RAIL ROAD
17 NJ TRANSIT RAIL

OTHER

18 FERRY
19 WALK
20 BIKE
21 WORK AT HOME
99 REFUSED

Ever Take Transit to Work: TRWR1
Universe: IF EMPLOYED AND USED MODES 1-4

2.7 Do you ever take transit to work?

1 YES
2 NO
8 DON'T KNOW
9 REFUSED

Work Borough:WBOR1
Universe: ASK IF EMPLOYED

2.8 In what borough do you work?

1 Bronx
2 Brooklyn
3 Manhattan
4 Queens
5 Staten Island
7 OTHER: SPECIFY (OPEN END)

Not Employed Status: HMST1
Universe: IF AGE 16+ WHO ARE NOT EMPLOYED

2.9 Which of the following best describes your status?

1 Retired,

2 Disabled / On Disability Status,

3 Homemaker,

4 Volunteer

5 Unemployed but looking for work,

6 Unemployed and not looking for work, or

7 Student

97 OTHER (specify)

99 REFUSED

Drivers License: HMLI1
Universe: IF AGE 16+

2.10 Do you have a valid driver's license?

1 YES

2 NO

8 DON'T KNOW

9 REFUSED

[IF HOUSEHOLD MEMBER ONLY HAS LEARNER'S PERMIT CODE AS "NO"]

Student Status: HMSC1
Universe: ALL

2.11 Are you currently enrolled in any type of school?

1 YES

2 NO

9 REFUSED

School Borough:SBOR1
Universe: IF IN SCHOOL

2.12 What borough is this school in?

1 Bronx

2 Brooklyn

3 Manhattan

4 Queens

5 Staten Island

97 OTHER: SPECIFY

Usual Mode to School: SMOD1
Universe: IF IN SCHOOL

2.13 How do you usually get to school? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]

1 AUTO DRIVER
2 AUTO PASSENGER
3 TAXI, LIMO, CAR SERVICE
4 VAN SERVICE

SUBWAY

5 NEW YORK CITY SUBWAY
6 STATEN ISLAND RAILROAD
7 PATH TRAIN
8 AIRTRAIN

BUS

9 NEW YORK CITY TRANSIT BUS OR MTA BUS
10 LONG ISLAND BUS
11 WESTCHESTER BEE LINE
12 NJ TRANSIT BUS
13 PRIVATE BUS
14 PARATRANSIT SERVICE (ACCESS-A-RIDE)

COMMUTER RAIL

15 METRO-NORTH RAILROAD
16 LONG ISLAND RAIL ROAD
17 NJ TRANSIT RAIL

OTHER

18 FERRY
19 WALK
20 BIKE
21 SCHOOL BUS
22 HOME SCHOOL
97 OTHER (SPECIFY)
99 REFUSED

Household Income: HHINC
Universe: ALL

2.14 To ensure our study is representative of all income groups in the city, could you tell me if your household's total income for 2007 was above or below $50,000?

Below $50,000-22
Above $50,000-33
REFUSED -- 99

IF NECESSARY: Household income not only allows us to verify that we are including all types of households from the region, but also has been found to be related to the types of trips households make.

[IF BELOW $50,000]

01 Less than $25,000
02 $25,000 to $50,000
99 REFUSED

IF ABOVE $50,000, ASK: And was it above or below $100,000?

Below $100,000-44
Above $100,000-55
REFUSED -- 99

b. [IF BELOW $100,000]
03 $50,000 to $75,000
04 $75,000 to $100,000
99 REFUSED

c. [IF ABOVE $100,000]
05 $100,000 to $150,000
06 $150,000 to $200,000
07 $200,000 or more
99 REFUSED

IF REFUSED: I appreciate your concerns about providing this information, but I only need to properly identify your household as belonging to one of the following categories: BACK TO "a".

PROGRAMMER: COMPUTE SINGLE INCOME VARIABLE; COMPUTE LOW-INCOME <2

PROGRAMMER: GO BUTTON FOR TRIPTRACER HERE

3: DETAILED TRIP INFORMATION – Respondent = Adult #1

Travel Day: DAYWK
Universe: All

3.1 RECORD DAY OF WEEK FOR YESTERDAY – AUTOMATICALLY RECORDED BY DATE

WEEKDAY

1 MON

2 TUES

3 WED

4 THURS

5 FRI

WEEKEND

6 SAT

7 SUN

Travel Yesterday: TRANS
Universe: All

3.2 Thinking about the last 7 days, how many one-way trips did you take by subway, bus, or express bus? A round trip counts as two one-way trips. [IF R GIVES AN ODD #, REMIND HIM/HER THAT A ROUND TRIP COUNTS AS 2 TRIPS.]

ENTER NUMBER OF TRIPS XX

(PROBE FOR CORRECT NUMBER- SHOULD BE AN EVEN NUMBER)

NOTE: THIS IS A TRANSIT TRIP FOR ANY REASON

Travel Yesterday: TRAVY
Universe: All

3.3 Now, I want to collect your travel for yesterday only. Did you travel outside of the house yesterday?

1 YES

2 NO – CHECK THOROUGHLY – NO SHOPPING, NO ERRANDS, NO VISITS

Reason for No Travel: NTRAV
Universe: IF NO TRAVEL YESTERDAY

3.4 When you say you did not travel outside of the house at all yesterday, what is the main reason for that?

1 MOBILITY DISABILITY
2 SICK PERSONAL
3 SICK SOMEONE ELSE IN FAMILY
4 ADVANCED AGE – NO PLACE TO GO
5 HOMEMAKER THAT TAKES CARE OF VERY YOUNG KIDS
6 WEATHER
97 OTHER REASON: SPECIFY

IF THEY DON'T CHOSE 1-5 OR 7 OR IF THEY SAY 'I HAD NO REASON TO TRAVEL', PROBE: Please be more specific about why you did not travel yesterday.

Total Trips Yesterday: TRTOT
Universe: IF TRAVELED YESTERDAY

3.5 When you think about your day yesterday, about how many places did you travel to? I just need to know the main places like work, shopping, dropping kids off at school.

ENTER NUMBER [RANGE 1-15]

PROGRAMMER: RECALL HOME ADDRESS FOR USE IN TRIPTRACER

Trip Origin Type: OTYPE
Universe: IF TRAVELED YESTERDAY

Okay, I'd like to get some details your travel yesterday. I'm going to be using an interactive mapping program to record details about the places you went and how you got there.

3.6. Let's start with where you were at 4am or when you woke up yesterday? Was it...

ENTER TRIPTRACER

SELECT FROM PULL DOWN LIST

1 Home
2 Work
3 School or
4 Some place else?

Trip Departure Time: DTIME
Universe: IF TRAVELED YESTERDAY

3.7 What was the exact time you left that place?

ENTER MILITARY TIME [RANGE 0000-2400]

Trip Destination Type: DTYPE
Universe: IF TRAVELED YESTERDAY

SELECT FROM PULL DOWN LIST
3.8 And, were you traveling to...

1 Home
2 Work
3 School or
4 Some place else?

Trip Arrival Time: ATIME
Universe: IF TRAVELED YESTERDAY

3.9 What was the exact time you arrived at your destination?

ENTER MILITARY TIME [RANGE 0000-2400]

Trip Purpose: TPUR
Universe: IF TRAVELED YESTERDAY

3.10. What was the purpose of your trip to that place?

1 USUAL WORKPLACE
2 OTHER WORKPLACE/ WORK RELATED
3 SCHOOL (PERSONAL)
4 DROP OFF OR PICK UP SOMEONE
5 SHOPPING
6 ERRANDS OR PERSONAL BUSINESS
7 MEDICAL OR OTHER PROFESSIONAL SERVICES
8 EAT OUT
9 MOVIES, GYM, SPORTS, OTHER ENTERTAINMENT
10 VISIT FRIENDS, FAMILY
11 GO HOME
96 CHANGE MODE/ TRANSFER
97 OTHER: TYPE IN COMMENTS BOX

COLLECT WAYPOINT INFORMATION

Waypoint Location: WLOC
Universe: IF TRAVELED YESTERDAY

3.11 Now, I need to get the details of this trip you just described. FIND LOCATION OF WAYPOINT 1. IF NOT HOME, ASK LOCATION INFORMATION BELOW. FOR WAYPOINT 2+ ASK: And, where did you go next?

GET Address, Cross-Streets, Station Name: _____ _____
City/ Borough_____
State _____

96 AT DESTINATION – START NEW TRIP AFTER ASKING 11

98 DON"T KNOW

Waypoint Type: WPTYP
Universe: IF TRAVELED YESTERDAY

3.12 And, what did you do there? REQUIRED ON ALL WAYPOINTS. DEFAULT FOR WAYPOINT 1 IS HOME (code 22).

12 USUAL WORKPLACE
13 OTHER WORKPLACE/ WORK RELATED
14 SCHOOL (PERSONAL)
15 DROP OFF OR PICK UP SOMEONE
16 SHOPPING
17 ERRANDS OR PERSONAL BUSINESS
18 MEDICAL OR OTHER PROFESSIONAL SERVICES
19 EAT OUT
20 MOVIES, GYM, SPORTS, OTHER ENTERTAINMENT
21 VISIT FRIENDS, FAMILY
22 GO HOME
96 CHANGE MODE/ TRANSFER
98 OTHER: TYPE IN COMMENTS BOX

Waypoint Mode: WMOD1
Universe: IF TRAVELED YESTERDAY

3.13 How did you travel to that location? FOR FIRST WAYPOINT, DEFAULT IS REFUSED.

IF RESPONSE IS PUBLIC TRANSIT MODE (5-17); PROBE FOR WALK, BIKE, OR AUTO ACCESS.

1 AUTO DRIVER
2 AUTO PASSENGER
3 TAXI, LIMO, CAR SERVICE
4 VAN SERVICE

<u>SUBWAY</u>

5 NEW YORK CITY SUBWAY
6 STATEN ISLAND RAILROAD
7 PATH TRAIN
8 AIRTRAIN

<u>BUS</u>

9 NEW YORK CITY TRANSIT BUS OR MTA BUS
10 LONG ISLAND BUS
11 WESTCHESTER BEE LINE
12 NJ TRANSIT BUS
13 PRIVATE BUS
14 PARATRANSIT SERVICE (ACCESS-A-RIDE)

<u>COMMUTER RAIL</u>

15 METRO-NORTH RAILROAD
16 LONG ISLAND RAIL ROAD
17 NJ TRANSIT RAIL

<u>OTHER</u>

18 FERRY
19 WALK

20 BIKE
21 WORK AT HOME
99 REFUSED

Auto Occupancy: AOCCU
Universe: IF AUTO CODES 1-2

3.14 How many persons were in the vehicle including you?

RANGE 1-11
999 REFUSED

Transit Route / Line: TLINE
Universe: IF TRANSIT CODES 5-17

3.15 What route or line did you take? [ONLY RECORD 1; TRANSFER IS NEW WAYPOINT]

COLLECT INFORMATION FOR NEXT WAYPOINT LOOP BACK THROUGH Q 3.11 – 3.14 UNTIL DESTINATION IS REACHED.

DESTINATION LOCATION IS LAST WAYPOINT LOCATION.

AFTER ALL WAYPOINTS HAVE BEEN COLLECTED MOVE ONTO NEXT TRIP. MAKE SURE TO PROBE FOR LUNCH TRIPS, TRIPS AFTER RETURNING HOME IN EVENING

BACK TO CATI PROGRAM

USE BUS OR SUBWAY: USSOB
Universe: IF TRAVELED YESTERDAY

3.16 SILENT VERIFICATION: DID [RESPONDENT] TRAVEL YESTERDAY?
3 YES
4 NO

3.17 DID [RESPONDENT] USE SUBWAY OR BUS ANY TIME? COMES UP AUTOMATICALLY

Used MetroCard: FARE
Universe: IF USED SUBWAY OR BUS

3.18 IF SUBWAY OR BUS USED: How did you pay your fare?
5 SINGLE RIDE TICKET
6 CASH

METROCARD – PAY-PER-USE
3 REGULAR METROCARD— ($ ON CARD - $ DEBITED PER USE)
4 REGULAR METROCARD WITH BONUS ($ > THRESHOLD; GET X-TRA RIDES)

METROCARD – UNLIMITED USE ON BUSES AND SUBWAY
5 SINGLE DAY FUNPASS (UNLIMITED ONE DAY)
6 7-DAY PASS (UNLIMITED 7 DAYS)
7 14-DAY PASS (UNLIMITED 14 DAYS)
8 30-DAY PASS (UNLIMITED 30 DAYS)
9 7-DAY EXPRESS BUS PASS PLUS (INCLUDES EXPRESS BUSES)

METROCARD – NEVER RUNS OUT

10 EASY PAY XPRESS (AUTO CHARGES CREDIT CARD TO KEEP $ ON CARD)

METROCARD FOR SENIORS AND DISABLED

11 REDUCED FARE EASY PAY

OTHER

12 METRO NORTH – PASS OR CASH

13 LONG ISLAND RAILROAD - PASS OR CASH

14 PATH TRAIN– QUICKCARD/SMARTLINK OR CASH

15 NEW JERSEY TRANSIT– PASS OR CASH

98 DON'T KNOW

99 REFUSED

MetroCard Serial: MCSER
Universe: IF USED METROCARD (CODES 3-11)

3.19 Can you provide me the MetroCard serial number that you used for the trips you reported? It is the 10-digit # directly under the word "Expires."

ENTER NUMBER (# digits) REQUIRE 10-DIGITS

98 DON'T KNOW

99 REFUSED

IF ASKED WHY WE NEED METROCARD INFO:
Having the MetroCard number will help the MTA develop a more cost efficient way of collecting trip information in the future.

Employer Subsidy: ESUB1
Universe: IF EMPLOYED

3.20 Do you use any of the following types of employer-provided transportation benefits for travel to/ from work? EACH IS YES, NO, DK

A. Reimbursement for tolls

B Reimbursement for parking

C Reimbursement for public transit

D Use of a company vehicle to travel to or from work

E Business expense account

F Pre-tax contributions to transportation account

G Free parking

H Discounted parking

4: HOUSEHOLD INFORMATION – RESPONDENT PROVIDES FOR OTHER HH MEMBERS QUESTIONS ARE THE SAME AS IN SECTION #2

Now, I'd like to get information about the people who live in your household. This information is important because who lives with you can influence your travel choices.

Household Member ID: HMNAM
Universe: All

4.1 You mentioned earlier that there are "X" people in your household. What is Person's #2 (3, 4, 5…) first name or initials?

ENTER NAME OR INTIALS [_____]

Relationship to Respondent: RELAT
Universe: All

4.2 What is this person's relationship to you?

2 PARTNER OR SPOUSE

3 OTHER HH ADULT

4 CHILD

7 OTHER: SPECIFY

9 REFUSED

Gender: HMSEX
Universe: All

4.3 Is this person ….? ASK IF NOT SELF-EVIDENT

1 Male, or

2 Female

9 REFUSED

Age: HMAGE
Universe: All

4.4 How old is this person?

ENTER NUMBER [RANGE 1-99]

998 DON'T KNOW

999 REFUSED – TRY TO GET WHETHER AGE 18 OR OLDER FOR EACH

PROGRAMMER: COMPUTE SENIOR = 65+; CCSEN COMPUTE ADULT = 18+ CCADU

Employment Status: HMEMP
Universe: IF AGE 16+

4.5 Is this person employed?

1 YES

2 NO

9 REFUSED

Usual Mode to Work: WMODE
Universe: IF AGE 16+ AND EMPLOYED

4.6 How did this person usually get to work last week? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]

1 AUTO DRIVER

2 AUTO PASSENGER

3 TAXI, LIMO, CAR SERVICE

4 VAN SERVICE

SUBWAY

5 NEW YORK CITY SUBWAY
6 STATEN ISLAND RAILROAD
7 PATH TRAIN
8 AIRTRAIN

BUS

9 NEW YORK CITY TRANSIT BUS OR MTA BUS
10 LONG ISLAND BUS
11 WESTCHESTER BEE LINE
12 NJ TRANSIT BUS
13 PRIVATE BUS
14 PARATRANSIT SERVICE (ACCESS-A-RIDE)

COMMUTER RAIL

15 METRO-NORTH RAILROAD
16 LONG ISLAND RAIL ROAD
17 NJ TRANSIT RAIL

OTHER

18 FERRY
19 WALK
20 BIKE
21 WORK AT HOME
99 REFUSED

Ever Take Transit to Work: TRWRK
Universe: IF EMPLOYED AND USED MODES 1-4

4.7 Does this person ever take transit to work?

1 YES
2 NO
8 DON'T KNOW
9 REFUSED

Work Borough: WBORO
Universe: IF EMPLOYED

4.8 In what borough does this person work?

1 Bronx
2 Brooklyn
3 Manhattan
4 Queens
5 Staten Island
97 OTHER: SPECIFY

Not Employed Status: -HMSTA
Universe: IF AGE 16+ AND NOT EMPLOYED

4.9 Which of the following best describes this person's status?

1 Retired,
2 Disabled / On Disability Status,
3 Homemaker,
4 Volunteer

5 Unemployed but looking for work,
6 Unemployed and not looking for work, or
7 Student
97 OTHER (specify)
99 REFUSED

Drivers License: HMLIC
Universe: IF AGE 16+

4.10 Does this person have a valid driver's license?

1 YES
2 NO
8 DON'T KNOW
9 REFUSED

[IF HOUSEHOLD MEMBER ONLY HAS LEARNER'S PERMIT CODE AS "NO"]

Student Status: HMSCH
Universe: ALL

4.11 Is this person currently enrolled in any type of school?

1 YES
2 NO
8 DON'T KNOW
9 REFUSED

School Borough:SBORO
Universe: IF IN SCHOOL

4.12 What borough is this school in?

1 Bronx
2 Brooklyn
3 Manhattan
4 Queens
5 Staten Island
97 OTHER: SPECIFY

Usual Mode to School: SMODE
Universe: IF IN SCHOOL

4.13 How dos this person usually get to school? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]

1 AUTO DRIVER
2 AUTO PASSENGER
3 TAXI, LIMO, CAR SERVICE
4 VAN SERVICE

SUBWAY

5 NEW YORK CITY SUBWAY
6 STATEN ISLAND RAILROAD
7 PATH TRAIN
8 AIRTRAIN

BUS

9 NEW YORK CITY TRANSIT BUS OR MTA BUS
10 LONG ISLAND BUS
11 WESTCHESTER BEE LINE
12 NJ TRANSIT BUS
13 PRIVATE BUS
14 PARATRANSIT SERVICE (ACCESS-A-RIDE)

COMMUTER RAIL

15 METRO-NORTH RAILROAD
16 LONG ISLAND RAIL ROAD
17 NJ TRANSIT RAIL

OTHER

18 FERRY
19 WALK
20 BIKE
21 SCHOOL BUS
22 HOME SCHOOL
97 OTHER (SPECIFY)
99 REFUSED

Driver of School-Age Child: DRSCH
Universe: IF MODE – 2 FOR HH MEMBERS <AGE 16

4.14 Who usually drives [name] to school?
ENTER NAME OR INITIALS FROM THE NAME SCREEN

CONCLUSION: ADULT #1

IF MATCHED SAMPLE: Thank you very much for participating in this survey. You will be entered into the weekly drawing to receive $500.

IF UNMATCHED SAMPLE: Thank you very much for participating in this survey. You should receive your $25 check in the mail within the next 4-6 weeks. You will also be entered into a weekly drawing for $500.

IF MULTIPLE ADULTS IN HH: During our conversation, you indicated there is another adult in the household. I'd also like to interview him/ her about travel yesterday. The more adults in your household who participate, the better your chances are of winning one of the cash prizes. May I speak to him / her?

IF YES: GO TO DETAILED TRIP INFORMATION (SECTION 3)

IF NO: OK can this person complete the paper travel log sent to your household and mail it back to us postage paid? IF NEEDED: You can download a travel log from the website www.nustats.com/MTA.

FINAL CONCLUSION MATCHED: I want to make sure that I have the correct spelling of your name and address so that we can mail the cash prize if your name is drawn. What is your first and last name? What is your mailing address?

FINAL CONCLUSION UNMATCHED: I want to make sure that I have the correct spelling of your name and address so that we can mail your $25 check. What is your first and last name? What is your mailing address?
Have a good day / evening. Can we contact you to participate in future research?

1 YES
2 **NO**

Trip Tracer Questionnaire

Okay, now I'd like to get some details on the trips you made yesterday. I'm going to be using an interactive mapping program to record details about the places you traveled yesterday and how you got there. We'll work together through each trip using whatever information you have available, such as location names, addresses, cross-streets or landmarks.

STEP 1: GLOBAL QUESTIONS

1) Let's start with where you were at 4am or when you woke up yesterday? (ORIGIN) **** most of the time home****

2) What was the exact time you left that place? (START OF TRIP-TIME)

3) And, were you traveling to home, work, school, some place else? (DESTINATION)

4) What was the exact time you arrived there? (END OF TRIP –TIME)

5) What was the purpose of your trip to the place? (PURPOSE)

6) COMMENTS (Interviewer discretion)

STEP 2: WAYPOINT QUESTIONS

7) Where was your first or next stop? (PROBE FOR TRANSIT STOPS, QUICK ERRANDS, TO GRAB SOME FOOD, OR TO PICK UP DROP OFF A FAMILY MEMBER THAT YOU FORGOT TO MENTION)

IF AN EXACT ADDRESS IS NOT KNOWN OR CAN'T BE FOUND; What are the names of two streets that cross near to that location?

Cross Streets: _____ @ _____

8) How did you get there?

(IF DRIVER OR PASSENGER OF A PRIVATE VEHICLE ASK 8A)

(IF USING PUBLIC TRANSPORTATION ASK 8B)

8A) How many people were traveling with you?

8B) What line or route did you use?

9) What was your purpose for that location?

*** REPEAT QUESTIONS 7-9 FOR (EACH) NEXT WAYPOINT

Appendix B – Unweighted Tables (Select)

Table B1: Household Geocoded County

		Frequency	Percent	Valid Percent	Cumulative Percent
	Bronx	2234	16.4	16.4	16.4
	Kings	3944	29.0	29.0	45.4
	New York	3433	25.2	25.2	70.6
	Queens	3336	24.5	24.5	95.1
	Richmond	662	4.9	4.9	100.0
	Total	13609	100.0	100.0	

Table B2: Interview language

		Frequency	Percent	Valid Percent	Cumulative Percent
	English	12582	92.5	92.5	92.5
	Spanish	1027	7.5	7.5	100.0
	Total	13609	100.0	100.0	

Table B3: Number of people living in household

		Frequency	Percent	Valid Percent	Cumulative Percent
	1	4097	30.1	30.1	30.1
	2	4166	30.6	30.6	60.7
	3	2278	16.7	16.7	77.5
	4	1740	12.8	12.8	90.2
	5	799	5.9	5.9	96.1
	6	295	2.2	2.2	98.3
	7	116	.9	.9	99.1
	8	60	.4	.4	99.6
	9	21	.2	.2	99.7
	10	18	.1	.1	99.9
	11	10	.1	.1	99.9
	12	1	.0	.0	99.9
	13	3	.0	.0	100.0
	14	3	.0	.0	100.0
	15	2	.0	.0	100.0
	Total	13609	100.0	100.0	

Table B4: Number of motor vehicles available for regular use by the people who currently live in household

	Frequency	Percent	Valid Percent	Cumulative Percent	
	0	7045	51.8	51.8	51.8
	1	4516	33.2	33.2	85.0
	2	1571	11.5	11.5	96.5
	3	359	2.6	2.6	99.1
	4	94	.7	.7	99.8
	5	18	.1	.1	100.0
	6	5	.0	.0	100.0
	7	1	.0	.0	100.0
	Total	13609	100.0	100.0	

Table B5: Race/ethnicity of persons in household

		Frequency	Percent	Valid Percent	Cumulative Percent
	White	5979	43.9	43.9	43.9
	African American, Black	2793	20.5	20.5	64.5
	Hispanic	2533	18.6	18.6	83.1
	Asian	1057	7.8	7.8	90.8
	Other	1247	9.2	9.2	100.0
	Total	13609	100.0	100.0	

Table B6: Household income (imputed for refusals)

		Frequency	Percent	Valid Percent	Cumulative Percent
	Less than $25,000	3367	24.7	24.7	24.7
	$25,000 to $50,000	3555	26.1	26.1	50.9
	$50,000 to $75,000	2405	17.7	17.7	68.5
	$75,000 to $100,000	1471	10.8	10.8	79.3
	$100,000 to $150,000	1587	11.7	11.7	91.0
	$150,000 to $200,000	576	4.2	4.2	95.2
	$200,000 or more	648	4.8	4.8	100.0
	Total	13609	100.0	100.0	

Table B7: Type of telephone

		Frequency	Percent	Valid Percent	Cumulative Percent
	Landline Only	2918	21.4	21.4	21.4
	Cell Phone Only	1462	10.7	10.7	32.2
	Both	9185	67.5	67.5	99.7
	Neither	44	.3	.3	100.0
	Total	13609	100.0	100.0	

Table B8: Structure of household

		Frequency	Percent	Valid Percent	Cumulative Percent
	2+ Workers with Child	1373	10.1	10.1	10.1
	2+ Workers without Child	2853	21.0	21.0	31.1
	1 Worker with Child	1198	8.8	8.8	39.9
	1 Worker without Child	4811	35.4	35.4	75.2
	0 Workers with Child	295	2.2	2.2	77.4
	0 Workers without Child	3079	22.6	22.6	100.0
	Total	13609	100.0	100.0	

Table B9: Respondent sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	6496	40.1	40.1	40.1
	FEMALE	9684	59.8	59.8	100.0
	RF	6	.0	.0	100.0
	Total	16186	100.0	100.0	

Table B10: Respondent age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	1205	7.4	7.4	7.4
	25-54	9666	59.7	59.7	67.2
	55-64	3526	21.8	21.8	88.9
	65+	1727	10.7	10.7	99.6
	DK/RF	62	.4	.4	100.0
	Total	16186	100.0	100.0	

Table B11: Employment status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	10579	65.4	65.4	65.4
	NO	5606	34.6	34.6	100.0
	RF	1	.0	.0	100.0
	Total	16186	100.0	100.0	

Table B12: Usual way to work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AUTO DRIVER	1794	11.1	17.0	17.0
	AUTO PASSENGER	105	.6	1.0	17.9
	TAXI, LIMO, CAR SERVICE	80	.5	.8	18.7
	VAN SERVICE	13	.1	.1	18.8
	NEW YORK CITY SUBWAY	5566	34.4	52.6	71.4
	STATEN ISLAND RAILROAD	18	.1	.2	71.6
	PATH TRAIN	23	.1	.2	71.8
	AIRTRAIN	4	.0	.0	71.9
	NEW YORK CITY TRANSIT BUS OR MTA BUS	1504	9.3	14.2	86.1
	LONG ISLAND BUS	6	.0	.1	86.1
	WESTCHESTER BEE LINE	4	.0	.0	86.2
	NJ TRANSIT BUS	4	.0	.0	86.2
	PRIVATE BUS	18	.1	.2	86.4
	PARATRANSIT SERVICE (ACCESS-A-RIDE)	18	.1	.2	86.6
	METRO-NORTH RAILROAD	52	.3	.5	87.0
	LONG ISLAND RAILROAD	71	.4	.7	87.7
	NJ TRANSIT RAIL	8	.0	.1	87.8
	FERRY	24	.1	.2	88.0
	WALK	804	5.0	7.6	95.6
	BIKE	104	.6	1.0	96.6
	WORK AT HOME	323	2.0	3.1	99.7
	REFUSED	37	.2	.3	100.0
	Total	10580	65.4	100.0	
Missing	System	5606	34.6		
Total		16186	100.0		

Table B13: Work borough

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BRONX	851	5.3	8.0	8.0
	BROOKLYN	1711	10.6	16.2	24.2
	MANHATTAN	5846	36.1	55.3	79.5
	QUEENS	1253	7.7	11.8	91.3
	STATEN ISLAND	217	1.3	2.1	93.4
	OTHER, SPECIFY	701	4.3	6.6	100.0
	Total	10579	65.4	100.0	
Missing	System	5607	34.6		
Total		16186	100.0		

Table B14: Unemployment status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retired,	2246	13.9	40.1	40.1
	Disabled / On Disability Status,	1065	6.6	19.0	59.1
	Homemaker,	808	5.0	14.4	73.5
	Volunteer	38	.2	.7	74.1
	Unemployed but looking for work,	709	4.4	12.6	86.8
	Unemployed and not looking for work, or	91	.6	1.6	88.4
	Student?	550	3.4	9.8	98.2
	OTHER (specify)	84	.5	1.5	99.7
	REFUSED	16	.1	.3	100.0
	Total	5607	34.6	100.0	
Missing	System	10579	65.4		
Total		16186	100.0		

Table B15: Valid driver's license

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	10798	66.7	66.7	66.7
	NO	5349	33.0	33.0	99.8
	DK	25	.2	.2	99.9
	RF	14	.1	.1	100.0
	Total	16186	100.0	100.0	

Table B16: Enrolled in any type of school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	1843	11.4	11.4	11.4
	NO	14274	88.2	88.2	99.6
	RF	69	.4	.4	100.0
	Total	16186	100.0	100.0	

Table B17: Usual way to school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AUTO DRIVER	186	1.1	10.1	10.1
	AUTO PASSENGER	21	.1	1.1	11.2
	TAXI, LIMO, CAR SERVICE	6	.0	.3	11.6
	VAN SERVICE	4	.0	.2	11.8
	NEW YORK CITY SUBWAY	967	6.0	52.5	64.2
	PATH TRAIN	4	.0	.2	64.5
	AIRTRAIN	2	.0	.1	64.6
	NEW YORK CITY TRANSIT BUS OR MTA BUS	318	2.0	17.3	81.8
	LONG ISLAND BUS	1	.0	.1	81.9
	WESTCHESTER BEE LINE	1	.0	.1	81.9
	NJ TRANSIT BUS	1	.0	.1	82.0
	PRIVATE BUS	9	.1	.5	82.5
	PARATRANSIT SERVICE (ACCESS-A-RIDE)	6	.0	.3	82.8
	METRO-NORTH RAILROAD	12	.1	.7	83.5
	LONG ISLAND RAILROAD	5	.0	.3	83.7
	NJ TRANSIT RAIL	3	.0	.2	83.9
	FERRY	4	.0	.2	84.1
	WALK	183	1.1	9.9	94.0
	BIKE	20	.1	1.1	95.1
	SCHOOL BUS	25	.2	1.4	96.5
	HOME SCHOOL	7	.0	.4	96.9
	OTHER SPECIFY	44	.3	2.4	99.2
	REFUSED	14	.1	.8	100.0
	Total	1843	11.4	100.0	
Missing	System	14343	88.6		
Total		16186	100.0		

Table B18: School borough

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BRONX	206	1.3	11.2	11.2
	BROOKLYN	321	2.0	17.4	28.6
	MANHATTAN	875	5.4	47.5	76.1
	QUEENS	246	1.5	13.3	89.4
	STATEN ISLAND	42	.3	2.3	91.7
	OTHER, SPECIFY	153	.9	8.3	100.0
	Total	1843	11.4	100.0	
Missing	System	14343	88.6		
Total		16186	100.0		

Appendix C – Weighting Documentation

APPENDIX C

SURVEY EXPANSION and VALIDATION

SECTION 1: LEVEL 1 HOUSEHOLD EXPANSION

A. WEEKDAY TRAVEL SAMPLE	EXP1_FINAL_WKD
B. SATURDAY TRAVEL SAMPLE	EXP1_FINAL_SAT
C. SUNDAY TRAVEL SAMPLE	EXP1_FINAL_SUN
D. WEEKEND TRAVEL SAMPLE (AVG of SATURDAY and SUNDAY)	EXP1_FINAL_WKNDAY

SECTION 2: PERSON LEVEL BALANCING (WEEKDAY ONLY)

A. METHODS: IIMPUTATION of TRAVEL for NON-REPORTING ADULTS (NRAs)	EXP22_FINAL_WKD
B. WORKER BALANCING - USUSAL MODEL to WORK	EXP22_FINAL_WKD

SECTION 3: TRANSIT TRIP LEVEL WEIGHTING to BOARDING COUNTS (WEEKDAY ONLY)

A. EXPANDED SURVEY BOARDINGS and COUNTS - without NRA IMPUTATION	EXP31_FINAL_WKD
1.1 SUBWAY (by FIRST STATION ENTERED)	
1.2 BUS (for ALL BOARDINGS)	
B. EXPANDED SURVEY BOARDINGS and COUNTS - With NRA IMPUTATION	EXP32_FINAL_WKD
1.1 SUBWAY (by FIRST STATION ENTERED)	
1.2 BUS (for ALL BOARDINGS)	

SECTION 4: VALIDATION TRANSIT LINKED TRIPS - BORO to BORO FLOWS

1 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: SUBWAY AND BUS	
1.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
1.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
1.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
1.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
1.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD
2 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: SUBWAY	
2.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
2.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
2.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
2.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
2.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD
3 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: BUS (ONLY)	
3.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
3.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
3.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
3.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
3.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD

APPENDIX C

SURVEY EXPANSION and VALIDATION

SECTION 1: LEVEL 1 HOUSEHOLD EXPANSION

A. WEEKDAY TRAVEL SAMPLE	EXP1_FINAL_WKD
B. SATURDAY TRAVEL SAMPLE	EXP1_FINAL_SAT
C. SUNDAY TRAVEL SAMPLE	EXP1_FINAL_SUN
D. WEEKEND TRAVEL SAMPLE (AVG of SATURDAY and SUNDAY)	EXP1_FINAL_WKNDAY

LEVEL 1 HOUSEHOLD EXPANSION OF MTA SURVEY DATA with ACS 2006 CONTROLS

A. WEEKDAY TRAVEL SAMPLE	EXP1_FINAL_WKD For a Average Weekday

TABLES:

Tabulations: All Structured as:
Number of Households by Household Income, Household Workers and Household Size by Borough

	MTA NYC Resident Travel Survey *	
TABLE 1	HOUSEHOLD SAMPLE	
TABLE 2	DISTRIBUTION: PERCENT OF TOTAL	
	American Community Survey (ACS) - 2006	
TABLE 3	DISTRIBUTION: PERCENT OF TOTAL	
	MTA NYC Resident Travel Survey	
TABLE 4	DIFFERENCE FROM ACS PERCENT OF TOTAL	
TABLE 5	PRELIMINARY EXPANSION FACTORS - Without Constraints	Ratio of ACS To MTA Sample
TABLE 6A	PRELIMINARY EXPANSION FACTORS - Without Constraints	INDEX: TO TOTAL NYC AVERAGE
TABLE 6B	FINAL EXPANSION FACTORS - WithConstraints	INDEX: TO TOTAL NYC AVERAGE
TABLE 7	FINAL EXPANSION FACTORS - With Constraints	Ratio of ACS To MTA Sample
	American Community Survey (ACS) - 2006 and MTA Travel Survey - Expanded with **EXP_HH1B_WKD (same as EXP1_FINAL_WKD)**	
TABLE 8	ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS VALIDATION OF HOUSEHOLD RECORD LEVEL EXPANSION	

* **MTA 12/10/08 DELIV6 FINAL**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE

WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	188	63	20	33	304	126	61	16	16	219	176	86	38	46	346
	1 Worker	65	51	39	47	202	50	46	38	34	168	41	68	50	84	243
	2+ Workers	0	24	13	27	64	0	21	14	32	67	0	15	33	40	88
	Total	253	138	72	107	570	176	128	68	82	454	217	169	121	170	677
$25,000 to $50,000	0 Workers	99	32	13	17	161	100	70	7	16	193	51	49	16	22	138
	1 Worker	168	75	44	48	335	103	62	45	67	277	96	63	50	70	279
	2 Workers	0	32	23	28	83	0	53	63	72	188	0	31	33	62	126
	Total	267	139	80	93	579	203	185	115	155	658	147	143	99	154	543
$50,000 to $100,000	0 Workers	78	30	3	6	117	50	56	4	9	119	25	12	2	4	43
	1 Worker	278	85	31	24	418	191	122	47	62	422	69	35	29	26	159
	2 Workers	0	119	46	40	205	0	139	100	110	349	0	47	57	53	157
	Total	356	234	80	70	740	241	317	151	181	890	94	94	88	83	359
$100,000 +	0 Workers	31	31	2	4	68	11	24	0	4	39	5	6	2	3	16
	1 Worker	214	96	35	33	378	51	59	26	50	186	9	11	10	10	40
	2 Workers	0	288	78	71	437	0	153	66	111	330	0	25	19	27	71
	Total	245	415	115	108	883	62	236	92	165	555	14	42	31	40	127
All Incomes	0 Workers	396	156	38	60	**650**	287	211	27	45	**570**	257	153	58	75	**543**
	1 Worker	725	307	149	152	**1,333**	395	289	156	213	**1,053**	215	177	139	190	**721**
	2 Workers	0	463	160	166	**789**	0	366	243	325	**934**	0	118	142	182	**442**
	Total	1,121	926	347	378	**2,772**	682	866	426	583	**2,557**	472	448	339	447	**1,706**

Number of Households by Household **TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE**

WEEKDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	237	97	41	59	434	32	9	3	3	47	759	316	118	157	1,350
	1 Worker	67	80	63	90	300	7	5	5	2	19	230	250	195	257	932
	2+ Workers	0	28	36	77	141	0	1	3	1	5	0	89	99	177	365
	Total	304	205	140	226	875	39	15	11	6	71	989	655	412	591	2,647
$25,000 to $50,000	0 Workers	89	51	21	29	190	13	8	3	2	26	352	210	60	86	708
	1 Worker	151	97	80	105	433	9	16	9	9	43	527	313	228	299	1,367
	2 Workers	0	63	55	98	216	0	2	7	7	16	0	181	181	267	629
	Total	240	211	156	232	839	22	26	19	18	85	879	704	469	652	2,704
$50,000 to $100,000	0 Workers	28	26	7	7	68	10	17	4	1	32	191	141	20	27	379
	1 Worker	192	110	62	72	436	29	20	10	28	87	759	372	179	212	1,522
	2 Workers	0	124	81	126	331	0	26	11	34	71	0	455	295	363	1,113
	Total	220	260	150	205	835	39	63	25	63	190	950	968	494	602	3,014
$100,000 +	0 Workers	3	14	5	3	25	4	6	0	3	13	54	81	9	17	161
	1 Worker	48	58	33	38	177	5	19	10	17	51	327	243	114	148	832
	2 Workers	0	126	75	93	294	0	29	37	31	97	0	621	275	333	1,229
	Total	51	198	113	134	496	9	54	47	51	161	381	945	398	498	2,222
All Incomes	0 Workers	357	188	74	98	**717**	59	40	10	9	**118**	1,356	748	207	287	**2,598**
	1 Worker	458	345	238	305	**1,346**	50	60	34	56	**200**	1,843	1,178	716	916	**4,653**
	2 Workers	0	341	247	394	**982**	0	58	58	73	**189**	0	1,346	850	1,140	**3,336**
	Total	815	874	559	797	**3,045**	109	158	102	138	**507**	3,199	3,272	1,773	2,343	**10,587**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.78%	0.60%	0.19%	0.31%	**2.87%**	1.19%	0.58%	0.15%	0.15%	**2.07%**	1.66%	0.81%	0.36%	0.43%	**3.27%**
	1 Worker	0.61%	0.48%	0.37%	0.44%	**1.91%**	0.47%	0.43%	0.36%	0.32%	**1.59%**	0.39%	0.64%	0.47%	0.79%	**2.30%**
	2 Workers	0.00%	0.23%	0.12%	0.26%	**0.60%**	0.00%	0.20%	0.13%	0.30%	**0.63%**	0.00%	0.14%	0.31%	0.38%	**0.83%**
	Total	#REF!	1.30%	0.68%	1.01%	**5.38%**	1.66%	1.21%	0.64%	0.77%	**4.29%**	2.05%	1.60%	1.14%	1.61%	**6.39%**
$25,000 to $50,000	0 Workers	0.94%	0.30%	0.12%	0.16%	**1.52%**	0.94%	0.66%	0.07%	0.15%	**1.82%**	0.48%	0.46%	0.15%	0.21%	**1.30%**
	1 Worker	1.59%	0.71%	0.42%	0.45%	**3.16%**	0.97%	0.59%	0.43%	0.63%	**2.62%**	0.91%	0.60%	0.47%	0.66%	**2.64%**
	2 Workers	0.00%	0.30%	0.22%	0.26%	**0.78%**	0.00%	0.50%	0.60%	0.68%	**1.78%**	0.00%	0.29%	0.31%	0.59%	**1.19%**
	Total	2.52%	1.31%	0.76%	0.88%	**5.47%**	1.92%	1.75%	1.09%	1.46%	**6.22%**	1.39%	1.35%	0.94%	1.45%	**5.13%**
$50,000 to $100,000	0 Workers	0.74%	0.28%	0.03%	0.06%	**1.11%**	0.47%	0.53%	0.04%	0.09%	**1.12%**	0.24%	0.11%	0.02%	0.04%	**0.41%**
	1 Worker	2.63%	0.80%	0.29%	0.23%	**3.95%**	1.80%	1.15%	0.44%	0.59%	**3.99%**	0.65%	0.33%	0.27%	0.25%	**1.50%**
	2 Workers	0.00%	1.12%	0.43%	0.38%	**1.94%**	0.00%	1.31%	0.94%	1.04%	**3.30%**	0.00%	0.44%	0.54%	0.50%	**1.48%**
	Total	3.36%	2.21%	0.76%	0.66%	**6.99%**	2.28%	2.99%	1.43%	1.71%	**8.41%**	0.89%	0.89%	0.83%	0.78%	**3.39%**
$100,000 +	0 Workers	0.29%	0.29%	0.02%	0.04%	**0.64%**	0.10%	0.23%	0.00%	0.04%	**0.37%**	0.05%	0.06%	0.02%	0.03%	**0.15%**
	1 Worker	2.02%	0.91%	0.33%	0.31%	**3.57%**	0.48%	0.56%	0.25%	0.47%	**1.76%**	0.09%	0.10%	0.09%	0.09%	**0.38%**
	2 Workers	0.00%	2.72%	0.74%	0.67%	**4.13%**	0.00%	1.45%	0.62%	1.05%	**3.12%**	0.00%	0.24%	0.18%	0.26%	**0.67%**
	Total	2.31%	3.92%	1.09%	1.02%	**8.34%**	0.59%	2.23%	0.87%	1.56%	**5.24%**	0.13%	0.40%	0.29%	0.38%	**1.20%**
All Incomes	0 Workers	3.74%	1.47%	0.36%	0.57%	**6.14%**	2.71%	1.99%	0.26%	0.43%	**5.38%**	2.43%	1.45%	0.55%	0.71%	**5.13%**
	1 Worker	6.85%	2.90%	1.41%	1.44%	**12.59%**	3.73%	2.73%	1.47%	2.01%	**9.95%**	2.03%	1.67%	1.31%	1.79%	**6.81%**
	2 Workers	0.00%	4.37%	1.51%	1.57%	**7.45%**	0.00%	3.46%	2.30%	3.07%	**8.82%**	0.00%	1.11%	1.34%	1.72%	**4.17%**
	Total	10.59%	8.75%	3.28%	3.57%	**26.18%**	6.44%	8.18%	4.02%	5.51%	**24.15%**	4.46%	4.23%	3.20%	4.22%	**16.11%**

Number of Households by Household

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
WEEKDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.24%	0.92%	0.39%	0.56%	**4.10%**	0.30%	0.09%	0.03%	0.03%	**0.44%**	7.17%	2.98%	1.11%	1.48%	**12.75%**
	1 Worker	0.63%	0.76%	0.60%	0.85%	**2.83%**	0.07%	0.05%	0.05%	0.02%	**0.18%**	2.17%	2.36%	1.84%	2.43%	**8.80%**
	2 Workers	0.00%	0.26%	0.34%	0.73%	**1.33%**	0.00%	0.01%	0.03%	0.01%	**0.05%**	0.00%	0.84%	0.94%	1.67%	**3.45%**
	Total	2.87%	1.94%	1.32%	2.13%	**8.26%**	0.37%	0.14%	0.10%	0.06%	**0.67%**	9.34%	6.19%	3.89%	5.58%	**25.00%**
$25,000 to $50,000	0 Workers	0.84%	0.48%	0.20%	0.27%	**1.79%**	0.12%	0.08%	0.03%	0.02%	**0.25%**	3.32%	1.98%	0.57%	0.81%	**6.69%**
	1 Worker	1.43%	0.92%	0.76%	0.99%	**4.09%**	0.09%	0.15%	0.09%	0.09%	**0.41%**	4.98%	2.96%	2.15%	2.82%	**12.91%**
	2 Workers	0.00%	0.60%	0.52%	0.93%	**2.04%**	0.00%	0.02%	0.07%	0.07%	**0.15%**	0.00%	1.71%	1.71%	2.52%	**5.94%**
	Total	2.27%	1.99%	1.47%	2.19%	**7.92%**	0.21%	0.25%	0.18%	0.17%	**0.80%**	8.30%	6.65%	4.43%	6.16%	**25.54%**
$50,000 to $100,000	0 Workers	0.26%	0.25%	0.07%	0.07%	**0.64%**	0.09%	0.16%	0.04%	0.01%	**0.30%**	1.80%	1.33%	0.19%	0.26%	**3.58%**
	1 Worker	1.81%	1.04%	0.59%	0.68%	**4.12%**	0.27%	0.19%	0.09%	0.26%	**0.82%**	7.17%	3.51%	1.69%	2.00%	**14.38%**
	2 Workers	0.00%	1.17%	0.77%	1.19%	**3.13%**	0.00%	0.25%	0.10%	0.32%	**0.67%**	0.00%	4.30%	2.79%	3.43%	**10.51%**
	Total	2.08%	2.46%	1.42%	1.94%	**7.89%**	0.37%	0.60%	0.24%	0.60%	**1.79%**	8.97%	9.14%	4.67%	5.69%	**28.47%**
$100,000 +	0 Workers	0.03%	0.13%	0.05%	0.03%	**0.24%**	0.04%	0.06%	0.00%	0.03%	**0.12%**	0.51%	0.77%	0.09%	0.16%	**1.52%**
	1 Worker	0.45%	0.55%	0.31%	0.36%	**1.67%**	0.05%	0.18%	0.09%	0.16%	**0.48%**	3.09%	2.30%	1.08%	1.40%	**7.86%**
	2 Workers	0.00%	1.19%	0.71%	0.88%	**2.78%**	0.00%	0.27%	0.35%	0.29%	**0.92%**	0.00%	5.87%	2.60%	3.15%	**11.61%**
	Total	0.48%	1.87%	1.07%	1.27%	**4.68%**	0.09%	0.51%	0.44%	0.48%	**1.52%**	3.60%	8.93%	3.76%	4.70%	**20.99%**
All Incomes	0 Workers	3.37%	1.78%	0.70%	0.93%	**6.77%**	0.56%	0.38%	0.09%	0.09%	**1.11%**	12.81%	7.07%	1.96%	2.71%	**24.54%**
	1 Worker	4.33%	3.26%	2.25%	2.88%	**12.71%**	0.47%	0.57%	0.32%	0.53%	**1.89%**	17.41%	11.13%	6.76%	8.65%	**43.95%**
	2 Workers	0.00%	3.22%	2.33%	3.72%	**9.28%**	0.00%	0.55%	0.55%	0.69%	**1.79%**	0.00%	12.71%	8.03%	10.77%	**31.51%**
	Total	7.70%	8.26%	5.28%	7.53%	**28.76%**	1.03%	1.49%	0.96%	1.30%	**4.79%**	30.22%	30.91%	16.75%	22.13%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS) - 2006 - Expanded (by Household)

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.98%	0.70%	0.33%	0.19%	**4.20%**	2.20%	0.91%	0.20%	0.25%	**3.56%**	2.13%	0.96%	0.43%	0.53%	**4.05%**
	1 Worker	1.02%	0.38%	0.27%	0.30%	**1.97%**	0.70%	0.40%	0.36%	0.63%	**2.09%**	0.51%	0.60%	0.45%	0.55%	**2.10%**
	2 Workers	0.00%	0.11%	0.05%	0.12%	**0.28%**	0.00%	0.06%	0.10%	0.14%	**0.31%**	0.00%	0.07%	0.07%	0.12%	**0.27%**
	Total	4.00%	1.19%	0.65%	0.61%	**6.46%**	2.90%	1.37%	0.66%	1.03%	**5.96%**	2.65%	1.63%	0.95%	1.20%	**6.42%**
$25,000 to $50,000	0 Workers	0.75%	0.23%	0.04%	0.05%	**1.07%**	0.73%	0.65%	0.18%	0.11%	**1.66%**	0.38%	0.26%	0.08%	0.16%	**0.88%**
	1 Worker	1.62%	0.41%	0.22%	0.22%	**2.48%**	1.08%	0.80%	0.73%	0.68%	**3.29%**	0.90%	0.57%	0.39%	0.45%	**2.31%**
	2 Workers	0.00%	0.19%	0.17%	0.21%	**0.57%**	0.00%	0.52%	0.33%	0.64%	**1.49%**	0.00%	0.24%	0.29%	0.59%	**1.11%**
	Total	2.37%	0.84%	0.44%	0.48%	**4.12%**	1.81%	1.97%	1.23%	1.42%	**6.44%**	1.28%	1.07%	0.76%	1.19%	**4.30%**
$50,000 to $100,000	0 Workers	0.53%	0.18%	0.03%	0.03%	**0.78%**	0.22%	0.45%	0.09%	0.11%	**0.87%**	0.08%	0.12%	0.05%	0.07%	**0.32%**
	1 Worker	2.65%	0.67%	0.16%	0.17%	**3.65%**	1.42%	0.88%	0.57%	0.74%	**3.61%**	0.56%	0.42%	0.30%	0.31%	**1.59%**
	2 Workers	0.00%	0.67%	0.25%	0.49%	**1.41%**	0.00%	1.07%	0.97%	1.94%	**3.99%**	0.00%	0.42%	0.41%	0.87%	**1.69%**
	Total	3.18%	1.52%	0.45%	0.69%	**5.84%**	1.63%	2.40%	1.64%	2.79%	**8.47%**	0.64%	0.96%	0.77%	1.24%	**3.61%**
$100,000 +	0 Workers	0.34%	0.23%	0.02%	0.04%	**0.62%**	0.08%	0.14%	0.04%	0.10%	**0.36%**	0.01%	0.05%	0.01%	0.02%	**0.09%**
	1 Worker	2.23%	0.90%	0.34%	0.34%	**3.82%**	0.30%	0.34%	0.18%	0.27%	**1.09%**	0.08%	0.08%	0.07%	0.04%	**0.28%**
	2 Workers	0.00%	1.96%	0.79%	0.75%	**3.50%**	0.00%	0.66%	0.81%	1.87%	**3.34%**	0.00%	0.21%	0.22%	0.45%	**0.88%**
	Total	2.57%	3.09%	1.15%	1.13%	**7.94%**	0.38%	1.14%	1.03%	2.24%	**4.79%**	0.09%	0.34%	0.30%	0.51%	**1.25%**
All Incomes	0 Workers	4.60%	1.35%	0.42%	0.31%	**6.68%**	3.22%	2.15%	0.51%	0.57%	**6.45%**	2.61%	1.39%	0.58%	0.77%	**5.35%**
	1 Worker	7.52%	2.35%	1.00%	1.03%	**11.92%**	3.51%	2.42%	1.84%	2.33%	**10.09%**	2.05%	1.67%	1.21%	1.34%	**6.28%**
	2 Workers	0.00%	2.93%	1.27%	1.56%	**5.77%**	0.00%	2.31%	2.22%	4.59%	**9.13%**	0.00%	0.94%	0.99%	2.03%	**3.96%**
	Total	12.12%	6.63%	2.69%	2.91%	**24.36%**	6.73%	6.88%	4.56%	7.49%	**25.66%**	4.66%	4.00%	2.79%	4.14%	**15.59%**

Number of Households by Household Income and Number of Workers in Household

TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)

American Community Survey (ACS)

HH Income	HH Workers	Brooklyn HH Size 1	Brooklyn HH Size 2	Brooklyn HH Size 3	Brooklyn HH Size 4+	Brooklyn Total	Staten Island HH Size 1	Staten Island HH Size 2	Staten Island HH Size 3	Staten Island HH Size 4+	Staten Island Total	New York City HH Size 1	New York City HH Size 2	New York City HH Size 3	New York City HH Size 4+	New York City Total
Less than $25,000	0 Workers	3.62%	1.68%	0.49%	0.59%	**6.38%**	0.39%	0.21%	0.06%	0.06%	**0.72%**	11.33%	4.46%	1.50%	1.63%	**18.91%**
	1 Worker	1.03%	0.77%	0.56%	0.79%	**3.15%**	0.11%	0.06%	0.03%	0.06%	**0.26%**	3.38%	2.20%	1.68%	2.33%	**9.58%**
	2 Workers	0.00%	0.15%	0.09%	0.18%	**0.41%**	0.00%	0.01%	0.01%	0.01%	**0.03%**	0.00%	0.41%	0.32%	0.57%	**1.30%**
	Total	4.65%	2.60%	1.14%	1.56%	**9.94%**	0.50%	0.27%	0.10%	0.14%	**1.01%**	14.70%	7.06%	3.50%	4.54%	**29.80%**
$25,000 to $50,000	0 Workers	0.60%	0.54%	0.14%	0.16%	**1.43%**	0.15%	0.16%	0.03%	0.02%	**0.37%**	2.61%	1.84%	0.47%	0.49%	**5.41%**
	1 Worker	1.32%	1.04%	0.60%	0.88%	**3.84%**	0.18%	0.11%	0.11%	0.12%	**0.51%**	5.10%	2.93%	2.04%	2.35%	**12.43%**
	2 Workers	0.00%	0.51%	0.39%	0.79%	**1.69%**	0.00%	0.05%	0.04%	0.14%	**0.24%**	0.00%	1.51%	1.23%	2.36%	**5.11%**
	Total	1.92%	2.08%	1.12%	1.83%	**6.95%**	0.33%	0.33%	0.18%	0.28%	**1.12%**	7.71%	6.29%	3.74%	5.20%	**22.94%**
$50,000 to $100,000	0 Workers	0.30%	0.29%	0.10%	0.13%	**0.81%**	0.04%	0.15%	0.03%	0.03%	**0.25%**	1.16%	1.20%	0.31%	0.37%	**3.04%**
	1 Worker	1.36%	0.87%	0.51%	0.59%	**3.32%**	0.24%	0.26%	0.11%	0.24%	**0.86%**	6.23%	3.10%	1.66%	2.05%	**13.04%**
	2 Workers	0.00%	1.23%	0.88%	1.56%	**3.67%**	0.00%	0.16%	0.17%	0.36%	**0.69%**	0.00%	3.54%	2.69%	5.22%	**11.45%**
	Total	1.65%	2.38%	1.49%	2.28%	**7.81%**	0.28%	0.57%	0.31%	0.63%	**1.80%**	7.39%	7.84%	4.66%	7.63%	**27.53%**
$100,000 +	0 Workers	0.07%	0.08%	0.04%	0.07%	**0.26%**	0.01%	0.03%	0.02%	0.03%	**0.10%**	0.51%	0.52%	0.13%	0.26%	**1.42%**
	1 Worker	0.30%	0.29%	0.22%	0.26%	**1.07%**	0.05%	0.11%	0.08%	0.17%	**0.42%**	2.98%	1.73%	0.88%	1.09%	**6.68%**
	2 Workers	0.00%	0.89%	0.66%	1.28%	**2.84%**	0.00%	0.23%	0.29%	0.55%	**1.07%**	0.00%	3.96%	2.76%	4.91%	**11.64%**
	Total	0.37%	1.26%	0.92%	1.62%	**4.17%**	0.07%	0.38%	0.38%	0.76%	**1.59%**	3.49%	6.21%	3.78%	6.26%	**19.74%**
All Incomes	0 Workers	4.58%	2.59%	0.76%	0.96%	**8.88%**	0.60%	0.55%	0.14%	0.15%	**1.43%**	15.61%	8.02%	2.41%	2.75%	**28.78%**
	1 Worker	4.01%	2.96%	1.89%	2.52%	**11.38%**	0.58%	0.54%	0.33%	0.59%	**2.05%**	17.68%	9.96%	6.27%	7.82%	**41.72%**
	2 Workers	0.00%	2.78%	2.02%	3.82%	**8.61%**	0.00%	0.46%	0.50%	1.07%	**2.03%**	0.00%	9.42%	7.00%	13.07%	**29.49%**
	Total	8.59%	8.33%	4.66%	7.29%	**28.88%**	1.18%	1.55%	0.97%	1.81%	**5.51%**	33.29%	27.40%	15.68%	23.63%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.21%	-0.11%	-0.14%	0.12%	**-1.33%**	-1.01%	-0.33%	-0.05%	-0.10%	**-1.49%**	-0.47%	-0.15%	-0.07%	-0.10%	**-0.79%**
	1 Worker	-0.41%	0.11%	0.10%	0.14%	**-0.06%**	-0.23%	0.04%	0.00%	-0.31%	**-0.51%**	-0.13%	0.05%	0.02%	0.25%	**0.19%**
	2 Workers		0.11%	0.07%	0.14%	**0.32%**		0.14%	0.03%	0.16%	**0.32%**		0.07%	0.24%	0.26%	**0.57%**
	Total	#REF!	0.11%	0.03%	0.40%	**-1.07%**	-1.24%	-0.16%	-0.02%	-0.25%	**-1.67%**	-0.60%	-0.03%	0.19%	0.41%	**-0.03%**
$25,000 to $50,000	0 Workers	0.19%	0.07%	0.08%	0.11%	**0.45%**	0.22%	0.01%	-0.11%	0.04%	**0.16%**	0.10%	0.20%	0.07%	0.05%	**0.42%**
	1 Worker	-0.03%	0.30%	0.19%	0.23%	**0.69%**	-0.11%	-0.22%	-0.30%	-0.05%	**-0.67%**	0.01%	0.03%	0.08%	0.21%	**0.33%**
	2 Workers		0.11%	0.04%	0.06%	**0.21%**		-0.02%	0.26%	0.04%	**0.28%**		0.06%	0.02%	0.00%	**0.08%**
	Total	0.15%	0.48%	0.31%	0.40%	**1.35%**	0.11%	-0.23%	-0.15%	0.04%	**-0.23%**	0.11%	0.28%	0.17%	0.26%	**0.82%**
$50,000 to $100,000	0 Workers	0.21%	0.10%	0.00%	0.03%	**0.33%**	0.25%	0.08%	-0.06%	-0.02%	**0.25%**	0.15%	-0.01%	-0.03%	-0.03%	**0.08%**
	1 Worker	-0.03%	0.14%	0.13%	0.06%	**0.30%**	0.39%	0.27%	-0.13%	-0.16%	**0.37%**	0.09%	-0.09%	-0.03%	-0.06%	**-0.09%**
	2 Workers		0.46%	0.18%	-0.12%	**0.52%**		0.24%	-0.03%	-0.90%	**-0.69%**		0.03%	0.13%	-0.37%	**-0.21%**
	Total	0.18%	0.69%	0.30%	-0.03%	**1.15%**	0.64%	0.59%	-0.21%	-1.08%	**-0.07%**	0.25%	-0.07%	0.06%	-0.46%	**-0.22%**
$100,000 +	0 Workers	-0.05%	0.06%	0.00%	0.00%	**0.02%**	0.03%	0.09%	-0.04%	-0.06%	**0.01%**	0.04%	0.01%	0.01%	0.01%	**0.06%**
	1 Worker	-0.21%	0.01%	-0.01%	-0.03%	**-0.25%**	0.18%	0.22%	0.07%	0.20%	**0.66%**	0.00%	0.02%	0.02%	0.05%	**0.10%**
	2 Workers		0.76%	-0.05%	-0.08%	**0.63%**		0.79%	-0.19%	-0.82%	**-0.22%**		0.03%	-0.04%	-0.20%	**-0.21%**
	Total	-0.26%	0.83%	-0.06%	-0.11%	**0.40%**	0.20%	1.09%	-0.16%	-0.69%	**0.45%**	0.04%	0.06%	-0.01%	-0.13%	**-0.05%**
All Incomes	0 Workers	-0.86%	0.13%	-0.06%	0.26%	**-0.54%**	-0.51%	-0.15%	-0.26%	-0.14%	**-1.06%**	-0.18%	0.06%	-0.04%	-0.06%	**-0.22%**
	1 Worker	-0.68%	0.55%	0.40%	0.40%	**0.67%**	0.22%	0.31%	-0.36%	-0.31%	**-0.15%**	-0.02%	0.00%	0.10%	0.45%	**0.53%**
	2 Workers		1.44%	0.24%	0.00%	**1.69%**		1.14%	0.08%	-1.52%	**-0.30%**		0.18%	0.35%	-0.31%	**0.22%**
	Total	-1.54%	2.11%	0.58%	0.66%	**1.83%**	-0.29%	1.30%	-0.54%	-1.98%	**-1.51%**	-0.20%	0.23%	0.41%	0.08%	**0.52%**

Number of Households by Household

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
WEEKDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.38%	-0.77%	-0.10%	-0.04%	**-2.28%**	-0.09%	-0.12%	-0.03%	-0.03%	**-0.28%**	-4.16%	-1.47%	-0.39%	-0.15%	**-6.16%**
	1 Worker	-0.40%	-0.01%	0.03%	0.06%	**-0.32%**	-0.04%	-0.01%	0.01%	-0.04%	**-0.08%**	-1.20%	0.16%	0.16%	0.10%	**-0.78%**
	2 Workers		0.12%	0.25%	0.55%	**0.92%**		0.00%	0.02%	0.00%	**0.02%**		0.43%	0.62%	1.10%	**2.15%**
	Total	-1.78%	-0.66%	0.19%	0.58%	**-1.68%**	-0.13%	-0.13%	0.00%	-0.08%	**-0.34%**	-5.36%	-0.87%	0.39%	1.05%	**-4.79%**
$25,000 to $50,000	0 Workers	0.24%	-0.06%	0.06%	0.12%	**0.37%**	-0.03%	-0.08%	0.00%	0.00%	**-0.12%**	0.72%	0.14%	0.10%	0.32%	**1.28%**
	1 Worker	0.11%	-0.12%	0.16%	0.11%	**0.25%**	-0.09%	0.04%	-0.02%	-0.03%	**-0.11%**	-0.13%	0.03%	0.11%	0.47%	**0.48%**
	2 Workers		0.08%	0.13%	0.14%	**0.35%**		-0.04%	0.02%	-0.08%	**-0.09%**		0.20%	0.48%	0.16%	**0.83%**
	Total	0.35%	-0.09%	0.35%	0.36%	**0.97%**	-0.12%	-0.08%	0.00%	-0.11%	**-0.32%**	0.59%	0.36%	0.69%	0.96%	**2.60%**
$50,000 to $100,000	0 Workers	-0.03%	-0.05%	-0.03%	-0.06%	**-0.17%**	0.05%	0.01%	0.00%	-0.02%	**0.05%**	0.64%	0.13%	-0.12%	-0.11%	**0.54%**
	1 Worker	0.45%	0.17%	0.08%	0.09%	**0.80%**	0.03%	-0.07%	-0.02%	0.02%	**-0.04%**	0.94%	0.41%	0.03%	-0.04%	**1.34%**
	2 Workers		-0.05%	-0.12%	-0.37%	**-0.55%**		0.08%	-0.06%	-0.04%	**-0.02%**		0.76%	0.10%	-1.79%	**-0.94%**
	Total	0.42%	0.07%	-0.07%	-0.35%	**0.08%**	0.08%	0.02%	-0.08%	-0.03%	**0.00%**	1.58%	1.31%	0.00%	-1.95%	**0.94%**
$100,000 +	0 Workers	-0.04%	0.06%	0.01%	-0.05%	**-0.02%**	0.03%	0.02%	-0.02%	0.00%	**0.03%**	0.00%	0.24%	-0.04%	-0.10%	**0.10%**
	1 Worker	0.15%	0.26%	0.09%	0.10%	**0.60%**	-0.01%	0.07%	0.02%	-0.01%	**0.07%**	0.11%	0.57%	0.19%	0.31%	**1.18%**
	2 Workers		0.30%	0.05%	-0.41%	**-0.06%**		0.04%	0.06%	-0.26%	**-0.16%**		1.91%	-0.17%	-1.77%	**-0.03%**
	Total	0.11%	0.61%	0.15%	-0.35%	**0.51%**	0.02%	0.13%	0.07%	-0.28%	**-0.07%**	0.11%	2.71%	-0.02%	-1.56%	**1.25%**
All Incomes	0 Workers	-1.21%	-0.81%	-0.06%	-0.03%	**-2.11%**	-0.04%	-0.17%	-0.04%	-0.06%	**-0.32%**	-2.80%	-0.96%	-0.45%	-0.04%	**-4.24%**
	1 Worker	0.31%	0.30%	0.36%	0.36%	**1.33%**	-0.11%	0.02%	-0.01%	-0.07%	**-0.16%**	-0.28%	1.17%	0.49%	0.84%	**2.23%**
	2 Workers		0.44%	0.32%	-0.10%	**0.66%**		0.09%	0.04%	-0.38%	**-0.25%**		3.29%	1.03%	-2.30%	**2.02%**
	Total	-0.89%	-0.07%	0.62%	0.24%	**-0.12%**	-0.15%	-0.06%	-0.01%	-0.50%	**-0.72%**	-3.07%	3.51%	1.07%	-1.50%	**0.00%**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	479	336	495	176	**418**	527	450	376	477	**491**	366	337	344	348	**354**
	1 Worker	474	223	210	196	**295**	426	261	288	559	**377**	378	265	270	197	**261**
	2 Workers		144	119	131	**133**		90	218	136	**139**		150	65	92	**91**
	Total	478	261	272	173	**342**	498	323	295	378	**396**	368	291	237	213	**287**
$25,000 to $50,000	0 Workers	228	220	98	85	**201**	220	280	757	204	**260**	226	162	160	213	**194**
	1 Worker	291	166	154	140	**224**	318	391	487	306	**359**	283	273	235	193	**250**
	2 Workers		179	230	223	**208**		298	160	266	**240**		230	265	287	**267**
	Total	268	182	166	155	**215**	270	322	324	277	**296**	263	226	233	234	**239**
$50,000 to $100,000	0 Workers	205	186	326	150	**200**	131	244	705	362	**221**	99	309	801	509	**228**
	1 Worker	288	237	160	208	**264**	224	218	368	363	**259**	244	366	317	355	**302**
	2 Workers		169	167	372	**208**		232	294	533	**345**		267	218	494	**326**
	Total	270	196	170	297	**238**	205	229	328	466	**287**	205	309	264	451	**304**
$100,000 +	0 Workers	332	223	265	285	**277**	215	173		746	**276**	65	227	197	189	**165**
	1 Worker	315	283	297	312	**305**	180	174	204	165	**178**	278	232	219	123	**212**
	2 Workers		206	306	318	**242**		130	370	509	**306**		255	349	506	**375**
	Total	317	225	302	315	**272**	186	145	337	411	**261**	202	245	297	387	**298**
All Incomes	0 Workers	351	261	334	155	**310**	339	307	571	381	**342**	306	274	304	311	**298**
	1 Worker	313	232	203	205	**270**	268	253	355	330	**289**	288	286	264	213	**263**
	2 Workers		191	240	285	**221**		191	276	427	**295**		240	211	337	**270**
	Total	**327**	**216**	**234**	**232**	**265**	**298**	**240**	**324**	**388**	**303**	**298**	**270**	**248**	**280**	**276**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	461	524	358	304	**444**	371	693	575	632	**462**	451	426	385	314	**423**
	1 Worker	465	291	270	264	**317**	459	344	203	963	**414**	443	265	260	274	**311**
	2 Workers		159	74	70	**88**		300	88	358	**184**		138	97	98	**108**
	Total	462	383	245	208	**343**	386	551	273	697	**430**	449	326	257	232	**340**
$25,000 to $50,000	0 Workers	202	318	196	163	**227**	358	605	310	302	**424**	224	265	236	171	**231**
	1 Worker	264	322	226	255	**268**	596	213	360	392	**361**	292	283	271	237	**275**
	2 Workers		245	213	244	**236**		826	184	613	**452**		253	205	267	**245**
	Total	241	298	218	238	**250**	455	381	287	468	**398**	265	270	241	241	**256**
$50,000 to $100,000	0 Workers	319	338	424	560	**362**	120	262	251	915	**237**	184	257	469	409	**242**
	1 Worker	214	238	247	247	**230**	255	393	344	260	**299**	248	252	280	292	**259**
	2 Workers		298	329	375	**335**		189	458	317	**292**		235	275	434	**311**
	Total	227	277	299	336	**282**	220	273	379	301	**286**	235	245	285	383	**276**
$100,000 +	0 Workers	690	166	241	752	**314**	92	176		326	**221**	285	195	430	466	**267**
	1 Worker	190	152	199	207	**183**	329	180	230	307	**247**	275	215	234	222	**242**
	2 Workers		215	265	417	**292**		243	234	540	**334**		193	304	445	**286**
	Total	220	193	245	365	**254**	224	213	243	450	**297**	276	199	287	380	**268**
All Incomes	0 Workers	387	416	310	294	**374**	306	415	413	488	**366**	348	324	352	289	**335**
	1 Worker	265	259	239	250	**255**	352	273	294	321	**310**	290	255	264	258	**271**
	2 Workers		246	247	293	**265**		240	263	441	**325**		211	249	346	**267**
	Total	**318**	**288**	**252**	**276**	**286**	**327**	**297**	**288**	**395**	**328**	**314**	**253**	**267**	**305**	**285**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	1.68	1.18	1.74	0.62	**1.46**	1.85	1.58	1.32	1.67	**1.72**	1.28	1.18	1.20	1.22	**1.24**
	1 Worker	1.66	0.78	0.73	0.69	**1.03**	1.49	0.91	1.01	1.96	**1.32**	1.32	0.93	0.95	0.69	**0.92**
	2 Workers		0.50	0.42	0.46	**0.47**		0.32	0.77	0.48	**0.49**		0.52	0.23	0.32	**0.32**
	Total	1.68	0.91	0.96	0.61	**1.20**	1.75	1.13	1.03	1.33	**1.39**	1.29	1.02	0.83	0.75	**1.00**
$25,000 to $50,000	0 Workers	0.80	0.77	0.34	0.30	**0.70**	0.77	0.98	2.65	0.72	**0.91**	0.79	0.57	0.56	0.75	**0.68**
	1 Worker	1.02	0.58	0.54	0.49	**0.78**	1.12	1.37	1.71	1.07	**1.26**	0.99	0.96	0.82	0.68	**0.87**
	2 Workers		0.63	0.80	0.78	**0.73**		1.04	0.56	0.93	**0.84**		0.81	0.93	1.01	**0.94**
	Total	0.94	0.64	0.58	0.54	**0.75**	0.95	1.13	1.14	0.97	**1.04**	0.92	0.79	0.82	0.82	**0.84**
$50,000 to $100,000	0 Workers	0.72	0.65	1.14	0.52	**0.70**	0.46	0.86	2.47	1.27	**0.78**	0.35	1.08	2.81	1.78	**0.80**
	1 Worker	1.01	0.83	0.56	0.73	**0.92**	0.78	0.77	1.29	1.27	**0.91**	0.85	1.28	1.11	1.24	**1.06**
	2 Workers		0.59	0.59	1.30	**0.73**		0.81	1.03	1.87	**1.21**		0.94	0.77	1.73	**1.14**
	Total	0.95	0.69	0.60	1.04	**0.84**	0.72	0.80	1.15	1.63	**1.01**	0.72	1.08	0.93	1.58	**1.06**
$100,000 +	0 Workers	1.16	0.78	0.93	1.00	**0.97**	0.75	0.60		2.62	**0.97**	0.23	0.80	0.69	0.66	**0.58**
	1 Worker	1.10	0.99	1.04	1.09	**1.07**	0.63	0.61	0.71	0.58	**0.62**	0.98	0.81	0.77	0.43	**0.74**
	2 Workers		0.72	1.07	1.11	**0.85**		0.46	1.30	1.79	**1.07**		0.89	1.22	1.77	**1.32**
	Total	1.11	0.79	1.06	1.10	**0.95**	0.65	0.51	1.18	1.44	**0.91**	0.71	0.86	1.04	1.35	**1.04**
All Incomes	0 Workers	1.23	0.91	1.17	0.54	**1.09**	1.19	1.08	2.00	1.34	**1.20**	1.07	0.96	1.06	1.09	**1.04**
	1 Worker	1.10	0.81	0.71	0.72	**0.95**	0.94	0.89	1.25	1.16	**1.01**	1.01	1.00	0.92	0.75	**0.92**
	2 Workers		0.67	0.84	1.00	**0.77**		0.67	0.97	1.50	**1.03**		0.84	0.74	1.18	**0.95**
	Total	1.15	0.76	0.82	0.81	**0.93**	1.04	0.84	1.13	1.36	**1.06**	1.05	0.95	0.87	0.98	**0.97**

Number of Households by Household

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1.62	1.84	1.25	1.07	**1.56**	1.30	2.43	2.02	2.22	**1.62**	1.58	1.49	1.35	1.10	**1.48**
	1 Worker	1.63	1.02	0.95	0.92	**1.11**	1.61	1.21	0.71	3.38	**1.45**	1.55	0.93	0.91	0.96	**1.09**
	2 Workers		0.56	0.26	0.25	**0.31**		1.05	0.31		**0.65**		0.49	0.34	0.34	**0.38**
	Total	1.62	1.34	0.86	0.73	**1.20**	1.35	1.93	0.96	2.44	**1.51**	1.57	1.14	0.90	0.81	**1.19**
$25,000 to $50,000	0 Workers	0.71	1.12	0.69	0.57	**0.79**	1.26	2.12	1.09	1.06	**1.49**	0.78	0.93	0.83	0.60	**0.81**
	1 Worker	0.93	1.13	0.79	0.89	**0.94**	2.09	0.75	1.26	1.37	**1.27**	1.03	0.99	0.95	0.83	**0.96**
	2 Workers		0.86	0.75	0.85	**0.83**		2.90	0.64	2.15	**1.58**		0.89	0.72	0.94	**0.86**
	Total	0.85	1.05	0.76	0.84	**0.88**	1.60	1.33	1.01	1.64	**1.39**	0.93	0.95	0.84	0.84	**0.90**
$50,000 to $100,000	0 Workers	1.12	1.19	1.49	1.96	**1.27**	0.42	0.92	0.88	3.21	**0.83**	0.65	0.90	1.64	1.43	**0.85**
	1 Worker	0.75	0.83	0.86	0.87	**0.81**	0.89	1.38	1.21	0.91	**1.05**	0.87	0.88	0.98	1.02	**0.91**
	2 Workers		1.05	1.15	1.31	**1.17**		0.66	1.61	1.11	**1.02**		0.82	0.97	1.52	**1.09**
	Total	0.80	0.97	1.05	1.18	**0.99**	0.77	0.96	1.33	1.06	**1.00**	0.82	0.86	1.00	1.34	**0.97**
$100,000 +	0 Workers	2.42	0.58	0.84	2.64	**1.10**	0.32	0.62		1.14	**0.77**	1.00	0.68	1.51	1.63	**0.94**
	1 Worker	0.67	0.53	0.70	0.73	**0.64**	1.15	0.63	0.81	1.08	**0.86**	0.96	0.75	0.82	0.78	**0.85**
	2 Workers		0.75	0.93	1.46	**1.02**		0.85	0.82	1.89	**1.17**		0.68	1.06	1.56	**1.00**
	Total	0.77	0.68	0.86	1.28	**0.89**	0.78	0.75	0.85	1.58	**1.04**	0.97	0.70	1.00	1.33	**0.94**
All Incomes	0 Workers	1.36	1.46	1.09	1.03	**1.31**	1.07	1.45	1.45	1.71	**1.28**	1.22	1.14	1.23	1.01	**1.17**
	1 Worker	0.93	0.91	0.84	0.87	**0.90**	1.23	0.96	1.03	1.12	**1.09**	1.02	0.89	0.93	0.90	**0.95**
	2 Workers		0.86	0.86	1.03	**0.93**		0.84	0.92	1.54	**1.14**		0.74	0.87	1.21	**0.94**
	Total	1.12	1.01	0.88	0.97	**1.00**	1.15	1.04	1.01	1.39	**1.15**	1.10	0.89	0.94	1.07	**1.00**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	1.25	1.22	1.25	0.67	**1.18**	1.44	1.44	1.38	1.44	**1.44**	1.26	1.18	1.21	1.22	**1.23**
	1 Worker	1.25	0.81	0.76	0.71	**0.92**	1.44	0.96	1.06	1.44	**1.22**	1.26	0.93	0.95	0.69	**0.91**
	2 Workers		0.67	0.67	0.67	**0.67**		0.78	0.80	0.78	**0.78**		0.68	0.68	0.68	**0.68**
	Total	1.25	0.97	0.88	0.69	**1.03**	1.44	1.16	1.08	1.18	**1.26**	1.26	1.03	0.96	0.83	**1.04**
$25,000 to $50,000	0 Workers	0.82	0.80	0.67	0.67	**0.79**	0.81	1.03	1.44	0.78	**0.91**	0.79	0.68	0.68	0.75	**0.73**
	1 Worker	1.05	0.67	0.67	0.67	**0.86**	1.17	1.43	1.44	1.12	**1.26**	0.99	0.96	0.82	0.68	**0.88**
	2 Workers		0.67	0.83	0.81	**0.76**		1.09	0.78	0.98	**0.94**		0.81	0.93	1.01	**0.94**
	Total	0.97	0.70	0.72	0.71	**0.83**	0.99	1.18	1.08	1.02	**1.07**	0.92	0.83	0.84	0.82	**0.85**
$50,000 to $100,000	0 Workers	0.74	0.67	1.18	0.67	**0.73**	0.78	0.90	1.44	1.33	**0.90**	0.68	1.08	1.26	1.26	**0.87**
	1 Worker	1.04	0.86	0.67	0.75	**0.96**	0.82	0.80	1.35	1.33	**0.95**	0.86	1.26	1.11	1.25	**1.06**
	2 Workers		0.67	0.67	1.25	**0.78**		0.85	1.08	1.44	**1.10**		0.94	0.77	1.26	**0.98**
	Total	0.98	0.74	0.69	1.03	**0.88**	0.81	0.84	1.17	1.40	**1.00**	0.81	1.08	0.89	1.25	**1.00**
$100,000 +	0 Workers	1.20	0.80	0.96	1.03	**1.00**	0.79	0.78		1.44	**0.85**	0.68	0.80	0.69	0.68	**0.72**
	1 Worker	1.14	1.02	1.07	1.13	**1.10**	0.78	0.78	0.78	0.78	**0.78**	0.98	0.82	0.77	0.68	**0.81**
	2 Workers		0.74	1.11	1.15	**0.87**		0.78	1.36	1.44	**1.12**		0.89	1.22	1.26	**1.12**
	Total	1.15	0.81	1.09	1.14	**0.98**	0.78	0.78	1.19	1.24	**0.98**	0.87	0.86	1.04	1.07	**0.97**
All Incomes	0 Workers	1.04	0.94	1.03	0.70	**0.98**	1.08	1.08	1.41	1.18	**1.11**	1.10	1.00	1.04	1.06	**1.06**
	1 Worker	1.09	0.85	0.79	0.79	**0.97**	0.98	0.96	1.21	1.15	**1.04**	1.00	1.00	0.92	0.76	**0.92**
	2 Workers		0.72	0.91	1.04	**0.82**		0.85	1.06	1.27	**1.05**		0.86	0.84	1.05	**0.93**
	Total	1.07	0.80	0.87	0.89	**0.93**	1.02	0.94	1.14	1.22	**1.06**	1.05	0.96	0.91	0.93	**0.97**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKDAY TRAVEL SAMPLE

Brooklyn					Staten Island					New York City				
HH Size					HH Size					HH Size				
1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
1.35	1.35	1.30	1.10	**1.31**	1.38	1.58	1.58	1.58	**1.44**	1.32	1.30	1.28	1.09	**1.29**
1.35	1.06	0.98	0.96	**1.08**	1.58	1.28	0.85	1.58	**1.31**	1.33	0.96	0.94	0.89	**1.03**
	0.73	0.73	0.73	**0.73**		1.11	0.85	1.33	**1.00**		0.72	0.72	0.72	**0.72**
1.35	1.15	1.01	0.92	**1.14**	1.41	1.45	1.05	1.54	**1.37**	1.32	1.09	0.98	0.89	**1.12**
0.73	1.16	0.73	0.73	**0.85**	1.33	1.58	1.15	1.12	**1.37**	0.81	0.96	0.81	0.74	**0.85**
0.96	1.17	0.82	0.92	**0.97**	1.58	0.85	1.34	1.46	**1.23**	1.05	1.04	0.94	0.89	**0.99**
	0.89	0.77	0.88	**0.86**		1.58	0.85	1.58	**1.26**		0.90	0.81	0.95	**0.90**
0.88	1.08	0.79	0.88	**0.91**	1.43	1.13	1.13	1.47	**1.28**	0.95	0.98	0.87	0.89	**0.93**
1.16	1.23	1.35	1.35	**1.22**	0.85	0.97	0.93	1.58	**0.95**	0.81	0.93	1.25	1.19	**0.91**
0.78	0.86	0.90	0.90	**0.84**	0.95	1.46	1.28	0.97	**1.11**	0.90	0.91	1.03	1.06	**0.94**
	1.08	1.19	1.35	**1.21**		0.85	1.58	1.18	**1.12**		0.88	1.01	1.34	**1.06**
0.82	1.00	1.08	1.19	**1.02**	0.92	1.08	1.35	1.09	**1.09**	0.88	0.90	1.03	1.23	**0.98**
1.35	0.73	0.87	1.35	**0.91**	0.85	0.85		1.21	**0.93**	1.05	0.79	0.85	1.15	**0.92**
0.73	0.73	0.73	0.75	**0.73**	1.22	0.85	0.86	1.14	**0.98**	1.02	0.87	0.86	0.88	**0.93**
	0.78	0.96	1.35	**1.01**		0.90	0.87	1.58	**1.11**		0.77	1.10	1.35	**1.00**
0.76	0.76	0.89	1.18	**0.90**	1.06	0.88	0.87	1.41	**1.05**	1.02	0.80	1.03	1.21	**0.97**
1.18	1.23	1.11	1.02	**1.17**	1.24	1.21	1.19	1.36	**1.24**	1.11	1.08	1.12	1.00	**1.09**
0.92	0.97	0.87	0.91	**0.92**	1.18	1.09	1.11	1.12	**1.12**	1.02	0.95	0.95	0.93	**0.97**
	0.91	0.96	1.11	**1.00**		0.91	1.00	1.39	**1.12**		0.82	0.96	1.16	**0.97**
1.03	1.00	0.94	1.02	**1.00**	1.21	1.05	1.05	1.28	**1.15**	1.05	0.93	0.98	1.05	**1.00**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	356	347	356	191	**336**	412	412	394	412	**410**	359	337	344	348	**350**
	1 Worker	356	230	216	202	**261**	412	273	302	412	**349**	359	265	270	197	**258**
	2 Workers	0	191	191	191	**191**	0	222	228	222	**223**	0	193	193	193	**193**
	Total	356	276	250	196	**293**	412	331	308	338	**360**	359	295	272	237	**297**
$25,000 to $50,000	0 Workers	235	227	191	191	**225**	230	293	412	222	**259**	226	193	193	213	**209**
	1 Worker	300	191	191	191	**246**	333	409	412	320	**359**	283	273	235	193	**250**
	2 Workers	0	191	237	230	**217**	0	312	222	279	**269**	0	230	265	287	**267**
	Total	276	200	204	203	**236**	282	337	308	291	**304**	263	236	238	234	**243**
$50,000 to $100,000	0 Workers	211	191	336	191	**208**	222	256	412	379	**256**	193	309	359	359	**249**
	1 Worker	297	244	191	215	**274**	234	228	385	380	**271**	244	359	317	355	**301**
	2 Workers	0	191	191	356	**224**	0	243	308	412	**315**	0	267	218	359	**280**
	Total	278	211	197	293	**249**	232	240	335	399	**286**	230	307	254	358	**286**
$100,000 +	0 Workers	342	229	273	294	**286**	224	222	0	412	**242**	193	227	197	193	**206**
	1 Worker	325	292	306	322	**314**	222	222	222	222	**222**	278	233	219	193	**230**
	2 Workers	0	212	315	328	**249**	0	222	388	412	**319**	0	255	349	359	**320**
	Total	327	232	312	325	**280**	222	222	341	354	**281**	248	245	297	305	**277**
All Incomes	0 Workers	296	269	294	198	**280**	308	309	401	338	**315**	313	284	298	303	**302**
	1 Worker	311	244	225	227	**276**	281	273	345	329	**298**	285	284	264	217	**263**
	2 Workers	0	204	258	296	**235**	0	243	303	364	**300**	0	245	241	298	**266**
	Total	**306**	**228**	**248**	**253**	**265**	**292**	**269**	**324**	**349**	**303**	**300**	**274**	**260**	**264**	**276**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	385	385	370	315	**374**	392	451	451	451	**411**	377	371	364	311	**367**
	1 Worker	385	301	280	273	**307**	451	364	243	451	**373**	380	273	268	255	**293**
	2 Workers	0	207	207	207	**207**	0	317	243	379	**285**	0	205	205	205	**205**
	Total	385	328	288	261	**324**	403	413	299	439	**392**	377	311	280	255	**319**
$25,000 to $50,000	0 Workers	209	329	207	207	**241**	379	451	328	320	**391**	231	275	230	211	**241**
	1 Worker	273	334	234	263	**277**	451	243	381	415	**351**	298	298	267	253	**283**
	2 Workers	0	253	221	252	**244**	0	451	243	451	**360**	0	258	232	270	**256**
	Total	250	309	226	252	**261**	408	323	322	418	**365**	271	280	249	254	**266**
$50,000 to $100,000	0 Workers	330	350	385	385	**349**	243	277	265	451	**270**	231	267	356	339	**258**
	1 Worker	221	246	255	256	**238**	270	416	364	275	**316**	256	260	294	302	**268**
	2 Workers	0	309	340	385	**346**	0	243	451	336	**320**	0	250	287	382	**303**
	Total	235	286	307	340	**290**	263	307	386	311	**310**	251	256	292	352	**280**
$100,000 +	0 Workers	385	207	249	385	**259**	243	243	0	345	**266**	299	224	243	329	**262**
	1 Worker	207	207	207	214	**209**	348	243	244	325	**281**	290	248	245	252	**265**
	2 Workers	0	222	275	385	**287**	0	257	248	451	**315**	0	220	315	386	**286**
	Total	218	217	254	337	**258**	301	251	247	403	**300**	292	228	293	344	**277**
All Incomes	0 Workers	337	352	317	290	**333**	354	346	340	386	**352**	315	308	319	285	**310**
	1 Worker	261	277	248	258	**262**	335	311	315	319	**320**	290	270	271	265	**277**
	2 Workers	0	258	274	317	**286**	0	258	285	396	**320**	0	234	275	329	**277**
	Total	**294**	**286**	**269**	**291**	**286**	**345**	**300**	**301**	**364**	**327**	**301**	**264**	**278**	**299**	**285**

Number of Households by Household Income, Household Workers and Household Size by Borough

American Community Survey (ACS) - 2006 - Expanded (by Household)

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
WEEKDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	90,074	21,182	9,904	5,804	**126,964**	66,370	27,426	6,021	7,631	**107,448**	64,445	28,941	13,060	15,998	**122,444**
	1 Worker	30,837	11,371	8,171	9,197	**59,576**	21,290	11,991	10,953	19,020	**63,254**	15,481	18,006	13,514	16,540	**63,541**
	2+ Workers	0	3,446	1,544	3,531	**8,521**	0	1,894	3,056	4,356	**9,306**	0	2,246	2,131	3,662	**8,039**
	Total	**120,911**	**35,999**	**19,619**	**18,532**	195,061	**87,660**	**41,311**	**20,030**	**31,007**	180,008	**79,926**	**49,193**	**28,705**	**36,200**	194,024
$25,000 to $50,000	0 Workers	22,569	7,054	1,271	1,448	**32,342**	21,960	19,602	5,301	3,271	**50,134**	11,526	7,940	2,555	4,695	**26,716**
	1 Worker	48,937	12,444	6,768	6,725	**74,874**	32,770	24,223	21,901	20,476	**99,370**	27,179	17,189	11,745	13,513	**69,626**
	2+ Workers	0	5,734	5,280	6,255	**17,269**	0	15,790	10,072	19,185	**45,047**	0	7,126	8,735	17,812	**33,673**
	Total	**71,506**	**25,232**	**13,319**	**14,428**	124,485	**54,730**	**59,615**	**37,274**	**42,932**	194,551	**38,705**	**32,255**	**23,035**	**36,020**	130,015
$50,000 to $100,000	0 Workers	15,990	5,573	977	898	**23,438**	6,571	13,676	2,820	3,262	**26,329**	2,469	3,708	1,602	2,036	**9,815**
	1 Worker	80,103	20,136	4,972	5,002	**110,213**	42,745	26,638	17,290	22,496	**109,169**	16,829	12,807	9,194	9,230	**48,060**
	2+ Workers	0	20,093	7,690	14,887	**42,670**	0	32,315	29,428	58,632	**120,375**	0	12,540	12,445	26,156	**51,141**
	Total	**96,093**	**45,802**	**13,639**	**20,787**	176,321	**49,316**	**72,629**	**49,538**	**84,390**	255,873	**19,298**	**29,055**	**23,241**	**37,422**	109,016
$100,000 +	0 Workers	10,292	6,899	530	1,141	**18,862**	2,360	4,141	1,270	2,985	**10,756**	323	1,364	393	566	**2,646**
	1 Worker	67,394	27,155	10,386	10,305	**115,240**	9,186	10,277	5,293	8,273	**33,029**	2,504	2,557	2,185	1,234	**8,480**
	2+ Workers	0	59,238	23,847	22,583	**105,668**	0	19,919	24,448	56,534	**100,901**	0	6,374	6,623	13,661	**26,658**
	Total	**77,686**	**93,292**	**34,763**	**34,029**	239,770	**11,546**	**34,337**	**31,011**	**67,792**	144,686	**2,827**	**10,295**	**9,201**	**15,461**	37,784
ACS HOUSEHOLDS																
All Income	0 Workers	138,925	40,708	12,682	9,291	**201,606**	97,261	64,845	15,412	17,149	**194,667**	78,763	41,953	17,610	23,295	**161,621**
	1 Worker	227,271	71,106	30,297	31,229	**359,903**	105,991	73,129	55,437	70,265	**304,822**	61,993	50,559	36,638	40,517	**189,707**
	2+ Workers	0	88,511	38,361	47,256	**174,128**	0	69,918	67,004	138,707	**275,629**	0	28,286	29,934	61,291	**119,511**
	Total	**366,196**	**200,325**	**81,340**	**87,776**	735,637	**203,252**	**207,892**	**137,853**	**226,121**	775,118	**140,756**	**120,798**	**84,182**	**125,103**	470,839
MTA SURVEY HOUSEHOLDS - with LEVEL 1 HOUSEHOLD (ONLY) WEIGHTS - EXP_HH1B																
All Income	0 Workers	117,216	41,963	11,156	11,900	**182,235**	88,396	65,248	10,828	15,192	**179,664**	80,497	43,495	17,268	22,716	**163,976**
	1 Worker	225,606	74,833	33,491	34,451	**368,381**	110,897	78,839	53,837	70,040	**313,613**	61,244	50,327	36,651	41,240	**189,462**
	2+ Workers	0	94,576	41,323	49,123	**185,022**	0	88,900	73,532	118,139	**280,571**	0	28,948	34,191	54,262	**117,401**
	Total	342,822	211,372	85,970	95,474	**735,638**	199,293	232,987	138,197	203,371	**773,848**	141,741	122,770	88,110	118,218	**470,839**
RATIO - EXPANDED SURVEY HOUSEHOLDS to ACS																
All Income	0 Workers	0.844	1.031	0.880	1.281	**0.904**	0.909	1.006	0.703	0.886	**0.923**	1.022	1.037	0.981	0.975	**1.015**
	1 Worker	0.993	1.052	1.105	1.103	**1.024**	1.046	1.078	0.971	0.997	**1.029**	0.988	0.995	1.000	1.018	**0.999**
	2+ Workers		1.069	1.077	1.040	**1.063**		1.271	1.097	0.852	**1.018**		1.023	1.142	0.885	**0.982**
	Total	0.936	1.055	1.057	1.088	**1.000**	0.981	1.121	1.002	0.899	**0.998**	1.007	1.016	1.047	0.945	**1.000**

Number of Households by Household I

American Community Survey (ACS) - 2(

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
WEEKDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	109,304	50,788	14,667	17,953	**192,712**	11,856	6,238	1,725	1,896	**21,715**	342,049	134,575	45,377	49,282	**571,283**
	1 Worker	31,146	23,264	17,020	23,718	**95,148**	3,211	1,721	1,013	1,926	**7,871**	101,965	66,353	50,671	70,401	**289,390**
	2+ Workers	0	4,440	2,648	5,385	**12,473**	0	300	263	358	**921** 0	0	12,326	9,642	17,292	**39,260**
	Total	**140,450**	**78,492**	**34,335**	**47,056**	**300,333**	**15,067**	**8,259**	**3,001**	**4,180**	**30,507**	**444,014**	**213,254**	**105,690**	**136,975**	**899,933**
$25,000 to $50,000	0 Workers	18,012	16,236	4,118	4,721	**43,087**	4,656	4,837	931	604	**11,028**	78,723	55,669	14,176	14,739	**163,307**
	1 Worker	39,869	31,272	18,093	26,728	**115,962**	5,364	3,406	3,241	3,529	**15,540**	154,119	88,534	61,748	70,971	**375,372**
	2+ Workers	0	15,418	11,722	23,871	**51,011**	0	1,652	1,286	4,293	**7,231** 0	0	45,720	37,095	71,416	**154,231**
	Total	**57,881**	**62,926**	**33,933**	**55,320**	**210,060**	**10,020**	**9,895**	**5,458**	**8,426**	**33,799**	**232,842**	**189,923**	**113,019**	**157,126**	**692,910**
$50,000 to $100,000	0 Workers	8,918	8,800	2,970	3,921	**24,609**	1,202	4,451	1,002	915	**7,570**	35,150	36,208	9,371	11,032	**91,761**
	1 Worker	41,063	26,170	15,295	17,791	**100,319**	7,391	7,865	3,441	7,287	**25,984**	188,131	93,616	50,192	61,806	**393,745**
	2+ Workers	0	37,013	26,650	47,238	**110,901**	0	4,909	5,043	10,792	**20,744** 0	0	106,870	81,256	157,705	**345,831**
	Total	**49,981**	**71,983**	**44,915**	**68,950**	**235,829**	**8,593**	**17,225**	**9,486**	**18,994**	**54,298**	**223,281**	**236,694**	**140,819**	**230,543**	**831,337**
$100,000 +	0 Workers	2,069	2,328	1,204	2,257	**7,858**	367	1,055	470	979	**2,871**	15,411	15,787	3,867	7,928	**42,993**
	1 Worker	9,143	8,793	6,554	7,875	**32,365**	1,645	3,412	2,304	5,221	**12,582**	89,872	52,194	26,722	32,908	**201,696**
	2+ Workers	0	27,031	19,909	38,801	**85,741**	0	7,053	8,659	16,732	**32,444** 0	0	119,615	83,486	148,311	**351,412**
	Total	**11,212**	**38,152**	**27,667**	**48,933**	**125,964**	**2,012**	**11,520**	**11,433**	**22,932**	**47,897**	**105,283**	**187,596**	**114,075**	**189,147**	**596,101**
ACS HOUSEHOLDS																
All Income	0 Workers	138,303	78,152	22,959	28,852	**268,266**	18,081	16,581	4,128	4,394	**43,184**	471,333	242,239	72,791	82,981	**869,344**
	1 Worker	121,221	89,499	56,962	76,112	**343,794**	17,611	16,404	9,999	17,963	**61,977**	534,087	300,697	189,333	236,086	**1,260,203**
	2+ Workers	0	83,902	60,929	115,295	**260,126**	0	13,914	15,251	32,175	**61,340** 0	0	284,531	211,479	394,724	**890,734**
	Total	**259,524**	**251,553**	**140,850**	**220,259**	**872,186**	**35,692**	**46,899**	**29,378**	**54,532**	**166,501**	**1,005,420**	**827,467**	**473,603**	**713,791**	**3,020,281**
MTA SURVEY HOUSEHOLDS - with LEVI																
All Income	0 Workers	120,345	66,189	23,478	28,448	**238,460**	20,871	13,825	3,397	3,477	**41,570**	427,325	230,720	66,127	81,733	**805,905**
	1 Worker	119,525	95,549	59,010	78,761	**352,845**	16,771	18,636	10,723	17,873	**64,003**	534,043	318,184	193,712	242,365	**1,288,304**
	2+ Workers	0	88,038	67,779	125,064	**280,881**	0	14,990	16,546	28,921	**60,457**	0	315,452	233,371	375,509	**924,332**
	Total	239,870	249,776	150,267	232,273	**872,186**	37,642	47,451	30,666	50,271	**166,030**	961,368	864,356	493,210	699,607	**3,018,541**
RATIO - EXPANDED SURVEY HOUSEHO																
All Income	0 Workers	0.870	0.847	1.023	0.986	**0.889**	1.154	0.834	0.823	0.791	**0.963**	0.907	0.952	0.908	0.985	**0.927**
	1 Worker	0.986	1.068	1.036	1.035	**1.026**	0.952	1.136	1.072	0.995	**1.033**	1.000	1.058	1.023	1.027	**1.022**
	2+ Workers		1.049	1.112	1.085	**1.080**		1.077	1.085	0.899	**0.986**		1.109	1.104	0.951	**1.038**
	Total	0.924	0.993	1.067	1.055	**1.000**	1.055	1.012	1.044	0.922	**0.997**	0.956	1.045	1.041	0.980	**0.999**

LEVEL 1 HOUSEHOLD EXPANSION OF MTA SURVEY DATA with ACS 2006 CONTROLS

B. SATURDAY TRAVEL SAMPLE	**EXP1_FINAL_SAT**

TABLES:

Tabulations: All Structured as:
Number of Households by Household Income, Household Workers and Household Size by Borough

	MTA NYC Resident Travel Survey *	
TABLE 1	HOUSEHOLD SAMPLE	
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	American Community Survey (ACS) - 2006	
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TABLE 6B	FINAL EXPANSION FACTORS - WithConstraints	INDEX: TO TOTAL NYC AVERAGE
TABLE 7	FINAL EXPANSION FACTORS - With Constraints	Ratio of ACS To MTA Sample
	American Community Survey (ACS) - 2006 and MTA Travel Survey - Expanded with **EXP_HH1B_SAT (same as EXP1_FINAL_SAT)**	
TABLE 8	ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS VALIDATION OF HOUSEHOLD RECORD LEVEL EXPANSION	

* **MTA 12/10/08 DELIV6 FINAL**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	14	9	4	1	28	24	12	3	4	43	24	9	5	4	42
	1 Worker	4	3	4	6	17	4	7	9	5	25	6	8	7	6	27
	2+ Workers	0	1	1	4	6	0	2	1	6	9	0	1	0	5	6
	Total	18	13	9	11	51	28	21	13	15	77	30	18	12	15	75
$25,000 to $50,000	0 Workers	10	4	0	2	16	19	6	0	3	28	10	10	2	3	25
	1 Worker	19	13	1	4	37	15	14	9	16	54	16	12	8	15	51
	2 Workers	0	5	3	4	12	0	8	8	16	32	0	7	5	11	23
	Total	29	22	4	10	65	34	28	17	35	114	26	29	15	29	99
$50,000 to $100,000	0 Workers	6	4	1	0	11	6	6	1	1	14	4	0	0	1	5
	1 Worker	37	15	3	1	56	26	25	5	20	76	11	8	5	2	26
	2 Workers	0	16	11	5	32	0	12	15	22	49	0	5	6	9	20
	Total	43	35	15	6	99	32	43	21	43	139	15	13	11	12	51
$100,000 +	0 Workers	4	1	0	1	6	2	2	0	0	4	1	1	0	0	2
	1 Worker	32	9	5	6	52	9	7	4	13	33	3	3	3	3	12
	2 Workers	0	38	14	7	59	0	20	9	21	50	0	5	4	5	14
	Total	36	48	19	14	117	11	29	13	34	87	4	9	7	8	28
All Incomes	0 Workers	34	18	5	4	**61**	51	26	4	8	**89**	39	20	7	8	**74**
	1 Worker	92	40	13	17	**162**	54	53	27	54	**188**	36	31	23	26	**116**
	2 Workers	0	60	29	20	**109**	0	42	33	65	**140**	0	18	15	30	**63**
	Total	126	118	47	41	**332**	105	121	64	127	**417**	75	69	45	64	**253**

Number of Households by Household **TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE**

SATURDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	25	17	3	13	58	1	2	1	1	5	88	49	16	23	176
	1 Worker	10	12	7	17	46	1	2	0	2	5	25	32	27	36	120
	2+ Workers	0	3	6	14	23	0	1	0	0	1	0	8	8	29	45
	Total	35	32	16	44	127	2	5	1	3	11	113	89	51	88	341
$25,000 to $50,000	0 Workers	4	6	4	2	16	1	2	0	0	3	44	28	6	10	88
	1 Worker	25	21	16	23	85	2	1	2	1	6	77	61	36	59	233
	2 Workers	0	11	8	16	35	0	3	3	2	8	0	34	27	49	110
	Total	29	38	28	41	136	3	6	5	3	17	121	123	69	118	431
$50,000 to $100,000	0 Workers	4	8	1	1	14	0	2	1	1	4	20	20	4	4	48
	1 Worker	30	18	8	13	69	1	4	4	2	11	105	70	25	38	238
	2 Workers	0	17	5	23	45	0	1	2	5	8	0	51	39	64	154
	Total	34	43	14	37	128	1	7	7	8	23	125	141	68	106	440
$100,000 +	0 Workers	0	2	1	0	3	0	2	0	0	2	7	8	1	1	17
	1 Worker	4	10	1	2	17	1	0	1	3	5	49	29	14	27	119
	2 Workers	0	20	12	17	49	0	5	5	5	15	0	88	44	55	187
	Total	4	32	14	19	69	1	7	6	8	22	56	125	59	83	323
All Incomes	0 Workers	33	33	9	16	**91**	2	8	2	2	**14**	159	105	27	38	**329**
	1 Worker	69	61	32	55	**217**	5	7	7	8	**27**	256	192	102	160	**710**
	2 Workers	0	51	31	70	**152**	0	10	10	12	**32**	0	181	118	197	**496**
	Total	102	145	72	141	**460**	7	25	19	22	**73**	415	478	247	395	**1,535**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
SATURDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	0.91%	0.59%	0.26%	0.07%	**1.82%**	1.56%	0.78%	0.20%	0.26%	**2.80%**	1.56%	0.59%	0.33%	0.26%	**2.74%**
	1 Worker	0.26%	0.20%	0.26%	0.39%	**1.11%**	0.26%	0.46%	0.59%	0.33%	**1.63%**	0.39%	0.52%	0.46%	0.39%	**1.76%**
	2 Workers	0.00%	0.07%	0.07%	0.26%	**0.39%**	0.00%	0.13%	0.07%	0.39%	**0.59%**	0.00%	0.07%	0.00%	0.33%	**0.39%**
	Total	#REF!	0.85%	0.59%	0.72%	**3.32%**	1.82%	1.37%	0.85%	0.98%	**5.02%**	1.95%	1.17%	0.78%	0.98%	**4.89%**
$25,000 to $50,000	0 Workers	0.65%	0.26%	0.00%	0.13%	**1.04%**	1.24%	0.39%	0.00%	0.20%	**1.82%**	0.65%	0.65%	0.13%	0.20%	**1.63%**
	1 Worker	1.24%	0.85%	0.07%	0.26%	**2.41%**	0.98%	0.91%	0.59%	1.04%	**3.52%**	1.04%	0.78%	0.52%	0.98%	**3.32%**
	2 Workers	0.00%	0.33%	0.20%	0.26%	**0.78%**	0.00%	0.52%	0.52%	1.04%	**2.08%**	0.00%	0.46%	0.33%	0.72%	**1.50%**
	Total	1.89%	1.43%	0.26%	0.65%	**4.23%**	2.21%	1.82%	1.11%	2.28%	**7.43%**	1.69%	1.89%	0.98%	1.89%	**6.45%**
$50,000 to $100,000	0 Workers	0.39%	0.26%	0.07%	0.00%	**0.72%**	0.39%	0.39%	0.07%	0.07%	**0.91%**	0.26%	0.00%	0.00%	0.07%	**0.33%**
	1 Worker	2.41%	0.98%	0.20%	0.07%	**3.65%**	1.69%	1.63%	0.33%	1.30%	**4.95%**	0.72%	0.52%	0.33%	0.13%	**1.69%**
	2 Workers	0.00%	1.04%	0.72%	0.33%	**2.08%**	0.00%	0.78%	0.98%	1.43%	**3.19%**	0.00%	0.33%	0.39%	0.59%	**1.30%**
	Total	2.80%	2.28%	0.98%	0.39%	**6.45%**	2.08%	2.80%	1.37%	2.80%	**9.06%**	0.98%	0.85%	0.72%	0.78%	**3.32%**
$100,000 +	0 Workers	0.26%	0.07%	0.00%	0.07%	**0.39%**	0.13%	0.13%	0.00%	0.00%	**0.26%**	0.07%	0.07%	0.00%	0.00%	**0.13%**
	1 Worker	2.08%	0.59%	0.33%	0.39%	**3.39%**	0.59%	0.46%	0.26%	0.85%	**2.15%**	0.20%	0.20%	0.20%	0.20%	**0.78%**
	2 Workers	0.00%	2.48%	0.91%	0.46%	**3.84%**	0.00%	1.30%	0.59%	1.37%	**3.26%**	0.00%	0.33%	0.26%	0.33%	**0.91%**
	Total	2.35%	3.13%	1.24%	0.91%	**7.62%**	0.72%	1.89%	0.85%	2.21%	**5.67%**	0.26%	0.59%	0.46%	0.52%	**1.82%**
All Incomes	0 Workers	2.21%	1.17%	0.33%	0.26%	**3.97%**	3.32%	1.69%	0.26%	0.52%	**5.80%**	2.54%	1.30%	0.46%	0.52%	**4.82%**
	1 Worker	5.99%	2.61%	0.85%	1.11%	**10.55%**	3.52%	3.45%	1.76%	3.52%	**12.25%**	2.35%	2.02%	1.50%	1.69%	**7.56%**
	2 Workers	0.00%	3.91%	1.89%	1.30%	**7.10%**	0.00%	2.74%	2.15%	4.23%	**9.12%**	0.00%	1.17%	0.98%	1.95%	**4.10%**
	Total	8.21%	7.69%	3.06%	2.67%	**21.63%**	6.84%	7.88%	4.17%	8.27%	**27.17%**	4.89%	4.50%	2.93%	4.17%	**16.48%**

Number of Households by Household

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
SATURDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.63%	1.11%	0.20%	0.85%	**3.78%**	0.07%	0.13%	0.07%	0.07%	**0.33%**	5.73%	3.19%	1.04%	1.50%	**11.47%**
	1 Worker	0.65%	0.78%	0.46%	1.11%	**3.00%**	0.07%	0.13%	0.00%	0.13%	**0.33%**	1.63%	2.08%	1.76%	2.35%	**7.82%**
	2 Workers	0.00%	0.20%	0.39%	0.91%	**1.50%**	0.00%	0.07%	0.00%	0.00%	**0.07%**	0.00%	0.52%	0.52%	1.89%	**2.93%**
	Total	2.28%	2.08%	1.04%	2.87%	**8.27%**	0.13%	0.33%	0.07%	0.20%	**0.72%**	7.36%	5.80%	3.32%	5.73%	**22.21%**
$25,000 to $50,000	0 Workers	0.26%	0.39%	0.26%	0.13%	**1.04%**	0.07%	0.13%	0.00%	0.00%	**0.20%**	2.87%	1.82%	0.39%	0.65%	**5.73%**
	1 Worker	1.63%	1.37%	1.04%	1.50%	**5.54%**	0.13%	0.07%	0.13%	0.07%	**0.39%**	5.02%	3.97%	2.35%	3.84%	**15.18%**
	2 Workers	0.00%	0.72%	0.52%	1.04%	**2.28%**	0.00%	0.20%	0.20%	0.13%	**0.52%**	0.00%	2.21%	1.76%	3.19%	**7.17%**
	Total	1.89%	2.48%	1.82%	2.67%	**8.86%**	0.20%	0.39%	0.33%	0.20%	**1.11%**	7.88%	8.01%	4.50%	7.69%	**28.08%**
$50,000 to $100,000	0 Workers	0.26%	0.52%	0.07%	0.07%	**0.91%**	0.00%	0.13%	0.07%	0.07%	**0.26%**	1.30%	1.30%	0.26%	0.26%	**3.13%**
	1 Worker	1.95%	1.17%	0.52%	0.85%	**4.50%**	0.07%	0.26%	0.26%	0.13%	**0.72%**	6.84%	4.56%	1.63%	2.48%	**15.50%**
	2 Workers	0.00%	1.11%	0.33%	1.50%	**2.93%**	0.00%	0.07%	0.13%	0.33%	**0.52%**	0.00%	3.32%	2.54%	4.17%	**10.03%**
	Total	2.21%	2.80%	0.91%	2.41%	**8.34%**	0.07%	0.46%	0.46%	0.52%	**1.50%**	8.14%	9.19%	4.43%	6.91%	**28.66%**
$100,000 +	0 Workers	0.00%	0.13%	0.07%	0.00%	**0.20%**	0.00%	0.13%	0.00%	0.00%	**0.13%**	0.46%	0.52%	0.07%	0.07%	**1.11%**
	1 Worker	0.26%	0.65%	0.07%	0.13%	**1.11%**	0.07%	0.00%	0.07%	0.20%	**0.33%**	3.19%	1.89%	0.91%	1.76%	**7.75%**
	2 Workers	0.00%	1.30%	0.78%	1.11%	**3.19%**	0.00%	0.33%	0.33%	0.33%	**0.98%**	0.00%	5.73%	2.87%	3.58%	**12.18%**
	Total	0.26%	2.08%	0.91%	1.24%	**4.50%**	0.07%	0.46%	0.39%	0.52%	**1.43%**	3.65%	8.14%	3.84%	5.41%	**21.04%**
All Incomes	0 Workers	2.15%	2.15%	0.59%	1.04%	**5.93%**	0.13%	0.52%	0.13%	0.13%	**0.91%**	10.36%	6.84%	1.76%	2.48%	**21.43%**
	1 Worker	4.50%	3.97%	2.08%	3.58%	**14.14%**	0.33%	0.46%	0.46%	0.52%	**1.76%**	16.68%	12.51%	6.64%	10.42%	**46.25%**
	2 Workers	0.00%	3.32%	2.02%	4.56%	**9.90%**	0.00%	0.65%	0.65%	0.78%	**2.08%**	0.00%	11.79%	7.69%	12.83%	**32.31%**
	Total	6.64%	9.45%	4.69%	9.19%	**29.97%**	0.46%	1.63%	1.24%	1.43%	**4.76%**	27.04%	31.14%	16.09%	25.73%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS) - 2006 - Expanded (by Household)

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.98%	0.70%	0.33%	0.19%	**4.20%**	2.20%	0.91%	0.20%	0.25%	**3.56%**	2.13%	0.96%	0.43%	0.53%	**4.05%**
	1 Worker	1.02%	0.38%	0.27%	0.30%	**1.97%**	0.70%	0.40%	0.36%	0.63%	**2.09%**	0.51%	0.60%	0.45%	0.55%	**2.10%**
	2 Workers	0.00%	0.11%	0.05%	0.12%	**0.28%**	0.00%	0.06%	0.10%	0.14%	**0.31%**	0.00%	0.07%	0.07%	0.12%	**0.27%**
	Total	4.00%	1.19%	0.65%	0.61%	**6.46%**	2.90%	1.37%	0.66%	1.03%	**5.96%**	2.65%	1.63%	0.95%	1.20%	**6.42%**
$25,000 to $50,000	0 Workers	0.75%	0.23%	0.04%	0.05%	**1.07%**	0.73%	0.65%	0.18%	0.11%	**1.66%**	0.38%	0.26%	0.08%	0.16%	**0.88%**
	1 Worker	1.62%	0.41%	0.22%	0.22%	**2.48%**	1.08%	0.80%	0.73%	0.68%	**3.29%**	0.90%	0.57%	0.39%	0.45%	**2.31%**
	2 Workers	0.00%	0.19%	0.17%	0.21%	**0.57%**	0.00%	0.52%	0.33%	0.64%	**1.49%**	0.00%	0.24%	0.29%	0.59%	**1.11%**
	Total	2.37%	0.84%	0.44%	0.48%	**4.12%**	1.81%	1.97%	1.23%	1.42%	**6.44%**	1.28%	1.07%	0.76%	1.19%	**4.30%**
$50,000 to $100,000	0 Workers	0.53%	0.18%	0.03%	0.03%	**0.78%**	0.22%	0.45%	0.09%	0.11%	**0.87%**	0.08%	0.12%	0.05%	0.07%	**0.32%**
	1 Worker	2.65%	0.67%	0.16%	0.17%	**3.65%**	1.42%	0.88%	0.57%	0.74%	**3.61%**	0.56%	0.42%	0.30%	0.31%	**1.59%**
	2 Workers	0.00%	0.67%	0.25%	0.49%	**1.41%**	0.00%	1.07%	0.97%	1.94%	**3.99%**	0.00%	0.42%	0.41%	0.87%	**1.69%**
	Total	3.18%	1.52%	0.45%	0.69%	**5.84%**	1.63%	2.40%	1.64%	2.79%	**8.47%**	0.64%	0.96%	0.77%	1.24%	**3.61%**
$100,000 +	0 Workers	0.34%	0.23%	0.02%	0.04%	**0.62%**	0.08%	0.14%	0.04%	0.10%	**0.36%**	0.01%	0.05%	0.01%	0.02%	**0.09%**
	1 Worker	2.23%	0.90%	0.34%	0.34%	**3.82%**	0.30%	0.34%	0.18%	0.27%	**1.09%**	0.08%	0.08%	0.07%	0.04%	**0.28%**
	2 Workers	0.00%	1.96%	0.79%	0.75%	**3.50%**	0.00%	0.66%	0.81%	1.87%	**3.34%**	0.00%	0.21%	0.22%	0.45%	**0.88%**
	Total	2.57%	3.09%	1.15%	1.13%	**7.94%**	0.38%	1.14%	1.03%	2.24%	**4.79%**	0.09%	0.34%	0.30%	0.51%	**1.25%**
All Incomes	0 Workers	4.60%	1.35%	0.42%	0.31%	**6.68%**	3.22%	2.15%	0.51%	0.57%	**6.45%**	2.61%	1.39%	0.58%	0.77%	**5.35%**
	1 Worker	7.52%	2.35%	1.00%	1.03%	**11.92%**	3.51%	2.42%	1.84%	2.33%	**10.09%**	2.05%	1.67%	1.21%	1.34%	**6.28%**
	2 Workers	0.00%	2.93%	1.27%	1.56%	**5.77%**	0.00%	2.31%	2.22%	4.59%	**9.13%**	0.00%	0.94%	0.99%	2.03%	**3.96%**
	Total	12.12%	6.63%	2.69%	2.91%	**24.36%**	6.73%	6.88%	4.56%	7.49%	**25.66%**	4.66%	4.00%	2.79%	4.14%	**15.59%**

Number of Households by Household Income and Household Workers **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS)

HH Income	HH Workers	Brooklyn HH Size 1	Brooklyn HH Size 2	Brooklyn HH Size 3	Brooklyn HH Size 4+	Brooklyn Total	Staten Island HH Size 1	Staten Island HH Size 2	Staten Island HH Size 3	Staten Island HH Size 4+	Staten Island Total	New York City HH Size 1	New York City HH Size 2	New York City HH Size 3	New York City HH Size 4+	New York City Total
Less than $25,000	0 Workers	3.62%	1.68%	0.49%	0.59%	**6.38%**	0.39%	0.21%	0.06%	0.06%	**0.72%**	11.33%	4.46%	1.50%	1.63%	**18.91%**
	1 Worker	1.03%	0.77%	0.56%	0.79%	**3.15%**	0.11%	0.06%	0.03%	0.06%	**0.26%**	3.38%	2.20%	1.68%	2.33%	**9.58%**
	2 Workers	0.00%	0.15%	0.09%	0.18%	**0.41%**	0.00%	0.01%	0.01%	0.01%	**0.03%**	0.00%	0.41%	0.32%	0.57%	**1.30%**
	Total	4.65%	2.60%	1.14%	1.56%	**9.94%**	0.50%	0.27%	0.10%	0.14%	**1.01%**	14.70%	7.06%	3.50%	4.54%	**29.80%**
$25,000 to $50,000	0 Workers	0.60%	0.54%	0.14%	0.16%	**1.43%**	0.15%	0.16%	0.03%	0.02%	**0.37%**	2.61%	1.84%	0.47%	0.49%	**5.41%**
	1 Worker	1.32%	1.04%	0.60%	0.88%	**3.84%**	0.18%	0.11%	0.11%	0.12%	**0.51%**	5.10%	2.93%	2.04%	2.35%	**12.43%**
	2 Workers	0.00%	0.51%	0.39%	0.79%	**1.69%**	0.00%	0.05%	0.04%	0.14%	**0.24%**	0.00%	1.51%	1.23%	2.36%	**5.11%**
	Total	1.92%	2.08%	1.12%	1.83%	**6.95%**	0.33%	0.33%	0.18%	0.28%	**1.12%**	7.71%	6.29%	3.74%	5.20%	**22.94%**
$50,000 to $100,000	0 Workers	0.30%	0.29%	0.10%	0.13%	**0.81%**	0.04%	0.15%	0.03%	0.03%	**0.25%**	1.16%	1.20%	0.31%	0.37%	**3.04%**
	1 Worker	1.36%	0.87%	0.51%	0.59%	**3.32%**	0.24%	0.26%	0.11%	0.24%	**0.86%**	6.23%	3.10%	1.66%	2.05%	**13.04%**
	2 Workers	0.00%	1.23%	0.88%	1.56%	**3.67%**	0.00%	0.16%	0.17%	0.36%	**0.69%**	0.00%	3.54%	2.69%	5.22%	**11.45%**
	Total	1.65%	2.38%	1.49%	2.28%	**7.81%**	0.28%	0.57%	0.31%	0.63%	**1.80%**	7.39%	7.84%	4.66%	7.63%	**27.53%**
$100,000 +	0 Workers	0.07%	0.08%	0.04%	0.07%	**0.26%**	0.01%	0.03%	0.02%	0.03%	**0.10%**	0.51%	0.52%	0.13%	0.26%	**1.42%**
	1 Worker	0.30%	0.29%	0.22%	0.26%	**1.07%**	0.05%	0.11%	0.08%	0.17%	**0.42%**	2.98%	1.73%	0.88%	1.09%	**6.68%**
	2 Workers	0.00%	0.89%	0.66%	1.28%	**2.84%**	0.00%	0.23%	0.29%	0.55%	**1.07%**	0.00%	3.96%	2.76%	4.91%	**11.64%**
	Total	0.37%	1.26%	0.92%	1.62%	**4.17%**	0.07%	0.38%	0.38%	0.76%	**1.59%**	3.49%	6.21%	3.78%	6.26%	**19.74%**
All Incomes	0 Workers	4.58%	2.59%	0.76%	0.96%	**8.88%**	0.60%	0.55%	0.14%	0.15%	**1.43%**	15.61%	8.02%	2.41%	2.75%	**28.78%**
	1 Worker	4.01%	2.96%	1.89%	2.52%	**11.38%**	0.58%	0.54%	0.33%	0.59%	**2.05%**	17.68%	9.96%	6.27%	7.82%	**41.72%**
	2 Workers	0.00%	2.78%	2.02%	3.82%	**8.61%**	0.00%	0.46%	0.50%	1.07%	**2.03%**	0.00%	9.42%	7.00%	13.07%	**29.49%**
	Total	8.59%	8.33%	4.66%	7.29%	**28.88%**	1.18%	1.55%	0.97%	1.81%	**5.51%**	33.29%	27.40%	15.68%	23.63%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
SATURDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-2.07%	-0.12%	-0.07%	-0.13%	**-2.38%**	-0.63%	-0.13%	0.00%	0.01%	**-0.76%**	-0.57%	-0.37%	-0.11%	-0.27%	**-1.32%**
	1 Worker	-0.76%	-0.18%	-0.01%	0.09%	**-0.87%**	-0.44%	0.06%	0.22%	-0.30%	**-0.47%**	-0.12%	-0.07%	0.01%	-0.16%	**-0.34%**
	2 Workers		-0.05%	0.01%	0.14%	**0.11%**		0.07%	-0.04%	0.25%	**0.28%**		-0.01%	-0.07%	0.20%	**0.12%**
	Total	#REF!	-0.35%	-0.06%	0.10%	**-3.14%**	-1.08%	0.00%	0.18%	-0.05%	**-0.94%**	-0.69%	-0.46%	-0.17%	-0.22%	**-1.54%**
$25,000 to $50,000	0 Workers	-0.10%	0.03%	-0.04%	0.08%	**-0.03%**	0.51%	-0.26%	-0.18%	0.09%	**0.16%**	0.27%	0.39%	0.05%	0.04%	**0.74%**
	1 Worker	-0.38%	0.43%	-0.16%	0.04%	**-0.07%**	-0.11%	0.11%	-0.14%	0.36%	**0.23%**	0.14%	0.21%	0.13%	0.53%	**1.02%**
	2 Workers		0.14%	0.02%	0.05%	**0.21%**		0.00%	0.19%	0.41%	**0.59%**		0.22%	0.04%	0.13%	**0.38%**
	Total	-0.48%	0.60%	-0.18%	0.17%	**0.11%**	0.40%	-0.15%	-0.13%	0.86%	**0.99%**	0.41%	0.82%	0.21%	0.70%	**2.14%**
$50,000 to $100,000	0 Workers	-0.14%	0.08%	0.03%	-0.03%	**-0.06%**	0.17%	-0.06%	-0.03%	-0.04%	**0.04%**	0.18%	-0.12%	-0.05%	0.00%	**0.00%**
	1 Worker	-0.24%	0.31%	0.03%	-0.10%	**0.00%**	0.28%	0.75%	-0.25%	0.56%	**1.34%**	0.16%	0.10%	0.02%	-0.18%	**0.10%**
	2 Workers		0.38%	0.46%	-0.17%	**0.67%**		-0.29%	0.00%	-0.51%	**-0.79%**		-0.09%	-0.02%	-0.28%	**-0.39%**
	Total	-0.38%	0.76%	0.53%	-0.30%	**0.61%**	0.45%	0.40%	-0.27%	0.01%	**0.58%**	0.34%	-0.12%	-0.05%	-0.46%	**-0.29%**
$100,000 +	0 Workers	-0.08%	-0.16%	-0.02%	0.03%	**-0.23%**	0.05%	-0.01%	-0.04%	-0.10%	**-0.10%**	0.05%	0.02%	-0.01%	-0.02%	**0.04%**
	1 Worker	-0.15%	-0.31%	-0.02%	0.05%	**-0.43%**	0.28%	0.12%	0.09%	0.57%	**1.06%**	0.11%	0.11%	0.12%	0.15%	**0.50%**
	2 Workers		0.51%	0.12%	-0.29%	**0.35%**		0.64%	-0.22%	-0.50%	**-0.08%**		0.11%	0.04%	-0.13%	**0.03%**
	Total	-0.23%	0.04%	0.09%	-0.21%	**-0.32%**	0.33%	0.75%	-0.18%	-0.03%	**0.88%**	0.17%	0.25%	0.15%	0.01%	**0.57%**
All Incomes	0 Workers	-2.38%	-0.18%	-0.09%	-0.05%	**-2.70%**	0.10%	-0.45%	-0.25%	-0.05%	**-0.65%**	-0.07%	-0.09%	-0.13%	-0.25%	**-0.53%**
	1 Worker	-1.53%	0.25%	-0.16%	0.07%	**-1.36%**	0.01%	1.03%	-0.08%	1.19%	**2.16%**	0.29%	0.35%	0.29%	0.35%	**1.28%**
	2 Workers		0.98%	0.62%	-0.26%	**1.34%**		0.42%	-0.07%	-0.36%	**-0.01%**		0.24%	-0.01%	-0.07%	**0.15%**
	Total	-3.92%	1.05%	0.37%	-0.24%	**-2.73%**	0.11%	1.00%	-0.39%	0.79%	**1.50%**	0.23%	0.50%	0.14%	0.03%	**0.89%**

Number of Households by Household

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
SATURDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.99%	-0.57%	-0.29%	0.25%	**-2.60%**	-0.33%	-0.08%	0.01%	0.00%	**-0.39%**	-5.59%	-1.26%	-0.46%	-0.13%	**-7.45%**
	1 Worker	-0.38%	0.01%	-0.11%	0.32%	**-0.15%**	-0.04%	0.07%	-0.03%	0.07%	**0.07%**	-1.75%	-0.11%	0.08%	0.01%	**-1.76%**
	2 Workers		0.05%	0.30%	0.73%	**1.09%**		0.06%	-0.01%	-0.01%	**0.03%**		0.11%	0.20%	1.32%	**1.63%**
	Total	-2.37%	-0.51%	-0.09%	1.31%	**-1.67%**	-0.37%	0.05%	-0.03%	0.06%	**-0.29%**	-7.34%	-1.26%	-0.18%	1.20%	**-7.58%**
$25,000 to $50,000	0 Workers	-0.34%	-0.15%	0.12%	-0.03%	**-0.38%**	-0.09%	-0.03%	-0.03%	-0.02%	**-0.17%**	0.26%	-0.02%	-0.08%	0.16%	**0.33%**
	1 Worker	0.31%	0.33%	0.44%	0.61%	**1.70%**	-0.05%	-0.05%	0.02%	-0.05%	**-0.12%**	-0.09%	1.04%	0.30%	1.49%	**2.75%**
	2 Workers		0.21%	0.13%	0.25%	**0.59%**		0.14%	0.15%	-0.01%	**0.28%**		0.70%	0.53%	0.83%	**2.06%**
	Total	-0.03%	0.39%	0.70%	0.84%	**1.90%**	-0.14%	0.06%	0.15%	-0.08%	**-0.01%**	0.17%	1.72%	0.75%	2.48%	**5.14%**
$50,000 to $100,000	0 Workers	-0.03%	0.23%	-0.03%	-0.06%	**0.10%**	-0.04%	-0.02%	0.03%	0.03%	**0.01%**	0.14%	0.10%	-0.05%	-0.10%	**0.09%**
	1 Worker	0.59%	0.31%	0.01%	0.26%	**1.17%**	-0.18%	0.00%	0.15%	-0.11%	**-0.14%**	0.61%	1.46%	-0.03%	0.43%	**2.47%**
	2 Workers		-0.12%	-0.56%	-0.07%	**-0.74%**		-0.10%	-0.04%	-0.03%	**-0.17%**		-0.22%	-0.15%	-1.05%	**-1.42%**
	Total	0.56%	0.42%	-0.58%	0.13%	**0.53%**	-0.22%	-0.11%	0.14%	-0.11%	**-0.30%**	0.75%	1.35%	-0.23%	-0.73%	**1.14%**
$100,000 +	0 Workers	-0.07%	0.05%	0.03%	-0.07%	**-0.06%**	-0.01%	0.10%	-0.02%	-0.03%	**0.04%**	-0.05%	0.00%	-0.06%	-0.20%	**-0.32%**
	1 Worker	-0.04%	0.36%	-0.15%	-0.13%	**0.04%**	0.01%	-0.11%	-0.01%	0.02%	**-0.09%**	0.22%	0.16%	0.03%	0.67%	**1.07%**
	2 Workers		0.41%	0.12%	-0.18%	**0.35%**		0.09%	0.04%	-0.23%	**-0.10%**		1.77%	0.10%	-1.33%	**0.55%**
	Total	-0.11%	0.82%	0.00%	-0.38%	**0.32%**	0.00%	0.07%	0.01%	-0.24%	**-0.15%**	0.16%	1.93%	0.07%	-0.86%	**1.31%**
All Incomes	0 Workers	-2.43%	-0.44%	-0.17%	0.09%	**-2.95%**	-0.47%	-0.03%	-0.01%	-0.02%	**-0.52%**	-5.25%	-1.18%	-0.65%	-0.27%	**-7.35%**
	1 Worker	0.48%	1.01%	0.20%	1.06%	**2.75%**	-0.26%	-0.09%	0.12%	-0.07%	**-0.29%**	-1.01%	2.55%	0.38%	2.61%	**4.53%**
	2 Workers		0.54%	0.00%	0.74%	**1.29%**		0.19%	0.15%	-0.28%	**0.05%**		2.37%	0.69%	-0.24%	**2.82%**
	Total	-1.95%	1.12%	0.03%	1.89%	**1.09%**	-0.73%	0.08%	0.27%	-0.37%	**-0.76%**	-6.25%	3.74%	0.41%	2.10%	**0.00%**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

SATURDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	6,434	2,354	2,476	5,804	**4,534**	2,765	2,286	2,007	1,908	**2,499**	2,685	3,216	2,612	4,000	**2,915**
	1 Worker	7,709	3,790	2,043	1,533	**3,504**	5,323	1,713	1,217	3,804	**2,530**	2,580	2,251	1,931	2,757	**2,353**
	2 Workers		3,446	1,544	883	**1,420**		947	3,056	726	**1,034**		2,246		732	**1,340**
	Total	6,717	2,769	2,180	1,685	**3,825**	3,131	1,967	1,541	2,067	**2,338**	2,664	2,733	2,392	2,413	**2,587**
$25,000 to $50,000	0 Workers	2,257	1,764		724	**2,021**	1,156	3,267		1,090	**1,791**	1,153	794	1,278	1,565	**1,069**
	1 Worker	2,576	957	6,768	1,681	**2,024**	2,185	1,730	2,433	1,280	**1,840**	1,699	1,432	1,468	901	**1,365**
	2 Workers		1,147	1,760	1,564	**1,439**		1,974	1,259	1,199	**1,408**		1,018	1,747	1,619	**1,464**
	Total	2,466	1,147	3,330	1,443	**1,915**	1,610	2,129	2,193	1,227	**1,707**	1,489	1,112	1,536	1,242	**1,313**
$50,000 to $100,000	0 Workers	2,665	1,393	977		**2,131**	1,095	2,279	2,820	3,262	**1,881**	617			2,036	**1,963**
	1 Worker	2,165	1,342	1,657	5,002	**1,968**	1,644	1,066	3,458	1,125	**1,436**	1,530	1,601	1,839	4,615	**1,848**
	2 Workers		1,256	699	2,977	**1,333**		2,693	1,962	2,665	**2,457**		2,508	2,074	2,906	**2,557**
	Total	2,235	1,309	909	3,465	**1,781**	1,541	1,689	2,359	1,963	**1,841**	1,287	2,235	2,113	3,119	**2,138**
$100,000 +	0 Workers	2,573	6,899		1,141	**3,144**	1,180	2,071			**2,689**	323	1,364			**1,323**
	1 Worker	2,106	3,017	2,077	1,718	**2,216**	1,021	1,468	1,323	636	**1,001**	835	852	728	411	**707**
	2 Workers		1,559	1,703	3,226	**1,791**		996	2,716	2,692	**2,018**		1,275	1,656	2,732	**1,904**
	Total	2,158	1,944	1,830	2,431	**2,049**	1,050	1,184	2,385	1,994	**1,663**	707	1,144	1,314	1,933	**1,349**
All Incomes	0 Workers	4,086	2,262	2,536	2,323	**3,305**	1,907	2,494	3,853	2,144	**2,187**	2,020	2,098	2,516	2,912	**2,184**
	1 Worker	2,470	1,778	2,331	1,837	**2,222**	1,963	1,380	2,053	1,301	**1,621**	1,722	1,631	1,593	1,558	**1,635**
	2 Workers		1,475	1,323	2,363	**1,598**		1,665	2,030	2,134	**1,969**		1,571	1,996	2,043	**1,897**
	Total	**2,906**	**1,698**	**1,731**	**2,141**	**2,216**	**1,936**	**1,718**	**2,154**	**1,780**	**1,859**	**1,877**	**1,751**	**1,871**	**1,955**	**1,861**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	4,372	2,988	4,889	1,381	**3,323**	11,856	3,119	1,725	1,896	**4,343**	3,887	2,746	2,836	2,143	**3,246**
	1 Worker	3,115	1,939	2,431	1,395	**2,068**	3,211	861		963	**1,574**	4,079	2,074	1,877	1,956	**2,412**
	2 Workers		1,480	441	385	**542**		300			**921**		1,541	1,205	596	**872**
	Total	4,013	2,453	2,146	1,069	**2,365**	7,534	1,652	3,001	1,393	**2,773**	3,929	2,396	2,072	1,557	**2,639**
$25,000 to $50,000	0 Workers	4,503	2,706	1,030	2,361	**2,693**	4,656	2,419			**3,676**	1,789	1,988	2,363	1,474	**1,856**
	1 Worker	1,595	1,489	1,131	1,162	**1,364**	2,682	3,406	1,621	3,529	**2,590**	2,002	1,451	1,715	1,203	**1,611**
	2 Workers		1,402	1,465	1,492	**1,457**		551	429	2,147	**904**		1,345	1,374	1,457	**1,402**
	Total	1,996	1,656	1,212	1,349	**1,545**	3,340	1,649	1,092	2,809	**1,988**	1,924	1,544	1,638	1,332	**1,608**
$50,000 to $100,000	0 Workers	2,230	1,100	2,970	3,921	**1,758**		2,226	1,002	915	**1,893**	1,758	1,810	2,343	2,758	**1,912**
	1 Worker	1,369	1,454	1,912	1,369	**1,454**	7,391	1,966	860	3,644	**2,362**	1,792	1,337	2,008	1,626	**1,654**
	2 Workers		2,177	5,330	2,054	**2,464**		4,909	2,522	2,158	**2,593**		2,095	2,083	2,464	**2,246**
	Total	1,470	1,674	3,208	1,864	**1,842**	8,593	2,461	1,355	2,374	**2,361**	1,786	1,679	2,071	2,175	**1,889**
$100,000 +	0 Workers		1,164	1,204		**2,619**		528			**1,436**	2,202	1,973	3,867	7,928	**2,529**
	1 Worker	2,286	879	6,554	3,938	**1,904**	1,645		2,304	1,740	**2,516**	1,834	1,800	1,909	1,219	**1,695**
	2 Workers		1,352	1,659	2,282	**1,750**		1,411	1,732	3,346	**2,163**		1,359	1,897	2,697	**1,879**
	Total	2,803	1,192	1,976	2,575	**1,826**	2,012	1,646	1,906	2,867	**2,177**	1,880	1,501	1,933	2,279	**1,846**
All Incomes	0 Workers	4,191	2,368	2,551	1,803	**2,948**	9,041	2,073	2,064	2,197	**3,085**	2,964	2,307	2,696	2,184	**2,642**
	1 Worker	1,757	1,467	1,780	1,384	**1,584**	3,522	2,343	1,428	2,245	**2,295**	2,086	1,566	1,856	1,476	**1,775**
	2 Workers		1,645	1,965	1,647	**1,711**		1,391	1,525	2,681	**1,917**		1,572	1,792	2,004	**1,796**
	Total	**2,544**	**1,735**	**1,956**	**1,562**	**1,896**	**5,099**	**1,876**	**1,546**	**2,479**	**2,281**	**2,423**	**1,731**	**1,917**	**1,807**	**1,968**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	3.27	1.20	1.26	2.95	**2.30**	1.41	1.16	1.02	0.97	**1.27**	1.36	1.63	1.33	2.03	**1.48**
	1 Worker	3.92	1.93	1.04	0.78	**1.78**	2.71	0.87	0.62	1.93	**1.29**	1.31	1.14	0.98	1.40	**1.20**
	2 Workers		1.75	0.78	0.45	**0.72**		0.48	1.55	0.37	**0.53**		1.14		0.37	**0.68**
	Total	3.41	1.41	1.11	0.86	**1.94**	1.59	1.00	0.78	1.05	**1.19**	1.35	1.39	1.22	1.23	**1.31**
$25,000 to $50,000	0 Workers	1.15	0.90		0.37	**1.03**	0.59	1.66		0.55	**0.91**	0.59	0.40	0.65	0.80	**0.54**
	1 Worker	1.31	0.49	3.44	0.85	**1.03**	1.11	0.88	1.24	0.65	**0.94**	0.86	0.73	0.75	0.46	**0.69**
	2 Workers		0.58	0.89	0.79	**0.73**		1.00	0.64	0.61	**0.72**		0.52	0.89	0.82	**0.74**
	Total	1.25	0.58	1.69	0.73	**0.97**	0.82	1.08	1.11	0.62	**0.87**	0.76	0.57	0.78	0.63	**0.67**
$50,000 to $100,000	0 Workers	1.35	0.71	0.50		**1.08**	0.56	1.16	1.43	1.66	**0.96**	0.31			1.03	**1.00**
	1 Worker	1.10	0.68	0.84	2.54	**1.00**	0.84	0.54	1.76	0.57	**0.73**	0.78	0.81	0.93	2.35	**0.94**
	2 Workers		0.64	0.36	1.51	**0.68**		1.37	1.00	1.35	**1.25**		1.27	1.05	1.48	**1.30**
	Total	1.14	0.67	0.46	1.76	**0.91**	0.78	0.86	1.20	1.00	**0.94**	0.65	1.14	1.07	1.58	**1.09**
$100,000 +	0 Workers	1.31	3.51		0.58	**1.60**	0.60	1.05			**1.37**	0.16	0.69			**0.67**
	1 Worker	1.07	1.53	1.06	0.87	**1.13**	0.52	0.75	0.67	0.32	**0.51**	0.42	0.43	0.37	0.21	**0.36**
	2 Workers		0.79	0.87	1.64	**0.91**		0.51	1.38	1.37	**1.03**		0.65	0.84	1.39	**0.97**
	Total	1.10	0.99	0.93	1.24	**1.04**	0.53	0.60	1.21	1.01	**0.85**	0.36	0.58	0.67	0.98	**0.69**
All Incomes	0 Workers	2.08	1.15	1.29	1.18	**1.68**	0.97	1.27	1.96	1.09	**1.11**	1.03	1.07	1.28	1.48	**1.11**
	1 Worker	1.26	0.90	1.18	0.93	**1.13**	1.00	0.70	1.04	0.66	**0.82**	0.88	0.83	0.81	0.79	**0.83**
	2 Workers		0.75	0.67	1.20	**0.81**		0.85	1.03	1.08	**1.00**		0.80	1.01	1.04	**0.96**
	Total	1.48	0.86	0.88	1.09	**1.13**	0.98	0.87	1.09	0.90	**0.94**	0.95	0.89	0.95	0.99	**0.95**

Number of Households by Household

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	2.22	1.52	2.48	0.70	**1.69**	6.03	1.59	0.88	0.96	**2.21**	1.98	1.40	1.44	1.09	**1.65**
	1 Worker	1.58	0.99	1.24	0.71	**1.05**	1.63	0.44		0.49	**0.80**	2.07	1.05	0.95	0.99	**1.23**
	2 Workers		0.75	0.22	0.20	**0.28**		0.15			**0.47**		0.78	0.61	0.30	**0.44**
	Total	2.04	1.25	1.09	0.54	**1.20**	3.83	0.84	1.53	0.71	**1.41**	2.00	1.22	1.05	0.79	**1.34**
$25,000 to $50,000	0 Workers	2.29	1.38	0.52	1.20	**1.37**	2.37	1.23			**1.87**	0.91	1.01	1.20	0.75	**0.94**
	1 Worker	0.81	0.76	0.57	0.59	**0.69**	1.36	1.73	0.82	1.79	**1.32**	1.02	0.74	0.87	0.61	**0.82**
	2 Workers		0.71	0.74	0.76	**0.74**		0.28	0.22	1.09	**0.46**		0.68	0.70	0.74	**0.71**
	Total	1.01	0.84	0.62	0.69	**0.78**	1.70	0.84	0.55	1.43	**1.01**	0.98	0.78	0.83	0.68	**0.82**
$50,000 to $100,000	0 Workers	1.13	0.56	1.51	1.99	**0.89**		1.13	0.51	0.47	**0.96**	0.89	0.92	1.19	1.40	**0.97**
	1 Worker	0.70	0.74	0.97	0.70	**0.74**	3.76	1.00	0.44	1.85	**1.20**	0.91	0.68	1.02	0.83	**0.84**
	2 Workers		1.11	2.71	1.04	**1.25**		2.49	1.28	1.10	**1.32**		1.06	1.06	1.25	**1.14**
	Total	0.75	0.85	1.63	0.95	**0.94**	4.37	1.25	0.69	1.21	**1.20**	0.91	0.85	1.05	1.11	**0.96**
$100,000 +	0 Workers		0.59	0.61		**1.33**		0.27			**0.73**	1.12	1.00	1.97	4.03	**1.29**
	1 Worker	1.16	0.45	3.33	2.00	**0.97**	0.84		1.17	0.88	**1.28**	0.93	0.91	0.97	0.62	**0.86**
	2 Workers		0.69	0.84	1.16	**0.89**		0.72	0.88	1.70	**1.10**		0.69	0.96	1.37	**0.96**
	Total	1.42	0.61	1.00	1.31	**0.93**	1.02	0.84	0.97	1.46	**1.11**	0.96	0.76	0.98	1.16	**0.94**
All Incomes	0 Workers	2.13	1.20	1.30	0.92	**1.50**	4.59	1.05	1.05	1.12	**1.57**	1.51	1.17	1.37	1.11	**1.34**
	1 Worker	0.89	0.75	0.90	0.70	**0.81**	1.79	1.19	0.73	1.14	**1.17**	1.06	0.80	0.94	0.75	**0.90**
	2 Workers		0.84	1.00	0.84	**0.87**		0.71	0.78	1.36	**0.97**		0.80	0.91	1.02	**0.91**
	Total	1.29	0.88	0.99	0.79	**0.96**	2.59	0.95	0.79	1.26	**1.16**	1.23	0.88	0.97	0.92	**1.00**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1.51	1.29	1.35	1.51	**1.42**	1.20	1.19	1.05	1.00	**1.17**	1.20	1.20	1.20	1.20	**1.20**
	1 Worker	1.51	1.51	1.12	0.93	**1.21**	1.20	0.90	0.74	1.20	**0.95**	1.20	1.18	1.01	1.20	**1.14**
	2 Workers		1.51	0.93	0.93	**1.03**		0.74	1.20	0.74	**0.79**		1.18		0.74	**0.81**
	Total	1.51	1.36	1.20	0.98	**1.30**	1.20	1.05	0.85	0.96	**1.05**	1.20	1.19	1.09	1.04	**1.15**
$25,000 to $50,000	0 Workers	1.23	0.96		0.93	**1.13**	0.74	1.20		0.74	**0.84**	0.74	0.74	0.74	0.82	**0.75**
	1 Worker	1.41	0.93	1.51	0.93	**1.19**	1.14	0.90	1.20	0.74	**0.97**	0.89	0.75	0.77	0.74	**0.79**
	2 Workers		0.93	0.96	0.93	**0.94**		1.03	0.74	0.74	**0.81**		0.74	0.92	0.85	**0.83**
	Total	1.35	0.94	1.10	0.93	**1.13**	0.92	1.00	0.98	0.74	**0.89**	0.83	0.74	0.81	0.79	**0.79**
$50,000 to $100,000	0 Workers	1.46	0.93	0.93		**1.22**	0.74	1.19	1.20	1.20	**1.00**	0.74			1.07	**0.80**
	1 Worker	1.18	0.93	0.93	1.51	**1.11**	0.86	0.74	1.20	0.74	**0.81**	0.80	0.84	0.96	1.20	**0.87**
	2 Workers		0.93	0.93	1.51	**1.02**		1.20	1.03	1.20	**1.15**		1.20	1.09	1.20	**1.16**
	Total	1.22	0.93	0.93	1.51	**1.09**	0.84	0.93	1.08	0.99	**0.95**	0.78	0.98	1.03	1.19	**0.98**
$100,000 +	0 Workers	1.41	1.51		0.93	**1.35**	0.74	1.08			**0.91**	0.74	0.74			**0.74**
	1 Worker	1.15	1.51	1.14	0.94	**1.19**	0.74	0.77	0.74	0.74	**0.74**	0.74	0.74	0.74	0.74	**0.74**
	2 Workers		0.93	0.93	1.51	**1.00**		0.74	1.20	1.20	**1.02**		0.74	0.87	1.20	**0.94**
	Total	1.18	1.05	0.99	1.22	**1.10**	0.74	0.77	1.06	1.02	**0.91**	0.74	0.74	0.81	1.02	**0.84**
All Incomes	0 Workers	1.41	1.15	1.27	1.08	**1.30**	0.96	1.19	1.09	0.93	**1.03**	1.02	0.94	1.07	1.04	**1.01**
	1 Worker	1.23	1.10	1.11	0.97	**1.16**	0.94	0.81	0.98	0.78	**0.86**	0.90	0.88	0.88	0.88	**0.89**
	2 Workers		0.94	0.93	1.28	**1.00**		0.93	1.01	1.04	**1.00**		0.89	0.97	0.99	**0.96**
	Total	1.28	1.03	1.02	1.13	**1.13**	0.95	0.93	1.00	0.92	**0.94**	0.96	0.90	0.94	0.95	**0.94**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SATURDAY TRAVEL SAMPLE

Brooklyn					Staten Island					New York City				
HH Size					HH Size					HH Size				
1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
1.30	1.30	1.30	0.80	**1.19**	1.44	1.44	0.93	1.02	**1.26**	1.28	1.26	1.21	0.94	**1.22**
1.30	1.07	1.30	0.80	**1.06**	1.44	0.89		0.89	**1.00**	1.30	1.09	1.01	0.95	**1.07**
	0.82	0.80	0.80	**0.80**		0.89			**0.89**		0.94	0.87	0.80	**0.83**
1.30	1.17	1.11	0.80	**1.07**	1.44	1.11	0.93	0.93	**1.11**	1.28	1.17	1.05	0.90	**1.12**
1.30	1.30	0.80	1.30	**1.18**	1.44	1.30			**1.35**	0.92	1.03	0.78	0.91	**0.94**
0.88	0.82	0.80	0.80	**0.83**	1.44	1.44	0.89	1.44	**1.26**	1.08	0.86	0.92	0.79	**0.92**
	0.80	0.81	0.82	**0.81**		0.89	0.89	1.15	**0.96**		0.87	0.83	0.82	**0.84**
0.94	0.89	0.80	0.83	**0.87**	1.44	1.12	0.89	1.25	**1.13**	1.02	0.90	0.87	0.81	**0.91**
1.23	0.80	1.30	1.30	**1.00**		1.20	0.89	0.89	**1.04**	1.05	0.98	1.08	1.11	**1.03**
0.80	0.80	1.06	0.80	**0.83**	1.44	1.06	0.89	1.44	**1.10**	0.96	0.83	1.02	0.84	**0.91**
	1.20	1.30	1.13	**1.18**		1.44	1.35	1.16	**1.24**		1.12	1.06	1.20	**1.14**
0.85	0.96	1.16	1.02	**0.97**	1.44	1.15	1.02	1.20	**1.14**	0.97	0.95	1.05	1.07	**1.00**
	0.80	0.80		**0.80**		0.89			**0.89**	1.12	0.97	0.80	0.93	**1.02**
1.26	0.80	1.30	1.30	**1.00**	0.89		1.24	0.94	**0.99**	1.05	1.01	0.96	0.85	**0.98**
	0.80	0.92	1.26	**0.99**		0.89	0.93	1.44	**1.09**		0.84	0.98	1.28	**1.00**
1.26	0.80	0.94	1.26	**0.98**	0.89	0.89	0.98	1.25	**1.05**	1.06	0.89	0.97	1.13	**1.00**
1.29	1.15	1.02	0.90	**1.15**	1.44	1.21	0.91	0.95	**1.16**	1.14	1.12	1.08	0.95	**1.11**
0.93	0.86	0.99	0.82	**0.89**	1.33	1.06	0.94	1.11	**1.10**	1.05	0.91	0.97	0.85	**0.95**
	0.94	0.93	1.03	**0.98**		0.94	1.00	1.28	**1.09**		0.93	0.96	1.07	**0.99**
1.05	0.95	0.97	0.93	**0.97**	1.36	1.06	0.97	1.19	**1.11**	1.08	0.96	0.98	0.97	**1.00**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	Manhattan HH Size 2	Manhattan HH Size 3	Manhattan HH Size 4+	Manhattan Total	Queens HH Size 1	Queens HH Size 2	Queens HH Size 3	Queens HH Size 4+	Queens Total	Bronx HH Size 1	Bronx HH Size 2	Bronx HH Size 3	Bronx HH Size 4+	Bronx Total
Less than $25,000	0 Workers	2,937	2,505	2,635	2,937	**2,755**	2,333	2,323	2,040	1,939	**2,273**	2,329	2,329	2,329	2,329	**2,329**
	1 Worker	2,937	2,937	2,174	1,809	**2,359**	2,333	1,741	1,437	2,333	**1,845**	2,329	2,294	1,968	2,329	**2,225**
	2 Workers	0	2,937	1,809	1,809	**1,997**	0	1,437	2,333	1,437	**1,536**	0	2,289	0	1,434	**1,577**
	Total	2,937	2,638	2,338	1,912	**2,534**	2,333	2,045	1,645	1,870	**2,048**	2,329	2,311	2,118	2,030	**2,231**
$25,000 to $50,000	0 Workers	2,402	1,877	0	1,809	**2,197**	1,437	2,333	0	1,437	**1,629**	1,434	1,434	1,434	1,595	**1,454**
	1 Worker	2,741	1,809	2,937	1,809	**2,318**	2,221	1,759	2,333	1,437	**1,887**	1,731	1,460	1,496	1,434	**1,543**
	2 Workers	0	1,809	1,873	1,809	**1,825**	0	2,006	1,437	1,437	**1,579**	0	1,434	1,780	1,650	**1,613**
	Total	2,624	1,821	2,139	1,809	**2,197**	1,783	1,953	1,911	1,437	**1,737**	1,617	1,445	1,583	1,533	**1,537**
$50,000 to $100,000	0 Workers	2,836	1,809	1,809	0	**2,369**	1,437	2,317	2,333	2,333	**1,942**	1,434	0	0	2,075	**1,563**
	1 Worker	2,304	1,809	1,809	2,937	**2,156**	1,671	1,437	2,333	1,437	**1,576**	1,559	1,632	1,874	2,329	**1,701**
	2 Workers	0	1,809	1,809	2,937	**1,985**	0	2,333	1,994	2,333	**2,229**	0	2,329	2,114	2,329	**2,264**
	Total	2,378	1,809	1,809	2,937	**2,125**	1,627	1,810	2,091	1,916	**1,843**	1,526	1,900	2,005	2,307	**1,908**
$100,000 +	0 Workers	2,738	2,937	0	1,809	**2,617**	1,437	2,105	0	0	**1,771**	1,434	1,434	0	0	**1,434**
	1 Worker	2,241	2,937	2,211	1,828	**2,311**	1,437	1,492	1,437	1,437	**1,449**	1,434	1,434	1,434	1,434	**1,434**
	2 Workers	0	1,809	1,813	2,937	**1,944**	0	1,437	2,333	2,333	**1,974**	0	1,434	1,687	2,329	**1,826**
	Total	2,297	2,044	1,917	2,381	**2,141**	1,437	1,496	2,057	1,990	**1,766**	1,434	1,434	1,579	1,993	**1,630**
All Incomes	0 Workers	2,738	2,235	2,470	2,091	**2,525**	1,859	2,307	2,113	1,800	**1,996**	1,985	1,837	2,073	2,022	**1,957**
	1 Worker	2,400	2,147	2,163	1,882	**2,264**	1,834	1,569	1,901	1,520	**1,679**	1,753	1,717	1,714	1,710	**1,726**
	2 Workers	0	1,828	1,817	2,486	**1,946**	0	1,801	1,962	2,030	**1,945**	0	1,730	1,889	1,931	**1,864**
	Total	**2,491**	**1,998**	**1,982**	**2,197**	**2,208**	**1,846**	**1,808**	**1,946**	**1,798**	**1,836**	**1,874**	**1,755**	**1,828**	**1,852**	**1,828**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	2,533	2,533	2,533	1,560	**2,315**	2,808	2,808	1,803	1,982	**2,442**	2,490	2,450	2,357	1,838	**2,381**
	1 Worker	2,533	2,082	2,533	1,560	**2,056**	2,808	1,730	0	1,730	**1,945**	2,527	2,119	1,968	1,846	**2,088**
	2 Workers	0	1,589	1,560	1,560	**1,564**	0	1,730	0	0	**1,730**	0	1,825	1,688	1,547	**1,622**
	Total	2,533	2,275	2,168	1,560	**2,085**	2,808	2,161	1,803	1,814	**2,151**	2,498	2,275	2,046	1,746	**2,178**
$25,000 to $50,000	0 Workers	2,533	2,533	1,560	2,533	**2,289**	2,808	2,528	0	0	**2,621**	1,786	2,004	1,518	1,778	**1,836**
	1 Worker	1,713	1,599	1,560	1,560	**1,615**	2,803	2,808	1,730	2,808	**2,447**	2,098	1,673	1,787	1,533	**1,795**
	2 Workers	0	1,560	1,574	1,602	**1,582**	0	1,730	1,730	2,243	**1,858**	0	1,691	1,622	1,602	**1,634**
	Total	1,826	1,735	1,564	1,624	**1,686**	2,805	2,175	1,730	2,432	**2,201**	1,984	1,753	1,699	1,582	**1,763**
$50,000 to $100,000	0 Workers	2,394	1,560	2,533	2,533	**1,937**	0	2,326	1,730	1,730	**2,028**	2,048	1,914	2,101	2,168	**2,006**
	1 Worker	1,560	1,561	2,053	1,560	**1,618**	2,808	2,055	1,730	2,808	**2,142**	1,862	1,606	1,992	1,638	**1,764**
	2 Workers	0	2,338	2,533	2,206	**2,292**	0	2,808	2,635	2,256	**2,420**	0	2,179	2,062	2,328	**2,211**
	Total	1,658	1,868	2,259	1,988	**1,890**	2,808	2,240	1,988	2,328	**2,219**	1,891	1,857	2,039	2,074	**1,947**
$100,000 +	0 Workers	0	1,560	1,560	0	**1,560**	0	1,730	0	0	**1,730**	2,180	1,895	1,560	1,809	**1,988**
	1 Worker	2,455	1,560	2,533	2,533	**1,942**	1,730	0	2,408	1,819	**1,919**	2,051	1,958	1,860	1,647	**1,914**
	2 Workers	0	1,560	1,782	2,451	**1,923**	0	1,730	1,810	2,808	**2,116**	0	1,642	1,899	2,489	**1,952**
	Total	2,455	1,560	1,820	2,460	**1,912**	1,730	1,730	1,910	2,437	**2,036**	2,067	1,732	1,884	2,207	**1,940**
All Incomes	0 Workers	2,516	2,238	1,992	1,742	**2,227**	2,808	2,348	1,766	1,856	**2,260**	2,226	2,186	2,103	1,856	**2,161**
	1 Worker	1,808	1,677	1,926	1,595	**1,735**	2,590	2,070	1,827	2,168	**2,132**	2,034	1,766	1,895	1,648	**1,854**
	2 Workers	0	1,821	1,806	1,998	**1,900**	0	1,838	1,951	2,484	**2,115**	0	1,811	1,875	2,077	**1,932**
	Total	**2,037**	**1,855**	**1,883**	**1,812**	**1,887**	**2,653**	**2,066**	**1,886**	**2,312**	**2,149**	**2,107**	**1,875**	**1,908**	**1,882**	**1,945**

Number of Households by Household Income, Household Workers and Household Size by Borough

American Community Survey (ACS) - 2006 - Expanded (by Household)

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
SATURDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	90,074	21,182	9,904	5,804	**126,964**	66,370	27,426	6,021	7,631	**107,448**	64,445	28,941	13,060	15,998	**122,444**
	1 Worker	30,837	11,371	8,171	9,197	**59,576**	21,290	11,991	10,953	19,020	**63,254**	15,481	18,006	13,514	16,540	**63,541**
	2+ Workers	0	3,446	1,544	3,531	**8,521**	0	1,894	3,056	4,356	**9,306**	0	2,246	2,131	3,662	**8,039**
	Total	**120,911**	**35,999**	**19,619**	**18,532**	195,061	**87,660**	**41,311**	**20,030**	**31,007**	180,008	**79,926**	**49,193**	**28,705**	**36,200**	194,024
$25,000 to $50,000	0 Workers	22,569	7,054	1,271	1,448	**32,342**	21,960	19,602	5,301	3,271	**50,134**	11,526	7,940	2,555	4,695	**26,716**
	1 Worker	48,937	12,444	6,768	6,725	**74,874**	32,770	24,223	21,901	20,476	**99,370**	27,179	17,189	11,745	13,513	**69,626**
	2+ Workers	0	5,734	5,280	6,255	**17,269**	0	15,790	10,072	19,185	**45,047**	0	7,126	8,735	17,812	**33,673**
	Total	**71,506**	**25,232**	**13,319**	**14,428**	124,485	**54,730**	**59,615**	**37,274**	**42,932**	194,551	**38,705**	**32,255**	**23,035**	**36,020**	130,015
$50,000 to $100,000	0 Workers	15,990	5,573	977	898	**23,438**	6,571	13,676	2,820	3,262	**26,329**	2,469	3,708	1,602	2,036	**9,815**
	1 Worker	80,103	20,136	4,972	5,002	**110,213**	42,745	26,638	17,290	22,496	**109,169**	16,829	12,807	9,194	9,230	**48,060**
	2+ Workers	0	20,093	7,690	14,887	**42,670**	0	32,315	29,428	58,632	**120,375**	0	12,540	12,445	26,156	**51,141**
	Total	**96,093**	**45,802**	**13,639**	**20,787**	176,321	**49,316**	**72,629**	**49,538**	**84,390**	255,873	**19,298**	**29,055**	**23,241**	**37,422**	109,016
$100,000 +	0 Workers	10,292	6,899	530	1,141	**18,862**	2,360	4,141	1,270	2,985	**10,756**	323	1,364	393	566	**2,646**
	1 Worker	67,394	27,155	10,386	10,305	**115,240**	9,186	10,277	5,293	8,273	**33,029**	2,504	2,557	2,185	1,234	**8,480**
	2+ Workers	0	59,238	23,847	22,583	**105,668**	0	19,919	24,448	56,534	**100,901**	0	6,374	6,623	13,661	**26,658**
	Total	**77,686**	**93,292**	**34,763**	**34,029**	239,770	**11,546**	**34,337**	**31,011**	**67,792**	144,686	**2,827**	**10,295**	**9,201**	**15,461**	37,784
ACS HOUSEHOLDS																
All Income	0 Workers	138,925	40,708	12,682	9,291	**201,606**	97,261	64,845	15,412	17,149	**194,667**	78,763	41,953	17,610	23,295	**161,621**
	1 Worker	227,271	71,106	30,297	31,229	**359,903**	105,991	73,129	55,437	70,265	**304,822**	61,993	50,559	36,638	40,517	**189,707**
	2+ Workers	0	88,511	38,361	47,256	**174,128**	0	69,918	67,004	138,707	**275,629**	0	28,286	29,934	61,291	**119,511**
	Total	**366,196**	**200,325**	**81,340**	**87,776**	735,637	**203,252**	**207,892**	**137,853**	**226,121**	775,118	**140,756**	**120,798**	**84,182**	**125,103**	470,839
MTA SURVEY HOUSEHOLDS - with LEVEL 1 HOUSEHOLD (ONLY) WEIGHTS - EXP_HH1B																
All Income	0 Workers	93,104	40,223	12,349	8,364	**154,040**	94,784	59,986	8,453	14,401	**177,624**	77,401	36,735	14,511	16,174	**144,821**
	1 Worker	220,799	85,896	28,113	31,995	**366,803**	99,026	83,183	51,339	82,075	**315,623**	63,125	53,225	39,416	44,447	**200,213**
	2+ Workers	0	109,673	52,707	49,714	**212,094**	0	75,657	64,737	131,921	**272,315**	0	31,144	28,336	57,925	**117,405**
	Total	313,903	235,792	93,169	90,073	**732,937**	193,810	218,826	124,529	228,397	**765,562**	140,526	121,104	82,263	118,546	**462,439**
RATIO - EXPANDED SURVEY HOUSEHOLDS to ACS																
All Income	0 Workers	0.670	0.988	0.974	0.900	**0.764**	0.975	0.925	0.548	0.840	**0.912**	0.983	0.876	0.824	0.694	**0.896**
	1 Worker	0.972	1.208	0.928	1.025	**1.019**	0.934	1.137	0.926	1.168	**1.035**	1.018	1.053	1.076	1.097	**1.055**
	2+ Workers		1.239	1.374	1.052	**1.218**		1.082	0.966	0.951	**0.988**		1.101	0.947	0.945	**0.982**
	Total	0.857	1.177	1.145	1.026	**0.996**	0.954	1.053	0.903	1.010	**0.988**	0.998	1.003	0.977	0.948	**0.982**

Number of Households by Household I

American Community Survey (ACS) - 2(

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
SATURDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	109,304	50,788	14,667	17,953	**192,712**	11,856	6,238	1,725	1,896	**21,715**	342,049	134,575	45,377	49,282	**571,283**
	1 Worker	31,146	23,264	17,020	23,718	**95,148**	3,211	1,721	1,013	1,926	**7,871**	101,965	66,353	50,671	70,401	**289,390**
	2+ Workers	0	4,440	2,648	5,385	**12,473**	0	300	263	358	**921** 0	0	12,326	9,642	17,292	**39,260**
	Total	**140,450**	**78,492**	**34,335**	**47,056**	**300,333**	**15,067**	**8,259**	**3,001**	**4,180**	**30,507**	**444,014**	**213,254**	**105,690**	**136,975**	**899,933**
$25,000 to $50,000	0 Workers	18,012	16,236	4,118	4,721	**43,087**	4,656	4,837	931	604	**11,028**	78,723	55,669	14,176	14,739	**163,307**
	1 Worker	39,869	31,272	18,093	26,728	**115,962**	5,364	3,406	3,241	3,529	**15,540**	154,119	88,534	61,748	70,971	**375,372**
	2+ Workers	0	15,418	11,722	23,871	**51,011**	0	1,652	1,286	4,293	**7,231** 0	0	45,720	37,095	71,416	**154,231**
	Total	**57,881**	**62,926**	**33,933**	**55,320**	**210,060**	**10,020**	**9,895**	**5,458**	**8,426**	**33,799**	**232,842**	**189,923**	**113,019**	**157,126**	**692,910**
$50,000 to $100,000	0 Workers	8,918	8,800	2,970	3,921	**24,609**	1,202	4,451	1,002	915	**7,570**	35,150	36,208	9,371	11,032	**91,761**
	1 Worker	41,063	26,170	15,295	17,791	**100,319**	7,391	7,865	3,441	7,287	**25,984**	188,131	93,616	50,192	61,806	**393,745**
	2+ Workers	0	37,013	26,650	47,238	**110,901**	0	4,909	5,043	10,792	**20,744** 0	0	106,870	81,256	157,705	**345,831**
	Total	**49,981**	**71,983**	**44,915**	**68,950**	**235,829**	**8,593**	**17,225**	**9,486**	**18,994**	**54,298**	**223,281**	**236,694**	**140,819**	**230,543**	**831,337**
$100,000 +	0 Workers	2,069	2,328	1,204	2,257	**7,858**	367	1,055	470	979	**2,871**	15,411	15,787	3,867	7,928	**42,993**
	1 Worker	9,143	8,793	6,554	7,875	**32,365**	1,645	3,412	2,304	5,221	**12,582**	89,872	52,194	26,722	32,908	**201,696**
	2+ Workers	0	27,031	19,909	38,801	**85,741**	0	7,053	8,659	16,732	**32,444** 0	0	119,615	83,486	148,311	**351,412**
	Total	**11,212**	**38,152**	**27,667**	**48,933**	**125,964**	**2,012**	**11,520**	**11,433**	**22,932**	**47,897**	**105,283**	**187,596**	**114,075**	**189,147**	**596,101**
ACS HOUSEHOLDS																
All Income	0 Workers	138,303	78,152	22,959	28,852	**268,266**	18,081	16,581	4,128	4,394	**43,184**	471,333	242,239	72,791	82,981	**869,344**
	1 Worker	121,221	89,499	56,962	76,112	**343,794**	17,611	16,404	9,999	17,963	**61,977**	534,087	300,697	189,333	236,086	**1,260,203**
	2+ Workers	0	83,902	60,929	115,295	**260,126**	0	13,914	15,251	32,175	**61,340** 0	0	284,531	211,479	394,724	**890,734**
	Total	**259,524**	**251,553**	**140,850**	**220,259**	**872,186**	**35,692**	**46,899**	**29,378**	**54,532**	**166,501**	**1,005,420**	**827,467**	**473,603**	**713,791**	**3,020,281**
MTA SURVEY HOUSEHOLDS - with LEVI																
All Income	0 Workers	83,023	73,851	17,931	27,879	**202,684**	5,616	18,783	3,533	3,711	**31,643**	353,928	229,578	56,777	70,529	**710,812**
	1 Worker	124,763	102,271	61,648	87,750	**376,432**	12,952	14,488	12,787	17,340	**57,567**	520,665	339,063	193,303	263,607	**1,316,638**
	2+ Workers	0	92,879	55,992	139,874	**288,745**	0	18,376	19,510	29,806	**67,692**	0	327,729	221,282	409,240	**958,251**
	Total	207,786	269,001	135,571	255,503	**867,861**	18,568	51,647	35,830	50,857	**156,902**	874,593	896,370	471,362	743,376	**2,985,701**
RATIO - EXPANDED SURVEY HOUSEHO																
All Income	0 Workers	0.600	0.945	0.781	0.966	**0.756**	0.311	1.133	0.856	0.845	**0.733**	0.751	0.948	0.780	0.850	**0.818**
	1 Worker	1.029	1.143	1.082	1.153	**1.095**	0.735	0.883	1.279	0.965	**0.929**	0.975	1.128	1.021	1.117	**1.045**
	2+ Workers		1.107	0.919	1.213	**1.110**		1.321	1.279	0.926	**1.104**		1.152	1.046	1.037	**1.076**
	Total	0.801	1.069	0.963	1.160	**0.995**	0.520	1.101	1.220	0.933	**0.942**	0.870	1.083	0.995	1.041	**0.989**

LEVEL 1 HOUSEHOLD EXPANSION OF MTA SURVEY DATA with ACS 2006 CONTROLS

C. SUNDAY TRAVEL SAMPLE	**EXP1_FINAL_SUN**

TABLES:

Tabulations: All Structured as:
Number of Households by Household Income, Household Workers and Household Size by Borough

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* **MTA 12/10/08 DELIV6 FINAL**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	32	9	3	3	47	23	11	2	3	39	35	17	9	7	68
	1 Worker	13	7	5	1	26	5	9	8	8	30	4	11	9	9	33
	2+ Workers	0	2	4	5	11	0	2	5	7	14	0	4	4	8	16
	Total	45	18	12	9	84	28	22	15	18	83	39	32	22	24	117
$25,000 to $50,000	0 Workers	16	9	0	1	26	17	13	4	3	37	13	9	4	3	29
	1 Worker	15	7	5	7	34	15	17	9	19	60	16	11	12	17	56
	2 Workers	0	4	4	3	11	0	9	10	15	34	0	9	3	9	21
	Total	31	20	9	11	71	32	39	23	37	131	29	29	19	29	106
$50,000 to $100,000	0 Workers	18	6	0	0	24	12	15	3	5	35	5	4	0	0	9
	1 Worker	34	9	3	5	51	27	23	6	7	63	9	7	6	8	30
	2 Workers	0	22	6	3	31	0	13	28	17	58	0	10	10	10	30
	Total	52	37	9	8	106	39	51	37	29	156	14	21	16	18	69
$100,000 +	0 Workers	5	2	3	1	11	0	4	0	3	7	0	1	0	0	1
	1 Worker	30	12	3	11	56	9	10	7	3	29	2	1	1	4	8
	2 Workers	0	41	13	8	62	0	19	14	29	62	0	5	4	6	15
	Total	35	55	19	20	129	9	33	21	35	98	2	7	5	10	24
All Incomes	0 Workers	71	26	6	5	**108**	52	43	9	14	**118**	53	31	13	10	**107**
	1 Worker	92	35	16	24	**167**	56	59	30	37	**182**	31	30	28	38	**127**
	2 Workers	0	69	27	19	**115**	0	43	57	68	**168**	0	28	21	33	**82**
	Total	163	130	49	48	**390**	108	145	96	119	**468**	84	89	62	81	**316**

Number of Households by Household **TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE**

SATURDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size					Staten Island HH Size					New York City HH Size				
		1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	30	18	7	14	69	5	0	0	0	5	125	55	21	27	228
	1 Worker	11	15	11	19	56	2	0	1	3	6	35	42	34	40	151
	2+ Workers	0	8	6	10	24	0	0	0	0	0	0	16	19	30	65
	Total	41	41	24	43	149	7	0	1	3	11	160	113	74	97	444
$25,000 to $50,000	0 Workers	23	15	1	7	46	3	6	0	0	9	72	52	9	14	147
	1 Worker	20	22	11	17	70	2	1	1	1	5	68	58	38	61	225
	2 Workers	0	9	19	14	42	0	0	2	2	4	0	31	38	43	112
	Total	43	46	31	38	158	5	7	3	3	18	140	141	85	118	484
$50,000 to $100,000	0 Workers	5	5	2	1	13	0	1	0	2	3	40	31	5	8	84
	1 Worker	32	21	17	12	82	2	5	5	5	17	104	65	37	37	243
	2 Workers	0	23	10	23	56	0	5	2	6	13	0	73	56	59	188
	Total	37	49	29	36	151	2	11	7	13	33	144	169	98	104	515
$100,000 +	0 Workers	0	1	1	0	2	0	4	1	1	6	5	12	5	5	27
	1 Worker	6	5	4	6	21	6	2	0	4	12	53	30	15	28	126
	2 Workers	0	15	9	14	38	0	4	5	6	15	0	84	45	63	192
	Total	6	21	14	20	61	6	10	6	11	33	58	126	65	96	345
All Incomes	0 Workers	58	39	11	22	**130**	8	11	1	3	**23**	242	150	40	54	**486**
	1 Worker	69	63	43	54	**229**	12	8	7	13	**40**	260	195	124	166	**745**
	2 Workers	0	55	44	61	**160**	0	9	9	14	**32**	0	204	158	195	**557**
	Total	127	157	98	137	**519**	20	28	17	30	**95**	502	549	322	415	**1,788**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
SUNDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.79%	0.50%	0.17%	0.17%	**2.63%**	1.29%	0.62%	0.11%	0.17%	**2.18%**	1.96%	0.95%	0.50%	0.39%	**3.80%**
	1 Worker	0.73%	0.39%	0.28%	0.06%	**1.45%**	0.28%	0.50%	0.45%	0.45%	**1.68%**	0.22%	0.62%	0.50%	0.50%	**1.85%**
	2 Workers	0.00%	0.11%	0.22%	0.28%	**0.62%**	0.00%	0.11%	0.28%	0.39%	**0.78%**	0.00%	0.22%	0.22%	0.45%	**0.89%**
	Total	#REF!	1.01%	0.67%	0.50%	**4.70%**	1.57%	1.23%	0.84%	1.01%	**4.64%**	2.18%	1.79%	1.23%	1.34%	**6.54%**
$25,000 to $50,000	0 Workers	0.89%	0.50%	0.00%	0.06%	**1.45%**	0.95%	0.73%	0.22%	0.17%	**2.07%**	0.73%	0.50%	0.22%	0.17%	**1.62%**
	1 Worker	0.84%	0.39%	0.28%	0.39%	**1.90%**	0.84%	0.95%	0.50%	1.06%	**3.36%**	0.89%	0.62%	0.67%	0.95%	**3.13%**
	2 Workers	0.00%	0.22%	0.22%	0.17%	**0.62%**	0.00%	0.50%	0.56%	0.84%	**1.90%**	0.00%	0.50%	0.17%	0.50%	**1.17%**
	Total	1.73%	1.12%	0.50%	0.62%	**3.97%**	1.79%	2.18%	1.29%	2.07%	**7.33%**	1.62%	1.62%	1.06%	1.62%	**5.93%**
$50,000 to $100,000	0 Workers	1.01%	0.34%	0.00%	0.00%	**1.34%**	0.67%	0.84%	0.17%	0.28%	**1.96%**	0.28%	0.22%	0.00%	0.00%	**0.50%**
	1 Worker	1.90%	0.50%	0.17%	0.28%	**2.85%**	1.51%	1.29%	0.34%	0.39%	**3.52%**	0.50%	0.39%	0.34%	0.45%	**1.68%**
	2 Workers	0.00%	1.23%	0.34%	0.17%	**1.73%**	0.00%	0.73%	1.57%	0.95%	**3.24%**	0.00%	0.56%	0.56%	0.56%	**1.68%**
	Total	2.91%	2.07%	0.50%	0.45%	**5.93%**	2.18%	2.85%	2.07%	1.62%	**8.72%**	0.78%	1.17%	0.89%	1.01%	**3.86%**
$100,000 +	0 Workers	0.28%	0.11%	0.17%	0.06%	**0.62%**	0.00%	0.22%	0.00%	0.17%	**0.39%**	0.00%	0.06%	0.00%	0.00%	**0.06%**
	1 Worker	1.68%	0.67%	0.17%	0.62%	**3.13%**	0.50%	0.56%	0.39%	0.17%	**1.62%**	0.11%	0.06%	0.06%	0.22%	**0.45%**
	2 Workers	0.00%	2.29%	0.73%	0.45%	**3.47%**	0.00%	1.06%	0.78%	1.62%	**3.47%**	0.00%	0.28%	0.22%	0.34%	**0.84%**
	Total	1.96%	3.08%	1.06%	1.12%	**7.21%**	0.50%	1.85%	1.17%	1.96%	**5.48%**	0.11%	0.39%	0.28%	0.56%	**1.34%**
All Incomes	0 Workers	3.97%	1.45%	0.34%	0.28%	**6.04%**	2.91%	2.40%	0.50%	0.78%	**6.60%**	2.96%	1.73%	0.73%	0.56%	**5.98%**
	1 Worker	5.15%	1.96%	0.89%	1.34%	**9.34%**	3.13%	3.30%	1.68%	2.07%	**10.18%**	1.73%	1.68%	1.57%	2.13%	**7.10%**
	2 Workers	0.00%	3.86%	1.51%	1.06%	**6.43%**	0.00%	2.40%	3.19%	3.80%	**9.40%**	0.00%	1.57%	1.17%	1.85%	**4.59%**
	Total	9.12%	7.27%	2.74%	2.68%	**21.81%**	6.04%	8.11%	5.37%	6.66%	**26.17%**	4.70%	4.98%	3.47%	4.53%	**17.67%**

Number of Households by Household

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
SUNDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.68%	1.01%	0.39%	0.78%	**3.86%**	0.28%	0.00%	0.00%	0.00%	**0.28%**	6.99%	3.08%	1.17%	1.51%	**12.75%**
	1 Worker	0.62%	0.84%	0.62%	1.06%	**3.13%**	0.11%	0.00%	0.06%	0.17%	**0.34%**	1.96%	2.35%	1.90%	2.24%	**8.45%**
	2 Workers	0.00%	0.45%	0.34%	0.56%	**1.34%**	0.00%	0.00%	0.00%	0.00%	**0.00%**	0.00%	0.89%	1.06%	1.68%	**3.64%**
	Total	2.29%	2.29%	1.34%	2.40%	**8.33%**	0.39%	0.00%	0.06%	0.17%	**0.62%**	8.95%	6.32%	4.14%	5.43%	**24.83%**
$25,000 to $50,000	0 Workers	1.29%	0.84%	0.06%	0.39%	**2.57%**	0.17%	0.34%	0.00%	0.00%	**0.50%**	4.03%	2.91%	0.50%	0.78%	**8.22%**
	1 Worker	1.12%	1.23%	0.62%	0.95%	**3.91%**	0.11%	0.06%	0.06%	0.06%	**0.28%**	3.80%	3.24%	2.13%	3.41%	**12.58%**
	2 Workers	0.00%	0.50%	1.06%	0.78%	**2.35%**	0.00%	0.00%	0.11%	0.11%	**0.22%**	0.00%	1.73%	2.13%	2.40%	**6.26%**
	Total	2.40%	2.57%	1.73%	2.13%	**8.84%**	0.28%	0.39%	0.17%	0.17%	**1.01%**	7.83%	7.89%	4.75%	6.60%	**27.07%**
$50,000 to $100,000	0 Workers	0.28%	0.28%	0.11%	0.06%	**0.73%**	0.00%	0.06%	0.00%	0.11%	**0.17%**	2.24%	1.73%	0.28%	0.45%	**4.70%**
	1 Worker	1.79%	1.17%	0.95%	0.67%	**4.59%**	0.11%	0.28%	0.28%	0.28%	**0.95%**	5.82%	3.64%	2.07%	2.07%	**13.59%**
	2 Workers	0.00%	1.29%	0.56%	1.29%	**3.13%**	0.00%	0.28%	0.11%	0.34%	**0.73%**	0.00%	4.08%	3.13%	3.30%	**10.51%**
	Total	2.07%	2.74%	1.62%	2.01%	**8.45%**	0.11%	0.62%	0.39%	0.73%	**1.85%**	8.05%	9.45%	5.48%	5.82%	**28.80%**
$100,000 +	0 Workers	0.00%	0.06%	0.06%	0.00%	**0.11%**	0.00%	0.22%	0.06%	0.06%	**0.34%**	0.28%	0.67%	0.28%	0.28%	**1.51%**
	1 Worker	0.34%	0.28%	0.22%	0.34%	**1.17%**	0.34%	0.11%	0.00%	0.22%	**0.67%**	2.96%	1.68%	0.84%	1.57%	**7.05%**
	2 Workers	0.00%	0.84%	0.50%	0.78%	**2.13%**	0.00%	0.22%	0.28%	0.34%	**0.84%**	0.00%	4.70%	2.52%	3.52%	**10.74%**
	Total	0.34%	1.17%	0.78%	1.12%	**3.41%**	0.34%	0.56%	0.34%	0.62%	**1.85%**	3.24%	7.05%	3.64%	5.37%	**19.30%**
All Incomes	0 Workers	3.24%	2.18%	0.62%	1.23%	**7.27%**	0.45%	0.62%	0.06%	0.17%	**1.29%**	13.53%	8.39%	2.24%	3.02%	**27.18%**
	1 Worker	3.86%	3.52%	2.40%	3.02%	**12.81%**	0.67%	0.45%	0.39%	0.73%	**2.24%**	14.54%	10.91%	6.94%	9.28%	**41.67%**
	2 Workers	0.00%	3.08%	2.46%	3.41%	**8.95%**	0.00%	0.50%	0.50%	0.78%	**1.79%**	0.00%	11.41%	8.84%	10.91%	**31.15%**
	Total	7.10%	8.78%	5.48%	7.66%	**29.03%**	1.12%	1.57%	0.95%	1.68%	**5.31%**	28.08%	30.70%	18.01%	23.21%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS) - 2006 - Expanded (by Household)

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.98%	0.70%	0.33%	0.19%	**4.20%**	2.20%	0.91%	0.20%	0.25%	**3.56%**	2.13%	0.96%	0.43%	0.53%	**4.05%**
	1 Worker	1.02%	0.38%	0.27%	0.30%	**1.97%**	0.70%	0.40%	0.36%	0.63%	**2.09%**	0.51%	0.60%	0.45%	0.55%	**2.10%**
	2 Workers	0.00%	0.11%	0.05%	0.12%	**0.28%**	0.00%	0.06%	0.10%	0.14%	**0.31%**	0.00%	0.07%	0.07%	0.12%	**0.27%**
	Total	4.00%	1.19%	0.65%	0.61%	**6.46%**	2.90%	1.37%	0.66%	1.03%	**5.96%**	2.65%	1.63%	0.95%	1.20%	**6.42%**
$25,000 to $50,000	0 Workers	0.75%	0.23%	0.04%	0.05%	**1.07%**	0.73%	0.65%	0.18%	0.11%	**1.66%**	0.38%	0.26%	0.08%	0.16%	**0.88%**
	1 Worker	1.62%	0.41%	0.22%	0.22%	**2.48%**	1.08%	0.80%	0.73%	0.68%	**3.29%**	0.90%	0.57%	0.39%	0.45%	**2.31%**
	2 Workers	0.00%	0.19%	0.17%	0.21%	**0.57%**	0.00%	0.52%	0.33%	0.64%	**1.49%**	0.00%	0.24%	0.29%	0.59%	**1.11%**
	Total	2.37%	0.84%	0.44%	0.48%	**4.12%**	1.81%	1.97%	1.23%	1.42%	**6.44%**	1.28%	1.07%	0.76%	1.19%	**4.30%**
$50,000 to $100,000	0 Workers	0.53%	0.18%	0.03%	0.03%	**0.78%**	0.22%	0.45%	0.09%	0.11%	**0.87%**	0.08%	0.12%	0.05%	0.07%	**0.32%**
	1 Worker	2.65%	0.67%	0.16%	0.17%	**3.65%**	1.42%	0.88%	0.57%	0.74%	**3.61%**	0.56%	0.42%	0.30%	0.31%	**1.59%**
	2 Workers	0.00%	0.67%	0.25%	0.49%	**1.41%**	0.00%	1.07%	0.97%	1.94%	**3.99%**	0.00%	0.42%	0.41%	0.87%	**1.69%**
	Total	3.18%	1.52%	0.45%	0.69%	**5.84%**	1.63%	2.40%	1.64%	2.79%	**8.47%**	0.64%	0.96%	0.77%	1.24%	**3.61%**
$100,000 +	0 Workers	0.34%	0.23%	0.02%	0.04%	**0.62%**	0.08%	0.14%	0.04%	0.10%	**0.36%**	0.01%	0.05%	0.01%	0.02%	**0.09%**
	1 Worker	2.23%	0.90%	0.34%	0.34%	**3.82%**	0.30%	0.34%	0.18%	0.27%	**1.09%**	0.08%	0.08%	0.07%	0.04%	**0.28%**
	2 Workers	0.00%	1.96%	0.79%	0.75%	**3.50%**	0.00%	0.66%	0.81%	1.87%	**3.34%**	0.00%	0.21%	0.22%	0.45%	**0.88%**
	Total	2.57%	3.09%	1.15%	1.13%	**7.94%**	0.38%	1.14%	1.03%	2.24%	**4.79%**	0.09%	0.34%	0.30%	0.51%	**1.25%**
All Incomes	0 Workers	4.60%	1.35%	0.42%	0.31%	**6.68%**	3.22%	2.15%	0.51%	0.57%	**6.45%**	2.61%	1.39%	0.58%	0.77%	**5.35%**
	1 Worker	7.52%	2.35%	1.00%	1.03%	**11.92%**	3.51%	2.42%	1.84%	2.33%	**10.09%**	2.05%	1.67%	1.21%	1.34%	**6.28%**
	2 Workers	0.00%	2.93%	1.27%	1.56%	**5.77%**	0.00%	2.31%	2.22%	4.59%	**9.13%**	0.00%	0.94%	0.99%	2.03%	**3.96%**
	Total	12.12%	6.63%	2.69%	2.91%	**24.36%**	6.73%	6.88%	4.56%	7.49%	**25.66%**	4.66%	4.00%	2.79%	4.14%	**15.59%**

Number of Households by Household Income and Household Workers **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS)

HH Income	HH Workers	Brooklyn HH Size 1	Brooklyn HH Size 2	Brooklyn HH Size 3	Brooklyn HH Size 4+	Brooklyn Total	Staten Island HH Size 1	Staten Island HH Size 2	Staten Island HH Size 3	Staten Island HH Size 4+	Staten Island Total	New York City HH Size 1	New York City HH Size 2	New York City HH Size 3	New York City HH Size 4+	New York City Total
Less than $25,000	0 Workers	3.62%	1.68%	0.49%	0.59%	**6.38%**	0.39%	0.21%	0.06%	0.06%	**0.72%**	11.33%	4.46%	1.50%	1.63%	**18.91%**
	1 Worker	1.03%	0.77%	0.56%	0.79%	**3.15%**	0.11%	0.06%	0.03%	0.06%	**0.26%**	3.38%	2.20%	1.68%	2.33%	**9.58%**
	2 Workers	0.00%	0.15%	0.09%	0.18%	**0.41%**	0.00%	0.01%	0.01%	0.01%	**0.03%**	0.00%	0.41%	0.32%	0.57%	**1.30%**
	Total	4.65%	2.60%	1.14%	1.56%	**9.94%**	0.50%	0.27%	0.10%	0.14%	**1.01%**	14.70%	7.06%	3.50%	4.54%	**29.80%**
$25,000 to $50,000	0 Workers	0.60%	0.54%	0.14%	0.16%	**1.43%**	0.15%	0.16%	0.03%	0.02%	**0.37%**	2.61%	1.84%	0.47%	0.49%	**5.41%**
	1 Worker	1.32%	1.04%	0.60%	0.88%	**3.84%**	0.18%	0.11%	0.11%	0.12%	**0.51%**	5.10%	2.93%	2.04%	2.35%	**12.43%**
	2 Workers	0.00%	0.51%	0.39%	0.79%	**1.69%**	0.00%	0.05%	0.04%	0.14%	**0.24%**	0.00%	1.51%	1.23%	2.36%	**5.11%**
	Total	1.92%	2.08%	1.12%	1.83%	**6.95%**	0.33%	0.33%	0.18%	0.28%	**1.12%**	7.71%	6.29%	3.74%	5.20%	**22.94%**
$50,000 to $100,000	0 Workers	0.30%	0.29%	0.10%	0.13%	**0.81%**	0.04%	0.15%	0.03%	0.03%	**0.25%**	1.16%	1.20%	0.31%	0.37%	**3.04%**
	1 Worker	1.36%	0.87%	0.51%	0.59%	**3.32%**	0.24%	0.26%	0.11%	0.24%	**0.86%**	6.23%	3.10%	1.66%	2.05%	**13.04%**
	2 Workers	0.00%	1.23%	0.88%	1.56%	**3.67%**	0.00%	0.16%	0.17%	0.36%	**0.69%**	0.00%	3.54%	2.69%	5.22%	**11.45%**
	Total	1.65%	2.38%	1.49%	2.28%	**7.81%**	0.28%	0.57%	0.31%	0.63%	**1.80%**	7.39%	7.84%	4.66%	7.63%	**27.53%**
$100,000 +	0 Workers	0.07%	0.08%	0.04%	0.07%	**0.26%**	0.01%	0.03%	0.02%	0.03%	**0.10%**	0.51%	0.52%	0.13%	0.26%	**1.42%**
	1 Worker	0.30%	0.29%	0.22%	0.26%	**1.07%**	0.05%	0.11%	0.08%	0.17%	**0.42%**	2.98%	1.73%	0.88%	1.09%	**6.68%**
	2 Workers	0.00%	0.89%	0.66%	1.28%	**2.84%**	0.00%	0.23%	0.29%	0.55%	**1.07%**	0.00%	3.96%	2.76%	4.91%	**11.64%**
	Total	0.37%	1.26%	0.92%	1.62%	**4.17%**	0.07%	0.38%	0.38%	0.76%	**1.59%**	3.49%	6.21%	3.78%	6.26%	**19.74%**
All Incomes	0 Workers	4.58%	2.59%	0.76%	0.96%	**8.88%**	0.60%	0.55%	0.14%	0.15%	**1.43%**	15.61%	8.02%	2.41%	2.75%	**28.78%**
	1 Worker	4.01%	2.96%	1.89%	2.52%	**11.38%**	0.58%	0.54%	0.33%	0.59%	**2.05%**	17.68%	9.96%	6.27%	7.82%	**41.72%**
	2 Workers	0.00%	2.78%	2.02%	3.82%	**8.61%**	0.00%	0.46%	0.50%	1.07%	**2.03%**	0.00%	9.42%	7.00%	13.07%	**29.49%**
	Total	8.59%	8.33%	4.66%	7.29%	**28.88%**	1.18%	1.55%	0.97%	1.81%	**5.51%**	33.29%	27.40%	15.68%	23.63%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
SUNDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.19%	-0.20%	-0.16%	-0.02%	**-1.58%**	-0.91%	-0.29%	-0.09%	-0.08%	**-1.38%**	-0.18%	-0.01%	0.07%	-0.14%	**-0.25%**
	1 Worker	-0.29%	0.02%	0.01%	-0.25%	**-0.52%**	-0.43%	0.11%	0.08%	-0.18%	**-0.42%**	-0.29%	0.02%	0.06%	-0.04%	**-0.26%**
	2 Workers		0.00%	0.17%	0.16%	**0.33%**		0.05%	0.18%	0.25%	**0.47%**		0.15%	0.15%	0.33%	**0.63%**
	Total	#REF!	-0.19%	0.02%	-0.11%	**-1.76%**	-1.34%	-0.14%	0.18%	-0.02%	**-1.32%**	-0.47%	0.16%	0.28%	0.14%	**0.12%**
$25,000 to $50,000	0 Workers	0.15%	0.27%	-0.04%	0.01%	**0.38%**	0.22%	0.08%	0.05%	0.06%	**0.41%**	0.35%	0.24%	0.14%	0.01%	**0.74%**
	1 Worker	-0.78%	-0.02%	0.06%	0.17%	**-0.58%**	-0.25%	0.15%	-0.22%	0.38%	**0.07%**	-0.01%	0.05%	0.28%	0.50%	**0.83%**
	2 Workers		0.03%	0.05%	-0.04%	**0.04%**		-0.02%	0.23%	0.20%	**0.41%**		0.27%	-0.12%	-0.09%	**0.06%**
	Total	-0.63%	0.28%	0.06%	0.14%	**-0.15%**	-0.02%	0.21%	0.05%	0.65%	**0.89%**	0.34%	0.55%	0.30%	0.43%	**1.62%**
$50,000 to $100,000	0 Workers	0.48%	0.15%	-0.03%	-0.03%	**0.57%**	0.45%	0.39%	0.07%	0.17%	**1.09%**	0.20%	0.10%	-0.05%	-0.07%	**0.18%**
	1 Worker	-0.75%	-0.16%	0.00%	0.11%	**-0.80%**	0.09%	0.40%	-0.24%	-0.35%	**-0.09%**	-0.05%	-0.03%	0.03%	0.14%	**0.09%**
	2 Workers		0.57%	0.08%	-0.33%	**0.32%**		-0.34%	0.59%	-0.99%	**-0.74%**		0.14%	0.15%	-0.31%	**-0.02%**
	Total	-0.27%	0.55%	0.05%	-0.24%	**0.09%**	0.55%	0.45%	0.43%	-1.17%	**0.25%**	0.14%	0.21%	0.13%	-0.23%	**0.25%**
$100,000 +	0 Workers	-0.06%	-0.12%	0.15%	0.02%	**-0.01%**	-0.08%	0.09%	-0.04%	0.07%	**0.04%**	-0.01%	0.01%	-0.01%	-0.02%	**-0.03%**
	1 Worker	-0.55%	-0.23%	-0.18%	0.27%	**-0.68%**	0.20%	0.22%	0.22%	-0.11%	**0.53%**	0.03%	-0.03%	-0.02%	0.18%	**0.17%**
	2 Workers		0.33%	-0.06%	-0.30%	**-0.03%**		0.40%	-0.03%	-0.25%	**0.13%**		0.07%	0.00%	-0.12%	**-0.04%**
	Total	-0.61%	-0.01%	-0.09%	-0.01%	**-0.72%**	0.12%	0.71%	0.15%	-0.29%	**0.69%**	0.02%	0.05%	-0.02%	0.05%	**0.09%**
All Incomes	0 Workers	-0.63%	0.11%	-0.08%	-0.03%	**-0.63%**	-0.31%	0.26%	-0.01%	0.22%	**0.15%**	0.36%	0.34%	0.14%	-0.21%	**0.63%**
	1 Worker	-2.38%	-0.40%	-0.11%	0.31%	**-2.58%**	-0.38%	0.88%	-0.16%	-0.26%	**0.09%**	-0.32%	0.00%	0.35%	0.78%	**0.82%**
	2 Workers		0.93%	0.24%	-0.50%	**0.67%**		0.09%	0.97%	-0.79%	**0.27%**		0.63%	0.18%	-0.18%	**0.63%**
	Total	-3.01%	0.64%	0.05%	-0.22%	**-2.54%**	-0.69%	1.23%	0.80%	-0.83%	**0.51%**	0.04%	0.98%	0.68%	0.39%	**2.08%**

Number of Households by Household

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
SUNDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.94%	-0.67%	-0.09%	0.19%	**-2.52%**	-0.11%	-0.21%	-0.06%	-0.06%	**-0.44%**	-4.33%	-1.38%	-0.33%	-0.12%	**-6.16%**
	1 Worker	-0.42%	0.07%	0.05%	0.28%	**-0.02%**	0.01%	-0.06%	0.02%	0.10%	**0.07%**	-1.42%	0.15%	0.22%	-0.09%	**-1.14%**
	2 Workers		0.30%	0.25%	0.38%	**0.93%**		-0.01%	-0.01%	-0.01%	**-0.03%**		0.49%	0.74%	1.11%	**2.34%**
	Total	-2.36%	-0.31%	0.21%	0.85%	**-1.61%**	-0.11%	-0.27%	-0.04%	0.03%	**-0.39%**	-5.75%	-0.74%	0.64%	0.89%	**-4.96%**
$25,000 to $50,000	0 Workers	0.69%	0.30%	-0.08%	0.24%	**1.15%**	0.01%	0.18%	-0.03%	-0.02%	**0.14%**	1.42%	1.07%	0.03%	0.29%	**2.81%**
	1 Worker	-0.20%	0.20%	0.02%	0.07%	**0.08%**	-0.07%	-0.06%	-0.05%	-0.06%	**-0.23%**	-1.30%	0.31%	0.08%	1.06%	**0.16%**
	2 Workers		-0.01%	0.67%	-0.01%	**0.66%**		-0.05%	0.07%	-0.03%	**-0.02%**		0.22%	0.90%	0.04%	**1.16%**
	Total	0.49%	0.49%	0.61%	0.29%	**1.88%**	-0.05%	0.06%	-0.01%	-0.11%	**-0.11%**	0.12%	1.60%	1.01%	1.40%	**4.13%**
$50,000 to $100,000	0 Workers	-0.02%	-0.01%	0.01%	-0.07%	**-0.09%**	-0.04%	-0.09%	-0.03%	0.08%	**-0.08%**	1.07%	0.53%	-0.03%	0.08%	**1.66%**
	1 Worker	0.43%	0.31%	0.44%	0.08%	**1.26%**	-0.13%	0.02%	0.17%	0.04%	**0.09%**	-0.41%	0.54%	0.41%	0.02%	**0.55%**
	2 Workers		0.06%	-0.32%	-0.28%	**-0.54%**		0.12%	-0.06%	-0.02%	**0.04%**		0.54%	0.44%	-1.92%	**-0.94%**
	Total	0.41%	0.36%	0.13%	-0.27%	**0.64%**	-0.17%	0.04%	0.08%	0.10%	**0.05%**	0.66%	1.62%	0.82%	-1.82%	**1.28%**
$100,000 +	0 Workers	-0.07%	-0.02%	0.02%	-0.07%	**-0.15%**	-0.01%	0.19%	0.04%	0.02%	**0.24%**	-0.23%	0.15%	0.15%	0.02%	**0.09%**
	1 Worker	0.03%	-0.01%	0.01%	0.07%	**0.10%**	0.28%	0.00%	-0.08%	0.05%	**0.25%**	-0.01%	-0.05%	-0.05%	0.48%	**0.37%**
	2 Workers		-0.06%	-0.16%	-0.50%	**-0.71%**		-0.01%	-0.01%	-0.22%	**-0.24%**		0.74%	-0.25%	-1.39%	**-0.90%**
	Total	-0.04%	-0.09%	-0.13%	-0.50%	**-0.76%**	0.27%	0.18%	-0.04%	-0.14%	**0.26%**	-0.24%	0.84%	-0.14%	-0.89%	**-0.44%**
All Incomes	0 Workers	-1.34%	-0.41%	-0.14%	0.28%	**-1.61%**	-0.15%	0.07%	-0.08%	0.02%	**-0.14%**	-2.07%	0.37%	-0.17%	0.27%	**-1.60%**
	1 Worker	-0.15%	0.56%	0.52%	0.50%	**1.42%**	0.09%	-0.10%	0.06%	0.13%	**0.19%**	-3.14%	0.95%	0.67%	1.47%	**-0.06%**
	2 Workers		0.30%	0.44%	-0.41%	**0.34%**		0.04%	0.00%	-0.28%	**-0.24%**		1.99%	1.83%	-2.16%	**1.66%**
	Total	-1.49%	0.45%	0.82%	0.37%	**0.15%**	-0.06%	0.01%	-0.02%	-0.13%	**-0.20%**	-5.21%	3.31%	2.33%	-0.42%	**0.00%**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	Manhattan HH Size 2	Manhattan HH Size 3	Manhattan HH Size 4+	Manhattan Total	Queens HH Size 1	Queens HH Size 2	Queens HH Size 3	Queens HH Size 4+	Queens Total	Bronx HH Size 1	Bronx HH Size 2	Bronx HH Size 3	Bronx HH Size 4+	Bronx Total
Less than $25,000	0 Workers	2,815	2,354	3,301	1,935	**2,701**	2,886	2,493	3,011	2,544	**2,755**	1,841	1,702	1,451	2,285	**1,801**
	1 Worker	2,372	1,624	1,634	9,197	**2,291**	4,258	1,332	1,369	2,378	**2,108**	3,870	1,637	1,502	1,838	**1,925**
	2 Workers		1,723	386	706	**775**		947	611	622	**665**		562	533	458	**502**
	Total	2,687	2,000	1,635	2,059	**2,322**	3,131	1,878	1,335	1,723	**2,169**	2,049	1,537	1,305	1,508	**1,658**
$25,000 to $50,000	0 Workers	1,411	784		1,448	**1,244**	1,292	1,508	1,325	1,090	**1,355**	887	882	639	1,565	**921**
	1 Worker	3,262	1,778	1,354	961	**2,202**	2,185	1,425	2,433	1,078	**1,656**	1,699	1,563	979	795	**1,243**
	2 Workers		1,434	1,320	2,085	**1,570**		1,754	1,007	1,279	**1,325**		792	2,912	1,979	**1,603**
	Total	2,307	1,262	1,480	1,312	**1,753**	1,710	1,529	1,621	1,160	**1,485**	1,335	1,112	1,212	1,242	**1,227**
$50,000 to $100,000	0 Workers	888	929			**977**	548	912	940	652	**752**	494	927			**1,091**
	1 Worker	2,356	2,237	1,657	1,000	**2,161**	1,583	1,158	2,882	3,214	**1,733**	1,870	1,830	1,532	1,154	**1,602**
	2 Workers		913	1,282	4,962	**1,376**		2,486	1,051	3,449	**2,075**		1,254	1,245	2,616	**1,705**
	Total	1,848	1,238	1,515	2,598	**1,663**	1,265	1,424	1,339	2,910	**1,640**	1,378	1,384	1,453	2,079	**1,580**
$100,000 +	0 Workers	2,058	3,450	177	1,141	**1,715**		1,035		995	**1,537**		1,364			**2,646**
	1 Worker	2,246	2,263	3,462	937	**2,058**	1,021	1,028	756	2,758	**1,139**	1,252	2,557	2,185	309	**1,060**
	2 Workers		1,445	1,834	2,823	**1,704**		1,048	1,746	1,949	**1,627**		1,275	1,656	2,277	**1,777**
	Total	2,220	1,696	1,830	1,701	**1,859**	1,283	1,041	1,477	1,937	**1,476**	1,414	1,471	1,840	1,546	**1,574**
All Incomes	0 Workers	1,957	1,566	2,114	1,858	**1,867**	1,870	1,508	1,712	1,225	**1,650**	1,486	1,353	1,355	2,330	**1,510**
	1 Worker	2,470	2,032	1,894	1,301	**2,155**	1,893	1,239	1,848	1,899	**1,675**	2,000	1,685	1,309	1,066	**1,494**
	2 Workers		1,283	1,421	2,487	**1,514**		1,626	1,176	2,040	**1,641**		1,010	1,425	1,857	**1,457**
	Total	**2,247**	**1,541**	**1,660**	**1,829**	**1,886**	**1,882**	**1,434**	**1,436**	**1,900**	**1,656**	**1,676**	**1,357**	**1,358**	**1,544**	**1,490**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	3,643	2,822	2,095	1,282	**2,793**	2,371				**4,343**	2,736	2,447	2,161	1,825	**2,506**
	1 Worker	2,831	1,551	1,547	1,248	**1,699**	1,606		1,013	642	**1,312**	2,913	1,580	1,490	1,760	**1,916**
	2 Workers		555	441	539	**520**							770	507	576	**604**
	Total	3,426	1,914	1,431	1,094	**2,016**	2,152		3,001	1,393	**2,773**	2,775	1,887	1,428	1,412	**2,027**
$25,000 to $50,000	0 Workers	783	1,082	4,118	674	**937**	1,552	806			**1,225**	1,093	1,071	1,575	1,053	**1,111**
	1 Worker	1,993	1,421	1,645	1,572	**1,657**	2,682	3,406	3,241	3,529	**3,108**	2,266	1,526	1,625	1,163	**1,668**
	2 Workers		1,713	617	1,705	**1,215**			643	2,147	**1,808**		1,475	976	1,661	**1,377**
	Total	1,346	1,368	1,095	1,456	**1,329**	2,004	1,414	1,819	2,809	**1,878**	1,663	1,347	1,330	1,332	**1,432**
$50,000 to $100,000	0 Workers	1,784	1,760	1,485	3,921	**1,893**		4,451		458	**2,523**	879	1,168	1,874	1,379	**1,092**
	1 Worker	1,283	1,246	900	1,483	**1,223**	3,696	1,573	688	1,457	**1,528**	1,809	1,440	1,357	1,670	**1,620**
	2 Workers		1,609	2,665	2,054	**1,980**		982	2,522	1,799	**1,596**		1,464	1,451	2,673	**1,840**
	Total	1,351	1,469	1,549	1,915	**1,562**	4,297	1,566	1,355	1,461	**1,645**	1,551	1,401	1,437	2,217	**1,614**
$100,000 +	0 Workers		2,328	1,204		**3,929**		264	470	979	**479**	3,082	1,316	773	1,586	**1,592**
	1 Worker	1,524	1,759	1,639	1,313	**1,541**	274	1,706		1,305	**1,049**	1,696	1,740	1,781	1,175	**1,601**
	2 Workers		1,802	2,212	2,772	**2,256**		1,763	1,732	2,789	**2,163**		1,424	1,855	2,354	**1,830**
	Total	1,869	1,817	1,976	2,447	**2,065**	335	1,152	1,906	2,085	**1,451**	1,815	1,489	1,755	1,970	**1,728**
All Incomes	0 Workers	2,385	2,004	2,087	1,311	**2,064**	2,260	1,507	4,128	1,465	**1,878**	1,948	1,615	1,820	1,537	**1,789**
	1 Worker	1,757	1,421	1,325	1,409	**1,501**	1,468	2,051	1,428	1,382	**1,549**	2,054	1,542	1,527	1,422	**1,692**
	2 Workers		1,525	1,385	1,890	**1,626**		1,546	1,695	2,298	**1,917**		1,395	1,338	2,024	**1,599**
	Total	**2,043**	**1,602**	**1,437**	**1,608**	**1,681**	**1,785**	**1,675**	**1,728**	**1,818**	**1,753**	**2,003**	**1,507**	**1,471**	**1,720**	**1,689**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1.67	1.39	1.95	1.15	**1.60**	1.71	1.48	1.78	1.51	**1.63**	1.09	1.01	0.86	1.35	**1.07**
	1 Worker	1.40	0.96	0.97	5.44	**1.36**	2.52	0.79	0.81	1.41	**1.25**	2.29	0.97	0.89	1.09	**1.14**
	2 Workers		1.02	0.23	0.42	**0.46**		0.56	0.36	0.37	**0.39**		0.33		0.27	**0.30**
	Total	1.59	1.18	0.97	1.22	**1.37**	1.85	1.11	0.79	1.02	**1.28**	1.21	0.91	0.77	0.89	**0.98**
$25,000 to $50,000	0 Workers	0.84	0.46		0.86	**0.74**	0.76	0.89		0.65	**0.80**	0.52	0.52	0.38	0.93	**0.55**
	1 Worker	1.93	1.05	0.80	0.57	**1.30**	1.29	0.84	1.44	0.64	**0.98**	1.01	0.93	0.58	0.47	**0.74**
	2 Workers		0.85	0.78	1.23	**0.93**		1.04	0.60	0.76	**0.78**		0.47	1.72	1.17	**0.95**
	Total	1.37	0.75	0.88	0.78	**1.04**	1.01	0.90	0.96	0.69	**0.88**	0.79	0.66	0.72	0.74	**0.73**
$50,000 to $100,000	0 Workers	0.53	0.55			**0.58**	0.32	0.54	0.56	0.39	**0.45**	0.29				**0.65**
	1 Worker	1.39	1.32	0.98	0.59	**1.28**	0.94	0.69	1.71	1.90	**1.03**	1.11	1.08	0.91	0.68	**0.95**
	2 Workers		0.54	0.76	2.94	**0.81**		1.47	0.62	2.04	**1.23**		0.74	0.74	1.55	**1.01**
	Total	1.09	0.73	0.90	1.54	**0.98**	0.75	0.84	0.79	1.72	**0.97**	0.82	0.82	0.86	1.23	**0.94**
$100,000 +	0 Workers	1.22	2.04		0.68	**1.02**		0.61			**0.91**		0.81			**1.57**
	1 Worker	1.33	1.34	2.05	0.55	**1.22**	0.60	0.61	0.45	1.63	**0.67**	0.74	1.51	1.29	0.18	**0.63**
	2 Workers		0.86	1.09	1.67	**1.01**		0.62	1.03	1.15	**0.96**		0.75	0.98	1.35	**1.05**
	Total	1.31	1.00	1.08	1.01	**1.10**	0.76	0.62	0.87	1.15	**0.87**	0.84	0.87	1.09	0.92	**0.93**
All Incomes	0 Workers	1.16	0.93	1.25	1.10	**1.11**	1.11	0.89	1.01	0.73	**0.98**	0.88	0.80	0.80	1.38	**0.89**
	1 Worker	1.46	1.20	1.12	0.77	**1.28**	1.12	0.73	1.09	1.12	**0.99**	1.18	1.00	0.77	0.63	**0.88**
	2 Workers		0.76	0.84	1.47	**0.90**		0.96	0.70	1.21	**0.97**		0.60	0.84	1.10	**0.86**
	Total	1.33	0.91	0.98	1.08	**1.12**	1.11	0.85	0.85	1.12	**0.98**	0.99	0.80	0.80	0.91	**0.88**

Number of Households by Household

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	2.16	1.67	1.24	0.76	**1.65**	1.40				**2.57**	1.62	1.45	1.28	1.08	**1.48**
	1 Worker	1.68	0.92	0.92	0.74	**1.01**	0.95			0.38	**0.78**	1.72	0.94	0.88	1.04	**1.13**
	2 Workers		0.33	0.26	0.32	**0.31**							0.46	0.30	0.34	**0.36**
	Total	2.03	1.13	0.85	0.65	**1.19**	1.27		1.78	0.82	**1.64**	1.64	1.12	0.85	0.84	**1.20**
$25,000 to $50,000	0 Workers	0.46	0.64	2.44	0.40	**0.55**	0.92	0.48			**0.73**	0.65	0.63	0.93	0.62	**0.66**
	1 Worker	1.18	0.84	0.97	0.93	**0.98**	1.59	2.02	1.92	2.09	**1.84**	1.34	0.90	0.96	0.69	**0.99**
	2 Workers		1.01	0.37	1.01	**0.72**			0.38	1.27	**1.07**		0.87	0.58	0.98	**0.82**
	Total	0.80	0.81	0.65	0.86	**0.79**	1.19	0.84	1.08	1.66	**1.11**	0.98	0.80	0.79	0.79	**0.85**
$50,000 to $100,000	0 Workers	1.06	1.04	0.88	2.32	**1.12**		2.63		0.27	**1.49**	0.52	0.69	1.11	0.82	**0.65**
	1 Worker	0.76	0.74	0.53	0.88	**0.72**	2.19	0.93	0.41	0.86	**0.90**	1.07	0.85	0.80	0.99	**0.96**
	2 Workers		0.95	1.58	1.22	**1.17**		0.58	1.49	1.06	**0.94**		0.87	0.86	1.58	**1.09**
	Total	0.80	0.87	0.92	1.13	**0.92**	2.54	0.93	0.80	0.86	**0.97**	0.92	0.83	0.85	1.31	**0.96**
$100,000 +	0 Workers		1.38	0.71		**2.33**		0.16			**0.28**	1.82	0.78	0.46	0.94	**0.94**
	1 Worker	0.90	1.04	0.97	0.78	**0.91**	0.16			0.77	**0.62**	1.00	1.03	1.05	0.70	**0.95**
	2 Workers		1.07	1.31	1.64	**1.34**		1.04	1.03	1.65	**1.28**		0.84	1.10	1.39	**1.08**
	Total	1.11	1.08	1.17	1.45	**1.22**	0.20	0.68	1.13	1.23	**0.86**	1.07	0.88	1.04	1.17	**1.02**
All Incomes	0 Workers	1.41	1.19	1.24	0.78	**1.22**	1.34	0.89	2.44	0.87	**1.11**	1.15	0.96	1.08	0.91	**1.06**
	1 Worker	1.04	0.84	0.78	0.83	**0.89**	0.87	1.21	0.85	0.82	**0.92**	1.22	0.91	0.90	0.84	**1.00**
	2 Workers		0.90	0.82	1.12	**0.96**		0.92	1.00	1.36	**1.13**		0.83	0.79	1.20	**0.95**
	Total	1.21	0.95	0.85	0.95	**0.99**	1.06	0.99	1.02	1.08	**1.04**	1.19	0.89	0.87	1.02	**1.00**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1.41	1.41	1.41	1.16	**1.39**	1.29	1.29	1.29	1.29	**1.29**	1.08	1.00	0.85	1.08	**1.03**
	1 Worker	1.41	0.97	0.98	1.41	**1.21**	1.29	0.83	0.86	1.29	**1.04**	1.08	0.96	0.88	1.08	**0.99**
	2 Workers		1.03	0.87	0.87	**0.90**		0.80	0.80	0.80	**0.80**		0.67	0.67	0.67	**0.67**
	Total	1.41	1.20	1.05	1.02	**1.27**	1.29	1.06	0.89	1.10	**1.12**	1.08	0.95	0.83	0.94	**0.97**
$25,000 to $50,000	0 Workers	0.87	0.87		0.87	**0.87**	0.81	0.94	0.83	0.80	**0.86**	0.67	0.67	0.67	0.92	**0.69**
	1 Worker	1.41	1.06	0.87	0.87	**1.15**	1.29	0.89	1.29	0.80	**1.02**	1.00	0.92	0.67	0.67	**0.81**
	2 Workers		0.87	0.87	1.25	**0.97**		1.10	0.80	0.80	**0.88**		0.67	1.08	1.08	**0.91**
	Total	1.13	0.94	0.87	0.97	**1.02**	1.04	0.96	1.00	0.80	**0.94**	0.85	0.76	0.73	0.82	**0.80**
$50,000 to $100,000	0 Workers	0.87	0.87			**0.87**	0.80	0.80	0.80	0.80	**0.80**	0.67	0.67			**0.67**
	1 Worker	1.41	1.34	0.99	0.87	**1.32**	0.99	0.80	1.29	1.29	**0.98**	1.08	1.08	0.90	0.68	**0.94**
	2 Workers		0.87	0.87	1.41	**0.92**		1.29	0.80	1.29	**1.05**		0.74	0.73	1.08	**0.85**
	Total	1.22	0.98	0.91	1.07	**1.10**	0.93	0.92	0.88	1.21	**0.97**	0.94	0.84	0.80	0.90	**0.87**
$100,000 +	0 Workers	1.23	1.41	0.87	0.87	**1.13**		0.80		0.80	**0.80**		0.80			**0.80**
	1 Worker	1.35	1.36	1.41	0.87	**1.26**	0.80	0.80	0.80	1.29	**0.85**	0.74	1.08	1.08	0.67	**0.79**
	2 Workers		0.87	1.10	1.41	**0.98**		0.80	1.09	1.22	**1.06**		0.75	0.97	1.08	**0.94**
	Total	1.33	0.99	1.11	1.08	**1.11**	0.80	0.80	0.99	1.19	**0.98**	0.74	0.81	1.00	0.92	**0.89**
All Incomes	0 Workers	1.14	1.09	1.14	1.04	**1.12**	1.02	0.97	0.92	0.90	**0.98**	0.94	0.86	0.80	1.04	**0.91**
	1 Worker	1.39	1.22	1.03	0.89	**1.24**	1.07	0.83	1.06	1.04	**0.98**	1.02	0.98	0.80	0.77	**0.89**
	2 Workers		0.87	0.98	1.24	**0.96**		1.01	0.87	1.10	**1.00**		0.71	0.82	0.98	**0.85**
	Total	1.28	1.01	1.01	1.04	**1.13**	1.04	0.92	0.93	1.06	**0.99**	0.97	0.85	0.81	0.89	**0.88**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

SUNDAY TRAVEL SAMPLE

Brooklyn					Staten Island					New York City				
HH Size					HH Size					HH Size				
1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
1.30	1.30	1.30	0.80	**1.20**	1.16				**1.16**	1.26	1.22	1.12	0.97	**1.20**
1.30	0.96	0.96	0.80	**0.97**	0.97		0.71	0.71	**0.80**	1.29	0.94	0.91	0.97	**1.02**
	0.80	0.80	0.80	**0.80**							0.79	0.78	0.77	**0.78**
1.30	1.08	1.02	0.80	**1.05**	1.10		0.71	0.71	**0.96**	1.27	1.06	0.94	0.91	**1.08**
0.80	0.80	1.30	0.80	**0.81**	0.94	0.71			**0.79**	0.80	0.81	0.81	0.83	**0.81**
1.24	0.88	1.02	0.98	**1.03**	1.16	1.16	1.16	1.16	**1.16**	1.23	0.92	0.96	0.82	**0.99**
	1.06	0.80	1.06	**0.94**			0.71	1.16	**0.94**		0.93	0.82	0.99	**0.92**
1.00	0.89	0.89	0.97	**0.94**	1.03	0.78	0.86	1.16	**0.92**	1.01	0.88	0.88	0.89	**0.92**
1.11	1.09	0.92	1.30	**1.09**		1.16		0.71	**0.86**	0.85	0.85	0.85	0.84	**0.85**
0.80	0.80	0.80	0.92	**0.82**	1.16	0.95	0.71	0.88	**0.88**	1.08	0.91	0.90	0.93	**0.98**
	1.00	1.30	1.27	**1.17**		0.71	1.16	1.09	**0.95**		0.96	0.89	1.23	**1.02**
0.84	0.92	0.98	1.16	**0.97**	1.16	0.86	0.84	0.95	**0.91**	1.02	0.92	0.89	1.09	**0.98**
	1.30	0.80		**1.05**		0.71	0.71	0.71	**0.71**	1.23	0.91	0.82	0.79	**0.93**
0.95	1.09	1.02	0.81	**0.96**	0.71	1.03		0.79	**0.79**	1.11	1.09	1.00	0.86	**1.04**
	1.12	1.30	1.30	**1.23**		1.06	1.05	1.16	**1.10**		0.90	1.12	1.24	**1.06**
0.95	1.12	1.18	1.15	**1.13**	0.71	0.92	0.99	0.98	**0.92**	1.12	0.95	1.07	1.11	**1.04**
1.08	1.08	1.18	0.82	**1.05**	1.08	0.75	0.71	0.71	**0.86**	1.05	0.98	0.98	0.90	**1.01**
1.02	0.89	0.92	0.88	**0.93**	0.90	1.00	0.78	0.83	**0.88**	1.15	0.95	0.93	0.89	**1.00**
	1.01	1.01	1.15	**1.07**		0.87	1.00	1.13	**1.02**		0.92	0.93	1.11	**0.99**
1.05	0.98	0.99	0.99	**1.00**	0.97	0.86	0.89	0.96	**0.92**	1.11	0.94	0.94	0.99	**1.00**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	Manhattan HH Size 2	Manhattan HH Size 3	Manhattan HH Size 4+	Manhattan Total	Queens HH Size 1	Queens HH Size 2	Queens HH Size 3	Queens HH Size 4+	Queens Total	Bronx HH Size 1	Bronx HH Size 2	Bronx HH Size 3	Bronx HH Size 4+	Bronx Total
Less than $25,000	0 Workers	2,346	2,346	2,346	1,933	**2,320**	2,155	2,155	2,155	2,155	**2,155**	1,808	1,672	1,425	1,810	**1,724**
	1 Worker	2,346	1,623	1,633	2,346	**2,014**	2,155	1,393	1,432	2,155	**1,734**	1,810	1,608	1,475	1,805	**1,650**
	2 Workers	0	1,722	1,445	1,445	**1,495**	0	1,327	1,327	1,327	**1,327**	0	1,115	1,115	1,115	**1,115**
	Total	2,346	1,996	1,749	1,708	**2,117**	2,155	1,768	1,494	1,833	**1,863**	1,809	1,580	1,389	1,577	**1,620**
$25,000 to $50,000	0 Workers	1,445	1,445	0	1,447	**1,445**	1,351	1,577	1,386	1,327	**1,432**	1,115	1,115	1,115	1,537	**1,159**
	1 Worker	2,346	1,776	1,445	1,445	**1,911**	2,155	1,490	2,155	1,327	**1,705**	1,668	1,535	1,115	1,115	**1,356**
	2 Workers	0	1,445	1,445	2,083	**1,619**	0	1,835	1,327	1,338	**1,466**	0	1,115	1,810	1,810	**1,512**
	Total	1,881	1,561	1,445	1,619	**1,695**	1,728	1,599	1,661	1,332	**1,566**	1,420	1,274	1,225	1,374	**1,333**
$50,000 to $100,000	0 Workers	1,445	1,445	0	0	**1,445**	1,327	1,327	1,327	1,327	**1,327**	1,115	1,115	0	0	**1,115**
	1 Worker	2,346	2,236	1,656	1,445	**2,198**	1,656	1,327	2,155	2,155	**1,639**	1,810	1,797	1,505	1,133	**1,565**
	2 Workers	0	1,445	1,445	2,346	**1,532**	0	2,155	1,327	2,155	**1,756**	0	1,232	1,222	1,810	**1,421**
	Total	2,034	1,637	1,515	1,783	**1,833**	1,555	1,538	1,462	2,012	**1,612**	1,562	1,398	1,328	1,509	**1,444**
$100,000 +	0 Workers	2,057	2,346	1,445	1,445	**1,887**	0	1,327	0	1,327	**1,327**	0	1,340	0	0	**1,340**
	1 Worker	2,245	2,261	2,346	1,445	**2,097**	1,327	1,327	1,327	2,155	**1,413**	1,230	1,810	1,810	1,115	**1,317**
	2 Workers	0	1,445	1,833	2,346	**1,643**	0	1,327	1,826	2,039	**1,773**	0	1,252	1,626	1,810	**1,575**
	Total	2,218	1,656	1,853	1,806	**1,861**	1,327	1,327	1,660	1,988	**1,635**	1,230	1,344	1,663	1,532	**1,479**
All Incomes	0 Workers	1,894	1,826	1,896	1,738	**1,871**	1,701	1,615	1,537	1,505	**1,634**	1,573	1,428	1,330	1,728	**1,516**
	1 Worker	2,313	2,030	1,712	1,483	**2,077**	1,781	1,384	1,769	1,730	**1,640**	1,700	1,632	1,339	1,282	**1,479**
	2 Workers	0	1,453	1,632	2,068	**1,597**	0	1,684	1,450	1,840	**1,668**	0	1,181	1,363	1,642	**1,413**
	Total	**2,131**	**1,683**	**1,690**	**1,741**	**1,878**	**1,743**	**1,541**	**1,558**	**1,766**	**1,648**	**1,620**	**1,419**	**1,345**	**1,484**	**1,474**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

SUNDAY TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	2,164	2,164	2,164	1,333	**1,996**	1,934	0	0	0	**1,934**	2,100	2,040	1,873	1,615	**2,007**
	1 Worker	2,164	1,606	1,602	1,333	**1,622**	1,617	0	1,191	1,191	**1,333**	2,159	1,564	1,521	1,618	**1,707**
	2 Workers	0	1,333	1,333	1,333	**1,333**	0	0	0	0	**0**	0	1,327	1,309	1,292	**1,306**
	Total	2,164	1,798	1,699	1,333	**1,749**	1,843	0	1,191	1,191	**1,606**	2,113	1,762	1,566	1,517	**1,802**
$25,000 to $50,000	0 Workers	1,333	1,333	2,164	1,333	**1,351**	1,563	1,191	0	0	**1,315**	1,333	1,359	1,352	1,384	**1,348**
	1 Worker	2,064	1,472	1,703	1,628	**1,715**	1,934	1,934	1,934	1,934	**1,934**	2,049	1,534	1,597	1,376	**1,657**
	2 Workers	0	1,774	1,333	1,766	**1,572**	0	0	1,191	1,934	**1,563**	0	1,558	1,374	1,656	**1,533**
	Total	1,673	1,486	1,491	1,624	**1,571**	1,711	1,297	1,439	1,934	**1,542**	1,681	1,475	1,471	1,479	**1,535**
$50,000 to $100,000	0 Workers	1,847	1,823	1,538	2,164	**1,814**	0	1,934	0	1,191	**1,439**	1,419	1,422	1,412	1,398	**1,418**
	1 Worker	1,333	1,333	1,333	1,535	**1,363**	1,934	1,584	1,191	1,468	**1,476**	1,801	1,525	1,501	1,544	**1,643**
	2 Workers	0	1,666	2,164	2,127	**1,944**	0	1,191	1,934	1,811	**1,592**	0	1,595	1,492	2,060	**1,710**
	Total	1,403	1,540	1,634	1,931	**1,617**	1,934	1,437	1,403	1,584	**1,518**	1,695	1,536	1,492	1,826	**1,631**
$100,000 +	0 Workers	0	2,164	1,333	0	**1,749**	0	1,191	1,191	1,191	**1,191**	2,057	1,523	1,372	1,324	**1,557**
	1 Worker	1,578	1,821	1,697	1,359	**1,596**	1,191	1,718	0	1,315	**1,320**	1,856	1,825	1,662	1,437	**1,732**
	2 Workers	0	1,866	2,164	2,164	**2,047**	0	1,776	1,744	1,934	**1,829**	0	1,498	1,869	2,074	**1,774**
	Total	1,578	1,870	1,971	1,923	**1,882**	1,191	1,530	1,652	1,641	**1,528**	1,873	1,578	1,783	1,849	**1,742**
All Incomes	0 Workers	1,808	1,801	1,975	1,371	**1,746**	1,795	1,259	1,191	1,191	**1,434**	1,758	1,635	1,635	1,496	**1,681**
	1 Worker	1,699	1,485	1,531	1,474	**1,556**	1,510	1,661	1,297	1,393	**1,465**	1,925	1,582	1,555	1,482	**1,675**
	2 Workers	0	1,690	1,692	1,922	**1,779**	0	1,451	1,663	1,881	**1,699**	0	1,528	1,549	1,857	**1,649**
	Total	**1,749**	**1,635**	**1,653**	**1,657**	1,672	**1,624**	**1,436**	**1,485**	**1,601**	1,536	**1,845**	**1,577**	**1,562**	**1,660**	1,669

Number of Households by Household Income, Household Workers and Household Size by Borough

American Community Survey (ACS) - 2006 - Expanded (by Household)

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
SUNDAY TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	90,074	21,182	9,904	5,804	**126,964**	66,370	27,426	6,021	7,631	**107,448**	64,445	28,941	13,060	15,998	**122,444**
	1 Worker	30,837	11,371	8,171	9,197	**59,576**	21,290	11,991	10,953	19,020	**63,254**	15,481	18,006	13,514	16,540	**63,541**
	2+ Workers	0	3,446	1,544	3,531	**8,521**	0	1,894	3,056	4,356	**9,306**	0	2,246	2,131	3,662	**8,039**
	Total	**120,911**	**35,999**	**19,619**	**18,532**	195,061	**87,660**	**41,311**	**20,030**	**31,007**	180,008	**79,926**	**49,193**	**28,705**	**36,200**	194,024
$25,000 to $50,000	0 Workers	22,569	7,054	1,271	1,448	**32,342**	21,960	19,602	5,301	3,271	**50,134**	11,526	7,940	2,555	4,695	**26,716**
	1 Worker	48,937	12,444	6,768	6,725	**74,874**	32,770	24,223	21,901	20,476	**99,370**	27,179	17,189	11,745	13,513	**69,626**
	2+ Workers	0	5,734	5,280	6,255	**17,269**	0	15,790	10,072	19,185	**45,047**	0	7,126	8,735	17,812	**33,673**
	Total	**71,506**	**25,232**	**13,319**	**14,428**	124,485	**54,730**	**59,615**	**37,274**	**42,932**	194,551	**38,705**	**32,255**	**23,035**	**36,020**	130,015
$50,000 to $100,000	0 Workers	15,990	5,573	977	898	**23,438**	6,571	13,676	2,820	3,262	**26,329**	2,469	3,708	1,602	2,036	**9,815**
	1 Worker	80,103	20,136	4,972	5,002	**110,213**	42,745	26,638	17,290	22,496	**109,169**	16,829	12,807	9,194	9,230	**48,060**
	2+ Workers	0	20,093	7,690	14,887	**42,670**	0	32,315	29,428	58,632	**120,375**	0	12,540	12,445	26,156	**51,141**
	Total	**96,093**	**45,802**	**13,639**	**20,787**	176,321	**49,316**	**72,629**	**49,538**	**84,390**	255,873	**19,298**	**29,055**	**23,241**	**37,422**	109,016
$100,000 +	0 Workers	10,292	6,899	530	1,141	**18,862**	2,360	4,141	1,270	2,985	**10,756**	323	1,364	393	566	**2,646**
	1 Worker	67,394	27,155	10,386	10,305	**115,240**	9,186	10,277	5,293	8,273	**33,029**	2,504	2,557	2,185	1,234	**8,480**
	2+ Workers	0	59,238	23,847	22,583	**105,668**	0	19,919	24,448	56,534	**100,901**	0	6,374	6,623	13,661	**26,658**
	Total	**77,686**	**93,292**	**34,763**	**34,029**	239,770	**11,546**	**34,337**	**31,011**	**67,792**	144,686	**2,827**	**10,295**	**9,201**	**15,461**	37,784
ACS HOUSEHOLDS																
All Income	0 Workers	138,925	40,708	12,682	9,291	**201,606**	97,261	64,845	15,412	17,149	**194,667**	78,763	41,953	17,610	23,295	**161,621**
	1 Worker	227,271	71,106	30,297	31,229	**359,903**	105,991	73,129	55,437	70,265	**304,822**	61,993	50,559	36,638	40,517	**189,707**
	2+ Workers	0	88,511	38,361	47,256	**174,128**	0	69,918	67,004	138,707	**275,629**	0	28,286	29,934	61,291	**119,511**
	Total	**366,196**	**200,325**	**81,340**	**87,776**	735,637	**203,252**	**207,892**	**137,853**	**226,121**	775,118	**140,756**	**120,798**	**84,182**	**125,103**	470,839
MTA SURVEY HOUSEHOLDS - with LEVEL 1 HOUSEHOLD (ONLY) WEIGHTS - EXP_HH1B																
All Income	0 Workers	134,493	47,484	11,374	8,692	**202,043**	88,462	69,428	13,836	21,068	**192,794**	83,366	44,260	17,287	17,282	**162,195**
	1 Worker	212,799	71,055	27,397	35,585	**346,836**	99,752	81,681	53,073	64,013	**298,519**	52,685	48,955	37,493	48,726	**187,859**
	2+ Workers	0	100,269	44,062	39,283	**183,614**	0	72,407	82,651	125,117	**280,175**	0	33,072	28,618	54,174	**115,864**
	Total	347,292	218,808	82,833	83,560	**732,493**	188,214	223,516	149,560	210,198	**771,488**	136,051	126,287	83,398	120,182	**465,918**
RATIO - EXPANDED SURVEY HOUSEHOLDS to ACS																
All Income	0 Workers	0.968	1.166	0.897	0.936	**1.002**	0.910	1.071	0.898	1.229	**0.990**	1.058	1.055	0.982	0.742	**1.004**
	1 Worker	0.936	0.999	0.904	1.139	**0.964**	0.941	1.117	0.957	0.911	**0.979**	0.850	0.968	1.023	1.203	**0.990**
	2+ Workers		1.133	1.149	0.831	**1.054**		1.036	1.234	0.902	**1.016**		1.169	0.956	0.884	**0.969**
	Total	0.948	1.092	1.018	0.952	**0.996**	0.926	1.075	1.085	0.930	**0.995**	0.967	1.045	0.991	0.961	**0.990**

Number of Households by Household I

American Community Survey (ACS) - 2(

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
SUNDAY TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	109,304	50,788	14,667	17,953	**192,712**	11,856	6,238	1,725	1,896	**21,715**	342,049	134,575	45,377	49,282	**571,283**
	1 Worker	31,146	23,264	17,020	23,718	**95,148**	3,211	1,721	1,013	1,926	**7,871**	101,965	66,353	50,671	70,401	**289,390**
	2+ Workers	0	4,440	2,648	5,385	**12,473**	0	300	263	358	**921**	0	12,326	9,642	17,292	**39,260**
	Total	**140,450**	**78,492**	**34,335**	**47,056**	**300,333**	**15,067**	**8,259**	**3,001**	**4,180**	**30,507**	**444,014**	**213,254**	**105,690**	**136,975**	**899,933**
$25,000 to $50,000	0 Workers	18,012	16,236	4,118	4,721	**43,087**	4,656	4,837	931	604	**11,028**	78,723	55,669	14,176	14,739	**163,307**
	1 Worker	39,869	31,272	18,093	26,728	**115,962**	5,364	3,406	3,241	3,529	**15,540**	154,119	88,534	61,748	70,971	**375,372**
	2+ Workers	0	15,418	11,722	23,871	**51,011**	0	1,652	1,286	4,293	**7,231**	0	0	45,720	37,095	71,416	**154,231**
	Total	**57,881**	**62,926**	**33,933**	**55,320**	**210,060**	**10,020**	**9,895**	**5,458**	**8,426**	**33,799**	**232,842**	**189,923**	**113,019**	**157,126**	**692,910**
$50,000 to $100,000	0 Workers	8,918	8,800	2,970	3,921	**24,609**	1,202	4,451	1,002	915	**7,570**	35,150	36,208	9,371	11,032	**91,761**
	1 Worker	41,063	26,170	15,295	17,791	**100,319**	7,391	7,865	3,441	7,287	**25,984**	188,131	93,616	50,192	61,806	**393,745**
	2+ Workers	0	37,013	26,650	47,238	**110,901**	0	4,909	5,043	10,792	**20,744**	0	0	106,870	81,256	157,705	**345,831**
	Total	**49,981**	**71,983**	**44,915**	**68,950**	**235,829**	**8,593**	**17,225**	**9,486**	**18,994**	**54,298**	**223,281**	**236,694**	**140,819**	**230,543**	**831,337**
$100,000 +	0 Workers	2,069	2,328	1,204	2,257	**7,858**	367	1,055	470	979	**2,871**	15,411	15,787	3,867	7,928	**42,993**
	1 Worker	9,143	8,793	6,554	7,875	**32,365**	1,645	3,412	2,304	5,221	**12,582**	89,872	52,194	26,722	32,908	**201,696**
	2+ Workers	0	27,031	19,909	38,801	**85,741**	0	7,053	8,659	16,732	**32,444**	0	0	119,615	83,486	148,311	**351,412**
	Total	**11,212**	**38,152**	**27,667**	**48,933**	**125,964**	**2,012**	**11,520**	**11,433**	**22,932**	**47,897**	**105,283**	**187,596**	**114,075**	**189,147**	**596,101**
ACS HOUSEHOLDS																
All Income	0 Workers	138,303	78,152	22,959	28,852	**268,266**	18,081	16,581	4,128	4,394	**43,184**	471,333	242,239	72,791	82,981	**869,344**
	1 Worker	121,221	89,499	56,962	76,112	**343,794**	17,611	16,404	9,999	17,963	**61,977**	534,087	300,697	189,333	236,086	**1,260,203**
	2+ Workers	0	83,902	60,929	115,295	**260,126**	0	13,914	15,251	32,175	**61,340**	0	0	284,531	211,479	394,724	**890,734**
	Total	**259,524**	**251,553**	**140,850**	**220,259**	**872,186**	**35,692**	**46,899**	**29,378**	**54,532**	**166,501**	**1,005,420**	**827,467**	**473,603**	**713,791**	**3,020,281**
MTA SURVEY HOUSEHOLDS - with LEVI																
All Income	0 Workers	104,837	70,238	21,725	30,164	**226,964**	14,359	13,847	1,191	3,574	**32,971**	425,517	245,257	65,413	80,780	**816,967**
	1 Worker	117,230	93,579	65,814	79,589	**356,212**	18,117	13,291	9,082	18,105	**58,595**	500,583	308,561	192,859	246,018	**1,248,021**
	2+ Workers	0	92,952	74,459	117,272	**284,683**	0	13,060	14,971	26,340	**54,371**	0	311,760	244,761	362,186	**918,707**
	Total	222,067	256,769	161,998	227,025	**867,859**	32,476	40,198	25,244	48,019	**145,937**	926,100	865,578	503,033	688,984	**2,983,695**
RATIO - EXPANDED SURVEY HOUSEHO																
All Income	0 Workers	0.758	0.899	0.946	1.045	**0.846**	0.794	0.835	0.289	0.813	**0.764**	0.903	1.012	0.899	0.973	**0.940**
	1 Worker	0.967	1.046	1.155	1.046	**1.036**	1.029	0.810	0.908	1.008	**0.945**	0.937	1.026	1.019	1.042	**0.990**
	2+ Workers		1.108	1.222	1.017	**1.094**		0.939	0.982	0.819	**0.886**		1.096	1.157	0.918	**1.031**
	Total	0.856	1.021	1.150	1.031	**0.995**	0.910	0.857	0.859	0.881	**0.876**	0.921	1.046	1.062	0.965	**0.988**

LEVEL 1 HOUSEHOLD EXPANSION OF MTA SURVEY DATA with ACS 2006 CONTROLS

D. WEEKEND TRAVEL SAMPLE (AVG of SATURDAY and SUNDAY)	**EXP1_FINAL_WKNDAY**
	For a Weekend Day **

TABLES:

Tabulations: All Structured as:
Number of Households by Household Income, Household Workers and Household Size by Borough

	MTA NYC Resident Travel Survey *	
TABLE 1	HOUSEHOLD SAMPLE	
TABLE 2	DISTRIBUTION: PERCENT OF TOTAL	
	American Community Survey (ACS) - 2006	
TABLE 3	DISTRIBUTION: PERCENT OF TOTAL	
	MTA NYC Resident Travel Survey	
TABLE 4	DIFFERENCE FROM ACS PERCENT OF TOTAL	
TABLE 5	PRELIMINARY EXPANSION FACTORS - Without Constraints	Ratio of ACS To MTA Sample
TABLE 6A	PRELIMINARY EXPANSION FACTORS - Without Constraints	INDEX: TO TOTAL NYC AVERAGE
TABLE 6B	FINAL EXPANSION FACTORS - WithConstraints	INDEX: TO TOTAL NYC AVERAGE
TABLE 7	FINAL EXPANSION FACTORS - With Constraints	Ratio of ACS To MTA Sample
	American Community Survey (ACS) - 2006 and MTA Travel Survey - Expanded with **EXP_HH1B_WKN (same as EXP1_FINAL_WKNDAY)**	
TABLE 8	ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS VALIDATION OF HOUSEHOLD RECORD LEVEL EXPANSION	

MTA 12/10/08 DELIV6 FINAL

* * NOTE: **EXP1_FINAL_WKNTOT** = 2 * EXP1_FINAL_WKNDAY
for Expansion to Total Weekend (Saturday plus Sunday)

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size					Queens HH Size					Bronx HH Size				
		1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	46	18	7	4	75	47	22	5	7	81	59	26	14	11	110
	1 Worker	17	10	9	7	43	9	16	16	13	54	10	19	15	15	59
	2+ Workers	0	3	5	9	17	0	4	6	13	23	0	5	4	13	22
	Total	63	31	21	20	135	56	42	27	33	158	69	50	33	39	191
$25,000 to $50,000	0 Workers	26	12	0	3	41	36	19	4	6	65	23	19	6	6	54
	1 Worker	34	20	6	11	71	30	31	18	35	114	32	23	20	32	107
	2 Workers	0	9	7	7	23	0	15	17	30	62	0	16	8	20	44
	Total	60	41	13	21	135	66	65	39	71	241	55	58	34	58	205
$50,000 to $100,000	0 Workers	24	10	1	0	35	18	21	4	6	49	9	4	0	1	14
	1 Worker	71	24	6	6	107	53	48	11	27	139	20	15	11	10	56
	2 Workers	0	37	17	8	62	0	25	42	38	105	0	15	16	19	50
	Total	95	71	24	14	204	71	94	57	71	293	29	34	27	30	120
$100,000 +	0 Workers	9	3	3	2	17	2	6	0	3	11	1	2	0	0	3
	1 Worker	62	21	8	17	108	18	16	11	16	61	5	4	4	7	20
	2 Workers	0	77	26	15	118	0	38	23	49	110	0	10	8	11	29
	Total	71	101	37	34	243	20	60	34	68	182	6	16	12	18	52
All Incomes	0 Workers	105	43	11	9	**168**	103	68	13	22	**206**	92	51	20	18	**181**
	1 Worker	184	75	29	41	**329**	110	111	56	91	**368**	67	61	50	64	**242**
	2 Workers	0	126	55	39	**220**	0	82	88	130	**300**	0	46	36	63	**145**
	Total	289	244	95	89	**717**	213	261	157	243	**874**	159	158	106	145	**568**

Number of Households by Household **TABLE 1 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE**

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size					Staten Island HH Size					New York City HH Size				
		1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	55	35	10	27	127	6	2	1	1	10	213	103	37	50	403
	1 Worker	21	26	18	36	101	3	2	1	5	11	60	73	59	76	268
	2+ Workers	0	11	12	22	45	0	1	0	0	1	0	24	27	57	108
	Total	76	72	40	85	273	9	5	2	6	22	273	200	123	183	779
$25,000 to $50,000	0 Workers	27	21	5	9	62	4	8	0	0	12	116	79	15	24	234
	1 Worker	45	43	27	40	155	4	2	2	2	10	145	119	73	120	457
	2 Workers	0	20	26	29	75	0	3	5	4	12	0	63	63	90	216
	Total	72	84	58	78	292	8	13	7	6	34	261	261	151	234	907
$50,000 to $100,000	0 Workers	9	13	3	2	27	0	3	1	3	7	60	51	9	12	132
	1 Worker	62	38	25	25	150	3	9	9	7	28	209	134	62	75	480
	2 Workers	0	40	15	45	100	0	6	4	11	21	0	123	94	121	338
	Total	71	91	43	72	277	3	18	14	21	56	269	308	165	208	950
$100,000 +	0 Workers	0	3	2	0	5	0	6	1	1	8	12	20	6	6	44
	1 Worker	10	15	5	8	38	7	2	1	7	17	102	58	29	55	244
	2 Workers	0	35	21	31	87	0	9	10	11	30	0	169	88	117	374
	Total	10	53	28	39	130	7	17	12	19	55	114	247	123	178	662
All Incomes	0 Workers	91	72	20	38	**221**	10	19	3	5	**37**	401	253	67	92	**813**
	1 Worker	138	122	75	109	**444**	17	15	13	21	**66**	516	384	223	326	**1,449**
	2 Workers	0	106	74	127	**307**	0	19	19	26	**64**	0	379	272	385	**1,036**
	Total	229	300	169	274	**972**	27	53	35	52	**167**	917	1,016	562	803	**3,298**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
WEEKEND TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.39%	0.55%	0.21%	0.12%	**2.27%**	1.43%	0.67%	0.15%	0.21%	**2.46%**	1.79%	0.79%	0.42%	0.33%	**3.34%**
	1 Worker	0.52%	0.30%	0.27%	0.21%	**1.30%**	0.27%	0.49%	0.49%	0.39%	**1.64%**	0.30%	0.58%	0.45%	0.45%	**1.79%**
	2 Workers	0.00%	0.09%	0.15%	0.27%	**0.52%**	0.00%	0.12%	0.18%	0.39%	**0.70%**	0.00%	0.15%	0.12%	0.39%	**0.67%**
	Total	#REF!	0.94%	0.64%	0.61%	**4.09%**		1.27%	0.82%	1.00%	**4.79%**	2.09%	1.52%	1.00%	1.18%	**5.79%**
$25,000 to $50,000	0 Workers	0.79%	0.36%	0.00%	0.09%	**1.24%**	1.09%	0.58%	0.12%	0.18%	**1.97%**	0.70%	0.58%	0.18%	0.18%	**1.64%**
	1 Worker	1.03%	0.61%	0.18%	0.33%	**2.15%**	0.91%	0.94%	0.55%	1.06%	**3.46%**	0.97%	0.70%	0.61%	0.97%	**3.24%**
	2 Workers	0.00%	0.27%	0.21%	0.21%	**0.70%**	0.00%	0.45%	0.52%	0.91%	**1.88%**	0.00%	0.49%	0.24%	0.61%	**1.33%**
	Total	1.82%	1.24%	0.39%	0.64%	**4.09%**	2.00%	1.97%	1.18%	2.15%	**7.31%**	1.67%	1.76%	1.03%	1.76%	**6.22%**
$50,000 to $100,000	0 Workers	0.73%	0.30%	0.03%	0.00%	**1.06%**	0.55%	0.64%	0.12%	0.18%	**1.49%**	0.27%	0.12%	0.00%	0.03%	**0.42%**
	1 Worker	2.15%	0.73%	0.18%	0.18%	**3.24%**	1.61%	1.46%	0.33%	0.82%	**4.21%**	0.61%	0.45%	0.33%	0.30%	**1.70%**
	2 Workers	0.00%	1.12%	0.52%	0.24%	**1.88%**	0.00%	0.76%	1.27%	1.15%	**3.18%**	0.00%	0.45%	0.49%	0.58%	**1.52%**
	Total	2.88%	2.15%	0.73%	0.42%	**6.19%**	2.15%	2.85%	1.73%	2.15%	**8.88%**	0.88%	1.03%	0.82%	0.91%	**3.64%**
$100,000 +	0 Workers	0.27%	0.09%	0.09%	0.06%	**0.52%**	0.06%	0.18%	0.00%	0.09%	**0.33%**	0.03%	0.06%	0.00%	0.00%	**0.09%**
	1 Worker	1.88%	0.64%	0.24%	0.52%	**3.27%**	0.55%	0.49%	0.33%	0.49%	**1.85%**	0.15%	0.12%	0.12%	0.21%	**0.61%**
	2 Workers	0.00%	2.33%	0.79%	0.45%	**3.58%**	0.00%	1.15%	0.70%	1.49%	**3.34%**	0.00%	0.30%	0.24%	0.33%	**0.88%**
	Total	2.15%	3.06%	1.12%	1.03%	**7.37%**	0.61%	1.82%	1.03%	2.06%	**5.52%**	0.18%	0.49%	0.36%	0.55%	**1.58%**
All Incomes	0 Workers	3.18%	1.30%	0.33%	0.27%	**5.09%**	3.12%	2.06%	0.39%	0.67%	**6.25%**	2.79%	1.55%	0.61%	0.55%	**5.49%**
	1 Worker	5.58%	2.27%	0.88%	1.24%	**9.98%**	3.34%	3.37%	1.70%	2.76%	**11.16%**	2.03%	1.85%	1.52%	1.94%	**7.34%**
	2 Workers	0.00%	3.82%	1.67%	1.18%	**6.67%**	0.00%	2.49%	2.67%	3.94%	**9.10%**	0.00%	1.39%	1.09%	1.91%	**4.40%**
	Total	8.76%	7.40%	2.88%	2.70%	**21.74%**	6.46%	7.91%	4.76%	7.37%	**26.50%**	4.82%	4.79%	3.21%	4.40%	**17.22%**

Number of Households by Household

TABLE 2 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
HOUSEHOLDS WITH INCOME (only)
WEEKEND TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	1.67%	1.06%	0.30%	0.82%	**3.85%**	0.18%	0.06%	0.03%	0.03%	**0.30%**	6.46%	3.12%	1.12%	1.52%	**12.22%**
	1 Worker	0.64%	0.79%	0.55%	1.09%	**3.06%**	0.09%	0.06%	0.03%	0.15%	**0.33%**	1.82%	2.21%	1.79%	2.30%	**8.13%**
	2 Workers	0.00%	0.33%	0.36%	0.67%	**1.36%**	0.00%	0.03%	0.00%	0.00%	**0.03%**	0.00%	0.73%	0.82%	1.73%	**3.27%**
	Total	2.30%	2.18%	1.21%	2.58%	**8.28%**	0.27%	0.15%	0.06%	0.18%	**0.67%**	8.28%	6.06%	3.73%	5.55%	**23.62%**
$25,000 to $50,000	0 Workers	0.82%	0.64%	0.15%	0.27%	**1.88%**	0.12%	0.24%	0.00%	0.00%	**0.36%**	3.52%	2.40%	0.45%	0.73%	**7.10%**
	1 Worker	1.36%	1.30%	0.82%	1.21%	**4.70%**	0.12%	0.06%	0.06%	0.06%	**0.30%**	4.40%	3.61%	2.21%	3.64%	**13.86%**
	2 Workers	0.00%	0.61%	0.79%	0.88%	**2.27%**	0.00%	0.09%	0.15%	0.12%	**0.36%**	0.00%	1.91%	1.91%	2.73%	**6.55%**
	Total	2.18%	2.55%	1.76%	2.37%	**8.85%**	0.24%	0.39%	0.21%	0.18%	**1.03%**	7.91%	7.91%	4.58%	7.10%	**27.50%**
$50,000 to $100,000	0 Workers	0.27%	0.39%	0.09%	0.06%	**0.82%**	0.00%	0.09%	0.03%	0.09%	**0.21%**	1.82%	1.55%	0.27%	0.36%	**4.00%**
	1 Worker	1.88%	1.15%	0.76%	0.76%	**4.55%**	0.09%	0.27%	0.27%	0.21%	**0.85%**	6.34%	4.06%	1.88%	2.27%	**14.55%**
	2 Workers	0.00%	1.21%	0.45%	1.36%	**3.03%**	0.00%	0.18%	0.12%	0.33%	**0.64%**	0.00%	3.73%	2.85%	3.67%	**10.25%**
	Total	2.15%	2.76%	1.30%	2.18%	**8.40%**	0.09%	0.55%	0.42%	0.64%	**1.70%**	8.16%	9.34%	5.00%	6.31%	**28.81%**
$100,000 +	0 Workers	0.00%	0.09%	0.06%	0.00%	**0.15%**	0.00%	0.18%	0.03%	0.03%	**0.24%**	0.36%	0.61%	0.18%	0.18%	**1.33%**
	1 Worker	0.30%	0.45%	0.15%	0.24%	**1.15%**	0.21%	0.06%	0.03%	0.21%	**0.52%**	3.09%	1.76%	0.88%	1.67%	**7.40%**
	2 Workers	0.00%	1.06%	0.64%	0.94%	**2.64%**	0.00%	0.27%	0.30%	0.33%	**0.91%**	0.00%	5.12%	2.67%	3.55%	**11.34%**
	Total	0.30%	1.61%	0.85%	1.18%	**3.94%**	0.21%	0.52%	0.36%	0.58%	**1.67%**	3.46%	7.49%	3.73%	5.40%	**20.07%**
All Incomes	0 Workers	2.76%	2.18%	0.61%	1.15%	**6.70%**	0.30%	0.58%	0.09%	0.15%	**1.12%**	12.16%	7.67%	2.03%	2.79%	**24.65%**
	1 Worker	4.18%	3.70%	2.27%	3.31%	**13.46%**	0.52%	0.45%	0.39%	0.64%	**2.00%**	15.65%	11.64%	6.76%	9.88%	**43.94%**
	2 Workers	0.00%	3.21%	2.24%	3.85%	**9.31%**	0.00%	0.58%	0.58%	0.79%	**1.94%**	0.00%	11.49%	8.25%	11.67%	**31.41%**
	Total	6.94%	9.10%	5.12%	8.31%	**29.47%**	0.82%	1.61%	1.06%	1.58%	**5.06%**	27.80%	30.81%	17.04%	24.35%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough **TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)**

American Community Survey (ACS) - 2006 - Expanded (by Household)

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.98%	0.70%	0.33%	0.19%	**4.20%**	2.20%	0.91%	0.20%	0.25%	**3.56%**	2.13%	0.96%	0.43%	0.53%	**4.05%**
	1 Worker	1.02%	0.38%	0.27%	0.30%	**1.97%**	0.70%	0.40%	0.36%	0.63%	**2.09%**	0.51%	0.60%	0.45%	0.55%	**2.10%**
	2 Workers	0.00%	0.11%	0.05%	0.12%	**0.28%**	0.00%	0.06%	0.10%	0.14%	**0.31%**	0.00%	0.07%	0.07%	0.12%	**0.27%**
	Total	4.00%	1.19%	0.65%	0.61%	**6.46%**		1.37%	0.66%	1.03%	**5.96%**	2.65%	1.63%	0.95%	1.20%	**6.42%**
$25,000 to $50,000	0 Workers	0.75%	0.23%	0.04%	0.05%	**1.07%**	0.73%	0.65%	0.18%	0.11%	**1.66%**	0.38%	0.26%	0.08%	0.16%	**0.88%**
	1 Worker	1.62%	0.41%	0.22%	0.22%	**2.48%**	1.08%	0.80%	0.73%	0.68%	**3.29%**	0.90%	0.57%	0.39%	0.45%	**2.31%**
	2 Workers	0.00%	0.19%	0.17%	0.21%	**0.57%**	0.00%	0.52%	0.33%	0.64%	**1.49%**	0.00%	0.24%	0.29%	0.59%	**1.11%**
	Total	2.37%	0.84%	0.44%	0.48%	**4.12%**	1.81%	1.97%	1.23%	1.42%	**6.44%**	1.28%	1.07%	0.76%	1.19%	**4.30%**
$50,000 to $100,000	0 Workers	0.53%	0.18%	0.03%	0.03%	**0.78%**	0.22%	0.45%	0.09%	0.11%	**0.87%**	0.08%	0.12%	0.05%	0.07%	**0.32%**
	1 Worker	2.65%	0.67%	0.16%	0.17%	**3.65%**	1.42%	0.88%	0.57%	0.74%	**3.61%**	0.56%	0.42%	0.30%	0.31%	**1.59%**
	2 Workers	0.00%	0.67%	0.25%	0.49%	**1.41%**	0.00%	1.07%	0.97%	1.94%	**3.99%**	0.00%	0.42%	0.41%	0.87%	**1.69%**
	Total	3.18%	1.52%	0.45%	0.69%	**5.84%**	1.63%	2.40%	1.64%	2.79%	**8.47%**	0.64%	0.96%	0.77%	1.24%	**3.61%**
$100,000 +	0 Workers	0.34%	0.23%	0.02%	0.04%	**0.62%**	0.08%	0.14%	0.04%	0.10%	**0.36%**	0.01%	0.05%	0.01%	0.02%	**0.09%**
	1 Worker	2.23%	0.90%	0.34%	0.34%	**3.82%**	0.30%	0.34%	0.18%	0.27%	**1.09%**	0.08%	0.08%	0.07%	0.04%	**0.28%**
	2 Workers	0.00%	1.96%	0.79%	0.75%	**3.50%**	0.00%	0.66%	0.81%	1.87%	**3.34%**	0.00%	0.21%	0.22%	0.45%	**0.88%**
	Total	2.57%	3.09%	1.15%	1.13%	**7.94%**	0.38%	1.14%	1.03%	2.24%	**4.79%**	0.09%	0.34%	0.30%	0.51%	**1.25%**
All Incomes	0 Workers	4.60%	1.35%	0.42%	0.31%	**6.68%**	3.22%	2.15%	0.51%	0.57%	**6.45%**	2.61%	1.39%	0.58%	0.77%	**5.35%**
	1 Worker	7.52%	2.35%	1.00%	1.03%	**11.92%**	3.51%	2.42%	1.84%	2.33%	**10.09%**	2.05%	1.67%	1.21%	1.34%	**6.28%**
	2 Workers	0.00%	2.93%	1.27%	1.56%	**5.77%**	0.00%	2.31%	2.22%	4.59%	**9.13%**	0.00%	0.94%	0.99%	2.03%	**3.96%**
	Total	12.12%	6.63%	2.69%	2.91%	**24.36%**	6.73%	6.88%	4.56%	7.49%	**25.66%**	4.66%	4.00%	2.79%	4.14%	**15.59%**

Number of Households by Household

TABLE 3 ACS 2006 PERCENT OF TOTAL (ALL with INCOME)

American Community Survey (ACS)

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	3.62%	1.68%	0.49%	0.59%	**6.38%**	0.39%	0.21%	0.06%	0.06%	**0.72%**	11.33%	4.46%	1.50%	1.63%	**18.91%**
	1 Worker	1.03%	0.77%	0.56%	0.79%	**3.15%**	0.11%	0.06%	0.03%	0.06%	**0.26%**	3.38%	2.20%	1.68%	2.33%	**9.58%**
	2 Workers	0.00%	0.15%	0.09%	0.18%	**0.41%**	0.00%	0.01%	0.01%	0.01%	**0.03%**	0.00%	0.41%	0.32%	0.57%	**1.30%**
	Total	4.65%	2.60%	1.14%	1.56%	**9.94%**	0.50%	0.27%	0.10%	0.14%	**1.01%**	14.70%	7.06%	3.50%	4.54%	**29.80%**
$25,000 to $50,000	0 Workers	0.60%	0.54%	0.14%	0.16%	**1.43%**	0.15%	0.16%	0.03%	0.02%	**0.37%**	2.61%	1.84%	0.47%	0.49%	**5.41%**
	1 Worker	1.32%	1.04%	0.60%	0.88%	**3.84%**	0.18%	0.11%	0.11%	0.12%	**0.51%**	5.10%	2.93%	2.04%	2.35%	**12.43%**
	2 Workers	0.00%	0.51%	0.39%	0.79%	**1.69%**	0.00%	0.05%	0.04%	0.14%	**0.24%**	0.00%	1.51%	1.23%	2.36%	**5.11%**
	Total	1.92%	2.08%	1.12%	1.83%	**6.95%**	0.33%	0.33%	0.18%	0.28%	**1.12%**	7.71%	6.29%	3.74%	5.20%	**22.94%**
$50,000 to $100,000	0 Workers	0.30%	0.29%	0.10%	0.13%	**0.81%**	0.04%	0.15%	0.03%	0.03%	**0.25%**	1.16%	1.20%	0.31%	0.37%	**3.04%**
	1 Worker	1.36%	0.87%	0.51%	0.59%	**3.32%**	0.24%	0.26%	0.11%	0.24%	**0.86%**	6.23%	3.10%	1.66%	2.05%	**13.04%**
	2 Workers	0.00%	1.23%	0.88%	1.56%	**3.67%**	0.00%	0.16%	0.17%	0.36%	**0.69%**	0.00%	3.54%	2.69%	5.22%	**11.45%**
	Total	1.65%	2.38%	1.49%	2.28%	**7.81%**	0.28%	0.57%	0.31%	0.63%	**1.80%**	7.39%	7.84%	4.66%	7.63%	**27.53%**
$100,000 +	0 Workers	0.07%	0.08%	0.04%	0.07%	**0.26%**	0.01%	0.03%	0.02%	0.03%	**0.10%**	0.51%	0.52%	0.13%	0.26%	**1.42%**
	1 Worker	0.30%	0.29%	0.22%	0.26%	**1.07%**	0.05%	0.11%	0.08%	0.17%	**0.42%**	2.98%	1.73%	0.88%	1.09%	**6.68%**
	2 Workers	0.00%	0.89%	0.66%	1.28%	**2.84%**	0.00%	0.23%	0.29%	0.55%	**1.07%**	0.00%	3.96%	2.76%	4.91%	**11.64%**
	Total	0.37%	1.26%	0.92%	1.62%	**4.17%**	0.07%	0.38%	0.38%	0.76%	**1.59%**	3.49%	6.21%	3.78%	6.26%	**19.74%**
All Incomes	0 Workers	4.58%	2.59%	0.76%	0.96%	**8.88%**	0.60%	0.55%	0.14%	0.15%	**1.43%**	15.61%	8.02%	2.41%	2.75%	**28.78%**
	1 Worker	4.01%	2.96%	1.89%	2.52%	**11.38%**	0.58%	0.54%	0.33%	0.59%	**2.05%**	17.68%	9.96%	6.27%	7.82%	**41.72%**
	2 Workers	0.00%	2.78%	2.02%	3.82%	**8.61%**	0.00%	0.46%	0.50%	1.07%	**2.03%**	0.00%	9.42%	7.00%	13.07%	**29.49%**
	Total	8.59%	8.33%	4.66%	7.29%	**28.88%**	1.18%	1.55%	0.97%	1.81%	**5.51%**	33.29%	27.40%	15.68%	23.63%	**100.00%**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
WEEKEND TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.59%	-0.16%	-0.12%	-0.07%	**-1.93%**	-0.77%	-0.24%	-0.05%	-0.04%	**-1.10%**	-0.34%	-0.17%	-0.01%	-0.20%	**-0.72%**
	1 Worker	-0.51%	-0.07%	0.00%	-0.09%	**-0.67%**	-0.43%	0.09%	0.12%	-0.24%	**-0.46%**	-0.21%	-0.02%	0.01%	-0.09%	**-0.31%**
	2 Workers		-0.02%	0.10%	0.16%	**0.23%**		0.06%	0.08%	0.25%	**0.39%**		0.08%	0.05%	0.27%	**0.40%**
	Total	#REF!	-0.25%	-0.01%	-0.01%	**-2.36%**		-0.09%	0.16%	-0.03%	**-1.17%**	-0.55%	-0.11%	0.05%	-0.02%	**-0.63%**
$25,000 to $50,000	0 Workers	0.04%	0.13%	-0.04%	0.04%	**0.17%**	0.36%	-0.07%	-0.05%	0.07%	**0.31%**	0.32%	0.31%	0.10%	0.03%	**0.75%**
	1 Worker	-0.59%	0.19%	-0.04%	0.11%	**-0.33%**	-0.18%	0.14%	-0.18%	0.38%	**0.17%**	0.07%	0.13%	0.22%	0.52%	**0.94%**
	2 Workers		0.08%	0.04%	0.01%	**0.13%**		-0.07%	0.18%	0.27%	**0.39%**		0.25%	-0.05%	0.02%	**0.22%**
	Total	-0.55%	0.41%	-0.05%	0.16%	**-0.03%**	0.19%	0.00%	-0.05%	0.73%	**0.87%**	0.39%	0.69%	0.27%	0.57%	**1.91%**
$50,000 to $100,000	0 Workers	0.20%	0.12%	0.00%	-0.03%	**0.29%**	0.33%	0.18%	0.03%	0.07%	**0.61%**	0.19%	0.00%	-0.05%	-0.04%	**0.10%**
	1 Worker	-0.50%	0.06%	0.02%	0.02%	**-0.40%**	0.19%	0.57%	-0.24%	0.07%	**0.60%**	0.05%	0.03%	0.03%	0.00%	**0.11%**
	2 Workers		0.46%	0.26%	-0.25%	**0.47%**		-0.31%	0.30%	-0.79%	**-0.80%**		0.04%	0.07%	-0.29%	**-0.18%**
	Total	-0.30%	0.64%	0.28%	-0.26%	**0.35%**	0.52%	0.45%	0.09%	-0.64%	**0.41%**	0.24%	0.07%	0.05%	-0.33%	**0.03%**
$100,000 +	0 Workers	-0.07%	-0.14%	0.07%	0.02%	**-0.11%**	-0.02%	0.04%	-0.04%	-0.01%	**-0.02%**	0.02%	0.02%	-0.01%	-0.02%	**0.00%**
	1 Worker	-0.35%	-0.26%	-0.10%	0.17%	**-0.54%**	0.24%	0.14%	0.16%	0.21%	**0.76%**	0.07%	0.04%	0.05%	0.17%	**0.33%**
	2 Workers		0.37%	0.00%	-0.29%	**0.08%**		0.49%	-0.11%	-0.39%	**-0.01%**		0.09%	0.02%	-0.12%	**0.00%**
	Total	-0.42%	-0.03%	-0.03%	-0.10%	**-0.57%**	0.22%	0.68%	0.00%	-0.18%	**0.73%**	0.09%	0.14%	0.06%	0.03%	**0.33%**
All Incomes	0 Workers	-1.42%	-0.04%	-0.09%	-0.03%	**-1.58%**	-0.10%	-0.09%	-0.12%	0.10%	**-0.20%**	0.18%	0.16%	0.02%	-0.23%	**0.14%**
	1 Worker	-1.95%	-0.08%	-0.12%	0.21%	**-1.94%**	-0.17%	0.94%	-0.14%	0.43%	**1.07%**	-0.02%	0.18%	0.30%	0.60%	**1.06%**
	2 Workers		0.89%	0.40%	-0.38%	**0.91%**		0.17%	0.45%	-0.65%	**-0.03%**		0.46%	0.10%	-0.12%	**0.44%**
	Total	-3.36%	0.77%	0.19%	-0.21%	**-2.62%**	-0.27%	1.03%	0.20%	-0.12%	**0.84%**	0.16%	0.79%	0.43%	0.25%	**1.63%**

Number of Households by Household

TABLE 4 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
DIFFERENCE FROM ACS PERCENT OF TOTAL
WEEKEND TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	-1.95%	-0.62%	-0.18%	0.22%	**-2.53%**	-0.21%	-0.15%	-0.03%	-0.03%	**-0.42%**	-4.87%	-1.33%	-0.38%	-0.12%	**-6.70%**
	1 Worker	-0.39%	0.02%	-0.02%	0.31%	**-0.09%**	-0.02%	0.00%	0.00%	0.09%	**0.07%**	-1.56%	0.02%	0.11%	-0.03%	**-1.46%**
	2 Workers		0.19%	0.28%	0.49%	**0.95%**		0.02%	-0.01%	-0.01%	**0.00%**		0.32%	0.50%	1.16%	**1.97%**
	Total	-2.35%	-0.42%	0.08%	1.02%	**-1.67%**	-0.23%	-0.12%	-0.04%	0.04%	**-0.34%**	-6.42%	-1.00%	0.23%	1.01%	**-6.18%**
$25,000 to $50,000	0 Workers	0.22%	0.10%	0.02%	0.12%	**0.45%**	-0.03%	0.08%	-0.03%	-0.02%	**0.00%**	0.91%	0.55%	-0.01%	0.24%	**1.69%**
	1 Worker	0.04%	0.27%	0.22%	0.33%	**0.86%**	-0.06%	-0.05%	-0.05%	-0.06%	**-0.21%**	-0.71%	0.68%	0.17%	1.29%	**1.43%**
	2 Workers		0.10%	0.40%	0.09%	**0.59%**		0.04%	0.11%	-0.02%	**0.12%**		0.40%	0.68%	0.36%	**1.44%**
	Total	0.27%	0.46%	0.64%	0.53%	**1.90%**	-0.09%	0.07%	0.03%	-0.10%	**-0.09%**	0.20%	1.63%	0.84%	1.89%	**4.56%**
$50,000 to $100,000	0 Workers	-0.02%	0.10%	-0.01%	-0.07%	**0.00%**	-0.04%	-0.06%	0.00%	0.06%	**-0.04%**	0.66%	0.35%	-0.04%	0.00%	**0.96%**
	1 Worker	0.52%	0.29%	0.25%	0.17%	**1.23%**	-0.15%	0.01%	0.16%	-0.03%	**-0.01%**	0.11%	0.96%	0.22%	0.23%	**1.52%**
	2 Workers		-0.01%	-0.43%	-0.20%	**-0.64%**		0.02%	-0.05%	-0.02%	**-0.05%**		0.19%	0.16%	-1.55%	**-1.20%**
	Total	0.50%	0.38%	-0.18%	-0.10%	**0.59%**	-0.19%	-0.02%	0.11%	0.01%	**-0.10%**	0.76%	1.50%	0.34%	-1.33%	**1.28%**
$100,000 +	0 Workers	-0.07%	0.01%	0.02%	-0.07%	**-0.11%**	-0.01%	0.15%	0.01%	0.00%	**0.15%**	-0.15%	0.08%	0.05%	-0.08%	**-0.09%**
	1 Worker	0.00%	0.16%	-0.07%	-0.02%	**0.08%**	0.16%	-0.05%	-0.05%	0.04%	**0.10%**	0.12%	0.03%	-0.01%	0.58%	**0.72%**
	2 Workers		0.17%	-0.02%	-0.34%	**-0.20%**		0.04%	0.02%	-0.22%	**-0.16%**		1.16%	-0.10%	-1.36%	**-0.29%**
	Total	-0.07%	0.34%	-0.07%	-0.44%	**-0.23%**	0.15%	0.13%	-0.01%	-0.18%	**0.08%**	-0.03%	1.28%	-0.05%	-0.87%	**0.34%**
All Incomes	0 Workers	-1.82%	-0.40%	-0.15%	0.20%	**-2.18%**	-0.30%	0.03%	-0.05%	0.01%	**-0.31%**	-3.45%	-0.35%	-0.38%	0.04%	**-4.13%**
	1 Worker	0.17%	0.74%	0.39%	0.79%	**2.08%**	-0.07%	-0.09%	0.06%	0.04%	**-0.05%**	-2.04%	1.69%	0.49%	2.07%	**2.21%**
	2 Workers		0.44%	0.23%	0.03%	**0.70%**		0.12%	0.07%	-0.28%	**-0.09%**		2.07%	1.25%	-1.40%	**1.92%**
	Total	-1.65%	0.77%	0.46%	1.02%	**0.59%**	-0.36%	0.05%	0.09%	-0.23%	**-0.45%**	-5.48%	3.41%	1.36%	0.71%	**0.00%**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	2	3	4+	Total	Queens HH Size 1	2	3	4+	Total	Bronx HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1,958	1,177	1,415	1,451	**1,693**	1,412	1,247	1,204	1,090	**1,327**	1,092	1,113	933	1,454	**1,113**
	1 Worker	1,814	1,137	908	1,314	**1,385**	2,366	749	685	1,463	**1,171**	1,548	948	901	1,103	**1,077**
	2 Workers		1,149	309	392	**501**		474	509	335	**405**		449	533	282	**365**
	Total	1,919	1,161	934	927	**1,445**	1,565	984	742	940	**1,139**	1,158	984	870	928	**1,016**
$25,000 to $50,000	0 Workers	868	588		483	**789**	610	1,032	1,325	545	**771**	501	418	426	783	**495**
	1 Worker	1,439	622	1,128	611	**1,055**	1,092	781	1,217	585	**872**	849	747	587	422	**651**
	2 Workers		637	754	894	**751**		1,053	592	640	**727**		445	1,092	891	**765**
	Total	1,192	615	1,025	687	**922**	829	917	956	605	**807**	704	556	678	621	**634**
$50,000 to $100,000	0 Workers	666	557	977		**670**	365	651	705	544	**537**	274	927		2,036	**701**
	1 Worker	1,128	839	829	834	**1,030**	807	555	1,572	833	**785**	841	854	836	923	**858**
	2 Workers		543	452	1,861	**688**		1,293	701	1,543	**1,146**		836	778	1,377	**1,023**
	Total	1,012	645	568	1,485	**864**	695	773	869	1,189	**873**	665	855	861	1,247	**908**
$100,000 +	0 Workers	1,144	2,300	177	571	**1,110**	1,180	690		995	**978**	323	682			**882**
	1 Worker	1,087	1,293	1,298	606	**1,067**	510	642	481	517	**541**	501	639	546	176	**424**
	2 Workers		769	917	1,506	**895**		524	1,063	1,154	**917**		637	828	1,242	**919**
	Total	1,094	924	940	1,001	**987**	577	572	912	997	**795**	471	643	767	859	**727**
All Incomes	0 Workers	1,323	947	1,153	1,032	**1,200**	944	954	1,186	780	**945**	856	823	881	1,294	**893**
	1 Worker	1,235	948	1,045	762	**1,094**	964	659	990	772	**828**	925	829	733	633	**784**
	2 Workers		702	697	1,212	**791**		853	761	1,067	**919**		615	832	973	**824**
	Total	**1,267**	**821**	**856**	**986**	**1,026**	**954**	**797**	**878**	**931**	**887**	**885**	**765**	**794**	**863**	**829**

TABLE 5 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS

WEEKEND TRAVEL SAMPLE

		Brooklyn					Staten Island					New York City				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	1,987	1,451	1,467	665	**1,517**	1,976	3,119	1,725	1,896	**2,172**	1,606	1,307	1,226	986	**1,418**
	1 Worker	1,483	895	946	659	**942**	1,070	861	1,013	385	**716**	1,699	909	859	926	**1,080**
	2 Workers		404	221	245	**277**		300			**921**		514	357	303	**364**
	Total	1,848	1,090	858	554	**1,100**	1,674	1,652	1,501	697	**1,387**	1,626	1,066	859	748	**1,155**
$25,000 to $50,000	0 Workers	667	773	824	525	**695**	1,164	605			**919**	679	705	945	614	**698**
	1 Worker	886	727	670	668	**748**	1,341	1,703	1,621	1,765	**1,554**	1,063	744	846	591	**821**
	2 Workers		771	451	823	**680**		551	257	1,073	**603**		726	589	794	**714**
	Total	804	749	585	709	**719**	1,253	761	780	1,404	**994**	892	728	748	671	**764**
$50,000 to $100,000	0 Workers	991	677	990	1,961	**911**		1,484	1,002	305	**1,081**	586	710	1,041	919	**695**
	1 Worker	662	689	612	712	**669**	2,464	874	382	1,041	**928**	900	699	810	824	**820**
	2 Workers		925	1,777	1,050	**1,109**		818	1,261	981	**988**		869	864	1,303	**1,023**
	Total	704	791	1,045	958	**851**	2,864	957	678	904	**970**	830	768	853	1,108	**875**
$100,000 +	0 Workers		776	602		**1,572**		176	470	979	**359**	1,284	789	645	1,321	**977**
	1 Worker	914	586	1,311	984	**852**	235	1,706	2,304	746	**740**	881	900	921	598	**827**
	2 Workers		772	948	1,252	**986**		784	866	1,521	**1,081**		708	949	1,268	**940**
	Total	1,121	720	988	1,255	**969**	287	678	953	1,207	**871**	924	759	927	1,063	**900**
All Incomes	0 Workers	1,520	1,085	1,148	759	**1,214**	1,808	873	1,376	879	**1,167**	1,175	957	1,086	902	**1,069**
	1 Worker	878	734	759	698	**774**	1,036	1,094	769	855	**939**	1,035	783	849	724	**870**
	2 Workers		792	823	908	**847**		732	803	1,238	**958**		751	777	1,025	**860**
	Total	**1,133**	**839**	**833**	**804**	**897**	**1,322**	**885**	**839**	**1,049**	**997**	**1,096**	**814**	**843**	**889**	**916**

Number of Households by Household Income, Household Workers and Household Size by Borough

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKEND TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	HH Workers	1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
Less than $25,000	0 Workers	2.14	1.28	1.54	1.58	**1.85**	1.54	1.36	1.31	1.19	**1.45**	1.19	1.22	1.02	1.59	**1.22**
	1 Worker	1.98	1.24	0.99	1.43	**1.51**	2.58	0.82	0.75	1.60	**1.28**	1.69	1.03	0.98	1.20	**1.18**
	2 Workers		1.25	0.34	0.43	**0.55**		0.52	0.56	0.37	**0.44**		0.49	0.58	0.31	**0.40**
	Total	2.10	1.27	1.02	1.01	**1.58**	1.71	1.07	0.81	1.03	**1.24**	1.26	1.07	0.95	1.01	**1.11**
$25,000 to $50,000	0 Workers	0.95	0.64		0.53	**0.86**	0.67	1.13	1.45	0.60	**0.84**	0.55	0.46	0.46	0.85	**0.54**
	1 Worker	1.57	0.68	1.23	0.67	**1.15**	1.19	0.85	1.33	0.64	**0.95**	0.93	0.82	0.64	0.46	**0.71**
	2 Workers		0.70	0.82	0.98	**0.82**		1.15	0.65	0.70	**0.79**		0.49	1.19	0.97	**0.84**
	Total	1.30	0.67	1.12	0.75	**1.01**	0.91	1.00	1.04	0.66	**0.88**	0.77	0.61	0.74	0.68	**0.69**
$50,000 to $100,000	0 Workers	0.73	0.61	1.07		**0.73**	0.40	0.71	0.77	0.59	**0.59**	0.30	1.01		2.22	**0.77**
	1 Worker	1.23	0.92	0.90	0.91	**1.12**	0.88	0.61	1.72	0.91	**0.86**	0.92	0.93	0.91	1.01	**0.94**
	2 Workers		0.59	0.49	2.03	**0.75**		1.41	0.77	1.68	**1.25**		0.91	0.85	1.50	**1.12**
	Total	1.10	0.70	0.62	1.62	**0.94**	0.76	0.84	0.95	1.30	**0.95**	0.73	0.93	0.94	1.36	**0.99**
$100,000 +	0 Workers	1.25	2.51	0.19	0.62	**1.21**	1.29	0.75		1.09	**1.07**	0.35	0.74			**0.96**
	1 Worker	1.19	1.41	1.42	0.66	**1.17**	0.56	0.70	0.53	0.56	**0.59**	0.55	0.70	0.60	0.19	**0.46**
	2 Workers		0.84	1.00	1.64	**0.98**		0.57	1.16	1.26	**1.00**		0.70	0.90	1.36	**1.00**
	Total	1.19	1.01	1.03	1.09	**1.08**	0.63	0.62	1.00	1.09	**0.87**	0.51	0.70	0.84	0.94	**0.79**
All Incomes	0 Workers	1.44	1.03	1.26	1.13	**1.31**	1.03	1.04	1.29	0.85	**1.03**	0.93	0.90	0.96	1.41	**0.98**
	1 Worker	1.35	1.04	1.14	0.83	**1.19**	1.05	0.72	1.08	0.84	**0.90**	1.01	0.91	0.80	0.69	**0.86**
	2 Workers		0.77	0.76	1.32	**0.86**		0.93	0.83	1.17	**1.00**		0.67	0.91	1.06	**0.90**
	Total	1.38	0.90	0.93	1.08	**1.12**	1.04	0.87	0.96	1.02	**0.97**	0.97	0.83	0.87	0.94	**0.91**

Number of Households by Household

TABLE 6A MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITHOUT CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	2.17	1.58	1.60	0.73	**1.66**	2.16	3.41	1.88	2.07	**2.37**	1.75	1.43	1.34	1.08	**1.55**
	1 Worker	1.62	0.98	1.03	0.72	**1.03**	1.17	0.94	1.11	0.42	**0.78**	1.86	0.99	0.94	1.01	**1.18**
	2 Workers		0.44	0.24	0.27	**0.30**		0.33	#VALUE!		**1.01**		0.56	0.39	0.33	**0.40**
	Total	2.02	1.19	0.94	0.60	**1.20**	1.83	1.80	1.64	0.76	**1.51**	1.78	1.16	0.94	0.82	**1.26**
$25,000 to $50,000	0 Workers	0.73	0.84	0.90	0.57	**0.76**	1.27	0.66	#VALUE!	#VALUE!	**1.00**	0.74	0.77	1.03	0.67	**0.76**
	1 Worker	0.97	0.79	0.73	0.73	**0.82**	1.46	1.86	1.77	1.93	**1.70**	1.16	0.81	0.92	0.65	**0.90**
	2 Workers		0.84	0.49	0.90	**0.74**		0.60	0.28	1.17	**0.66**		0.79	0.64	0.87	**0.78**
	Total	0.88	0.82	0.64	0.77	**0.79**	1.37	0.83	0.85	1.53	**1.09**	0.97	0.79	0.82	0.73	**0.83**
$50,000 to $100,000	0 Workers	1.08	0.74	1.08	2.14	**1.00**		1.62	1.09	0.33	**1.18**	0.64	0.78	1.14	1.00	**0.76**
	1 Worker	0.72	0.75	0.67	0.78	**0.73**	2.69	0.95	0.42	1.14	**1.01**	0.98	0.76	0.88	0.90	**0.90**
	2 Workers		1.01	1.94	1.15	**1.21**		0.89	1.38	1.07	**1.08**		0.95	0.94	1.42	**1.12**
	Total	0.77	0.86	1.14	1.05	**0.93**	3.13	1.04	0.74	0.99	**1.06**	0.91	0.84	0.93	1.21	**0.96**
$100,000 +	0 Workers		0.85	0.66		**1.72**		0.19		1.07	**0.39**	1.40	0.86	0.70	1.44	**1.07**
	1 Worker	1.00	0.64	1.43	1.07	**0.93**	0.26	1.86	2.52	0.81	**0.81**	0.96	0.98	1.01	0.65	**0.90**
	2 Workers		0.84	1.04	1.37	**1.08**		0.86	0.95	1.66	**1.18**		0.77	1.04	1.38	**1.03**
	Total	1.22	0.79	1.08	1.37	**1.06**	0.31	0.74	1.04	1.32	**0.95**	1.01	0.83	1.01	1.16	**0.98**
All Incomes	0 Workers	1.66	1.19	1.25	0.83	**1.33**	1.97	0.95	1.50	0.96	**1.27**	1.28	1.05	1.19	0.98	**1.17**
	1 Worker	0.96	0.80	0.83	0.76	**0.85**	1.13	1.19	0.84	0.93	**1.03**	1.13	0.86	0.93	0.79	**0.95**
	2 Workers		0.86	0.90	0.99	**0.93**		0.80	0.88	1.35	**1.05**		0.82	0.85	1.12	**0.94**
	Total	1.24	0.92	0.91	0.88	**0.98**	1.44	0.97	0.92	1.15	**1.09**	1.20	0.89	0.92	0.97	**1.00**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKEND TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	1.43	1.32	1.43	1.43	**1.41**	1.25	1.25	1.25	1.23	**1.25**	1.12	1.12	1.01	1.12	**1.10**
	1 Worker	1.43	1.28	1.02	1.43	**1.31**	1.25	0.85	0.77	1.25	**0.99**	1.12	1.03	0.98	1.12	**1.05**
	2 Workers		1.29	0.88	0.88	**0.96**		0.77	0.77	0.77	**0.77**		0.69	0.69	0.69	**0.69**
	Total	1.43	1.30	1.13	1.19	**1.32**	1.25	1.05	0.86	1.06	**1.09**	1.12	1.04	0.96	0.97	**1.04**
$25,000 to $50,000	0 Workers	0.97	0.88		0.88	**0.94**	0.77	1.16	1.25	0.77	**0.91**	0.69	0.69	0.69	0.85	**0.71**
	1 Worker	1.43	0.88	1.27	0.88	**1.18**	1.23	0.88	1.25	0.77	**1.00**	0.92	0.81	0.69	0.69	**0.78**
	2 Workers		0.88	0.88	1.00	**0.92**		1.19	0.77	0.77	**0.87**		0.69	1.12	0.96	**0.89**
	Total	1.24	0.88	1.06	0.92	**1.06**	0.98	1.04	1.04	0.77	**0.94**	0.82	0.74	0.79	0.80	**0.79**
$50,000 to $100,000	0 Workers	0.88	0.88	1.10		**0.89**	0.77	0.77	0.80	0.77	**0.77**	0.69	1.00		1.12	**0.81**
	1 Worker	1.27	0.94	0.93	0.94	**1.16**	0.91	0.77	1.25	0.94	**0.89**	0.91	0.93	0.91	1.00	**0.93**
	2 Workers		0.88	0.88	1.43	**0.96**		1.25	0.79	1.25	**1.07**		0.91	0.84	1.12	**0.97**
	Total	1.17	0.90	0.90	1.22	**1.05**	0.87	0.90	0.88	1.09	**0.94**	0.84	0.93	0.87	1.08	**0.93**
$100,000 +	0 Workers	1.28	1.43	0.88	0.88	**1.19**	1.25	0.78		1.12	**0.96**	0.69	0.74			**0.72**
	1 Worker	1.22	1.43	1.43	0.88	**1.22**	0.77	0.77	0.77	0.77	**0.77**	0.69	0.69	0.69	0.69	**0.69**
	2 Workers		0.88	1.03	1.43	**0.99**		0.77	1.20	1.25	**1.07**		0.69	0.90	1.12	**0.91**
	Total	1.23	1.01	1.11	1.13	**1.11**	0.82	0.77	1.06	1.13	**0.96**	0.69	0.70	0.83	0.95	**0.81**
All Incomes	0 Workers	1.18	1.11	1.25	1.13	**1.16**	1.00	1.04	1.11	0.96	**1.01**	0.96	0.93	0.91	1.03	**0.96**
	1 Worker	1.30	1.11	1.17	0.99	**1.20**	1.00	0.81	1.02	0.89	**0.92**	0.93	0.90	0.82	0.84	**0.88**
	2 Workers		0.89	0.95	1.23	**0.97**		0.99	0.89	1.09	**1.01**		0.76	0.90	0.98	**0.89**
	Total	1.26	1.00	1.05	1.11	**1.12**	1.00	0.93	0.96	1.00	**0.97**	0.95	0.87	0.87	0.92	**0.90**

TABLE 6B MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS - EXP_HH1B - WITH CONSTRAINTS
INDEX: TO TOTAL AVERAGE

WEEKEND TRAVEL SAMPLE

Brooklyn					Staten Island					New York City				
HH Size					HH Size					HH Size				
1	2	3	4+	Total	1	2	3	4+	Total	1	2	3	4+	Total
1.30	1.30	1.30	0.80	**1.20**	1.37	1.37	1.37	1.37	**1.37**	1.27	1.25	1.21	0.99	**1.23**
1.30	1.05	1.10	0.80	**1.02**	1.21	0.97	1.14	0.85	**0.99**	1.30	1.03	0.97	1.00	**1.07**
	0.80	0.80	0.80	**0.80**		0.85			**0.85**		0.84	0.79	0.78	**0.80**
1.30	1.13	1.06	0.80	**1.07**	1.32	1.11	1.26	0.93	**1.16**	1.28	1.12	1.00	0.93	**1.11**
0.80	0.90	0.96	0.80	**0.85**	1.31	0.85			**1.00**	0.83	0.91	0.93	0.82	**0.86**
1.03	0.85	0.80	0.80	**0.88**	1.37	1.37	1.37	1.37	**1.37**	1.15	0.86	0.94	0.78	**0.95**
	0.90	0.80	0.96	**0.89**		0.85	0.85	1.21	**0.97**		0.91	0.85	0.91	**0.89**
0.95	0.88	0.82	0.86	**0.88**	1.34	0.93	1.00	1.27	**1.10**	1.01	0.89	0.90	0.83	**0.91**
1.16	0.80	1.16	1.30	**1.00**		1.37	1.13	0.85	**1.11**	0.86	0.85	0.99	0.91	**0.87**
0.80	0.80	0.80	0.83	**0.81**	1.37	0.99	0.85	1.17	**1.03**	1.01	0.84	0.92	0.93	**0.94**
	1.08	1.30	1.23	**1.18**		0.92	1.37	1.11	**1.11**		1.03	0.92	1.22	**1.07**
0.85	0.93	1.00	1.09	**0.96**	1.37	1.03	1.02	1.09	**1.07**	0.97	0.92	0.93	1.10	**0.97**
	0.91	0.80		**0.87**		0.85	0.85	1.10	**0.88**	1.23	0.91	0.85	1.04	**1.01**
1.07	0.80	1.30	1.15	**1.01**	0.85	1.37	1.37	0.85	**0.94**	1.07	1.03	1.05	0.86	**1.01**
	0.90	1.11	1.30	**1.09**		0.88	0.98	1.37	**1.09**		0.85	1.07	1.29	**1.04**
1.07	0.87	1.12	1.27	**1.06**	0.85	0.93	1.00	1.17	**1.02**	1.09	0.90	1.06	1.15	**1.03**
1.14	1.08	1.15	0.83	**1.07**	1.35	0.99	1.12	1.00	**1.10**	1.08	1.04	1.09	0.94	**1.05**
0.97	0.87	0.91	0.84	**0.90**	1.13	1.09	0.99	1.01	**1.05**	1.09	0.91	0.96	0.88	**0.98**
	0.96	0.99	1.11	**1.03**		0.89	1.03	1.24	**1.07**		0.92	0.94	1.10	**0.99**
1.04	0.95	0.97	0.96	**0.98**	1.21	0.98	1.02	1.12	**1.07**	1.09	0.95	0.96	0.99	**1.00**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Manhattan HH Size 1	Manhattan HH Size 2	Manhattan HH Size 3	Manhattan HH Size 4+	Manhattan Total	Queens HH Size 1	Queens HH Size 2	Queens HH Size 3	Queens HH Size 4+	Queens Total	Bronx HH Size 1	Bronx HH Size 2	Bronx HH Size 3	Bronx HH Size 4+	Bronx Total
Less than $25,000	0 Workers	1,308	1,204	1,308	1,308	**1,283**	1,139	1,139	1,139	1,122	**1,137**	1,018	1,018	921	1,018	**1,006**
	1 Worker	1,308	1,163	929	1,308	**1,195**	1,139	771	704	1,139	**901**	1,018	936	890	1,018	**959**
	2 Workers	0	1,175	806	806	**871**		701	701	701	**701**	0	627	627	627	**627**
	Total	1,308	1,188	1,026	1,082	**1,203**	1,139	957	784	963	**993**	1,018	948	871	888	**948**
$25,000 to $50,000	0 Workers	888	806	0	806	**858**	701	1,062	1,139	701	**834**	627	627	627	773	**643**
	1 Worker	1,308	806	1,154	806	**1,076**	1,124	804	1,139	701	**910**	839	738	627	627	**714**
	2 Workers	0	806	806	914	**839**	0	1,083	701	701	**794**	0	627	1,018	880	**813**
	Total	1,126	806	966	842	**969**	894	944	948	701	**859**	750	671	719	729	**717**
$50,000 to $100,000	0 Workers	806	806	999	0	**811**	701	701	725	701	**703**	627	916	0	1,018	**737**
	1 Worker	1,154	858	848	853	**1,054**	830	701	1,139	857	**815**	831	843	826	912	**848**
	2 Workers	0	806	806	1,308	**871**	0	1,139	721	1,139	**972**	0	826	768	1,018	**880**
	Total	1,066	823	824	1,113	**956**	797	818	802	995	**853**	768	844	792	982	**848**
$100,000 +	0 Workers	1,170	1,308	806	806	**1,087**	1,139	710	0	1,024	**874**	627	674	0	0	**658**
	1 Worker	1,112	1,308	1,308	806	**1,116**	701	701	701	701	**701**	627	631	627	627	**628**
	2 Workers	0	806	938	1,308	**899**	0	701	1,094	1,139	**978**	0	630	818	1,018	**829**
	Total	1,119	925	1,007	1,027	**1,009**	745	702	967	1,031	**879**	627	636	754	866	**742**
All Incomes	0 Workers	1,077	1,007	1,143	1,029	**1,061**	910	944	1,012	879	**924**	878	851	833	936	**871**
	1 Worker	1,183	1,011	1,063	898	**1,097**	914	740	929	810	**838**	847	819	750	763	**798**
	2 Workers	0	815	868	1,121	**882**	0	905	813	994	**917**	0	692	819	893	**811**
	Total	**1,144**	**909**	**960**	**1,009**	**1,023**	**912**	**845**	**871**	**915**	**885**	**865**	**792**	**789**	**841**	**824**

TABLE 7 MTA 12/10/08 DELIV6 - HOUSEHOLD SAMPLE
EXPANSION FACTORS (EXP_HH1B)

WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	1,188	1,188	1,188	732	**1,091**	1,253	1,253	1,253	1,253	**1,253**	1,158	1,139	1,105	906	**1,117**
	1 Worker	1,188	953	1,007	732	**933**	1,100	885	1,041	772	**906**	1,182	936	884	914	**973**
	2 Workers	0	732	732	732	**732**	0	772	0	0	**772**	0	762	723	713	**726**
	Total	1,188	1,034	970	732	**973**	1,202	1,009	1,147	852	**1,058**	1,163	1,019	915	849	**1,013**
$25,000 to $50,000	0 Workers	732	823	877	732	**775**	1,197	772	0	0	**913**	753	825	847	744	**782**
	1 Worker	943	774	732	732	**805**	1,253	1,253	1,253	1,253	**1,253**	1,052	788	852	711	**862**
	2 Workers	0	821	732	876	**812**	0	772	772	1,103	**882**	0	830	771	832	**814**
	Total	864	798	745	786	**800**	1,225	846	909	1,153	**1,002**	919	810	818	761	**830**
$50,000 to $100,000	0 Workers	1,055	732	1,054	1,188	**909**	0	1,253	1,030	772	**1,015**	785	779	899	827	**794**
	1 Worker	732	733	732	758	**737**	1,253	898	772	1,070	**939**	917	768	838	851	**855**
	2 Workers	0	985	1,188	1,118	**1,075**	0	841	1,253	1,009	**1,007**	0	936	842	1,111	**973**
	Total	773	844	914	995	**876**	1,253	938	928	995	**974**	888	837	843	1,001	**888**
$100,000 +	0 Workers	0	826	732	0	**789**	0	772	772	1,007	**801**	1,119	832	775	948	**919**
	1 Worker	974	732	1,188	1,048	**922**	772	1,253	1,253	772	**856**	979	943	961	784	**924**
	2 Workers	0	822	1,010	1,188	**998**	0	806	890	1,253	**998**	0	775	979	1,173	**948**
	Total	974	797	1,022	1,160	**968**	772	846	911	1,062	**925**	994	819	965	1,045	**937**
All Incomes	0 Workers	1,040	984	1,045	756	**973**	1,230	898	1,018	915	**1,000**	984	944	990	856	**957**
	1 Worker	888	794	828	761	**821**	1,028	991	903	917	**960**	998	833	871	803	**891**
	2 Workers	0	874	903	1,013	**939**	0	810	935	1,126	**976**	0	836	858	1,006	**905**
	Total	**948**	**868**	**887**	**877**	**893**	**1,103**	**893**	**931**	**1,021**	**975**	**992**	**861**	**879**	**906**	**912**

Number of Households by Household Income, Household Workers and Household Size by Borough

American Community Survey (ACS) - 2006 - Expanded (by Household)

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
WEEKEND TRAVEL SAMPLE

		Manhattan					Queens					Bronx				
		HH Size					HH Size					HH Size				
HH Income	**HH Workers**	1	2	3	4+	**Total**	1	2	3	4+	**Total**	1	2	3	4+	**Total**
Less than $25,000	0 Workers	90,074	21,182	9,904	5,804	**126,964**	66,370	27,426	6,021	7,631	**107,448**	64,445	28,941	13,060	15,998	**122,444**
	1 Worker	30,837	11,371	8,171	9,197	**59,576**	21,290	11,991	10,953	19,020	**63,254**	15,481	18,006	13,514	16,540	**63,541**
	2+ Workers	0	3,446	1,544	3,531	**8,521**	0	1,894	3,056	4,356	**9,306**	0	2,246	2,131	3,662	**8,039**
	Total	**120,911**	**35,999**	**19,619**	**18,532**	**195,061**	**87,660**	**41,311**	**20,030**	**31,007**	**180,008**	**79,926**	**49,193**	**28,705**	**36,200**	**194,024**
$25,000 to $50,000	0 Workers	22,569	7,054	1,271	1,448	**32,342**	21,960	19,602	5,301	3,271	**50,134**	11,526	7,940	2,555	4,695	**26,716**
	1 Worker	48,937	12,444	6,768	6,725	**74,874**	32,770	24,223	21,901	20,476	**99,370**	27,179	17,189	11,745	13,513	**69,626**
	2+ Workers	0	5,734	5,280	6,255	**17,269**	0	15,790	10,072	19,185	**45,047**	0	7,126	8,735	17,812	**33,673**
	Total	**71,506**	**25,232**	**13,319**	**14,428**	**124,485**	**54,730**	**59,615**	**37,274**	**42,932**	**194,551**	**38,705**	**32,255**	**23,035**	**36,020**	**130,015**
$50,000 to $100,000	0 Workers	15,990	5,573	977	898	**23,438**	6,571	13,676	2,820	3,262	**26,329**	2,469	3,708	1,602	2,036	**9,815**
	1 Worker	80,103	20,136	4,972	5,002	**110,213**	42,745	26,638	17,290	22,496	**109,169**	16,829	12,807	9,194	9,230	**48,060**
	2+ Workers	0	20,093	7,690	14,887	**42,670**	0	32,315	29,428	58,632	**120,375**	0	12,540	12,445	26,156	**51,141**
	Total	**96,093**	**45,802**	**13,639**	**20,787**	**176,321**	**49,316**	**72,629**	**49,538**	**84,390**	**255,873**	**19,298**	**29,055**	**23,241**	**37,422**	**109,016**
$100,000 +	0 Workers	10,292	6,899	530	1,141	**18,862**	2,360	4,141	1,270	2,985	**10,756**	323	1,364	393	566	**2,646**
	1 Worker	67,394	27,155	10,386	10,305	**115,240**	9,186	10,277	5,293	8,273	**33,029**	2,504	2,557	2,185	1,234	**8,480**
	2+ Workers	0	59,238	23,847	22,583	**105,668**	0	19,919	24,448	56,534	**100,901**	0	6,374	6,623	13,661	**26,658**
	Total	**77,686**	**93,292**	**34,763**	**34,029**	**239,770**	**11,546**	**34,337**	**31,011**	**67,792**	**144,686**	**2,827**	**10,295**	**9,201**	**15,461**	**37,784**
ACS HOUSEHOLDS																
All Income	0 Workers	138,925	40,708	12,682	9,291	**201,606**	97,261	64,845	15,412	17,149	**194,667**	78,763	41,953	17,610	23,295	**161,621**
	1 Worker	227,271	71,106	30,297	31,229	**359,903**	105,991	73,129	55,437	70,265	**304,822**	61,993	50,559	36,638	40,517	**189,707**
	2+ Workers	0	88,511	38,361	47,256	**174,128**	0	69,918	67,004	138,707	**275,629**	0	28,286	29,934	61,291	**119,511**
	Total	**366,196**	**200,325**	**81,340**	**87,776**	**735,637**	**203,252**	**207,892**	**137,853**	**226,121**	**775,118**	**140,756**	**120,798**	**84,182**	**125,103**	**470,839**
MTA SURVEY HOUSEHOLDS - with LEVEL 1 HOUSEHOLD (ONLY) WEIGHTS - EXP_HH1B																
All Income	0 Workers	113,122	43,318	12,573	9,261	**178,274**	93,681	64,215	13,151	19,341	**190,388**	80,743	43,386	16,661	16,851	**157,641**
	1 Worker	217,589	75,813	30,832	36,834	**361,068**	100,576	82,158	52,011	73,727	**308,472**	56,779	49,936	37,476	48,836	**193,027**
	2+ Workers	0	102,632	47,760	43,735	**194,127**	0	74,179	71,569	129,239	**274,987**	0	31,848	29,484	56,278	**117,610**
	Total	330,711	221,763	91,165	89,830	**733,469**	194,257	220,552	136,731	222,307	**773,847**	137,522	125,170	83,621	121,965	**468,278**
RATIO - EXPANDED SURVEY HOUSEHOLDS to ACS																
All Income	0 Workers	0.814	1.064	0.991	0.997	**0.884**	0.963	0.990	0.853	1.128	**0.978**	1.025	1.034	0.946	0.723	**0.975**
	1 Worker	0.957	1.066	1.018	1.179	**1.003**	0.949	1.123	0.938	1.049	**1.012**	0.916	0.988	1.023	1.205	**1.018**
	2+ Workers		1.160	1.245	0.925	**1.115**		1.061	1.068	0.932	**0.998**		1.126	0.985	0.918	**0.984**
	Total	0.903	1.107	1.121	1.023	**0.997**	0.956	1.061	0.992	0.983	**0.998**	0.977	1.036	0.993	0.975	**0.995**

Number of Households by Household I

American Community Survey (ACS) - 2(

TABLE 8 ACS HOUSEHOLDS AND EXPANDED MTA HOUSEHOLDS
VALIDATION OF LELVE 1 HOUSEHOLD EXPANSION - EXP_HH1B
WEEKEND TRAVEL SAMPLE

HH Income	HH Workers	Brooklyn HH Size 1	2	3	4+	Total	Staten Island HH Size 1	2	3	4+	Total	New York City HH Size 1	2	3	4+	Total
Less than $25,000	0 Workers	109,304	50,788	14,667	17,953	**192,712**	11,856	6,238	1,725	1,896	**21,715**	342,049	134,575	45,377	49,282	**571,283**
	1 Worker	31,146	23,264	17,020	23,718	**95,148**	3,211	1,721	1,013	1,926	**7,871**	101,965	66,353	50,671	70,401	**289,390**
	2+ Workers	0	4,440	2,648	5,385	**12,473**	0	300	263	358	**921** 0	0	12,326	9,642	17,292	**39,260**
	Total	**140,450**	**78,492**	**34,335**	**47,056**	300,333	**15,067**	**8,259**	**3,001**	**4,180**	30,507	**444,014**	**213,254**	**105,690**	**136,975**	899,933
$25,000 to $50,000	0 Workers	18,012	16,236	4,118	4,721	**43,087**	4,656	4,837	931	604	**11,028**	78,723	55,669	14,176	14,739	**163,307**
	1 Worker	39,869	31,272	18,093	26,728	**115,962**	5,364	3,406	3,241	3,529	**15,540**	154,119	88,534	61,748	70,971	**375,372**
	2+ Workers	0	15,418	11,722	23,871	**51,011**	0	1,652	1,286	4,293	**7,231** 0	0	45,720	37,095	71,416	**154,231**
	Total	**57,881**	**62,926**	**33,933**	**55,320**	210,060	**10,020**	**9,895**	**5,458**	**8,426**	33,799	**232,842**	**189,923**	**113,019**	**157,126**	692,910
$50,000 to $100,000	0 Workers	8,918	8,800	2,970	3,921	**24,609**	1,202	4,451	1,002	915	**7,570**	35,150	36,208	9,371	11,032	**91,761**
	1 Worker	41,063	26,170	15,295	17,791	**100,319**	7,391	7,865	3,441	7,287	**25,984**	188,131	93,616	50,192	61,806	**393,745**
	2+ Workers	0	37,013	26,650	47,238	**110,901**	0	4,909	5,043	10,792	**20,744** 0	0	106,870	81,256	157,705	**345,831**
	Total	**49,981**	**71,983**	**44,915**	**68,950**	235,829	**8,593**	**17,225**	**9,486**	**18,994**	54,298	**223,281**	**236,694**	**140,819**	**230,543**	831,337
$100,000 +	0 Workers	2,069	2,328	1,204	2,257	**7,858**	367	1,055	470	979	**2,871**	15,411	15,787	3,867	7,928	**42,993**
	1 Worker	9,143	8,793	6,554	7,875	**32,365**	1,645	3,412	2,304	5,221	**12,582**	89,872	52,194	26,722	32,908	**201,696**
	2+ Workers	0	27,031	19,909	38,801	**85,741**	0	7,053	8,659	16,732	**32,444** 0	0	119,615	83,486	148,311	**351,412**
	Total	**11,212**	**38,152**	**27,667**	**48,933**	125,964	**2,012**	**11,520**	**11,433**	**22,932**	47,897	**105,283**	**187,596**	**114,075**	**189,147**	596,101
ACS HOUSEHOLDS																
All Income	0 Workers	138,303	78,152	22,959	28,852	**268,266**	18,081	16,581	4,128	4,394	**43,184**	471,333	242,239	72,791	82,981	**869,344**
	1 Worker	121,221	89,499	56,962	76,112	**343,794**	17,611	16,404	9,999	17,963	**61,977**	534,087	300,697	189,333	236,086	**1,260,203**
	2+ Workers	0	83,902	60,929	115,295	**260,126**	0	13,914	15,251	32,175	**61,340** 0	0	284,531	211,479	394,724	**890,734**
	Total	**259,524**	**251,553**	**140,850**	**220,259**	872,186	**35,692**	**46,899**	**29,378**	**54,532**	166,501	**1,005,420**	**827,467**	**473,603**	**713,791**	3,020,281
MTA SURVEY HOUSEHOLDS - with LEVI																
All Income	0 Workers	94,625	70,879	20,896	28,731	**215,131**	12,302	17,066	3,054	4,574	**36,996**	394,473	238,864	66,335	78,758	**778,430**
	1 Worker	122,534	96,919	62,133	82,967	**364,553**	17,471	14,866	11,744	19,256	**63,337**	514,949	319,692	194,196	261,620	**1,290,457**
	2+ Workers	0	92,666	66,845	128,665	**288,176**	0	15,385	17,771	29,288	**62,444**	0	316,710	233,429	387,205	**937,344**
	Total	217,159	260,464	149,874	240,363	**867,860**	29,773	47,317	32,569	53,118	**162,777**	909,422	875,266	493,960	727,583	**3,006,231**
RATIO - EXPANDED SURVEY HOUSEHO																
All Income	0 Workers	0.684	0.907	0.910	0.996	**0.802**	0.680	1.029	0.740	1.041	**0.857**	0.837	0.986	0.911	0.949	**0.895**
	1 Worker	1.011	1.083	1.091	1.090	**1.060**	0.992	0.906	1.175	1.072	**1.022**	0.964	1.063	1.026	1.108	**1.024**
	2+ Workers		1.104	1.097	1.116	**1.108**		1.106	1.165	0.910	**1.018**		1.113	1.104	0.981	**1.052**
	Total	0.837	1.035	1.064	1.091	**0.995**	0.834	1.009	1.109	0.974	**0.978**	0.905	1.058	1.043	1.019	**0.995**

APPENDIX C

SURVEY EXPANSION and VALIDATION

SECTION 2: PERSON LEVEL BALANCING (WEEKDAY ONLY)

APPENDIX C-Section 2

Methods: Person Level 2 Weighting - Imputation of Travel for Non-Reporting Adults (NRAs)

Data Set Preparation

The variables to be used for matching NRAs to Reporting Adults (RS's) for either hot deck imputation (Method 1) or for RA Expansion (Method 2) are identified across household and person.

	Description	Original variable	Revised /Recoded variable name	Priority	
				1st	2nd
Household Variables					
1	Home Location	Xcoord/ycoord		Y	
2	Household Income	CCINC_IMP	hhincx		Y
3	Number of Workers (0,1,2+)		numwrk	Y	
4	Presence of Pre-School Kids (0- 5 yrs)		presch		Y
5	Presence of School Kids (6-17 yrs)		schkid		Y
Person (18+) Variables					
1	Person Type		ptype	Y	
1.1	*Worker*				
	Work Borough	wboro	wboro_r	Y	
	Usual Work Mode	wmode	wmode_r	Y	
1.2	*Student*				
	School Borough	sboro	sboro	Y	
	Usual School Mode	smode	smode_r	Y	
	All Person Types				
2	Age Group	hmage	agegrp		Y
3	Gender	hmsex	gender		Y

Household Income

1) Less than $25,000,
2) $25,000 to $50,000,
3) $50,000 to $100,000,
4) More than $100,000

Usual work mode

Highway
Transit
Non Motorized
Taxi
At Home
Others/Unknown

Person type

1) Worker
2) Retiree
3) Student
4) Others

Algorithm

The idea of hot deck imputation is to synthesize attribute values for missing data using available data from survey respondents with selected set of corresponding household, person and other attributes.

1) Split the data into two sets-
    a. Donors – Respondent Adults (RA)
    b. Recipients - Non-Respondent Adults (NRA)
2) Selected set of variables
    a. Household related – income, hhsize, number of vehicles, children/no-children, #workers
    b. Person specific – ifworker, gender, work place, usual mode to work, school place, usual mode to school, age group
    c. Others – home zone
3) The variables are prioritized based on importance as shown in data set preparation table. For Households, number of workers and distance of donor are critical variables.
    a. Number of Workers (0,1,2+) match exactly
    b. Number of Workers >=1 – a penalty=10 is applied to similarity index
    c. Number of Worker does not match –penalty =100 is applied to similarity index
    d. Distance <= 2 miles - normalized difference square is used for penalty
    e. Distance >2 miles –penalty =100

    Other variables are used to better match the households; the similarity index is calculated based on normalized difference square of recipient variables from donor variables.
        a. Household Income
        b. Presence of Pre-school Kids
        c. Presence of School Kids
4) For person file, it is must to match person type, i.e. worker, student, retired and others otherwise a penalty =100 is added to person similarity index. For workers/students, the respective work school borough and mode are also compared. These variables are given priority over other person variables. A variable ReqMatch (required match) keeps track of borough and mode match.
    a. ReqMatch =0, if both borough and mode match
    b. ReqMatch =1, if one of borough or mode match
    c. ReqMatch =2, if borough and mode do not match

    In addition to ReqMatch, the borough and mode match adds to the similarity index. A weight of 2 is applied to the borough and mode penalties when adding to similarity index so that it over-weighs the impact of age and gender penalties. It ensures that a donor with borough or mode match is given priority over a donor with age and gender combined match. Age and gender penalties are applied when the variables are known for the recipient.

5) Finally, a combined similarity index is calculated for each donor by adding the person and household similarity indices.
6) A field Flag in the donor set is use to track the number of times a donor is used for a recipient.
7) The donors are sorted based on similarity index, required match and flag. The first donor which qualifies the below condition is chosen-
   Either an “exact match (similarity index =0) irrespective of flag value” OR “flag <10”**.**

Penalty Calculation for Household and Person Attributes

Household Variables

Distance of RA (Donor) Household from NRA (Recipient) Household

Code	Distance	Difference	Penalty
0	Within 0.25 mile	0	0
1	Within 0.5 mile	1	1
2	Within 0.75 mile	2	4
3	Within 1 mile	3	9
4	Within 2 mile	4	16
5	More than 2 mile	NA	100

Number of Workers		RA (Donor)		
		0	1	2+
RA (Recipient)	0	0	100	100
	1	100	0	10
	2+	100	10	0

Household Income		RA (Donor) - Difference				RA (Donor) - Penalty			
		< $25K	$25K - $50K	$50K- $100K	> $100K	< $25K	$25K - $50K	$50K- $100K	> $100K
RA (Recipient)	Less than $25,000	0	1	2	3	0	0.11	0.44	1.00
	$25,000 - $50,000	1	0	1	2	0.11	0	0.11	0.44
	$50,000- $100,000	2	1	0	1	0.44	0.11	0	0.11
	More than $100,000	3	2	1	0	1.00	0.44	0.11	0

Presence of School Kid or Pre-School Kid		RA (Donor)	
		No Kids	Kids Present
RA (Recipient)	No Kids	0	1
	Kids Present	1	0

Person Variables

Person Type		RA (Donor)			
		Worker	Student	Retiree	Other
RA (Recipient)	Worker	0	100	100	100
	Student	100	0	100	100
	Retiree	100	100	0	100
	Other	100	100	100	0

Note: If Person is a worker then it is must to match work mode and work borough. If person is a student then it is must to match school borough and school mode.

Age Group – Adults only		RA (Donor) - Difference			RA (Donor) - Penalty		
		18 - 35 yrs	35- 65 yrs	> 65 yrs	18 - 35 yrs	35- 65 yrs	> 65 yrs
RA (Recipient)	18 - 35 yrs	0	1	2	0	0.25	1
	35- 65 yrs	1	0	1	0.25	0	0.25
	> 65 yrs	2	1	0	1	0.25	0

Gender		RA (Donor)- Difference		RA (Donor) - Penalty	
		Male	Female	Male	Female
RA (Recipient)	Male	0	1	0	1
	Female	1	0	1	0
	Unknown	-	-	0	0

Selection of Donors and Recipients

The datasets were prepared for only weekday households. A weekday HH is a household where any member has made a weekday trip (started on a weekday or part of trip is on a weekday). The TT_Trips file has information on start date for all trips made by reporting adults. If start date for any trip in the household was on a weekday, the household was tagged as weekday households. For these households, all the adults (18yrs or older) were chosen in the person file. Also, the adults were classified into two groups – reporting adults and non-reporting adults. The Trips(per) file has total number of reported trips for all reported individuals which define the reporting adults set in the person file. From the TT_Trips file, the daytype (weekday or weekend) was extracted for the first trip of each reporting adults.

For each record in the person file, we have the following variables to classify them as donors or recipients –

1. Weekday HH
2. Reporting Adult or Non-Reporting Adult
3. Daytype for the first trip – weekday or weekend

A donor is a reporting adult from weekday household who made the first trip on a weekday.
Donor = Reporting Adult + Weekday HH + Daytype = Weekday

A recipient is a non-reporting adult from weekday household.
Recipient = Non-Reporting Adult + Weekday HH

Belong to HH with Weekday Travel (Old code)	DAYTYPE	count RA or NRA "Not Adults"	Reporting Adults	Non Reporting Adults	Total
0	*Missing*	*1121*		*1781*	*2902*
	Weekday		*25*		*25*
	Saturday		*1560*		*1560*
	Sunday		*1889*		*1889*
	Total	*1121*	*3474*	*1781*	*6376*
1	Missing	3822		**5959**	9781
	Weekday		**12410**		**12410**
	Saturday		151		151
	Sunday		151		151
	Total	3822	12712	5959	22493

Green – donors
Yellow - recipients

The households for donor persons are defined as donor households and for recipient persons are defined as recipient households. These household sets are not mutually exclusive.

Distance of Household		Person Variable Match		Household Variable Match																			
				Number of Workers - Exact Matched									Number of Worker (1+ category match)									No Match (11)	Total
				Exact Match (1)	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	
Within 0.25 miles	1	Exact Match		601	328	66	116	92	14	11	11	3	2	3	9	2	5	7	2	1	1			1,274
	2	Age group from Adjacent category		337	177	58	59	48	14	4	8	1	-	7	3	-	5	-	-	-	-			721
	3	Age or Gender Different		446	61	17	36	20	11	4	4	1	-	1	4	4	1	2	-	1	1			614
	4	Gender Different, Age Group from adjacent category		153	36	8	14	17	5	2	1	1	-	-	3	2	3	1	1	-	1			248
	5	Both Age and Gender Different		5	1	-	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-			9
		Total		**1,542**	**603**	**149**	**226**	**177**	**44**	**21**	**24**	**6**	**2**	**12**	**20**	**8**	**14**	**10**	**3**	**2**	**3**			**2,866**
Within 0.5 miles	1	Exact Match		227	170	31	70	56	17	16	8	4		11	5	6	6	6	3	1	-	-		637
	2	Age group from Adjacent category		84	87	38	42	51	18	13	11	8		4	12	1	5	1	2	2	1	-		380
	3	Age or Gender Different		52	61	18	31	26	14	8	9	1		2	3	2	3	3	1	1	-	1		236
	4	Gender Different, Age Group from adjacent category		28	42	17	21	23	10	6	4	5		-	3	-	1	3	-	-	1	-		164
	5	Both Age and Gender Different		-	3	-	-	-	-	-	-	-		-	1	-	-	-	-	-	-	-		4
		Total		**391**	**363**	**104**	**164**	**156**	**59**	**43**	**32**	**18**		**17**	**24**	**9**	**15**	**13**	**6**	**4**	**2**	**1**		**1,421**
Within 0.75 miles	1	Exact Match		36	51	20	31	35	12	11	6	3	-	7	6	6	5	2	2	2	2		1	238
	2	Age group from Adjacent category		40	33	14	18	13	5	6	7	-	-	3	7	3	3	5	1	4	-		-	162
	3	Age or Gender Different		33	24	11	18	11	4	11	1	-	1	3	10	6	2	5	2	3	-		-	145
	4	Gender Different, Age Group from adjacent category		18	23	4	12	12	4	4	2	-	-	4	2	3	-	1	-	-	-		-	89
	5	Both Age and Gender Different		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	2
		Total		**129**	**131**	**49**	**79**	**71**	**25**	**32**	**16**	**3**	**1**	**17**	**25**	**18**	**10**	**13**	**5**	**9**	**2**		**1**	**636**
Within 1 miles	1	Exact Match		17	35	13	16	22	8	3	4	3	-	1	2	1	1	-	1		1	-	2	130
	2	Age group from Adjacent category		13	19	4	7	14	6	2	2	5	1	-	3	2	2	1	1		-	-	-	82
	3	Age or Gender Different		18	20	13	6	11	4	1	4	-	1	3	1	2	-	-	-		-	1	-	85
	4	Gender Different, Age Group from adjacent category		6	15	6	2	12	4	2	-	-	-	-	-	1	1	-	1		-	-	-	50
		Total		**54**	**89**	**36**	**31**	**59**	**22**	**8**	**10**	**8**	**2**	**4**	**6**	**6**	**4**	**1**	**3**		**1**	**1**	**2**	**347**
Within 2 miles	1	Exact Match		34	50	8	21	23	6	3	2	-		3	8	2	4	2	2	-		-	1	169
	2	Age group from Adjacent category		13	18	5	13	8	1	1	2	-		2	1	1	3	4	1	-		1	-	74
	3	Age or Gender Different		10	18	3	9	7	3	3	2	2		3	8	1	6	2	1	1		-	-	79
	4	Gender Different, Age Group from adjacent category		10	3	1	3	4	3	4	-	2		3	3	-	3	3	1	-		-	-	43
	5	Both Age and Gender Different		2	-	1	-	-	-	-	-	-		-	-	-	-	-	-	-		-	-	3
		Total		**69**	**89**	**18**	**46**	**42**	**13**	**11**	**6**	**4**		**11**	**20**	**4**	**16**	**11**	**5**	**1**		**1**	**1**	**368**
Total- Matches	1	Exact Match		915	634	138	254	228	57	44	31	13	2	25	30	17	21	17	10	4	4	-	4	2,448
	2	Age group from Adjacent category		487	334	119	139	134	44	26	30	14	1	16	26	7	18	11	5	6	1	1	-	1,419
	3	Age or Gender Different		559	184	62	100	75	36	27	20	4	2	12	26	15	12	12	4	6	1	2	-	1,159
	4	Gender Different, Age Group from adjacent category		215	119	36	52	68	26	18	7	8	-	7	11	6	8	8	3	-	2	-	-	594
	5	Both Age and Gender Different		9	4	1	1	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	18
		Total		**2,185**	**1,275**	**356**	**546**	**505**	**163**	**115**	**88**	**39**	**5**	**61**	**95**	**45**	**59**	**48**	**22**	**16**	**8**	**3**	**4**	**5,638**

1 All Match
2 HH Income different by 1 Category
3 HH Income different by 2 Categories
4 One of the variables different - HH Income, Presence of School Kids or Presence of pre-school kids
5 Either Presence of school kids or pre-school kids different, and income different by 1 category
6 Either Presence of school kids or pre-school kids different, and income different by 2 categories
7 2 of 3 different - Income, presence of school kids or presence of preschool kids
8 Presence of both school and preschool kids different, and income different by 1 category
9 Presence of both school and preschool kids different, and income different by 2 categories
10 All 3 HH variables different - Income, preschool kids, school kids
11 No Match

EXHIBIT 2-B1

USUAL MODE TO WORK - ALL WORKING ADULTS

WEEKDAY SAMPLE - FINAL DATA

LEVEL 1 HH EXPANSION (ONLY)

	BORO_R					Total						
Workesrs: ACS 2006	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	aten Island	Total
1 Bus, Sub or Ferry	446,947	487,760	271,100	595,704	64,280	1,865,791	60%	50%	57%	61%	32%	55%
2 Com Rail	23,475	23,970	12,311	13,951	2,329	76,036	3%	2%	3%	1%	1%	2%
3 Auto	74,101	407,272	154,245	272,696	128,339	1,036,653	10%	41%	32%	28%	64%	31%
4 Taxi	31,725	5,634	6,596	3,532	259	47,746	4%	1%	1%	0%	0%	1%
5 NonMotorized	174,921	59,346	33,290	94,859	5,064	367,480	23%	6%	7%	10%	3%	11%
Total: Outside Home	**751,169**	**983,982**	**477,542**	**980,742**	**200,271**	**3,393,706**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
9 At-Home/Refused	58,279	30,045	15,614	33,893	6,455	144,286	8%	3%	3%	3%	3%	4%
	809,448	1,014,027	493,156	1,014,635	206,726	**3,537,992**						

	BORO_R					Total						
Adults in Persons File	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	aten Island	Total
1 Bus, Sub or Ferry	494,308	541,946	300,112	615,829	86,722	2,038,917	73%	59%	68%	69%	44%	65%
2 Com Rail	5,688	20,008	7,046	4,065	265	37,072	1%	2%	2%	0%	0%	1%
3 Auto	45,520	306,354	110,155	189,992	104,011	756,032	7%	34%	25%	21%	53%	24%
4 Taxi	15,285	3,495	2,656	4,682	1,326	27,444	2%	0%	1%	1%	1%	1%
5 NonMotorized	119,965	39,357	20,264	80,617	3,358	263,561	18%	4%	5%	9%	2%	8%
Total: Outside Home	**680,766**	**911,160**	**440,233**	**895,185**	**195,682**	**3,123,026**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
9 At-Home/Refused	39,629	26,787	13,049	27,257	2,919	109,641	6%	3%	3%	3%	1%	4%
	720,395	937,947	453,282	922,442	198,601	**3,232,667**						

	BORO_R					Total						
1 Reporting Adults (RAs)	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	5 Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	aten Island	Total
1 Bus, Sub or Ferry	382,886	376,360	214,185	442,112	59,702	1,475,245	74%	64%	73%	74%	49%	70%
2 Com Rail	5,106	13,731	5,667	3,153	265	27,922	1%	2%	2%	1%	0%	1%
3 Auto	26,125	169,798	56,445	103,297	60,191	415,856	5%	29%	19%	17%	49%	20%
4 Taxi	12,037	2,502	1,168	2,329	1,016	19,052	2%	0%	0%	0%	1%	1%
5 NonMotorized	93,931	24,654	15,081	48,985	1,663	184,314	18%	4%	5%	8%	1%	9%
Total: Outside Home	**520,085**	**587,045**	**292,546**	**599,876**	**122,837**	**2,122,389**	100%	100%	100%	100%	100%	100%
9 At-Home/Refused	31,837	17,910	9,574	16,672	1,987	77,980	6%	3%	3%	3%	2%	4%
	551,922	604,955	302,120	616,548	124,824	**2,200,369**						

2 Non-Reporting Adults (NRAs)	WMODE_G6											
1 Bus, Sub or Ferry	111,422	165,586	85,927	173,717	27,020	563,672	69%	51%	58%	59%	37%	56%
2 Com Rail	582	6,277	1,379	912	0	9,150	0%	2%	1%	0%	0%	1%
3 Auto	19,395	136,556	53,710	86,695	43,820	340,176	12%	42%	36%	29%	60%	34%
4 Taxi	3,248	993	1,488	2,353	310	8,392	2%	0%	1%	1%	0%	1%
5 NonMotorized	26,034	14,703	5,183	31,632	1,695	79,247	16%	5%	4%	11%	2%	8%
Total: Outside Home	**160,681**	**324,115**	**147,687**	**295,309**	**72,845**	**1,000,637**	100%	100%	100%	100%	100%	100%
9 At-Home/Refused	7,792	8,877	3,475	10,585	932	31,661	5%	3%	2%	4%	1%	3%
	168,473	332,992	151,162	305,894	73,777	**1,032,298**						

				Ratio: Auto - NRA to Reporters			**2.40**	**1.46**	**1.88**	**1.70**	**1.23**	**1.74**

EXHIBIT 2B-2

USUAL MODE TO WORK - ALL WORKING ADULTS

WEEKDAY SAMPLE - FINAL DATA

LEVEL 1 HH EXPANSION + LEVEL 2 PERSON BALANCING with NRA IMPUTATION (METHOD 1 - Hot Deck) - 2/13/09

	BORO_R					Total						
Workesrs: ACS 2006	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	5 Staten Island	Total
1 Bus, Sub or Ferry	446,947	487,760	271,100	595,704	64,280	1,865,791	60%	50%	57%	61%	32%	55%
2 Com Rail	23,475	23,970	12,311	13,951	2,329	76,036	3%	2%	3%	1%	1%	2%
3 Auto	74,101	407,272	154,245	272,696	128,339	1,036,653	10%	41%	32%	28%	64%	31%
4 Taxi	31,725	5,634	6,596	3,532	259	47,746	4%	1%	1%	0%	0%	1%
5 NonMotorized	174,921	59,346	33,290	94,859	5,064	367,480	23%	6%	7%	10%	3%	11%
Total: Outside Home	**751,169**	**983,982**	**477,542**	**980,742**	**200,271**	**3,393,706**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
9 At-Home/Refused	58,279	30,045	15,614	33,893	6,455	144,286	8%	3%	3%	3%	3%	4%
	809,448	1,014,027	493,156	1,014,635	206,726	**3,537,992**						

	BORO_R					Total						
Adults in Persons File: RAs + NRAs	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	5 Staten Island	Total
1 Bus, Sub or Ferry	460,913	468,379	255,105	589,313	74,275	1,847,985	63%	50%	59%	62%	36%	57%
2 Com Rail	8,327	16,969	5,544	4,706	80	35,626	1%	2%	1%	0%	0%	1%
3 Auto	60,340	396,449	137,297	256,911	130,395	981,392	8%	43%	32%	27%	63%	30%
4 Taxi	32,240	3,350	3,413	4,985	999	44,987	4%	0%	1%	1%	0%	1%
5 NonMotorized	172,052	46,247	27,502	90,266	2,617	338,684	23%	5%	6%	10%	1%	10%
Total: Outside Home	**733,872**	**931,394**	**428,861**	**946,181**	**208,366**	**3,248,674**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
9 At-Home/Refused	67,355	36,946	17,264	42,753	2,947	167,265	9%	4%	4%	5%	1%	5%
	801,227	968,340	446,125	988,934	211,313	**3,415,939**						

	BORO_R					Total						
1 Reporting Adults (RAs)	1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	5 Staten Island		1 Manhattan	2 Queens	3 Bronx	4 Brooklyn	5 Staten Island	Total
1 Bus, Sub or Ferry	367,186	340,831	186,017	433,559	53,578	1,381,171	64%	54%	63%	67%	41%	61%
2 Com Rail	7,668	11,518	4,215	3,175	80	26,656	1%	2%	1%	0%	0%	1%
3 Auto	36,218	240,793	80,554	152,084	75,590	585,239	6%	38%	27%	23%	58%	26%
4 Taxi	25,278	2,408	1,630	2,716	625	32,657	4%	0%	1%	0%	0%	1%
5 NonMotorized	139,192	30,800	20,550	56,550	544	247,636	24%	5%	7%	9%	0%	11%
Total: Outside Home	**575,542**	**626,350**	**292,966**	**648,084**	**130,417**	**2,273,359**	100%	100%	100%	100%	100%	100%
9 At-Home/Refused	54,957	27,870	14,110	28,091	2,107	127,135	10%	4%	5%	4%	2%	6%
	630,499	654,220	307,076	676,175	132,524	**2,400,494**						

2 Non-Reporting Adults (NRAs)	WMODE_G6											
1 Bus, Sub or Ferry	93,727	127,548	69,088	155,754	20,697	466,814	59%	42%	51%	52%	27%	48%
2 Com Rail	659	5,451	1,329	1,531	0	8,970	0%	2%	1%	1%	0%	1%
3 Auto	24,122	155,656	56,743	104,827	54,805	396,153	15%	51%	42%	35%	70%	41%
4 Taxi	6,962	942	1,783	2,269	374	12,330	4%	0%	1%	1%	0%	1%
5 NonMotorized	32,860	15,447	6,952	33,716	2,073	91,048	21%	5%	5%	11%	3%	9%
Total: Outside Home	**158,330**	**305,044**	**135,895**	**298,097**	**77,949**	**975,315**	100%	100%	100%	100%	100%	100%
9 At-Home/Refused	12,398	9,076	3,154	14,662	840	40,130	8%	3%	2%	5%	1%	4%
	170,728	314,120	139,049	312,759	78,789	**1,015,445**						
				Ratio: Auto - NRA to Reporters			**2.42**	**1.33**	**1.52**	**1.50**	**1.21**	**1.58**

APPENDIX C

SURVEY EXPANSION and VALIDATION

SECTION 3: TRANSIT TRIP LEVEL WEIGHTING to BOARDING COUNTS (WEEKDAY ONLY)

A. EXPANDED SURVEY BOARDINGS and COUNTS - without NRA IMPUTATION EXP31_FINAL_WKD

1.1 SUBWAY (by FIRST STATION ENTERED)

1.2 BUS (for ALL BOARDINGS)

B. EXPANDED SURVEY BOARDINGS and COUNTS - With NRA IMPUTATION EXP32_FINAL_WKD

1.1 SUBWAY (by FIRST STATION ENTERED)

1.2 BUS (for ALL BOARDINGS)

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4P	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
									5,040,555			**4,951,572**
1000	4	South Ferry (1)	1	389	3433	4536	4106	1393	13,857	1	1000 South Ferry (1)	13,857
1001	5	Rector St (1)	1	80	1015	2894	3038	929	7,955	1	1001 Rector St (1)	7,955
1003	7	Chambers St (1,2,3)	1	227	1275	6565	5624	3597	17,289	1	1003 Chambers St (1,2,3)	17,289
1004	8	Franklin St (1)	1	113	427	2164	2210	1043	5,959	1	1004 Franklin St (1)	5,959
1005	9	Canal St (1)	1	80	227	2084	2131	1040	5,563	1	1005 Canal St (1)	5,563
1006	10	Houston St (1)	1	216	727	4819	5577	2270	13,609	1	1006 Houston St (1)	13,609
1007	11	Christopher St-Sheridan	1	503	1404	3470	2169	2708	10,254	1	1007 Christopher St-Sheridan Sq (1)	10,254
1008	226	14 St (F,V,1,2,3)/6 Av (L)	1	1383	4754	15137	14128	12538	47,941	1	1008 14 St (F,V,1,2,3)/6 Av (L)	47,941
1009	13	18 St (1)	1	136	637	2806	2698	1501	7,777	1	1009 18 St (1)	7,777
1010	14	23 St (1)	1	344	1372	4960	4206	3523	14,406	1	1010 23 St (1)	14,406
1011	15	28 St (1)	1	202	765	4604	4638	2400	12,609	1	1011 28 St (1)	12,609
1012	16	34 St-Penn Station (1,2,3	1	1722	27380	29101	20091	13844	92,138	1	1012 34 St-Penn Station (1,2,3)	92,138
1013	229	Times Sq-42 St (N,Q,R,S,W	1	7120	33390	55031	51025	42936	189,502	1	1013 Times Sq-42 St (N,Q,R,S,W,1,2,3,7)/4	189,502
1014	18	50 St (1)	1	739	1264	6578	10455	6630	25,666	1	1014 50 St (1)	25,666
1015	233	59 St-Columbus Circle (A,	1	1560	4258	21269	21770	16320	65,177	1	1015 59 St-Columbus Circle (A,B,C,D,1)	65,177
1016	20	66 St-Lincoln Center (1)	1	345	2160	7052	6071	5377	21,005	1	1016 66 St-Lincoln Center (1)	21,005
1017	21	72 St (1,2,3)	1	812	6763	12806	8191	7622	36,194	1	1017 72 St (1,2,3)	36,194
1018	22	79 St (1)	1	299	2651	5900	3882	3386	16,118	1	1018 79 St (1)	16,118
1019	23	86 St (1)	1	337	3659	6799	4208	3454	18,457	1	1019 86 St (1)	18,457
1020	24	96 St (1,2,3)	1	797	8251	13461	7014	5715	35,237	1	1020 96 St (1,2,3)	35,237
1021	25	103 St (1)	1	256	2937	5294	2590	2061	13,137	1	1021 103 St (1)	13,137
1022	26	Cathedral Pkwy-110 St (1	1	253	2480	5026	3077	2372	13,209	1	1022 Cathedral Pkwy-110 St (1)	13,209
1023	27	116 St-Columbia Univers	1	224	1294	5246	5282	3245	15,291	1	1023 116 St-Columbia University (1)	15,291
1024	28	125 St (1)	1	210	1523	2684	1505	1135	7,057	1	1024 125 St (1)	7,057
1025	29	137 St-City College (1)	1	521	3042	5124	2440	1999	13,125	1	1025 137 St-City College (1)	13,125
1026	30	145 St (1)	1	427	2252	3560	1405	1226	8,871	1	1026 145 St (1)	8,871
1027	31	157 St (1)	1	472	2557	3563	1401	1077	9,070	1	1027 157 St (1)	9,070
1028	235	168 St (A,C,1)	1	729	4026	7934	6600	3022	22,311	1	1028 168 St (A,C,1)	22,311
1029	33	181 St (1)	1	495	2295	3931	1937	1530	10,188	1	1029 181 St (1)	10,188
1030	34	191 St (1)	1	382	2147	2514	1023	793	6,858	1	1030 191 St (1)	6,858
1031	35	Dyckman St (1)	1	393	2035	2534	1052	836	6,849	1	1031 Dyckman St (1)	6,849
1032	36	207 St (1)	1	279	1415	1757	878	772	5,101	1	1032 207 St (1)	5,101
1033	37	215 St (1)	1	54	384	713	346	217	1,713	1	1033 215 St (1)	1,713
1034	38	Marble Hill-225 St (1)	1	269	1525	1754	924	785	5,258	1	1034 Marble Hill-225 St (1)	5,258
1035	39	231 St (1)	3	346	2845	2805	1271	872	8,139	1	1035 231 St (1)	8,139
1036	40	238 St (1)	3	196	1562	1086	411	295	3,549	1	1036 238 St (1)	3,549
1037	41	Van Cortlandt Park-242 S	3	254	2229	1945	922	574	5,924	1	1037 Van Cortlandt Park-242 St (1)	5,924
1038	42	Central Park North-110 S	1	247	1980	2595	1286	919	7,027	1	1038 Central Park North-110 St (2,3)	7,027
1039	43	116 St (2,3)	1	253	2370	3432	1765	1346	9,166	1	1039 116 St (2,3)	9,166

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	WKD_24HR		StopAreaNo	Subway Entries
1040	44	125 St (2,3)	1	314	1906	5366	3322	2252	13,160	1	1040 125 St (2,3)	13,160
1041	45	135 St (2,3)	1	429	2972	4244	2355	1610	11,610	1	1041 135 St (2,3)	11,610
1042	46	145 St (3)	1	54	947	907	336	201	2,444	1	1042 145 St (3)	2,444
1043	47	Harlem-148 St (3)	1	66	1132	1003	350	198	2,748	1	1043 Harlem-148 St (3)	2,748
1044	236	149 St-Grand Concourse (	3	359	1793	4020	2299	1552	10,023	1	1044 149 St-Grand Concourse (2,4,5)	10,023
1045	86	3 Av-149 St (2,5)	3	912	5698	8576	4260	2405	21,851	1	1045 3 Av-149 St (2,5)	21,851
1046	87	Jackson Av (2,5)	3	226	1423	1558	634	444	4,285	1	1046 Jackson Av (2,5)	4,285
1047	88	Prospect Av (2,5)	3	367	1748	2380	1056	712	6,263	1	1047 Prospect Av (2,5)	6,263
1048	89	Intervale Av (2,5)	3	141	717	843	393	259	2,353	1	1048 Intervale Av (2,5)	2,353
1049	90	Simpson St (2,5)	3	400	2216	3056	1445	1027	8,144	1	1049 Simpson St (2,5)	8,144
1050	91	Freeman St (2,5)	3	217	1039	1142	426	315	3,139	1	1050 Freeman St (2,5)	3,139
1051	92	174 St (2,5)	3	428	1898	2063	848	587	5,825	1	1051 174 St (2,5)	5,825
1052	93	West Farms Sq-East Trer	3	371	1606	2363	1229	743	6,312	1	1052 West Farms Sq-East Tremont Av (2,5	6,312
1053	94	East 180 St (2,5)	3	398	2342	1678	809	474	5,702	1	1053 East 180 St (2,5)	5,702
1054	95	Bronx Park East (2,5)	3	165	1025	816	331	223	2,559	1	1054 Bronx Park East (2,5)	2,559
1055	96	Pelham Pkwy (2,5)	3	417	2507	2423	1130	778	7,255	1	1055 Pelham Pkwy (2,5)	7,255
1056	97	Allerton Av (2,5)	3	328	1723	1536	628	483	4,698	1	1056 Allerton Av (2,5)	4,698
1057	98	Burke Av (2,5)	3	247	1270	927	335	265	3,044	1	1057 Burke Av (2,5)	3,044
1058	99	Gun Hill Rd (2,5)	3	335	1595	1619	693	599	4,841	1	1058 Gun Hill Rd (2,5)	4,841
1059	100	219 St (2,5)	3	203	1005	829	293	260	2,591	1	1059 219 St (2,5)	2,591
1060	101	225 St (2,5)	3	268	1323	997	349	313	3,250	1	1060 225 St (2,5)	3,250
1061	102	233 St (2,5)	3	298	1625	1389	584	439	4,335	1	1061 233 St (2,5)	4,335
1062	103	Nereid Av (2,5)	3	159	1086	832	394	289	2,760	1	1062 Nereid Av (2,5)	2,760
1063	104	Wakefield-241 St (2)	3	321	1219	1142	678	504	3,864	1	1063 Wakefield-241 St (2)	3,864
1064	105	Morris Park (5)	3	125	992	531	159	81	1,887	1	1064 Morris Park (5)	1,887
1065	106	Pelham Pkwy (5)	3	213	1151	811	351	146	2,671	1	1065 Pelham Pkwy (5)	2,671
1066	107	Gun Hill Rd (5)	3	446	2418	1665	581	409	5,520	1	1066 Gun Hill Rd (5)	5,520
1067	108	Baychester Av (5)	3	215	1413	907	387	261	3,182	1	1067 Baychester Av (5)	3,182
1068	109	Eastchester-Dyre Av (5)	3	259	1819	1003	622	280	3,982	1	1068 Eastchester-Dyre Av (5)	3,982
1069	219	Chambers St (A,C)/WTC (	1	677	4498	17715	22884	9064	54,838	1	1069 Chambers St (A,C)/WTC (E)/Park Pla	54,838
1070	218	Fulton St (J,M,Z,2,3,4,5)/E	1	783	4776	20505	32039	11219	69,322	1	1070 Fulton St (J,M,Z,2,3,4,5)/Broadway-I	69,322
1071	1	Wall St (2,3)	1	138	1153	6598	15188	4036	27,113	1	1071 Wall St (2,3)	27,113
1072	263	Clark St (2,3)	4	48	1437	1988	925	694	5,092	1	1072 Clark St (2,3)	5,092
1073	499	Court St (M,R)/Borough H	4	359	4862	15680	10660	4581	36,142	1	1073 Court St (M,R)/Borough Hall (2,3,4,5	36,142
1074	261	Hoyt St (2,3)	4	31	339	2599	2047	1022	6,039	1	1074 Hoyt St (2,3)	6,039
1075	260	Nevins St (2,3,4,5)	4	193	1188	4414	3071	1960	10,826	1	1075 Nevins St (2,3,4,5)	10,826
1076	503	Atlantic Av (B,Q,2,3,4,5)/I	4	695	8649	9854	6421	4744	30,363	1	1076 Atlantic Av (B,Q,2,3,4,5)/Pacific St	30,363
1077	258	Bergen St (2,3)	4	61	1278	1499	649	477	3,964	1	1077 Bergen St (2,3)	3,964
1078	257	Grand Army Plaza (2,3)	4	110	2619	2792	1221	840	7,582	1	1078 Grand Army Plaza (2,3)	7,582
1079	256	Eastern Pkwy-Brooklyn M	4	99	1295	1823	925	453	4,596	1	1079 Eastern Pkwy-Brooklyn Museum (2,	4,596

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4P	WKD_4-7PM	WKD_7PM-12A	WKD_24HR		StopAreaNo	Subway Entries
1080	505	Franklin Av (2,3,4,5)/Bota	4	450	3663	4282	1612	1371	11,377	1	1080 Franklin Av (2,3,4,5)/Botanic Garder	11,377
1081	247	Nostrand Av (3)	4	169	982	1245	558	501	3,456	1	1081 Nostrand Av (3)	3,456
1082	246	Kingston Av (3)	4	222	1463	1772	693	410	4,559	1	1082 Kingston Av (3)	4,559
1083	245	Crown Heights-Utica Av (	4	1314	10986	9006	2709	2213	26,228	1	1083 Crown Heights-Utica Av (3,4)	26,228
1084	244	Sutter Av-Rutland Rd (3)	4	529	2577	2212	685	639	6,642	1	1084 Sutter Av-Rutland Rd (3)	6,642
1085	243	Saratoga Av (3)	4	428	2124	1577	536	404	5,068	1	1085 Saratoga Av (3)	5,068
1086	242	Rockaway Av (3)	4	304	1790	1833	666	485	5,078	1	1086 Rockaway Av (3)	5,078
1087	241	Junius St (3)	4	97	632	621	277	184	1,810	1	1087 Junius St (3)	1,810
1088	240	Pennsylvania Av (3)	4	317	1775	1784	740	547	5,164	1	1088 Pennsylvania Av (3)	5,164
1089	239	Van Siclen Av (3)	4	166	1184	871	258	220	2,699	1	1089 Van Siclen Av (3)	2,699
1090	238	New Lots Av (3)	4	408	1998	1685	669	510	5,269	1	1090 New Lots Av (3)	5,269
1091	254	President St (2,5)	4	113	1075	1155	432	340	3,114	1	1091 President St (2,5)	3,114
1092	253	Sterling St (2,5)	4	241	1888	1783	605	433	4,951	1	1092 Sterling St (2,5)	4,951
1093	252	Winthrop St (2,5)	4	246	1848	2235	1369	525	6,223	1	1093 Winthrop St (2,5)	6,223
1094	251	Church Av (2,5)	4	553	3421	2884	996	870	8,724	1	1094 Church Av (2,5)	8,724
1095	250	Beverly Rd (2,5)	4	255	1660	1168	338	327	3,748	1	1095 Beverly Rd (2,5)	3,748
1096	249	Newkirk Av (2,5)	4	479	3362	2194	631	560	7,227	1	1096 Newkirk Av (2,5)	7,227
1097	248	Brooklyn College-Flatbusl	4	986	8086	5806	2282	1843	19,004	1	1097 Brooklyn College-Flatbush Av (2,5)	19,004
1098	231	Grand Central-42 St (S,4,5	1	2577	21741	45601	60996	25877	156,793	1	1098 Grand Central-42 St (S,4,5,6,7)	156,793
1101	48	Bowling Green (4,5)	1	452	3699	8835	11834	3532	28,353	1	1101 Bowling Green (4,5)	28,353
1102	49	Wall St (4,5)	1	322	1638	7496	11107	3212	23,775	1	1102 Wall St (4,5)	23,775
1104	220	Brooklyn Bridge-City Hall	1	421	2229	14664	13461	5035	35,811	1	1104 Brooklyn Bridge-City Hall (4,5,6)/Cha	35,811
1105	221	Canal St (J,M,N,Q,R,W,Z,6	1	720	2204	17157	15480	10893	46,453	1	1105 Canal St (J,M,N,Q,R,W,Z,6)	46,453
1106	53	Spring St (6)	1	224	944	3625	3306	2772	10,872	1	1106 Spring St (6)	10,872
1107	223	Broadway-Lafayette St (B	1	1027	3069	9821	10614	8775	33,307	1	1107 Broadway-Lafayette St (B,D,F,V)/Ble	33,307
1108	55	Astor Place (6)	1	664	2467	6093	4264	4410	17,898	1	1108 Astor Place (6)	17,898
1109	227	14 St-Union Sq (L,N,Q,R,V	1	3477	8541	33585	32681	29621	107,905	1	1109 14 St-Union Sq (L,N,Q,R,W,4,5,6)	107,905
1110	57	23 St (6)	1	416	3113	10984	10150	6726	31,390	1	1110 23 St (6)	31,390
1111	58	28 St (6)	1	446	2536	7615	8313	4066	22,977	1	1111 28 St (6)	22,977
1112	59	33 St (6)	1	425	3545	10863	11183	5712	31,728	1	1112 33 St (6)	31,728
1114	232	Lexington Av-53 St (E,V)/5	1	1198	3745	20167	31855	14687	71,653	1	1114 Lexington Av-53 St (E,V)/51 St (6)	71,653
1115	234	Lexington Av (N,R,W)/59	1	1331	4538	20092	25093	14440	65,493	1	1115 Lexington Av (N,R,W)/59 St (4,5,6)	65,493
1116	63	68 St-Hunter College (6)	1	232	3259	13462	12026	6294	35,273	1	1116 68 St-Hunter College (6)	35,273
1117	64	77 St (6)	1	324	6670	13561	9870	5372	35,798	1	1117 77 St (6)	35,798
1118	65	86 St (4,5,6)	1	1011	14083	21651	15134	10587	62,465	1	1118 86 St (4,5,6)	62,465
1119	66	96 St (6)	1	261	5455	8606	6276	3127	23,725	1	1119 96 St (6)	23,725
1120	67	103 St (6)	1	401	3054	5092	2990	1808	13,343	1	1120 103 St (6)	13,343
1121	68	110 St (6)	1	416	2925	4020	1823	1266	10,449	1	1121 110 St (6)	10,449
1122	69	116 St (6)	1	504	3203	5070	2578	1824	13,178	1	1122 116 St (6)	13,178
1123	70	125 St (4,5,6)	1	874	5567	9761	6321	4222	26,745	1	1123 125 St (4,5,6)	26,745

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1124	71	138 St-Grand Concourse	3	168	617	1033	704	285	2,806	1	1124 138 St-Grand Concourse (4,5)	2,806
1126	237	161 St-Yankee Stadium (B	3	987	4989	8814	4641	9371	28,802	1	1126 161 St-Yankee Stadium (B,D,4)	28,802
1127	74	167 St (4)	3	629	2600	3033	1143	855	8,260	1	1127 167 St (4)	8,260
1128	75	170 St (4)	3	516	2438	2786	1057	808	7,605	1	1128 170 St (4)	7,605
1129	76	Mt Eden Av (4)	3	322	1467	1654	753	480	4,676	1	1129 Mt Eden Av (4)	4,676
1130	77	176 St (4)	3	318	1444	1637	635	454	4,489	1	1130 176 St (4)	4,489
1131	78	Burnside Av (4)	3	524	2421	3785	1467	1087	9,284	1	1131 Burnside Av (4)	9,284
1132	79	183 St (4)	3	437	1776	1860	655	536	5,263	1	1132 183 St (4)	5,263
1133	80	Fordham Rd (4)	3	617	2510	3984	1806	1548	10,464	1	1133 Fordham Rd (4)	10,464
1134	81	Kingsbridge Rd (4)	3	470	2426	2827	1194	903	7,820	1	1134 Kingsbridge Rd (4)	7,820
1135	82	Bedford Park Blvd-Lehma	3	261	1328	1587	727	555	4,457	1	1135 Bedford Park Blvd-Lehman College (	4,457
1136	83	Mosholu Pkwy (4)	3	407	1914	2776	1363	790	7,250	1	1136 Mosholu Pkwy (4)	7,250
1137	84	Woodlawn (4)	3	449	2237	1960	1238	805	6,689	1	1137 Woodlawn (4)	6,689
1138	110	3 Av-138 St (6)	3	336	1906	2251	1199	640	6,332	1	1138 3 Av-138 St (6)	6,332
1139	111	Brook Av (6)	3	343	1587	1961	888	610	5,389	1	1139 Brook Av (6)	5,389
1140	112	Cypress Av (6)	3	178	790	1134	889	386	3,377	1	1140 Cypress Av (6)	3,377
1141	113	East 143 St-St Mary's St (	3	26	140	313	237	78	794	1	1141 East 143 St-St Mary's St (6)	794
1142	114	East 149 St (6)	3	239	1321	1324	601	406	3,891	1	1142 East 149 St (6)	3,891
1143	115	Longwood Av (6)	3	197	853	991	636	320	2,996	1	1143 Longwood Av (6)	2,996
1144	116	Hunts Point Av (6)	3	532	3375	3197	1598	957	9,659	1	1144 Hunts Point Av (6)	9,659
1145	117	Whitlock Av (6)	3	79	468	405	198	126	1,276	1	1145 Whitlock Av (6)	1,276
1146	118	Elder Av (6)	3	539	2310	1815	599	487	5,749	1	1146 Elder Av (6)	5,749
1147	119	Morrison-Sound View Avs	3	484	2350	1817	566	490	5,708	1	1147 Morrison-Sound View Avs (6)	5,708
1148	120	St Lawrence Av (6)	3	326	1447	1213	352	311	3,649	1	1148 St Lawrence Av (6)	3,649
1149	121	Parkchester (6)	3	932	6292	4386	1384	1017	14,012	1	1149 Parkchester (6)	14,012
1150	122	Castle Hill Av (6)	3	452	2681	1948	705	523	6,310	1	1150 Castle Hill Av (6)	6,310
1151	123	Zerega Av (6)	3	170	939	738	331	149	2,326	1	1151 Zerega Av (6)	2,326
1152	124	Westchester Sq-East Trer	3	286	1461	1891	1147	566	5,351	1	1152 Westchester Sq-East Tremont Av (6)	5,351
1153	125	Middletown Rd (6)	3	157	778	422	158	96	1,612	1	1153 Middletown Rd (6)	1,612
1154	126	Buhre Av (6)	3	208	1437	767	278	192	2,881	1	1154 Buhre Av (6)	2,881
1155	127	Pelham Bay Park (6)	3	313	2661	1501	728	512	5,716	1	1155 Pelham Bay Park (6)	5,716
1157	230	42 St-Bryant Pk (B,D,F,V)/	1	1168	1201	12163	23315	11225	49,072	1	1157 42 St-Bryant Pk (B,D,F,V)/5 Av (7)	49,072
1159	491	Vernon Blvd-Jackson Av (	2	260	3057	3504	1728	1051	9,599	1	1159 Vernon Blvd-Jackson Av (7)	9,599
1160	490	Hunters Point Av (7)	2	229	2805	1647	1760	350	6,791	1	1160 Hunters Point Av (7)	6,791
1161	489	45 Rd-Court House Sq (7)	2	324	1826	2667	3332	1436	9,585	1	1161 45 Rd-Court House Sq (7)	9,585
1162	514	Queensboro Plaza (N,W,7	2	422	997	2959	2877	1191	8,446	1	1162 Queensboro Plaza (N,W,7)	8,446
1163	487	33 St-Rawson St (7)	2	172	462	4511	4552	2352	12,049	1	1163 33 St-Rawson St (7)	12,049
1164	486	40 St-Lowery St (7)	2	319	3130	3656	1861	1094	10,059	1	1164 40 St-Lowery St (7)	10,059
1165	485	46 St-Bliss St (7)	2	698	4651	5111	2140	1579	14,179	1	1165 46 St-Bliss St (7)	14,179
1166	484	52 St (7)	2	286	2357	2355	837	660	6,496	1	1166 52 St (7)	6,496

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SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1167	483	Woodside-61 St (7)	2	683	5870	5718	2297	1646	16,214	1	1167 Woodside-61 St (7)	16,214
1168	482	69 St (7)	2	278	1622	1581	751	555	4,786	1	1168 69 St (7)	4,786
1169	515	74-Broadway (7)/Jackson	2	2181	14165	18172	7400	6246	48,165	1	1169 74-Broadway (7)/Jackson Hts-Roose	48,165
1170	480	82 St-Jackson Hts (7)	2	775	3768	6065	3063	2308	15,978	1	1170 82 St-Jackson Hts (7)	15,978
1171	479	90 St-Elmhurst Av (7)	2	1283	6071	5547	2180	1571	16,652	1	1171 90 St-Elmhurst Av (7)	16,652
1172	478	Junction Blvd (7)	2	1457	8197	6335	2355	1812	20,157	1	1172 Junction Blvd (7)	20,157
1173	477	103 St-Corona Plaza (7)	2	1564	7004	5274	1939	1515	17,296	1	1173 103 St-Corona Plaza (7)	17,296
1174	476	111 St (7)	2	803	4047	3162	1091	794	9,896	1	1174 111 St (7)	9,896
1175	475	Willets Point-Shea Stadiu	2	134	578	1192	997	3397	6,298	1	1175 Willets Point-Shea Stadium (7)	6,298
1176	474	Flushing-Main St (7)	2	2063	20041	18593	8617	6877	56,191	1	1176 Flushing-Main St (7)	56,191
1178	174	Canal St (A,C,E)	1	301	747	5742	8057	3726	18,572	1	1178 Canal St (A,C,E)	18,572
1179	175	Spring St (C,E)	1	152	673	3534	4535	2440	11,334	1	1179 Spring St (C,E)	11,334
1180	224	West 4 St (A,B,C,D,E,F,V)	1	2147	3874	10661	10157	11760	38,598	1	1180 West 4 St (A,B,C,D,E,F,V)	38,598
1181	225	14 St (A,C,E)/8 Av (L)	1	1622	2972	10565	11431	9172	35,762	1	1181 14 St (A,C,E)/8 Av (L)	35,762
1182	178	23 St (C,E)	1	595	2553	7127	6643	5505	22,422	1	1182 23 St (C,E)	22,422
1183	179	34 St-Penn Station (A,C,E	1	1800	22718	26382	21416	13682	85,998	0		
1185	181	50 St (C,E)	1	581	1718	5379	5479	4709	17,867	1	1185 50 St (C,E)	17,867
1187	189	72 St (B,C)	1	91	1372	3199	2494	1604	8,761	1	1187 72 St (B,C)	8,761
1188	190	81 St-Museum of Natural	1	165	1759	4559	4030	1875	12,387	1	1188 81 St-Museum of Natural History (B,	12,387
1189	191	86 St (B,C)	1	110	2318	3933	2708	1530	10,599	1	1189 86 St (B,C)	10,599
1190	192	96 St (B,C)	1	89	1974	3138	2241	1154	8,596	1	1190 96 St (B,C)	8,596
1191	193	103 St (B,C)	1	105	1384	1897	876	552	4,814	1	1191 103 St (B,C)	4,814
1192	194	Cathedral Pkwy-110 St (B	1	157	1738	2356	1178	793	6,223	1	1192 Cathedral Pkwy-110 St (B,C)	6,223
1193	195	116 St (B,C)	1	154	1335	1915	1018	758	5,180	1	1193 116 St (B,C)	5,180
1194	196	125 St (A,B,C,D)	1	759	4587	8766	5409	4127	23,648	1	1194 125 St (A,B,C,D)	23,648
1195	197	135 St (B,C)	1	110	1104	1533	799	490	4,035	1	1195 135 St (B,C)	4,035
1196	198	145 St (A,B,C,D)	1	808	5069	7000	3530	2932	19,340	1	1196 145 St (A,B,C,D)	19,340
1197	199	155 St (C)	1	102	722	816	325	196	2,161	1	1197 155 St (C)	2,161
1198	200	163 St-Amsterdam Av (C)	1	189	1180	1172	442	312	3,294	1	1198 163 St-Amsterdam Av (C)	3,294
1200	202	175 St (A)	1	363	4032	4329	2144	1093	11,962	1	1200 175 St (A)	11,962
1201	203	181 St (A)	1	219	3489	3620	1358	714	9,400	1	1201 181 St (A)	9,400
1202	204	190 St (A)	1	91	1463	1452	534	229	3,769	1	1202 190 St (A)	3,769
1203	205	Dyckman St (A)	1	176	2126	2060	733	427	5,522	1	1203 Dyckman St (A)	5,522
1204	206	Inwood-207 St (A)	1	254	3201	2709	952	621	7,738	1	1204 Inwood-207 St (A)	7,738
1205	207	155 St (B,D)	1	159	988	1237	507	386	3,278	1	1205 155 St (B,D)	3,278
1207	209	167 St (B,D)	3	575	2737	2932	1144	793	8,180	1	1207 167 St (B,D)	8,180
1208	210	170 St (B,D)	3	360	2034	1979	755	533	5,660	1	1208 170 St (B,D)	5,660
1209	211	174-175 Sts (B,D)	3	242	1337	1634	798	430	4,442	1	1209 174-175 Sts (B,D)	4,442
1210	212	Tremont Av (B,D)	3	574	3338	2506	1048	698	8,164	1	1210 Tremont Av (B,D)	8,164
1211	213	182-183 Sts (B,D)	3	324	1407	1541	566	455	4,293	1	1211 182-183 Sts (B,D)	4,293

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	WKD_24HR		StopAreaNo	Subway Entries
1212	214	Fordham Rd (B,D)	3	514	2986	3706	2123	1438	10,766	1	1212 Fordham Rd (B,D)	10,766
1213	215	Kingsbridge Rd (B,D)	3	473	2975	2140	819	644	7,050	1	1213 Kingsbridge Rd (B,D)	7,050
1214	216	Bedford Park Blvd (B,D)	3	299	2679	1658	662	460	5,758	1	1214 Bedford Park Blvd (B,D)	5,758
1215	217	Norwood-205 St (D)	3	502	3127	2215	880	593	7,317	1	1215 Norwood-205 St (D)	7,317
1218	385	High St (A,C)	4	94	1333	2213	1547	1010	6,197	1	1218 High St (A,C)	6,197
1219	500	Jay St-Borough Hall (A,C,F	4	475	2117	11451	10360	4962	29,365	1	1219 Jay St-Borough Hall (A,C,F)	29,365
1220	501	Hoyt-Schermerhorn Sts (A	4	122	776	3964	2685	1500	9,047	1	1220 Hoyt-Schermerhorn Sts (A,C,G)	9,047
1221	382	Lafayette Av (C)	4	117	856	1476	863	749	4,061	1	1221 Lafayette Av (C)	4,061
1222	381	Clinton-Washington Avs (	4	123	1661	1976	672	508	4,940	1	1222 Clinton-Washington Avs (C)	4,940
1223	506	Franklin Av (C,S)	4	257	1176	1745	818	711	4,707	1	1223 Franklin Av (C,S)	4,707
1224	379	Nostrand Av (A,C)	4	590	4345	5523	2383	2015	14,855	1	1224 Nostrand Av (A,C)	14,855
1225	378	Kingston-Throop Avs (C)	4	294	1455	1540	604	530	4,422	1	1225 Kingston-Throop Avs (C)	4,422
1226	377	Utica Av (A,C)	4	620	4495	4239	1637	1413	12,404	1	1226 Utica Av (A,C)	12,404
1227	376	Ralph Av (C)	4	286	1461	1466	523	479	4,216	1	1227 Ralph Av (C)	4,216
1228	375	Rockaway Av (C)	4	262	1648	1436	472	403	4,222	1	1228 Rockaway Av (C)	4,222
1229	509	Broadway Junction (A,C,J	4	535	2398	2833	1272	1109	8,146	1	1229 Broadway Junction (A,C,J,L,Z)	8,146
1230	373	Liberty Av (C)	4	135	774	854	445	253	2,461	1	1230 Liberty Av (C)	2,461
1231	372	Van Siclen Av (C)	4	154	1003	862	269	239	2,528	1	1231 Van Siclen Av (C)	2,528
1232	371	Shepherd Av (C)	4	198	1088	885	301	240	2,712	1	1232 Shepherd Av (C)	2,712
1233	370	Euclid Av (A,C)	4	473	3269	2934	1017	733	8,426	1	1233 Euclid Av (A,C)	8,426
1234	369	Grant Av (A)	4	370	2370	1911	576	455	5,683	1	1234 Grant Av (A)	5,683
1235	368	80 St (A)	2	295	1951	1319	308	208	4,081	1	1235 80 St (A)	4,081
1236	367	88 St (A)	2	232	1358	703	175	114	2,581	1	1236 88 St (A)	2,581
1237	366	Rockaway Blvd (A)	2	481	3021	1766	812	620	6,700	1	1237 Rockaway Blvd (A)	6,700
1238	365	104 St (A)	2	130	953	453	118	87	1,739	1	1238 104 St (A)	1,739
1239	364	111 St (A)	2	184	1570	618	178	117	2,668	1	1239 111 St (A)	2,668
1240	363	Ozone Park-Lefferts Blvd	2	573	3749	1834	687	578	7,420	1	1240 Ozone Park-Lefferts Blvd (A)	7,420
1241	361	Aqueduct-North Conduit	2	87	445	185	94	61	871	1	1241 Aqueduct-North Conduit Av (A)	871
1242	360	Howard Beach-JFK Airpor	2	215	712	902	545	624	2,999	1	1242 Howard Beach-JFK Airport (A)	2,999
1243	359	Broad Channel (A,S)	2	54	198	59	21	17	350	1	1243 Broad Channel (A,S)	350
1244	358	Beach 67 St (A)	2	178	667	524	169	125	1,663	1	1244 Beach 67 St (A)	1,663
1245	357	Beach 60 St (A)	2	217	816	695	216	179	2,123	1	1245 Beach 60 St (A)	2,123
1246	356	Beach 44 St (A)	2	46	208	167	59	45	524	0		
1247	355	Beach 36 St (A)	2	70	323	221	78	61	753	1	1247 Beach 36 St (A)	753
1248	354	Beach 25 St (A)	2	162	698	440	188	114	1,602	1	1248 Beach 25 St (A)	1,602
1249	353	Far Rockaway-Mott Av (A	2	341	1320	1334	808	460	4,263	1	1249 Far Rockaway-Mott Av (A)	4,263
1250	352	Beach 90 St (A,S)	2	127	413	290	102	95	1,026	1	1250 Beach 90 St (A,S)	1,026
1251	351	Beach 98 St (A,S)	2	53	196	140	45	36	470	1	1251 Beach 98 St (A,S)	470
1252	350	Beach 105 St (A,S)	2	20	132	50	25	16	244	1	1252 Beach 105 St (A,S)	244
1253	349	Rockaway Park-Beach 11	2	58	303	242	146	78	826	1	1253 Rockaway Park-Beach 116 St (A,S)	826

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SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1254	182	7 Av (B,D,E)	1	410	623	3821	7245	3018	15,117	1	1254 7 Av (B,D,E)	15,117
1255	183	5 Av-53 St (E,V)	1	165	339	6410	15643	4619	27,175	1	1255 5 Av-53 St (E,V)	27,175
1257	516	23 St-Ely Av (E,V)/Long Isl	2	609	3316	5528	7004	2362	18,819	1	1257 23 St-Ely Av (E,V)/Long Island City-C	18,819
1258	401	Queens Plaza (E,G,R,V)	2	280	1048	3201	2533	1114	8,177	1	1258 Queens Plaza (E,G,R,V)	8,177
1259	402	36 St (G,R,V)	2	55	374	1245	1240	307	3,221	1	1259 36 St (G,R,V)	3,221
1260	403	Steinway St (G,R,V)	2	413	3772	5156	2660	2025	14,026	1	1260 Steinway St (G,R,V)	14,026
1261	404	46 St (G,R,V)	2	289	3416	3455	1259	837	9,255	1	1261 46 St (G,R,V)	9,255
1262	405	Northern Blvd (G,R,V)	2	324	2694	2369	1342	624	7,353	1	1262 Northern Blvd (G,R,V)	7,353
1263	406	65 St (G,R,V)	2	167	1269	1207	460	226	3,329	1	1263 65 St (G,R,V)	3,329
1265	408	Elmhurst Av (G,R,V)	2	637	4876	5260	1669	1045	13,487	1	1265 Elmhurst Av (G,R,V)	13,487
1266	409	Grand Av-Newtown (G,R,	2	709	6379	6097	2132	1543	16,860	1	1266 Grand Av-Newtown (G,R,V)	16,860
1267	410	Woodhaven Blvd (G,R,V)	2	842	7034	7257	3746	2957	21,835	1	1267 Woodhaven Blvd (G,R,V)	21,835
1268	411	63 Dr-Rego Park (G,R,V)	2	386	5614	5315	2352	1394	15,062	1	1268 63 Dr-Rego Park (G,R,V)	15,062
1269	412	67 Av (G,R,V)	2	207	4389	2871	951	543	8,961	1	1269 67 Av (G,R,V)	8,961
1270	413	Forest Hills-71 Av (E,F,G,F	2	749	9826	9052	4011	2952	26,590	1	1270 Forest Hills-71 Av (E,F,G,R,V)	27,106
1271	414	75 Av (E,F)	2	80	1569	1224	495	355	3,724	1	1271 75 Av (E,F)	3,724
1272	415	Kew Gardens-Union Turn	2	981	9898	9157	4018	2125	26,179	1	1272 Kew Gardens-Union Turnpike (E,F)	26,179
1273	416	Briarwood-Van Wyck Blvd	2	246	2544	1753	550	365	5,459	1	1273 Briarwood-Van Wyck Blvd (E,F)	5,459
1274	417	Sutphin Blvd (F)	2	271	1408	1631	620	331	4,261	1	1274 Sutphin Blvd (F)	4,261
1275	418	Parsons Blvd (F)	2	375	1923	2009	833	488	5,628	1	1275 Parsons Blvd (F)	5,628
1276	419	169 St (F)	2	437	2598	2775	1085	690	7,584	1	1276 169 St (F)	7,584
1277	420	Jamaica-179 St (F)	2	1569	11828	5839	2294	1315	22,844	1	1277 Jamaica-179 St (F)	22,844
1278	421	Jamaica-Van Wyck (E)	2	290	1416	1491	797	391	4,383	1	1278 Jamaica-Van Wyck (E)	4,383
1279	517	Sutphin Blvd-Archer Av-JF	2	1129	6007	6239	3362	2725	19,462	1	1279 Sutphin Blvd-Archer Av-JFK Airport (	19,690
1280	518	Jamaica Center-Parsons-A	2	2192	13585	11330	5529	3797	36,433	1	1280 Jamaica Center-Parsons-Archer (E,J,	36,433
1281	387	Fulton St (G)	4	59	433	711	642	528	2,373	1	1281 Fulton St (G)	2,373
1282	388	Clinton-Washington Avs (	4	80	1296	1554	827	502	4,259	1	1282 Clinton-Washington Avs (G)	4,259
1283	389	Classon Av (G)	4	88	1182	1228	536	341	3,375	1	1283 Classon Av (G)	3,375
1284	390	Bedford-Nostrand Avs (G	4	171	1880	2037	742	477	5,307	1	1284 Bedford-Nostrand Avs (G)	5,307
1285	391	Myrtle-Willoughby Avs (G	4	134	1288	1388	538	339	3,686	1	1285 Myrtle-Willoughby Avs (G)	3,686
1286	392	Flushing Av (G)	4	75	536	612	420	185	1,828	1	1286 Flushing Av (G)	1,828
1287	393	Broadway (G)	4	117	1005	1017	551	354	3,045	1	1287 Broadway (G)	3,045
1288	511	Lorimer St (L)/Metropolit	4	564	2980	3986	1707	1658	10,896	1	1288 Lorimer St (L)/Metropolitan Av (G)	10,896
1289	395	Nassau Av (G)	4	244	2875	2133	1281	739	7,271	1	1289 Nassau Av (G)	7,271
1290	396	Greenpoint Av (G)	4	208	2208	2580	1592	791	7,378	1	1290 Greenpoint Av (G)	7,378
1291	397	21 St (G)	2	58	123	262	414	140	998	0		
1293	160	Grand St (B,D)	1	354	2265	7984	6812	4865	22,279	1	1293 Grand St (B,D)	22,279
1296	167	23 St (F,V)	1	365	2602	7740	9225	6040	25,972	1	1296 23 St (F,V)	26,104
1297	228	34 St-Herald Sq (B,D,F,N,(	1	1941	15290	39119	44520	26704	127,575	1	1297 34 St-Herald Sq (B,D,F,N,Q,R,V,W)	127,575
1299	170	47-50 Sts-Rockefeller Cer	1	1271	961	14407	32291	12147	61,078	1	1299 47-50 Sts-Rockefeller Center (B,D,F,'	61,078

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StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1300	185	57 St (F)	1	462	467	4098	6565	3886	15,479	1	1300 57 St (F)	15,479
1301	186	Lexington Av-63 St (F)	1	400	1110	3902	4965	3507	13,884	1	1301 Lexington Av-63 St (F)	13,884
1302	187	Roosevelt Island (F)	1	112	1722	2408	1069	691	6,002	1	1302 Roosevelt Island (F)	6,002
1303	399	21 St-Queensbridge (F)	2	277	1702	2423	1788	721	6,911	1	1303 21 St-Queensbridge (F)	6,911
1304	163	Lower East Side-2 Av (F,V	1	774	3263	5731	3256	4202	17,226	1	1304 Lower East Side-2 Av (F,V)	17,226
1305	222	Delancey St (F)/Essex St (	1	803	3398	6149	3823	3439	17,613	1	1305 Delancey St (F)/Essex St (J,M,Z)	17,613
1306	161	East Broadway (F)	1	253	2591	4756	3098	1759	12,457	1	1306 East Broadway (F)	12,457
1307	348	York St (F)	4	89	860	1874	1844	1163	5,829	1	1307 York St (F)	5,829
1308	149	Broad St (J,M,Z)	1	116	179	1341	4692	794	7,123	1	1308 Broad St (J,M,Z)	7,123
1312	153	Bowery (J,M,Z)	1	126	220	754	872	739	2,711	1	1312 Bowery (J,M,Z)	2,710
1314	447	Marcy Av (J,M,Z)	4	245	2150	3515	1769	1191	8,871	1	1314 Marcy Av (J,M,Z)	8,871
1315	446	Hewes St (J,M)	4	87	464	797	362	317	2,027	1	1315 Hewes St (J,M)	2,027
1316	445	Lorimer St (J,M)	4	129	1221	1464	634	417	3,866	1	1316 Lorimer St (J,M)	3,866
1317	444	Flushing Av (J,M)	4	239	1076	2711	1751	995	6,772	1	1317 Flushing Av (J,M)	6,772
1318	443	Myrtle Av (J,M,Z)	4	389	2523	2692	1157	932	7,694	1	1318 Myrtle Av (J,M,Z)	7,694
1319	442	Kosciuszko St (J)	4	222	1220	1292	478	404	3,617	1	1319 Kosciuszko St (J)	3,617
1320	441	Gates Av (J,Z)	4	260	1541	1591	616	515	4,523	1	1320 Gates Av (J,Z)	4,523
1321	440	Halsey St (J)	4	299	1711	1540	504	483	4,536	1	1321 Halsey St (J)	4,536
1322	439	Chauncey St (J,Z)	4	137	743	789	303	247	2,219	1	1322 Chauncey St (J,Z)	2,219
1324	437	Alabama Av (J)	4	119	445	613	430	334	1,941	1	1324 Alabama Av (J)	1,941
1325	436	Van Siclen Av (J,Z)	4	139	809	739	266	206	2,159	1	1325 Van Siclen Av (J,Z)	2,159
1326	435	Cleveland St (J)	4	163	1023	837	301	251	2,576	1	1326 Cleveland St (J)	2,576
1327	434	Norwood Av (J,Z)	4	256	1109	921	351	291	2,928	1	1327 Norwood Av (J,Z)	2,928
1328	433	Crescent St (J,Z)	4	279	1569	1287	464	324	3,924	1	1328 Crescent St (J,Z)	3,924
1329	432	Cypress Hills (J)	4	88	519	375	163	97	1,241	0		
1330	431	75 St (J,Z)	2	287	1243	938	273	212	2,953	1	1330 75 St (J,Z)	2,953
1331	430	85 St-Forest Pkwy (J)	2	326	1510	1032	300	220	3,388	1	1331 85 St-Forest Pkwy (J)	3,388
1332	429	Woodhaven Blvd (J,Z)	2	284	1602	1098	487	340	3,811	1	1332 Woodhaven Blvd (J,Z)	3,811
1333	428	104 St (J,Z)	2	203	992	654	240	161	2,250	1	1333 104 St (J,Z)	2,250
1334	427	111 St (J)	2	151	768	709	263	180	2,070	1	1334 111 St (J)	2,070
1335	426	121 St (J,Z)	2	127	607	555	368	218	1,875	1	1335 121 St (J,Z)	1,875
1336	454	Central Av (M)	4	100	781	702	254	171	2,007	1	1336 Central Av (M)	2,007
1337	453	Knickerbocker Av (M)	4	119	1015	1094	424	265	2,917	1	1337 Knickerbocker Av (M)	2,917
1338	510	Myrtle-Wyckoff Avs (L,M)	4	922	5810	4756	1859	1430	14,777	1	1338 Myrtle-Wyckoff Avs (L,M)	14,777
1339	451	Seneca Av (M)	2	104	910	671	200	130	2,015	1	1339 Seneca Av (M)	2,015
1340	450	Forest Av (M)	2	201	1759	915	297	166	3,338	1	1340 Forest Av (M)	3,338
1341	449	Fresh Pond Rd (M)	2	271	2442	1246	410	247	4,615	1	1341 Fresh Pond Rd (M)	4,615
1342	448	Middle Village-Metropoli	2	140	1306	796	622	394	3,257	1	1342 Middle Village-Metropolitan Av (M)	3,257
1343	346	Bergen St (F,G)	4	187	2548	3501	1779	1428	9,444	1	1343 Bergen St (F,G)	9,444
1344	345	Carroll St (F,G)	4	150	3213	3702	1713	1088	9,866	1	1344 Carroll St (F,G)	9,866

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SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1345	344	Smith-9 Sts (F,G)	4	134	941	1399	1043	607	4,125	1	1345 Smith-9 Sts (F,G)	4,125
1346	508	4 Av (F)/9 St (M,R)	4	259	2863	3529	2128	1377	10,156	1	1346 4 Av (F)/9 St (M,R)	10,156
1347	342	7 Av (F)	4	185	3303	3742	1748	1320	10,297	1	1347 7 Av (F)	10,297
1348	341	15 St-Prospect Park (F)	4	119	2260	1973	673	520	5,545	1	1348 15 St-Prospect Park (F)	5,545
1349	340	Fort Hamilton Pkwy (F)	4	129	2087	1558	494	307	4,575	1	1349 Fort Hamilton Pkwy (F)	4,575
1350	339	Church Av (F)	4	377	3498	2966	1123	717	8,682	1	1350 Church Av (F)	8,682
1351	338	Ditmas Av (F)	4	203	1814	1482	617	352	4,467	1	1351 Ditmas Av (F)	4,467
1352	337	18 Av (F)	4	156	1455	1382	677	357	4,027	1	1352 18 Av (F)	4,027
1353	336	Avenue I (F)	4	76	634	737	412	256	2,116	1	1353 Avenue I (F)	2,116
1354	335	Bay Pkwy (F)	4	63	483	395	180	149	1,270	1	1354 Bay Pkwy (F)	1,270
1355	334	Avenue N (F)	4	121	1410	982	442	255	3,209	1	1355 Avenue N (F)	3,209
1356	333	Avenue P (F)	4	110	1138	903	388	252	2,791	1	1356 Avenue P (F)	2,791
1357	332	Kings Hwy (F)	4	138	1232	1071	563	325	3,329	1	1357 Kings Hwy (F)	3,329
1358	331	Avenue U (F)	4	96	814	591	320	203	2,024	1	1358 Avenue U (F)	2,024
1359	330	Avenue X (F)	4	133	1081	885	357	234	2,690	1	1359 Avenue X (F)	2,690
1360	329	Neptune Av (F)	4	70	556	462	190	134	1,412	1	1360 Neptune Av (F)	1,412
1361	497	39 Av (N,W)	2	115	418	832	670	250	2,286	1	1361 39 Av (N,W)	2,286
1362	496	36 Av (N,W)	2	286	2118	2795	1329	747	7,275	1	1362 36 Av (N,W)	7,275
1363	495	Broadway (N,W)	2	399	4201	4928	1719	1168	12,413	1	1363 Broadway (N,W)	12,413
1364	494	30 Av (N,W)	2	480	4772	5190	1816	1205	13,464	1	1364 30 Av (N,W)	13,464
1365	493	Astoria Blvd (N,W)	2	391	4132	4060	1441	982	11,005	1	1365 Astoria Blvd (N,W)	11,005
1366	492	Astoria-Ditmars Blvd (N,W	2	544	6722	5826	1895	1276	16,263	1	1366 Astoria-Ditmars Blvd (N,W)	16,263
1368	147	5 Av-59 St (N,R,W)	1	161	493	5834	8721	3994	19,202	1	1368 5 Av-59 St (N,R,W)	19,202
1369	146	57 St-7 Av (N,Q,R,W)	1	709	1774	8851	11175	7286	29,794	1	1369 57 St-7 Av (N,Q,R,W)	29,794
1370	145	49 St (N,R,W)	1	554	1336	6877	10143	6889	25,800	1	1370 49 St (N,R,W)	25,800
1373	142	28 St (N,R,W)	1	85	596	3870	4034	1512	10,098	1	1373 28 St (N,R,W)	10,098
1374	141	23 St (N,R,W)	1	222	1373	6554	7541	4124	19,814	1	1374 23 St (N,R,W)	19,814
1376	139	8 St-New York University	1	456	1743	5564	4544	4207	16,514	1	1376 8 St-New York University (N,R,W)	16,514
1377	138	Prince St (N,R,W)	1	187	560	4863	4950	3629	14,189	1	1377 Prince St (N,R,W)	14,189
1379	136	City Hall (R,W)	1	69	548	4314	4509	1726	11,166	1	1379 City Hall (R,W)	11,166
1381	134	Rector St (R,W)	1	66	1187	3495	4388	1397	10,534	1	1381 Rector St (R,W)	10,534
1382	133	Whitehall St-South Ferry	1	174	2682	4322	5600	1655	14,433	1	1382 Whitehall St-South Ferry (R,W)	14,433
1384	325	Lawrence St (M,R)	4	23	372	1779	2274	846	5,294	1	1384 Lawrence St (M,R)	5,294
1386	502	DeKalb Av (B,M,Q,R)	4	307	2335	5994	3706	2196	14,539	1	1386 DeKalb Av (B,M,Q,R)	14,539
1388	318	7 Av (B,Q)	4	130	3013	3821	1373	1182	9,519	1	1388 7 Av (B,Q)	9,519
1389	504	Prospect Park (B,Q,S)	4	287	2874	3038	1092	955	8,246	1	1389 Prospect Park (B,Q,S)	8,246
1390	316	Parkside Av (Q)	4	393	1869	1742	643	618	5,265	1	1390 Parkside Av (Q)	5,265
1391	315	Church Av (B,Q)	4	677	5527	5404	1922	1444	14,975	1	1391 Church Av (B,Q)	14,975
1392	314	Beverley Rd (Q)	4	150	1087	884	283	227	2,631	1	1392 Beverley Rd (Q)	2,631
1393	313	Cortelyou Rd (Q)	4	290	2322	1966	630	483	5,691	1	1393 Cortelyou Rd (Q)	5,691

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	WKD_24HR		StopAreaNo	Subway Entries
1394	312	Newkirk Av (B,Q)	4	371	3648	3468	1131	710	9,328	1	1394 Newkirk Av (B,Q)	9,328
1395	311	Avenue H (Q)	4	99	968	983	390	265	2,704	1	1395 Avenue H (Q)	2,704
1396	310	Avenue J (Q)	4	195	1849	2175	1018	631	5,869	1	1396 Avenue J (Q)	5,869
1397	309	Avenue M (Q)	4	150	1630	1838	900	480	4,997	1	1397 Avenue M (Q)	4,997
1398	308	Kings Hwy (B,Q)	4	523	6809	6179	2840	1584	17,935	1	1398 Kings Hwy (B,Q)	17,935
1399	307	Avenue U (Q)	4	304	2564	2237	961	588	6,654	1	1399 Avenue U (Q)	6,654
1400	306	Neck Rd (Q)	4	158	1808	988	363	214	3,532	1	1400 Neck Rd (Q)	3,532
1401	305	Sheepshead Bay (B,Q)	4	509	5863	4505	1861	1098	13,837	1	1401 Sheepshead Bay (B,Q)	13,837
1402	304	Brighton Beach (B,Q)	4	363	3736	4703	1958	1451	12,211	1	1402 Brighton Beach (B,Q)	12,211
1403	303	Ocean Pkwy (Q)	4	109	916	849	403	294	2,571	1	1403 Ocean Pkwy (Q)	2,571
1404	513	West 8 St-New York Aqua	4	74	583	836	410	207	2,110	1	1404 West 8 St-New York Aquarium (F,Q)	2,110
1405	512	Coney Island-Stillwell Av (	4	539	3070	3981	2264	1619	11,472	1	1405 Coney Island-Stillwell Av (D,F,N,Q)	11,472
1407	275	Union St (M,R)	4	138	2351	2298	1049	714	6,550	1	1407 Union St (M,R)	6,550
1409	273	Prospect Av (M,R)	4	147	2070	2019	1003	536	5,775	1	1409 Prospect Av (M,R)	5,775
1410	272	25 St (M,R)	4	135	1138	1241	812	411	3,738	1	1410 25 St (M,R)	3,738
1411	271	36 St (D,M,N,R)	4	413	2832	3313	2556	1542	10,657	1	1411 36 St (D,M,N,R)	10,657
1412	270	45 St (R)	4	378	2407	2229	1100	608	6,723	1	1412 45 St (R)	6,723
1413	269	53 St (R)	4	372	2225	2482	1264	794	7,137	1	1413 53 St (R)	7,137
1414	268	59 St (N,R)	4	523	3699	3735	2066	1290	11,312	1	1414 59 St (N,R)	11,312
1415	267	Bay Ridge Av (R)	4	319	3185	2540	847	568	7,460	1	1415 Bay Ridge Av (R)	7,460
1416	266	77 St (R)	4	203	2385	1612	599	338	5,137	1	1416 77 St (R)	5,137
1417	265	86 St (R)	4	398	3619	3118	1463	1034	9,633	1	1417 86 St (R)	9,633
1418	264	Bay Ridge-95 St (R)	4	247	2606	1711	701	369	5,633	1	1418 Bay Ridge-95 St (R)	5,633
1419	300	9 Av (D,M)	4	262	2293	2006	635	389	5,585	1	1419 9 Av (D,M)	5,585
1420	299	Fort Hamilton Pkwy (D,M	4	124	1147	1226	657	382	3,536	1	1420 Fort Hamilton Pkwy (D,M)	3,536
1421	298	50 St (D,M)	4	110	793	1176	714	387	3,181	1	1421 50 St (D,M)	3,181
1422	297	55 St (D,M)	4	79	533	769	432	219	2,032	1	1422 55 St (D,M)	2,032
1423	507	New Utrecht Av (N)/62 St	4	216	1619	1657	863	400	4,754	1	1423 New Utrecht Av (N)/62 St (D,M)	4,754
1424	295	71 St (D,M)	4	227	2151	1204	390	243	4,216	1	1424 71 St (D,M)	4,216
1425	294	79 St (D,M)	4	248	2583	1542	403	266	5,041	1	1425 79 St (D,M)	5,041
1426	293	18 Av (D,M)	4	252	2525	1624	588	427	5,415	1	1426 18 Av (D,M)	5,415
1427	292	20 Av (D,M)	4	198	2097	1327	439	374	4,435	1	1427 20 Av (D,M)	4,435
1428	291	Bay Pkwy (D,M)	4	275	2830	2060	738	563	6,466	1	1428 Bay Pkwy (D,M)	6,466
1429	290	25 Av (D)	4	195	1888	1164	367	268	3,882	1	1429 25 Av (D)	3,882
1430	289	Bay 50 St (D)	4	116	1019	723	240	142	2,241	1	1430 Bay 50 St (D)	2,241
1431	287	8 Av (N)	4	172	2267	3590	1718	1166	8,913	1	1431 8 Av (N)	8,913
1432	286	Fort Hamilton Pkwy (N)	4	239	2630	2070	606	401	5,946	1	1432 Fort Hamilton Pkwy (N)	5,946
1434	284	18 Av (N)	4	196	2054	1695	572	403	4,919	1	1434 18 Av (N)	4,919
1435	283	20 Av (N)	4	140	1581	1016	269	179	3,185	1	1435 20 Av (N)	3,185
1436	282	Bay Pkwy (N)	4	274	2774	1832	576	412	5,867	1	1436 Bay Pkwy (N)	5,867

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1437	281	Kings Hwy (N)	4	209	2253	1499	510	312	4,783	1	1437 Kings Hwy (N)	4,783
1438	280	Avenue U (N)	4	133	1497	1010	390	321	3,351	1	1438 Avenue U (N)	3,351
1439	279	86 St (N)	4	91	802	710	256	182	2,041	1	1439 86 St (N)	2,041
1441	323	Park Pl (S)	4	59	754	826	333	214	2,186	1	1441 Park Pl (S)	2,186
1446	158	3 Av (L)	1	239	282	1434	1531	1732	5,217	1	1446 3 Av (L)	5,217
1447	159	1 Av (L)	1	718	2785	5799	4123	4128	17,552	1	1447 1 Av (L)	17,552
1448	473	Bedford Av (L)	4	691	3868	7201	3059	3156	17,974	1	1448 Bedford Av (L)	17,974
1450	471	Graham Av (L)	4	200	2588	3184	1270	903	8,146	1	1450 Graham Av (L)	8,146
1451	470	Grand St (L)	4	204	1653	1905	1313	692	5,767	1	1451 Grand St (L)	5,767
1452	469	Montrose Av (L)	4	171	1451	1874	742	626	4,864	1	1452 Montrose Av (L)	4,864
1453	468	Morgan Av (L)	4	178	1204	1733	1111	658	4,884	1	1453 Morgan Av (L)	4,884
1454	467	Jefferson St (L)	4	211	1433	1548	897	492	4,580	1	1454 Jefferson St (L)	4,580
1455	466	DeKalb Av (L)	4	584	3817	3127	1270	868	9,665	1	1455 DeKalb Av (L)	9,665
1457	464	Halsey St (L)	4	384	2535	1767	717	459	5,863	1	1457 Halsey St (L)	5,863
1458	463	Wilson Av (L)	4	173	1155	1025	375	287	3,014	1	1458 Wilson Av (L)	3,014
1459	462	Bushwick Av-Aberdeen St	4	54	367	340	139	89	988	1	1459 Bushwick Av-Aberdeen St (L)	988
1461	460	Atlantic Av (L)	4	47	309	304	289	144	1,092	0		
1462	459	Sutter Av (L)	4	172	940	976	484	358	2,930	1	1462 Sutter Av (L)	2,930
1463	458	Livonia Av (L)	4	106	638	602	287	219	1,851	1	1463 Livonia Av (L)	1,851
1464	457	New Lots Av (L)	4	207	1051	858	463	355	2,933	1	1464 New Lots Av (L)	2,933
1465	456	East 105 St (L)	4	179	1160	925	504	336	3,104	1	1465 East 105 St (L)	3,104
1466	455	Canarsie-Rockaway Pkwy	4	842	4800	3157	1490	1063	11,352	1	1466 Canarsie-Rockaway Pkwy (L)	11,352
									4,950,702			4,951,572

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
12	B 1	4	0	1	225	3938	8383	3566	2628	18,740	1	B1	18,740	1.00			
13	B100	4	0	2	66	1,792	1,931	976	387	5,151	1	B100	5,151	1.00			
14	B103	4	0	2	33	806	694	330	52	1,915	1	B103	4,075	2.13			
15	B 11	4	0	1	186	2520	4849	2664	1782	12,001	1	B11	17,047	1.42			
16	B 12	4	0	1	749	3900	8493	3948	3211	20,301	1	B12	18,237	0.90			
17	B 13	4	0	1	160	1482	2403	1502	851	6,398	1	B13	9,524	1.49			
18	B 14	4	0	1	147	1119	3070	1616	1174	7,126	1	B14	9,762	1.37			
19	B 15	4	0	1	1275	3546	7680	3907	3967	20,375	1	B15	20,526	1.01			
20	B 16	4	0	1	113	1642	2673	1167	733	6,328	1	B16	6,350	1.00			
21	B 17	4	0	1	507	2805	3894	3072	2873	13,151	1	B17	13,151	1.00			
22	B 2	4	0	1	100	747	819	677	439	2,782	1	B2	3,374	1.21			
23	B 20	4	0	1	201	1873	2780	1781	1300	7,935	1	B20	7,935	1.00			
24	B 23	4	0	1	15	391	422	234	183	1,245	1	B23	4,305	3.46			
25	B 24	4	0	1	176	975	821	749	478	3,199	1	B24	4,600	1.44			
26	B 25	4	0	1	157	1562	5615	2877	1708	11,919	1	B25	11,106	0.93			
27	B 26	4	0	1	263	1796	4204	2329	1808	10,400	1	B26	10,959	1.05			
28	B 3	4	0	1	341	2942	4843	2851	2014	12,991	1	B 3	10,780	0.83			
29	B 31	4	0	1	98	708	646	637	382	2,471	1	B31	13,548	5.48			
30	B 35	4	0	1	1114	6397	12955	8680	7332	36,478	1	B35	32,661	0.90			
31	B 36	4	0	1	426	3820	5372	2730	2014	14,362	1	B36	12,563	0.87			
32	B 37	4	0	1	87	630	1537	795	354	3,403	1	B37	19,186	5.64			
33	B 38	4	0	1	481	4200	8710	4560	3241	21,192	1	B38	11,304	0.53			
34	B 39	4	0	1	51	183	634	327	192	1,387	1	B39	2,638	1.90			
35	B 4	4	0	1	137	1203	1891	1187	710	5,128	1	B4	14,898	2.91			
36	B 41	4	0	1	1069	5729	14634	8348	5789	35,569	1	B41	15,920	0.45			
37	B 42	4	0	1	244	1355	1352	615	477	4,043	1	B42	5,288	1.31			
38	B 43	4	0	1	311	1703	4430	2637	1949	11,030	1	B43	30,753	2.79			
39	B 44	4	0	1	1020	7812	14065	8231	6320	37,448	1	B44	34,547	0.92			
40	B 45	4	0	1	117	1091	3836	2084	1428	8,556	1	B45	17,326	2.03			
41	B 46	4	0	1	1634	9179	17192	11025	9373	48,403	1	B46	42,218	0.87			
42	B 47	4	0	1	351	2165	4527	2520	2037	11,600	1	B47	10,300	0.89			
43	B 48	4	0	1	217	1604	1484	1085	653	5,043	1	B48	5,486	1.09			
44	B 49	4	0	1	191	2913	6755	3179	2534	15,572	1	B49	8,949	0.57			
45	B 51	4	0	1	0	200	352	317	38	907	1	B51	6,561	7.23			
46	B 52	4	0	1	355	2300	5560	3061	2147	13,423	1	B52	13,082	0.97			
47	B 54	4	0	1	387	2075	4412	2431	1919	11,224	1	B54	12,726	1.13			
48	B 57	4	0	1	269	1404	1909	1172	459	5,213	1	B57	25,672	4.92			
49	B 6	4	0	1	1415	8210	13172	8574	7580	38,951	1	B6	33,401	0.86			
50	B 60	4	0	1	349	2796	5342	2655	1959	13,101	1	B60	13,247	1.01			
51	B 61	4	0	1	759	3870	5912	3567	2703	16,811	1	B61	16,592	0.99			
52	B 63	4	0	1	228	1737	6013	2977	1906	12,861	1	B63	10,776	0.84			
53	B 64	4	0	1	135	1174	2227	1256	872	5,664	1	B64	4,923	0.87			
54	B 65	4	0	1	113	840	1630	949	663	4,195	1	B65	4,060	0.97			
55	B 67	4	0	1	87	1454	2624	1438	658	6,261	1	B67	6,608	1.06			
56	B 68	4	0	1	290	2962	7338	3649	2589	16,828	1	B68	10,652	0.63			
57	B 69	4	0	1	27	618	595	443	239	1,922	1	B69	5,645	2.94			
58	B 7	4	0	1	173	1598	2215	1437	782	6,205	1	B7	6,445	1.04			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
59	B 70	4	0	1	98	1187	1479	880	592	4,236	1	B70	4,566	1.08			
60	B 71	4	0	1	9	289	355	208	104	965	1	B71	3,622	3.75			
61	B 74	4	0	1	56	784	1281	915	683	3,719	1	B74	3,744	1.01			
62	B 75	4	0	1	62	537	1514	813	372	3,298	1	B75	4,682	1.42			
63	B 77	4	0	1	145	1011	1345	964	505	3,970	1	B77	8,123	2.05			
64	B 8	4	0	1	626	4783	7519	4580	3656	21,164	1	B8	18,953	0.90			
65	B 82	4	0	1	739	5694	9978	5616	4190	26,217	1	B82	20,798	0.79			
66	B 83	4	0	1	244	1780	2965	1721	1469	8,179	1	B83	9,099	1.11			
67	B 9	4	0	1	168	2846	5316	2683	1687	12,700	1	B9	12,700	1.00			
68	BM1	4	1	2	77	937	653	487	257	2,411	1	BM1	3,000	1.24			
69	BM2	4	1	2	51	543	205	122	32	953	1	BM2	1,001	1.05			
70	BM3	4	1	2	48	549	334	212	99	1,242	1	BM3	1,242	1.00			
71	BM4	4	1	2	3	400	181	136	23	743	1	BM4	909	1.22			
72	BM5	4	1	2	12	221	97	120	51	503	1	BM5	11,702	23.28			
73	BX 1	4	1	1	273	3322	9277	4257	2880	20,009	1	BX1	18,389	0.92			
74	BX 10	4	1	1	216	2007	3565	1878	1231	8,897	1	BX10	11,622	1.31			
75	BX 11	4	1	1	331	2244	4441	2652	1968	11,636	1	BX11	29,003	2.49			
76	BX 12	4	1	1	1134	7970	15552	8080	5780	38,516	1	BX12	34,101	0.89			
77	BX 13	4	1	1	142	1783	3279	2217	1700	9,121	1	BX13	7,939	0.87			
78	BX 14	4	1	1	43	616	844	563	257	2,323	1	BX14	13,665	5.88			
79	BX 15	4	1	1	750	3684	10066	4521	3794	22,815	1	BX15	22,815	1.00			
80	BX 16	4	1	1	131	1555	1756	1263	821	5,526	1	BX16	5,834	1.06			
81	BX 17	4	1	1	208	1909	3780	2148	1663	9,708	1	BX17	5,887	0.61			
82	BX 18	4	1	1	6	389	466	410	168	1,439	1	BX18	14,861	10.33			
83	BX 19	4	1	1	953	5583	12491	6732	4843	30,602	1	BX19	28,245	0.92			
84	BX 2	4	1	1	185	3015	7890	3813	2568	17,471	1	BX2	9,923	0.57			
85	BX 20	4	1	1	8	572	588	354	244	1,766	1	BX20	7,768	4.40			
86	BX 21	4	1	1	445	3226	5829	3226	2150	14,876	1	BX21	15,924	1.07			
87	BX 22	4	1	1	372	3401	5838	3438	2329	15,378	1	BX22	6,381	0.41			
88	BX 25	4	1	1	0	423	10	250	57	740	1	BX25	1,726	2.33			
89	BX 26	4	1	1	6	1192	3022	1435	994	6,649	1	BX26	7,008	1.05			
90	BX 27	4	1	1	285	1443	2549	1518	774	6,569	1	BX27	12,855	1.96			
91	BX 28	4	1	1	543	2995	5507	2786	2358	14,189	1	BX28	9,337	0.66			
92	BX 29	4	1	1	86	340	667	551	420	2,064	1	BX29	2,875	1.39			
93	BX 3	4	1	1	254	2570	5679	3134	2708	14,345	1	BX3	14,074	0.98			
94	BX 30	4	1	1	79	1504	2779	1689	1153	7,204	1	BX30	7,632	1.06			
95	BX 31	4	1	1	247	2188	4398	2163	1515	10,511	1	BX31	9,743	0.93			
96	BX 32	4	1	1	54	1156	2389	1077	527	5,203	1	BX32	4,951	0.95			
97	BX 33	4	1	1	80	946	1318	831	393	3,568	1	BX33	3,220	0.90			
98	BX 34	4	1	1	193	1018	2067	951	554	4,783	1	BX34	11,385	2.38			
99	BX 35	4	1	1	451	2771	4898	2648	2125	12,893	1	BX35	13,594	1.05			
100	BX 36	4	1	1	977	6063	9808	5662	4592	27,102	1	BX36	25,381	0.94			
101	BX 39	4	1	1	53	2117	4516	2524	1954	11,164	1	BX39	15,437	1.38			
102	BX 4	4	1	1	168	1959	5709	2442	1839	12,117	1	BX4	11,232	0.93			
103	BX 40	4	1	1	529	2632	4979	2549	1862	12,551	1	BX40	14,203	1.13			
104	BX 41	4	1	1	665	4974	9618	5510	3943	24,710	1	BX41	21,308	0.86			
105	BX 42	4	1	1	327	2713	4686	2707	1912	12,345	1	BX42	11,181	0.91			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
106	BX 5	4	1	1	255	2634	4151	2494	1822	11,356	1	BX5	11,387	1.00			
107	BX 55	4	1	1	412	3705	5537	3147	1695	14,496	1	BX55	18,800	1.30			
108	BX 6	4	1	1	1126	4437	8173	4149	3066	20,951	1	BX6	20,583	0.98			
109	BX 7	4	1	1	224	2648	5528	3162	1998	13,560	1	BX7	12,900	0.95			
110	BX 8	4	1	1	39	1509	2524	1223	442	5,737	1	BX8	10,558	1.84			
111	BX 9	4	1	1	722	5404	8854	5253	4198	24,431	1	BX9	22,950	0.94			
112	BxM1	4	1	2	46	606	688	405	298	2,042	1	BxM1	2,042	1.00			
113	BxM10	4	1	2	46	701	483	573	290	2,093	1	BxM10	3,399	1.62			
114	BxM11	4	1	2	42	446	382	409	261	1,541	1	BxM11	1,541	1.00			
115	BxM18	4	1	2	-	146	9	60	7	223	1	BxM18	223	1.00			
116	BxM2	4	1	2	9	324	351	265	196	1,146	1	BxM2	1,972	1.72			
117	BxM3	4	1	2	45	377	239	248	141	1,050	1	BxM3	994	0.95			
118	BxM4A	4	1	2	2	70	66	88	57	283	1	BxM4A	282	1.00			
119	BxM4B	4	1	2	8	120	88	99	55	370	1	BxM4B	2,467	6.67			
120	BxM6	4	1	2	10	292	147	253	124	826	1	BxM6	1,609	1.95			
121	BxM7	4	1	2	194	1,107	959	889	706	3,856	1	BxM7	4,928	1.28			
122	BxM7A	4	1	2	46	747	459	679	280	2,210	1	BxM7A	2,210	1.00			
123	BxM7B	4	1	2	0	50	5	35	-	91	1	BxM7B	91	1.00			
124	BxM9	4	1	2	140	856	601	617	290	2,504	1	BxM9	2,504	1.00			
126	M 1	1	0	1	205	2430	7654	4224	1597	16,110	1	M1	14,450	0.90		125	10,994
127	M 10	1	0	1	183	1424	4664	2540	1811	10,622	1	M10	17,254	1.62			
128	M 100	1	0	1	334	2401	7905	3770	2788	17,198	1	M100	23,539	1.37			
129	M 101	1	0	1	953	5899	13753	7418	5550	33,573	1	M101	30,041	0.89			
130	M 102	1	0	1	414	2285	6926	4229	3239	17,093	1	M102	19,993	1.17			
131	M 103	1	0	1	370	1732	6614	3605	2626	14,947	1	M103	15,654	1.05			
132	M 104	1	0	1	460	2337	10210	5960	3822	22,789	1	M104	22,789	1.00			
133	M 106	1	0	1	1	447	854	503	100	1,905	1	M106	1,991	1.05			
134	M 11	1	0	1	154	1893	6513	2845	1866	13,271	1	M11	11,724	0.88			
135	M 116	1	0	1	105	1837	3060	1856	991	7,849	1	M116	26,640	3.39			
136	M 14	1	0	1	996	7476	13835	8129	6322	36,758	1	M14	60,458	1.64			
137	M 15	1	0	1	1132	10977	21887	11652	8037	53,685	1	M15	43,232	0.81			
138	M 16	1	0	1	114	1709	3436	1825	982	8,066	1	M16	4,562	0.57			
139	M 18	1	0	1	0	209	352	245	93	899	1	M18	3,753	4.17			
140	M 2	1	0	1	179	1835	5726	3823	2148	13,711	1	M2	11,662	0.85			
141	M 20	1	0	1	35	427	2158	1281	830	4,731	1	M20	4,578	0.97			
142	M 21	1	0	1	16	478	736	409	191	1,830	1	M21	4,943	2.70			
143	M 22	1	0	1	61	1121	1438	1068	381	4,069	1	M22	11,005	2.70			
144	M 23	1	0	1	232	2830	7905	4821	2589	18,377	1	M23	12,203	0.66			
145	M 27	1	0	1	63	1213	1008	645	282	3,211	1	M27	5,480	1.71			
146	M 3	1	0	1	127	2186	8006	4072	2441	16,832	1	M3	14,533	0.86			
147	M 30	1	0	1	0	593	242	655	89	1,579	1	M30	8,549	5.41			
148	M 31	1	0	1	153	2528	5409	3065	1931	13,086	1	M31	11,428	0.87			
149	M 34	1	0	1	105	1748	3876	1910	946	8,585	1	M34	1,121	0.13			
150	M 35	1	0	1	92	613	848	503	525	2,581	1	M35	8,893	3.45			
151	M 4	1	0	1	78	4361	9717	5550	2673	22,379	1	M 4	20,410	0.91			
152	M 42	1	0	1	254	3161	5543	2967	1355	13,280	1	M42	13,873	1.04			
153	M 5	1	0	1	141	1967	5003	2783	2113	12,007	1	M5	10,316	0.86			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
154	M 50	1	0	1	147	697	1489	1095	554	3,982	1	M50	3,911	0.98			
155	M 57	1	0	1	92	1307	3349	2260	1387	8,395	1	M57	7,441	0.89			
156	M 6	1	0	1	47	416	2715	1358	591	5,127	1	M 6	6,577	1.28			
157	M 60	1	0	1	765	2765	5158	2821	2737	14,246	1	M60	14,998	1.05			
158	M 66	1	0	1	180	2691	5141	3587	2150	13,749	1	M66	13,312	0.97			
159	M 7	1	0	1	344	1613	7157	4272	3010	16,396	1	M7	14,992	0.91			
160	M 72	1	0	1	31	1086	3053	1589	853	6,612	1	M72	10,419	1.58			
161	M 79	1	0	1	166	3899	7395	4432	2580	18,472	1	M79	9,712	0.53			
162	M 8	1	0	1	32	754	1048	661	402	2,897	1	M 8	23,315	8.05			
163	M 86	1	0	1	349	5705	10741	6314	4171	27,280	1	M86	26,047	0.95			
164	M 9	1	0	1	2	967	2462	1366	553	5,350	1	M 9	14,833	2.77			
165	M 96	1	0	1	203	3067	5928	3737	2165	15,100	1	M96	13,854	0.92			
166	M 98	1	0	1	1	1568	544	1225	159	3,497	1	M98	3,497	1.00			
177	Q 1	2	0	1	239	885	1361	1175	922	4,582	1	Q1	7,397	1.61		169	194
178	Q10	2	0	2	1,287	4,922	8,180	3,922	4,103	22,413	1	Q10	20,544	0.92		171	371
179	Q101/R	2	0	2	230	1,582	2,933	1,053	912	6,711	1	Q101/R	6,566	0.98		172	645
180	Q102	2	0	2	120	943	1,118	353	475	3,010	1	Q102	3,010	1.00		173	371
181	Q103	2	0	2	-	263	135	110	1	508	1	Q103	2,265	4.46		175	645
182	Q104	2	0	2	7	686	1,183	439	291	2,605	1	Q104	7,060	2.71		176	1,937
183	Q11	2	0	2	403	2,654	4,450	2,207	1,654	11,368	1	Q11	10,924	0.96			
184	Q110	2	0	2	175	2,070	2,634	1,408	737	7,024	1	Q110	18,016	2.57			
185	Q111	2	0	2	464	4,087	4,703	2,543	1,916	13,712	1	Q111	2,984	0.22			
186	Q112	2	0	2	73	1,617	2,054	907	502	5,153	1	Q112	12,270	2.38			
187	Q113	2	0	2	445	2,583	3,831	1,810	1,511	10,180	1	Q113	9,738	0.96			
188	Q 12	2	0	1	337	1996	3059	2078	2021	9,491	1	Q12	12,214	1.29			
189	Q 13	2	0	1	202	1568	3122	1836	1507	8,235	1	Q13	7,279	0.88			
190	Q 14	2	0	1	63	622	521	441	247	1,894	1	Q14	5,383	2.84			
191	Q 15	2	0	1	129	1203	1235	969	862	4,398	1	Q15	2,005	0.46			
192	Q 16	2	0	1	104	1046	1030	853	494	3,527	1	Q16	5,619	1.59			
193	Q 17	2	0	1	527	3237	5453	3580	3531	16,328	1	Q17	16,084	0.99			
194	Q18	2	0	2	173	2,070	3,221	1,179	1,030	7,673	1	Q18	7,673	1.00			
195	Q19,A,B	2	0	2	523	5,439	6,618	3,082	2,517	18,178	1	Q19	18,178	1.00			
196	Q 2	2	0	1	305	1103	1784	1267	1135	5,594	1	Q2	6,387	1.14			
197	Q 20	2	0	1	193	2782	4882	2823	2339	13,019	1	Q20	7,153	0.55			
200	Q21	2	0	2	0	334	390	162	60	947	1	Q21	949	1.00		198	1,307
201	Q22	2	0	2	105	1,949	2,934	1,039	695	6,722	1	Q22	15,409	2.29		199	382
202	Q23	2	0	2	314	3,584	4,750	2,787	2,675	14,109	1	Q23	11,786	0.84			
203	Q 24	2	0	1	533	1971	3909	2116	1641	10,170	1	Q24	17,881	1.76			
204	Q25	2	0	2	422	3,948	5,147	1,637	1,754	12,908	1	Q25	3,719	0.29			
205	Q 26	2	0	1	51	723	445	408	243	1,870	1	Q26	5,678	3.04			
206	Q 27	2	0	1	586	4590	7165	3903	3260	19,504	1	Q27	19,134	0.98			
207	Q 28	2	0	1	271	2229	2805	1548	1401	8,254	1	Q28	8,714	1.06			
208	Q29	2	0	2	155	1,566	2,349	1,181	787	6,039	1	Q29	4,363	0.72			
209	Q 3	2	0	1	679	1584	3254	1686	1757	8,960	1	Q3	8,921	1.00			
210	Q 30	2	0	1	139	1819	3015	1358	919	7,250	1	Q30	6,593	0.91			
211	Q 31	2	0	1	37	1321	1383	1050	525	4,316	1	Q31	7,007	1.62			
212	Q 32	2	0	1	373	2435	5502	3099	2561	13,970	1	Q32	12,639	0.90			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
213	Q33	2	0	2	504	1,818	3,424	1,286	1,616	8,647	1	Q33	6,936	0.80			
214	Q34	2	0	2	39	1,429	3,574	1,147	766	6,955	1	Q34	5,517	0.79			
215	Q35	2	0	2	118	1,066	1,559	707	561	4,012	1	Q35	6,139	1.53			
216	Q 36	2	0	1	329	1173	1745	1193	883	5,323	1	Q36	5,274	0.99			
217	Q37	2	0	2	156	1,899	2,023	1,303	806	6,186	1	Q37	6,186	1.00			
218	Q38	2	0	2	89	2,272	2,713	1,435	1,020	7,529	1	Q38	7,539	1.00			
219	Q39	2	0	2	255	2,459	2,499	973	553	6,740	1	Q39	10,959	1.63			
220	Q 4	2	0	1	653	2126	2997	2148	1837	9,761	1	Q4	8,900	0.91			
221	Q40	2	0	2	194	1,373	1,861	1,045	705	5,177	1	Q40	4,512	0.87			
222	Q41	2	0	2	137	1,981	2,568	1,234	818	6,738	1	Q41	2,548	0.38			
223	Q 42	2	0	1	43	401	318	280	161	1,203	1	Q42	12,699	10.56			
224	Q 43	2	0	1	498	3721	4780	3016	2173	14,188	1	Q43	19,508	1.37			
225	Q 44	2	0	1	1466	5171	6983	4293	3814	21,727	1	Q44	21,727	1.00			
226	Q45	2	0	2	90	1,002	829	722	525	3,169	1	Q45	19,745	6.23			
227	Q 46	2	0	1	616	4832	6546	4725	3248	19,967	1	Q46	230	0.01			
228	Q47	2	0	2	80	1,141	1,448	634	616	3,918	1	Q47	4,113	1.05			
229	Q 48	2	0	1	163	622	987	534	517	2,823	1	Q48	6,847	2.43			
231	Q 5	2	0	1	556	2032	3507	2680	2298	11,073	1	Q5	7,119	0.64		230	5,460
232	Q53	2	0	2	107	1,787	3,505	965	1,272	7,636	1	Q53	8,883	1.16			
233	Q 54	2	0	1	643	2942	3909	2621	1615	11,730	1	Q54	11,084	0.94			
234	Q 55	2	0	1	354	1719	2462	1834	1183	7,552	1	Q55	6,880	0.91			
235	Q 56	2	0	1	378	1657	4003	2093	1448	9,579	1	Q56	10,294	1.07			
236	Q 58	2	0	1	1246	5532	8389	5257	4742	25,166	1	Q58	20,359	0.81			
237	Q 59	2	0	1	244	1709	1833	1516	854	6,156	1	Q59	5,346	0.87			
238	Q6	2	0	2	487	2,925	3,873	2,107	1,480	10,873	1	Q6	13,841	1.27			
239	Q60	2	0	2	328	2,439	7,375	2,067	2,328	14,536	1	Q60	14,863	1.02			
241	Q64/65/65	2	0	2	815	8,538	11,472	4,293	3,816	28,934	1	Q64/65/65A	27,365	0.95		240	9,851
242	Q66	2	0	2	407	4,375	5,384	2,079	1,928	14,173	1	Q66	14,173	1.00			
243	Q67	2	0	2	153	1,270	924	409	100	2,856	1	Q67	4,447	1.56			
245	Q7	2	0	2	104	1,783	2,073	767	508	5,236	1	Q7	8,768	1.67			
246	Q72	2	0	2	197	1,620	2,362	717	780	5,678	1	Q72	6,260	1.10		244	1,092
247	Q 74	2	0	1	0	427	602	428	238	1,695	0						
248	Q 75	2	0	1	34	384	255	209	73	955	1	Q75	687	0.72			
249	Q 76	2	0	1	65	1222	1655	986	450	4,378	1	Q76	3,770	0.86			
250	Q 77	2	0	1	0	1448	1954	1233	495	5,130	0						
251	Q 79	2	0	1	0	122	232	144	32	530	1	Q79	1,636	3.09			
252	Q8	2	0	2	188	1,960	2,773	1,198	847	6,968	1	Q8	6,973	1.00			
253	Q 83	2	0	1	550	2078	2482	1963	1739	8,812	1	Q83	7,954	0.90			
254	Q 84	2	0	1	223	1307	1257	965	801	4,553	1	Q84	9,205	2.02			
255	Q 85	2	0	1	650	2359	3473	2364	2003	10,849	1	Q85	10,468	0.96			
256	Q 88	2	0	1	34	1835	3650	1788	1226	8,533	1	Q88	1,514	0.18			
257	Q9/9A	2	0	2	131	1,324	1,810	1,060	412	4,737	1	Q9/9A	7,112	1.50			
258	QBx1	2	0	2	183	2,486	2,522	935	832	6,959	1	QBx1	6,959	1.00			
259	QM1	2	0	2	10	1,033	382	153	40	1,619	1	QM1	126	0.08			
260	QM10	2	0	2	-	338	121	97	13	569	1	QM10	569	1.00			
261	QM11	2	0	2	-	318	62	95	2	477	1	QM11	477	1.00			
262	QM12	2	0	2	-	376	95	81	9	561	1	QM12	568	1.01			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
263	QM15	2	0	2	9	601	211	171	79	1,071	1	QM15	1,163	1.09			
264	QM16	2	0	2	-	109	52	43	-	204	1	QM16	204	1.00			
265	QM17	2	0	2	0	167	73	44	0	284	1	QM17	143	0.50			
266	QM18	2	0	2	-	168	54	19	0	242	1	QM18	705	2.91			
267	QM1A	2	0	2	54	1,658	699	1,041	394	3,846	1	QM1A	3,846	1.00			
268	QM2	2	0	2	28	835	450	439	210	1,961	0						
269	QM21	2	0	2	3	353	48	216	80	699	1	QM21	699	1.00			
270	QM22	2	0	2	-	35	17	11	-	62	1	QM22	62	1.00			
271	QM23	2	0	2	-	13	1	10	-	24	1	QM23	24	1.00			
272	QM24	2	0	2	-	1,208	336	281	9	1,835	1	QM24	1,835	1.00			
273	QM2A	2	0	2	32	588	256	284	122	1,281	1	QM2A	1,281	1.00			
274	QM3	2	0	2	-	107	2	62	0	171	1	QM3	2,656	15.50			
275	QM4	2	0	2	36	545	195	185	75	1,036	1	QM4	1,036	1.00			
276	S 40	5	0	1	341	871	1070	611	632	3,525	1	S40	3,525	1.00			
277	S 42	5	0	1	108	348	386	367	431	1,640	1	S42	1,724	1.05			
278	S 44	5	0	1	211	1214	2139	858	919	5,341	1	S44	6,008	1.12			
279	S 46	5	0	1	398	1201	2250	963	762	5,574	1	S46	5,122	0.92			
280	S 48	5	0	1	365	979	2682	1126	1132	6,284	1	S48	6,284	1.00			
281	S 51	5	0	1	257	977	1413	806	646	4,099	1	S51	4,099	1.00			
282	S 52	5	0	1	115	554	1088	678	521	2,956	1	S52	3,197	1.08			
283	S 53	5	0	1	499	1781	3002	1720	1444	8,446	1	S53	8,446	1.00			
284	S 54	5	0	1	10	395	473	231	140	1,249	0						
285	S 55	5	0	1	0	58	115	52	7	232	1	S55	232	1.00			
286	S 56	5	0	1	0	100	211	78	1	390	1	S56	390	1.00			
287	S 57	5	0	1	22	367	494	235	182	1,300	1	S57	1,446	1.11			
288	S 59	5	0	1	106	841	1316	858	512	3,633	0						
289	S 60	5	0	1	0	45	48	20	10	123	1	S60	234	1.90			
290	S 61	5	0	1	101	425	1395	508	505	2,934	1	S61	3,207	1.09			
291	S 62	5	0	1	318	718	1916	738	742	4,432	1	S62	4,432	1.00			
292	S 66	5	0	1	116	426	565	382	410	1,899	0						
293	S 67	5	0	1	11	274	58	280	3	626	1	S67	661	1.06			
294	S 74	5	0	1	444	1234	1656	916	803	5,053	1	S74	3,759	0.74			
295	S 76	5	0	1	92	909	1598	549	606	3,754	1	S76	3,661	0.98			
296	S 78	5	0	1	319	1115	2215	960	734	5,343	1	S78	7,009	1.31			
297	S 79	5	0	1	204	1523	2859	1795	1229	7,610	0						
298	S 81	5	0	1	0	0	0	198	3	201	0						
299	S 84	5	0	1	0	0	0	141	51	192	0						
300	S 86	5	0	1	0	0	4	333	12	349	0						
301	S 89	5	0	1	28	345	36	355	27	791	0						
302	S 90	5	0	1	1	303	0	304	48	656	1	S90	612	0.93			
303	S 91	5	0	1	0	424	8	374	61	867	0						
304	S 92	5	0	1	0	289	6	278	10	583	1	S92	674	1.16			
305	S 93	5	0	1	1	497	130	438	57	1,123	0						
306	S 94	5	0	1	0	180	2	426	52	660	0						
307	S 96	5	0	1	5	436	4	361	189	995	0						
308	S 98	5	0	1	1	440	7	524	109	1,081	1	S98	1,757	1.63			
309	X 1	3	0	1	718	1178	2054	1382	1255	6,587	1	X 1	6,578	1.00			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
310	X 10	3	0	1	145	725	972	606	674	3,122	1	X10	439	0.14			
311	X 11	3	0	1	5	516	6	491	8	1,026	1	X11	983	0.96			
312	X 12	3	0	1	210	981	173	584	117	2,065	1	X12	2,065	1.00			
313	X 13	3	0	1	13	236	17	138	0	404	1	X13	404	1.00			
314	X 14	3	0	1	47	357	25	283	1	713	1	X14	713	1.00			
315	X 15	3	0	1	76	587	119	459	41	1,282	0						
316	X 16	3	0	1	0	179	27	126	0	332	1	X16	332	1.00			
317	X 17	3	0	1	396	2111	1070	1622	662	5,861	1	X17	5,861	1.00			
320	X 18	3	0	1	0	251	17	93	1	362	1	X18	362	1.00		318	1,543
321	X 19	3	0	1	119	512	157	414	2	1,204	1	X19	1,156	0.96			
322	X 2	3	0	1	147	738	84	577	7	1,553	1	X 2	574	0.37			
323	X 20	3	0	1	0	39	4	20	0	63	1	X20	63	1.00			
324	X 22	3	0	1	184	972	138	625	78	1,997	1	X22	1,801	0.90			
327	X 25	3	0	1	0	14	3	15	0	32	1	X25	32	1.00			
328	X 27	3	0	1	88	994	445	567	321	2,415	1	X27	2,354	0.97		325	484
329	X 28	3	0	1	63	919	399	657	245	2,283	1	X28	2,283	1.00		326	138
330	X 29	3	0	1	0	357	12	268	2	639	1	X29	639	1.00			
331	X 3	3	0	1	0	345	34	190	1	570	0						
332	X 30	3	0	1	13	524	3	361	0	901	1	X30	901	1.00			
333	X 31	3	0	1	63	472	32	349	8	924	1	X31	743	0.80			
334	X 32	3	0	1	0	29	10	0	0	39	1	X32	164	4.21			
335	X 37	3	0	1	0	766	13	534	119	1,432	1	X37	1,369	0.96			
336	X 38	3	0	1	39	807	42	551	85	1,524	1	X38	1,524	1.00			
337	X 4	3	0	1	9	341	46	294	25	715	1	X 4	715	1.00			
338	X 42	3	0	1	1	179	0	138	0	318	1	X42	318	1.00			
339	X 5	3	0	1	177	798	245	713	88	2,021	1	X 5	1,633	0.81			
340	X 51	3	0	1	3	251	27	103	32	416	1	X51	416	1.00			
341	X 6	3	0	1	95	594	15	305	15	1,024	1	X 6	941	0.92			
342	X 63	3	0	1	1	440	2	360	7	810	0						
343	X 64	3	0	1	0	286	0	230	0	516	1	X64	516	1.00			
344	X 68	3	0	1	0	375	20	323	0	718	1	X68	718	1.00			
347	X 7	3	0	1	55	481	73	306	12	927	0						
348	X 8	3	0	1	33	752	106	399	5	1,295	1	X8	1,295	1.00		345	271
349	X 9	3	0	1	4	483	2	312	14	815	1	X9	815	1.00			
350	X 90	3	0	1	0	395	39	301	39	774	0						
351	B OTHER	4	0	1	19	26	42	13	31	131	0					361	1,660
352	B RAPID	4	0	1	4	3	4	2	1	14	0					362	4,331
353	BXOTHER	4	1	1	4	6	11	2	11	34	0					363	12,615
354	BXRAPID	4	1	1	0	0	0	1	0	1	0					364	353
355	M LENOX S	1	0	1	0	0	0	0	1	1	0					365	635
356	M OTHER	1	0	1	4	19	36	13	18	90	0					366	259
357	M RAPID	1	0	1	0	1	3	1	1	6	0					367	2,003
358	Q OTHER	2	0	1	10	10	23	14	25	82	0					368	1,398
359	Q RAPID	2	0	1	13	0	0	3	0	16	0					369	2,865
360	S OTHER	5	0	1	4	15	25	13	16	73	1	S OTHER	359	5		370	1,194
																371	2,382
										2,472,069			2,674,479			372	472

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS - WEEKDAY

SURVEY: BOARDINGS with EXP31_FINAL_WKD

SURVEY TRIP RECORDS ONLY - WITHOUT TRAVEL IMPUTATION for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR

BUSROUTE_ID	BUS BOARDINGS:	BUSROUTE_ID	No Counts
		373	285
		375	779
		376	2,704
		377	796
		380	1,894
		381	795

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4P	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
									5,040,555			**4,951,569**
1000	4	South Ferry (1)	1	389	3433	4536	4106	1393	13,857	1	1000 South Ferry (1)	13,857
1001	5	Rector St (1)	1	80	1015	2894	3038	929	7,955	1	1001 Rector St (1)	7,955
1003	7	Chambers St (1,2,3)	1	227	1275	6565	5624	3597	17,289	1	1003 Chambers St (1,2,3)	17,289
1004	8	Franklin St (1)	1	113	427	2164	2210	1043	5,959	1	1004 Franklin St (1)	5,959
1005	9	Canal St (1)	1	80	227	2084	2131	1040	5,563	1	1005 Canal St (1)	5,563
1006	10	Houston St (1)	1	216	727	4819	5577	2270	13,609	1	1006 Houston St (1)	13,609
1007	11	Christopher St-Sheridan	1	503	1404	3470	2169	2708	10,254	1	1007 Christopher St-Sheridan Sq (1)	10,254
1008	226	14 St (F,V,1,2,3)/6 Av (L)	1	1383	4754	15137	14128	12538	47,941	1	1008 14 St (F,V,1,2,3)/6 Av (L)	47,941
1009	13	18 St (1)	1	136	637	2806	2698	1501	7,777	1	1009 18 St (1)	7,777
1010	14	23 St (1)	1	344	1372	4960	4206	3523	14,406	1	1010 23 St (1)	14,406
1011	15	28 St (1)	1	202	765	4604	4638	2400	12,609	1	1011 28 St (1)	12,609
1012	16	34 St-Penn Station (1,2,3	1	1722	27380	29101	20091	13844	92,138	1	1012 34 St-Penn Station (1,2,3)	92,138
1013	229	Times Sq-42 St (N,Q,R,S,V	1	7120	33390	55031	51025	42936	189,502	1	1013 Times Sq-42 St (N,Q,R,S,W,1,2,3,7)/	189,502
1014	18	50 St (1)	1	739	1264	6578	10455	6630	25,666	1	1014 50 St (1)	25,666
1015	233	59 St-Columbus Circle (A,	1	1560	4258	21269	21770	16320	65,177	1	1015 59 St-Columbus Circle (A,B,C,D,1)	65,177
1016	20	66 St-Lincoln Center (1)	1	345	2160	7052	6071	5377	21,005	1	1016 66 St-Lincoln Center (1)	21,005
1017	21	72 St (1,2,3)	1	812	6763	12806	8191	7622	36,194	1	1017 72 St (1,2,3)	36,194
1018	22	79 St (1)	1	299	2651	5900	3882	3386	16,118	1	1018 79 St (1)	16,118
1019	23	86 St (1)	1	337	3659	6799	4208	3454	18,457	1	1019 86 St (1)	18,457
1020	24	96 St (1,2,3)	1	797	8251	13461	7014	5715	35,237	1	1020 96 St (1,2,3)	35,237
1021	25	103 St (1)	1	256	2937	5294	2590	2061	13,137	1	1021 103 St (1)	13,137
1022	26	Cathedral Pkwy-110 St (1	1	253	2480	5026	3077	2372	13,209	1	1022 Cathedral Pkwy-110 St (1)	13,209
1023	27	116 St-Columbia Univers	1	224	1294	5246	5282	3245	15,291	1	1023 116 St-Columbia University (1)	15,291
1024	28	125 St (1)	1	210	1523	2684	1505	1135	7,057	1	1024 125 St (1)	7,057
1025	29	137 St-City College (1)	1	521	3042	5124	2440	1999	13,125	1	1025 137 St-City College (1)	13,125
1026	30	145 St (1)	1	427	2252	3560	1405	1226	8,871	1	1026 145 St (1)	8,871
1027	31	157 St (1)	1	472	2557	3563	1401	1077	9,070	1	1027 157 St (1)	9,070
1028	235	168 St (A,C,1)	1	729	4026	7934	6600	3022	22,311	1	1028 168 St (A,C,1)	22,311
1029	33	181 St (1)	1	495	2295	3931	1937	1530	10,188	1	1029 181 St (1)	10,188
1030	34	191 St (1)	1	382	2147	2514	1023	793	6,858	1	1030 191 St (1)	6,858
1031	35	Dyckman St (1)	1	393	2035	2534	1052	836	6,849	1	1031 Dyckman St (1)	6,849
1032	36	207 St (1)	1	279	1415	1757	878	772	5,101	1	1032 207 St (1)	5,101
1033	37	215 St (1)	1	54	384	713	346	217	1,713	1	1033 215 St (1)	1,713
1034	38	Marble Hill-225 St (1)	1	269	1525	1754	924	785	5,258	1	1034 Marble Hill-225 St (1)	5,257
1035	39	231 St (1)	3	346	2845	2805	1271	872	8,139	1	1035 231 St (1)	8,139
1036	40	238 St (1)	3	196	1562	1086	411	295	3,549	1	1036 238 St (1)	3,549
1037	41	Van Cortlandt Park-242 S	3	254	2229	1945	922	574	5,924	1	1037 Van Cortlandt Park-242 St (1)	5,924
1038	42	Central Park North-110 S	1	247	1980	2595	1286	919	7,027	1	1038 Central Park North-110 St (2,3)	7,027
1039	43	116 St (2,3)	1	253	2370	3432	1765	1346	9,166	1	1039 116 St (2,3)	9,166

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1040	44	125 St (2,3)	1	314	1906	5366	3322	2252	13,160	1	1040 125 St (2,3)	13,160
1041	45	135 St (2,3)	1	429	2972	4244	2355	1610	11,610	1	1041 135 St (2,3)	11,610
1042	46	145 St (3)	1	54	947	907	336	201	2,444	1	1042 145 St (3)	2,444
1043	47	Harlem-148 St (3)	1	66	1132	1003	350	198	2,748	1	1043 Harlem-148 St (3)	2,748
1044	236	149 St-Grand Concourse (	3	359	1793	4020	2299	1552	10,023	1	1044 149 St-Grand Concourse (2,4,5)	10,023
1045	86	3 Av-149 St (2,5)	3	912	5698	8576	4260	2405	21,851	1	1045 3 Av-149 St (2,5)	21,851
1046	87	Jackson Av (2,5)	3	226	1423	1558	634	444	4,285	1	1046 Jackson Av (2,5)	4,285
1047	88	Prospect Av (2,5)	3	367	1748	2380	1056	712	6,263	1	1047 Prospect Av (2,5)	6,263
1048	89	Intervale Av (2,5)	3	141	717	843	393	259	2,353	1	1048 Intervale Av (2,5)	2,353
1049	90	Simpson St (2,5)	3	400	2216	3056	1445	1027	8,144	1	1049 Simpson St (2,5)	8,144
1050	91	Freeman St (2,5)	3	217	1039	1142	426	315	3,139	1	1050 Freeman St (2,5)	3,139
1051	92	174 St (2,5)	3	428	1898	2063	848	587	5,825	1	1051 174 St (2,5)	5,825
1052	93	West Farms Sq-East Trer	3	371	1606	2363	1229	743	6,312	1	1052 West Farms Sq-East Tremont Av (2,5	6,312
1053	94	East 180 St (2,5)	3	398	2342	1678	809	474	5,702	1	1053 East 180 St (2,5)	5,702
1054	95	Bronx Park East (2,5)	3	165	1025	816	331	223	2,559	1	1054 Bronx Park East (2,5)	2,559
1055	96	Pelham Pkwy (2,5)	3	417	2507	2423	1130	778	7,255	1	1055 Pelham Pkwy (2,5)	7,255
1056	97	Allerton Av (2,5)	3	328	1723	1536	628	483	4,698	1	1056 Allerton Av (2,5)	4,698
1057	98	Burke Av (2,5)	3	247	1270	927	335	265	3,044	1	1057 Burke Av (2,5)	3,044
1058	99	Gun Hill Rd (2,5)	3	335	1595	1619	693	599	4,841	1	1058 Gun Hill Rd (2,5)	4,841
1059	100	219 St (2,5)	3	203	1005	829	293	260	2,591	1	1059 219 St (2,5)	2,591
1060	101	225 St (2,5)	3	268	1323	997	349	313	3,250	1	1060 225 St (2,5)	3,250
1061	102	233 St (2,5)	3	298	1625	1389	584	439	4,335	1	1061 233 St (2,5)	4,335
1062	103	Nereid Av (2,5)	3	159	1086	832	394	289	2,760	1	1062 Nereid Av (2,5)	2,760
1063	104	Wakefield-241 St (2)	3	321	1219	1142	678	504	3,864	1	1063 Wakefield-241 St (2)	3,864
1064	105	Morris Park (5)	3	125	992	531	159	81	1,887	1	1064 Morris Park (5)	1,887
1065	106	Pelham Pkwy (5)	3	213	1151	811	351	146	2,671	1	1065 Pelham Pkwy (5)	2,671
1066	107	Gun Hill Rd (5)	3	446	2418	1665	581	409	5,520	1	1066 Gun Hill Rd (5)	5,520
1067	108	Baychester Av (5)	3	215	1413	907	387	261	3,182	1	1067 Baychester Av (5)	3,182
1068	109	Eastchester-Dyre Av (5)	3	259	1819	1003	622	280	3,982	1	1068 Eastchester-Dyre Av (5)	3,982
1069	219	Chambers St (A,C)/WTC (	1	677	4498	17715	22884	9064	54,838	1	1069 Chambers St (A,C)/WTC (E)/Park Pla	54,838
1070	218	Fulton St (J,M,Z,2,3,4,5)/E	1	783	4776	20505	32039	11219	69,322	1	1070 Fulton St (J,M,Z,2,3,4,5)/Broadway-I	69,322
1071	1	Wall St (2,3)	1	138	1153	6598	15188	4036	27,113	1	1071 Wall St (2,3)	27,113
1072	263	Clark St (2,3)	4	48	1437	1988	925	694	5,092	1	1072 Clark St (2,3)	5,092
1073	499	Court St (M,R)/Borough H	4	359	4862	15680	10660	4581	36,142	1	1073 Court St (M,R)/Borough Hall (2,3,4,5	36,142
1074	261	Hoyt St (2,3)	4	31	339	2599	2047	1022	6,039	1	1074 Hoyt St (2,3)	6,039
1075	260	Nevins St (2,3,4,5)	4	193	1188	4414	3071	1960	10,826	1	1075 Nevins St (2,3,4,5)	10,826
1076	503	Atlantic Av (B,Q,2,3,4,5)/I	4	695	8649	9854	6421	4744	30,363	1	1076 Atlantic Av (B,Q,2,3,4,5)/Pacific St	30,363
1077	258	Bergen St (2,3)	4	61	1278	1499	649	477	3,964	1	1077 Bergen St (2,3)	3,964
1078	257	Grand Army Plaza (2,3)	4	110	2619	2792	1221	840	7,582	1	1078 Grand Army Plaza (2,3)	7,582
1079	256	Eastern Pkwy-Brooklyn M	4	99	1295	1823	925	453	4,596	1	1079 Eastern Pkwy-Brooklyn Museum (2,	4,596

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4P	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1080	505	Franklin Av (2,3,4,5)/Bota	4	450	3663	4282	1612	1371	11,377	1	1080 Franklin Av (2,3,4,5)/Botanic Garder	11,377
1081	247	Nostrand Av (3)	4	169	982	1245	558	501	3,456	1	1081 Nostrand Av (3)	3,456
1082	246	Kingston Av (3)	4	222	1463	1772	693	410	4,559	1	1082 Kingston Av (3)	4,559
1083	245	Crown Heights-Utica Av (	4	1314	10986	9006	2709	2213	26,228	1	1083 Crown Heights-Utica Av (3,4)	26,228
1084	244	Sutter Av-Rutland Rd (3)	4	529	2577	2212	685	639	6,642	1	1084 Sutter Av-Rutland Rd (3)	6,642
1085	243	Saratoga Av (3)	4	428	2124	1577	536	404	5,068	1	1085 Saratoga Av (3)	5,068
1086	242	Rockaway Av (3)	4	304	1790	1833	666	485	5,078	1	1086 Rockaway Av (3)	5,078
1087	241	Junius St (3)	4	97	632	621	277	184	1,810	1	1087 Junius St (3)	1,810
1088	240	Pennsylvania Av (3)	4	317	1775	1784	740	547	5,164	1	1088 Pennsylvania Av (3)	5,164
1089	239	Van Siclen Av (3)	4	166	1184	871	258	220	2,699	1	1089 Van Siclen Av (3)	2,699
1090	238	New Lots Av (3)	4	408	1998	1685	669	510	5,269	1	1090 New Lots Av (3)	5,269
1091	254	President St (2,5)	4	113	1075	1155	432	340	3,114	1	1091 President St (2,5)	3,114
1092	253	Sterling St (2,5)	4	241	1888	1783	605	433	4,951	1	1092 Sterling St (2,5)	4,951
1093	252	Winthrop St (2,5)	4	246	1848	2235	1369	525	6,223	1	1093 Winthrop St (2,5)	6,223
1094	251	Church Av (2,5)	4	553	3421	2884	996	870	8,724	1	1094 Church Av (2,5)	8,724
1095	250	Beverly Rd (2,5)	4	255	1660	1168	338	327	3,748	1	1095 Beverly Rd (2,5)	3,748
1096	249	Newkirk Av (2,5)	4	479	3362	2194	631	560	7,227	1	1096 Newkirk Av (2,5)	7,227
1097	248	Brooklyn College-Flatbust	4	986	8086	5806	2282	1843	19,004	1	1097 Brooklyn College-Flatbush Av (2,5)	19,004
1098	231	Grand Central-42 St (S,4,5	1	2577	21741	45601	60996	25877	156,793	1	1098 Grand Central-42 St (S,4,5,6,7)	156,793
1101	48	Bowling Green (4,5)	1	452	3699	8835	11834	3532	28,353	1	1101 Bowling Green (4,5)	28,353
1102	49	Wall St (4,5)	1	322	1638	7496	11107	3212	23,775	1	1102 Wall St (4,5)	23,775
1104	220	Brooklyn Bridge-City Hall	1	421	2229	14664	13461	5035	35,811	1	1104 Brooklyn Bridge-City Hall (4,5,6)/Cha	35,811
1105	221	Canal St (J,M,N,Q,R,W,Z,6	1	720	2204	17157	15480	10893	46,453	1	1105 Canal St (J,M,N,Q,R,W,Z,6)	46,453
1106	53	Spring St (6)	1	224	944	3625	3306	2772	10,872	1	1106 Spring St (6)	10,872
1107	223	Broadway-Lafayette St (B	1	1027	3069	9821	10614	8775	33,307	1	1107 Broadway-Lafayette St (B,D,F,V)/Ble	33,307
1108	55	Astor Place (6)	1	664	2467	6093	4264	4410	17,898	1	1108 Astor Place (6)	17,898
1109	227	14 St-Union Sq (L,N,Q,R,V	1	3477	8541	33585	32681	29621	107,905	1	1109 14 St-Union Sq (L,N,Q,R,W,4,5,6)	107,905
1110	57	23 St (6)	1	416	3113	10984	10150	6726	31,390	1	1110 23 St (6)	31,390
1111	58	28 St (6)	1	446	2536	7615	8313	4066	22,977	1	1111 28 St (6)	22,977
1112	59	33 St (6)	1	425	3545	10863	11183	5712	31,728	1	1112 33 St (6)	31,728
1114	232	Lexington Av-53 St (E,V)/5	1	1198	3745	20167	31855	14687	71,653	1	1114 Lexington Av-53 St (E,V)/51 St (6)	71,653
1115	234	Lexington Av (N,R,W)/59	1	1331	4538	20092	25093	14440	65,493	1	1115 Lexington Av (N,R,W)/59 St (4,5,6)	65,493
1116	63	68 St-Hunter College (6)	1	232	3259	13462	12026	6294	35,273	1	1116 68 St-Hunter College (6)	35,273
1117	64	77 St (6)	1	324	6670	13561	9870	5372	35,798	1	1117 77 St (6)	35,798
1118	65	86 St (4,5,6)	1	1011	14083	21651	15134	10587	62,465	1	1118 86 St (4,5,6)	62,465
1119	66	96 St (6)	1	261	5455	8606	6276	3127	23,725	1	1119 96 St (6)	23,725
1120	67	103 St (6)	1	401	3054	5092	2990	1808	13,343	1	1120 103 St (6)	13,343
1121	68	110 St (6)	1	416	2925	4020	1823	1266	10,449	1	1121 110 St (6)	10,449
1122	69	116 St (6)	1	504	3203	5070	2578	1824	13,178	1	1122 116 St (6)	13,178
1123	70	125 St (4,5,6)	1	874	5567	9761	6321	4222	26,745	1	1123 125 St (4,5,6)	26,745

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1124	71	138 St-Grand Concourse	3	168	617	1033	704	285	2,806	1	1124 138 St-Grand Concourse (4,5)	2,806
1126	237	161 St-Yankee Stadium (B	3	987	4989	8814	4641	9371	28,802	1	1126 161 St-Yankee Stadium (B,D,4)	28,802
1127	74	167 St (4)	3	629	2600	3033	1143	855	8,260	1	1127 167 St (4)	8,260
1128	75	170 St (4)	3	516	2438	2786	1057	808	7,605	1	1128 170 St (4)	7,605
1129	76	Mt Eden Av (4)	3	322	1467	1654	753	480	4,676	1	1129 Mt Eden Av (4)	4,676
1130	77	176 St (4)	3	318	1444	1637	635	454	4,489	1	1130 176 St (4)	4,489
1131	78	Burnside Av (4)	3	524	2421	3785	1467	1087	9,284	1	1131 Burnside Av (4)	9,284
1132	79	183 St (4)	3	437	1776	1860	655	536	5,263	1	1132 183 St (4)	5,263
1133	80	Fordham Rd (4)	3	617	2510	3984	1806	1548	10,464	1	1133 Fordham Rd (4)	10,464
1134	81	Kingsbridge Rd (4)	3	470	2426	2827	1194	903	7,820	1	1134 Kingsbridge Rd (4)	7,820
1135	82	Bedford Park Blvd-Lehm	3	261	1328	1587	727	555	4,457	1	1135 Bedford Park Blvd-Lehman College (	4,457
1136	83	Mosholu Pkwy (4)	3	407	1914	2776	1363	790	7,250	1	1136 Mosholu Pkwy (4)	7,250
1137	84	Woodlawn (4)	3	449	2237	1960	1238	805	6,689	1	1137 Woodlawn (4)	6,689
1138	110	3 Av-138 St (6)	3	336	1906	2251	1199	640	6,332	1	1138 3 Av-138 St (6)	6,332
1139	111	Brook Av (6)	3	343	1587	1961	888	610	5,389	1	1139 Brook Av (6)	5,389
1140	112	Cypress Av (6)	3	178	790	1134	889	386	3,377	1	1140 Cypress Av (6)	3,377
1141	113	East 143 St-St Mary's St (	3	26	140	313	237	78	794	1	1141 East 143 St-St Mary's St (6)	794
1142	114	East 149 St (6)	3	239	1321	1324	601	406	3,891	1	1142 East 149 St (6)	3,891
1143	115	Longwood Av (6)	3	197	853	991	636	320	2,996	1	1143 Longwood Av (6)	2,996
1144	116	Hunts Point Av (6)	3	532	3375	3197	1598	957	9,659	1	1144 Hunts Point Av (6)	9,659
1145	117	Whitlock Av (6)	3	79	468	405	198	126	1,276	1	1145 Whitlock Av (6)	1,276
1146	118	Elder Av (6)	3	539	2310	1815	599	487	5,749	1	1146 Elder Av (6)	5,749
1147	119	Morrison-Sound View Avs	3	484	2350	1817	566	490	5,708	1	1147 Morrison-Sound View Avs (6)	5,708
1148	120	St Lawrence Av (6)	3	326	1447	1213	352	311	3,649	1	1148 St Lawrence Av (6)	3,649
1149	121	Parkchester (6)	3	932	6292	4386	1384	1017	14,012	1	1149 Parkchester (6)	14,012
1150	122	Castle Hill Av (6)	3	452	2681	1948	705	523	6,310	1	1150 Castle Hill Av (6)	6,310
1151	123	Zerega Av (6)	3	170	939	738	331	149	2,326	1	1151 Zerega Av (6)	2,326
1152	124	Westchester Sq-East Trer	3	286	1461	1891	1147	566	5,351	1	1152 Westchester Sq-East Tremont Av (6)	5,351
1153	125	Middletown Rd (6)	3	157	778	422	158	96	1,612	1	1153 Middletown Rd (6)	1,612
1154	126	Buhre Av (6)	3	208	1437	767	278	192	2,881	1	1154 Buhre Av (6)	2,881
1155	127	Pelham Bay Park (6)	3	313	2661	1501	728	512	5,716	1	1155 Pelham Bay Park (6)	5,716
1157	230	42 St-Bryant Pk (B,D,F,V)/	1	1168	1201	12163	23315	11225	49,072	1	1157 42 St-Bryant Pk (B,D,F,V)/5 Av (7)	49,072
1159	491	Vernon Blvd-Jackson Av (	2	260	3057	3504	1728	1051	9,599	1	1159 Vernon Blvd-Jackson Av (7)	9,599
1160	490	Hunters Point Av (7)	2	229	2805	1647	1760	350	6,791	1	1160 Hunters Point Av (7)	6,791
1161	489	45 Rd-Court House Sq (7)	2	324	1826	2667	3332	1436	9,585	1	1161 45 Rd-Court House Sq (7)	9,585
1162	514	Queensboro Plaza (N,W,7	2	422	997	2959	2877	1191	8,446	1	1162 Queensboro Plaza (N,W,7)	8,446
1163	487	33 St-Rawson St (7)	2	172	462	4511	4552	2352	12,049	1	1163 33 St-Rawson St (7)	12,049
1164	486	40 St-Lowery St (7)	2	319	3130	3656	1861	1094	10,059	1	1164 40 St-Lowery St (7)	10,059
1165	485	46 St-Bliss St (7)	2	698	4651	5111	2140	1579	14,179	1	1165 46 St-Bliss St (7)	14,179
1166	484	52 St (7)	2	286	2357	2355	837	660	6,496	1	1166 52 St (7)	6,496

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1167	483	Woodside-61 St (7)	2	683	5870	5718	2297	1646	16,214	1	1167 Woodside-61 St (7)	16,214
1168	482	69 St (7)	2	278	1622	1581	751	555	4,786	1	1168 69 St (7)	4,786
1169	515	74-Broadway (7)/Jackson	2	2181	14165	18172	7400	6246	48,165	1	1169 74-Broadway (7)/Jackson Hts-Roose	48,165
1170	480	82 St-Jackson Hts (7)	2	775	3768	6065	3063	2308	15,978	1	1170 82 St-Jackson Hts (7)	15,978
1171	479	90 St-Elmhurst Av (7)	2	1283	6071	5547	2180	1571	16,652	1	1171 90 St-Elmhurst Av (7)	16,652
1172	478	Junction Blvd (7)	2	1457	8197	6335	2355	1812	20,157	1	1172 Junction Blvd (7)	20,157
1173	477	103 St-Corona Plaza (7)	2	1564	7004	5274	1939	1515	17,296	1	1173 103 St-Corona Plaza (7)	17,296
1174	476	111 St (7)	2	803	4047	3162	1091	794	9,896	1	1174 111 St (7)	9,896
1175	475	Willets Point-Shea Stadiu	2	134	578	1192	997	3397	6,298	1	1175 Willets Point-Shea Stadium (7)	6,298
1176	474	Flushing-Main St (7)	2	2063	20041	18593	8617	6877	56,191	1	1176 Flushing-Main St (7)	56,191
1178	174	Canal St (A,C,E)	1	301	747	5742	8057	3726	18,572	1	1178 Canal St (A,C,E)	18,572
1179	175	Spring St (C,E)	1	152	673	3534	4535	2440	11,334	1	1179 Spring St (C,E)	11,334
1180	224	West 4 St (A,B,C,D,E,F,V)	1	2147	3874	10661	10157	11760	38,598	1	1180 West 4 St (A,B,C,D,E,F,V)	38,598
1181	225	14 St (A,C,E)/8 Av (L)	1	1622	2972	10565	11431	9172	35,762	1	1181 14 St (A,C,E)/8 Av (L)	35,762
1182	178	23 St (C,E)	1	595	2553	7127	6643	5505	22,422	1	1182 23 St (C,E)	22,422
1183	179	34 St-Penn Station (A,C,E	1	1800	22718	26382	21416	13682	85,998	0		
1185	181	50 St (C,E)	1	581	1718	5379	5479	4709	17,867	1	1185 50 St (C,E)	17,867
1187	189	72 St (B,C)	1	91	1372	3199	2494	1604	8,761	1	1187 72 St (B,C)	8,761
1188	190	81 St-Museum of Natural	1	165	1759	4559	4030	1875	12,387	1	1188 81 St-Museum of Natural History (B,	12,387
1189	191	86 St (B,C)	1	110	2318	3933	2708	1530	10,599	1	1189 86 St (B,C)	10,599
1190	192	96 St (B,C)	1	89	1974	3138	2241	1154	8,596	1	1190 96 St (B,C)	8,596
1191	193	103 St (B,C)	1	105	1384	1897	876	552	4,814	1	1191 103 St (B,C)	4,814
1192	194	Cathedral Pkwy-110 St (B	1	157	1738	2356	1178	793	6,223	1	1192 Cathedral Pkwy-110 St (B,C)	6,223
1193	195	116 St (B,C)	1	154	1335	1915	1018	758	5,180	1	1193 116 St (B,C)	5,180
1194	196	125 St (A,B,C,D)	1	759	4587	8766	5409	4127	23,648	1	1194 125 St (A,B,C,D)	23,648
1195	197	135 St (B,C)	1	110	1104	1533	799	490	4,035	1	1195 135 St (B,C)	4,035
1196	198	145 St (A,B,C,D)	1	808	5069	7000	3530	2932	19,340	1	1196 145 St (A,B,C,D)	19,340
1197	199	155 St (C)	1	102	722	816	325	196	2,161	1	1197 155 St (C)	2,161
1198	200	163 St-Amsterdam Av (C)	1	189	1180	1172	442	312	3,294	1	1198 163 St-Amsterdam Av (C)	3,294
1200	202	175 St (A)	1	363	4032	4329	2144	1093	11,962	1	1200 175 St (A)	11,962
1201	203	181 St (A)	1	219	3489	3620	1358	714	9,400	1	1201 181 St (A)	9,400
1202	204	190 St (A)	1	91	1463	1452	534	229	3,769	1	1202 190 St (A)	3,769
1203	205	Dyckman St (A)	1	176	2126	2060	733	427	5,522	1	1203 Dyckman St (A)	5,522
1204	206	Inwood-207 St (A)	1	254	3201	2709	952	621	7,738	1	1204 Inwood-207 St (A)	7,738
1205	207	155 St (B,D)	1	159	988	1237	507	386	3,278	1	1205 155 St (B,D)	3,278
1207	209	167 St (B,D)	3	575	2737	2932	1144	793	8,180	1	1207 167 St (B,D)	8,180
1208	210	170 St (B,D)	3	360	2034	1979	755	533	5,660	1	1208 170 St (B,D)	5,660
1209	211	174-175 Sts (B,D)	3	242	1337	1634	798	430	4,442	1	1209 174-175 Sts (B,D)	4,442
1210	212	Tremont Av (B,D)	3	574	3338	2506	1048	698	8,164	1	1210 Tremont Av (B,D)	8,164
1211	213	182-183 Sts (B,D)	3	324	1407	1541	566	455	4,293	1	1211 182-183 Sts (B,D)	4,293

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1212	214	Fordham Rd (B,D)	3	514	2986	3706	2123	1438	10,766	1	1212 Fordham Rd (B,D)	10,766
1213	215	Kingsbridge Rd (B,D)	3	473	2975	2140	819	644	7,050	1	1213 Kingsbridge Rd (B,D)	7,050
1214	216	Bedford Park Blvd (B,D)	3	299	2679	1658	662	460	5,758	1	1214 Bedford Park Blvd (B,D)	5,758
1215	217	Norwood-205 St (D)	3	502	3127	2215	880	593	7,317	1	1215 Norwood-205 St (D)	7,317
1218	385	High St (A,C)	4	94	1333	2213	1547	1010	6,197	1	1218 High St (A,C)	6,197
1219	500	Jay St-Borough Hall (A,C,F	4	475	2117	11451	10360	4962	29,365	1	1219 Jay St-Borough Hall (A,C,F)	29,365
1220	501	Hoyt-Schermerhorn Sts (A	4	122	776	3964	2685	1500	9,047	1	1220 Hoyt-Schermerhorn Sts (A,C,G)	9,047
1221	382	Lafayette Av (C)	4	117	856	1476	863	749	4,061	1	1221 Lafayette Av (C)	4,061
1222	381	Clinton-Washington Avs (	4	123	1661	1976	672	508	4,940	1	1222 Clinton-Washington Avs (C)	4,940
1223	506	Franklin Av (C,S)	4	257	1176	1745	818	711	4,707	1	1223 Franklin Av (C,S)	4,707
1224	379	Nostrand Av (A,C)	4	590	4345	5523	2383	2015	14,855	1	1224 Nostrand Av (A,C)	14,855
1225	378	Kingston-Throop Avs (C)	4	294	1455	1540	604	530	4,422	1	1225 Kingston-Throop Avs (C)	4,422
1226	377	Utica Av (A,C)	4	620	4495	4239	1637	1413	12,404	1	1226 Utica Av (A,C)	12,404
1227	376	Ralph Av (C)	4	286	1461	1466	523	479	4,216	1	1227 Ralph Av (C)	4,216
1228	375	Rockaway Av (C)	4	262	1648	1436	472	403	4,222	1	1228 Rockaway Av (C)	4,222
1229	509	Broadway Junction (A,C,J	4	535	2398	2833	1272	1109	8,146	1	1229 Broadway Junction (A,C,J,L,Z)	8,146
1230	373	Liberty Av (C)	4	135	774	854	445	253	2,461	1	1230 Liberty Av (C)	2,461
1231	372	Van Siclen Av (C)	4	154	1003	862	269	239	2,528	1	1231 Van Siclen Av (C)	2,528
1232	371	Shepherd Av (C)	4	198	1088	885	301	240	2,712	1	1232 Shepherd Av (C)	2,712
1233	370	Euclid Av (A,C)	4	473	3269	2934	1017	733	8,426	1	1233 Euclid Av (A,C)	8,426
1234	369	Grant Av (A)	4	370	2370	1911	576	455	5,683	1	1234 Grant Av (A)	5,683
1235	368	80 St (A)	2	295	1951	1319	308	208	4,081	1	1235 80 St (A)	4,081
1236	367	88 St (A)	2	232	1358	703	175	114	2,581	1	1236 88 St (A)	2,581
1237	366	Rockaway Blvd (A)	2	481	3021	1766	812	620	6,700	1	1237 Rockaway Blvd (A)	6,700
1238	365	104 St (A)	2	130	953	453	118	87	1,739	1	1238 104 St (A)	1,739
1239	364	111 St (A)	2	184	1570	618	178	117	2,668	1	1239 111 St (A)	2,668
1240	363	Ozone Park-Lefferts Blvd	2	573	3749	1834	687	578	7,420	1	1240 Ozone Park-Lefferts Blvd (A)	7,420
1241	361	Aqueduct-North Conduit	2	87	445	185	94	61	871	1	1241 Aqueduct-North Conduit Av (A)	871
1242	360	Howard Beach-JFK Airpor	2	215	712	902	545	624	2,999	1	1242 Howard Beach-JFK Airport (A)	2,999
1243	359	Broad Channel (A,S)	2	54	198	59	21	17	350	1	1243 Broad Channel (A,S)	350
1244	358	Beach 67 St (A)	2	178	667	524	169	125	1,663	1	1244 Beach 67 St (A)	1,663
1245	357	Beach 60 St (A)	2	217	816	695	216	179	2,123	1	1245 Beach 60 St (A)	2,123
1246	356	Beach 44 St (A)	2	46	208	167	59	45	524	0		
1247	355	Beach 36 St (A)	2	70	323	221	78	61	753	1	1247 Beach 36 St (A)	753
1248	354	Beach 25 St (A)	2	162	698	440	188	114	1,602	1	1248 Beach 25 St (A)	1,602
1249	353	Far Rockaway-Mott Av (A	2	341	1320	1334	808	460	4,263	1	1249 Far Rockaway-Mott Av (A)	4,263
1250	352	Beach 90 St (A,S)	2	127	413	290	102	95	1,026	1	1250 Beach 90 St (A,S)	1,026
1251	351	Beach 98 St (A,S)	2	53	196	140	45	36	470	1	1251 Beach 98 St (A,S)	470
1252	350	Beach 105 St (A,S)	2	20	132	50	25	16	244	1	1252 Beach 105 St (A,S)	244
1253	349	Rockaway Park-Beach 11	2	58	303	242	146	78	826	1	1253 Rockaway Park-Beach 116 St (A,S)	826

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1254	182	7 Av (B,D,E)	1	410	623	3821	7245	3018	15,117	1	1254 7 Av (B,D,E)	15,117
1255	183	5 Av-53 St (E,V)	1	165	339	6410	15643	4619	27,175	1	1255 5 Av-53 St (E,V)	27,175
1257	516	23 St-Ely Av (E,V)/Long Isl	2	609	3316	5528	7004	2362	18,819	1	1257 23 St-Ely Av (E,V)/Long Island City-C	18,819
1258	401	Queens Plaza (E,G,R,V)	2	280	1048	3201	2533	1114	8,177	1	1258 Queens Plaza (E,G,R,V)	8,177
1259	402	36 St (G,R,V)	2	55	374	1245	1240	307	3,221	1	1259 36 St (G,R,V)	3,221
1260	403	Steinway St (G,R,V)	2	413	3772	5156	2660	2025	14,026	1	1260 Steinway St (G,R,V)	14,026
1261	404	46 St (G,R,V)	2	289	3416	3455	1259	837	9,255	1	1261 46 St (G,R,V)	9,255
1262	405	Northern Blvd (G,R,V)	2	324	2694	2369	1342	624	7,353	1	1262 Northern Blvd (G,R,V)	7,353
1263	406	65 St (G,R,V)	2	167	1269	1207	460	226	3,329	1	1263 65 St (G,R,V)	3,329
1265	408	Elmhurst Av (G,R,V)	2	637	4876	5260	1669	1045	13,487	1	1265 Elmhurst Av (G,R,V)	13,487
1266	409	Grand Av-Newtown (G,R,	2	709	6379	6097	2132	1543	16,860	1	1266 Grand Av-Newtown (G,R,V)	16,860
1267	410	Woodhaven Blvd (G,R,V)	2	842	7034	7257	3746	2957	21,835	1	1267 Woodhaven Blvd (G,R,V)	21,835
1268	411	63 Dr-Rego Park (G,R,V)	2	386	5614	5315	2352	1394	15,062	1	1268 63 Dr-Rego Park (G,R,V)	15,062
1269	412	67 Av (G,R,V)	2	207	4389	2871	951	543	8,961	1	1269 67 Av (G,R,V)	8,961
1270	413	Forest Hills-71 Av (E,F,G,F	2	749	9826	9052	4011	2952	26,590	1	1270 Forest Hills-71 Av (E,F,G,R,V)	27,106
1271	414	75 Av (E,F)	2	80	1569	1224	495	355	3,724	1	1271 75 Av (E,F)	3,724
1272	415	Kew Gardens-Union Turn	2	981	9898	9157	4018	2125	26,179	1	1272 Kew Gardens-Union Turnpike (E,F)	26,179
1273	416	Briarwood-Van Wyck Blvd	2	246	2544	1753	550	365	5,459	1	1273 Briarwood-Van Wyck Blvd (E,F)	5,459
1274	417	Sutphin Blvd (F)	2	271	1408	1631	620	331	4,261	1	1274 Sutphin Blvd (F)	4,261
1275	418	Parsons Blvd (F)	2	375	1923	2009	833	488	5,628	1	1275 Parsons Blvd (F)	5,628
1276	419	169 St (F)	2	437	2598	2775	1085	690	7,584	1	1276 169 St (F)	7,584
1277	420	Jamaica-179 St (F)	2	1569	11828	5839	2294	1315	22,844	1	1277 Jamaica-179 St (F)	22,844
1278	421	Jamaica-Van Wyck (E)	2	290	1416	1491	797	391	4,383	1	1278 Jamaica-Van Wyck (E)	4,383
1279	517	Sutphin Blvd-Archer Av-JF	2	1129	6007	6239	3362	2725	19,462	1	1279 Sutphin Blvd-Archer Av-JFK Airport (	19,690
1280	518	Jamaica Center-Parsons-A	2	2192	13585	11330	5529	3797	36,433	1	1280 Jamaica Center-Parsons-Archer (E,J,	36,433
1281	387	Fulton St (G)	4	59	433	711	642	528	2,373	1	1281 Fulton St (G)	2,373
1282	388	Clinton-Washington Avs (	4	80	1296	1554	827	502	4,259	1	1282 Clinton-Washington Avs (G)	4,259
1283	389	Classon Av (G)	4	88	1182	1228	536	341	3,375	1	1283 Classon Av (G)	3,375
1284	390	Bedford-Nostrand Avs (G	4	171	1880	2037	742	477	5,307	1	1284 Bedford-Nostrand Avs (G)	5,307
1285	391	Myrtle-Willoughby Avs (G	4	134	1288	1388	538	339	3,686	1	1285 Myrtle-Willoughby Avs (G)	3,686
1286	392	Flushing Av (G)	4	75	536	612	420	185	1,828	1	1286 Flushing Av (G)	1,828
1287	393	Broadway (G)	4	117	1005	1017	551	354	3,045	1	1287 Broadway (G)	3,045
1288	511	Lorimer St (L)/Metropolit	4	564	2980	3986	1707	1658	10,896	1	1288 Lorimer St (L)/Metropolitan Av (G)	10,896
1289	395	Nassau Av (G)	4	244	2875	2133	1281	739	7,271	1	1289 Nassau Av (G)	7,271
1290	396	Greenpoint Av (G)	4	208	2208	2580	1592	791	7,378	1	1290 Greenpoint Av (G)	7,378
1291	397	21 St (G)	2	58	123	262	414	140	998	0		
1293	160	Grand St (B,D)	1	354	2265	7984	6812	4865	22,279	1	1293 Grand St (B,D)	22,279
1296	167	23 St (F,V)	1	365	2602	7740	9225	6040	25,972	1	1296 23 St (F,V)	26,104
1297	228	34 St-Herald Sq (B,D,F,N,(	1	1941	15290	39119	44520	26704	127,575	1	1297 34 St-Herald Sq (B,D,F,N,Q,R,V,W)	127,575
1299	170	47-50 Sts-Rockefeller Cer	1	1271	961	14407	32291	12147	61,078	1	1299 47-50 Sts-Rockefeller Center (B,D,F,'	61,077

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CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1300	185	57 St (F)	1	462	467	4098	6565	3886	15,479	1	1300 57 St (F)	15,479
1301	186	Lexington Av-63 St (F)	1	400	1110	3902	4965	3507	13,884	1	1301 Lexington Av-63 St (F)	13,884
1302	187	Roosevelt Island (F)	1	112	1722	2408	1069	691	6,002	1	1302 Roosevelt Island (F)	6,002
1303	399	21 St-Queensbridge (F)	2	277	1702	2423	1788	721	6,911	1	1303 21 St-Queensbridge (F)	6,911
1304	163	Lower East Side-2 Av (F,V	1	774	3263	5731	3256	4202	17,226	1	1304 Lower East Side-2 Av (F,V)	17,226
1305	222	Delancey St (F)/Essex St (	1	803	3398	6149	3823	3439	17,613	1	1305 Delancey St (F)/Essex St (J,M,Z)	17,613
1306	161	East Broadway (F)	1	253	2591	4756	3098	1759	12,457	1	1306 East Broadway (F)	12,457
1307	348	York St (F)	4	89	860	1874	1844	1163	5,829	1	1307 York St (F)	5,829
1308	149	Broad St (J,M,Z)	1	116	179	1341	4692	794	7,123	1	1308 Broad St (J,M,Z)	7,123
1312	153	Bowery (J,M,Z)	1	126	220	754	872	739	2,711	1	1312 Bowery (J,M,Z)	2,710
1314	447	Marcy Av (J,M,Z)	4	245	2150	3515	1769	1191	8,871	1	1314 Marcy Av (J,M,Z)	8,871
1315	446	Hewes St (J,M)	4	87	464	797	362	317	2,027	1	1315 Hewes St (J,M)	2,027
1316	445	Lorimer St (J,M)	4	129	1221	1464	634	417	3,866	1	1316 Lorimer St (J,M)	3,866
1317	444	Flushing Av (J,M)	4	239	1076	2711	1751	995	6,772	1	1317 Flushing Av (J,M)	6,772
1318	443	Myrtle Av (J,M,Z)	4	389	2523	2692	1157	932	7,694	1	1318 Myrtle Av (J,M,Z)	7,694
1319	442	Kosciuszko St (J)	4	222	1220	1292	478	404	3,617	1	1319 Kosciuszko St (J)	3,617
1320	441	Gates Av (J,Z)	4	260	1541	1591	616	515	4,523	1	1320 Gates Av (J,Z)	4,523
1321	440	Halsey St (J)	4	299	1711	1540	504	483	4,536	1	1321 Halsey St (J)	4,536
1322	439	Chauncey St (J,Z)	4	137	743	789	303	247	2,219	1	1322 Chauncey St (J,Z)	2,219
1324	437	Alabama Av (J)	4	119	445	613	430	334	1,941	1	1324 Alabama Av (J)	1,941
1325	436	Van Siclen Av (J,Z)	4	139	809	739	266	206	2,159	1	1325 Van Siclen Av (J,Z)	2,159
1326	435	Cleveland St (J)	4	163	1023	837	301	251	2,576	1	1326 Cleveland St (J)	2,576
1327	434	Norwood Av (J,Z)	4	256	1109	921	351	291	2,928	1	1327 Norwood Av (J,Z)	2,928
1328	433	Crescent St (J,Z)	4	279	1569	1287	464	324	3,924	1	1328 Crescent St (J,Z)	3,924
1329	432	Cypress Hills (J)	4	88	519	375	163	97	1,241	0		
1330	431	75 St (J,Z)	2	287	1243	938	273	212	2,953	1	1330 75 St (J,Z)	2,953
1331	430	85 St-Forest Pkwy (J)	2	326	1510	1032	300	220	3,388	1	1331 85 St-Forest Pkwy (J)	3,388
1332	429	Woodhaven Blvd (J,Z)	2	284	1602	1098	487	340	3,811	1	1332 Woodhaven Blvd (J,Z)	3,811
1333	428	104 St (J,Z)	2	203	992	654	240	161	2,250	1	1333 104 St (J,Z)	2,250
1334	427	111 St (J)	2	151	768	709	263	180	2,070	1	1334 111 St (J)	2,070
1335	426	121 St (J,Z)	2	127	607	555	368	218	1,875	1	1335 121 St (J,Z)	1,875
1336	454	Central Av (M)	4	100	781	702	254	171	2,007	1	1336 Central Av (M)	2,007
1337	453	Knickerbocker Av (M)	4	119	1015	1094	424	265	2,917	1	1337 Knickerbocker Av (M)	2,917
1338	510	Myrtle-Wyckoff Avs (L,M)	4	922	5810	4756	1859	1430	14,777	1	1338 Myrtle-Wyckoff Avs (L,M)	14,777
1339	451	Seneca Av (M)	2	104	910	671	200	130	2,015	1	1339 Seneca Av (M)	2,015
1340	450	Forest Av (M)	2	201	1759	915	297	166	3,338	1	1340 Forest Av (M)	3,338
1341	449	Fresh Pond Rd (M)	2	271	2442	1246	410	247	4,615	1	1341 Fresh Pond Rd (M)	4,615
1342	448	Middle Village-Metropoli	2	140	1306	796	622	394	3,257	1	1342 Middle Village-Metropolitan Av (M)	3,257
1343	346	Bergen St (F,G)	4	187	2548	3501	1779	1428	9,444	1	1343 Bergen St (F,G)	9,444
1344	345	Carroll St (F,G)	4	150	3213	3702	1713	1088	9,866	1	1344 Carroll St (F,G)	9,866

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SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1345	344	Smith-9 Sts (F,G)	4	134	941	1399	1043	607	4,125	1	1345 Smith-9 Sts (F,G)	4,125
1346	508	4 Av (F)/9 St (M,R)	4	259	2863	3529	2128	1377	10,156	1	1346 4 Av (F)/9 St (M,R)	10,156
1347	342	7 Av (F)	4	185	3303	3742	1748	1320	10,297	1	1347 7 Av (F)	10,297
1348	341	15 St-Prospect Park (F)	4	119	2260	1973	673	520	5,545	1	1348 15 St-Prospect Park (F)	5,545
1349	340	Fort Hamilton Pkwy (F)	4	129	2087	1558	494	307	4,575	1	1349 Fort Hamilton Pkwy (F)	4,575
1350	339	Church Av (F)	4	377	3498	2966	1123	717	8,682	1	1350 Church Av (F)	8,682
1351	338	Ditmas Av (F)	4	203	1814	1482	617	352	4,467	1	1351 Ditmas Av (F)	4,467
1352	337	18 Av (F)	4	156	1455	1382	677	357	4,027	1	1352 18 Av (F)	4,027
1353	336	Avenue I (F)	4	76	634	737	412	256	2,116	1	1353 Avenue I (F)	2,116
1354	335	Bay Pkwy (F)	4	63	483	395	180	149	1,270	1	1354 Bay Pkwy (F)	1,270
1355	334	Avenue N (F)	4	121	1410	982	442	255	3,209	1	1355 Avenue N (F)	3,209
1356	333	Avenue P (F)	4	110	1138	903	388	252	2,791	1	1356 Avenue P (F)	2,791
1357	332	Kings Hwy (F)	4	138	1232	1071	563	325	3,329	1	1357 Kings Hwy (F)	3,329
1358	331	Avenue U (F)	4	96	814	591	320	203	2,024	1	1358 Avenue U (F)	2,024
1359	330	Avenue X (F)	4	133	1081	885	357	234	2,690	1	1359 Avenue X (F)	2,690
1360	329	Neptune Av (F)	4	70	556	462	190	134	1,412	1	1360 Neptune Av (F)	1,412
1361	497	39 Av (N,W)	2	115	418	832	670	250	2,286	1	1361 39 Av (N,W)	2,286
1362	496	36 Av (N,W)	2	286	2118	2795	1329	747	7,275	1	1362 36 Av (N,W)	7,275
1363	495	Broadway (N,W)	2	399	4201	4928	1719	1168	12,413	1	1363 Broadway (N,W)	12,413
1364	494	30 Av (N,W)	2	480	4772	5190	1816	1205	13,464	1	1364 30 Av (N,W)	13,464
1365	493	Astoria Blvd (N,W)	2	391	4132	4060	1441	982	11,005	1	1365 Astoria Blvd (N,W)	11,005
1366	492	Astoria-Ditmars Blvd (N,W	2	544	6722	5826	1895	1276	16,263	1	1366 Astoria-Ditmars Blvd (N,W)	16,263
1368	147	5 Av-59 St (N,R,W)	1	161	493	5834	8721	3994	19,202	1	1368 5 Av-59 St (N,R,W)	19,202
1369	146	57 St-7 Av (N,Q,R,W)	1	709	1774	8851	11175	7286	29,794	1	1369 57 St-7 Av (N,Q,R,W)	29,794
1370	145	49 St (N,R,W)	1	554	1336	6877	10143	6889	25,800	1	1370 49 St (N,R,W)	25,800
1373	142	28 St (N,R,W)	1	85	596	3870	4034	1512	10,098	1	1373 28 St (N,R,W)	10,098
1374	141	23 St (N,R,W)	1	222	1373	6554	7541	4124	19,814	1	1374 23 St (N,R,W)	19,814
1376	139	8 St-New York University	1	456	1743	5564	4544	4207	16,514	1	1376 8 St-New York University (N,R,W)	16,514
1377	138	Prince St (N,R,W)	1	187	560	4863	4950	3629	14,189	1	1377 Prince St (N,R,W)	14,189
1379	136	City Hall (R,W)	1	69	548	4314	4509	1726	11,166	1	1379 City Hall (R,W)	11,166
1381	134	Rector St (R,W)	1	66	1187	3495	4388	1397	10,534	1	1381 Rector St (R,W)	10,534
1382	133	Whitehall St-South Ferry	1	174	2682	4322	5600	1655	14,433	1	1382 Whitehall St-South Ferry (R,W)	14,432
1384	325	Lawrence St (M,R)	4	23	372	1779	2274	846	5,294	1	1384 Lawrence St (M,R)	5,294
1386	502	DeKalb Av (B,M,Q,R)	4	307	2335	5994	3706	2196	14,539	1	1386 DeKalb Av (B,M,Q,R)	14,539
1388	318	7 Av (B,Q)	4	130	3013	3821	1373	1182	9,519	1	1388 7 Av (B,Q)	9,519
1389	504	Prospect Park (B,Q,S)	4	287	2874	3038	1092	955	8,246	1	1389 Prospect Park (B,Q,S)	8,246
1390	316	Parkside Av (Q)	4	393	1869	1742	643	618	5,265	1	1390 Parkside Av (Q)	5,265
1391	315	Church Av (B,Q)	4	677	5527	5404	1922	1444	14,975	1	1391 Church Av (B,Q)	14,975
1392	314	Beverley Rd (Q)	4	150	1087	884	283	227	2,631	1	1392 Beverley Rd (Q)	2,631
1393	313	Cortelyou Rd (Q)	4	290	2322	1966	630	483	5,691	1	1393 Cortelyou Rd (Q)	5,691

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SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1394	312	Newkirk Av (B,Q)	4	371	3648	3468	1131	710	9,328	1	1394 Newkirk Av (B,Q)	9,328
1395	311	Avenue H (Q)	4	99	968	983	390	265	2,704	1	1395 Avenue H (Q)	2,704
1396	310	Avenue J (Q)	4	195	1849	2175	1018	631	5,869	1	1396 Avenue J (Q)	5,869
1397	309	Avenue M (Q)	4	150	1630	1838	900	480	4,997	1	1397 Avenue M (Q)	4,997
1398	308	Kings Hwy (B,Q)	4	523	6809	6179	2840	1584	17,935	1	1398 Kings Hwy (B,Q)	17,935
1399	307	Avenue U (Q)	4	304	2564	2237	961	588	6,654	1	1399 Avenue U (Q)	6,654
1400	306	Neck Rd (Q)	4	158	1808	988	363	214	3,532	1	1400 Neck Rd (Q)	3,532
1401	305	Sheepshead Bay (B,Q)	4	509	5863	4505	1861	1098	13,837	1	1401 Sheepshead Bay (B,Q)	13,837
1402	304	Brighton Beach (B,Q)	4	363	3736	4703	1958	1451	12,211	1	1402 Brighton Beach (B,Q)	12,211
1403	303	Ocean Pkwy (Q)	4	109	916	849	403	294	2,571	1	1403 Ocean Pkwy (Q)	2,571
1404	513	West 8 St-New York Aqua	4	74	583	836	410	207	2,110	1	1404 West 8 St-New York Aquarium (F,Q)	2,110
1405	512	Coney Island-Stillwell Av (	4	539	3070	3981	2264	1619	11,472	1	1405 Coney Island-Stillwell Av (D,F,N,Q)	11,472
1407	275	Union St (M,R)	4	138	2351	2298	1049	714	6,550	1	1407 Union St (M,R)	6,550
1409	273	Prospect Av (M,R)	4	147	2070	2019	1003	536	5,775	1	1409 Prospect Av (M,R)	5,775
1410	272	25 St (M,R)	4	135	1138	1241	812	411	3,738	1	1410 25 St (M,R)	3,738
1411	271	36 St (D,M,N,R)	4	413	2832	3313	2556	1542	10,657	1	1411 36 St (D,M,N,R)	10,657
1412	270	45 St (R)	4	378	2407	2229	1100	608	6,723	1	1412 45 St (R)	6,723
1413	269	53 St (R)	4	372	2225	2482	1264	794	7,137	1	1413 53 St (R)	7,137
1414	268	59 St (N,R)	4	523	3699	3735	2066	1290	11,312	1	1414 59 St (N,R)	11,312
1415	267	Bay Ridge Av (R)	4	319	3185	2540	847	568	7,460	1	1415 Bay Ridge Av (R)	7,460
1416	266	77 St (R)	4	203	2385	1612	599	338	5,137	1	1416 77 St (R)	5,137
1417	265	86 St (R)	4	398	3619	3118	1463	1034	9,633	1	1417 86 St (R)	9,633
1418	264	Bay Ridge-95 St (R)	4	247	2606	1711	701	369	5,633	1	1418 Bay Ridge-95 St (R)	5,633
1419	300	9 Av (D,M)	4	262	2293	2006	635	389	5,585	1	1419 9 Av (D,M)	5,585
1420	299	Fort Hamilton Pkwy (D,M	4	124	1147	1226	657	382	3,536	1	1420 Fort Hamilton Pkwy (D,M)	3,536
1421	298	50 St (D,M)	4	110	793	1176	714	387	3,181	1	1421 50 St (D,M)	3,181
1422	297	55 St (D,M)	4	79	533	769	432	219	2,032	1	1422 55 St (D,M)	2,032
1423	507	New Utrecht Av (N)/62 St	4	216	1619	1657	863	400	4,754	1	1423 New Utrecht Av (N)/62 St (D,M)	4,754
1424	295	71 St (D,M)	4	227	2151	1204	390	243	4,216	1	1424 71 St (D,M)	4,216
1425	294	79 St (D,M)	4	248	2583	1542	403	266	5,041	1	1425 79 St (D,M)	5,041
1426	293	18 Av (D,M)	4	252	2525	1624	588	427	5,415	1	1426 18 Av (D,M)	5,415
1427	292	20 Av (D,M)	4	198	2097	1327	439	374	4,435	1	1427 20 Av (D,M)	4,435
1428	291	Bay Pkwy (D,M)	4	275	2830	2060	738	563	6,466	1	1428 Bay Pkwy (D,M)	6,466
1429	290	25 Av (D)	4	195	1888	1164	367	268	3,882	1	1429 25 Av (D)	3,882
1430	289	Bay 50 St (D)	4	116	1019	723	240	142	2,241	1	1430 Bay 50 St (D)	2,241
1431	287	8 Av (N)	4	172	2267	3590	1718	1166	8,913	1	1431 8 Av (N)	8,913
1432	286	Fort Hamilton Pkwy (N)	4	239	2630	2070	606	401	5,946	1	1432 Fort Hamilton Pkwy (N)	5,946
1434	284	18 Av (N)	4	196	2054	1695	572	403	4,919	1	1434 18 Av (N)	4,919
1435	283	20 Av (N)	4	140	1581	1016	269	179	3,185	1	1435 20 Av (N)	3,185
1436	282	Bay Pkwy (N)	4	274	2774	1832	576	412	5,867	1	1436 Bay Pkwy (N)	5,867

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT SUBWAY

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

SUBWAY COUNTS: WEEKDAY

StopArea No	STAID	Station Name	Boro	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12A	**WKD_24HR**		StopAreaNo	**Subway Entries**
1437	281	Kings Hwy (N)	4	209	2253	1499	510	312	4,783	1	1437 Kings Hwy (N)	4,783
1438	280	Avenue U (N)	4	133	1497	1010	390	321	3,351	1	1438 Avenue U (N)	3,351
1439	279	86 St (N)	4	91	802	710	256	182	2,041	1	1439 86 St (N)	2,041
1441	323	Park Pl (S)	4	59	754	826	333	214	2,186	1	1441 Park Pl (S)	2,186
1446	158	3 Av (L)	1	239	282	1434	1531	1732	5,217	1	1446 3 Av (L)	5,217
1447	159	1 Av (L)	1	718	2785	5799	4123	4128	17,552	1	1447 1 Av (L)	17,552
1448	473	Bedford Av (L)	4	691	3868	7201	3059	3156	17,974	1	1448 Bedford Av (L)	17,974
1450	471	Graham Av (L)	4	200	2588	3184	1270	903	8,146	1	1450 Graham Av (L)	8,146
1451	470	Grand St (L)	4	204	1653	1905	1313	692	5,767	1	1451 Grand St (L)	5,767
1452	469	Montrose Av (L)	4	171	1451	1874	742	626	4,864	1	1452 Montrose Av (L)	4,864
1453	468	Morgan Av (L)	4	178	1204	1733	1111	658	4,884	1	1453 Morgan Av (L)	4,884
1454	467	Jefferson St (L)	4	211	1433	1548	897	492	4,580	1	1454 Jefferson St (L)	4,580
1455	466	DeKalb Av (L)	4	584	3817	3127	1270	868	9,665	1	1455 DeKalb Av (L)	9,665
1457	464	Halsey St (L)	4	384	2535	1767	717	459	5,863	1	1457 Halsey St (L)	5,863
1458	463	Wilson Av (L)	4	173	1155	1025	375	287	3,014	1	1458 Wilson Av (L)	3,014
1459	462	Bushwick Av-Aberdeen St	4	54	367	340	139	89	988	1	1459 Bushwick Av-Aberdeen St (L)	988
1461	460	Atlantic Av (L)	4	47	309	304	289	144	1,092	0		
1462	459	Sutter Av (L)	4	172	940	976	484	358	2,930	1	1462 Sutter Av (L)	2,930
1463	458	Livonia Av (L)	4	106	638	602	287	219	1,851	1	1463 Livonia Av (L)	1,851
1464	457	New Lots Av (L)	4	207	1051	858	463	355	2,933	1	1464 New Lots Av (L)	2,933
1465	456	East 105 St (L)	4	179	1160	925	504	336	3,104	1	1465 East 105 St (L)	3,104
1466	455	Canarsie-Rockaway Pkwy	4	842	4800	3157	1490	1063	11,352	1	1466 Canarsie-Rockaway Pkwy (L)	11,352
									4,950,702			4,951,569

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
12	B 1	4	0	1	225	3938	8383	3566	2628	18,740	1	B1	18,740	1.00			
13	B100	4	0	2	66	1,792	1,931	976	387	5,151	1	B100	5,151	1.00			
14	B103	4	0	2	33	806	694	330	52	1,915	1	B103	3,665	1.91			
15	B 11	4	0	1	186	2520	4849	2664	1782	12,001	1	B11	18,034	1.50			
16	B 12	4	0	1	749	3900	8493	3948	3211	20,301	1	B12	17,756	0.87			
17	B 13	4	0	1	160	1482	2403	1502	851	6,398	1	B13	10,050	1.57			
18	B 14	4	0	1	147	1119	3070	1616	1174	7,126	1	B14	10,801	1.52			
19	B 15	4	0	1	1275	3546	7680	3907	3967	20,375	1	B15	23,341	1.15			
20	B 16	4	0	1	113	1642	2673	1167	733	6,328	1	B16	6,020	0.95			
21	B 17	4	0	1	507	2805	3894	3072	2873	13,151	1	B17	13,151	1.00			
22	B 2	4	0	1	100	747	819	677	439	2,782	1	B2	3,122	1.12			
23	B 20	4	0	1	201	1873	2780	1781	1300	7,935	1	B20	7,935	1.00			
24	B 23	4	0	1	15	391	422	234	183	1,245	1	B23	4,214	3.38			
25	B 24	4	0	1	176	975	821	749	478	3,199	1	B24	5,205	1.63			
26	B 25	4	0	1	157	1562	5615	2877	1708	11,919	1	B25	11,395	0.96			
27	B 26	4	0	1	263	1796	4204	2329	1808	10,400	1	B26	11,064	1.06			
28	B 3	4	0	1	341	2942	4843	2851	2014	12,991	1	B 3	11,235	0.86			
29	B 31	4	0	1	98	708	646	637	382	2,471	1	B31	12,299	4.98			
30	B 35	4	0	1	1114	6397	12955	8680	7332	36,478	1	B35	33,079	0.91			
31	B 36	4	0	1	426	3820	5372	2730	2014	14,362	1	B36	12,939	0.90			
32	B 37	4	0	1	87	630	1537	795	354	3,403	1	B37	17,864	5.25			
33	B 38	4	0	1	481	4200	8710	4560	3241	21,192	1	B38	11,184	0.53			
34	B 39	4	0	1	51	183	634	327	192	1,387	1	B39	2,973	2.14			
35	B 4	4	0	1	137	1203	1891	1187	710	5,128	1	B4	14,440	2.82			
36	B 41	4	0	1	1069	5729	14634	8348	5789	35,569	1	B41	16,621	0.47			
37	B 42	4	0	1	244	1355	1352	615	477	4,043	1	B42	5,286	1.31			
38	B 43	4	0	1	311	1703	4430	2637	1949	11,030	1	B43	28,868	2.62			
39	B 44	4	0	1	1020	7812	14065	8231	6320	37,448	1	B44	32,755	0.87			
40	B 45	4	0	1	117	1091	3836	2084	1428	8,556	1	B45	23,061	2.70			
41	B 46	4	0	1	1634	9179	17192	11025	9373	48,403	1	B46	45,482	0.94			
42	B 47	4	0	1	351	2165	4527	2520	2037	11,600	1	B47	11,128	0.96			
43	B 48	4	0	1	217	1604	1484	1085	653	5,043	1	B48	5,673	1.12			
44	B 49	4	0	1	191	2913	6755	3179	2534	15,572	1	B49	9,065	0.58			
45	B 51	4	0	1	0	200	352	317	38	907	1	B51	5,866	6.47			
46	B 52	4	0	1	355	2300	5560	3061	2147	13,423	1	B52	14,737	1.10			
47	B 54	4	0	1	387	2075	4412	2431	1919	11,224	1	B54	12,465	1.11			
48	B 57	4	0	1	269	1404	1909	1172	459	5,213	1	B57	25,957	4.98			
49	B 6	4	0	1	1415	8210	13172	8574	7580	38,951	1	B6	33,297	0.85			
50	B 60	4	0	1	349	2796	5342	2655	1959	13,101	1	B60	13,209	1.01			
51	B 61	4	0	1	759	3870	5912	3567	2703	16,811	1	B61	16,171	0.96			
52	B 63	4	0	1	228	1737	6013	2977	1906	12,861	1	B63	11,378	0.88			
53	B 64	4	0	1	135	1174	2227	1256	872	5,664	1	B64	5,082	0.90			
54	B 65	4	0	1	113	840	1630	949	663	4,195	1	B65	4,103	0.98			
55	B 67	4	0	1	87	1454	2624	1438	658	6,261	1	B67	6,743	1.08			
56	B 68	4	0	1	290	2962	7338	3649	2589	16,828	1	B68	9,393	0.56			
57	B 69	4	0	1	27	618	595	443	239	1,922	1	B69	4,871	2.53			
58	B 7	4	0	1	173	1598	2215	1437	782	6,205	1	B7	6,630	1.07			
59	B 70	4	0	1	98	1187	1479	880	592	4,236	1	B70	3,962	0.94			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
60	B 71	4	0	1	9	289	355	208	104	965	1	B71	3,723	3.86			
61	B 74	4	0	1	56	784	1281	915	683	3,719	1	B74	3,780	1.02			
62	B 75	4	0	1	62	537	1514	813	372	3,298	1	B75	4,481	1.36			
63	B 77	4	0	1	145	1011	1345	964	505	3,970	1	B77	11,563	2.91			
64	B 8	4	0	1	626	4783	7519	4580	3656	21,164	1	B8	19,817	0.94			
65	B 82	4	0	1	739	5694	9978	5616	4190	26,217	1	B82	19,323	0.74			
66	B 83	4	0	1	244	1780	2965	1721	1469	8,179	1	B83	9,100	1.11			
67	B 9	4	0	1	168	2846	5316	2683	1687	12,700	1	B9	14,254	1.12			
68	BM1	4	1	2	77	937	653	487	257	2,411	1	BM1	4,265	1.77			
69	BM2	4	1	2	51	543	205	122	32	953	1	BM2	904	0.95			
70	BM3	4	1	2	48	549	334	212	99	1,242	1	BM3	1,312	1.06			
71	BM4	4	1	2	3	400	181	136	23	743	1	BM4	787	1.06			
72	BM5	4	1	2	12	221	97	120	51	503	1	BM5	15,812	31.46			
73	BX 1	4	1	1	273	3322	9277	4257	2880	20,009	1	BX1	18,867	0.94			
74	BX 10	4	1	1	216	2007	3565	1878	1231	8,897	1	BX10	11,810	1.33			
75	BX 11	4	1	1	331	2244	4441	2652	1968	11,636	1	BX11	30,080	2.59			
76	BX 12	4	1	1	1134	7970	15552	8080	5780	38,516	1	BX12	33,485	0.87			
77	BX 13	4	1	1	142	1783	3279	2217	1700	9,121	1	BX13	8,084	0.89			
78	BX 14	4	1	1	43	616	844	563	257	2,323	1	BX14	15,504	6.67			
79	BX 15	4	1	1	750	3684	10066	4521	3794	22,815	1	BX15	23,059	1.01			
80	BX 16	4	1	1	131	1555	1756	1263	821	5,526	1	BX16	5,698	1.03			
81	BX 17	4	1	1	208	1909	3780	2148	1663	9,708	1	BX17	5,728	0.59			
82	BX 18	4	1	1	6	389	466	410	168	1,439	1	BX18	14,442	10.04			
83	BX 19	4	1	1	953	5583	12491	6732	4843	30,602	1	BX19	30,374	0.99			
84	BX 2	4	1	1	185	3015	7890	3813	2568	17,471	1	BX2	10,047	0.58			
85	BX 20	4	1	1	8	572	588	354	244	1,766	1	BX20	8,450	4.78			
86	BX 21	4	1	1	445	3226	5829	3226	2150	14,876	1	BX21	15,188	1.02			
87	BX 22	4	1	1	372	3401	5838	3438	2329	15,378	1	BX22	6,103	0.40			
88	BX 25	4	1	1	0	423	10	250	57	740	1	BX25	1,637	2.21			
89	BX 26	4	1	1	6	1192	3022	1435	994	6,649	1	BX26	6,724	1.01			
90	BX 27	4	1	1	285	1443	2549	1518	774	6,569	1	BX27	13,656	2.08			
91	BX 28	4	1	1	543	2995	5507	2786	2358	14,189	1	BX28	11,856	0.84			
92	BX 29	4	1	1	86	340	667	551	420	2,064	1	BX29	2,632	1.28			
93	BX 3	4	1	1	254	2570	5679	3134	2708	14,345	1	BX3	14,137	0.99			
94	BX 30	4	1	1	79	1504	2779	1689	1153	7,204	1	BX30	7,197	1.00			
95	BX 31	4	1	1	247	2188	4398	2163	1515	10,511	1	BX31	9,590	0.91			
96	BX 32	4	1	1	54	1156	2389	1077	527	5,203	1	BX32	4,572	0.88			
97	BX 33	4	1	1	80	946	1318	831	393	3,568	1	BX33	2,947	0.83			
98	BX 34	4	1	1	193	1018	2067	951	554	4,783	1	BX34	11,772	2.46			
99	BX 35	4	1	1	451	2771	4898	2648	2125	12,893	1	BX35	16,369	1.27			
100	BX 36	4	1	1	977	6063	9808	5662	4592	27,102	1	BX36	26,507	0.98			
101	BX 39	4	1	1	53	2117	4516	2524	1954	11,164	1	BX39	15,204	1.36			
102	BX 4	4	1	1	168	1959	5709	2442	1839	12,117	1	BX4	11,611	0.96			
103	BX 40	4	1	1	529	2632	4979	2549	1862	12,551	1	BX40	15,308	1.22			
104	BX 41	4	1	1	665	4974	9618	5510	3943	24,710	1	BX41	20,605	0.83			
105	BX 42	4	1	1	327	2713	4686	2707	1912	12,345	1	BX42	11,860	0.96			
106	BX 5	4	1	1	255	2634	4151	2494	1822	11,356	1	BX5	11,122	0.98			
107	BX 55	4	1	1	412	3705	5537	3147	1695	14,496	1	BX55	17,894	1.23			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
108	BX 6	4	1	1	1126	4437	8173	4149	3066	20,951	1	BX6	20,014	0.96			
109	BX 7	4	1	1	224	2648	5528	3162	1998	13,560	1	BX7	13,185	0.97			
110	BX 8	4	1	1	39	1509	2524	1223	442	5,737	1	BX8	10,601	1.85			
111	BX 9	4	1	1	722	5404	8854	5253	4198	24,431	1	BX9	22,927	0.94			
112	BxM1	4	1	2	46	606	688	405	298	2,042	1	BxM1	2,042	1.00			
113	BxM10	4	1	2	46	701	483	573	290	2,093	1	BxM10	2,902	1.39			
114	BxM11	4	1	2	42	446	382	409	261	1,541	1	BxM11	1,541	1.00			
115	BxM18	4	1	2	-	146	9	60	7	223	1	BxM18	219	0.98			
116	BxM2	4	1	2	9	324	351	265	196	1,146	1	BxM2	2,019	1.76			
117	BxM3	4	1	2	45	377	239	248	141	1,050	1	BxM3	1,005	0.96			
118	BxM4A	4	1	2	2	70	66	88	57	283	1	BxM4A	274	0.97			
119	BxM4B	4	1	2	8	120	88	99	55	370	1	BxM4B	2,107	5.69			
120	BxM6	4	1	2	10	292	147	253	124	826	1	BxM6	2,084	2.52			
121	BxM7	4	1	2	194	1,107	959	889	706	3,856	1	BxM7	5,613	1.46			
122	BxM7A	4	1	2	46	747	459	679	280	2,210	1	BxM7A	2,210	1.00			
123	BxM7B	4	1	2	0	50	5	35	-	91	1	BxM7B	91	1.00			
124	BxM9	4	1	2	140	856	601	617	290	2,504	1	BxM9	2,504	1.00			
126	M 1	1	0	1	205	2430	7654	4224	1597	16,110	1	M1	14,587	0.91		125	10,231
127	M 10	1	0	1	183	1424	4664	2540	1811	10,622	1	M10	16,396	1.54			
128	M 100	1	0	1	334	2401	7905	3770	2788	17,198	1	M100	22,811	1.33			
129	M 101	1	0	1	953	5899	13753	7418	5550	33,573	1	M101	29,817	0.89			
130	M 102	1	0	1	414	2285	6926	4229	3239	17,093	1	M102	20,298	1.19			
131	M 103	1	0	1	370	1732	6614	3605	2626	14,947	1	M103	15,686	1.05			
132	M 104	1	0	1	460	2337	10210	5960	3822	22,789	1	M104	22,789	1.00			
133	M 106	1	0	1	1	447	854	503	100	1,905	1	M106	2,148	1.13			
134	M 11	1	0	1	154	1893	6513	2845	1866	13,271	1	M11	11,838	0.89			
135	M 116	1	0	1	105	1837	3060	1856	991	7,849	1	M116	26,041	3.32			
136	M 14	1	0	1	996	7476	13835	8129	6322	36,758	1	M14	61,696	1.68			
137	M 15	1	0	1	1132	10977	21887	11652	8037	53,685	1	M15	43,552	0.81			
138	M 16	1	0	1	114	1709	3436	1825	982	8,066	1	M16	4,835	0.60			
139	M 18	1	0	1	0	209	352	245	93	899	1	M18	3,091	3.44			
140	M 2	1	0	1	179	1835	5726	3823	2148	13,711	1	M2	10,516	0.77			
141	M 20	1	0	1	35	427	2158	1281	830	4,731	1	M20	4,297	0.91			
142	M 21	1	0	1	16	478	736	409	191	1,830	1	M21	6,631	3.62			
143	M 22	1	0	1	61	1121	1438	1068	381	4,069	1	M22	9,115	2.24			
144	M 23	1	0	1	232	2830	7905	4821	2589	18,377	1	M23	11,702	0.64			
145	M 27	1	0	1	63	1213	1008	645	282	3,211	1	M27	5,723	1.78			
146	M 3	1	0	1	127	2186	8006	4072	2441	16,832	1	M3	13,976	0.83			
147	M 30	1	0	1	0	593	242	655	89	1,579	1	M30	10,836	6.86			
148	M 31	1	0	1	153	2528	5409	3065	1931	13,086	1	M31	10,284	0.79			
149	M 34	1	0	1	105	1748	3876	1910	946	8,585	1	M34	790	0.09			
150	M 35	1	0	1	92	613	848	503	525	2,581	1	M35	8,177	3.17			
151	M 4	1	0	1	78	4361	9717	5550	2673	22,379	1	M 4	20,322	0.91			
152	M 42	1	0	1	254	3161	5543	2967	1355	13,280	1	M42	13,922	1.05			
153	M 5	1	0	1	141	1967	5003	2783	2113	12,007	1	M5	10,214	0.85			
154	M 50	1	0	1	147	697	1489	1095	554	3,982	1	M50	3,895	0.98			
155	M 57	1	0	1	92	1307	3349	2260	1387	8,395	1	M57	7,248	0.86			
156	M 6	1	0	1	47	416	2715	1358	591	5,127	1	M 6	6,783	1.32			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
157	M 60	1	0	1	765	2765	5158	2821	2737	14,246	1	M60	14,917	1.05			
158	M 66	1	0	1	180	2691	5141	3587	2150	13,749	1	M66	14,379	1.05			
159	M 7	1	0	1	344	1613	7157	4272	3010	16,396	1	M7	14,442	0.88			
160	M 72	1	0	1	31	1086	3053	1589	853	6,612	1	M72	10,356	1.57			
161	M 79	1	0	1	166	3899	7395	4432	2580	18,472	1	M79	9,641	0.52			
162	M 8	1	0	1	32	754	1048	661	402	2,897	1	M 8	22,034	7.61			
163	M 86	1	0	1	349	5705	10741	6314	4171	27,280	1	M86	26,052	0.95			
164	M 9	1	0	1	2	967	2462	1366	553	5,350	1	M 9	13,473	2.52			
165	M 96	1	0	1	203	3067	5928	3737	2165	15,100	1	M96	13,970	0.93			
166	M 98	1	0	1	1	1568	544	1225	159	3,497	1	M98	3,497	1.00			
177	Q 1	2	0	1	239	885	1361	1175	922	4,582	1	Q1	7,865	1.72		169	194
178	Q10	2	0	2	1,287	4,922	8,180	3,922	4,103	22,413	1	Q10	20,830	0.93		171	371
179	Q101/R	2	0	2	230	1,582	2,933	1,053	912	6,711	1	Q101/R	7,215	1.08		172	645
180	Q102	2	0	2	120	943	1,118	353	475	3,010	1	Q102	3,010	1.00		173	371
181	Q103	2	0	2	-	263	135	110	1	508	1	Q103	1,584	3.12		175	645
182	Q104	2	0	2	7	686	1,183	439	291	2,605	1	Q104	11,070	4.25		176	1,937
183	Q11	2	0	2	403	2,654	4,450	2,207	1,654	11,368	1	Q11	10,654	0.94			
184	Q110	2	0	2	175	2,070	2,634	1,408	737	7,024	1	Q110	15,124	2.15			
185	Q111	2	0	2	464	4,087	4,703	2,543	1,916	13,712	1	Q111	3,533	0.26			
186	Q112	2	0	2	73	1,617	2,054	907	502	5,153	1	Q112	14,136	2.74			
187	Q113	2	0	2	445	2,583	3,831	1,810	1,511	10,180	1	Q113	12,407	1.22			
188	Q 12	2	0	1	337	1996	3059	2078	2021	9,491	1	Q12	13,448	1.42			
189	Q 13	2	0	1	202	1568	3122	1836	1507	8,235	1	Q13	7,241	0.88			
190	Q 14	2	0	1	63	622	521	441	247	1,894	1	Q14	4,955	2.62			
191	Q 15	2	0	1	129	1203	1235	969	862	4,398	1	Q15	1,711	0.39			
192	Q 16	2	0	1	104	1046	1030	853	494	3,527	1	Q16	5,902	1.67			
193	Q 17	2	0	1	527	3237	5453	3580	3531	16,328	1	Q17	16,634	1.02			
194	Q18	2	0	2	173	2,070	3,221	1,179	1,030	7,673	1	Q18	8,371	1.09			
195	Q19,A,B	2	0	2	523	5,439	6,618	3,082	2,517	18,178	1	Q19	18,178	1.00			
196	Q 2	2	0	1	305	1103	1784	1267	1135	5,594	1	Q2	5,817	1.04			
197	Q 20	2	0	1	193	2782	4882	2823	2339	13,019	1	Q20	6,998	0.54			
200	Q21	2	0	2	0	334	390	162	60	947	1	Q21	941	0.99		198	1,307
201	Q22	2	0	2	105	1,949	2,934	1,039	695	6,722	1	Q22	17,624	2.62		199	382
202	Q23	2	0	2	314	3,584	4,750	2,787	2,675	14,109	1	Q23	10,898	0.77			
203	Q 24	2	0	1	533	1971	3909	2116	1641	10,170	1	Q24	21,787	2.14			
204	Q25	2	0	2	422	3,948	5,147	1,637	1,754	12,908	1	Q25	2,660	0.21			
205	Q 26	2	0	1	51	723	445	408	243	1,870	1	Q26	4,481	2.40			
206	Q 27	2	0	1	586	4590	7165	3903	3260	19,504	1	Q27	17,923	0.92			
207	Q 28	2	0	1	271	2229	2805	1548	1401	8,254	1	Q28	8,167	0.99			
208	Q29	2	0	2	155	1,566	2,349	1,181	787	6,039	1	Q29	4,356	0.72			
209	Q 3	2	0	1	679	1584	3254	1686	1757	8,960	1	Q3	8,814	0.98			
210	Q 30	2	0	1	139	1819	3015	1358	919	7,250	1	Q30	6,689	0.92			
211	Q 31	2	0	1	37	1321	1383	1050	525	4,316	1	Q31	8,656	2.01			
212	Q 32	2	0	1	373	2435	5502	3099	2561	13,970	1	Q32	14,956	1.07			
213	Q33	2	0	2	504	1,818	3,424	1,286	1,616	8,647	1	Q33	6,609	0.76			
214	Q34	2	0	2	39	1,429	3,574	1,147	766	6,955	1	Q34	5,608	0.81			
215	Q35	2	0	2	118	1,066	1,559	707	561	4,012	1	Q35	7,517	1.87			
216	Q 36	2	0	1	329	1173	1745	1193	883	5,323	1	Q36	5,292	0.99			

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:		BUSROUTE_ID	No Counts
217	Q37	2	0	2	156	1,899	2,023	1,303	806	6,186	1	Q37	6,076	0.98		
218	Q38	2	0	2	89	2,272	2,713	1,435	1,020	7,529	1	Q38	7,780	1.03		
219	Q39	2	0	2	255	2,459	2,499	973	553	6,740	1	Q39	8,069	1.20		
220	Q 4	2	0	1	653	2126	2997	2148	1837	9,761	1	Q4	10,120	1.04		
221	Q40	2	0	2	194	1,373	1,861	1,045	705	5,177	1	Q40	4,708	0.91		
222	Q41	2	0	2	137	1,981	2,568	1,234	818	6,738	1	Q41	2,461	0.37		
223	Q 42	2	0	1	43	401	318	280	161	1,203	1	Q42	18,656	15.51		
224	Q 43	2	0	1	498	3721	4780	3016	2173	14,188	1	Q43	19,039	1.34		
225	Q 44	2	0	1	1466	5171	6983	4293	3814	21,727	1	Q44	21,727	1.00		
226	Q45	2	0	2	90	1,002	829	722	525	3,169	1	Q45	19,251	6.08		
227	Q 46	2	0	1	616	4832	6546	4725	3248	19,967	1	Q46	255	0.01		
228	Q47	2	0	2	80	1,141	1,448	634	616	3,918	1	Q47	5,021	1.28		
229	Q 48	2	0	1	163	622	987	534	517	2,823	1	Q48	6,236	2.21		
231	Q 5	2	0	1	556	2032	3507	2680	2298	11,073	1	Q5	7,659	0.69	230	5,460
232	Q53	2	0	2	107	1,787	3,505	965	1,272	7,636	1	Q53	8,627	1.13		
233	Q 54	2	0	1	643	2942	3909	2621	1615	11,730	1	Q54	10,895	0.93		
234	Q 55	2	0	1	354	1719	2462	1834	1183	7,552	1	Q55	6,173	0.82		
235	Q 56	2	0	1	378	1657	4003	2093	1448	9,579	1	Q56	11,123	1.16		
236	Q 58	2	0	1	1246	5532	8389	5257	4742	25,166	1	Q58	20,127	0.80		
237	Q 59	2	0	1	244	1709	1833	1516	854	6,156	1	Q59	4,682	0.76		
238	Q6	2	0	2	487	2,925	3,873	2,107	1,480	10,873	1	Q6	13,635	1.25		
239	Q60	2	0	2	328	2,439	7,375	2,067	2,328	14,536	1	Q60	15,642	1.08		
241	Q64/65/65	2	0	2	815	8,538	11,472	4,293	3,816	28,934	1	Q64/65/65A	28,259	0.98	240	9,851
242	Q66	2	0	2	407	4,375	5,384	2,079	1,928	14,173	1	Q66	14,173	1.00		
243	Q67	2	0	2	153	1,270	924	409	100	2,856	1	Q67	4,982	1.74		
245	Q7	2	0	2	104	1,783	2,073	767	508	5,236	1	Q7	10,463	2.00		
246	Q72	2	0	2	197	1,620	2,362	717	780	5,678	1	Q72	5,623	0.99	244	1,092
247	Q 74	2	0	1	0	427	602	428	238	1,695	0					
248	Q 75	2	0	1	34	384	255	209	73	955	1	Q75	633	0.66		
249	Q 76	2	0	1	65	1222	1655	986	450	4,378	1	Q76	3,562	0.81		
250	Q 77	2	0	1	0	1448	1954	1233	495	5,130	0					
251	Q 79	2	0	1	0	122	232	144	32	530	1	Q79	2,010	3.79		
252	Q8	2	0	2	188	1,960	2,773	1,198	847	6,968	1	Q8	6,959	1.00		
253	Q 83	2	0	1	550	2078	2482	1963	1739	8,812	1	Q83	7,944	0.90		
254	Q 84	2	0	1	223	1307	1257	965	801	4,553	1	Q84	9,146	2.01		
255	Q 85	2	0	1	650	2359	3473	2364	2003	10,849	1	Q85	10,438	0.96		
256	Q 88	2	0	1	34	1835	3650	1788	1226	8,533	1	Q88	1,035	0.12		
257	Q9/9A	2	0	2	131	1,324	1,810	1,060	412	4,737	1	Q9/9A	8,437	1.78		
258	QBx1	2	0	2	183	2,486	2,522	935	832	6,959	1	QBx1	9,568	1.37		
259	QM1	2	0	2	10	1,033	382	153	40	1,619	1	QM1	278	0.17		
260	QM10	2	0	2	-	338	121	97	13	569	1	QM10	569	1.00		
261	QM11	2	0	2	-	318	62	95	2	477	1	QM11	455	0.95		
262	QM12	2	0	2	-	376	95	81	9	561	1	QM12	521	0.93		
263	QM15	2	0	2	9	601	211	171	79	1,071	1	QM15	1,118	1.04		
264	QM16	2	0	2	-	109	52	43	-	204	1	QM16	204	1.00		
265	QM17	2	0	2	0	167	73	44	0	284	1	QM17	182	0.64		
266	QM18	2	0	2	-	168	54	19	0	242	1	QM18	1,413	5.84		
267	QM1A	2	0	2	54	1,658	699	1,041	394	3,846	1	QM1A	4,793	1.25		

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CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
268	QM2	2	0	2	28	835	450	439	210	1,961	0						
269	QM21	2	0	2	3	353	48	216	80	699	1	QM21	699	1.00			
270	QM22	2	0	2	-	35	17	11	-	62	1	QM22	62	1.00			
271	QM23	2	0	2	-	13	1	10	-	24	1	QM23	22	0.91			
272	QM24	2	0	2	-	1,208	336	281	9	1,835	1	QM24	1,835	1.00			
273	QM2A	2	0	2	32	588	256	284	122	1,281	1	QM2A	1,281	1.00			
274	QM3	2	0	2	-	107	2	62	0	171	1	QM3	2,386	13.92			
275	QM4	2	0	2	36	545	195	185	75	1,036	1	QM4	1,095	1.06			
276	S 40	5	0	1	341	871	1070	611	632	3,525	1	S40	2,695	0.76			
277	S 42	5	0	1	108	348	386	367	431	1,640	1	S42	1,685	1.03			
278	S 44	5	0	1	211	1214	2139	858	919	5,341	1	S44	5,730	1.07			
279	S 46	5	0	1	398	1201	2250	963	762	5,574	1	S46	6,421	1.15			
280	S 48	5	0	1	365	979	2682	1126	1132	6,284	1	S48	6,284	1.00			
281	S 51	5	0	1	257	977	1413	806	646	4,099	1	S51	4,099	1.00			
282	S 52	5	0	1	115	554	1088	678	521	2,956	1	S52	3,381	1.14			
283	S 53	5	0	1	499	1781	3002	1720	1444	8,446	1	S53	8,459	1.00			
284	S 54	5	0	1	10	395	473	231	140	1,249	0						
285	S 55	5	0	1	0	58	115	52	7	232	1	S55	232	1.00			
286	S 56	5	0	1	0	100	211	78	1	390	1	S56	390	1.00			
287	S 57	5	0	1	22	367	494	235	182	1,300	1	S57	1,337	1.03			
288	S 59	5	0	1	106	841	1316	858	512	3,633	0						
289	S 60	5	0	1	0	45	48	20	10	123	1	S60	195	1.59			
290	S 61	5	0	1	101	425	1395	508	505	2,934	1	S61	4,200	1.43			
291	S 62	5	0	1	318	718	1916	738	742	4,432	1	S62	4,432	1.00			
292	S 66	5	0	1	116	426	565	382	410	1,899	0						
293	S 67	5	0	1	11	274	58	280	3	626	1	S67	640	1.02			
294	S 74	5	0	1	444	1234	1656	916	803	5,053	1	S74	12,753	2.52			
295	S 76	5	0	1	92	909	1598	549	606	3,754	1	S76	3,621	0.96			
296	S 78	5	0	1	319	1115	2215	960	734	5,343	1	S78	6,106	1.14			
297	S 79	5	0	1	204	1523	2859	1795	1229	7,610	0						
298	S 81	5	0	1	0	0	0	198	3	201	0						
299	S 84	5	0	1	0	0	0	141	51	192	0						
300	S 86	5	0	1	0	0	4	333	12	349	0						
301	S 89	5	0	1	28	345	36	355	27	791	0						
302	S 90	5	0	1	1	303	0	304	48	656	1	S90	563	0.86			
303	S 91	5	0	1	0	424	8	374	61	867	0						
304	S 92	5	0	1	0	289	6	278	10	583	1	S92	667	1.14			
305	S 93	5	0	1	1	497	130	438	57	1,123	0						
306	S 94	5	0	1	0	180	2	426	52	660	0						
307	S 96	5	0	1	5	436	4	361	189	995	0						
308	S 98	5	0	1	1	440	7	524	109	1,081	1	S98	2,303	2.13			
309	X 1	3	0	1	718	1178	2054	1382	1255	6,587	1	X 1	6,960	1.06			
310	X 10	3	0	1	145	725	972	606	674	3,122	1	X10	1,414	0.45			
311	X 11	3	0	1	5	516	6	491	8	1,026	1	X11	1,025	1.00			
312	X 12	3	0	1	210	981	173	584	117	2,065	1	X12	2,065	1.00			
313	X 13	3	0	1	13	236	17	138	0	404	1	X13	404	1.00			
314	X 14	3	0	1	47	357	25	283	1	713	1	X14	714	1.00			
315	X 15	3	0	1	76	587	119	459	41	1,282	0						

MTA 2008 NYC RESIDENT TRAVEL SURVEY - NYCT and MTA BUS

CHECK LEVEL 3 EXPANSION of TRANSIT TRIPS AGAINST COUNTS

SURVEY: BOARDINGS with EXP32_FINAL_WKD

SURVEY and IMPUTED TRIP RECORDS for Non-Reporting Adults (NRAs)

BUS COUNTS: WEEKDAY

USROUTE_ID	ROUTE	BORO	EXPRESS	DIVISION	WKD_12-6AM	WKD_6-9AM	WKD_9AM-4PM	WKD_4-7PM	WKD_7PM-12AM	WKD_24HR		BUSROUTE_ID	BUS BOARDINGS:			BUSROUTE_ID	No Counts
316	X 16	3	0	1	0	179	27	126	0	332	1	X16	332	1.00			
317	X 17	3	0	1	396	2111	1070	1622	662	5,861	1	X17	5,636	0.96			
320	X 18	3	0	1	0	251	17	93	1	362	1	X18	362	1.00		318	1,543
321	X 19	3	0	1	119	512	157	414	2	1,204	1	X19	1,241	1.03			
322	X 2	3	0	1	147	738	84	577	7	1,553	1	X 2	404	0.26			
323	X 20	3	0	1	0	39	4	20	0	63	1	X20	70	1.11			
324	X 22	3	0	1	184	972	138	625	78	1,997	1	X22	1,774	0.89			
327	X 25	3	0	1	0	14	3	15	0	32	1	X25	32	1.00			
328	X 27	3	0	1	88	994	445	567	321	2,415	1	X27	2,324	0.96		325	538
329	X 28	3	0	1	63	919	399	657	245	2,283	1	X28	2,719	1.19		326	106
330	X 29	3	0	1	0	357	12	268	2	639	1	X29	991	1.55			
331	X 3	3	0	1	0	345	34	190	1	570	0						
332	X 30	3	0	1	13	524	3	361	0	901	1	X30	901	1.00			
333	X 31	3	0	1	63	472	32	349	8	924	1	X31	677	0.73			
334	X 32	3	0	1	0	29	10	0	0	39	1	X32	164	4.21			
335	X 37	3	0	1	0	766	13	534	119	1,432	1	X37	1,350	0.94			
336	X 38	3	0	1	39	807	42	551	85	1,524	1	X38	1,524	1.00			
337	X 4	3	0	1	9	341	46	294	25	715	1	X 4	715	1.00			
338	X 42	3	0	1	1	179	0	138	0	318	1	X42	311	0.98			
339	X 5	3	0	1	177	798	245	713	88	2,021	1	X 5	1,632	0.81			
340	X 51	3	0	1	3	251	27	103	32	416	1	X51	416	1.00			
341	X 6	3	0	1	95	594	15	305	15	1,024	1	X 6	952	0.93			
342	X 63	3	0	1	1	440	2	360	7	810	0						
343	X 64	3	0	1	0	286	0	230	0	516	1	X64	516	1.00			
344	X 68	3	0	1	0	375	20	323	0	718	1	X68	718	1.00			
347	X 7	3	0	1	55	481	73	306	12	927	0						
348	X 8	3	0	1	33	752	106	399	5	1,295	1	X8	1,295	1.00		345	205
349	X 9	3	0	1	4	483	2	312	14	815	1	X9	853	1.05			
350	X 90	3	0	1	0	395	39	301	39	774	0						
351	B OTHER	4	0	1	19	26	42	13	31	131	0					361	1,388
352	B RAPID	4	0	1	4	3	4	2	1	14	0					362	3,122
353	BXOTHER	4	1	1	4	6	11	2	11	34	0					363	14,773
354	BXRAPID	4	1	1	0	0	0	1	0	1	0					364	263
355	M LENOX S	1	0	1	0	0	0	0	1	1	0					365	476
356	M OTHER	1	0	1	4	19	36	13	18	90	0					366	171
357	M RAPID	1	0	1	0	1	3	1	1	6	0					367	1,641
358	Q OTHER	2	0	1	10	10	23	14	25	82	0					368	1,505
359	Q RAPID	2	0	1	13	0	0	3	0	16	0					369	2,191
360	S OTHER	5	0	1	4	15	25	13	16	73	1	S OTHER	304	4		370	1,528
																371	1,977
										2,472,069			2,735,571			372	318
																373	185
																375	542
																376	2,848
																377	1,107
																380	1,508
																381	543

APPENDIX C

SURVEY EXPANSION and VALIDATION

SECTION 4: VALIDATION TRANSIT LINKED TRIPS - BORO to BORO FLOWS

1 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: SUBWAY AND BUS

1.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
1.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
1.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
1.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
1.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD

2.1 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: SUBWAY

2.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
2.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
2.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
2.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
2.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD

3.1 LINKED TRANSIT TRIPS - BORO TO BORO FLOWS: BUS (ONLY)

3.1 HOUSEHOLD LEVEL EXPANSION (ONLY)	EXP1_FINAL_WKD
3.21 WITH PERSON-LEVEL WORK BALANCING	EXP21_FINAL_WKD
3.22 WITH PERSON-LEVEL WORK BALANCING and NRA IMPUTATION	EXP22_FINAL_WKD
3.31 WITH TRANSIT TRIP LEVEL 3 WEIGTING and PERSON-LEVEL WORK BALANCING	EXP31_FINAL_WKD
3.32 WITH TRANSIT TRIP LEVEL 3 WEIGTING and NRA IMPUTATION	EXP32_FINAL_WKD

Table 3.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION (ONLY)

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	485,056	35,750	51,022	13,953	37,126	**622,907**	3,425	**626,332**
Queens	36,218	309,879	5,178	15,989	-	**367,264**	12,272	**379,536**
Bronx	50,714	3,537	389,996	710	-	**444,957**	2,525	**447,482**
Brooklyn	16,155	12,408	476	421,557	3,671	**454,267**	-	**454,267**
Staten Island	34,489	-	-	2,371	58,138	**94,998**	411	**95,409**
NYC	**622,632**	**361,574**	**446,672**	**454,580**	**98,935**	**1,984,393**	**18,633**	**2,003,026**
Out of Area	2,342	13,437	5,162	15,057	410	**36,408**	1,105	**37,513**
Total	**624,974**	**375,011**	**451,834**	**469,637**	**99,345**	**2,020,801**	**19,738**	**2,040,539**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	324,023	5,861	15,716	3,078	14,201	**362,879**	14	**362,893**
Queens	7,661	206,473	2,289	8,199	4	**224,626**	28,846	**253,472**
Bronx	14,834	2,037	214,174	6	2	**231,053**	98	**231,151**
Brooklyn	6,038	7,303	12	335,068	2,395	**350,816**	34	**350,850**
Staten Island	14,602	1	-	2,733	48,108	**65,444**	-	**65,444**
NYC	**367,158**	**221,675**	**232,191**	**349,084**	**64,710**	**1,234,818**	**28,992**	**1,263,810**
Out of Area	15	5,409	44	24	-	**5,492**	15,335	**20,827**
Total	**367,173**	**227,084**	**232,235**	**349,108**	**64,710**	**1,240,310**	**44,327**	**1,284,637**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	161,033	29,889	35,306	10,875	22,925	**260,028**	3,411	**263,439**
Queens	28,557	103,406	2,889	7,790	(4)	**142,638**	(16,574)	**126,064**
Bronx	35,880	1,500	175,822	704	(2)	**213,904**	2,427	**216,331**
Brooklyn	10,117	5,105	464	86,489	1,276	**103,451**	(34)	**103,417**
Staten Island	19,887	(1)	-	(362)	10,030	**29,554**	411	**29,965**
NYC	**255,474**	**139,899**	**214,481**	**105,496**	**34,225**	**749,575**	**(10,359)**	**739,216**
Out of Area	2,327	8,028	5,118	15,033	410	**30,916**	(14,230)	**16,686**
Total	**257,801**	**147,927**	**219,599**	**120,529**	**34,635**	**780,491**	**(24,589)**	**755,902**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	23.8%	1.8%	2.5%	0.7%	1.8%	**30.5%**	0.2%	30.7%
Queens	1.8%	15.2%	0.3%	0.8%	0.0%	**18.0%**	0.6%	18.6%
Bronx	2.5%	0.2%	19.1%	0.0%	0.0%	**21.8%**	0.1%	21.9%
Brooklyn	0.8%	0.6%	0.0%	20.7%	0.2%	**22.3%**	0.0%	22.3%
Staten Island	1.7%	0.0%	0.0%	0.1%	2.8%	**4.7%**	0.0%	4.7%
NYC	**30.5%**	**17.7%**	**21.9%**	**22.3%**	**4.8%**	**97.2%**	**0.9%**	**98.2%**
Out of Area	0.1%	0.7%	0.3%	0.7%	0.0%	**1.8%**	0.1%	1.8%
Total	**30.6%**	**18.4%**	**22.1%**	**23.0%**	**4.9%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	25.2%	0.5%	1.2%	0.2%	1.1%	**28.2%**	0.0%	28.2%
Queens	0.6%	16.1%	0.2%	0.6%	0.0%	**17.5%**	2.2%	19.7%
Bronx	1.2%	0.2%	16.7%	0.0%	0.0%	**18.0%**	0.0%	18.0%
Brooklyn	0.5%	0.6%	0.0%	26.1%	0.2%	**27.3%**	0.0%	27.3%
Staten Island	1.1%	0.0%	0.0%	0.2%	3.7%	**5.1%**	0.0%	5.1%
NYC	**28.6%**	**17.3%**	**18.1%**	**27.2%**	**5.0%**	**96.1%**	**2.3%**	**98.4%**
Out of Area	0.0%	0.4%	0.0%	0.0%	0.0%	**0.4%**	1.2%	1.6%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-1.5%	1.3%	1.3%	0.4%	0.7%	2.3%	0.2%	2.4%
Queens	1.2%	-0.9%	0.1%	0.1%	0.0%	0.5%	-1.6%	-1.1%
Bronx	1.3%	0.0%	2.4%	0.0%	0.0%	3.8%	0.1%	3.9%
Brooklyn	0.3%	0.0%	0.0%	-5.4%	0.0%	-5.0%	0.0%	-5.0%
Staten Island	0.6%	0.0%	0.0%	-0.1%	-0.9%	-0.4%	0.0%	-0.4%
NYC	1.9%	0.5%	3.8%	-4.9%	-0.2%	1.1%	-1.3%	-0.2%
Out of Area	0.1%	0.2%	0.2%	0.7%	0.0%	1.4%	-1.1%	0.2%
Total	**2.0%**	**0.7%**	**4.1%**	**-4.2%**	**-0.2%**	2.5%	**-2.5%**	**0.0%**

Table 3.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION (ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	50%	510%	225%	353%	161%	**71.7%**	24364%	72.6%
Queens	373%	50%	126%	95%	-100%	**63.5%**	-57%	49.7%
Bronx	242%	74%	82%	11733%	-100%	**92.6%**	2477%	93.6%
Brooklyn	168%	70%	3867%	26%	53%	**29.5%**	-100%	29.5%
Staten Island	136%	-100%	#DIV/0!	-13%	21%	**45.2%**	#DIV/0!	45.8%
NYC	**69.6%**	**63.1%**	**92.4%**	**30.2%**	**52.9%**	**60.7%**	**-36%**	**58%**
Out of Area	15513%	148%	11632%	62638%	#DIV/0!	**563%**	-93%	80.1%
Total	**70.2%**	**65.1%**	**94.6%**	**34.5%**	**53.5%**	**63%**	**-55.5%**	**58.8%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	77.4%	5.7%	8.1%	2.2%	5.9%	**99.5%**	0.5%	100.0%
Queens	9.5%	81.6%	1.4%	4.2%	0.0%	**96.8%**	3.2%	100.0%
Bronx	11.3%	0.8%	87.2%	0.2%	0.0%	**99.4%**	0.6%	100.0%
Brooklyn	3.6%	2.7%	0.1%	92.8%	0.8%	**100.0%**	0.0%	100.0%
Staten Island	36.1%	0.0%	0.0%	2.5%	60.9%	**99.6%**	0.4%	100.0%
NYC	**31.1%**	**18.1%**	**22.3%**	**22.7%**	**4.9%**	**99.1%**	**0.9%**	**100.0%**
Out of Area	6.2%	35.8%	13.8%	40.1%	1.1%	**97.1%**	2.9%	100.0%
Total	**30.6%**	**18.4%**	**22.1%**	**23.0%**	**4.9%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	89.3%	1.6%	4.3%	0.8%	3.9%	**100.0%**	0.0%	100.0%
Queens	3.0%	81.5%	0.9%	3.2%	0.0%	**88.6%**	11.4%	100.0%
Bronx	6.4%	0.9%	92.7%	0.0%	0.0%	**100.0%**	0.0%	100.0%
Brooklyn	1.7%	2.1%	0.0%	95.5%	0.7%	**100.0%**	0.0%	100.0%
Staten Island	22.3%	0.0%	0.0%	4.2%	73.5%	**100.0%**	0.0%	100.0%
NYC	**29.1%**	**17.5%**	**18.4%**	**27.6%**	**5.1%**	**97.7%**	**2.3%**	**100.0%**
Out of Area	0.1%	26.0%	0.2%	0.1%	0.0%	**26.4%**	73.6%	100.0%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-11.8%	4.1%	3.8%	1.4%	2.0%	-0.5%	0.5%	0.0%
Queens	6.5%	0.2%	0.5%	1.0%	0.0%	8.1%	-8.1%	0.0%
Bronx	4.9%	-0.1%	-5.5%	0.2%	0.0%	-0.5%	0.5%	0.0%
Brooklyn	1.8%	0.6%	0.1%	-2.7%	0.1%	0.0%	0.0%	0.0%
Staten Island	13.8%	0.0%	0.0%	-1.7%	-12.6%	-0.4%	0.4%	0.0%
NYC	2.0%	0.5%	3.9%	-4.9%	-0.2%	1.4%	-1.4%	0.0%
Out of Area	6.2%	9.8%	13.5%	40.0%	1.1%	70.7%	-70.7%	0.0%
Total	**2.0%**	**0.7%**	**4.1%**	**-4.2%**	**-0.2%**	2.5%	**-2.5%**	**0.0%**

Table 3.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

A MTA Survey

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	375,004	19,678	37,774	10,290	22,069	**464,815**	2,777	**467,592**
	Queens	19,846	209,210	2,272	13,648	-	**244,976**	4,184	**249,160**
	Bronx	37,161	1,919	252,677	693	-	**292,450**	1,668	**294,118**
	Brooklyn	11,121	11,069	451	310,608	2,878	**336,127**	-	**336,127**
	Staten Island	21,641	-	-	1,471	28,121	**51,233**	411	**51,644**
	NYC	**464,773**	**241,876**	**293,174**	**336,710**	**53,068**	**1,389,601**	**9,040**	**1,398,641**
	Out of Area	1,506	5,742	2,801	-	-	**10,049**	1,442	**11,491**
	Total	**466,279**	**247,618**	**295,975**	**336,710**	**53,068**	**1,399,650**	**10,482**	**1,410,132**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	324,023	5,861	15,716	3,078	14,201	**362,879**	14	**362,893**
	Queens	7,661	206,473	2,289	8,199	4	**224,626**	28,846	**253,472**
	Bronx	14,834	2,037	214,174	6	2	**231,053**	98	**231,151**
	Brooklyn	6,038	7,303	12	335,068	2,395	**350,816**	34	**350,850**
	Staten Island	14,602	1	-	2,733	48,108	**65,444**	-	**65,444**
	NYC	**367,158**	**221,675**	**232,191**	**349,084**	**64,710**	**1,234,818**	**28,992**	**1,263,810**
	Out of Area	15	5,409	44	24	-	**5,492**	15,335	**20,827**
	Total	**367,173**	**227,084**	**232,235**	**349,108**	**64,710**	**1,240,310**	**44,327**	**1,284,637**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	50,981	13,817	22,058	7,212	7,868	**101,936**	2,763	**104,699**
	Queens	12,185	2,737	(17)	5,449	(4)	**20,350**	(24,662)	**(4,312)**
	Bronx	22,327	(118)	38,503	687	(2)	**61,397**	1,570	**62,967**
	Brooklyn	5,083	3,766	439	(24,460)	483	**(14,689)**	(34)	**(14,723)**
	Staten Island	7,039	(1)	-	(1,262)	(19,987)	**(14,211)**	411	**(13,800)**
	NYC	**97,615**	**20,201**	**60,983**	**(12,374)**	**(11,642)**	**154,783**	**(19,952)**	**134,831**
	Out of Area	1,491	333	2,757	(24)	-	**4,557**	(13,893)	**(9,336)**
	Total	**99,106**	**20,534**	**63,740**	**(12,398)**	**(11,642)**	**159,340**	**(33,845)**	**125,495**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	26.6%	1.4%	2.7%	0.7%	1.6%	**33.0%**	0.2%	33.2%
	Queens	1.4%	14.8%	0.2%	1.0%	0.0%	**17.4%**	0.3%	17.7%
	Bronx	2.6%	0.1%	17.9%	0.0%	0.0%	**20.7%**	0.1%	20.9%
	Brooklyn	0.8%	0.8%	0.0%	22.0%	0.2%	**23.8%**	0.0%	23.8%
	Staten Island	1.5%	0.0%	0.0%	0.1%	2.0%	**3.6%**	0.0%	3.7%
	NYC	**33.0%**	**17.2%**	**20.8%**	**23.9%**	**3.8%**	**98.5%**	**0.6%**	**99.2%**
	Out of Area	0.1%	0.4%	0.2%	0.0%	0.0%	**0.7%**	0.1%	0.8%
	Total	**33.1%**	**17.6%**	**21.0%**	**23.9%**	**3.8%**	**99.3%**	**0.7%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	25.2%	0.5%	1.2%	0.2%	1.1%	**28.2%**	0.0%	28.2%
	Queens	0.6%	16.1%	0.2%	0.6%	0.0%	**17.5%**	2.2%	19.7%
	Bronx	1.2%	0.2%	16.7%	0.0%	0.0%	**18.0%**	0.0%	18.0%
	Brooklyn	0.5%	0.6%	0.0%	26.1%	0.2%	**27.3%**	0.0%	27.3%
	Staten Island	1.1%	0.0%	0.0%	0.2%	3.7%	**5.1%**	0.0%	5.1%
	NYC	**28.6%**	**17.3%**	**18.1%**	**27.2%**	**5.0%**	**96.1%**	**2.3%**	**98.4%**
	Out of Area	0.0%	0.4%	0.0%	0.0%	0.0%	**0.4%**	1.2%	1.6%
	Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
	Manhattan	1.4%	0.9%	1.5%	0.5%	0.5%	4.7%	0.2%	4.9%
	Queens	0.8%	-1.2%	0.0%	0.3%	0.0%	-0.1%	-1.9%	-2.1%
	Bronx	1.5%	0.0%	1.2%	0.0%	0.0%	2.8%	0.1%	2.9%
	Brooklyn	0.3%	0.2%	0.0%	-4.1%	0.0%	-3.5%	0.0%	-3.5%
	Staten Island	0.4%	0.0%	0.0%	-0.1%	-1.8%	-1.5%	0.0%	-1.4%
	NYC	4.4%	-0.1%	2.7%	-3.3%	-1.3%	2.4%	-1.6%	0.8%
	Out of Area	0.1%	0.0%	0.2%	0.0%	0.0%	0.3%	-1.1%	-0.8%
	Total	**4.5%**	**-0.1%**	**2.9%**	**-3.3%**	**-1.3%**	2.7%	**-2.7%**	**0.0%**

Table 3.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	16%	236%	140%	234%	55%	**28%**	19736%	28.9%
	Queens	159%	1%	-1%	66%	-100%	**9%**	-85%	-1.7%
	Bronx	151%	-6%	18%	11450%	-100%	**27%**	1602%	27.2%
	Brooklyn	84%	52%	3658%	-7%	20%	**-4%**	-100%	-4.2%
	Staten Island	48%	-100%	#DIV/0!	-46%	-42%	**-22%**	#DIV/0!	-21.1%
	NYC	**26.6%**	**9.1%**	**26.3%**	**-3.5%**	**-18.0%**	**12.5%**	**-69%**	**11%**
	Out of Area	9940%	6%	6266%	-100%	#DIV/0!	**83%**	-91%	-44.8%
	Total	**27.0%**	**9.0%**	**27.4%**	**-3.6%**	**-18.0%**	**13%**	**-76.4%**	**9.8%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	80.2%	4.2%	8.1%	2.2%	4.7%	**99.4%**	0.6%	100.0%
	Queens	8.0%	84.0%	0.9%	5.5%	0.0%	**98.3%**	1.7%	100.0%
	Bronx	12.6%	0.7%	85.9%	0.2%	0.0%	**99.4%**	0.6%	100.0%
	Brooklyn	3.3%	3.3%	0.1%	92.4%	0.9%	**100.0%**	0.0%	100.0%
	Staten Island	41.9%	0.0%	0.0%	2.8%	54.5%	**99.2%**	0.8%	100.0%
	NYC	**33.2%**	**17.3%**	**21.0%**	**24.1%**	**3.8%**	**99.4%**	**0.6%**	**100.0%**
	Out of Area	13.1%	50.0%	24.4%	0.0%	0.0%	**87.5%**	12.5%	100.0%
	Total	**33.1%**	**17.6%**	**21.0%**	**23.9%**	**3.8%**	**99.3%**	**0.7%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	89.3%	1.6%	4.3%	0.8%	3.9%	**100.0%**	0.0%	100.0%
	Queens	3.0%	81.5%	0.9%	3.2%	0.0%	**88.6%**	11.4%	100.0%
	Bronx	6.4%	0.9%	92.7%	0.0%	0.0%	**100.0%**	0.0%	100.0%
	Brooklyn	1.7%	2.1%	0.0%	95.5%	0.7%	**100.0%**	0.0%	100.0%
	Staten Island	22.3%	0.0%	0.0%	4.2%	73.5%	**100.0%**	0.0%	100.0%
	NYC	**29.1%**	**17.5%**	**18.4%**	**27.6%**	**5.1%**	**97.7%**	**2.3%**	**100.0%**
	Out of Area	0.1%	26.0%	0.2%	0.1%	0.0%	**26.4%**	73.6%	100.0%
	Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-9.1%	2.6%	3.7%	1.4%	0.8%	-0.6%	0.6%	0.0%
	Queens	4.9%	2.5%	0.0%	2.2%	0.0%	9.7%	-9.7%	0.0%
	Bronx	6.2%	-0.2%	-6.7%	0.2%	0.0%	-0.5%	0.5%	0.0%
	Brooklyn	1.6%	1.2%	0.1%	-3.1%	0.2%	0.0%	0.0%	0.0%
	Staten Island	19.6%	0.0%	0.0%	-1.3%	-19.1%	-0.8%	0.8%	0.0%
	NYC	4.2%	-0.2%	2.6%	-3.5%	-1.3%	1.6%	-1.6%	0.0%
	Out of Area	13.0%	24.0%	24.2%	-0.1%	0.0%	61.1%	-61.1%	0.0%
	Total	**4.5%**	**-0.1%**	**2.9%**	**-3.3%**	**-1.3%**	2.7%	**-2.7%**	**0.0%**

Table 3.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	476,580	30,503	49,999	12,346	31,006	**600,434**	4,035	**604,469**
Queens	30,624	310,425	3,520	17,758	-	**362,327**	11,179	**373,506**
Bronx	48,923	2,921	366,304	746	-	**418,894**	2,242	**421,136**
Brooklyn	14,424	13,404	504	432,386	4,270	**464,988**	-	**464,988**
Staten Island	29,710	-	-	2,067	48,905	**80,682**	411	**81,093**
NYC	**600,261**	**357,253**	**420,327**	**465,303**	**84,181**	**1,927,325**	**17,867**	**1,945,192**
Out of Area	2,555	13,845	4,454	-	-	**20,854**	78,895	**99,749**
Total	**602,816**	**371,098**	**424,781**	**465,303**	**84,181**	**1,948,179**	**96,762**	**2,044,941**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	324,023	5,861	15,716	3,078	14,201	**362,879**	14	**362,893**
Queens	7,661	206,473	2,289	8,199	4	**224,626**	28,846	**253,472**
Bronx	14,834	2,037	214,174	6	2	**231,053**	98	**231,151**
Brooklyn	6,038	7,303	12	335,068	2,395	**350,816**	34	**350,850**
Staten Island	14,602	1	-	2,733	48,108	**65,444**	-	**65,444**
NYC	**367,158**	**221,675**	**232,191**	**349,084**	**64,710**	**1,234,818**	**28,992**	**1,263,810**
Out of Area	15	5,409	44	24	-	**5,492**	15,335	**20,827**
Total	**367,173**	**227,084**	**232,235**	**349,108**	**64,710**	**1,240,310**	**44,327**	**1,284,637**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	152,557	24,642	34,283	9,268	16,805	**237,555**	4,021	**241,576**
Queens	22,963	103,952	1,231	9,559	(4)	**137,701**	(17,667)	**120,034**
Bronx	34,089	884	152,130	740	(2)	**187,841**	2,144	**189,985**
Brooklyn	8,386	6,101	492	97,318	1,875	**114,172**	(34)	**114,138**
Staten Island	15,108	(1)	-	(666)	797	**15,238**	411	**15,649**
NYC	**233,103**	**135,578**	**188,136**	**116,219**	**19,471**	**692,507**	**(11,125)**	**681,382**
Out of Area	2,540	8,436	4,410	(24)	-	**15,362**	63,560	**78,922**
Total	**235,643**	**144,014**	**192,546**	**116,195**	**19,471**	**707,869**	**52,435**	**760,304**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	23.3%	1.5%	2.4%	0.6%	1.5%	**29.4%**	0.2%	29.6%
Queens	1.5%	15.2%	0.2%	0.9%	0.0%	**17.7%**	0.5%	18.3%
Bronx	2.4%	0.1%	17.9%	0.0%	0.0%	**20.5%**	0.1%	20.6%
Brooklyn	0.7%	0.7%	0.0%	21.1%	0.2%	**22.7%**	0.0%	22.7%
Staten Island	1.5%	0.0%	0.0%	0.1%	2.4%	**3.9%**	0.0%	4.0%
NYC	**29.4%**	**17.5%**	**20.6%**	**22.8%**	**4.1%**	**94.2%**	**0.9%**	**95.1%**
Out of Area	0.1%	0.7%	0.2%	0.0%	0.0%	**1.0%**	3.9%	4.9%
Total	**29.5%**	**18.1%**	**20.8%**	**22.8%**	**4.1%**	**95.3%**	**4.7%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	25.2%	0.5%	1.2%	0.2%	1.1%	**28.2%**	0.0%	28.2%
Queens	0.6%	16.1%	0.2%	0.6%	0.0%	**17.5%**	2.2%	19.7%
Bronx	1.2%	0.2%	16.7%	0.0%	0.0%	**18.0%**	0.0%	18.0%
Brooklyn	0.5%	0.6%	0.0%	26.1%	0.2%	**27.3%**	0.0%	27.3%
Staten Island	1.1%	0.0%	0.0%	0.2%	3.7%	**5.1%**	0.0%	5.1%
NYC	**28.6%**	**17.3%**	**18.1%**	**27.2%**	**5.0%**	**96.1%**	**2.3%**	**98.4%**
Out of Area	0.0%	0.4%	0.0%	0.0%	0.0%	**0.4%**	1.2%	1.6%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-1.9%	1.0%	1.2%	0.4%	0.4%	1.1%	0.2%	1.3%
Queens	0.9%	-0.9%	0.0%	0.2%	0.0%	0.2%	-1.7%	-1.5%
Bronx	1.2%	0.0%	1.2%	0.0%	0.0%	2.5%	0.1%	2.6%
Brooklyn	0.2%	0.1%	0.0%	-4.9%	0.0%	-4.6%	0.0%	-4.6%
Staten Island	0.3%	0.0%	0.0%	-0.1%	-1.4%	-1.1%	0.0%	-1.1%
NYC	0.8%	0.2%	2.5%	-4.4%	-0.9%	-1.9%	-1.4%	-3.3%
Out of Area	0.1%	0.3%	0.2%	0.0%	0.0%	0.6%	2.7%	3.3%
Total	**0.9%**	**0.5%**	**2.7%**	**-4.4%**	**-0.9%**	-1.3%	**1.3%**	**0.0%**

Table 3.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	47%	420%	218%	301%	118%	**65%**	28721%	66.6%
	Queens	300%	50%	54%	117%	-100%	**61%**	-61%	47.4%
	Bronx	230%	43%	71%	12333%	-100%	**81%**	2188%	82.2%
	Brooklyn	139%	84%	4100%	29%	78%	**33%**	-100%	32.5%
	Staten Island	103%	-100%	#DIV/0!	-24%	2%	**23%**	#DIV/0!	23.9%
	NYC	**63.5%**	**61.2%**	**81.0%**	**33.3%**	**30.1%**	**56.1%**	**-38%**	**54%**
	Out of Area	16933%	156%	10023%	-100%	#DIV/0!	**280%**	414%	378.9%
	Total	**64.2%**	**63.4%**	**82.9%**	**33.3%**	**30.1%**	**57%**	**118.3%**	**59.2%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	78.8%	5.0%	8.3%	2.0%	5.1%	**99.3%**	0.7%	100.0%
	Queens	8.2%	83.1%	0.9%	4.8%	0.0%	**97.0%**	3.0%	100.0%
	Bronx	11.6%	0.7%	87.0%	0.2%	0.0%	**99.5%**	0.5%	100.0%
	Brooklyn	3.1%	2.9%	0.1%	93.0%	0.9%	**100.0%**	0.0%	100.0%
	Staten Island	36.6%	0.0%	0.0%	2.5%	60.3%	**99.5%**	0.5%	100.0%
	NYC	**30.9%**	**18.4%**	**21.6%**	**23.9%**	**4.3%**	**99.1%**	**0.9%**	**100.0%**
	Out of Area	2.6%	13.9%	4.5%	0.0%	0.0%	**20.9%**	79.1%	100.0%
	Total	**29.5%**	**18.1%**	**20.8%**	**22.8%**	**4.1%**	**95.3%**	**4.7%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	89.3%	1.6%	4.3%	0.8%	3.9%	**100.0%**	0.0%	100.0%
	Queens	3.0%	81.5%	0.9%	3.2%	0.0%	**88.6%**	11.4%	100.0%
	Bronx	6.4%	0.9%	92.7%	0.0%	0.0%	**100.0%**	0.0%	100.0%
	Brooklyn	1.7%	2.1%	0.0%	95.5%	0.7%	**100.0%**	0.0%	100.0%
	Staten Island	22.3%	0.0%	0.0%	4.2%	73.5%	**100.0%**	0.0%	100.0%
	NYC	**29.1%**	**17.5%**	**18.4%**	**27.6%**	**5.1%**	**97.7%**	**2.3%**	**100.0%**
	Out of Area	0.1%	26.0%	0.2%	0.1%	0.0%	**26.4%**	73.6%	100.0%
	Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-10.4%	3.4%	3.9%	1.2%	1.2%	-0.7%	0.7%	0.0%
	Queens	5.2%	1.7%	0.0%	1.5%	0.0%	8.4%	-8.4%	0.0%
	Bronx	5.2%	-0.2%	-5.7%	0.2%	0.0%	-0.5%	0.5%	0.0%
	Brooklyn	1.4%	0.8%	0.1%	-2.5%	0.2%	0.0%	0.0%	0.0%
	Staten Island	14.3%	0.0%	0.0%	-1.6%	-13.2%	-0.5%	0.5%	0.0%
	NYC	1.8%	0.8%	3.2%	-3.7%	-0.8%	1.4%	-1.4%	0.0%
	Out of Area	2.5%	-12.1%	4.3%	-0.1%	0.0%	-5.5%	5.5%	0.0%
	Total	**0.9%**	**0.5%**	**2.7%**	**-4.4%**	**-0.9%**	-1.3%	**1.3%**	**0.0%**

Table 3.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	312,437	19,604	36,346	19,814	5,290	**393,491**	824	**394,315**
Queens	27,035	226,205	1,608	18,208	-	**273,056**	1,025	**274,081**
Bronx	41,385	910	180,328	351	-	**222,974**	846	**223,820**
Brooklyn	20,644	13,738	-	322,603	1,550	**358,535**	-	**358,535**
Staten Island	16,624	-	-	1,412	45,281	**63,317**	65	**63,382**
NYC	**418,125**	**260,457**	**218,282**	**362,388**	**52,121**	**1,311,373**	**2,760**	**1,314,133**
Out of Area	304	5,759	2,349	-	-	**8,412**	60	**8,472**
Total	**418,429**	**266,216**	**220,631**	**362,388**	**52,121**	**1,319,785**	**2,820**	**1,322,605**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	324,023	5,861	15,716	3,078	14,201	**362,879**	14	**362,893**
Queens	7,661	206,473	2,289	8,199	4	**224,626**	28,846	**253,472**
Bronx	14,834	2,037	214,174	6	2	**231,053**	98	**231,151**
Brooklyn	6,038	7,303	12	335,068	2,395	**350,816**	34	**350,850**
Staten Island	14,602	1	-	2,733	48,108	**65,444**	-	**65,444**
NYC	**367,158**	**221,675**	**232,191**	**349,084**	**64,710**	**1,234,818**	**28,992**	**1,263,810**
Out of Area	15	5,409	44	24	-	**5,492**	15,335	**20,827**
Total	**367,173**	**227,084**	**232,235**	**349,108**	**64,710**	**1,240,310**	**44,327**	**1,284,637**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(11,586)	13,743	20,630	16,736	(8,911)	**30,612**	810	**31,422**
Queens	19,374	19,732	(681)	10,009	(4)	**48,430**	(27,821)	**20,609**
Bronx	26,551	(1,127)	(33,846)	345	(2)	**(8,079)**	748	**(7,331)**
Brooklyn	14,606	6,435	(12)	(12,465)	(845)	**7,719**	(34)	**7,685**
Staten Island	2,022	(1)	-	(1,321)	(2,827)	**(2,127)**	65	**(2,062)**
NYC	**50,967**	**38,782**	**(13,909)**	**13,304**	**(12,589)**	**76,555**	**(26,232)**	**50,323**
Out of Area	289	350	2,305	(24)	-	**2,920**	(15,275)	**(12,355)**
Total	**51,256**	**39,132**	**(11,604)**	**13,280**	**(12,589)**	**79,475**	**(41,507)**	**37,968**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	23.6%	1.5%	2.7%	1.5%	0.4%	**29.8%**	0.1%	29.8%
Queens	2.0%	17.1%	0.1%	1.4%	0.0%	**20.6%**	0.1%	20.7%
Bronx	3.1%	0.1%	13.6%	0.0%	0.0%	**16.9%**	0.1%	16.9%
Brooklyn	1.6%	1.0%	0.0%	24.4%	0.1%	**27.1%**	0.0%	27.1%
Staten Island	1.3%	0.0%	0.0%	0.1%	3.4%	**4.8%**	0.0%	4.8%
NYC	**31.6%**	**19.7%**	**16.5%**	**27.4%**	**3.9%**	**99.2%**	**0.2%**	**99.4%**
Out of Area	0.0%	0.4%	0.2%	0.0%	0.0%	**0.6%**	0.0%	0.6%
Total	**31.6%**	**20.1%**	**16.7%**	**27.4%**	**3.9%**	**99.8%**	**0.2%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	25.2%	0.5%	1.2%	0.2%	1.1%	**28.2%**	0.0%	28.2%
Queens	0.6%	16.1%	0.2%	0.6%	0.0%	**17.5%**	2.2%	19.7%
Bronx	1.2%	0.2%	16.7%	0.0%	0.0%	**18.0%**	0.0%	18.0%
Brooklyn	0.5%	0.6%	0.0%	26.1%	0.2%	**27.3%**	0.0%	27.3%
Staten Island	1.1%	0.0%	0.0%	0.2%	3.7%	**5.1%**	0.0%	5.1%
NYC	**28.6%**	**17.3%**	**18.1%**	**27.2%**	**5.0%**	**96.1%**	**2.3%**	**98.4%**
Out of Area	0.0%	0.4%	0.0%	0.0%	0.0%	**0.4%**	1.2%	1.6%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-1.6%	1.0%	1.5%	1.3%	-0.7%	1.5%	0.1%	1.6%
Queens	1.4%	1.0%	-0.1%	0.7%	0.0%	3.2%	-2.2%	1.0%
Bronx	2.0%	-0.1%	-3.0%	0.0%	0.0%	-1.1%	0.1%	-1.1%
Brooklyn	1.1%	0.5%	0.0%	-1.7%	-0.1%	-0.2%	0.0%	-0.2%
Staten Island	0.1%	0.0%	0.0%	-0.1%	-0.3%	-0.3%	0.0%	-0.3%
NYC	3.0%	2.4%	-1.6%	0.2%	-1.1%	3.0%	-2.0%	1.0%
Out of Area	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	-1.2%	-1.0%
Total	**3.1%**	**2.5%**	**-1.4%**	**0.2%**	**-1.1%**	3.2%	**-3.2%**	**0.0%**

Table 3.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates **C / B**

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-4%	234%	131%	544%	-63%	**8.4%**	5786%	8.7%
Queens	253%	10%	-30%	122%	-100%	**21.6%**	-96%	8.1%
Bronx	179%	-55%	-16%	5750%	-100%	**-3.5%**	763%	-3.2%
Brooklyn	242%	88%	-100%	-4%	-35%	**2.2%**	-100%	2.2%
Staten Island	14%	-100%	#DIV/0!	-48%	-6%	**-3.3%**	#DIV/0!	-3.2%
NYC	**13.9%**	**17.5%**	**-6.0%**	**3.8%**	**-19.5%**	**6.2%**	**-90%**	**4%**
Out of Area	1927%	6%	5239%	-100%	#DIV/0!	**53%**	-100%	-59.3%
Total	**14.0%**	**17.2%**	**-5.0%**	**3.8%**	**-19.5%**	**6%**	**-93.6%**	**3.0%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	79.2%	5.0%	9.2%	5.0%	1.3%	**99.8%**	0.2%	100.0%
Queens	9.9%	82.5%	0.6%	6.6%	0.0%	**99.6%**	0.4%	100.0%
Bronx	18.5%	0.4%	80.6%	0.2%	0.0%	**99.6%**	0.4%	100.0%
Brooklyn	5.8%	3.8%	0.0%	90.0%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	26.2%	0.0%	0.0%	2.2%	71.4%	**99.9%**	0.1%	100.0%
NYC	**31.8%**	**19.8%**	**16.6%**	**27.6%**	**4.0%**	**99.8%**	**0.2%**	**100.0%**
Out of Area	3.6%	68.0%	27.7%	0.0%	0.0%	**99.3%**	0.7%	100.0%
Total	**31.6%**	**20.1%**	**16.7%**	**27.4%**	**3.9%**	**99.8%**	**0.2%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	89.3%	1.6%	4.3%	0.8%	3.9%	**100.0%**	0.0%	100.0%
Queens	3.0%	81.5%	0.9%	3.2%	0.0%	**88.6%**	11.4%	100.0%
Bronx	6.4%	0.9%	92.7%	0.0%	0.0%	**100.0%**	0.0%	100.0%
Brooklyn	1.7%	2.1%	0.0%	95.5%	0.7%	**100.0%**	0.0%	100.0%
Staten Island	22.3%	0.0%	0.0%	4.2%	73.5%	**100.0%**	0.0%	100.0%
NYC	**29.1%**	**17.5%**	**18.4%**	**27.6%**	**5.1%**	**97.7%**	**2.3%**	**100.0%**
Out of Area	0.1%	26.0%	0.2%	0.1%	0.0%	**26.4%**	73.6%	100.0%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-10.1%	3.4%	4.9%	4.2%	-2.6%	-0.2%	0.2%	0.0%
Queens	6.8%	1.1%	-0.3%	3.4%	0.0%	11.0%	-11.0%	0.0%
Bronx	12.1%	-0.5%	-12.1%	0.2%	0.0%	-0.3%	0.3%	0.0%
Brooklyn	4.0%	1.8%	0.0%	-5.5%	-0.3%	0.0%	0.0%	0.0%
Staten Island	3.9%	0.0%	0.0%	-1.9%	-2.1%	-0.1%	0.1%	0.0%
NYC	2.8%	2.3%	-1.8%	0.0%	-1.2%	2.1%	-2.1%	0.0%
Out of Area	3.5%	42.0%	27.5%	-0.1%	0.0%	72.9%	-72.9%	0.0%
Total	**3.1%**	**2.5%**	**-1.4%**	**0.2%**	**-1.1%**	3.2%	**-3.2%**	**0.0%**

Table 3.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	307,002	19,494	33,732	18,744	4,425	**383,397**	902	**384,299**
Queens	30,123	229,338	1,474	16,628	-	**277,563**	1,735	**279,298**
Bronx	39,477	904	193,714	273	-	**234,368**	619	**234,987**
Brooklyn	23,064	12,882	-	327,754	1,382	**365,082**	-	**365,082**
Staten Island	16,698	-	-	1,044	55,431	**73,173**	59	**73,232**
NYC	**416,364**	**262,618**	**228,920**	**364,443**	**61,238**	**1,333,583**	**3,315**	**1,336,898**
Out of Area	472	6,211	2,215	-	-	**8,898**	36	**8,934**
Total	**416,836**	**268,829**	**231,135**	**364,443**	**61,238**	**1,342,481**	**3,351**	**1,345,832**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	324,023	5,861	15,716	3,078	14,201	**362,879**	14	**362,893**
Queens	7,661	206,473	2,289	8,199	4	**224,626**	28,846	**253,472**
Bronx	14,834	2,037	214,174	6	2	**231,053**	98	**231,151**
Brooklyn	6,038	7,303	12	335,068	2,395	**350,816**	34	**350,850**
Staten Island	14,602	1	-	2,733	48,108	**65,444**	-	**65,444**
NYC	**367,158**	**221,675**	**232,191**	**349,084**	**64,710**	**1,234,818**	**28,992**	**1,263,810**
Out of Area	15	5,409	44	24	-	**5,492**	15,335	**20,827**
Total	**367,173**	**227,084**	**232,235**	**349,108**	**64,710**	**1,240,310**	**44,327**	**1,284,637**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(17,021)	13,633	18,016	15,666	(9,776)	**20,518**	888	**21,406**
Queens	22,462	22,865	(815)	8,429	(4)	**52,937**	(27,111)	**25,826**
Bronx	24,643	(1,133)	(20,460)	267	(2)	**3,315**	521	**3,836**
Brooklyn	17,026	5,579	(12)	(7,314)	(1,013)	**14,266**	(34)	**14,232**
Staten Island	2,096	(1)	-	(1,689)	7,323	**7,729**	59	**7,788**
NYC	**49,206**	**40,943**	**(3,271)**	**15,359**	**(3,472)**	**98,765**	**(25,677)**	**73,088**
Out of Area	457	802	2,171	(24)	-	**3,406**	(15,299)	**(11,893)**
Total	**49,663**	**41,745**	**(1,100)**	**15,335**	**(3,472)**	**102,171**	**(40,976)**	**61,195**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	22.8%	1.4%	2.5%	1.4%	0.3%	**28.5%**	0.1%	28.6%
Queens	2.2%	17.0%	0.1%	1.2%	0.0%	**20.6%**	0.1%	20.8%
Bronx	2.9%	0.1%	14.4%	0.0%	0.0%	**17.4%**	0.0%	17.5%
Brooklyn	1.7%	1.0%	0.0%	24.4%	0.1%	**27.1%**	0.0%	27.1%
Staten Island	1.2%	0.0%	0.0%	0.1%	4.1%	**5.4%**	0.0%	5.4%
NYC	**30.9%**	**19.5%**	**17.0%**	**27.1%**	**4.6%**	**99.1%**	**0.2%**	**99.3%**
Out of Area	0.0%	0.5%	0.2%	0.0%	0.0%	**0.7%**	0.0%	0.7%
Total	**31.0%**	**20.0%**	**17.2%**	**27.1%**	**4.6%**	**99.8%**	**0.2%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	25.2%	0.5%	1.2%	0.2%	1.1%	**28.2%**	0.0%	28.2%
Queens	0.6%	16.1%	0.2%	0.6%	0.0%	**17.5%**	2.2%	19.7%
Bronx	1.2%	0.2%	16.7%	0.0%	0.0%	**18.0%**	0.0%	18.0%
Brooklyn	0.5%	0.6%	0.0%	26.1%	0.2%	**27.3%**	0.0%	27.3%
Staten Island	1.1%	0.0%	0.0%	0.2%	3.7%	**5.1%**	0.0%	5.1%
NYC	**28.6%**	**17.3%**	**18.1%**	**27.2%**	**5.0%**	**96.1%**	**2.3%**	**98.4%**
Out of Area	0.0%	0.4%	0.0%	0.0%	0.0%	**0.4%**	1.2%	1.6%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-2.4%	1.0%	1.3%	1.2%	-0.8%	0.2%	0.1%	0.3%
Queens	1.6%	1.0%	-0.1%	0.6%	0.0%	3.1%	-2.1%	1.0%
Bronx	1.8%	-0.1%	-2.3%	0.0%	0.0%	-0.6%	0.0%	-0.5%
Brooklyn	1.2%	0.4%	0.0%	-1.7%	-0.1%	-0.2%	0.0%	-0.2%
Staten Island	0.1%	0.0%	0.0%	-0.1%	0.4%	0.3%	0.0%	0.3%
NYC	2.4%	2.3%	-1.1%	-0.1%	-0.5%	3.0%	-2.0%	1.0%
Out of Area	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	-1.2%	-1.0%
Total	**2.4%**	**2.3%**	**-0.9%**	**-0.1%**	**-0.5%**	3.2%	**-3.2%**	**0.0%**

Table 3.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - BUS ONLY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-5%	233%	115%	509%	-69%	**5.7%**	6343%	5.9%
Queens	293%	11%	-36%	103%	-100%	**23.6%**	-94%	10.2%
Bronx	166%	-56%	-10%	4450%	-100%	**1.4%**	532%	1.7%
Brooklyn	282%	76%	-100%	-2%	-42%	**4.1%**	-100%	4.1%
Staten Island	14%	-100%	#DIV/0!	-62%	15%	**11.8%**	#DIV/0!	11.9%
NYC	**13.4%**	**18.5%**	**-1.4%**	**4.4%**	**-5.4%**	**8.0%**	**-89%**	**6%**
Out of Area	3047%	15%	4934%	-100%	#DIV/0!	**62%**	-100%	-57.1%
Total	**13.5%**	**18.4%**	**-0.5%**	**4.4%**	**-5.4%**	**8%**	**-92.4%**	**4.8%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	79.9%	5.1%	8.8%	4.9%	1.2%	**99.8%**	0.2%	100.0%
Queens	10.8%	82.1%	0.5%	6.0%	0.0%	**99.4%**	0.6%	100.0%
Bronx	16.8%	0.4%	82.4%	0.1%	0.0%	**99.7%**	0.3%	100.0%
Brooklyn	6.3%	3.5%	0.0%	89.8%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	22.8%	0.0%	0.0%	1.4%	75.7%	**99.9%**	0.1%	100.0%
NYC	**31.1%**	**19.6%**	**17.1%**	**27.3%**	**4.6%**	**99.8%**	**0.2%**	**100.0%**
Out of Area	5.3%	69.5%	24.8%	0.0%	0.0%	**99.6%**	0.4%	100.0%
Total	**31.0%**	**20.0%**	**17.2%**	**27.1%**	**4.6%**	**99.8%**	**0.2%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	89.3%	1.6%	4.3%	0.8%	3.9%	**100.0%**	0.0%	100.0%
Queens	3.0%	81.5%	0.9%	3.2%	0.0%	**88.6%**	11.4%	100.0%
Bronx	6.4%	0.9%	92.7%	0.0%	0.0%	**100.0%**	0.0%	100.0%
Brooklyn	1.7%	2.1%	0.0%	95.5%	0.7%	**100.0%**	0.0%	100.0%
Staten Island	22.3%	0.0%	0.0%	4.2%	73.5%	**100.0%**	0.0%	100.0%
NYC	**29.1%**	**17.5%**	**18.4%**	**27.6%**	**5.1%**	**97.7%**	**2.3%**	**100.0%**
Out of Area	0.1%	26.0%	0.2%	0.1%	0.0%	**26.4%**	73.6%	100.0%
Total	**28.6%**	**17.7%**	**18.1%**	**27.2%**	**5.0%**	**96.5%**	**3.5%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-9.4%	3.5%	4.4%	4.0%	-2.8%	-0.2%	0.2%	0.0%
Queens	7.8%	0.7%	-0.4%	2.7%	0.0%	10.8%	-10.8%	0.0%
Bronx	10.4%	-0.5%	-10.2%	0.1%	0.0%	-0.2%	0.2%	0.0%
Brooklyn	4.6%	1.4%	0.0%	-5.7%	-0.3%	0.0%	0.0%	0.0%
Staten Island	0.5%	0.0%	0.0%	-2.8%	2.2%	-0.1%	0.1%	0.0%
NYC	2.1%	2.1%	-1.2%	-0.4%	-0.5%	2.0%	-2.0%	0.0%
Out of Area	5.2%	43.5%	24.6%	-0.1%	0.0%	73.2%	-73.2%	0.0%
Total	**2.4%**	**2.3%**	**-0.9%**	**-0.1%**	**-0.5%**	3.2%	**-3.2%**	**0.0%**

Table 2.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,319,906	418,256	243,076	512,711	27,770	**2,521,719**	15,218	**2,536,937**
Queens	431,126	247,222	21,393	79,514	923	**780,178**	12,941	**793,119**
Bronx	242,777	24,415	145,245	26,896	2,413	**441,746**	5,505	**447,251**
Brooklyn	524,249	84,680	26,038	459,886	8,496	**1,103,349**	14,785	**1,118,134**
Staten Island	32,895	536	2,787	8,660	7,902	**52,780**	410	**53,190**
NYC	**2,550,953**	**775,109**	**438,539**	**1,087,667**	**47,504**	**4,899,772**	**48,859**	**4,948,631**
Out of Area	20,614	13,437	5,162	15,057	410	**54,680**	1,105	**55,785**
Total	**2,571,567**	**788,546**	**443,701**	**1,102,724**	**47,914**	**4,954,452**	**49,964**	**5,004,416**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,487,702	335,029	213,515	446,770	12,159	**2,495,175**	689	**2,495,864**
Queens	348,433	210,654	20,929	69,732	948	**650,696**	778	**651,474**
Bronx	215,980	20,421	124,821	27,917	682	**389,821**	71	**389,892**
Brooklyn	448,069	67,297	26,947	382,565	4,118	**928,996**	311	**929,307**
Staten Island	6,010	365	148	2,109	5,275	**13,907**	1	**13,908**
NYC	**2,506,194**	**633,766**	**386,360**	**929,093**	**23,182**	**4,478,595**	**1,850**	**4,480,445**
Out of Area	2,015	1,350	160	631	8	**4,164**	15,335	**19,499**
Total	**2,508,209**	**635,116**	**386,520**	**929,724**	**23,190**	**4,482,759**	**17,185**	**4,499,944**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(167,796)	83,227	29,561	65,941	15,611	**26,544**	14,529	**41,073**
Queens	82,693	36,568	464	9,782	(25)	**129,482**	12,163	**141,645**
Bronx	26,797	3,994	20,424	(1,021)	1,731	**51,925**	5,434	**57,359**
Brooklyn	76,180	17,383	(909)	77,321	4,378	**174,353**	14,474	**188,827**
Staten Island	26,885	171	2,639	6,551	2,627	**38,873**	409	**39,282**
NYC	**44,759**	**141,343**	**52,179**	**158,574**	**24,322**	**421,177**	**47,009**	**468,186**
Out of Area	18,599	12,087	5,002	14,426	402	**50,516**	(14,230)	**36,286**
Total	**63,358**	**153,430**	**57,181**	**173,000**	**24,724**	**471,693**	**32,779**	**504,472**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	26.4%	8.4%	4.9%	10.2%	0.6%	**50.4%**	0.3%	50.7%
Queens	8.6%	4.9%	0.4%	1.6%	0.0%	**15.6%**	0.3%	15.8%
Bronx	4.9%	0.5%	2.9%	0.5%	0.0%	**8.8%**	0.1%	8.9%
Brooklyn	10.5%	1.7%	0.5%	9.2%	0.2%	**22.0%**	0.3%	22.3%
Staten Island	0.7%	0.0%	0.1%	0.2%	0.2%	**1.1%**	0.0%	1.1%
NYC	**51.0%**	**15.5%**	**8.8%**	**21.7%**	**0.9%**	**97.9%**	**1.0%**	**98.9%**
Out of Area	0.4%	0.3%	0.1%	0.3%	0.0%	**1.1%**	0.0%	1.1%
Total	**51.4%**	**15.8%**	**8.9%**	**22.0%**	**1.0%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	33.1%	7.4%	4.7%	9.9%	0.3%	**55.4%**	0.0%	55.5%
Queens	7.7%	4.7%	0.5%	1.5%	0.0%	**14.5%**	0.0%	14.5%
Bronx	4.8%	0.5%	2.8%	0.6%	0.0%	**8.7%**	0.0%	8.7%
Brooklyn	10.0%	1.5%	0.6%	8.5%	0.1%	**20.6%**	0.0%	20.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	0.1%	**0.3%**	0.0%	0.3%
NYC	**55.7%**	**14.1%**	**8.6%**	**20.6%**	**0.5%**	**99.5%**	**0.0%**	**99.6%**
Out of Area	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.3%	0.4%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-6.7%	0.9%	0.1%	0.3%	0.3%	-5.1%	0.3%	-4.8%
Queens	0.9%	0.3%	0.0%	0.0%	0.0%	1.1%	0.2%	1.4%
Bronx	0.1%	0.0%	0.1%	-0.1%	0.0%	0.2%	0.1%	0.3%
Brooklyn	0.5%	0.2%	-0.1%	0.7%	0.1%	1.4%	0.3%	1.7%
Staten Island	0.5%	0.0%	0.1%	0.1%	0.0%	0.7%	0.0%	0.8%
NYC	**-4.7%**	**1.4%**	**0.2%**	**1.1%**	**0.4%**	**-1.6%**	**0.9%**	**-0.7%**
Out of Area	0.4%	0.2%	0.1%	0.3%	0.0%	1.0%	-0.3%	0.7%
Total	**-4.4%**	**1.6%**	**0.3%**	**1.4%**	**0.4%**	-0.6%	**0.6%**	**0.0%**

Table 2.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-11%	25%	14%	15%	128%	**1.1%**	2109%	1.6%
Queens	24%	17%	2%	14%	-3%	**19.9%**	1563%	21.7%
Bronx	12%	20%	16%	-4%	254%	**13.3%**	7654%	14.7%
Brooklyn	17%	26%	-3%	20%	106%	**18.8%**	4654%	20.3%
Staten Island	447%	47%	1783%	311%	50%	**279.5%**	40900%	282.4%
NYC	**1.8%**	**22.3%**	**13.5%**	**17.1%**	**104.9%**	**9.4%**	**2541%**	**10%**
Out of Area	923%	895%	3126%	2286%	5025%	**1213%**	-93%	186.1%
Total	**2.5%**	**24.2%**	**14.8%**	**18.6%**	**106.6%**	**11%**	**190.7%**	**11.2%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	52.0%	16.5%	9.6%	20.2%	1.1%	**99.4%**	0.6%	100.0%
Queens	54.4%	31.2%	2.7%	10.0%	0.1%	**98.4%**	1.6%	100.0%
Bronx	54.3%	5.5%	32.5%	6.0%	0.5%	**98.8%**	1.2%	100.0%
Brooklyn	46.9%	7.6%	2.3%	41.1%	0.8%	**98.7%**	1.3%	100.0%
Staten Island	61.8%	1.0%	5.2%	16.3%	14.9%	**99.2%**	0.8%	100.0%
NYC	**51.5%**	**15.7%**	**8.9%**	**22.0%**	**1.0%**	**99.0%**	**1.0%**	**100.0%**
Out of Area	37.0%	24.1%	9.3%	27.0%	0.7%	**98.0%**	2.0%	100.0%
Total	**51.4%**	**15.8%**	**8.9%**	**22.0%**	**1.0%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	59.6%	13.4%	8.6%	17.9%	0.5%	**100.0%**	0.0%	100.0%
Queens	53.5%	32.3%	3.2%	10.7%	0.1%	**99.9%**	0.1%	100.0%
Bronx	55.4%	5.2%	32.0%	7.2%	0.2%	**100.0%**	0.0%	100.0%
Brooklyn	48.2%	7.2%	2.9%	41.2%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	43.2%	2.6%	1.1%	15.2%	37.9%	**100.0%**	0.0%	100.0%
NYC	**55.9%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**100.0%**	**0.0%**	**100.0%**
Out of Area	10.3%	6.9%	0.8%	3.2%	0.0%	**21.4%**	78.6%	100.0%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-7.6%	3.1%	1.0%	2.3%	0.6%	-0.6%	0.6%	0.0%
Queens	0.9%	-1.2%	-0.5%	-0.7%	0.0%	-1.5%	1.5%	0.0%
Bronx	-1.1%	0.2%	0.5%	-1.1%	0.4%	-1.2%	1.2%	0.0%
Brooklyn	-1.3%	0.3%	-0.6%	0.0%	0.3%	-1.3%	1.3%	0.0%
Staten Island	18.6%	-1.6%	4.2%	1.1%	-23.1%	-0.8%	0.8%	0.0%
NYC	-4.4%	1.5%	0.2%	1.2%	0.4%	-0.9%	0.9%	0.0%
Out of Area	26.6%	17.2%	8.4%	23.8%	0.7%	76.7%	-76.7%	0.0%
Total	**-4.4%**	**1.6%**	**0.3%**	**1.4%**	**0.4%**	-0.6%	**0.6%**	**0.0%**

Table 2.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	959,254	275,024	153,724	333,441	17,566	**1,739,009**	13,667	**1,752,676**
Queens	282,953	152,228	13,336	47,214	536	**496,267**	6,187	**502,454**
Bronx	153,586	14,726	86,127	16,710	1,160	**272,309**	4,888	**277,197**
Brooklyn	343,374	51,692	16,111	321,110	3,340	**735,627**	11,658	**747,285**
Staten Island	20,235	536	1,535	3,183	9,025	**34,514**	822	**35,336**
NYC	**1,759,402**	**494,206**	**270,833**	**721,658**	**31,627**	**3,277,726**	**37,222**	**3,314,948**
Out of Area	20,359	6,056	4,513	9,349	410	**40,687**	1,442	**42,129**
Total	**1,779,761**	**500,262**	**275,346**	**731,007**	**32,037**	**3,318,413**	**38,664**	**3,357,077**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,487,702	335,029	213,515	446,770	12,159	**2,495,175**	689	**2,495,864**
Queens	348,433	210,654	20,929	69,732	948	**650,696**	778	**651,474**
Bronx	215,980	20,421	124,821	27,917	682	**389,821**	71	**389,892**
Brooklyn	448,069	67,297	26,947	382,565	4,118	**928,996**	311	**929,307**
Staten Island	6,010	365	148	2,109	5,275	**13,907**	1	**13,908**
NYC	**2,506,194**	**633,766**	**386,360**	**929,093**	**23,182**	**4,478,595**	**1,850**	**4,480,445**
Out of Area	2,015	1,350	160	631	8	**4,164**	15,335	**19,499**
Total	**2,508,209**	**635,116**	**386,520**	**929,724**	**23,190**	**4,482,759**	**17,185**	**4,499,944**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(528,448)	(60,005)	(59,791)	(113,329)	5,407	**(756,166)**	12,978	**(743,188)**
Queens	(65,480)	(58,426)	(7,593)	(22,518)	(412)	**(154,429)**	5,409	**(149,020)**
Bronx	(62,394)	(5,695)	(38,694)	(11,207)	478	**(117,512)**	4,817	**(112,695)**
Brooklyn	(104,695)	(15,605)	(10,836)	(61,455)	(778)	**(193,369)**	11,347	**(182,022)**
Staten Island	14,225	171	1,387	1,074	3,750	**20,607**	821	**21,428**
NYC	**(746,792)**	**(139,560)**	**(115,527)**	**(207,435)**	**8,445**	**(1,200,869)**	**35,372**	**(1,165,497)**
Out of Area	18,344	4,706	4,353	8,718	402	**36,523**	(13,893)	**22,630**
Total	**(728,448)**	**(134,854)**	**(111,174)**	**(198,717)**	**8,847**	**(1,164,346)**	**21,479**	**(1,142,867)**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	28.6%	8.2%	4.6%	9.9%	0.5%	**51.8%**	0.4%	52.2%
Queens	8.4%	4.5%	0.4%	1.4%	0.0%	**14.8%**	0.2%	15.0%
Bronx	4.6%	0.4%	2.6%	0.5%	0.0%	**8.1%**	0.1%	8.3%
Brooklyn	10.2%	1.5%	0.5%	9.6%	0.1%	**21.9%**	0.3%	22.3%
Staten Island	0.6%	0.0%	0.0%	0.1%	0.3%	**1.0%**	0.0%	1.1%
NYC	**52.4%**	**14.7%**	**8.1%**	**21.5%**	**0.9%**	**97.6%**	**1.1%**	**98.7%**
Out of Area	0.6%	0.2%	0.1%	0.3%	0.0%	**1.2%**	0.0%	1.3%
Total	**53.0%**	**14.9%**	**8.2%**	**21.8%**	**1.0%**	**98.8%**	**1.2%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	33.1%	7.4%	4.7%	9.9%	0.3%	**55.4%**	0.0%	55.5%
Queens	7.7%	4.7%	0.5%	1.5%	0.0%	**14.5%**	0.0%	14.5%
Bronx	4.8%	0.5%	2.8%	0.6%	0.0%	**8.7%**	0.0%	8.7%
Brooklyn	10.0%	1.5%	0.6%	8.5%	0.1%	**20.6%**	0.0%	20.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	0.1%	**0.3%**	0.0%	0.3%
NYC	**55.7%**	**14.1%**	**8.6%**	**20.6%**	**0.5%**	**99.5%**	**0.0%**	**99.6%**
Out of Area	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.3%	0.4%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-4.5%	0.7%	-0.2%	0.0%	0.3%	-3.6%	0.4%	-3.3%
Queens	0.7%	-0.1%	-0.1%	-0.1%	0.0%	0.3%	0.2%	0.5%
Bronx	-0.2%	0.0%	-0.2%	-0.1%	0.0%	-0.6%	0.1%	-0.4%
Brooklyn	0.3%	0.0%	-0.1%	1.1%	0.0%	1.3%	0.3%	1.6%
Staten Island	0.5%	0.0%	0.0%	0.0%	0.2%	0.7%	0.0%	0.7%
NYC	-3.3%	0.6%	-0.5%	0.8%	0.4%	-1.9%	1.1%	-0.8%
Out of Area	0.6%	0.2%	0.1%	0.3%	0.0%	1.1%	-0.3%	0.8%
Total	**-2.7%**	**0.8%**	**-0.4%**	**1.1%**	**0.4%**	-0.8%	**0.8%**	**0.0%**

Table 2.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-36%	-18%	-28%	-25%	44%	**-30%**	1884%	-29.8%
Queens	-19%	-28%	-36%	-32%	-43%	**-24%**	695%	-22.9%
Bronx	-29%	-28%	-31%	-40%	70%	**-30%**	6785%	-28.9%
Brooklyn	-23%	-23%	-40%	-16%	-19%	**-21%**	3649%	-19.6%
Staten Island	237%	47%	937%	51%	71%	**148%**	82100%	154.1%
NYC	**-29.8%**	**-22.0%**	**-29.9%**	**-22.3%**	**36.4%**	**-26.8%**	**1912%**	**-26%**
Out of Area	910%	349%	2721%	1382%	5025%	**877%**	-91%	116.1%
Total	**-29.0%**	**-21.2%**	**-28.8%**	**-21.4%**	**38.2%**	**-26%**	**125.0%**	**-25.4%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	54.7%	15.7%	8.8%	19.0%	1.0%	**99.2%**	0.8%	100.0%
Queens	56.3%	30.3%	2.7%	9.4%	0.1%	**98.8%**	1.2%	100.0%
Bronx	55.4%	5.3%	31.1%	6.0%	0.4%	**98.2%**	1.8%	100.0%
Brooklyn	45.9%	6.9%	2.2%	43.0%	0.4%	**98.4%**	1.6%	100.0%
Staten Island	57.3%	1.5%	4.3%	9.0%	25.5%	**97.7%**	2.3%	100.0%
NYC	**53.1%**	**14.9%**	**8.2%**	**21.8%**	**1.0%**	**98.9%**	**1.1%**	**100.0%**
Out of Area	48.3%	14.4%	10.7%	22.2%	1.0%	**96.6%**	3.4%	100.0%
Total	**53.0%**	**14.9%**	**8.2%**	**21.8%**	**1.0%**	**98.8%**	**1.2%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	59.6%	13.4%	8.6%	17.9%	0.5%	**100.0%**	0.0%	100.0%
Queens	53.5%	32.3%	3.2%	10.7%	0.1%	**99.9%**	0.1%	100.0%
Bronx	55.4%	5.2%	32.0%	7.2%	0.2%	**100.0%**	0.0%	100.0%
Brooklyn	48.2%	7.2%	2.9%	41.2%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	43.2%	2.6%	1.1%	15.2%	37.9%	**100.0%**	0.0%	100.0%
NYC	**55.9%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**100.0%**	**0.0%**	**100.0%**
Out of Area	10.3%	6.9%	0.8%	3.2%	0.0%	**21.4%**	78.6%	100.0%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-4.9%	2.3%	0.2%	1.1%	0.5%	-0.8%	0.8%	0.0%
Queens	2.8%	-2.0%	-0.6%	-1.3%	0.0%	-1.1%	1.1%	0.0%
Bronx	0.0%	0.1%	-0.9%	-1.1%	0.2%	-1.7%	1.7%	0.0%
Brooklyn	-2.3%	-0.3%	-0.7%	1.8%	0.0%	-1.5%	1.5%	0.0%
Staten Island	14.1%	-1.1%	3.3%	-6.2%	-12.4%	-2.3%	2.3%	0.0%
NYC	-2.9%	0.8%	-0.5%	1.0%	0.4%	-1.1%	1.1%	0.0%
Out of Area	38.0%	7.5%	9.9%	19.0%	0.9%	75.2%	-75.2%	0.0%
Total	**-2.7%**	**0.8%**	**-0.4%**	**1.1%**	**0.4%**	-0.8%	**0.8%**	**0.0%**

Table 2.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 22 - HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

A MTA Survey

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,271,883	379,057	219,464	468,098	24,670	**2,363,172**	15,250	**2,378,422**
Queens	391,288	236,507	18,051	69,204	536	**715,586**	10,996	**726,582**
Bronx	219,021	20,452	131,813	23,157	1,954	**396,397**	5,897	**402,294**
Brooklyn	477,180	75,556	22,176	467,733	5,337	**1,047,982**	15,818	**1,063,800**
Staten Island	29,224	536	2,329	5,181	9,191	**46,461**	410	**46,871**
NYC	**2,388,596**	**712,108**	**393,833**	**1,033,373**	**41,688**	**4,569,598**	**48,371**	**4,617,969**
Out of Area	23,958	11,846	5,523	14,862	410	**56,599**	78,895	**135,494**
Total	**2,412,554**	**723,954**	**399,356**	**1,048,235**	**42,098**	**4,626,197**	**127,266**	**4,753,463**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,487,702	335,029	213,515	446,770	12,159	**2,495,175**	689	**2,495,864**
Queens	348,433	210,654	20,929	69,732	948	**650,696**	778	**651,474**
Bronx	215,980	20,421	124,821	27,917	682	**389,821**	71	**389,892**
Brooklyn	448,069	67,297	26,947	382,565	4,118	**928,996**	311	**929,307**
Staten Island	6,010	365	148	2,109	5,275	**13,907**	1	**13,908**
NYC	**2,506,194**	**633,766**	**386,360**	**929,093**	**23,182**	**4,478,595**	**1,850**	**4,480,445**
Out of Area	2,015	1,350	160	631	8	**4,164**	15,335	**19,499**
Total	**2,508,209**	**635,116**	**386,520**	**929,724**	**23,190**	**4,482,759**	**17,185**	**4,499,944**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(215,819)	44,028	5,949	21,328	12,511	**(132,003)**	14,561	**(117,442)**
Queens	42,855	25,853	(2,878)	(528)	(412)	**64,890**	10,218	**75,108**
Bronx	3,041	31	6,992	(4,760)	1,272	**6,576**	5,826	**12,402**
Brooklyn	29,111	8,259	(4,771)	85,168	1,219	**118,986**	15,507	**134,493**
Staten Island	23,214	171	2,181	3,072	3,916	**32,554**	409	**32,963**
NYC	**(117,598)**	**78,342**	**7,473**	**104,280**	**18,506**	**91,003**	**46,521**	**137,524**
Out of Area	21,943	10,496	5,363	14,231	402	**52,435**	63,560	**115,995**
Total	**(95,655)**	**88,838**	**12,836**	**118,511**	**18,908**	**143,438**	**110,081**	**253,519**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	26.8%	8.0%	4.6%	9.8%	0.5%	**49.7%**	0.3%	50.0%
Queens	8.2%	5.0%	0.4%	1.5%	0.0%	**15.1%**	0.2%	15.3%
Bronx	4.6%	0.4%	2.8%	0.5%	0.0%	**8.3%**	0.1%	8.5%
Brooklyn	10.0%	1.6%	0.5%	9.8%	0.1%	**22.0%**	0.3%	22.4%
Staten Island	0.6%	0.0%	0.0%	0.1%	0.2%	**1.0%**	0.0%	1.0%
NYC	**50.2%**	**15.0%**	**8.3%**	**21.7%**	**0.9%**	**96.1%**	**1.0%**	**97.1%**
Out of Area	0.5%	0.2%	0.1%	0.3%	0.0%	**1.2%**	1.7%	2.9%
Total	**50.8%**	**15.2%**	**8.4%**	**22.1%**	**0.9%**	**97.3%**	**2.7%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	33.1%	7.4%	4.7%	9.9%	0.3%	**55.4%**	0.0%	55.5%
Queens	7.7%	4.7%	0.5%	1.5%	0.0%	**14.5%**	0.0%	14.5%
Bronx	4.8%	0.5%	2.8%	0.6%	0.0%	**8.7%**	0.0%	8.7%
Brooklyn	10.0%	1.5%	0.6%	8.5%	0.1%	**20.6%**	0.0%	20.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	0.1%	**0.3%**	0.0%	0.3%
NYC	**55.7%**	**14.1%**	**8.6%**	**20.6%**	**0.5%**	**99.5%**	**0.0%**	**99.6%**
Out of Area	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.3%	0.4%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-6.3%	0.5%	-0.1%	-0.1%	0.2%	-5.7%	0.3%	-5.4%
Queens	0.5%	0.3%	-0.1%	-0.1%	0.0%	0.6%	0.2%	0.8%
Bronx	-0.2%	0.0%	0.0%	-0.1%	0.0%	-0.3%	0.1%	-0.2%
Brooklyn	0.1%	0.1%	-0.1%	1.3%	0.0%	1.4%	0.3%	1.7%
Staten Island	0.5%	0.0%	0.0%	0.1%	0.1%	0.7%	0.0%	0.7%
NYC	-5.4%	0.9%	-0.3%	1.1%	0.4%	-3.4%	1.0%	-2.4%
Out of Area	0.5%	0.2%	0.1%	0.3%	0.0%	1.1%	1.3%	2.4%
Total	**-5.0%**	**1.1%**	**-0.2%**	**1.4%**	**0.4%**	-2.3%	**2.3%**	**0.0%**

Table 2.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 22 - HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-15%	13%	3%	5%	103%	**-5%**	2113%	-4.7%
Queens	12%	12%	-14%	-1%	-43%	**10%**	1313%	11.5%
Bronx	1%	0%	6%	-17%	187%	**2%**	8206%	3.2%
Brooklyn	6%	12%	-18%	22%	30%	**13%**	4986%	14.5%
Staten Island	386%	47%	1474%	146%	74%	**234%**	40900%	237.0%
NYC	**-4.7%**	**12.4%**	**1.9%**	**11.2%**	**79.8%**	**2.0%**	**2515%**	**3%**
Out of Area	1089%	777%	3352%	2255%	5025%	**1259%**	414%	594.9%
Total	**-3.8%**	**14.0%**	**3.3%**	**12.7%**	**81.5%**	**3%**	**640.6%**	**5.6%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	53.5%	15.9%	9.2%	19.7%	1.0%	**99.4%**	0.6%	100.0%
Queens	53.9%	32.6%	2.5%	9.5%	0.1%	**98.5%**	1.5%	100.0%
Bronx	54.4%	5.1%	32.8%	5.8%	0.5%	**98.5%**	1.5%	100.0%
Brooklyn	44.9%	7.1%	2.1%	44.0%	0.5%	**98.5%**	1.5%	100.0%
Staten Island	62.3%	1.1%	5.0%	11.1%	19.6%	**99.1%**	0.9%	100.0%
NYC	**51.7%**	**15.4%**	**8.5%**	**22.4%**	**0.9%**	**99.0%**	**1.0%**	**100.0%**
Out of Area	17.7%	8.7%	4.1%	11.0%	0.3%	**41.8%**	58.2%	100.0%
Total	**50.8%**	**15.2%**	**8.4%**	**22.1%**	**0.9%**	**97.3%**	**2.7%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	59.6%	13.4%	8.6%	17.9%	0.5%	**100.0%**	0.0%	100.0%
Queens	53.5%	32.3%	3.2%	10.7%	0.1%	**99.9%**	0.1%	100.0%
Bronx	55.4%	5.2%	32.0%	7.2%	0.2%	**100.0%**	0.0%	100.0%
Brooklyn	48.2%	7.2%	2.9%	41.2%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	43.2%	2.6%	1.1%	15.2%	37.9%	**100.0%**	0.0%	100.0%
NYC	**55.9%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**100.0%**	**0.0%**	**100.0%**
Out of Area	10.3%	6.9%	0.8%	3.2%	0.0%	**21.4%**	78.6%	100.0%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-6.1%	2.5%	0.7%	1.8%	0.6%	-0.6%	0.6%	0.0%
Queens	0.4%	0.2%	-0.7%	-1.2%	-0.1%	-1.4%	1.4%	0.0%
Bronx	-1.0%	-0.2%	0.8%	-1.4%	0.3%	-1.4%	1.4%	0.0%
Brooklyn	-3.4%	-0.1%	-0.8%	2.8%	0.1%	-1.5%	1.5%	0.0%
Staten Island	19.1%	-1.5%	3.9%	-4.1%	-18.3%	-0.9%	0.9%	0.0%
NYC	-4.2%	1.3%	-0.1%	1.6%	0.4%	-1.0%	1.0%	0.0%
Out of Area	7.3%	1.8%	3.3%	7.7%	0.3%	20.4%	-20.4%	0.0%
Total	**-5.0%**	**1.1%**	**-0.2%**	**1.4%**	**0.4%**	-2.3%	**2.3%**	**0.0%**

Table 2.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

A MTA Survey

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,495,334	465,754	250,788	558,176	21,428	**2,791,480**	19,893	**2,811,373**
Queens	430,698	245,233	25,193	72,370	536	**774,030**	9,385	**783,415**
Bronx	232,276	25,780	140,544	25,289	1,251	**425,140**	7,071	**432,211**
Brooklyn	485,209	75,549	22,112	443,493	4,979	**1,031,342**	14,765	**1,046,107**
Staten Island	36,625	536	1,655	4,724	9,065	**52,605**	410	**53,015**
NYC	**2,680,142**	**812,852**	**440,292**	**1,104,052**	**37,259**	**5,074,597**	**51,524**	**5,126,121**
Out of Area	36,972	10,839	6,460	17,810	410	**72,491**	375	**72,866**
Total	**2,717,114**	**823,691**	**446,752**	**1,121,862**	**37,669**	**5,147,088**	**51,899**	**5,198,987**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,487,702	335,029	213,515	446,770	12,159	**2,495,175**	689	**2,495,864**
Queens	348,433	210,654	20,929	69,732	948	**650,696**	778	**651,474**
Bronx	215,980	20,421	124,821	27,917	682	**389,821**	71	**389,892**
Brooklyn	448,069	67,297	26,947	382,565	4,118	**928,996**	311	**929,307**
Staten Island	6,010	365	148	2,109	5,275	**13,907**	1	**13,908**
NYC	**2,506,194**	**633,766**	**386,360**	**929,093**	**23,182**	**4,478,595**	**1,850**	**4,480,445**
Out of Area	2,015	1,350	160	631	8	**4,164**	15,335	**19,499**
Total	**2,508,209**	**635,116**	**386,520**	**929,724**	**23,190**	**4,482,759**	**17,185**	**4,499,944**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	7,632	130,725	37,273	111,406	9,269	**296,305**	19,204	**315,509**
Queens	82,265	34,579	4,264	2,638	(412)	**123,334**	8,607	**131,941**
Bronx	16,296	5,359	15,723	(2,628)	569	**35,319**	7,000	**42,319**
Brooklyn	37,140	8,252	(4,835)	60,928	861	**102,346**	14,454	**116,800**
Staten Island	30,615	171	1,507	2,615	3,790	**38,698**	409	**39,107**
NYC	**173,948**	**179,086**	**53,932**	**174,959**	**14,077**	**596,002**	**49,674**	**645,676**
Out of Area	34,957	9,489	6,300	17,179	402	**68,327**	(14,960)	**53,367**
Total	**208,905**	**188,575**	**60,232**	**192,138**	**14,479**	**664,329**	**34,714**	**699,043**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	28.8%	9.0%	4.8%	10.7%	0.4%	**53.7%**	0.4%	54.1%
Queens	8.3%	4.7%	0.5%	1.4%	0.0%	**14.9%**	0.2%	15.1%
Bronx	4.5%	0.5%	2.7%	0.5%	0.0%	**8.2%**	0.1%	8.3%
Brooklyn	9.3%	1.5%	0.4%	8.5%	0.1%	**19.8%**	0.3%	20.1%
Staten Island	0.7%	0.0%	0.0%	0.1%	0.2%	**1.0%**	0.0%	1.0%
NYC	**51.6%**	**15.6%**	**8.5%**	**21.2%**	**0.7%**	**97.6%**	**1.0%**	**98.6%**
Out of Area	0.7%	0.2%	0.1%	0.3%	0.0%	**1.4%**	0.0%	1.4%
Total	**52.3%**	**15.8%**	**8.6%**	**21.6%**	**0.7%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	33.1%	7.4%	4.7%	9.9%	0.3%	**55.4%**	0.0%	55.5%
Queens	7.7%	4.7%	0.5%	1.5%	0.0%	**14.5%**	0.0%	14.5%
Bronx	4.8%	0.5%	2.8%	0.6%	0.0%	**8.7%**	0.0%	8.7%
Brooklyn	10.0%	1.5%	0.6%	8.5%	0.1%	**20.6%**	0.0%	20.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	0.1%	**0.3%**	0.0%	0.3%
NYC	**55.7%**	**14.1%**	**8.6%**	**20.6%**	**0.5%**	**99.5%**	**0.0%**	**99.6%**
Out of Area	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.3%	0.4%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-4.3%	1.5%	0.1%	0.8%	0.1%	-1.8%	0.4%	-1.4%
Queens	0.5%	0.0%	0.0%	-0.2%	0.0%	0.4%	0.2%	0.6%
Bronx	-0.3%	0.0%	-0.1%	-0.1%	0.0%	-0.5%	0.1%	-0.4%
Brooklyn	-0.6%	0.0%	-0.2%	0.0%	0.0%	-0.8%	0.3%	-0.5%
Staten Island	0.6%	0.0%	0.0%	0.0%	0.1%	0.7%	0.0%	0.7%
NYC	-4.1%	1.6%	-0.1%	0.6%	0.2%	-1.9%	0.9%	-1.0%
Out of Area	0.7%	0.2%	0.1%	0.3%	0.0%	1.3%	-0.3%	1.0%
Total	**-3.5%**	**1.7%**	**0.0%**	**0.9%**	**0.2%**	-0.6%	**0.6%**	**0.0%**

Table 2.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	1%	39%	17%	25%	76%	**11.9%**	2787%	12.6%
	Queens	24%	16%	20%	4%	-43%	**19.0%**	1106%	20.3%
	Bronx	8%	26%	13%	-9%	83%	**9.1%**	9859%	10.9%
	Brooklyn	8%	12%	-18%	16%	21%	**11.0%**	4648%	12.6%
	Staten Island	509%	47%	1018%	124%	72%	**278.3%**	40900%	281.2%
	NYC	**6.9%**	**28.3%**	**14.0%**	**18.8%**	**60.7%**	**13.3%**	**2685%**	**14%**
	Out of Area	1735%	703%	3938%	2723%	5025%	**1641%**	-98%	273.7%
	Total	**8.3%**	**29.7%**	**15.6%**	**20.7%**	**62.4%**	**15%**	**202.0%**	**15.5%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	53.2%	16.6%	8.9%	19.9%	0.8%	**99.3%**	0.7%	100.0%
	Queens	55.0%	31.3%	3.2%	9.2%	0.1%	**98.8%**	1.2%	100.0%
	Bronx	53.7%	6.0%	32.5%	5.9%	0.3%	**98.4%**	1.6%	100.0%
	Brooklyn	46.4%	7.2%	2.1%	42.4%	0.5%	**98.6%**	1.4%	100.0%
	Staten Island	69.1%	1.0%	3.1%	8.9%	17.1%	**99.2%**	0.8%	100.0%
	NYC	**52.3%**	**15.9%**	**8.6%**	**21.5%**	**0.7%**	**99.0%**	**1.0%**	**100.0%**
	Out of Area	50.7%	14.9%	8.9%	24.4%	0.6%	**99.5%**	0.5%	100.0%
	Total	**52.3%**	**15.8%**	**8.6%**	**21.6%**	**0.7%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	59.6%	13.4%	8.6%	17.9%	0.5%	**100.0%**	0.0%	100.0%
	Queens	53.5%	32.3%	3.2%	10.7%	0.1%	**99.9%**	0.1%	100.0%
	Bronx	55.4%	5.2%	32.0%	7.2%	0.2%	**100.0%**	0.0%	100.0%
	Brooklyn	48.2%	7.2%	2.9%	41.2%	0.4%	**100.0%**	0.0%	100.0%
	Staten Island	43.2%	2.6%	1.1%	15.2%	37.9%	**100.0%**	0.0%	100.0%
	NYC	**55.9%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**100.0%**	**0.0%**	**100.0%**
	Out of Area	10.3%	6.9%	0.8%	3.2%	0.0%	**21.4%**	78.6%	100.0%
	Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-6.4%	3.1%	0.4%	2.0%	0.3%	-0.7%	0.7%	0.0%
	Queens	1.5%	-1.0%	0.0%	-1.5%	-0.1%	-1.1%	1.1%	0.0%
	Bronx	-1.7%	0.7%	0.5%	-1.3%	0.1%	-1.6%	1.6%	0.0%
	Brooklyn	-1.8%	0.0%	-0.8%	1.2%	0.0%	-1.4%	1.4%	0.0%
	Staten Island	25.9%	-1.6%	2.1%	-6.3%	-20.8%	-0.8%	0.8%	0.0%
	NYC	-3.7%	1.7%	0.0%	0.8%	0.2%	-1.0%	1.0%	0.0%
	Out of Area	40.4%	8.0%	8.0%	21.2%	0.5%	78.1%	-78.1%	0.0%
	Total	**-3.5%**	**1.7%**	**0.0%**	**0.9%**	**0.2%**	-0.6%	**0.6%**	**0.0%**

Table 2.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

A MTA Survey

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,472,565	473,166	270,762	590,680	26,213	**2,833,386**	18,021	**2,851,407**
Queens	426,249	260,972	23,637	74,314	536	**785,708**	9,918	**795,626**
Bronx	230,273	27,034	148,042	23,268	1,636	**430,253**	7,062	**437,315**
Brooklyn	488,213	76,321	22,477	463,074	5,574	**1,055,659**	15,933	**1,071,592**
Staten Island	40,985	536	2,144	5,796	9,165	**58,626**	410	**59,036**
NYC	**2,658,285**	**838,029**	**467,062**	**1,157,132**	**43,124**	**5,163,632**	**51,344**	**5,214,976**
Out of Area	33,941	13,084	6,676	19,901	410	**74,012**	375	**74,387**
Total	**2,692,226**	**851,113**	**473,738**	**1,177,033**	**43,534**	**5,237,644**	**51,719**	**5,289,363**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,487,702	335,029	213,515	446,770	12,159	**2,495,175**	689	**2,495,864**
Queens	348,433	210,654	20,929	69,732	948	**650,696**	778	**651,474**
Bronx	215,980	20,421	124,821	27,917	682	**389,821**	71	**389,892**
Brooklyn	448,069	67,297	26,947	382,565	4,118	**928,996**	311	**929,307**
Staten Island	6,010	365	148	2,109	5,275	**13,907**	1	**13,908**
NYC	**2,506,194**	**633,766**	**386,360**	**929,093**	**23,182**	**4,478,595**	**1,850**	**4,480,445**
Out of Area	2,015	1,350	160	631	8	**4,164**	15,335	**19,499**
Total	**2,508,209**	**635,116**	**386,520**	**929,724**	**23,190**	**4,482,759**	**17,185**	**4,499,944**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(15,137)	138,137	57,247	143,910	14,054	**338,211**	17,332	**355,543**
Queens	77,816	50,318	2,708	4,582	(412)	**135,012**	9,140	**144,152**
Bronx	14,293	6,613	23,221	(4,649)	954	**40,432**	6,991	**47,423**
Brooklyn	40,144	9,024	(4,470)	80,509	1,456	**126,663**	15,622	**142,285**
Staten Island	34,975	171	1,996	3,687	3,890	**44,719**	409	**45,128**
NYC	**152,091**	**204,263**	**80,702**	**228,039**	**19,942**	**685,037**	**49,494**	**734,531**
Out of Area	31,926	11,734	6,516	19,270	402	**69,848**	(14,960)	**54,888**
Total	**184,017**	**215,997**	**87,218**	**247,309**	**20,344**	**754,885**	**34,534**	**789,419**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	27.8%	8.9%	5.1%	11.2%	0.5%	**53.6%**	0.3%	53.9%
Queens	8.1%	4.9%	0.4%	1.4%	0.0%	**14.9%**	0.2%	15.0%
Bronx	4.4%	0.5%	2.8%	0.4%	0.0%	**8.1%**	0.1%	8.3%
Brooklyn	9.2%	1.4%	0.4%	8.8%	0.1%	**20.0%**	0.3%	20.3%
Staten Island	0.8%	0.0%	0.0%	0.1%	0.2%	**1.1%**	0.0%	1.1%
NYC	**50.3%**	**15.8%**	**8.8%**	**21.9%**	**0.8%**	**97.6%**	**1.0%**	**98.6%**
Out of Area	0.6%	0.2%	0.1%	0.4%	0.0%	**1.4%**	0.0%	1.4%
Total	**50.9%**	**16.1%**	**9.0%**	**22.3%**	**0.8%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	33.1%	7.4%	4.7%	9.9%	0.3%	**55.4%**	0.0%	55.5%
Queens	7.7%	4.7%	0.5%	1.5%	0.0%	**14.5%**	0.0%	14.5%
Bronx	4.8%	0.5%	2.8%	0.6%	0.0%	**8.7%**	0.0%	8.7%
Brooklyn	10.0%	1.5%	0.6%	8.5%	0.1%	**20.6%**	0.0%	20.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	0.1%	**0.3%**	0.0%	0.3%
NYC	**55.7%**	**14.1%**	**8.6%**	**20.6%**	**0.5%**	**99.5%**	**0.0%**	**99.6%**
Out of Area	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.3%	0.4%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-5.2%	1.5%	0.4%	1.2%	0.2%	-1.9%	0.3%	-1.6%
Queens	0.3%	0.3%	0.0%	-0.1%	0.0%	0.4%	0.2%	0.6%
Bronx	-0.4%	0.1%	0.0%	-0.2%	0.0%	-0.5%	0.1%	-0.4%
Brooklyn	-0.7%	-0.1%	-0.2%	0.3%	0.0%	-0.7%	0.3%	-0.4%
Staten Island	0.6%	0.0%	0.0%	0.1%	0.1%	0.8%	0.0%	0.8%
NYC	-5.4%	1.8%	0.2%	1.2%	0.3%	-1.9%	0.9%	-1.0%
Out of Area	0.6%	0.2%	0.1%	0.4%	0.0%	1.3%	-0.3%	1.0%
Total	**-4.8%**	**2.0%**	**0.4%**	**1.6%**	**0.3%**	-0.6%	**0.6%**	**0.0%**

Table 2.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - SUBWAY

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-1%	41%	27%	32%	116%	**13.6%**	2516%	14.2%
Queens	22%	24%	13%	7%	-43%	**20.7%**	1175%	22.1%
Bronx	7%	32%	19%	-17%	140%	**10.4%**	9846%	12.2%
Brooklyn	9%	13%	-17%	21%	35%	**13.6%**	5023%	15.3%
Staten Island	582%	47%	1349%	175%	74%	**321.6%**	40900%	324.5%
NYC	**6.1%**	**32.2%**	**20.9%**	**24.5%**	**86.0%**	**15.3%**	**2675%**	**16%**
Out of Area	1584%	869%	4073%	3054%	5025%	**1677%**	-98%	281.5%
Total	**7.3%**	**34.0%**	**22.6%**	**26.6%**	**87.7%**	**17%**	**201.0%**	**17.5%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	51.6%	16.6%	9.5%	20.7%	0.9%	**99.4%**	0.6%	100.0%
Queens	53.6%	32.8%	3.0%	9.3%	0.1%	**98.8%**	1.2%	100.0%
Bronx	52.7%	6.2%	33.9%	5.3%	0.4%	**98.4%**	1.6%	100.0%
Brooklyn	45.6%	7.1%	2.1%	43.2%	0.5%	**98.5%**	1.5%	100.0%
Staten Island	69.4%	0.9%	3.6%	9.8%	15.5%	**99.3%**	0.7%	100.0%
NYC	**51.0%**	**16.1%**	**9.0%**	**22.2%**	**0.8%**	**99.0%**	**1.0%**	**100.0%**
Out of Area	45.6%	17.6%	9.0%	26.8%	0.6%	**99.5%**	0.5%	100.0%
Total	**50.9%**	**16.1%**	**9.0%**	**22.3%**	**0.8%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	59.6%	13.4%	8.6%	17.9%	0.5%	**100.0%**	0.0%	100.0%
Queens	53.5%	32.3%	3.2%	10.7%	0.1%	**99.9%**	0.1%	100.0%
Bronx	55.4%	5.2%	32.0%	7.2%	0.2%	**100.0%**	0.0%	100.0%
Brooklyn	48.2%	7.2%	2.9%	41.2%	0.4%	**100.0%**	0.0%	100.0%
Staten Island	43.2%	2.6%	1.1%	15.2%	37.9%	**100.0%**	0.0%	100.0%
NYC	**55.9%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**100.0%**	**0.0%**	**100.0%**
Out of Area	10.3%	6.9%	0.8%	3.2%	0.0%	**21.4%**	78.6%	100.0%
Total	**55.7%**	**14.1%**	**8.6%**	**20.7%**	**0.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-8.0%	3.2%	0.9%	2.8%	0.4%	-0.6%	0.6%	0.0%
Queens	0.1%	0.5%	-0.2%	-1.4%	-0.1%	-1.1%	1.1%	0.0%
Bronx	-2.7%	0.9%	1.8%	-1.8%	0.2%	-1.6%	1.6%	0.0%
Brooklyn	-2.7%	-0.1%	-0.8%	2.0%	0.1%	-1.5%	1.5%	0.0%
Staten Island	26.2%	-1.7%	2.6%	-5.3%	-22.4%	-0.7%	0.7%	0.0%
NYC	-5.0%	1.9%	0.3%	1.5%	0.3%	-0.9%	0.9%	0.0%
Out of Area	35.3%	10.7%	8.2%	23.5%	0.5%	78.1%	-78.1%	0.0%
Total	**-4.8%**	**2.0%**	**0.4%**	**1.6%**	**0.3%**	-0.6%	**0.6%**	**0.0%**

Table 1.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION (ONLY)

A MTA Survey

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,804,962	454,007	294,098	526,664	64,895	**3,144,626**	18,643	**3,163,269**
Queens	467,343	557,101	26,571	95,502	924	**1,147,441**	25,212	**1,172,653**
Bronx	293,491	27,952	535,242	27,606	2,412	**886,703**	8,031	**894,734**
Brooklyn	540,404	97,089	26,514	881,443	12,166	**1,557,616**	14,785	**1,572,401**
Staten Island	67,384	536	2,787	11,031	66,039	**147,777**	822	**148,599**
NYC	**3,173,584**	**1,136,685**	**885,212**	**1,542,246**	**146,436**	**6,884,163**	**67,493**	**6,951,656**
Out of Area	22,957	28,404	9,430	15,057	410	**76,258**	1,105	**77,363**
Total	**3,196,541**	**1,165,089**	**894,642**	**1,557,303**	**146,846**	**6,960,421**	**68,598**	**7,029,019**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,811,725	340,890	229,231	449,848	26,360	**2,858,054**	703	**2,858,757**
Queens	356,094	417,127	23,213	77,931	952	**875,317**	6,417	**881,734**
Bronx	230,814	22,458	338,995	27,923	684	**620,874**	169	**621,043**
Brooklyn	454,107	74,600	26,959	717,633	6,513	**1,279,812**	345	**1,280,157**
Staten Island	20,612	366	148	4,842	53,383	**79,351**	1	**79,352**
NYC	**2,873,352**	**855,441**	**618,546**	**1,278,177**	**87,892**	**5,713,408**	**7,635**	**5,721,043**
Out of Area	2,038	6,759	212	658	8	**9,675**	15,335	**25,010**
Total	**2,875,390**	**862,200**	**618,758**	**1,278,835**	**87,900**	**5,723,083**	**22,970**	**5,746,053**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(6,763)	113,117	64,867	76,816	38,535	**286,572**	17,940	**304,512**
Queens	111,249	139,974	3,358	17,571	(28)	**272,124**	18,795	**290,919**
Bronx	62,677	5,494	196,247	(317)	1,728	**265,829**	7,862	**273,691**
Brooklyn	86,297	22,489	(445)	163,810	5,653	**277,804**	14,440	**292,244**
Staten Island	46,772	170	2,639	6,189	12,656	**68,426**	821	**69,247**
NYC	**300,232**	**281,244**	**266,666**	**264,069**	**58,544**	**1,170,755**	**59,858**	**1,230,613**
Out of Area	20,919	21,645	9,218	14,399	402	**66,583**	(14,230)	**52,353**
Total	**321,151**	**302,889**	**275,884**	**278,468**	**58,946**	**1,237,338**	**45,628**	**1,282,966**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	25.7%	6.5%	4.2%	7.5%	0.9%	**44.7%**	0.3%	45.0%
Queens	6.6%	7.9%	0.4%	1.4%	0.0%	**16.3%**	0.4%	16.7%
Bronx	4.2%	0.4%	7.6%	0.4%	0.0%	**12.6%**	0.1%	12.7%
Brooklyn	7.7%	1.4%	0.4%	12.5%	0.2%	**22.2%**	0.2%	22.4%
Staten Island	1.0%	0.0%	0.0%	0.2%	0.9%	**2.1%**	0.0%	2.1%
NYC	**45.1%**	**16.2%**	**12.6%**	**21.9%**	**2.1%**	**97.9%**	**1.0%**	**98.9%**
Out of Area	0.3%	0.4%	0.1%	0.2%	0.0%	**1.1%**	0.0%	1.1%
Total	**45.5%**	**16.6%**	**12.7%**	**22.2%**	**2.1%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	31.5%	5.9%	4.0%	7.8%	0.5%	**49.7%**	0.0%	49.8%
Queens	6.2%	7.3%	0.4%	1.4%	0.0%	**15.2%**	0.1%	15.3%
Bronx	4.0%	0.4%	5.9%	0.5%	0.0%	**10.8%**	0.0%	10.8%
Brooklyn	7.9%	1.3%	0.5%	12.5%	0.1%	**22.3%**	0.0%	22.3%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.9%	**1.4%**	0.0%	1.4%
NYC	**50.0%**	**14.9%**	**10.8%**	**22.2%**	**1.5%**	**99.4%**	**0.1%**	**99.6%**
Out of Area	0.0%	0.1%	0.0%	0.0%	0.0%	**0.2%**	0.3%	0.4%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-5.9%	0.5%	0.2%	-0.3%	0.5%	-5.0%	0.3%	-4.7%
Queens	0.5%	0.7%	0.0%	0.0%	0.0%	1.1%	0.2%	1.3%
Bronx	0.2%	0.0%	1.7%	-0.1%	0.0%	1.8%	0.1%	1.9%
Brooklyn	-0.2%	0.1%	-0.1%	0.1%	0.1%	-0.1%	0.2%	0.1%
Staten Island	0.6%	0.0%	0.0%	0.1%	0.0%	0.7%	0.0%	0.7%
NYC	-4.9%	1.3%	1.8%	-0.3%	0.6%	-1.5%	0.8%	-0.7%
Out of Area	0.3%	0.3%	0.1%	0.2%	0.0%	0.9%	-0.3%	0.7%
Total	**-4.6%**	**1.6%**	**2.0%**	**-0.1%**	**0.6%**	-0.6%	**0.6%**	**0.0%**

Table 1.1: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 1 HOUSEHOLD EXPANSION (ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	0%	33%	28%	17%	146%	**10.0%**	2552%	10.7%
Queens	31%	34%	14%	23%	-3%	**31.1%**	293%	33.0%
Bronx	27%	24%	58%	-1%	253%	**42.8%**	4652%	44.1%
Brooklyn	19%	30%	-2%	23%	87%	**21.7%**	4186%	22.8%
Staten Island	227%	46%	1783%	128%	24%	**86.2%**	82100%	87.3%
NYC	**10.4%**	**32.9%**	**43.1%**	**20.7%**	**66.6%**	**20.5%**	**784%**	**22%**
Out of Area	1026%	320%	4348%	2188%	5025%	**688%**	-93%	209.3%
Total	**11.2%**	**35.1%**	**44.6%**	**21.8%**	**67.1%**	**22%**	**198.6%**	**22.3%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	57.1%	14.4%	9.3%	16.6%	2.1%	**99.4%**	0.6%	100.0%
Queens	39.9%	47.5%	2.3%	8.1%	0.1%	**97.9%**	2.1%	100.0%
Bronx	32.8%	3.1%	59.8%	3.1%	0.3%	**99.1%**	0.9%	100.0%
Brooklyn	34.4%	6.2%	1.7%	56.1%	0.8%	**99.1%**	0.9%	100.0%
Staten Island	45.3%	0.4%	1.9%	7.4%	44.4%	**99.4%**	0.6%	100.0%
NYC	**45.7%**	**16.4%**	**12.7%**	**22.2%**	**2.1%**	**99.0%**	**1.0%**	**100.0%**
Out of Area	29.7%	36.7%	12.2%	19.5%	0.5%	**98.6%**	1.4%	100.0%
Total	**45.5%**	**16.6%**	**12.7%**	**22.2%**	**2.1%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	63.4%	11.9%	8.0%	15.7%	0.9%	**100.0%**	0.0%	100.0%
Queens	40.4%	47.3%	2.6%	8.8%	0.1%	**99.3%**	0.7%	100.0%
Bronx	37.2%	3.6%	54.6%	4.5%	0.1%	**100.0%**	0.0%	100.0%
Brooklyn	35.5%	5.8%	2.1%	56.1%	0.5%	**100.0%**	0.0%	100.0%
Staten Island	26.0%	0.5%	0.2%	6.1%	67.3%	**100.0%**	0.0%	100.0%
NYC	**50.2%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.9%**	**0.1%**	**100.0%**
Out of Area	8.1%	27.0%	0.8%	2.6%	0.0%	**38.7%**	61.3%	100.0%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-6.3%	2.4%	1.3%	0.9%	1.1%	-0.6%	0.6%	0.0%
Queens	-0.5%	0.2%	-0.4%	-0.7%	0.0%	-1.4%	1.4%	0.0%
Bronx	-4.4%	-0.5%	5.2%	-1.4%	0.2%	-0.9%	0.9%	0.0%
Brooklyn	-1.1%	0.3%	-0.4%	0.0%	0.3%	-0.9%	0.9%	0.0%
Staten Island	19.4%	-0.1%	1.7%	1.3%	-22.8%	-0.6%	0.6%	0.0%
NYC	-4.6%	1.4%	1.9%	-0.2%	0.6%	-0.8%	0.8%	0.0%
Out of Area	21.5%	9.7%	11.3%	16.8%	0.5%	59.9%	-59.9%	0.0%
Total	**-4.6%**	**1.6%**	**2.0%**	**-0.1%**	**0.6%**	-0.6%	**0.6%**	**0.0%**

Table 1.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

A MTA Survey

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,334,258	294,701	191,497	343,731	39,635	**2,203,822**	16,444	**2,220,266**
Queens	302,799	361,438	15,608	60,862	536	**741,243**	10,372	**751,615**
Bronx	190,747	16,644	338,803	17,403	1,160	**564,757**	6,556	**571,313**
Brooklyn	354,495	62,760	16,562	631,718	6,218	**1,071,753**	11,659	**1,083,412**
Staten Island	41,876	536	1,534	4,654	37,146	**85,746**	822	**86,568**
NYC	**2,224,175**	**736,079**	**564,004**	**1,058,368**	**84,695**	**4,667,321**	**45,853**	**4,713,174**
Out of Area	21,866	11,797	7,315	9,349	410	**50,737**	1,442	**52,179**
Total	**2,246,041**	**747,876**	**571,319**	**1,067,717**	**85,105**	**4,718,058**	**47,295**	**4,765,353**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,811,725	340,890	229,231	449,848	26,360	**2,858,054**	703	**2,858,757**
Queens	356,094	417,127	23,213	77,931	952	**875,317**	6,417	**881,734**
Bronx	230,814	22,458	338,995	27,923	684	**620,874**	169	**621,043**
Brooklyn	454,107	74,600	26,959	717,633	6,513	**1,279,812**	345	**1,280,157**
Staten Island	20,612	366	148	4,842	53,383	**79,351**	1	**79,352**
NYC	**2,873,352**	**855,441**	**618,546**	**1,278,177**	**87,892**	**5,713,408**	**7,635**	**5,721,043**
Out of Area	2,038	6,759	212	658	8	**9,675**	15,335	**25,010**
Total	**2,875,390**	**862,200**	**618,758**	**1,278,835**	**87,900**	**5,723,083**	**22,970**	**5,746,053**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(477,467)	(46,189)	(37,734)	(106,117)	13,275	**(654,232)**	15,741	**(638,491)**
Queens	(53,295)	(55,689)	(7,605)	(17,069)	(416)	**(134,074)**	3,955	**(130,119)**
Bronx	(40,067)	(5,814)	(192)	(10,520)	476	**(56,117)**	6,387	**(49,730)**
Brooklyn	(99,612)	(11,840)	(10,397)	(85,915)	(295)	**(208,059)**	11,314	**(196,745)**
Staten Island	21,264	170	1,386	(188)	(16,237)	**6,395**	821	**7,216**
NYC	**(649,177)**	**(119,362)**	**(54,542)**	**(219,809)**	**(3,197)**	**(1,046,087)**	**38,218**	**(1,007,869)**
Out of Area	19,828	5,038	7,103	8,691	402	**41,062**	(13,893)	**27,169**
Total	**(629,349)**	**(114,324)**	**(47,439)**	**(211,118)**	**(2,795)**	**(1,005,025)**	**24,325**	**(980,700)**

E Overall % Distribution: MTA Survey Linked Trips

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	28.0%	6.2%	4.0%	7.2%	0.8%	**46.2%**	0.3%	46.6%
Queens	6.4%	7.6%	0.3%	1.3%	0.0%	**15.6%**	0.2%	15.8%
Bronx	4.0%	0.3%	7.1%	0.4%	0.0%	**11.9%**	0.1%	12.0%
Brooklyn	7.4%	1.3%	0.3%	13.3%	0.1%	**22.5%**	0.2%	22.7%
Staten Island	0.9%	0.0%	0.0%	0.1%	0.8%	**1.8%**	0.0%	1.8%
NYC	**46.7%**	**15.4%**	**11.8%**	**22.2%**	**1.8%**	**97.9%**	**1.0%**	**98.9%**
Out of Area	0.5%	0.2%	0.2%	0.2%	0.0%	**1.1%**	0.0%	1.1%
Total	**47.1%**	**15.7%**	**12.0%**	**22.4%**	**1.8%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	31.5%	5.9%	4.0%	7.8%	0.5%	**49.7%**	0.0%	49.8%
Queens	6.2%	7.3%	0.4%	1.4%	0.0%	**15.2%**	0.1%	15.3%
Bronx	4.0%	0.4%	5.9%	0.5%	0.0%	**10.8%**	0.0%	10.8%
Brooklyn	7.9%	1.3%	0.5%	12.5%	0.1%	**22.3%**	0.0%	22.3%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.9%	**1.4%**	0.0%	1.4%
NYC	**50.0%**	**14.9%**	**10.8%**	**22.2%**	**1.5%**	**99.4%**	**0.1%**	**99.6%**
Out of Area	0.0%	0.1%	0.0%	0.0%	0.0%	**0.2%**	0.3%	0.4%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-3.5%	0.3%	0.0%	-0.6%	0.4%	-3.5%	0.3%	-3.2%
Queens	0.2%	0.3%	-0.1%	-0.1%	0.0%	0.3%	0.1%	0.4%
Bronx	0.0%	0.0%	1.2%	-0.1%	0.0%	1.0%	0.1%	1.2%
Brooklyn	-0.5%	0.0%	-0.1%	0.8%	0.0%	0.2%	0.2%	0.5%
Staten Island	0.5%	0.0%	0.0%	0.0%	-0.1%	0.4%	0.0%	0.4%
NYC	**-3.3%**	**0.6%**	**1.1%**	**0.0%**	**0.2%**	**-1.5%**	**0.8%**	**-0.7%**
Out of Area	0.4%	0.1%	0.1%	0.2%	0.0%	0.9%	-0.2%	0.7%
Total	**-2.9%**	**0.7%**	**1.2%**	**0.1%**	**0.3%**	**-0.6%**	**0.6%**	**0.0%**

Table 1.21: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 21- HOUSEHOLD + PERSON EXPANSION (WORKER BALANCING ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates **C / B**

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-26%	-14%	-16%	-24%	50%	**-23%**	2239%	-22.3%
	Queens	-15%	-13%	-33%	-22%	-44%	**-15%**	62%	-14.8%
	Bronx	-17%	-26%	0%	-38%	70%	**-9%**	3779%	-8.0%
	Brooklyn	-22%	-16%	-39%	-12%	-5%	**-16%**	3279%	-15.4%
	Staten Island	103%	46%	936%	-4%	-30%	**8%**	82100%	9.1%
	NYC	**-22.6%**	**-14.0%**	**-8.8%**	**-17.2%**	**-3.6%**	**-18.3%**	**501%**	**-18%**
	Out of Area	973%	75%	3350%	1321%	5025%	**424%**	-91%	108.6%
	Total	**-21.9%**	**-13.3%**	**-7.7%**	**-16.5%**	**-3.2%**	**-18%**	**105.9%**	**-17.1%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	60.1%	13.3%	8.6%	15.5%	1.8%	**99.3%**	0.7%	100.0%
	Queens	40.3%	48.1%	2.1%	8.1%	0.1%	**98.6%**	1.4%	100.0%
	Bronx	33.4%	2.9%	59.3%	3.0%	0.2%	**98.9%**	1.1%	100.0%
	Brooklyn	32.7%	5.8%	1.5%	58.3%	0.6%	**98.9%**	1.1%	100.0%
	Staten Island	48.4%	0.6%	1.8%	5.4%	42.9%	**99.1%**	0.9%	100.0%
	NYC	**47.2%**	**15.6%**	**12.0%**	**22.5%**	**1.8%**	**99.0%**	**1.0%**	**100.0%**
	Out of Area	41.9%	22.6%	14.0%	17.9%	0.8%	**97.2%**	2.8%	100.0%
	Total	**47.1%**	**15.7%**	**12.0%**	**22.4%**	**1.8%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	63.4%	11.9%	8.0%	15.7%	0.9%	**100.0%**	0.0%	100.0%
	Queens	40.4%	47.3%	2.6%	8.8%	0.1%	**99.3%**	0.7%	100.0%
	Bronx	37.2%	3.6%	54.6%	4.5%	0.1%	**100.0%**	0.0%	100.0%
	Brooklyn	35.5%	5.8%	2.1%	56.1%	0.5%	**100.0%**	0.0%	100.0%
	Staten Island	26.0%	0.5%	0.2%	6.1%	67.3%	**100.0%**	0.0%	100.0%
	NYC	**50.2%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.9%**	**0.1%**	**100.0%**
	Out of Area	8.1%	27.0%	0.8%	2.6%	0.0%	**38.7%**	61.3%	100.0%
	Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-3.3%	1.3%	0.6%	-0.3%	0.9%	-0.7%	0.7%	0.0%
	Queens	-0.1%	0.8%	-0.6%	-0.7%	0.0%	-0.7%	0.7%	0.0%
	Bronx	-3.8%	-0.7%	4.7%	-1.5%	0.1%	-1.1%	1.1%	0.0%
	Brooklyn	-2.8%	0.0%	-0.6%	2.2%	0.1%	-1.0%	1.0%	0.0%
	Staten Island	22.4%	0.2%	1.6%	-0.7%	-24.4%	-0.9%	0.9%	0.0%
	NYC	-3.0%	0.7%	1.2%	0.1%	0.3%	-0.8%	0.8%	0.0%
	Out of Area	33.8%	-4.4%	13.2%	15.3%	0.8%	58.6%	-58.6%	0.0%
	Total	**-2.9%**	**0.7%**	**1.2%**	**0.1%**	**0.3%**	-0.6%	**0.6%**	**0.0%**

Table 1.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 22 - HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

A MTA Survey

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,748,463	409,560	269,462	480,444	55,676	**2,963,605**	2,982,890	**5,946,495**
Queens	421,911	546,932	21,571	86,962	536	**1,077,912**	1,100,087	**2,177,999**
Bronx	267,943	23,373	498,118	23,903	1,954	**815,291**	823,430	**1,638,721**
Brooklyn	491,604	88,960	22,680	900,118	9,607	**1,512,969**	1,528,787	**3,041,756**
Staten Island	58,934	536	2,329	7,248	58,096	**127,143**	127,965	**255,108**
NYC	**2,988,855**	**1,069,361**	**814,160**	**1,498,675**	**125,869**	**6,496,920**	**6,563,159**	**13,060,079**
Out of Area	26,514	25,691	9,976	14,862	410	**77,453**	78,895	**156,348**
Total	**3,015,369**	**1,095,052**	**824,136**	**1,513,537**	**126,279**	**6,574,373**	**6,642,054**	**13,216,427**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,811,725	340,890	229,231	449,848	26,360	**2,858,054**	703	**2,858,757**
Queens	356,094	417,127	23,213	77,931	952	**875,317**	6,417	**881,734**
Bronx	230,814	22,458	338,995	27,923	684	**620,874**	169	**621,043**
Brooklyn	454,107	74,600	26,959	717,633	6,513	**1,279,812**	345	**1,280,157**
Staten Island	20,612	366	148	4,842	53,383	**79,351**	1	**79,352**
NYC	**2,873,352**	**855,441**	**618,546**	**1,278,177**	**87,892**	**5,713,408**	**7,635**	**5,721,043**
Out of Area	2,038	6,759	212	658	8	**9,675**	15,335	**25,010**
Total	**2,875,390**	**862,200**	**618,758**	**1,278,835**	**87,900**	**5,723,083**	**22,970**	**5,746,053**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(63,262)	68,670	40,231	30,596	29,316	**105,551**	2,982,187	**3,087,738**
Queens	65,817	129,805	(1,642)	9,031	(416)	**202,595**	1,093,670	**1,296,265**
Bronx	37,129	915	159,123	(4,020)	1,270	**194,417**	823,261	**1,017,678**
Brooklyn	37,497	14,360	(4,279)	182,485	3,094	**233,157**	1,528,442	**1,761,599**
Staten Island	38,322	170	2,181	2,406	4,713	**47,792**	127,964	**175,756**
NYC	**115,503**	**213,920**	**195,614**	**220,498**	**37,977**	**783,512**	**6,555,524**	**7,339,036**
Out of Area	24,476	18,932	9,764	14,204	402	**67,778**	63,560	**131,338**
Total	**139,979**	**232,852**	**205,378**	**234,702**	**38,379**	**851,290**	**6,619,084**	**7,470,374**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	13.2%	3.1%	2.0%	3.6%	0.4%	**22.4%**	22.6%	45.0%
Queens	3.2%	4.1%	0.2%	0.7%	0.0%	**8.2%**	8.3%	16.5%
Bronx	2.0%	0.2%	3.8%	0.2%	0.0%	**6.2%**	6.2%	12.4%
Brooklyn	3.7%	0.7%	0.2%	6.8%	0.1%	**11.4%**	11.6%	23.0%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.4%	**1.0%**	1.0%	1.9%
NYC	**22.6%**	**8.1%**	**6.2%**	**11.3%**	**1.0%**	**49.2%**	**49.7%**	**98.8%**
Out of Area	0.2%	0.2%	0.1%	0.1%	0.0%	**0.6%**	0.6%	1.2%
Total	**22.8%**	**8.3%**	**6.2%**	**11.5%**	**1.0%**	**49.7%**	**50.3%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	31.5%	5.9%	4.0%	7.8%	0.5%	**49.7%**	0.0%	49.8%
Queens	6.2%	7.3%	0.4%	1.4%	0.0%	**15.2%**	0.1%	15.3%
Bronx	4.0%	0.4%	5.9%	0.5%	0.0%	**10.8%**	0.0%	10.8%
Brooklyn	7.9%	1.3%	0.5%	12.5%	0.1%	**22.3%**	0.0%	22.3%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.9%	**1.4%**	0.0%	1.4%
NYC	**50.0%**	**14.9%**	**10.8%**	**22.2%**	**1.5%**	**99.4%**	**0.1%**	**99.6%**
Out of Area	0.0%	0.1%	0.0%	0.0%	0.0%	**0.2%**	0.3%	0.4%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-18.3%	-2.8%	-2.0%	-4.2%	0.0%	-27.3%	22.6%	-4.8%
Queens	-3.0%	-3.1%	-0.2%	-0.7%	0.0%	-7.1%	8.2%	1.1%
Bronx	-2.0%	-0.2%	-2.1%	-0.3%	0.0%	-4.6%	6.2%	1.6%
Brooklyn	-4.2%	-0.6%	-0.3%	-5.7%	0.0%	-10.8%	11.6%	0.7%
Staten Island	0.1%	0.0%	0.0%	0.0%	-0.5%	-0.4%	1.0%	0.5%
NYC	-27.4%	-6.8%	-4.6%	-10.9%	-0.6%	-50.3%	49.5%	-0.7%
Out of Area	0.2%	0.1%	0.1%	0.1%	0.0%	0.4%	0.3%	0.7%
Total	**-27.2%**	**-6.7%**	**-4.5%**	**-10.8%**	**-0.6%**	-49.9%	**49.9%**	**0.0%**

Table 1.22: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 22 - HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-3%	20%	18%	7%	111%	**4%**	424209%	108.0%
Queens	18%	31%	-7%	12%	-44%	**23%**	17043%	147.0%
Bronx	16%	4%	47%	-14%	186%	**31%**	487137%	163.9%
Brooklyn	8%	19%	-16%	25%	48%	**18%**	443027%	137.6%
Staten Island	186%	46%	1474%	50%	9%	**60%**	12796400%	221.5%
NYC	**4.0%**	**25.0%**	**31.6%**	**17.3%**	**43.2%**	**13.7%**	**85861%**	**128%**
Out of Area	1201%	280%	4606%	2159%	5025%	**701%**	414%	525.1%
Total	**4.9%**	**27.0%**	**33.2%**	**18.4%**	**43.7%**	**15%**	**28816.2%**	**130.0%**

H Destination % Distribution: MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	29.4%	6.9%	4.5%	8.1%	0.9%	**49.8%**	50.2%	100.0%
Queens	19.4%	25.1%	1.0%	4.0%	0.0%	**49.5%**	50.5%	100.0%
Bronx	16.4%	1.4%	30.4%	1.5%	0.1%	**49.8%**	50.2%	100.0%
Brooklyn	16.2%	2.9%	0.7%	29.6%	0.3%	**49.7%**	50.3%	100.0%
Staten Island	23.1%	0.2%	0.9%	2.8%	22.8%	**49.8%**	50.2%	100.0%
NYC	**22.9%**	**8.2%**	**6.2%**	**11.5%**	**1.0%**	**49.7%**	**50.3%**	**100.0%**
Out of Area	17.0%	16.4%	6.4%	9.5%	0.3%	**49.5%**	50.5%	100.0%
Total	**22.8%**	**8.3%**	**6.2%**	**11.5%**	**1.0%**	**49.7%**	**50.3%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	63.4%	11.9%	8.0%	15.7%	0.9%	**100.0%**	0.0%	100.0%
Queens	40.4%	47.3%	2.6%	8.8%	0.1%	**99.3%**	0.7%	100.0%
Bronx	37.2%	3.6%	54.6%	4.5%	0.1%	**100.0%**	0.0%	100.0%
Brooklyn	35.5%	5.8%	2.1%	56.1%	0.5%	**100.0%**	0.0%	100.0%
Staten Island	26.0%	0.5%	0.2%	6.1%	67.3%	**100.0%**	0.0%	100.0%
NYC	**50.2%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.9%**	**0.1%**	**100.0%**
Out of Area	8.1%	27.0%	0.8%	2.6%	0.0%	**38.7%**	61.3%	100.0%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-34.0%	-5.0%	-3.5%	-7.7%	0.0%	-50.1%	50.1%	0.0%
Queens	-21.0%	-22.2%	-1.6%	-4.8%	-0.1%	-49.8%	49.8%	0.0%
Bronx	-20.8%	-2.2%	-24.2%	-3.0%	0.0%	-50.2%	50.2%	0.0%
Brooklyn	-19.3%	-2.9%	-1.4%	-26.5%	-0.2%	-50.2%	50.2%	0.0%
Staten Island	-2.9%	-0.3%	0.7%	-3.3%	-44.5%	-50.2%	50.2%	0.0%
NYC	-27.3%	-6.8%	-4.6%	-10.9%	-0.6%	-50.1%	50.1%	0.0%
Out of Area	8.8%	-10.6%	5.5%	6.9%	0.2%	10.9%	-10.9%	0.0%
Total	**-27.2%**	**-6.7%**	**-4.5%**	**-10.8%**	**-0.6%**	-49.9%	**49.9%**	**0.0%**

Table 1.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

A MTA Survey

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,807,772	485,358	287,134	577,990	26,719	**3,184,973**	20,717	**3,205,690**
Queens	457,732	471,438	26,801	90,577	536	**1,047,084**	10,410	**1,057,494**
Bronx	273,661	26,690	320,872	25,640	1,251	**648,114**	7,917	**656,031**
Brooklyn	505,853	89,287	22,112	766,096	6,530	**1,389,878**	14,765	**1,404,643**
Staten Island	53,249	536	1,655	6,136	54,346	**115,922**	475	**116,397**
NYC	**3,098,267**	**1,073,309**	**658,574**	**1,466,439**	**89,382**	**6,385,971**	**54,284**	**6,440,255**
Out of Area	37,275	16,598	8,809	17,810	410	**80,902**	435	**81,337**
Total	**3,135,542**	**1,089,907**	**667,383**	**1,484,249**	**89,792**	**6,466,873**	**54,719**	**6,521,592**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,811,725	340,890	229,231	449,848	26,360	**2,858,054**	18,923	**2,858,757**
Queens	356,094	417,127	23,213	77,931	952	**875,317**	11,653	**881,734**
Bronx	230,814	22,458	338,995	27,923	684	**620,874**	7,681	**621,043**
Brooklyn	454,107	74,600	26,959	717,633	6,513	**1,279,812**	15,933	**1,280,157**
Staten Island	20,612	366	148	4,842	53,383	**79,351**	469	**79,352**
NYC	**2,873,352**	**855,441**	**618,546**	**1,278,177**	**87,892**	**5,713,408**	**54,659**	**5,721,043**
Out of Area	34,413	19,296	8,891	19,901	410	**82,911**	435	**25,010**
Total	**2,875,390**	**862,200**	**618,758**	**1,278,835**	**87,900**	**5,723,083**	**22,970**	**5,746,053**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(3,953)	144,468	57,903	128,142	359	**326,919**	1,794	**346,933**
Queens	101,638	54,311	3,588	12,646	(416)	**171,767**	(1,243)	**175,760**
Bronx	42,847	4,232	(18,123)	(2,283)	567	**27,240**	236	**34,988**
Brooklyn	51,746	14,687	(4,847)	48,463	17	**110,066**	(1,168)	**124,486**
Staten Island	32,637	170	1,507	1,294	963	**36,571**	6	**37,045**
NYC	**224,915**	**217,868**	**40,028**	**188,262**	**1,490**	**672,563**	**(375)**	**719,212**
Out of Area	2,862	(2,698)	(82)	(2,091)	-	**(2,009)**	-	**56,327**
Total	**260,152**	**227,707**	**48,625**	**205,414**	**1,892**	**743,790**	**31,749**	**775,539**

E Overall % Distribution: MTA Survey Linked Trips

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	27.7%	7.4%	4.4%	8.9%	0.4%	**48.8%**	0.3%	49.2%
Queens	7.0%	7.2%	0.4%	1.4%	0.0%	**16.1%**	0.2%	16.2%
Bronx	4.2%	0.4%	4.9%	0.4%	0.0%	**9.9%**	0.1%	10.1%
Brooklyn	7.8%	1.4%	0.3%	11.7%	0.1%	**21.3%**	0.2%	21.5%
Staten Island	0.8%	0.0%	0.0%	0.1%	0.8%	**1.8%**	0.0%	1.8%
NYC	**47.5%**	**16.5%**	**10.1%**	**22.5%**	**1.4%**	**97.9%**	**0.8%**	**98.8%**
Out of Area	0.6%	0.3%	0.1%	0.3%	0.0%	**1.2%**	0.0%	1.2%
Total	**48.1%**	**16.7%**	**10.2%**	**22.8%**	**1.4%**	**99.2%**	**0.8%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	31.5%	5.9%	4.0%	7.8%	0.5%	**49.7%**	0.3%	49.8%
Queens	6.2%	7.3%	0.4%	1.4%	0.0%	**15.2%**	0.2%	15.3%
Bronx	4.0%	0.4%	5.9%	0.5%	0.0%	**10.8%**	0.1%	10.8%
Brooklyn	7.9%	1.3%	0.5%	12.5%	0.1%	**22.3%**	0.3%	22.3%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.9%	**1.4%**	0.0%	1.4%
NYC	**50.0%**	**14.9%**	**10.8%**	**22.2%**	**1.5%**	**99.4%**	**1.0%**	**99.6%**
Out of Area	0.6%	0.3%	0.2%	0.3%	0.0%	**1.4%**	0.0%	0.4%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin	Destination: Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-3.8%	1.5%	0.4%	1.0%	0.0%	-0.9%	0.0%	-0.6%
Queens	0.8%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.9%
Bronx	0.2%	0.0%	-1.0%	-0.1%	0.0%	-0.9%	0.0%	-0.7%
Brooklyn	-0.1%	0.1%	-0.1%	-0.7%	0.0%	-1.0%	-0.1%	-0.7%
Staten Island	0.5%	0.0%	0.0%	0.0%	-0.1%	0.4%	0.0%	0.4%
NYC	-2.5%	1.6%	-0.7%	0.2%	-0.2%	-1.5%	-0.1%	-0.8%
Out of Area	0.0%	-0.1%	0.0%	-0.1%	0.0%	-0.2%	0.0%	0.8%
Total	**-2.0%**	**1.7%**	**-0.5%**	**0.5%**	**-0.2%**	-0.4%	**0.4%**	**0.0%**

Table 1.31: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 31 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates **C / B**

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	0%	42%	25%	28%	1%	**11.4%**	9%	12.1%
	Queens	29%	13%	15%	16%	-44%	**19.6%**	-11%	19.9%
	Bronx	19%	19%	-5%	-8%	83%	**4.4%**	3%	5.6%
	Brooklyn	11%	20%	-18%	7%	0%	**8.6%**	-7%	9.7%
	Staten Island	158%	46%	1018%	27%	2%	**46.1%**	1%	46.7%
	NYC	**7.8%**	**25.5%**	**6.5%**	**14.7%**	**1.7%**	**11.8%**	**-1%**	**13%**
	Out of Area	8%	-14%	-1%	-11%	0%	**-2%**	0%	225.2%
	Total	**9.0%**	**26.4%**	**7.9%**	**16.1%**	**2.2%**	**13%**	**138.2%**	**13.5%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	56.4%	15.1%	9.0%	18.0%	0.8%	**99.4%**	0.6%	100.0%
	Queens	43.3%	44.6%	2.5%	8.6%	0.1%	**99.0%**	1.0%	100.0%
	Bronx	41.7%	4.1%	48.9%	3.9%	0.2%	**98.8%**	1.2%	100.0%
	Brooklyn	36.0%	6.4%	1.6%	54.5%	0.5%	**98.9%**	1.1%	100.0%
	Staten Island	45.7%	0.5%	1.4%	5.3%	46.7%	**99.6%**	0.4%	100.0%
	NYC	**48.1%**	**16.7%**	**10.2%**	**22.8%**	**1.4%**	**99.2%**	**0.8%**	**100.0%**
	Out of Area	45.8%	20.4%	10.8%	21.9%	0.5%	**99.5%**	0.5%	100.0%
	Total	**48.1%**	**16.7%**	**10.2%**	**22.8%**	**1.4%**	**99.2%**	**0.8%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	63.4%	11.9%	8.0%	15.7%	0.9%	**100.0%**	0.7%	100.0%
	Queens	40.4%	47.3%	2.6%	8.8%	0.1%	**99.3%**	1.3%	100.0%
	Bronx	37.2%	3.6%	54.6%	4.5%	0.1%	**100.0%**	1.2%	100.0%
	Brooklyn	35.5%	5.8%	2.1%	56.1%	0.5%	**100.0%**	1.2%	100.0%
	Staten Island	26.0%	0.5%	0.2%	6.1%	67.3%	**100.0%**	0.6%	100.0%
	NYC	**50.2%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.9%**	**1.0%**	**100.0%**
	Out of Area	137.6%	77.2%	35.5%	79.6%	1.6%	**331.5%**	1.7%	100.0%
	Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Origin	Manhattan	-7.0%	3.2%	0.9%	2.3%	-0.1%	-0.6%	0.0%	0.0%
	Queens	2.9%	-2.7%	-0.1%	-0.3%	-0.1%	-0.3%	-0.3%	0.0%
	Bronx	4.5%	0.5%	-5.7%	-0.6%	0.1%	-1.2%	0.0%	0.0%
	Brooklyn	0.5%	0.5%	-0.5%	-1.5%	0.0%	-1.0%	-0.2%	0.0%
	Staten Island	19.8%	0.0%	1.2%	-0.8%	-20.6%	-0.4%	-0.2%	0.0%
	NYC	-2.1%	1.7%	-0.6%	0.4%	-0.1%	-0.7%	-0.1%	0.0%
	Out of Area	-91.8%	-56.7%	-24.7%	-57.7%	-1.1%	-232.0%	-1.2%	0.0%
	Total	**-2.0%**	**1.7%**	**-0.5%**	**0.5%**	**-0.2%**	-0.4%	**0.4%**	**0.0%**

Table 1.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips
Compared to:
MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

A MTA Survey

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,779,566	492,660	304,494	609,424	30,638	**3,216,782**	18,643	**3,235,425**
Queens	456,372	490,310	25,110	90,942	536	**1,063,270**	25,212	**1,088,482**
Bronx	269,751	27,937	341,756	23,541	1,637	**664,622**	8,031	**672,653**
Brooklyn	511,277	89,203	22,476	790,828	6,956	**1,420,740**	14,785	**1,435,525**
Staten Island	57,683	536	2,144	6,840	64,596	**131,799**	822	**132,621**
NYC	**3,074,649**	**1,100,646**	**695,980**	**1,521,575**	**104,363**	**6,497,213**	**67,493**	**6,564,706**
Out of Area	34,413	19,296	8,891	19,901	410	**82,911**	1,105	**84,016**
Total	**3,109,062**	**1,119,942**	**704,871**	**1,541,476**	**104,773**	**6,580,124**	**68,598**	**6,648,722**

B MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	1,811,725	340,890	229,231	449,848	26,360	**2,858,054**	18,923	**2,858,757**
Queens	356,094	417,127	23,213	77,931	952	**875,317**	11,653	**881,734**
Bronx	230,814	22,458	338,995	27,923	684	**620,874**	7,681	**621,043**
Brooklyn	454,107	74,600	26,959	717,633	6,513	**1,279,812**	15,933	**1,280,157**
Staten Island	20,612	366	148	4,842	53,383	**79,351**	469	**79,352**
NYC	**2,873,352**	**855,441**	**618,546**	**1,278,177**	**87,892**	**5,713,408**	**54,659**	**5,721,043**
Out of Area	34,413	19,296	8,891	19,901	410	**82,911**	435	**25,010**
Total	**2,875,390**	**862,200**	**618,758**	**1,278,835**	**87,900**	**5,723,083**	**22,970**	**5,746,053**

C # Difference in Linked Trips: MTA Survey Minus MetroCard Estimates (A - B)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	(32,159)	151,770	75,263	159,576	4,278	**358,728**	(280)	**376,668**
Queens	100,278	73,183	1,897	13,011	(416)	**187,953**	13,559	**206,748**
Bronx	38,937	5,479	2,761	(4,382)	953	**43,748**	350	**51,610**
Brooklyn	57,170	14,603	(4,483)	73,195	443	**140,928**	(1,148)	**155,368**
Staten Island	37,071	170	1,996	1,998	11,213	**52,448**	353	**53,269**
NYC	**201,297**	**245,205**	**77,434**	**243,398**	**16,471**	**783,805**	**12,834**	**843,663**
Out of Area	-	-	-	-	-	**-**	670	**59,006**
Total	**233,672**	**257,742**	**86,113**	**262,641**	**16,873**	**857,041**	**45,628**	**902,669**

E Overall % Distribution: MTA Survey Linked Trips

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	26.8%	7.4%	4.6%	9.2%	0.5%	**48.4%**	0.3%	48.7%
Queens	6.9%	7.4%	0.4%	1.4%	0.0%	**16.0%**	0.4%	16.4%
Bronx	4.1%	0.4%	5.1%	0.4%	0.0%	**10.0%**	0.1%	10.1%
Brooklyn	7.7%	1.3%	0.3%	11.9%	0.1%	**21.4%**	0.2%	21.6%
Staten Island	0.9%	0.0%	0.0%	0.1%	1.0%	**2.0%**	0.0%	2.0%
NYC	**46.2%**	**16.6%**	**10.5%**	**22.9%**	**1.6%**	**97.7%**	**1.0%**	**98.7%**
Out of Area	0.5%	0.3%	0.1%	0.3%	0.0%	**1.2%**	0.0%	1.3%
Total	**46.8%**	**16.8%**	**10.6%**	**23.2%**	**1.6%**	**99.0%**	**1.0%**	**100.0%**

F Overall % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	31.5%	5.9%	4.0%	7.8%	0.5%	**49.7%**	0.3%	49.8%
Queens	6.2%	7.3%	0.4%	1.4%	0.0%	**15.2%**	0.2%	15.3%
Bronx	4.0%	0.4%	5.9%	0.5%	0.0%	**10.8%**	0.1%	10.8%
Brooklyn	7.9%	1.3%	0.5%	12.5%	0.1%	**22.3%**	0.3%	22.3%
Staten Island	0.4%	0.0%	0.0%	0.1%	0.9%	**1.4%**	0.0%	1.4%
NYC	**50.0%**	**14.9%**	**10.8%**	**22.2%**	**1.5%**	**99.4%**	**1.0%**	**99.6%**
Out of Area	0.6%	0.3%	0.2%	0.3%	0.0%	**1.4%**	0.0%	0.4%
Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

G Difference in Overall % Distribution: MTA Survey Minus MetroCard Based (E - F)

Origin \ Destination	Manhattan	Queens	Bronx	Brooklyn	Staten Island	NYC	Out of Area	Total
Manhattan	-4.8%	1.5%	0.6%	1.3%	0.0%	-1.4%	0.0%	-1.1%
Queens	0.7%	0.1%	0.0%	0.0%	0.0%	0.8%	0.2%	1.0%
Bronx	0.0%	0.0%	-0.8%	-0.1%	0.0%	-0.8%	0.0%	-0.7%
Brooklyn	-0.2%	0.0%	-0.1%	-0.6%	0.0%	-0.9%	-0.1%	-0.7%
Staten Island	0.5%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%
NYC	-3.8%	1.7%	-0.3%	0.6%	0.0%	-1.7%	0.1%	-0.8%
Out of Area	-0.1%	0.0%	0.0%	0.0%	0.0%	-0.2%	0.0%	0.8%
Total	**-3.3%**	**1.8%**	**-0.2%**	**0.9%**	**0.0%**	-0.6%	**0.6%**	**0.0%**

Table 1.32: Linked Transit Trip Comparison; MTA Survey Weekday vs MetroCard Weekday - - ALL METROCARD TRANSIT

2008 MTA Survey Deliv7 (2/6/09) - Weekday Linked Trips Compared to: MetroCard Based Linked Trip Estimates (Caliper May 2004) - Weekday

LEVEL 32 HOUSEHOLD + PERSON + TRIPS (MTA TRANSIT ONLY)+ NRA WEIGHTS

D % Difference in Linked Trips: MTA Survey Minus MetroCard Estimates C / B

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	**NYC**	Out of Area	**Total**
Origin	Manhattan	-2%	45%	33%	35%	16%	**12.6%**	-1%	13.2%
	Queens	28%	18%	8%	17%	-44%	**21.5%**	116%	23.4%
	Bronx	17%	24%	1%	-16%	139%	**7.0%**	5%	8.3%
	Brooklyn	13%	20%	-17%	10%	7%	**11.0%**	-7%	12.1%
	Staten Island	180%	46%	1349%	41%	21%	**66.1%**	75%	67.1%
	NYC	**7.0%**	**28.7%**	**12.5%**	**19.0%**	**18.7%**	**13.7%**	**23%**	**15%**
	Out of Area	0%	0%	0%	0%	0%	**0%**	154%	235.9%
	Total	**8.1%**	**29.9%**	**13.9%**	**20.5%**	**19.2%**	**15%**	**198.6%**	**15.7%**

H Destination % Distribution: MTA Survey

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	**NYC**	Out of Area	**Total**
Origin	Manhattan	55.0%	15.2%	9.4%	18.8%	0.9%	**99.4%**	0.6%	100.0%
	Queens	41.9%	45.0%	2.3%	8.4%	0.0%	**97.7%**	2.3%	100.0%
	Bronx	40.1%	4.2%	50.8%	3.5%	0.2%	**98.8%**	1.2%	100.0%
	Brooklyn	35.6%	6.2%	1.6%	55.1%	0.5%	**99.0%**	1.0%	100.0%
	Staten Island	43.5%	0.4%	1.6%	5.2%	48.7%	**99.4%**	0.6%	100.0%
	NYC	**46.8%**	**16.8%**	**10.6%**	**23.2%**	**1.6%**	**99.0%**	**1.0%**	**100.0%**
	Out of Area	41.0%	23.0%	10.6%	23.7%	0.5%	**98.7%**	1.3%	100.0%
	Total	**46.8%**	**16.8%**	**10.6%**	**23.2%**	**1.6%**	**99.0%**	**1.0%**	**100.0%**

less than -1.0%

greater than +1.0%

I Destination % Distribution: MetroCard Based Linked Trip Estimates (Caliper May 2004)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	**NYC**	Out of Area	**Total**
Origin	Manhattan	63.4%	11.9%	8.0%	15.7%	0.9%	**100.0%**	0.7%	100.0%
	Queens	40.4%	47.3%	2.6%	8.8%	0.1%	**99.3%**	1.3%	100.0%
	Bronx	37.2%	3.6%	54.6%	4.5%	0.1%	**100.0%**	1.2%	100.0%
	Brooklyn	35.5%	5.8%	2.1%	56.1%	0.5%	**100.0%**	1.2%	100.0%
	Staten Island	26.0%	0.5%	0.2%	6.1%	67.3%	**100.0%**	0.6%	100.0%
	NYC	**50.2%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.9%**	**1.0%**	**100.0%**
	Out of Area	137.6%	77.2%	35.5%	79.6%	1.6%	**331.5%**	1.7%	100.0%
	Total	**50.0%**	**15.0%**	**10.8%**	**22.3%**	**1.5%**	**99.6%**	**0.4%**	**100.0%**

J Difference in Destination % Distribution: MTA Survey Minus MetroCard Based (H - I)

		Destination							
		Manhattan	Queens	Bronx	Brooklyn	Staten Island	**NYC**	Out of Area	**Total**
Origin	Manhattan	-8.4%	3.3%	1.4%	3.1%	0.0%	-0.6%	-0.1%	0.0%
	Queens	1.5%	-2.3%	-0.3%	-0.5%	-0.1%	-1.6%	1.0%	0.0%
	Bronx	2.9%	0.5%	-3.8%	-1.0%	0.1%	-1.2%	0.0%	0.0%
	Brooklyn	0.1%	0.4%	-0.5%	-1.0%	0.0%	-1.0%	-0.2%	0.0%
	Staten Island	17.5%	-0.1%	1.4%	-0.9%	-18.6%	-0.6%	0.0%	0.0%
	NYC	-3.4%	1.8%	-0.2%	0.8%	0.1%	-0.9%	0.1%	0.0%
	Out of Area	-96.6%	-54.2%	-25.0%	-55.9%	-1.2%	-232.8%	-0.4%	0.0%
	Total	**-3.3%**	**1.8%**	**-0.2%**	**0.9%**	**0.0%**	-0.6%	**0.6%**	**0.0%**

Appendix D – Database Counts Memo

Task 2: Structure and Sources of the Count Data Base

NY MTA Customer Survey

Prepared by:

Name: Wolfgang Scherr
Firm: PTV America Inc.

Prepared for:

NY MTA, NuStats Team

May 08, 2008
(version 3, corrected)

INTRODUCTION

This memo outlines the structure of the count database, which will be used in the customer survey project for two purposes:

- Expansion of the transit-trip sub-sample of the survey.
- Validation of the expanded transit-trip-sub-sample.

The database will include ridership data that have been processed to serve for these two purposes. The database will be delivered as a Microsoft Excel workbook with seven spreadsheets that are referred to as tables A through G.

TABLE A: SUBWAY STATION BOARDINGS

Sources:

- MetroCard data (passengers entering the system), collection period April-June 2008, stratified per type of day, time of day, and fare category. Holidays and untypical days will be excluded from the MetroCard sample.

- Estimates for non-resident volumes (will be determined by PB as part of the NuStats team)

Data row definition:

- Each data row represents one station complex, which is a group of stations that belong to the same pay zone; with free walk and transfer within the complex.

- Exceptional station splits: Times Square / Port Authority, Grand Central

Data column definition:

- Identifiers and references:
    - Numerical ID (TransCAD station complex ID)
    - Name, other NYMTA IDs, list of routes serving the station complex
    - MTA district (60 districts total)
    - High level district (Manhattan CBD, Upper Manh., Queens, Brooklyn, Staten Island, Bronx)
- Estimated non-resident volumes (possibly stratified, as provided by PB)
- Boarding data (40 variables)
    - Three types of day (avg. weekday, Saturday, Sunday)
    - Five time periods (0-6, 6-10, 10-3, 3-7, 7-12)
    - Original MetroCard boardings in 3 categories: Standard, Senior, Student
    - Adjusted boardings for survey expansion (representing boardings of NYC residents 18+ years)

TABLE B: BUS ROUTE BOARDINGS

Source:

- MetroCard & cash transaction data (passengers entering the system), collection period April - June 2008, stratified per type of day, time of day, and fare category. Holidays and untypical days will be excluded.

- Estimates for non-resident volumes (Source: PB, based on NYMTC household survey)

Data row definition:

- Each data row represents one bus route.

Data column definition:

- Identifiers and references:
    - ID = Name (e.g. M15, BX55, …)
- Estimated non-resident volume
- Boarding data (40 variables)
    - Three types of day (avg. weekday, Saturday, Sunday)
    - Five time periods (0-6, 6-10, 10-3, 3-7, 7-12)
    - Original MetroCard and cash box boardings in 3 categories: Standard, Senior, Student
    - Adjusted boardings for survey expansion (representing boardings of NYC residents 18+ years)

TABLE C: SUBWAY PEAK LOAD VOLUME

Source:

- NYCT Peak load counts, 2008
  (weekday, 4 hours AM and 4 hours PM, stratified by route)
- Estimate for non-resident volumes

Data row definition:

- Selected network tracks (directional links)

Data column definition:

- Identifiers and references:
  - From Station ID
  - To Station ID
  - From/to station names
  - Route Name
- Estimated non-resident volume
- Load data (6 variables)
  - AM 4 hour load
  - AM average number of trains counted
  - PM 4 hour load
  - PM average number of trains counted
  - Adjusted load AM for survey expansion (NYC residents 18+ years)
  - Adjusted load PM for survey expansion (NYC residents 18+ years)

TABLE D: SUBWAY AND BUS CORDON COUNT

Source:

- 24-hour load counts, 2007, weekday, stratified by route
- Estimate for non-resident volumes

Data row definition:

- Selected network tracks or streets (directional links)

Data column definition:

- Identifiers and references:
    - From Station ID (or node ID)
    - To Station ID (or node ID)
    - From/to station names or street name
    - Direction (inbound, outbound)
    - Route Name
- Estimated non-resident volume
- Load data (10 variables)
    - Five time periods (0-6, 6-10, 10-3, 3-7, 7-12)
    - Original load count
    - Adjusted load for survey expansion (NYC residents 18+ years)

TABLE E: BUS ON/OFF COUNTS

Source:

- NYCT Ride-check onboard survey, not more than 6 years old.
- Few selected routes with high volumes (e.g. M15)
- No effort to estimate non-residents as this will serve for validation

Data row definition:

- Route x stop x direction

Data column definition:

- Identifiers and references:
    - Stop ID (or node ID)
    - Stop name
    - Direction (inbound, outbound)
    - Route Name
- Load data (15 variables)
    - Five time periods (0-6, 6-10, 10-3, 3-7, 7-12)
    - On, Off, load count

TABLE F: NYCT BOROUGH-TO-BOROUGH TRIP TABLE

Source:

- NYCT, matrices developed by Caliper based on linked MetroCard records (average weekday, Saturday, Sunday).
- Based on MetroCard Sample from Wed 4/28/2003, Sat 5/01.2004, Sun 5/02/2004

Row and column definition:

- Five boroughs or six districts

TABLE G: SELECTED STATION SURVEYS

Source:

- NYCT project related data about passenger boardings, transfer volumes etc.
- Availability to be investigated

Appendix E – Data Processing / Quality Control Specifications

A) 2008 MTA Coding Specifications

Types of checks

Duplicate survey check

- Queries are run in Microsoft Access 2000 to make sure there are no duplicates of paper surveys in the database. If there are duplicates, they are researched by looking at the archived image to determine the correct Sample Number.

Range checks

- Range checks were done on a few variables.

Recode

- Recode TPUR in Trip Tracer data from "12=change.. to 96=change..".
- Recode TPUR in Trip Tracer data from "13=other to 97=other".
- Recode WMOD1 in Trip Tracer data from "22= refused to 99=refused".
- Recode WPTYP in Trip Tracer data from "24 = other to 97 =other".

Missing Data

- If there was missing data, the record was deleted from the file.

Computations or New Fields (refer to the Data Matrix for further descriptions)

- CCTEL – computations confirmed that the data was correct
- CCMIN – computations confirmed that the data was correct
- CCLIN – computations confirmed that the data was correct
- CCSEN (for all persons) – computations confirmed that the data was correct
- CCADU (for all person) – computations confirmed that the data was correct

Logic checks

- Logic checks were done for all skips within the CATI.

Other checks

- If transit mode (modes 5-17) was used, then a route/line was needed.
- A count of linked transit trips was defined: if there was a transit mode used, then that trip was counted one time.
- In the Trip Tracer data, the data was displayed and checked for inconsistencies of the route.
- The routes/lines were researched and the data was provided in a separate field.

Additional Checks

- LTELE – update to "1" if matched sample
- In the Trip Tracer data, Trip Start time and date were separated into their own separate fields.
- In the Trip Tracer data, Trip End time and date were separated into their own separate fields.
- A count of linked transit trips was defined: if there was a transit mode used, then that trip was counted one time.
- In the Trip Tracer data, the data was displayed and checked for inconsistencies of the route.
- Confirm/check if there is trip data for the persons that didn't travel within the Trip Tracer database.
- MCSER – Metro card serial #
- Compare #NIU (not used subway or bus) in MCSER matches what they said in Trip Tracer.
- Clean up DK/RF to the correct field width
- NTRAV - Look at if person didn't travel and see if it makes sense:
  - ✓ Do they work and/or go to school?
  - ✓ For what day of week are we collecting data?

Checks and Queries, per variable

Note: this overlaps somewhat with the "Types of Checks" section, which is intended to be an overview/outline of the coding process

Open-ends preparation (non-categorical, text variables)

- Open ends were coded to their appropriate codes. Spelling was also checked.
- Check for routes/lines spelling also.

Preparing data set for analysis

The data set was cleaned in ACCESS 2000 and SPSS. Frequencies were run in SPSS.

Below is a copy of the data matrix.

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
HOUSEHOLD FILE (HH_FINAL)													
	1	RECTYPE	Record Type	PPROC	PROJECT	Y	Y	N	1	1= CATI 2=MAILBACK			
	2	S_INI	INTERVIEWER	CATI SYSTEM	S_INI	Y	Y	C	4				
	3	S_DAT	DATE	CATI SYSTEM	S_DAT	Y	Y	D	11				
	4	S_DUR	DURATION IN MINUTES	CATI SYSTEM	S_DUR	Y	Y	C	4				
	5	SAMPN	SAMPLE NUMBER	IMPORTED	SAMPN	Y	Y	N	7				
	6	CTFIP	COUNTY CODE	IMPORTED	CTFIP	Y	Y	N	5	36005 Bronx (NY) 36047 Kings (NY) 36061 Manhattan (NY) 36081 Queens (NY) 36085 Richmond (NY)			
	7	INCEN	INCENTIVE SAMPLE	IMPORTED	INCEN	Y	Y	N	1	1 Yes 2 No			
	8	STYPE	SAMPLE TYPE	IMPORTED	STYPE	Y	Y	N	1	1 Active advltr 2 Passive with name 3 Passive without name 4 Hisp.Surname active advltr 5 Hisp.passive with name 6 Matched, no mail			
	9	PHONE	PHONE NUMBER	IMPORTED	PHONE	Y	Y	C	12				
	10	ADLTS	ADVANCE LETTER SENT	IMPORTED	ADLTS	Y	Y	N	1	1 Yes 2 No			
	11	RLETR	Received Letter	CATI	RLETR	Y	Y	N	1	1 YES 2 NO 9 REFUSAL	Did you receive our letter explaining the importance of the survey and requesting your participation?		
	12	ADVER	Confirm Address	CATI	ADVER	Y	Y	N	1	1 SAME ADDRESS 2 MOVED, NOT SAME ADDRESS 3 INCORRECT ADDRESS	Before we get started, I need to verify that your address is still [ADDRESS]?		
	13	LETTR	Reason for Calling	CATI	LETTR	N	Y	N	1	1 Return to Address Verification	This survey is called the New York Customer Travel Survey. It measures how people living in New York City travel to do activities, like work, school, family, and other activities. The survey will help planners at the MTA to understand people's travel patterns better so they can make good decisions about future transportation improvements. We need to include someone from your household in the survey. All your answers are confidential.	**IF INT02<2**	
	14	MOVED	Person Moved	CATI	INT03	N	Y	C	2	QV TERMINATE INTERVIEW AND RECORD OUTCOME IN INTERVIEWER NOTES [NUSTATS RESEARCHS WHO IS NOW AT SAMPLED ADDRESS]	Since we selected an individual at this address for inclusion in the survey and we are not following people when they move, no interview is needed of you at this time. Thank you for your time.	**IF ADVER<>2**	**For non-completes only**
	15	RFWHY	Reason for Refusal	CATI	REFU1	N	Y	N	1	1 TIRED OF DOING SURVEYS 2 NOT INTERESTED IN TOPIC 3 TOO BUSY, SURVEY TAKES TOO LONG 4 TOPIC IS TOO PERSONAL/ NONE OF GOVERNMENT'S BUSINESS 5 NOT A TRANSIT USER (ENCOURAGE TO PARTICIPATE) 97 OTHER - SPECIFY	Would you please tell me the main reason you don't want to participate in this survey?	**IF RFTYP is null**	**For non-completes only**
	16	O_RFWHY	Other, Specify	CATI	O_REFU1	N	Y	C	30		Other, specify	**IF RFWHY<>7**	**For non-completes only**
	17	LANG	Language of Interview	CATI	LANG	Y	Y	N	1	1 ENGLISH 2 SPANISH	Code language of interview		
2.1	18	HHNUM	Household Size	CATI	HHNUM	Y	Y	N	2	ENTER NUMBER [RANGE 1-15]	How many people, including yourself, live in your household?		
2.2	19	HHVEH	Household Vehicles	CATI	HHVEH	Y	Y	N	1	ENTER NUMBER [RANGE ZERO – 7] 8 DON'T KNOW 9 REFUSED	How many motor vehicles in working condition are owned, leased, or available for regular use by the people who currently live in your household?		

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
2.3	20	LTELE	Landline Telephone Service	CATI	LTELE	Y	Y	N	1	1 YES 2 NO 9 REFUSED	Does your household have standard land-based telephone service?		
2.4	21	CTELE	Cellular Telephone Service	CATI	CTELE	Y	Y	N	1	1 YES 2 NO 9 REFUSED	Do you personally have a cell phone?		
2.4	22	CCTEL	COMPUTE CELL ONLY	CATI -COMPUTED	CCTEL	Y	Y	N	1	1 YES 2 NO	COMPUTE CELL-ONLY		**COMPUTE CELL-ONLY IF 2.3=2 AND 2.4=1**
	23	HINET	Use Internet	CATI	HINET	Y	Y	N	1	1 YES 2 NO 9 RF 5 NOT ASKED	Do you currently use the Internet?		
2.5	24	HMRAC	Race	CATI	HMRAC	Y	Y	N	2	1 White 2 African American, Black 3 Hispanic 4 Asian 5 American Indian, Alaskan Native 6 Pacific Islander? 7 MULTIRACIAL [NOT READ BY INTERVIEWER – ONLY USED IF RESPONDENT SAYS WITHOUT PROMPTING – TO HELP WITH POST PROCESSING] 97 OTHER - SPECIFY 99 REFUSED	What is the race/ethnicity of persons in this household?		
2.5	25	O_HMRAC	Race, Other	CATI	O_HMRAC	Y	Y	C	50		Other, specify	**IF HMRAC<>97**	
2.5	26	CCMIN	Minority HH	CATI-COMPUTED	CCMIN	Y	Y	N	1	1 Yes 2 No	COMPUTE MINORITY		**COMPUTE MINORITY IF HMRAC =>1**
	27	HHINC	Household Income	CATI	HHINC	Y	Y	N	2	22 Below $50,000 33 Above $50,000 99 REFUSED	To ensure our study is representative of all income groups in the city, could you please tell me if your household's total income for 2007 was above or below $50,000?		
6.1	28	B50	Below 50k	CATI	B50	Y	Y	N	2	01 Less than $25,000 02 $25,000 TO $50,000 99 REFUSED	Is it…	**IF HHINC<>22**	
6.1	29	A50	Above 50k	CATI	A50	Y	Y	N	2	44 Below $100,000 55 Above $100,000 99 Refused	And was it above or below $100,000?	**IF HHINC<>33**	
6.1	30	B100	Below 100k	CATI	B100	Y	Y	N	2	03 $50,000 to $75,000 04 $75,000 to $100,000 99 REFUSED	Is it…	**IF HHINC<>33 or A30<>44**	
6.1	31	A100	Above 100k	CATI	A100	Y	Y	N	2	05 $100,000 to $150,000 06 $150,000 to $200,000 07 $200,000 or more 99 REFUSED	Is it…	**IF HHINC<>33 or A30<>55**	
	32	INCRF	Concerned about Income Information	CATI	INCRF	Y	Y	N	2	01 Less than $25,000 02 $25,000 TO $50,000 03 $50,000 to $75,000 04 $75,000 to $100,000 05 $100,000 to $150,000 06 $150,000 to $200,000 07 $200,000 or more 99 REFUSED	I appreciate your concerns about providing this information, but I only need to properly identify your household as belonging to one of the following categories:	**IF HHINC<>99, B50<>99, A50<>99, B100<>99, or A100<>99**	
6.1	33	CCINC	Computed Income	CATI-COMPUTED		Y	Y	N	2	01 Less than $25,000 02 $25,000 TO $50,000 03 $50,000 to $75,000 04 $75,000 to $100,000 05 $100,000 to $150,000 06 $150,000 to $200,000 07 $200,000 or more 99 REFUSED	COMPUTED HH INCOME		**Compute single income**
6.1	34	CCLIN	Computed low income	COMPUTED		Y	Y	N	1	1 YES 2 NO	COMPUTED LOW INCOME		**Compute low income if CCINC<2**
	35	HADDR	Household address	CATI	HADDR	Y	Y	C	80	OPEN			
	36	HCITY	Household city	CATI	HCITY	Y	Y	C	50	OPEN			
	37	HSTAT	Household state	CATI	HSTAT	Y	Y	C	2	OPEN			
	38	HZIP	Household zip	CATI	HZIP	Y	Y	C	5	OPEN			
	39	XCORD	Household X coordinates	CATI	XCORD	Y	Y	N	20.5	OPEN			
	40	YCORD	Household Y coordinates	CATI	YCORD	Y	Y	N	20.5	OPEN			
	41	HCNTY	Household County	PPROC		Y	Y	C	50				
	42	TT_XY_USED	Updated XY coords from household in waypoint file	PPROC		Y	Y	N	1	1 Yes			
	43	Geo_flag	Flag for home address different in Trip Tracer	PPROC		Y	Y	N	1	1 Yes			
	44	CONTA	Contact in future	CATI	CONTA	Y	Y	N	1	1 Yes 2 No	Can we contact you again to participate in future research?		
	45	PUMA	PUMA Zone	PPROC		Y	Y	C	7				
	46	CCINC_IMP	Household Income Imputed for Refusals	PPROC		Y	Y	N	6	01 Less than $25,000 02 $25,000 TO $50,000 03 $50,000 to $75,000 04 $75,000 to $100,000 05 $100,000 to $150,000 06 $150,000 to $200,000 07 $200,000 or more			

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
	47	EXP_HH1B_SAT	EXP_HH1B_SAT - weight for Saturday	PPROC		Y	Y	N	8.1				
	48	EXP_HH1B_SUN	EXP_HH1B_SUN - weight for Sunday	PPROC		Y	Y	N	8.1				
	49	EXP_HH1B_WKD	EXP_HH1B_WKD - weight for Weekday	PPROC		Y	Y	N	8.1				
	50	EXP_HH1B_WKN	EXP_HH1B_WKN - weight for Weekend	PPROC		Y	Y	N	8.1				
PERSON FILE (PER_FINAL)													
	51	SAMPN	PERSON SAMPLE NUMBER	IMPORTED	PSAMP	Y	Y	N	7				
	52	PERNO	PERSON NUMBER	IMPORTED	PERNO	Y	Y	N	2				
3.1	53	HMNAM	Household Member ID	CATI	HMNAM	Y	Y	C	50		First Name or Initials of Household Membe		
3.2	54	RELAT	Relationship to Respondent	CATI	RELAT	Y	Y		1	1 Self 2 Partner or Spouse 3 Other HH Adult 4 Child 7 Other, specify 9 Refused	What is this person's relationship to you? DO NOT ASK FOR RESPONDENT		
	55	O_RELAT	Other, Specify	CATI	O_RELATE	Y	Y	C	50	OPEN	other, specify	**IF RELAT <>7**	
3.3	56	HMSEX	Gender	CATI	HMSEX	Y	Y	N	1	1 Male 2 Female 9 Refused	What is [HM_NAME]'s sex? DO NOT ASK RESPONDENT		
3.4	57	HMAGE	Age	CATI	HMAGE	Y	Y	N	3	ENTER NUMBER [RANGE 1-99] 998 DON'T KNOW 999 REFUSED	How old are you?		
3.4	58	CCSEN	COMPUTE SENIOR	CATI-COMPUTED	CCSEN	Y	Y	N	1	1 YES 2 NO			**COMPUTE SENIOR IF AGE 65+**
3.4	59	CCADU	COMPUTE ADULT	CATI-COMPUTED	CCADU	Y	Y	N	1	1 YES 2 NO			**COMPUTE ADULT IF AGE 18+**
3.5	60	HMEMP	Employment Status	CATI	HMEMP	Y	Y	N	1	1 YES 2 NO 9 REFUSED	We know that people who work travel differently than others. So, my next questions are about employment status. Are you employed?	**IF HMAGE<16**	
3.6	61	WMODE	Usual Mode to Work	CATI	WMODE	Y	Y	N	2	01 AUTO DRIVER 02 AUTO PASSENGER 03 TAXI, LIMO, CAR SERVICE 04 VAN SERVICE 05 NEW YORK CITY SUBWAY 06 STATEN ISLAND RAILROAD 07 PATH TRAIN 08 AIRTRAIN 09 NEW YORK CITY TRANSIT BUS OR MTA BUS 10 LONG ISLAND BUS 11 WESTCHESTER BEE LINE 12 NJ TRANSIT BUS 13 PRIVATE BUS 14 PARATRANSIT SERVICE (ACCESS-A-RIDE) 15 METRO-NORTH RAILROAD 16 LONG ISLAND RAIL ROAD 17 NJ TRANSIT RAIL 18 FERRY 19 WALK 20 BIKE 21 WORK AT HOME 99 REFUSED	How did you usually get to work last week? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]	**IF HMEMP>1 or IF HMAGE<16**	
2.7	62	REASO	Reason for using vehicle	CATI	REASO	Y	Y	N	1	01 Need a car for work or to carry equipment 02 It is difficult to get to a transit stop or station from your home or work 03 You have a disability or other mobility impairment, or NEW TEXT-OTHER REASONS SPECIFY BELOW WITHOUT READING 04 FASTER 05 MORE COMFORTABLE/ RELAXING 06 MORE RELIABLE 07 COSTS LESS 08 FEELS SAFER 09 NEED TO PICK UP/ DROP OFF OTHER PEOPLE OR MAKE OTHER STOPS ALONG THE WAY 10 DO NOT WANT TO WORRY ABOUT WEATHER 96 NOT ASKED (ONLY APPLICABLE FOR PERSON 1) 97 OTHER 98 DK	I'm going to read a list of options, and I'd like you to tell me which one is the Main Reason you use a personal vehicle instead of public transit for work.	**IF WMODE>2**	
2.7	63	O_REASO	Other, Specify	CATI	O_REASO	Y	Y	C	50			**IF REASO<>97**	
3.9	64	TRWRK	Take Transit to Work	CATI	TRWRK	Y	Y	N	1	1 YES 2 NO 8 DON'T KNOW 9 REFUSED	Do you ever take transit to work?	**IF HMEMP>1 or IF HMAGE<16 and MODES (1-4)**	

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	65	WBORO	Work Borough	CATI	WBORO	Y	Y	N	1	1 Bronx 2 Brooklyn 3 Manhattan 4 Queens 5 Staten Island 7 Other, specify	In what borough does this person work?		Updated on 012909 to include in values 1-5 applicable recoded Other, Specifies
	66	O_WBORO	Other, Specify	CATI	O_WBORO	Y	Y	C	50	OPEN	Other, specify		Updated on 012909 to omit applicable recoded Other, Specifies; See above;
3.12	67	HMSTA	Not Employed Status	CATI	HMSTA	Y	Y	N	2	1 Retired, 2 Disabled / On Disability Status, 3 Homemaker, 4 Volunteer 5 Unemployed but looking for work, 6 Unemployed and not looking for work or 7 Student 97 OTHER (specify) 99 REFUSED	Which of the following best describes your status?	**IF HMAGE<16 or IF HMEMP<>2**	
3.12	68	O_HMSTA	Not Employed Status, Other	CATI	O_HMSTA	Y	Y	C	50		Other, specify	**IF HMAGE<16 or IF HMEMP<>2 or HMSTA<>97**	
3.13	69	HMLIC	Drivers License	CATI	HMLIC	Y	Y	N	1	1 YES 2 NO 8 DON'T KNOW 9 REFUSED	Do you have a valid driver's license?	**IF HMAGE<16**	
3.14	70	HMSCH	Student Status	CATI	HMSCH	Y	Y	N	1	1 YES 2 NO 9 REFUSED	Are you currently enrolled in any type of school?		
3.17	71	SBORO	School Borough	CATI	SBORO	Y	Y	N	1	1 Bronx 2 Brooklyn 3 Manhattan 4 Queens 5 Staten Island 7 Other, specify	What borough is this school in?	**IF HMSCH>1**	
3.17	72	O_SBORO	School Borough, Other	CATI	O_SBORO	Y	Y	C	50	OPEN	Other, specify	**IF HMSCH>1 or IF SBORO<>7**	
3.18	73	SMODE	Usual Mode to School	CATI	SMODE	Y	Y	N	2	01 AUTO DRIVER 02 AUTO PASSENGER 03 TAXI, LIMO, CAR SERVICE 04 VAN SERVICE 05 NEW YORK CITY SUBWAY 06 STATEN ISLAND RAILROAD 07 PATH TRAIN 08 AIRTRAIN 09 NEW YORK CITY TRANSIT BUS OR MTA BUS 10 LONG ISLAND BUS 11 WESTCHESTER BEE LINE 12 NJ TRANSIT BUS 13 PRIVATE BUS 14 PARATRANSIT SERVICE (ACCESS-A-RIDE) 15 METRO-NORTH RAILROAD 16 LONG ISLAND RAIL ROAD 17 NJ TRANSIT RAIL 18 FERRY 19 WALK 20 BIKE 22 SCHOOL BUS 23 HOME SCHOOL 97 OTHER (SPECIFY) 99 REFUSED	How do you usually get to school? ONLY RECORD ONE MODE. [IF PERSON USED MORE THAN ONE METHODS OF TRANSPORTATION, ASK: WHAT IS THE ONE USED FOR MOST OF THE TRAVEL DISTANCE]	**IF HMSCH>1**	
3.18	74	O_SMODE	Usual Mode to School, Other	CATI	O_SMODE	Y	Y	C	50		Other, Specify	**IF HMSCH>1 or IF SMODE<>1**	
3.19	75	DRSCH	Driver School Age Child	CATI	DRSCH	Y	Y	N	1	1 HH Member, specify 2 Non-HH Member 8 DON'T KNOW 9 REFUSED	Who usually drives this person to school?	**IF HMSCH>1 or IF SMODE<>2 or IF HMAGE>15**	
3.19	76	O_DRSCH	Driver School Age Child, specify	CATI	O_DRSCH	Y	Y	C	50		Specify HH member	**IF HMSCH>1 or IF SMODE<>2 or IF DRSCH>1**	
	77	NONNYCCO	Non New York County recoding (PB)	PB recoding	NONNYCCO	Y	N	N	2	1= NYC- More than 1 Borc 2= NYC- More than 1 Boro = Other in Metro area 3= Long Island 4= Other New York County in Metro 5= CT- New Haven or Fairfield 6= New Jersey- Metro 7= Out of Metro 28 CO Region- NY Mega Region 8= Out of NY Mega Region 9= Unknown			Added on 012909; Numerical recode of Other, Specify answers in O_WMODE
CATI TRIP FILE (TRIP_FINAL													
	78	SAMPN	SAMPLE NUMBER	IMPORTED	TSAM1	Y	Y	N	7				
	79	PERNO	PERSON NUMBER	IMPORTED	TPRNO	Y	Y	N	2				
	80	TROW	Trip Row	IMPORTED	TROW	Y	Y	N	1				

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
4.1	81	DAYWK	Travel Day	CATI	DAYWK	Y	Y	N	1	1 SUN 2 MON 3 TUES 4 WED 5 THUR 6 FRI 7 SAT	RECORD DAY OF WEEK FOR YESTERDAY		
	82	TRANS	One-way Transit Trips	CATI	TRANS	Y	Y	N	2	55 NOT ASKED IN TRAVEL LOG 96 NOT ASKED 99 DON'T KNOW	Thinking about the last 7 days, how many one-way trips did you take by subway, bus, or express bus? A round trip counts as two one-way trips.		
4.2	83	TRAVY	Travel Yesterday	CATI	TRAVY	Y	Y	N	1	1 YES 2 NO – CHECK THOROUGHLY – NO SHOPPING, NO ERRANDS, NO VISITS	Did you travel outside of the house yesterday?		
	84	TRAV1	Travel confirmation	CATI	TRAV1	N	Y	N	1	1 YES 2 NO	DID RESPONDANT TRAVEL YESTERDAY?		
4.3	85	NTRAV	Reason for No Travel	CATI	NTRAV	Y	Y	N	2	01 MOBILITY DISABILITY 02 SICK PERSONAL 03 SICK SOMEONE ELSE IN FAMILY 04 ADVANCED AGE – NO PLACE TO GO 05 HOMEMAKER THAT TAKES CARE OF VERY YOUNG KIDS 06 NO REASON TO TRAVEL 07 WEATHER 08 NOT SCHEDULED TO WORK 09 WORKED FROM HOME 10 OUT OF AREA ON TRAVEL 11 RELIGIOUS REASONS 12 RELAXING OR RESTING 13 CLEANING OR CHORES AROUND THE HOUSE 14 SCHOOL OR STUDYING 15 NO PLANS, NO NEED TO LEAVE 16 DOES NOT TRAVEL ON SUNDAYS 17 NO MONEY, THINGS TOO EXPENSIVE 18 VISITORS 19 NOT EMPLOYED 97 OTHER REASON: SPECIFY 99 DONT KNOW/REFUSED	3 When you say you did not travel outside of the house at all yesterday, what is the main reason for that?	**IF TRAVY<2**	
4.3	86	O_NTRAV	Reason for No Travel, Other	CATI	O_NTRAV	Y	Y	C	175		Other, specify	**IF TRAVY<2 or IF NTRAV<97**	
4.4	87	TRTOT	Total Trips Yesterday	CATI	TRTOT	Y	Y	N	2	ENTER NUMBER [RANGE 1-15]	When you think about your day yesterday, how many separate trips did you make to different places? A trip is going from an origin to an ultimate destination – it has a start and end location and only one purpose, like home to work or school, work to lunch, work to shopping. A trip can have stops along the way like a subway station or dropping kids off at school. So thinking about it this way, about how many trips did you make yesterday?	**IF TRAVY>1**	
4.5	88	USSOB	Use Subway or Bus	Calculated	USSOB	Y	Y	N	1	1 Yes 2 No	DID RESPONDENT USE SUBWAY OR BUS ANY TIME?		

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
	89	NEW_FARE	New FARE computed from old FARE and new data			Y	Y	N	2	01 SINGLE RIDE TICKET 02 CASH 03 REGULAR METROCARD 04 REGULAR METRO CARD WITH BONUS 05 SINGLE DAY FUNPASS 06 7-DAY PASS 07 14-DAY PASS 08 30-DAY PASS 09 7-DAY EXPRESS BUS PASS PLUS 10 EASYPASS EXPRESS 11 REDUCED FARE EASYPAY 12 METRO NORTH PASS OR CASH 13 LONG ISLAND RAILROAD- PASS OR CASH 14 PATH TRAIN QUICKCARD/SMARTLINK OR CASH 15 NEW JERSEY TRANSIT PASS OR CASH 16 ANNUAL PREMIUM TRANSIT CHECK 19 UNLIMITED RIDE METRO (OTHER/DK) 97 OTHER 98 DK 99 REFUSED			
	90	METRO	Use Metro Card			Y	Y	N	1	1 Yes 2 No	Did you use a MetroCard to board the subway or bus <DAYWK>?	**IF USSOB>1**	
	91	CASH	Use cash			Y	Y	N	1	1 Yes 2 No- PROBE TO MAKE SURE THEY DIDN'T USE THEIR METROCARD	Did you use cash to board the bus <DAYWK>?	**IF METRO<2**	
	92	TMET	Type of Metro Card	CATI	TMET	Y	Y	N	1	1 Unlimited Ride MetroCard 2 Regular Pay-per-Ride MetroCard 3 Single Ride Ticket 4 Easy Pay Express 5 Reduced Fare Easy Pay [seniors and disabled] 7 Other type of MetroCard (specify) [this should include students and people that use other systems as well, like MNR or PATH] 8 Don't Know	What type of MetroCard did you use?	**IF METRO>1**	
	93	O_TMET	Other, Specify		O_TMET	Y	Y	C	50		other, specify	**IF TMET<>6**	
	94	TUMET	Type of Unlimited Metro Card	CATI	TUMET	Y	Y	N	1	1 1-Day (Fun Pass) 2 7-Day Unlimited Ride 3 7-Day Express Bus Plus Unlimited Ride 4 14-Day Unlimited Ride 5 30-Day Unlimited Ride 6 Annual Premium TransitCheck 7 Other type of Unlimited MetroCard (specify) 8 Don't Know	What type of Unlimited Ride MetroCard was it?	**IF TMET>1**	
	95	O_TUMET	Other, Specify		O_TUMET	Y	Y	C	50		other, specify	**IF TUMET<>7**	
	96	PPMET		CATI	PPMET	Y	Y	N	1	1 Less than $7 2 More than $7 8 Don't know	The last time you purchased or refilled your regular Pay-per-Ride MetroCard, how much money did you put on the card?	**IF TMET<>2**	
4.5	97	FARE	Method to pay for fare	CATI	FARE	Y	Y	N	2	01 SINGLE RIDE TICKET 02 CASH 03 REGULAR METROCARD 04 REGULAR METRO CARD WITH BONUS 05 SINGLE DAY FUNPASS 06 7-DAY PASS 07 14-DAY PASS 08 30-DAY PASS 09 7-DAY EXPRESS BUS PASS PLUS 10 EASYPASS EXPRESS 11 REDUCED FARE EASYPAY 12 METRO NORTH PASS OR CASH 13 LONG ISLAND RAILROAD- PASS OR CASH 14 PATH TRAIN QUICKCARD/SMARTLINK OR CASH 15 NEW JERSEY TRANSIT PASS OR CASH 98 DK 99 REFUSED	How did you pay your fare?	**IF USSOB>1 or TRAVY>1**	

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
6.2	98	MCSER	MetroCard Serial	CATI	MCSER	Y	Y	C	10	ENTER NUMBER (# digits) 9999999998 Don't Know 9999999999 Refused	Can you provide me the MetroCard serial number that you used for the trips you reported? It is the 10-digit # directly under the word "Expires."	IF USSOB>1	
5.11	99	ESUB1	Driving Subsidy	CATI	ESUB1	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? REIMBURSEMENT FOR TOLLS		
	100	ESUB2	Employer-provided Subsidy	CATI	ESUB2	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? REIMBURSEMENT FOR PARKING		
	101	ESUB3	Employer-provided Subsidy	CATI	ESUB3	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? REIMBURSEMENT FOR PUBLIC TRANSIT		
	102	ESUB4	Employer-provided Subsidy	CATI	ESUB4	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? USE A COMPANY VEHICLE TO TRAVEL TO OR FROM WORK		
	103	ESUB5	Employer-provided Subsidy	CATI	ESUB5	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? BUSINESS EXPENSE ACCOUNT		
	104	ESUB6	Employer-provided Subsidy	CATI	ESUB6	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? PRE-TAX CONTRIBUTIONS TO TRANSPORTATION ACCOUNT		
	105	ESUB7	Employer-provided Subsidy	CATI	ESUB7	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? FREE PARKING		
	106	ESUB8	Employer-provided Subsidy	CATI	ESUB8	Y	Y	N	1	1 YES 2 NO 8 DK	Do you use any of the following types of employer-provided transportation benefits for travel to / from work? DISCOUNTED PARKING		
	107	TRIP_COUNT	Count of Trips	PPROC		Y	Y	N	2				
TRIP TRACER TRIP FILE (TT_TRIPS_FINAL													
	108	SAMPN	Sample Number	CATI Sample	CASEID	Y	Y	N	7				
	109	PERNO	Person Number	CATI Sample	PERNO	Y	Y	N	2				
	110	TRIPNO	Trip Number	Trip Tracer SYSTEM	TripNo	Y	Y	N	2				
TT 1	111	OTYPE	Origin Type	Trip Tracer	Origin	Y	Y	N	1	1 Home 2 Work 3 School, or 4 Some other place?	Let's start with where you were at 4am or when you woke up yesterday? Was it...		
TT 4	112	DTYPE	Destination Type (TRIP)	Trip Tracer	Destination	Y	Y	N	1	1 Home 2 Work 3 School or 4 Some place else?	And, were you traveling to...		
TT 7	113	TPUR	Trip Purpose	Trip Tracer	Purpose	Y	Y	N	2	1 USUAL WORKPLACE 2 OTHER WORKPLACE/ WORK RELATED 3 SCHOOL (PERSONAL) 4 DROP OFF OR PICK UP SOMEONE 5 SHOPPING 6 ERRANDS OR PERSONAL BUSINESS 7 MEDICAL OR OTHER PROFESSIONAL SERVICES 8 EAT OUT 9 MOVIES, GYM, SPORTS, OTHER ENTERTAINMENT 10 VISIT FRIENDS, FAMILY 11 GO HOME 96 CHANGE MODE/TRANSFER 97 OTHER	What was the purpose of your trip to that place?		
TT 3	114	DTIME	Trip Start Time	PPROC	TripStartDate	Y	Y	C	5	99:99 Don't Know/Refused			
TT6	115	ATIME	Trip Arrival Time	PPROC	TripEndDate	Y	Y	C	5	99:99 Don't Know/Refused			
TT 3	116	Trip_sdate	Trip Start Date	PPROC	TripStartDate	Y	Y	D	10				
TT6	117	Trip_edate	Time Arrival Date	PPROC	TripEndDate	Y	Y	D	10				
	118	Comments	Comments	PPROC	Comments	Y	Y	C	50	OPEN	Comments		
	119	O_COUNTY	Origin County	PPROC	O_COUNTY	Y	Y	C	50	OPEN			
	120	D_COUNTY	Destination County	PPROC	D_COUNTY	Y	Y	C	50	OPEN			
	121	AFTER	After certain date	PPROC		Y	Y	N	1	1 Yes Phase 1 2 Yes Phase 2			
	122	BLACKOUT	Date is on Blackout date	PPROC		Y	Y	N	1	1 Yes	Was travel date after 6/26/2008 or 11/21/2008?		
TRIP TRACER WAYPOINTS/SEGMENTS FILE (TT_WAY_FINAL													
	123	SAMPN	Sample Number	CATI Sample	CASEID	Y	Y	N	7				
	124	PERNO	Person Number	CATI Sample	PERNO	Y	Y	N	2				
	125	TRIPNO	Trip Number	Trip Tracer SYSTEM	TripNo	Y	Y	N	2				
	126	WPNO	Waypoint Number	Trip Tracer SYSTEM	WPNo	Y	Y	N	2				

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
	127	WPTYP	Location Type	Trip Tracer SYSTEM	WPTYP	Y	Y	N	2	12 USUAL WORKPLACE 13 OTHER WORKPLACE/ WORK RELATED 14 SCHOOL (PERSONAL) 15 DROP OFF OR PICK UP SOMEONE 16 SHOPPING 17 ERRANDS OR PERSONAL BUSINESS 18 MEDICAL OR OTHER PROFESSIONAL SERVICES 19 EAT OUT 20 MOVIES, GYM, SPORTS, OTHER ENTERTAINMENT 21 VISIT FRIENDS, FAMILY 22 GO HOME 96 CHANGE MODE/ TRANSFER 97 OTHER: TYPE IN COMMENTS BOX 0 REFUSED	What is the location type?		
TT 2, 5, 10	128	NUM	Address Number	Trip Tracer	housenumber	Y	Y	C	50		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 2, 5, 10	129	STRT	Street Name	Trip Tracer	street	Y	Y	C	175		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 2, 5, 10	130	CITY	City/Borough	Trip Tracer	city	Y	Y	C	50		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 2, 5, 10	131	ZIP	Zip	Trip Tracer	ZIP	Y	Y	C	10		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 2, 5, 10	132	STAT	State	Trip Tracer	state	Y	Y	C	2		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 2, 5, 10	133	NAME	Name of Place	Trip Tracer	name	Y	Y	C	100		What is the location name and street address or location name of that place?		**For ITEM # I included 2, 5, and 10 because it corresponds with all of these in the script**
TT 8	134	mode	Mode	Trip Tracer	mode	Y	Y	N	2	01 AUTO DRIVER 02 AUTO PASSENGER 03 TAXI, LIMO, CAR SERVICE 04 VAN SERVICE 05 NEW YORK CITY SUBWAY 06 STATEN ISLAND RAILROAD 07 PATH TRAIN 08 AIRTRAIN 09 NEW YORK CITY TRANSIT BUS OR MTA BUS 10 LONG ISLAND BUS 11 WESTCHESTER BEE LINE 12 NJ TRANSIT BUS 13 PRIVATE BUS 14 PARATRANSIT SERVICE (ACCESS-A-RIDE) 15 METRO-NORTH RAILROAD 16 LONG ISLAND RAIL ROAD 17 NJ TRANSIT RAIL 18 FERRY 19 WALK 20 BIKE 21 WORK AT HOME 99 REFUSED	What was the first means of transportation that you used to get to [Destination Type]?		

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
	135	MODE2	Mode- Researched possibility	PPROC		Y	Y	N	2	01 AUTO DRIVER 02 AUTO PASSENGER 03 TAXI, LIMO, CAR SERVICE 04 VAN SERVICE 05 NEW YORK CITY SUBWAY 06 STATEN ISLAND RAILROAD 07 PATH TRAIN 08 AIRTRAIN 09 NEW YORK CITY TRANSIT BUS OR MTA BUS 10 LONG ISLAND BUS 11 WESTCHESTER BEE LINE 12 NJ TRANSIT BUS 13 PRIVATE BUS 14 PARATRANSIT SERVICE (ACCESS-A-RIDE) 15 METRO-NORTH RAILROAD 16 LONG ISLAND RAIL ROAD 17 NJ TRANSIT RAIL 18 FERRY 19 WALK 20 BIKE 21 WORK AT HOME 99 REFUSED			
	136	AOCCU	Auto Occupancy	Trip Tracer	AOCCU	Y	Y	N	3	999 REFUSED	How many persons were in the vehicle including you?	**IF mode<>1 or 2**	
TT 9	137	TLINE	Route & Line - what respondent said	Trip Tracer	route_line	Y	Y	C	8		What route or line did you take?	**IF SMOD1>15 or SMOD1<3**	
	138	ROUTE2	Route & Line - researched to be	PPROC		Y	Y	C	50				
	139	STATUS	Possible problem with mode or route/line	PPROC		Y	Y	N	1	7 possible problem 9 ok			
	140	XCOORD	X COORD	Trip Tracer	XCOORD	Y	Y	N	20				
	141	YCOORD	Y COORD	Trip Tracer	YCOORD	Y	Y	N	20				
	142	XCOORD_WGS84	X COORD WGS84	Trip Tracer	XCOORD_WG	Y	Y	N	20.5				
	143	YCOORD_WGS84	Y COORD WGS84	Trip Tracer	YCOORD_WG	Y	Y	N	20.5				
	144	GEOCNTY	Geocoded County	PPROC		Y	Y	C	50				
	145	TAZ	TAZ Zone	PPROC		Y	Y	N	10	999999999 Not Applicable			
	146	taz_tag	Tagged NYCT TAZ (BG) - PB Confirm	PB Processing		Y	N	N	10				Added 012909
	147	longitude	Longitude - TransCAD format	PB Processing		Y	N	N	10				Added 012909
	148	latitude	Latitude - TransCAD format	PB Processing		Y	N	N	10				Added 012909
	149	flag	Flag - PB data processing	PB Processing		Y	N	N	10	0 No Comment 1 Locations on Water 2 Wrong GeoCnt Name, TAZ known 3 Geocnt = "Out of Area", but BGs from SI and Bronx 4 TAZ not same as TAZ_tag			Added 012909
	150	geocnty_r	Revised GeoCnty based on Flag	PB Processing		Y	N	C	50				Added 012909
	151	State	State - from BG	PB Processing		Y	N	N	8				Added 012909
	152	county	County - from BG	PB Processing		Y	N	N	8				Added 012909
	153	tract	Tract (From BG and other from tagging)	PB Processing		Y	N	N	11				Added 012909
	154	rtfmtaz	RTFM (and BPM) Zone	PB Processing		Y	N	N	8				Added 012909
.	155	puma5	PUMA5	PB Processing		Y	N	N	8				Added 012909
	156	DataRecordNum	Waypoint index	TRUE ROUTE VALIDATION		Y	N	C	255	SAMPN & PERNO & TRIPNO & WPNO			Added 020609
	157	STOPPOINTNO	Initial stoppoint generated by snapping waypoint to VISU	TRUE ROUTE VALIDATION		Y	N	N	4				Added 020609; pre-TrueRoute process
	158	ZONENO	Zone number for each waypoint generated by snapping	TRUE ROUTE VALIDATION		Y	N	N	4	40000001-40000009 are external zones			Added 020609; pre-TrueRoute process
	159	CLEANNAME	Initial route name update	TRUE ROUTE VALIDATION		Y	N	C	255				Added 020609; pre-TrueRoute process
	160	IND_TP	Trip index	TRUE ROUTE VALIDATION		Y	N	C	255	SAMPN & PERNO & TRIPNO			Added 020609; What is the location type?
	161	SURVEY_FLAG	Flag of survey records	TRUE ROUTE VALIDATION		Y	N	N	4	1. Validated by TrueRoute; 2. Validated by TrueRoute with change of route names; 3. Validated by TrueRoute with extra pathlegs; 4. Rejected by TrueRoute			Added 020609
	162	VISUM_PATHLEG	Index (sequential number) of transit pathlegs for each trip	TRUE ROUTE VALIDATION		Y	N	N	4				Added 020609; Use this field in addition to the other primary keys(sampn,perno,tripno,wpno) to sort for additional path legs order
	163	VISUM_LINE	Transit lines validated by TrueRoute	TRUE ROUTE VALIDATION		Y	N	C	255				Added 020609; use this field to link to the Metrocard count database for the Bus ridership
	164	VISUM_LINEROUTE	Line routes actually used in VISUM network (coded in M	TRUE ROUTE VALIDATION		Y	N	C	255				Added 020609
	165	VISUM_DIR	Transit line direction in VISUM format	TRUE ROUTE VALIDATION		Y	N	C	255	>: Northbound or Eastbound; <: Southbound or Westbound			Added 020609
	166	VISUM_FROMSTOP	Boarding stop for this pathleg	TRUE ROUTE VALIDATION		Y	N	N	4	MTA stop number (in MTA TransCAD model)			Added 020609; Stop in VISUM represents a group of actual stops
	167	VISUM_TOSTOP	Alighting stop for this pathleg	TRUE ROUTE VALIDATION		Y	N	N	4	MTA stop number (in MTA TransCAD model)			Added 020609

ITEM #	DELIV ITEM #	VAR NAME	Variable Description	PROGRAM	CATI	DELIV	PROCESSING	DATA TYPE	WIDTH	VALUES	ACTUAL QUESTION	SKIPS	NOTES
	168	VISUM_FROMSTOPPOINT	Actual boarding stop point for this pathleg	TRUE ROUTE VALIDATION		Y	N	N	4				Added 020609; Stoppoint in VISUM is the actual boarding/alighting points
	169	VISUM_TOSTOPPOINT	Actual alighting stop point for this pathleg	TRUE ROUTE VALIDATION		Y	N	N	4				Added 020609
	170	FROMSTOPPOINT_NAME	Name of the boarding stop	TRUE ROUTE VALIDATION		Y	N	C	255				Added 020609
	171	TOSTOPPOINT_NAME	Name of the alighting stop	TRUE ROUTE VALIDATION		Y	N	C	255				Added 020609
	172	VISUM_FLAG	Flag of the extra pathleg (only in flag3 table)	TRUE ROUTE VALIDATION		Y	N	N	4	1. Extra pathleg generated by TrueRoute			Added 020609; WHERE=1, these are additional waypoints based on VISUM
	173	FROMSTOP_XCORD	Actual boarding stop point for this pathleg; XCORD	TRUE ROUTE VALIDATION		Y	N	C	50	In longitude-latitude projection			Added 020609
	174	FROMSTOP_YCORD	Actual boarding stop point for this pathleg; YCORD	TRUE ROUTE VALIDATION		Y	N	C	50	In longitude-latitude projection			Added 020609
	175	TOSTOP_XCORD	Actual alighting stop point for this pathleg; XCORD	TRUE ROUTE VALIDATION		Y	N	C	50	In longitude-latitude projection			Added 020609
	176	TOSTOP_YCORD	Actual alighting stop point for this pathleg; YCORD	TRUE ROUTE VALIDATION		Y	N	C	50	In longitude-latitude projection			Added 020609
	177	MTAMODE	Modes applied in survey	TRUE ROUTE VALIDATION		Y	N	C	50				Added 020609; Modes does not include private bus, paratransit, and West Chester Bee Line
.	178	STOPAREA	Group of stop points that allow transfers btw stop points	TRUE ROUTE VALIDATION		Y	N	C	50				Added 020609; use this field to link to the Metrocard count database for the Subway ridership

Appendix F – Respondent Materials

347 Madison Avenue
New York, NY 10017-3739
212 878-7000 Tel

Metropolitan Transportation Authority

State of New York

Invitation to Participate in the
2008 New York Customer Travel Survey
Weekly Drawing of $500

Month, Date, Year

Ms. Jane Doe <<sampn>>-<<rep>>
181 Mott Street, Apt. 181
New York, New York 11001

Dear Ms. Doe:

I am contacting you to request your help with a short travel survey for the Metropolitan Transportation Authority (MTA), the agency that operates the subways, trains, and buses in the New York City region. The goal of this survey is to get accurate and up-to-date information about how people travel in New York City. This information will help the MTA provide better transportation options for New Yorkers like you.

Within the next 3-5 days, a professional survey interviewer from PTV DataSource will call you to conduct an interview for the **2008 New York Customer Travel Survey**. The interviewer will ask a series of questions about your household and about your travel in and around New York City. I hope you will find the time to participate in this very important interview since all the information you provide will be very valuable to us, even if you do not travel regularly. Please share this letter with other adults in your household so they will also be aware of our survey.

If you prefer, you can call PTV DataSource toll-free at 800-591-8862 or 888-223-6234 to complete the survey at your convenience. Or you may complete the enclosed Household Questionnaire and Travel Reporting Log and return these in the postage-paid envelope provided.

Your participation in this survey is essential because information you provide will be used to represent many other people in your community. In addition, the answers you provide to this survey will remain confidential and will not be used for any purpose other than the specific information needs of this research project. **As a thank you and compensation for your time, your name will be entered into a weekly drawing to win $500**. Your chances to win will increase if more than one adult in your household participates in the travel survey.

Thank you in advance for your time.

Sincerely,

Lawrence Fleischer
Chief of Metropolitan Planning

347 Madison Avenue
New York, NY 10017-3739
212 878-7000 Tel

Metropolitan Transportation Authority

State of New York

Invitation to Participate in the
2008 New York Customer Travel Survey
$25 Compensation for Your Time
Weekly Drawing of $500

Month, Date, Year

NYC Resident
181 Mott Street, Apt. 181
New York, New York 11001

Dear Sir or Madam:

I am contacting you to request your help with a short travel survey for the Metropolitan Transportation Authority (MTA), the agency that operates the subways, trains, and buses in the New York City region. The survey will give us accurate and up-to-date information about how New Yorkers travel which will help the MTA provide better transportation options to you and other New Yorkers.

To represent our population, we randomly picked specific addresses and yours was one of them. Thus, the information you provide will stand in for many others in your community. In addition, the answers you provide to this survey will remain confidential and will not be used for any purpose other than the specific information needs of this research project. To show our appreciation for your help and to compensate you for your time, you will be mailed a **$25** check after you complete the interview. **All adults in your household who complete the travel survey will each receive the $25. Each adult will also be entered into a weekly drawing to win $500**.

To ensure you qualify for the $25 check and weekly drawing, please respond by June 20, 2008 using one of the following ways:

- Fill out the enclosed Household Questionnaire and Travel Reporting Log and return them in the postage-paid envelope provided.
- Call toll-free 800-591-8862 or 888-223-6234. A trained interviewer will collect your information and **enter your name into the weekly drawing**.

Thank you in advance for your time and your assistance.

Sincerely,

Lawrence Fleischer
Chief of Metropolitan Planning

The agencies of the MTA

MTA New York City Transit
MTA Long Island Rail Road
MTA Long Island Bus
MTA Metro-North Railroad
MTA Bridges and Tunnels
MTA Capital Construction
MTA Bus Company

2008 New York Customer Travel Survey

Sponsored by:

Metropolitan Transportation Authority

c/o NuStats
206 Wild Basin Rd, Suite A300
Austin, TX 78746

We want to hear from you!
Please send us your travel survey questionnaires or call 800-591-8862 or 888-223-6234 to complete by phone.

Don't delay! Participate by 6/27 to receive $25 plus a chance to WIN $500!

<<SAMPN>>-<<REPLICATE>>

<<FNAME>> <<LNAME>>
<<HADDR>>
<<HCITY>>, <<HSTAT>> <<HZIP>>

Your information can HELP MTA MAKE decisions about transit IMPROVEMENTS in your community!

We really want to include your household in this important survey!

Each adult in your household who completes the survey will receive $25 and a chance to WIN $500.

There are two ways to participate:

Phone ***(This is faster!):*** Call the toll-free hotline at 1-800-591-8862 or 888-223-6234.

Mail: Complete the household questionnaire and travel reporting log we mailed to you, and send them back in the postage-paid envelope. *If you already mailed them back to us - Thank you!*

If you need another household questionnaire or travel reporting log, please go to **www.nustats.com/mta** to download and print copies.

We appreciate your help, thank you!

2008 New York Customer Travel Survey

Sponsored by:

Metropolitan Transportation Authority

c/o NuStats
206 Wild Basin Rd, Suite A300
Austin, TX 78746

We want to hear from you because your input matters!
¡Queremos saber de usted porque su opinión nos importa!

Don't delay! Participate by 10/30 for a chance to WIN $500!

¡No demore! ¡Participe antes del 10/30 para la oportunidad de GANAR $500!

<<SAMPN>>-<<REPLICATE>>

<<NAME>>
<<ADDRESS>>
<<CITY>>, <STATE>> <<ZIP>>

Help MTA make transit improvements!
Plus a chance to WIN $500!

How to participate:

Phone: Call the toll-free hotline at **800-591-8862**.

Mail: Send us your completed questionnaire and travel reporting log.

Want to know more, or need another questionnaire?
Visit **www.nustats.com/mta**

We appreciate your help, thank you!

¡Ayude a MTA hacer mejoras en el transporte público!
¡Y la oportunidad para GANAR $500!

Cómo participar:

Teléfono: *Llame a la línea gratis* ***888-223-6234.***

Correo: *Envíe su encuesta y registro de viajes completos.*

¿Quiere saber más, o necesita otra encuesta?
Vaya a ***www.nustats.com/mta***

¡Gracias, agradecemos su ayuda!

2008 New York Customer Travel Survey

Sponsored by:

Metropolitan Transportation Authority

c/o NuStats
206 Wild Basin Rd, Suite A300
Austin, TX 78746

We want to hear from you because your input matters!
¡Queremos saber de usted porque su opinión nos importa!

Don't delay! Participate by 11/12 for a chance to WIN $500!

¡No demore! ¡Participe antes del 11/12 para la oportunidad de GANAR $500!

<<SAMPN>>-<<REPLICATE>>

<<NAME>>
<<ADDRESS>>
<<CITY>>, <STATE>> <<ZIP>>

We need your help–all travel is important.
Take the survey and enter to WIN $500!

How to participate:

Phone: Call the toll-free hotline at **800-591-8862**.

Mail: Send us your completed questionnaire and travel reporting log–even if you didn't use transit.

Want to know more?
Visit **www.nustats.com/mta**

We appreciate your help, thank you!

Necesitamos su ayuda–todos los viajes son importantes.

¡Tome la encuesta e inscríbase para GANAR $500!

Cómo participar:

Teléfono: *Llame a la línea gratuita al* ***888-223-6234.***

Correo: *Envíe su cuestionario y registro de viajes completos–aun si no utilizó el transporte público.*

¿Quiere saber más?
Visite ***www.nustats.com/mta***

Agradecemos su ayuda, ¡gracias!

Metropolitan Transportation Authority

2008 New York Customer Travel Survey

SURVEY IS FASTER BY PHONE!

***Complete the survey and you will be entered in the weekly drawing to* WIN $500!**

Helpful Tips!

1) Each adult in your household who completes the survey will be entered into the weekly drawing to **WIN $500**!

2) You should receive a telephone call from a PTV DataSource interviewer soon. If you prefer, you can call PTV DataSource toll-free at **800-591-8862 or 888-223-6234** to complete the survey at your convenience.

3) Or, use the enclosed postage-paid envelope to mail back your completed household questionnaire and travel reporting logs **by October 30, 2008**.

If you have questions or need help, please call PTV DataSource toll-free at **800-591-8862 or 888-223-6234**.
(M-F 9 a.m.-10 p.m. & weekends noon-8 p.m.)
Or visit **www.nustats.com/MTA**.

Thank you!

Metropolitan Transportation Authority

2008 New York Customer Travel Survey

SURVEY IS FASTER BY PHONE!

***Complete the survey and you will* receive $25** *and be entered in the weekly drawing to* **WIN $500!**

Helpful Tips!

1) Each adult in your household who completes the survey will **receive $25** and be entered into the weekly drawing to **WIN $500**!
   You should receive the check within 6-8 weeks of completing the survey.

2) Since we do not have your phone number, you can call PTV DataSource toll-free at **800-591-8862 or 888-223-6234** to complete the survey at your convenience.

3) Or, use the enclosed postage-paid envelope to mail back your completed household questionnaire and travel reporting logs **by the date listed on the enclosed letter**.

In order to get your $25, your survey materials must be FULLY completed.

If you have questions or need help, please call PTV DataSource toll-free at **800-591-8862 or 888-223-6234**.
(M-F 9 a.m.-10 p.m. & weekends noon-8 p.m.)
Or visit **www.nustats.com/MTA**.

Thank you!

NEED HELP OR HAVE QUESTIONS?

If you need additional logs or any help filling them out, please contact:

Kim Hilsenbeck, NuStats
khilsenbeck@nustats.com

or

PTV DataSource
800-591-8862 *(English)*
888-223-6234 *(English/Spanish)*

or

visit:
www.nustats.com/MTA

WHAT DO I DO WITH MY COMPLETED LOG?

Please return the completed logs, for each adult in your household, in the postage-paid envelope that was included in the packet.

We still need your log even if you didn't travel at all yesterday.

Complete this survey for a chance to win a weekly prize of $500!

Go to *www.nustats.com/MTA* for details.

Thank You!

LISTS 1 & 2 are inside flap

Survey Conducted by NuStats & PTV DataSource for:

Metropolitan Transportation Authority

Metropolitan Transportation Authority

2008 New York Customer Travel Survey

Travel Reporting Log

The purpose of travel reporting logs is to gather information from all the adults in your household about THEIR travel YESTERDAY. Each adult should complete a separate log for the same date.

SURVEY IS FASTER BY PHONE!

***Complete the survey and you will be entered in the weekly drawing to* WIN $500!**
***To complete by phone, call us toll-free at* 800-591-8862 or 888-223-6234**

Person completing this log:
(to contact you if we have questions or you are a prize winner)

Name: _____

Phone: ( ) _____

Address: _____

City: _____

State & Zip: _____

Yesterday's date*: _____ / _____ / _____

****Each adult in your household should fill out a log for the same date.***

The 2008 New York Customer Travel Survey measures how people living in New York City travel to do activities, like work, school, family, and other activities. The survey will help planners at the MTA to understand people's travel patterns better so they can make good decisions about future transportation improvements. *All your answers are confidential.*

1. Thinking about the last 7 days, how many one-way trips did you take by subway, bus, or express bus?

________ # of one-way trips *(A round trip counts as two one-way trips)*

2. Did you travel outside your home yesterday? *(Including any shopping, errands, visiting, etc.)*

◯1 Yes ➔ **Skip to question 4**
◯2 No

3. What is the MAIN reason you didn't travel outside your home yesterday? *(Mark only one)*

◯1 Mobility disability
◯2 I was sick
◯3 Someone else in family was sick
◯4 Advanced age – no place to go
◯5 Homemaker that takes care of very young kids
◯6 I had no reason to travel
◯7 Weather
◯97 Other reason: *specify* ________________________________

4. Do you use any of the following types of employer-provided transportation benefits for travel to or from work?

	Yes	No
a. Reimbursement for tolls	◯1	◯2
b. Reimbursement for parking	◯1	◯2
c. Reimbursement for public transit	◯1	◯2
d. Use of a company vehicle to travel to or from work	◯1	◯2
e. Business expense account	◯1	◯2
f. Pre-tax contributions to transportation account	◯1	◯2
g. Free parking	◯1	◯2
h. Discounted parking	◯1	◯2
i. Not employed	◯1	

If you DID NOT travel yesterday, please return the log to us.
If you DID travel yesterday, please continue with question 5.

HOW DID YOU GET THERE? *Use* **LIST 1 CODES**	ARRIVAL TIME?	WHY DID YOU GO THERE? *Use* **LIST 2 CODES**	DEPARTURE TIME?	OTHER NOTES? *(OPTIONAL)*
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ____ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	__ : __ ◯am ◯pm	Write ONE code only	__ : __ ◯am ◯pm	

If you have more than 17 locations, please record them on a separate piece of paper. Thank you!

LIST 1 CODES: How did you get there?

Auto / Private passenger vehicle
1 Auto driver
2 Auto passenger
3 Taxi, limo, car service
4 Van service

Subway
5 New York City Subway
6 Staten Island Railway
7 PATH Train
8 AIRTRAIN

Bus
9 NYCT Transit Bus or MTA Bus
10 Long Island Bus
11 Westchester Bee Line
12 NJ Transit Bus
13 Private bus
14 Paratransit service (Access-a-ride)

Commuter Rail
15 Metro-North Railroad
16 Long Island Rail Road
17 NJ Transit Rail

Other
18 Ferry
19 Walk
20 Bike
21 Work at home
97 **Other**: *(write code 97 & how you got there)*

LIST 2 CODES: Why did you go there?

1 Went to my usual workplace
2 Went to other work-related place
3 Went to my school
4 Dropped off or picked up someone
5 Shopped
6 Errands or personal business
7 Medical or other professional services
8 Got meal or snack
9 Movies, gym, sports, other entertainment
10 Visited friends or family
11 Went home
96 Transferred / Changed method of travel *(got on/off bus or train, parked car, walked to transit stop, etc.)*
97 **Other**: *(write code 97 and specify activity)*

Continue recording additional locations below.

	LOCATION NAME?	ADDRESS INFORMATION?
12	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State
13	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State
14	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State
15	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State
16	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State
17	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State

Remember to include your return back home, if it was the last location of the day!

SURVEY IS FASTER BY PHONE!

***Complete the survey and you will be entered in the weekly drawing to* WIN $500!**
To complete by phone, call us toll-free at
800-591-8862 or 888-223-6234

5. Did you use the subway or bus any time yesterday?

◯ 1 Yes
◯ 2 No ➔ **Go to page 3**

6. How did you pay your fare yesterday? *(If more than one type of fare, mark the one used for most of the travel distance.)*

◯ 1 Single ride ticket
◯ 2 Cash
◯ 3 Regular MetroCard
◯ 4 Regular MetroCard w/ bonus
◯ 5 Single day Fun Pass
◯ 6 7-day Pass
◯ 7 14-day Pass
◯ 8 30-day Pass
◯ 9 7-day Express Bus Pass Plus
◯ 10 EasyPay Xpress
◯ 11 Reduced fare easy pay
◯ 12 Metro North – pass or cash
◯ 13 Long Island Rail Road - pass or cash
◯ 14 PATH Train– quickcard/smartlink or cash
◯ 15 New Jersey Transit– pass or cash

7. If you paid your fare with a MetroCard yesterday, what is the serial number on the card? *(It is the 10-digit # directly under the word "EXPIRES.")*

__ __ __ __ __ __ __ __ __ __

Note: Having the MetroCard number will help the MTA develop a more cost efficient way of collecting trip information in the future.

Instructions for recording your travel and an example are on pages 3-4
Begin recording your travel on pages 5-6 ➔

Instructions & Example

Begin wherever you were at 4 a.m. yesterday. Record every LOCATION you went to, **most importantly**, subway or train stations, bus stops, transfer points, and parking locations. *If you walk to or from a location, such as parking, only include it as a separate location if you had to walk at least 10 minutes.*

❶ **LOCATION NAME**: For places that don't fit in a category, please describe them. *Locations include transfer points such as a subway or train station, and bus stops.*

❷ **ADDRESS INFORMATION**: Street address/nearest cross streets OR the name of the train or subway station and then borough OR city & state.

Note: Locations can be transfer points such as a subway or train station, or a bus stop.

	❶ LOCATION NAME?	❷ ADDRESS INFORMATION?
1	**My location at 4:00 a.m. yesterday:** ● My Home ○ Subway/Train station ○ My School ○ Bus stop ○ My Work ○ Parking location ○ Other Place: (***describe below***) ________	31st Ave & 34th St Street Address/Nearest Cross Streets or Station Name ________ OR Astoria NY Borough / City & State
2	**Next LOCATION:** ○ My Home ● Subway/Train station ○ My School ○ Bus stop ○ My Work ○ Parking location ○ Other Place: (***describe below***) ________	Broadway Station Street Address/Nearest Cross Streets or Station Name Queens OR ________ Borough / City & State
3	**Next LOCATION:** ○ My Home ● Subway/Train station ○ My School ○ Bus stop ○ My Work ○ Parking location ○ Other Place: (***describe below***) ________	39th Ave Station Street Address/Nearest Cross Streets or Station Name Queens OR ________ Borough / City & State
4	**Next LOCATION:** ○ My Home ○ Subway/Train station ○ My School ○ Bus stop ● My Work ○ Parking location ○ Other Place: (***describe below***) ________	38th Ave & 32nd St Street Address/Nearest Cross Streets or Station Name ________ OR Long Island City NY Borough / City & State
5	**Next LOCATION:** ○ My Home ○ Subway/Train station ○ My School ○ Bus stop ○ My Work ○ Parking location ● Other Place: (***describe below***) Sunny Deli	38th Ave & 31st St Street Address/Nearest Cross Streets or Station Name ________ OR Long Island City NY Borough / City & State

HOW DID YOU GET THERE? *Use* **LIST 1 CODES**	ARRIVAL TIME?	WHY DID YOU GO THERE? *Use* **LIST 2 CODES**	DEPARTURE TIME?	OTHER NOTES? *(OPTIONAL)*
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	
WRITE CODE: ____ IF BY TRANSIT: Which Route/Line? ________ IF BY AUTO: # of people in vehicle? *(Including yourself)* ____	___ : ___ ○ am ○ pm	Write ONE code only	___ : ___ ○ am ○ pm	

Continue on next page ➔

Continue recording additional locations below.

	LOCATION NAME?	ADDRESS INFORMATION?
6	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State
7	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State
8	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State
9	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State
10	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State
11	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ OR _____ Borough City & State

Remember to include your return back home, if it was the last location of the day!

❸ **HOW DID YOU GET THERE:** Record the code from the **LIST 1 CODES** (located on the flap of this Log). *If you walk to or from a location, such as parking, only include it as a separate location if you had to walk at least 10 minutes.*

❹ **ARRIVAL TIME:** Exact time you arrived at each location.

❺ **WHY DID YOU GO THERE:** Record the code from the **LIST 2 CODES** (located on the flap of this Log). *Write only one code per location.*

❻ **DEPARTURE TIME:** Exact time you left each location.

❼ **OTHER NOTES *(OPTIONAL)*:** Use this to provide any clarification, if necessary.

Note: Please remember to include your return back home!

❸ HOW DID YOU GET THERE? *Use* **LIST 1 CODES**	❹ ARRIVAL TIME?	❺ WHY DID YOU GO THERE? *Use* **LIST 2 CODES**	❻ DEPARTURE TIME?	❼ OTHER NOTES? *(OPTIONAL)*
Next, tell us what time you left this location.			9 : 00 ● am ○ pm	
WRITE CODE: 19 IF BY TRANSIT: Which Route/Line? _____ IF BY AUTO: # of people in vehicle? *(Including yourself)* _____	9 : 15 ● am ○ pm	Write ONE code only 96	9 : 25 ● am ○ pm	
WRITE CODE: 5 IF BY TRANSIT: Which Route/Line? N IF BY AUTO: # of people in vehicle? *(Including yourself)* _____	9 : 40 ● am ○ pm	Write ONE code only 96	9 : 40 ● am ○ pm	
WRITE CODE: 19 IF BY TRANSIT: Which Route/Line? _____ IF BY AUTO: # of people in vehicle? *(Including yourself)* _____	9 : 55 ● am ○ pm	Write ONE code only 1	12 : 00 ○ am ● pm	
WRITE CODE: 19 IF BY TRANSIT: Which Route/Line? _____ IF BY AUTO: # of people in vehicle? *(Including yourself)* _____	12 : 10 ○ am ● pm	Write ONE code only 8	12 : 30 ○ am ● pm	Lunch

Begin recording your travel for yesterday on the next page →

Record ALL your TRAVEL for YESTERDAY, on the grid below, starting with your location at 4:00 a.m. and ending when you went to sleep.

TRAVEL is defined as changing your location.

LOCATIONS can also be transfer points such as a subway or train station, or a bus stop.

QUESTIONS?

See the Instructions & Example on pages 3-4 or call toll-free at 800-591-8862 or 888-223-6234

	START HERE — LOCATION NAME?	ADDRESS INFORMATION?	HOW DID YOU GET THERE? *Use* LIST 1 CODES	ARRIVAL TIME?	WHY DID YOU GO THERE? *Use* LIST 2 CODES	DEPARTURE TIME?	OTHER NOTES? *(OPTIONAL)*
1	**My location at 4:00 a.m. yesterday:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State				_____ : _____ ◯ am ◯ pm	
2	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State	**WRITE CODE:** _____ **IF BY TRANSIT: Which Route/Line?** _____ **IF BY AUTO: # of people in vehicle?** *(Including yourself)* _____	_____ : _____ ◯ am ◯ pm	Write ONE code only	_____ : _____ ◯ am ◯ pm	
3	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State	**WRITE CODE:** _____ **IF BY TRANSIT: Which Route/Line?** _____ **IF BY AUTO: # of people in vehicle?** *(Including yourself)* _____	_____ : _____ ◯ am ◯ pm	Write ONE code only	_____ : _____ ◯ am ◯ pm	
4	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State	**WRITE CODE:** _____ **IF BY TRANSIT: Which Route/Line?** _____ **IF BY AUTO: # of people in vehicle?** *(Including yourself)* _____	_____ : _____ ◯ am ◯ pm	Write ONE code only	_____ : _____ ◯ am ◯ pm	
5	**Next LOCATION:** ◯ My Home ◯ Subway/Train station ◯ My School ◯ Bus stop ◯ My Work ◯ Parking location ◯ Other Place: (***describe below***) _____	_____ Street Address/Nearest Cross Streets or Station Name _____ **OR** _____ Borough City & State	**WRITE CODE:** _____ **IF BY TRANSIT: Which Route/Line?** _____ **IF BY AUTO: # of people in vehicle?** *(Including yourself)* _____	_____ : _____ ◯ am ◯ pm	Write ONE code only	_____ : _____ ◯ am ◯ pm	

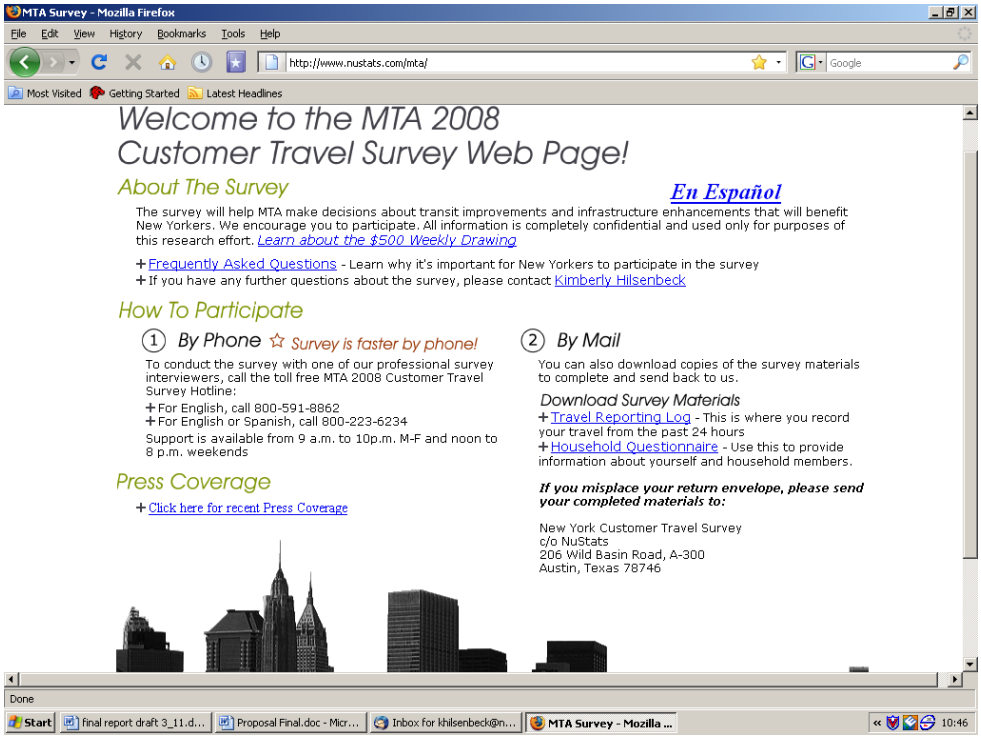
Next, tell us what time you left this location.

Remember to include your return back home, if it was the last location of the day!

Continue on next page

Website

Below is a screen shot of the home page of the study website. Respondents accessed the site via the URL which was printed on the survey materials.



Appendix G – Interviewer Training and Performance Metrics

MTA Household Travel Study – Training Manual

Introduction and Background

Thanks for being part of the NuStats team on this important study. The study sponsor, our client, is the New York Metropolitan Transportation Authority, otherwise known as the NY MTA. They are the transit agency for the five boroughs of New York City: Manhattan, Staten Island, Queens, Brooklyn* and the Bronx. The MTA oversees several transit providers, such as NYC Transit, Metro North Rail and the Long Island Rail Road and MTA Bus.

New York City is known around the world, and it's likely many of you are already familiar with some of the more famous landmarks of the city, such as Times Square (New Year's Eve ball drop), Central Park, the Empire State Building, and the Statue of Liberty. It's also famous for its Broadway theatre district, amazing food offerings, and a bevy of tourist attractions. New York is also home to several sports franchises, like the Super Bowl winning Giants. There's also the Mets, the Yankees, the Jets and the Knickerbockers (the Knicks).

(*While Brooklyn and Queens are geographically on Long Island, they are part of politically part of New York City. This MTA study does not include residents of the eastern portion of Long Island.)

Below is a broad view of the region:

Overview Map of New York City Region

Study Purpose

The purpose of this research study is to provide the MTA with a new database to support their travel model and to satisfy upcoming FTA requirements. Our job is collecting comprehensive travel information by interviewing residents of the five boroughs (Manhattan, Queens, Staten Island, Brooklyn and the Bronx) for three primary types of information:

- Household (such as income and size),
- Trip (where, purpose, when, mode), and
- Person (such as age and employment).

The study will be conducted in English and a staggered Spanish rollout. If we reach Spanish-speaking respondents during the initial days of interviewing, we will schedule a call-back date.

A section later in this manual offers a glossary of terms and definitions that will come in handy.

Research Approach

Our approach calls for a retrospective recall-based phone interview to gather household, trip and person data. There are two sample cohorts (types): Matched and Unmatched. Matched have a phone number, Unmatched do not. In this study, the split is about 40/60, with 40% matched to a number and 60% unmatched.

All households will receive an advance mailing packet containing a letter from MTA, the household /person questionnaire, trip log(s), and a return envelope with postage already paid – a Business Reply Mail envelope.

Once a respondent is on the line, we will use CATI to ask about household and person information for the respondent, then switch to TripTracer and ask about that person's travel over the past 24 hours, beginning with the first trip he or she made yesterday, focusing in on the starting point. Then we ask where the person went next, what mode of travel they used, whether they made any additional stops along the way, etc, until we reconstruct the travel that person made in the past 24 hours.

We will also attempt to speak with another adult (18+) in the household to collect their past 24-hour trip data. If another adult is unavailable or unwilling to participate, we should encourage the respondent to ask that person to complete the paper trip log (called the Travel Reporting Log) and send it back to us in the postage paid envelope. If the remaining data meets the requirements outlined below, it is considered a complete. We will not attempt any follow-up phone calls to households to speak with another adult.

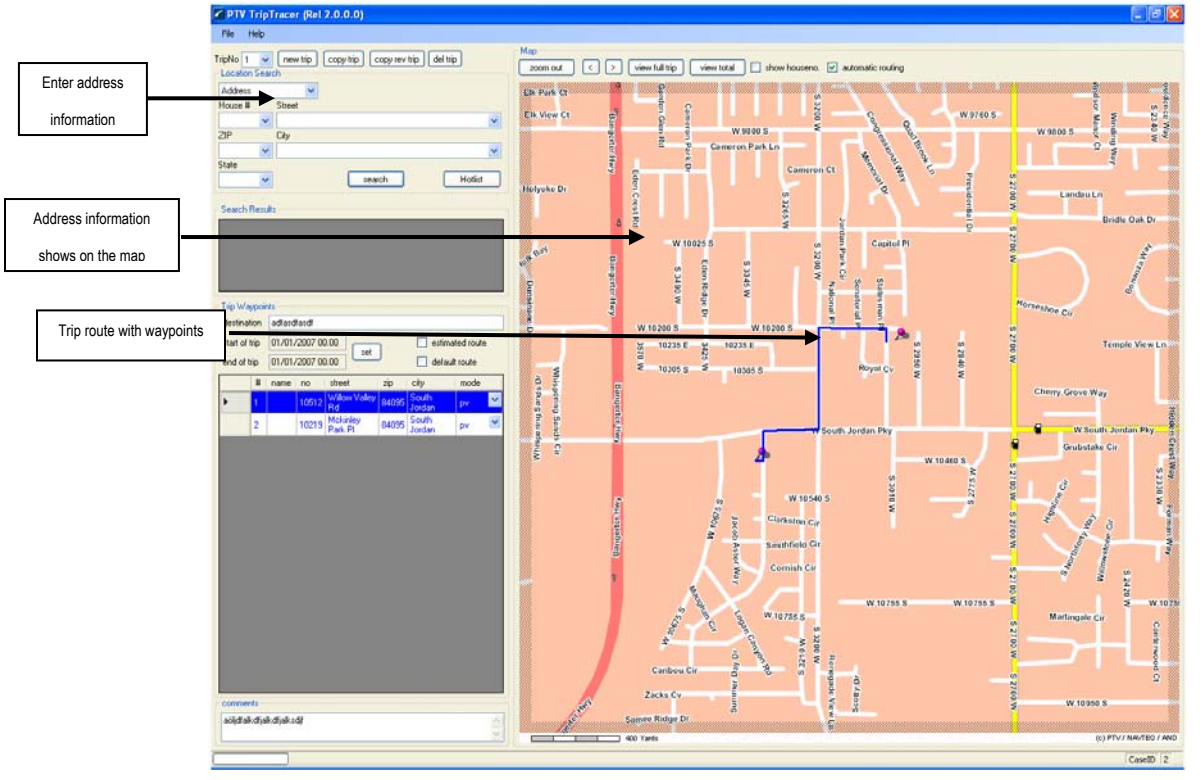
Unlike traditional household diary studies, this approach is one phone interview; no reminder call and no retrieval call. However, DataSource will make follow-up clarification calls to households where we receive a paper questionnaire and trip log back but the information is inaccurate or incomplete and requires additional data to make it a complete.

Definition of a Complete

A completed interview will contain household, person, and trip information for one adult. If person information is missing for other household members, the interview for the single adult is still a complete. The completion of trip information for a second adult in the household represents a second complete. Person information must be present for this adult to be considered a complete.

Mapping Address Information

One interesting feature of our CATI data collection software is the integration of a geocoding program called TripTracer. With it, you can gather the needed trip information and plot origin and destination points on an interactive map. In the end, the software maps the route each person took to get from their origin to their destination using little markers called waypoints. The graphic below gives a basic idea of what the TripTracer program looks like. You already received TripTracer training along with a handout packet.



For this study, we need detailed, accurate information including exact addresses and street names, or cross streets and even landmarks by which we can geocode an address – or technically, TripTracer can automatically geocode it for us by plotting it on the map.

Each person we interview must provide detailed trip information such as street addresses or, at minimum, a location nearby so we can plot the address on a map and geocode the point. Because using exact addresses does not always yield an accurate location, we found during the pilot that using cross streets was the most effective method for obtaining an address. The TripTracer database also allows you to find locations on a map such as Yankee Stadium, though not all locations are in the database Again, use cross streets when possible to find a match.

Project Specifications

Number of Completes

To meet the study goals, NuStats is required to complete 13,650 interviews from which we need to also capture 20,000 transit trips. The pilot revealed about 3 transit trips per person, so the sample size seems reasonable and adequate to achieve our goals.

You will ask for the name of the person matched to our sample, but if he/she is not available, you can ask to speak to another adult.

Interviews will be in English and Spanish. Since about 170 languages are spoken, an additional task is to kept track as best we can of other languages that create a barrier preventing us from completing the interview. The CATI program captures other languages encountered, such as Russian, any Asian language, any Middle Eastern language, French, Italian, German, Polish, etc.

(Note: we do not need to track persons who speak English with an accent, such as Australian, British, Irish, etc.)

The Interview

We estimate the interview with the main respondent will be about 15-20 minutes, depending on how many trips the respondent made the previous day and the number of people living in the household. If you interview another household adult, we estimate approximately 8 to 10 minutes to gather the second person's trip data. The interview with the main respondent will capture demographic and person data for the entire household. If we make contact with a household member who is 18 or older but does not want to or is unable to answer questions about household and person data, there is no need to get travel/trip information from this person. We should, however, set a call back to speak with the head of household or other adult who can answer the other questions.

In this study, we need to speak with other household adults directly, so there is no proxy reporting. For example, a spouse cannot provide trip information for a wife or husband. In some cases, this may mean we only gather travel information from one person in a given household, but we will ask if the second adult can provide trip data on the written log and mail it back to us.

Calls will take place seven days a week (Mon – Sun) from approximately 5 p.m. to 9 p.m. local time. We will set specific call-back appointments for respondents at a time convenient for them.

Survey Targets by Population and Trip Segment

	Cell phone only	At least 400
	Older residents (65+ years of age)	No more than 2200 (16%)
	Minority residents (Hispanic, Black, Asian, Native American)	At least 6150 (45%)
	Language – Spanish	At least 1400 (10%)
	Language – Other than Spanish or English	TBD
	Poor (household income under $25K)	At least 2000 (15%)

	Monday to Friday – AM Peak	TBD	TBD
	Monday to Friday – Midday	TBD	TBD
	Monday to Friday – PM Peak	TBD	TBD
	Monday to Friday – Evening	TBD	TBD
	Saturday	TBD	TBD
	Sunday	TBD	TBD

While "don't know" and "refused" are legitimate responses, we do not expect "refused" to be higher than 5% for any variables other than Household Income and MetroCard serial number. For these, we do not expect "refused" to be higher than 20%. A second flagged income variable will be added that is "imputed" to reach 100% response.

Non-travel is a legitimate response. But we do not expect greater than 15% of persons to be non-travelers. Their reasons for non-travel need to pass the "sniff test" given their demographic information. Number and types of trips should pass "sniff test" as well - lunch, evening, and commute trips based on demographics. Because some of our completes will come in from the mail, we do not expect to geocode all trip destination to an x-y coordinate. But all locations will be coded to a traffic analysis zone (or other aggregate designation to be specified). No more than 10% of bus and rail trips will be missing a route /line ID. A second flagged route/ line ID variable will be added that is 'imputed" based on known trip characteristics when possible.

Spring Dates to Avoid Interviewing

May			
5/23/2008	Friday Before Memorial Day	Systemwide	May 24
5/24/2008	Memorial Day Weekend	Systemwide	May 25
5/25/2008	Memorial Day Weekend	Systemwide	May 26
5/26/2008	Memorial Day	Systemwide	May 27
5/27/2008	Day After Memorial Day	Systemwide	May 28
June			
6/5/2008	NYC Public Schools Closed	Systemwide	June 6
6/27/2008	NYC Public Schools Closed	Systemwide	June 28
6/30/2008	NYC Public Schools Closed	Systemwide	July 1

Advance Mailing

As mentioned earlier, NuStats will mail advance notification of the survey to all households in the sample prior to contacting anyone. The advance mailing packet will contain the following items:

- Advance letter on MTA letterhead
- FAQ sheet (1-page, 1-sided)
- Paper Version of Questionnaire including Trip Logs (1 in matched households, 2 in unmatched)
- Household questionnaire with person data grid
- Return envelope (postage paid) to a NY address

The letter will have the MTA logo and be signed by one of their executive staff to provide legitimacy and credibility. The timing of this mailing will be approximately 4 days prior to calling that assignment/batch.

Incentives

For unmatched sample records, respondents who complete the interview will receive a $25 check; separate checks for different household members. All respondents (matched and unmatched) will be entered to win a weekly drawing in the amount of $500. See drawing rules below:

In order to be eligible for a weekly $500 drawing, a participant must be at least 18 years of age, complete the survey and provide his or her name and a street mailing address. Up to three eligible persons from the same household may participate. There is no purchase necessary.

NuStats, the research firm conducting this survey for MTA will conduct a weekly random drawing every Thursday between May 15 and July 17, 2008. Each week's drawing will be from responses received during the prior seven day period. To be eligible for the last survey, a completed survey must be received by July 16, 2008.

Each weekly winner will be notified by U.S. Mail. The weekly prize is $500. MTA reserves the right to require that a winner verify his or her identity. Each winner is responsible for any applicable Federal, State and local taxes. If the Post Office returns the notification to MTA unopened, MTA will award the $500 to another randomly selected eligible person.

The chances of winning is based on the number of persons who complete and submit the survey in a given week.

MTA/MNR and RSG employees are not eligible.

Chances of winning are based on the number of persons who complete the survey in a given week.

Useful techniques for Trip Recall

We know that people often forget trips they made, especially when they are part of a larger trip, for example, from home to work. They may forget about stopping for gas, grabbing coffee or food to go, picking up dry cleaning or going to an ATM. In this study, we need to capture all the stops / waypoints along the trip as accurately as possible.

Below, we included several useful probes you can use to help respondents reconstruct their past 24 hours of travel.

BEFORE RECORDING THE NEXT TRIP ASK, Did you stop any place along the way?

ASK STREET PREFIX: Is that north/south/east/west or just (STREET NAME)?

ASK STREET NAME: How is that spelled? BE SURE TO GET STREET VS AVENUE

ASK TOWN/CITY: How is that spelled?

ASK INTERSECTION: What are the nearest cross-streets?

ASK DIRECTION: Is it located northeast, southeast, northwest or southwest of (STREET AND CROSS STREET)?

ASK LUNCH: "Did you go any place for lunch?"

ASK END OF THE DAY: “Did you make any additional trips at the end of the day, such as after you got home from WORK/SCHOOL/OTHER?”

ASK SHORT STOP: “Did you make any quick stops to get gas or cash from ATM?”

Dealing with Refusals

Despite your best efforts, some respondents won’t agree to participate in the study. They may express reluctance to participate because they do not have sufficient information to understand the importance of the study, while other potential respondents will be quite firm about their unwillingness to participate. We will honor all requests for no further contact, but will re-contact those potential participants who seem reluctant but open to receiving more information. These respondents are considered “soft refusals.” The process of calling them back is referred to as “turning around refusals.”

Effective refusals “turn arounds” will not only help you increase your chances of completing an interview but it will also improve cooperation rates and increase the validity of the data collected. There is a difference between a SOFT and a HARD refusal.

As indicated above, the latter usually refers to those cases where the respondent requests to be taken OFF our list and no further contact is requested.[1] These cases should be coded as RFs and will not be contacted again.

A SOFT refusal is a case where the respondent indicates a specific reason why they cannot or are not willing to participate in our survey. If they don’t request to be taken OFF our list, further contact is possible if the interviewer proceeds with caution and the timing is favorable. These cases are coded as R1s and only experienced interviewers specifically trained to handle refusals will be allowed to call these soft refusals back.

In making these callbacks, surveyors will focus on quickly educating respondents on the purpose and benefits of participation in the study as well as overcoming any concerns or fears that potential respondents may have.

Depending on the respondent’s concern, here are a few responses that can be used for converting refusals:

“I can assure you all information is strictly confidential.”

“This study will help forecast future transportation needs in your area. It ‘s important to your community that all selected households participate.”

“Your household will represent other households in your area and your responses will be combined with those of other participants.”

“We collect all household information and then travel information. The household questions are used only for statistical purposes only and help us ensure that all types of households in your area are represented in the study.”

[1] Since we are conducting legitimate survey research, we are exempt from any telemarketing rules or regulations regarding the maintenance of a call list.

We cannot emphasize enough the importance of attitude and approach in conducting research, and in particular when dealing with refusals. Most respondents decide in the first 10 seconds whether they will listen and continue or refuse and hang up – developing a rapport with the respondent right off the bat will improve our success rate. Your tone should be positive, sincere, and conversational – aim to sound like you are speaking with the person rather than reading a script.

Everyone's time is valuable, so be respectful and appreciative. Of course, you should be persistent, but always friendly and courteous. Also be tactful, pleasant, and well prepared. Attempt to find out the reason for the refusal and work with it from that aspect.

Below are several responses to use when encountering a variety of objections:

Suspicious About Study:

"We are conducting a survey to determine the transportation needs in the area."

"The survey will help to plan better transportation for your community."

“All information is strictly confidential and will not be revealed to anyone not directly affiliated with this project.”

“I'll be happy to give the phone number for the project manager so that you may call and check that this is a valid survey. Then I'd like to call you tomorrow evening, and continue the interview.”

We should inform respondents about the MTA web site to learn more details about the study: www.nustats.com/mta..

Suspicious About How They Were Selected:

“Every household in [BOROUGH] had the same chance of selection for this study. Individuals living at the address had nothing to do with being selected. ”

Too Busy:

"What time would be more convenient?"

"The survey won’t take long and we should be done in about 15 minutes."

“I understand this isn’t a good time; I would be happy to call back later today or tomorrow. What time is best?”

We Don't Make Trips:

“We are also interested in people who do not travel because we need a true cross section of the population."

“That’s OK because you can represent people who don’t travel much. Travel would be overstated if we only interviewed people who travel a lot."

Too Many Personal Questions:

“Personal questions are for classification only to make sure our sample includes all types of New Yorkers.”

"Any information you give will be treated in strictest confidence and used only for transportation planning."

"We don't report names, each household is only identified by a sample number. Your answers will be tallied along with other households we contact, and only be reported as percentages."

Too Many Surveys:

"I feel that way, too, sometimes, but this is not a market survey or a telemarketing call. It is a comprehensive transportation study to help determine transportation needs in [NAME OF BOROUGH]. The results of our research will benefit your community."

Objections to Government:

"In this study, the government is asking for your help to determine transportation needs in your area. The government wants you to participate and not have them dictate what kind of transportation facilities you need."

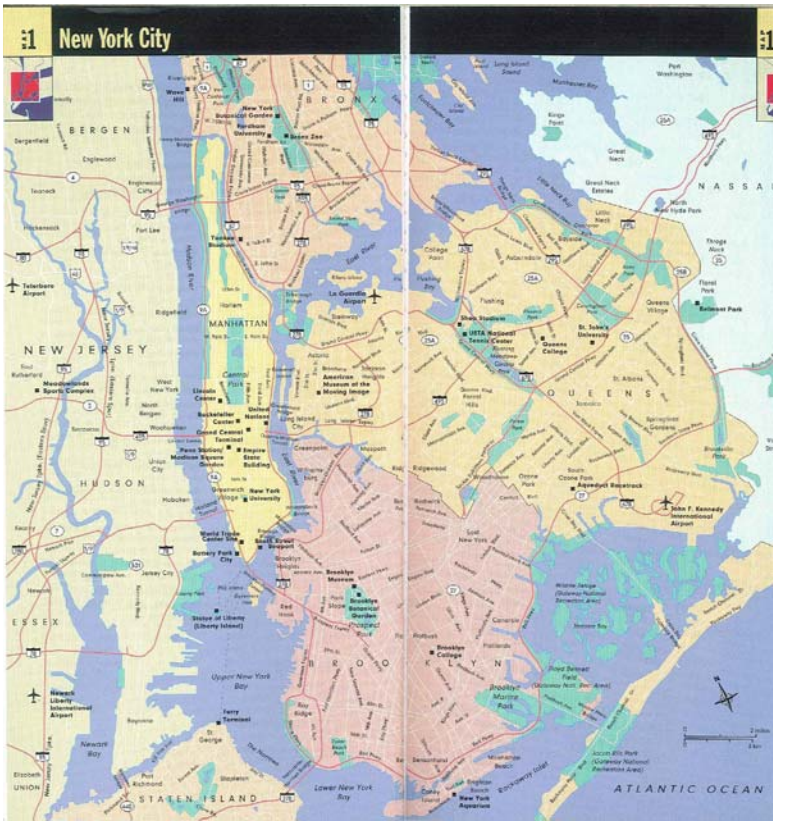
Waste of The Tax Payers' Money

"This study could help save tax payers' money. With better planning, we can avoid expensive, hastily built or temporary facilities. Alternate transportation plans will be investigated, improvements will be implemented."

Geographic Overview

It's important to become familiar with the layout of the region, so this packet contains a series of New York City maps. Note:

The Borough of The Bronx is Bronx County.
The Borough of Brooklyn is Kings County.
The Borough of Manhattan is New York County.
The Borough of Queens is Queens County.
The Borough of Staten Island is Richmond County.



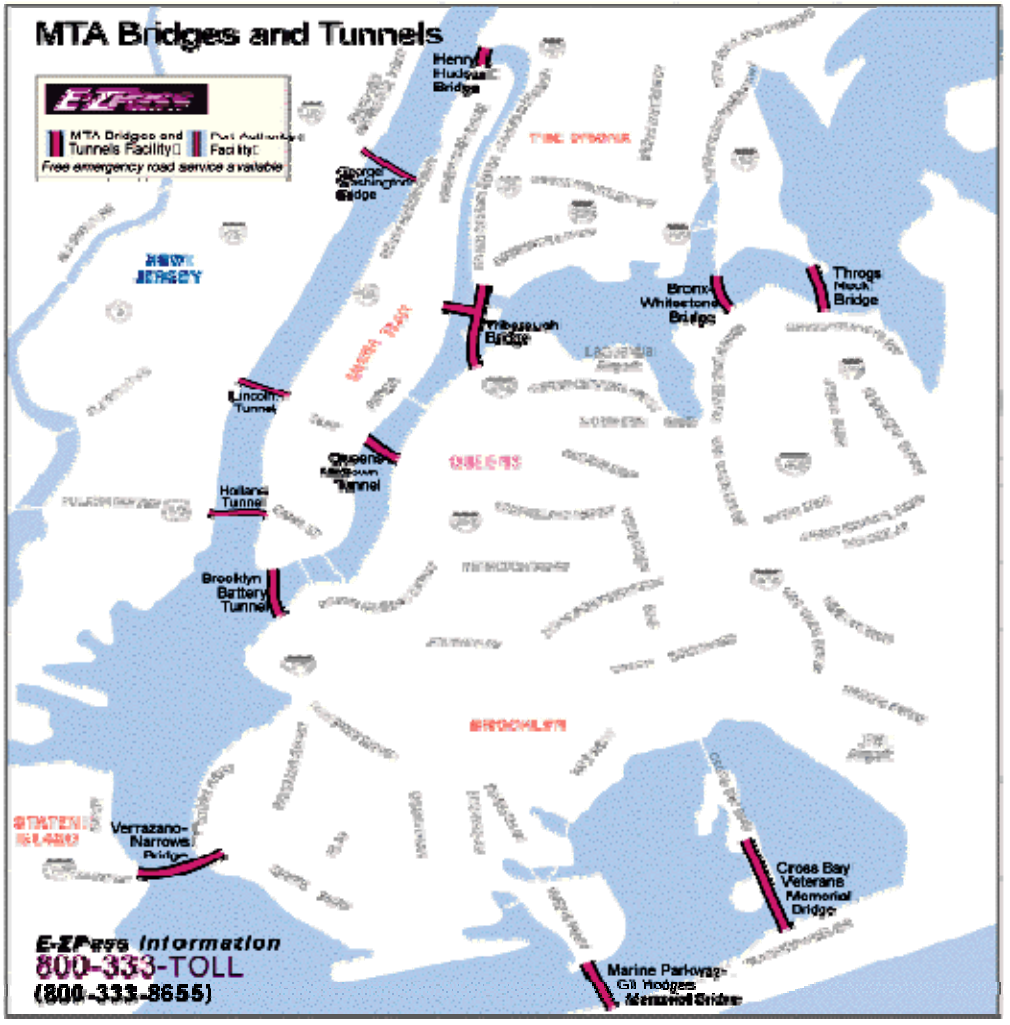
Area / Travel Information

To help with becoming familiar, or more familiar, with the New York City region, this section provides information and maps of local roads, bridges, landmarks, etc.

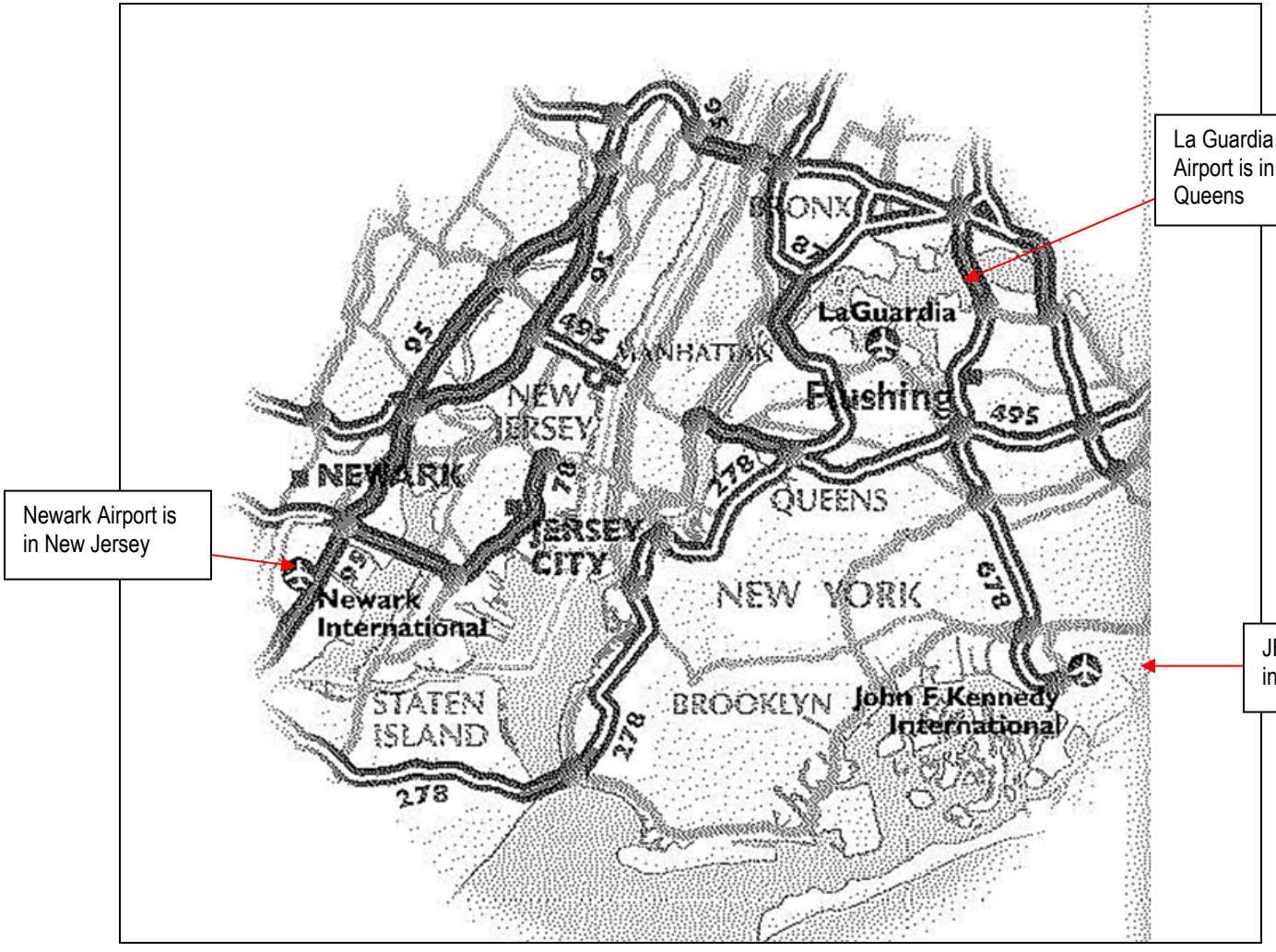
New York City sits on the eastern seaboard between Connecticut and New Jersey and about half way between Washington, D.C., and Boston. It's an island that extends from the Upper New York Bay into the Atlantic Ocean. New York City has a population of more than 8 million people living in a 322 square mile radius. That totals 40% of the entire state of New York's overall population.

Area Highways

MTA Operated Bridges and Tunnels



Local Airports



Manhattan connects to the other four boroughs via bridges, underground subway tunnels and ferries. New York City has water on all sides: The Hudson River, the East River, Long Island Sound, the Upper and Lower New York Bays, and Jamaica Bay.

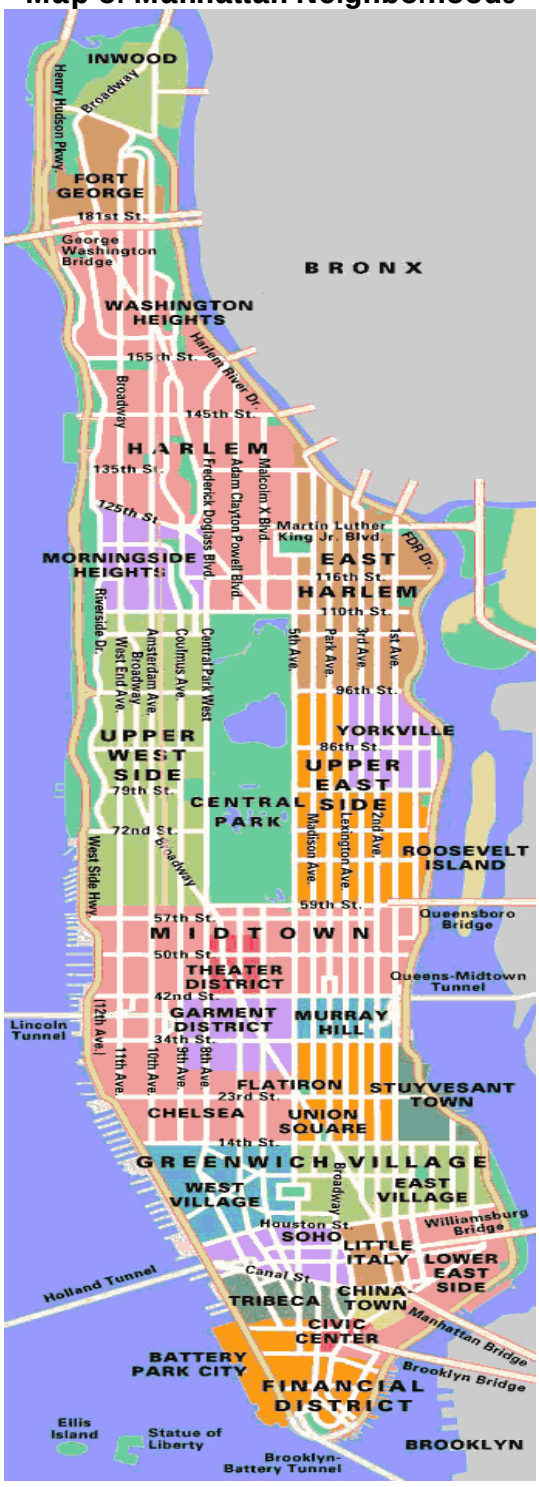
Well- known bridges and tunnels (tolled and non-tolled) include:

- Queensboro (59th Street) Bridge connects Manhattan to Queens
- George Washington Bridge connects northern NJ to northern Manhattan
- Triborough Bridge connects Queens, Manhattan, and the Bronx
- Verrazano Narrows Bridge connects Brooklyn and Staten Island
- Whitestone Bridge connects Queens and the Bronx
- Throgs Neck Bridge connects Queens and the Bronx
- Queens-Midtown Tunnel *(aka Midtown Tunnel)* connects Queens and Manhattan
- Brooklyn Battery Tunnel *(aka Battery Tunnel)* connects Brooklyn and Manhattan
- Lincoln Tunnel connects NJ and midtown Manhattan
- Holland Tunnel connects NJ to downtown Manhattan
- Outerbridge Crossing (OUT-er Bridge) connects Staten Island and NJ
- Goethels Bridge (GOTH-els) connects Staten Island and NJ

Some bridges are operated by MTA, while others are operated by different entities.

Within each borough are many small neighborhoods and communities, several in Manhattan you've probably heard of or even visited, such as Greenwich Village, East Village, Chinatown, Little Italy, Tribeca, Harlem, SoHo – did you know that stands for South of Houston? And by the way, in the Big Apple, that's pronounced /House-ton/. The map of Manhattan shows the individual communities.

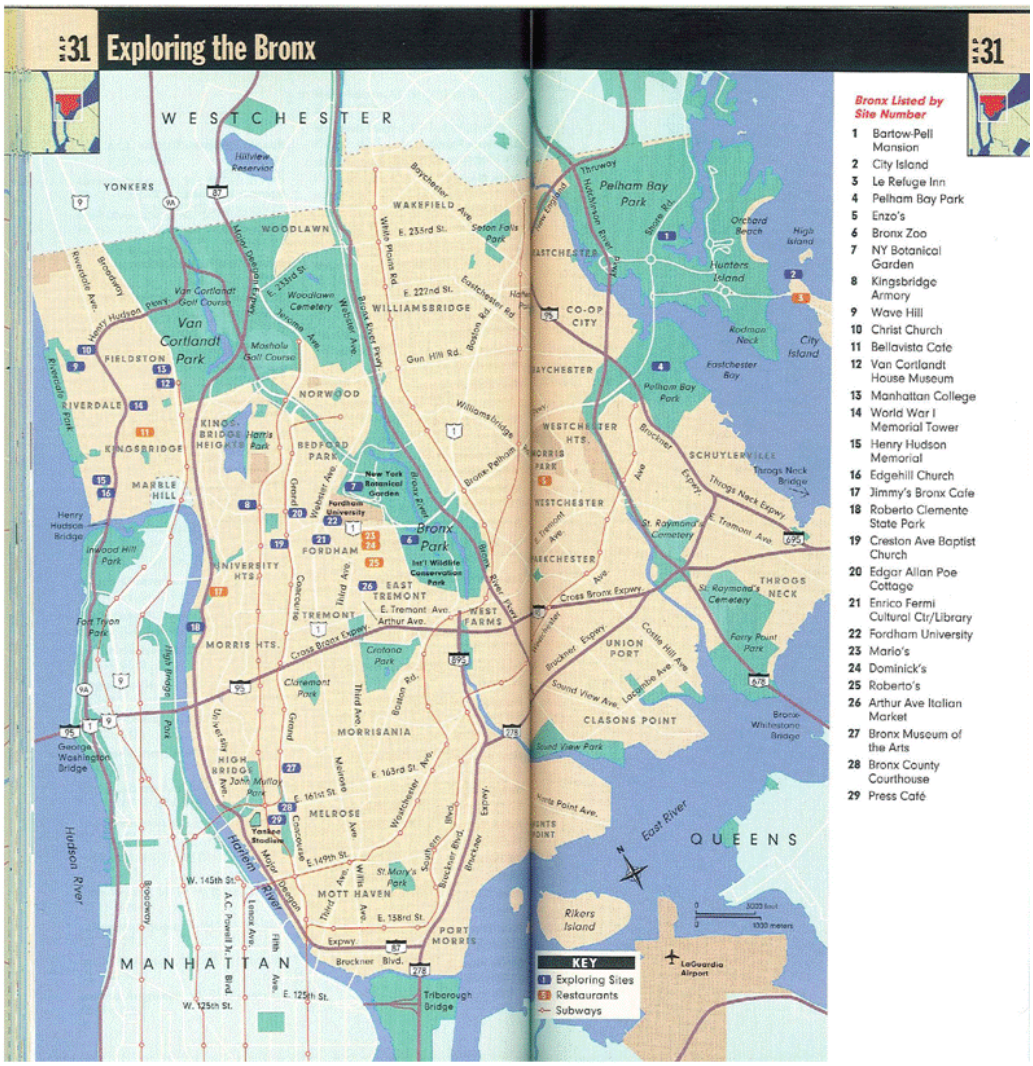
Map of Manhattan Neighborhoods



On the next few pages are maps of the other four boroughs and the neighborhoods that comprise them.

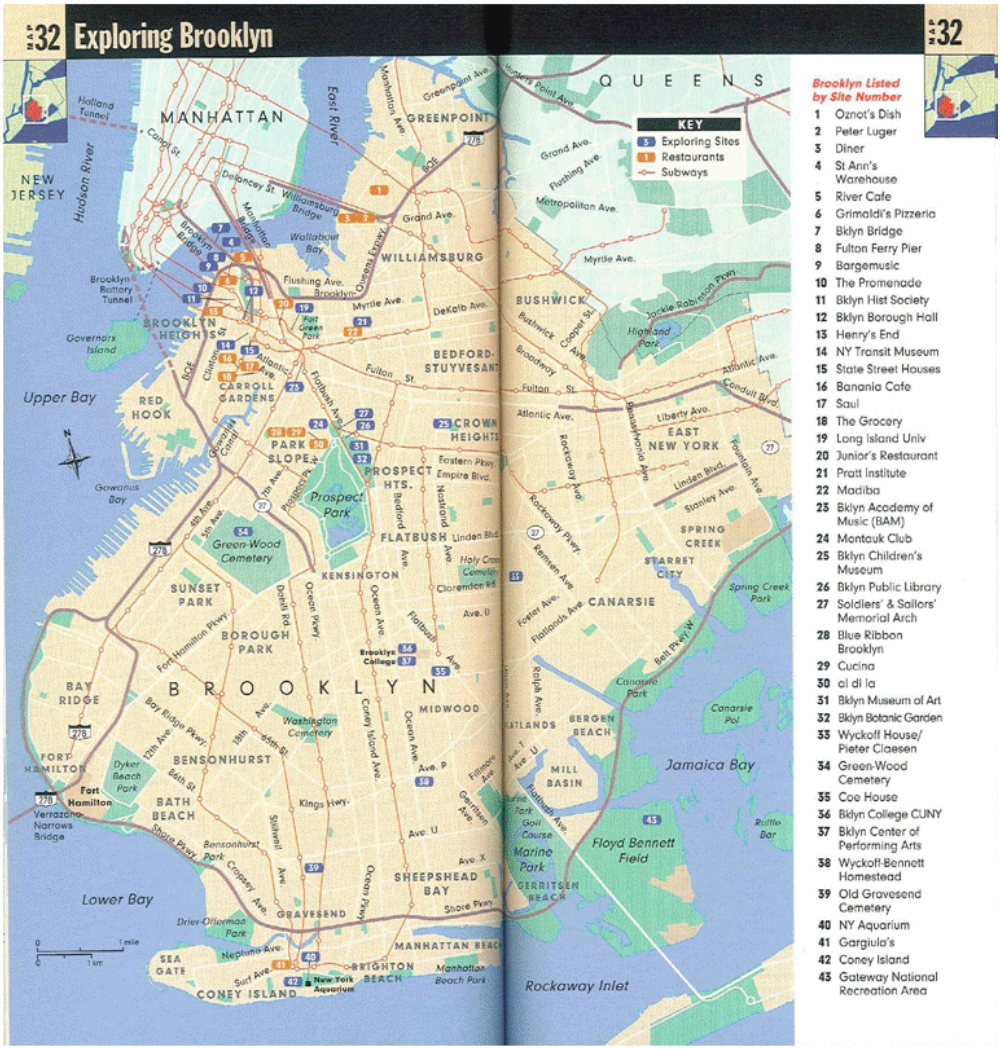
Map of the Bronx

Bronx Neighborhoods



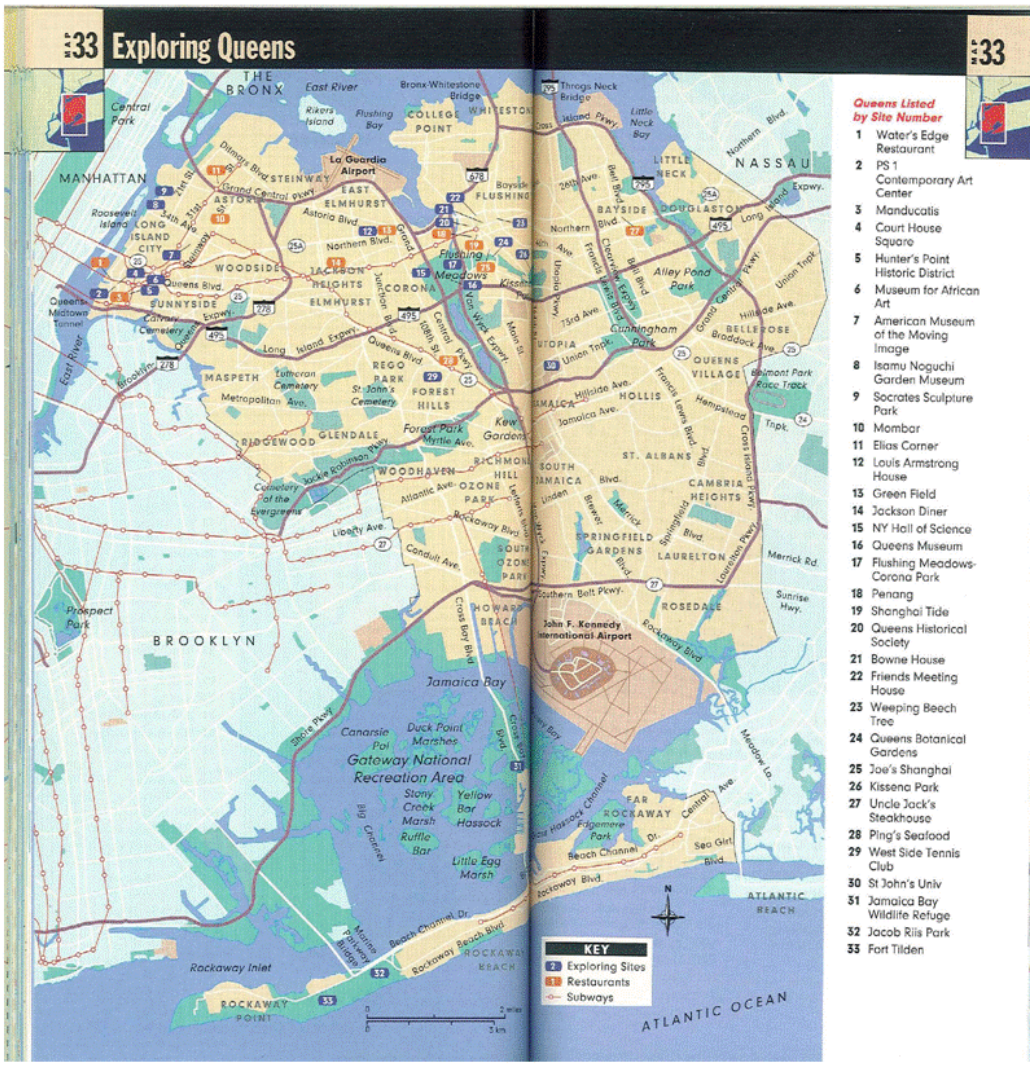
Map of Brooklyn

Brooklyn Neighborhoods



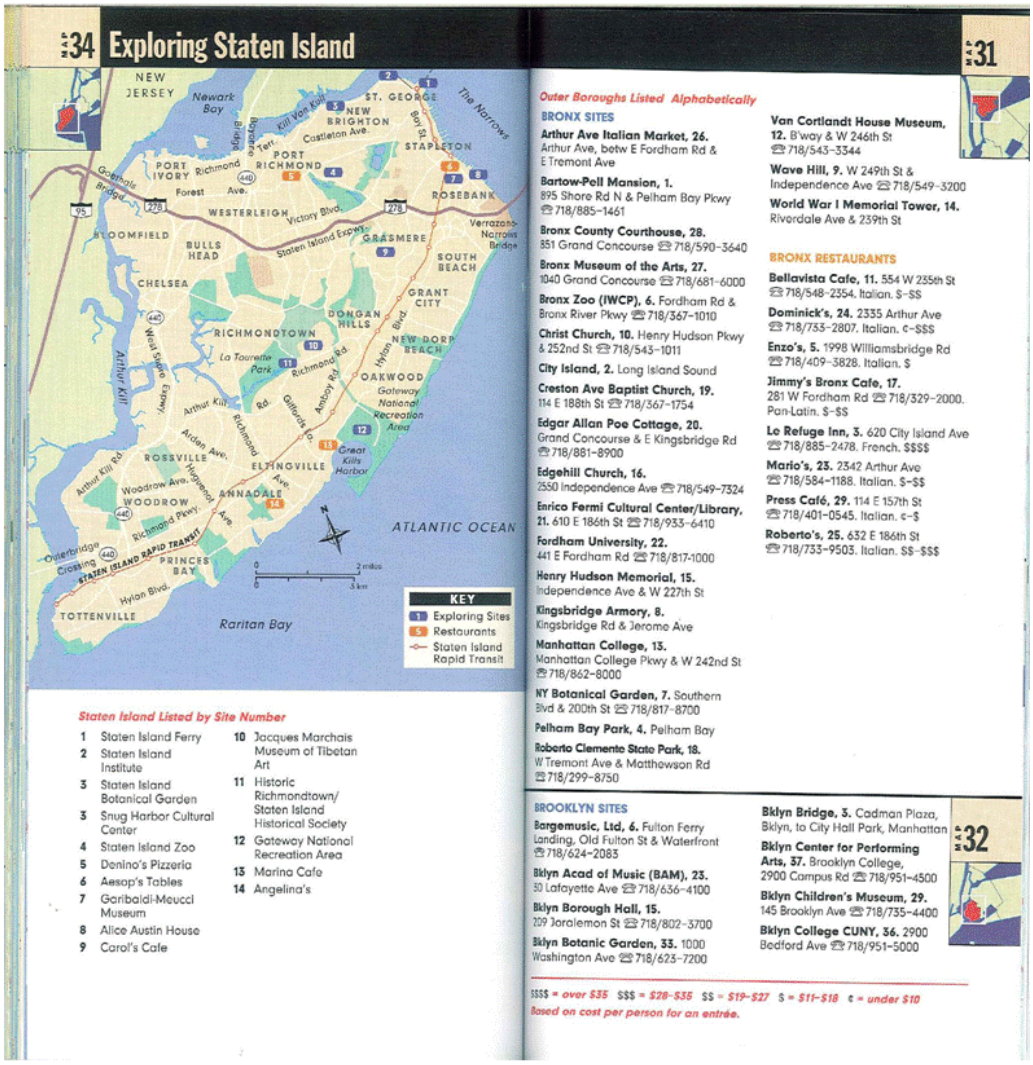
Map of Queens

Queens Neighborhoods



Map of Staten Island

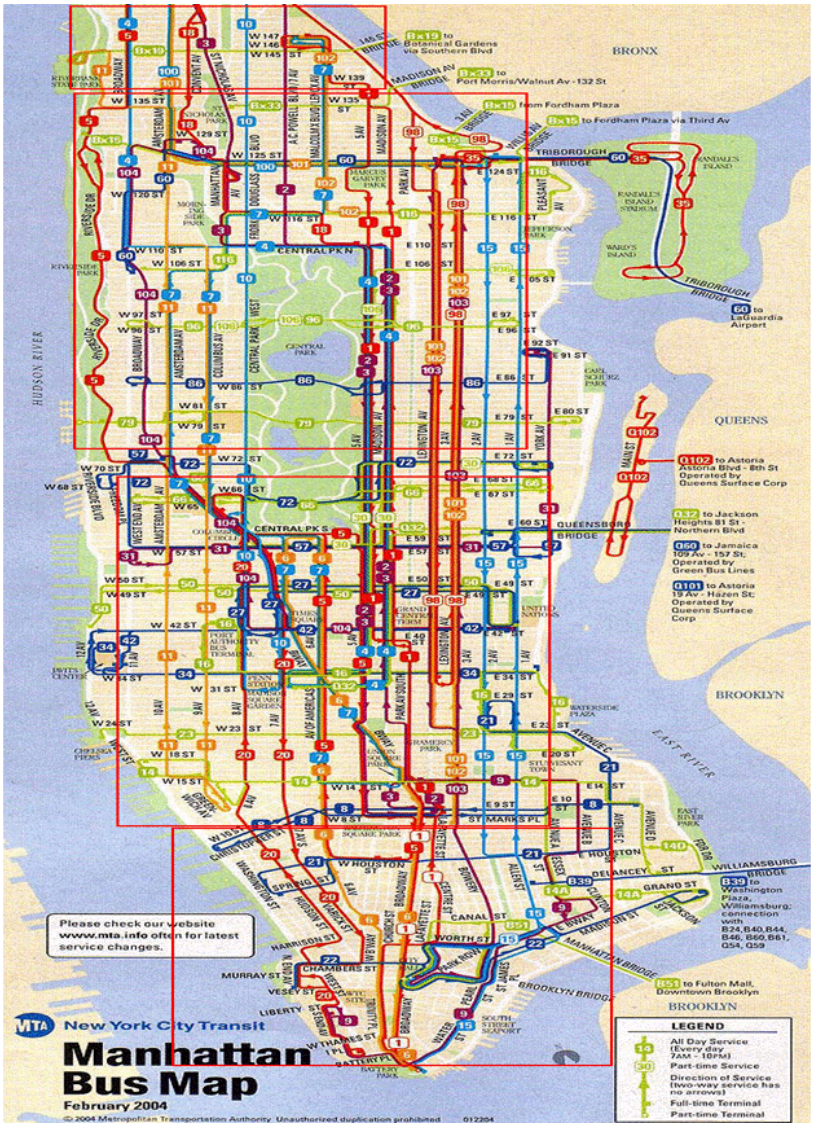
Staten Island Neighborhoods



Transit Information (Bus and Rail)

The MTA is the entity that oversees several transit services in the New York City area. The entire region is connected via a network of buses, trains, subways, bridges and tunnels. Below is an overview of the New York City subway system.

The map below shows an overview of Manhattan bus routes.



Points of Interest

This section should help you become familiar with some of the more common points of interest within each of the five boroughs.

Manhattan:

- Battery Park
- Central Park
- Columbus Circle
- Empire State Building
- FAO Schwarz
- Grand Central Terminal
- Herald Square
- Lincoln Center
- Macy's
- Madison Square Garden
- Metropolitan Museum of Art (or The Met)
- Museum of Modern Art (MoMA)
- Museum of Natural History
- Penn Station
- Rockefeller Center
- South Street Seaport
- Theatre District / Broadway
- Times Square
- Wall Street / Financial District

Brooklyn:

- Beaches
- Brooklyn Museum
- Coney Island
- BAM
- Botanic Gardens
- New York Aquarium

Bronx:

- Bronx Zoo
- Yankee Stadium

Queens:

Flushing Meadow Park

John F. Kennedy International Airport

Hall of Science

La Guardia Airport

Shea Stadium

Tennis Stadium

Staten Island:

Staten Island Ferry

Glossary

Below are a few locations, landmarks, bridges, etc., in New York with the colloquial pronunciation (the bolded syllable has the accent).

Houston Street: a street in lower Manhattan that forms the northern border of the SoHo neighborhood.

Pronounced **house**-ton

Verrazano Narrows Bridge: connects Brooklyn to Staten Island.

Pronounced ver-a-**zan**-o narrows bridge

Stuyvesant Town: a neighborhood on Manhattans' east side below Midtown and above the Lower East Side.

Pronounced **Sty**-vesant town

Gramercy: A Manhattan neighborhood.

Pronounced **gram**-er-cee

La Guardia Airport: an airport on the northwest side of Queens.

Pronounced la-**gwar**-dee-a airport

Coney Island: a famous amusement park in Brooklyn. (This is where the "Coney Island hot dog" comes from)

Pronounced **co**-nee **i**-land

The Van Wyck Expressway: a major thruway in Queens.

Pronounced van-wick expressway

John F. Kennedy International Airport (in Queens) is usually called JFK.

Gowanus Expressway: a portion of highway between Verazano Bridge & Brooklyn Battery Tunnel

Pronounced go-**wan**-us

Dyker Heights:

Pronounced **dye**-ker

Utica Avenue: a main road in Brooklyn.

Pronounced **you**-ti-ka avenue

Pelham Bay Park: An area on the northeastern edge of the Bronx.

Interviewer Performance Metrics

NuStats provided the form below to the study team for use when monitoring interviewers at either facility. The study team provided NuStats with verbal feedback on interviewers.

Monitoring Day:
Monitoring Time:

Monitoring Information	DataSource	Opinion Access
Did not articulate words clearly		
Incorrectly pronounced a major word /place		
Added unscripted or unnecessary words to question		
Read response categories incorrectly or read uppercase text		
Failed to read an entire question or instruction		
Probing -- Ignored unclear responses		
Provided clarification inconsistent with project-specific instructions		
Did not probe for missing trips		
Did not probe enough on address information		

Monitoring Information	DataSource	Opinion Access
Allowed respondent to stray from task		
Failed to show local geographic knowledge		
Frustrated respondent with interviewing style / skills		
Took too long to capture trip information – frustrated respondent		
Was awkward in moving back / forth CATI and TripTracer™		

Appendix H – Pretest Report

Task 4: Pilot Test Summary

New York Customer Travel Survey

Prepared by:

Johanna Zmud, Sandra Rodriguez and Kimberly Hilsenbeck
NuStats, LLC

Prepared for:

Metropolitan Transportation Authority
New York City

April 7, 2008

I. INTRODUCTION

NuStats conducted a dual pilot study for the New York Customer Travel Survey in March 2008. NuStats affiliate data collection firm, PTV DataSource (DataSource), conducted interviews from their main location in San Marcos, Texas. Opinion Access Corporation (OAC) conducted interviews from their facility in Queens, New York.

This memo briefly describes the methods, summarizes the results from the English interviews, and provides recommendations for the full study including any improvements, changes, enhancements, or use of modified or alternative methods. A concise summary of the Spanish effort will be delivered to MTA by April 11, 2008.

II. PILOT TEST OBJECTIVES

NuStats conducted a pilot study to assess the utility, efficiency and effectiveness of the survey instruments and materials. More specifically, this pilot:

1. Determined whether the length of the interview in any way contributes to non-response,
2. Assessed the clarity of question wording and response categories,
3. Gauged the likely number of adults per household that would be interviewed,
4. Tested the use of TripTracer™ within the CATI interview to ensure we capture the trip detail needed to meet project objectives,
5. Determined the utility of providing a paper, mailed-back version of the questionnaire,
6. Evaluated the capability of our CATI center in Texas to effectively and productively interview New Yorkers, as compared with a CATI center in New York City,
7. Assessed the incidence of contacting and completing the pricing questions with adults who drive into the CBD of Manhattan, and
8. Identified languages other than English and Spanish encountered during interviewing.

In Section V, we provide a summary of our evaluation of each of the above objectives in terms of the outcome of the pilot. We also provide our recommendations at the conclusion of each evaluation.

III. PILOT TEST METHODS

The Pilot Test was a full dress rehearsal of the full survey – advance letter mailout, data collection, data cleaning, and data file creation. The questionnaire contained five sections: (1) household information, (2) person information (for all members), (3) trip information (for adults in household), (4) pricing questions for adults traveling to central business district (CBD) of Manhattan, and (5) concluding questions (household income and MetroCard serial number). Trip information was captured in a retrospective technique – travel for yesterday. A special software program, TripTracer™, was used to capture the trip information. Eligibility for the pricing questions was based on travel to the CBD within the past 30 days.

The pilot mailout (which was mailed in a 6 ½" by 9 ½" envelope that had the MTA logo) contained the following items:

- Advance letter on MTA letterhead
- FAQ sheet
- Paper Version (s) Questionnaire
- Return envelope (postage paid) to a NYC address.

Note: each household received three (3) trip logs to capture travel data for three adults, age 18 or older, to report their last 24 hours of travel.

The pilot was conducted in English and Spanish. Data collection for the interviews in English took place between March 12 and March 21, 2008. Spanish interviews will take place April 2 through 5, 2008. Spanish interviews will take place only at DataSource.

For the sake of time, sample matched to a telephone number was used. Unmatched sample is passive in nature and requires respondents to proactively contact the data collection firm by mail or telephone. Matched sample can be proactively dialed by the data collection firm and thus, is better controlled to meet a tight schedule.

DataSource and OAC each completed 79 and 75 (respectively) household interviews in English by telephone, for a total of 154 households interviewed in the pilot. A total of 165 adults completed trip interviews.

NuStats received 41 paper questionnaires via mail, which are not counted in the data collection totals noted above nor in most of the evaluation sections in this report. If no major changes are made in the instrument, the pilot interviews and mailed back questionnaires will count toward the final number of completed interviews, assuming the mailed back surveys and trip logs are valid and useable.

Appendix A contains the survey instrument. Appendix B contains all of the respondent materials, in English and Spanish.

IV. INTERVIEWER TRAINING

Prior to the start of interviewing, NuStats conducted three separate training sessions at each data collection facility: (1) TripTracer™, (2) specialized geography and public transit issues, and (3) project overview and project specific instructions. Interviewers received training packets that contained a training manual, area maps, transit maps, points of interest, a copy of the advance letter and FAQ, and a copy of the questionnaire. An additional item prepared and sent to each facility was a "cheat sheet" to assist in answering questions from respondents. Each of the project overview sessions lasted approximately 6 hours and included mock interviews plus practice on the CATI program. The TripTracer™ sessions lasted approximately four hours, depending on how well interviewers adapted to using the software, how many questions they had, and how much practice they needed.

V. PILOT RESULTS PER OBJECTIVE

1. Determine whether the length of the interview in any way contributes to non-response.

Evaluation

The survey budget assumed an interview length of 15-18 minutes for one adult and an additional 6-8 minutes for each additional adult interviewed. The aggregate pilot data indicate the survey length is considerably more than the budget assumption.

Pilot interviews for one adult averaged 29 minutes (nearly 11-13 minutes longer than budgeted) with a median interview length of 24 minutes (6-9 minutes longer). These interview lengths were for the DataSource interviewers – the OAC interview lengths were significantly higher. While we expect the interview length to decrease as the survey progresses and interviewers become even more familiar with the script, we do need to bring the interview length closer in line with budget assumptions by modifications to the questionnaire.

Most refusals to participate in the interview occurred right at the survey introduction – as is the case with most telephone surveys. Respondent participation is usually garnered (or not) in the first five seconds of conversation. In this pilot test once past the introduction, DataSource interviewers experienced 18 terminates in mid-interview. OAC experienced 34 terminates (see Table 1). While not large numbers, these mid-interview terminations represent one-fourth to one-third of our completed interviews.

TABLE 1: MID-INTERVIEW TERMINATION POINTS

CATI SCRIPT SECTION	DATASOURCE	OAC
Household and Person Questions for Respondent	5	11
Person Questions for Other Household Members	2	1
Entering Trip Tracer	5	6
Public Transit Fare Question (re-entering CATI)	0	2
Pricing Questions	0	0
Household Income Question	0	0
MetroCard Serial Number	2	0
Asking to Speak to Another Adult in Household	4	14
Total	**18**	**34**

Mid-interview terminations occurred at three stages in the survey – (1) near the start when the respondent figured out the interview was going to last longer than a few minutes, (2) when entering TripTracer™ and the respondent felt the interview had lasted long enough already, and (3) when the interviewer attempted to speak to another adult in the household.

Recommendations

To bring the interview length more in line with the budget assumptions and to address mid-interview terminations, we recommend in rank order:

1. Switch order of TripTracer™ module and person data for other household members,
2. Reduce the number of person questions, and
3. Reduce the number of pricing questions.

2. Assess the clarity of question wording and response categories.

Evaluation

Debriefings with interviewers at both facilities and experiences with monitoring the interviewers yielded the following insights on questionnaire items:

Wording Choice / Clarity

- In general, the CATI questions went smoothly; interviewers could not recall any questions or answer choices where respondents seemed confused.
- Respondents did not seem to understand the Central Business District (CBD) terminology; early in the pilot, we requested both facilities simply say 'have you traveled into Manhattan south of 60th Street'. However, the "CBD" terminology was heard during monitoring with OAC even after the directive to alter the text.

Length of Survey

- Respondents seemed to get frustrated with the length of time it took to capture person data for everyone in the household, and several interviewers said they recalled losing respondents at the point where the TripTracer™ interviews should begin because respondents were unwilling to continue due to the time involved.
- Interviewers at OAC spent additional time repeating each trip segment back to the respondent, which caused the length of the interview to increase.

Using TripTracer™

- Finding locations or addresses was somewhat easier when interviewers used cross streets, since there were some addresses and locations that did not show up in the TripTracer™ database.
- Interviewers would like a way to recall the household information collected earlier so that at the point of entering TripTracer™, that data would be recalled in CATI for easy reference. Similarly, the names of other household members should be recalled at the same time, possibly in a grid format for easy reading.
- Interviewers suggested moving the "go" button to launch TripTracer™ earlier in the CATI program; if they could open TripTracer™ two to three questions beforehand, the program would be ready which would reduce the lag time and dead air while waiting for the program to launch.

Recommendations

Several suggestions for decreasing survey length were addressed in previous sections of this report that would be applicable in this section as well. In addition, NuStats recommends several other minor edits to the CATI program:

- Allow interviewers to recall household information easily; this will be a programming modification that allows interviewers to easily recall household information and previously mentioned addresses.

- Move the "go" button that launches TripTracer™ a few questions up in the survey instrument, providing several seconds for opening the program while not interfering with the interview length.

- Obtain an updated TripTracer™ address database.

3. Gauge the likely number of adults per household that would be interviewed.

Evaluation

The likely number of adults per household that would be interviewed is one adult. In a minority of households, we were able to interview more than one adult per household. The interview length (see results for objective #2) had a negative effect on being able to interview more than one adult per household.

In total, we interviewed respondents in 154 households that had a combined 246 adults eligible for the TripTracer™ portion of the survey. NuStats gathered trip data for 165 of those adults, or 67%. This means we collected trip data for 13% of the possible 92 extra adults; by extra, we mean an adult in the household who was someone other than the respondent (246-154 = 92). Our pilot protocols allowed for up to three adults in the household and up to three attempts to reach another adult in the household. This effort yielded only 5% additional TripTracer™ data. Table 2 below provides a breakdown of the data.

TABLE 2: NUMBER OF ADULTS INFORMATION

CHARACTERISTIC	NUMBER
TOTAL ADULTS ELIGIBLE	246
Total Completed Households	154
Total Adults completed	165
Additional adult completes	11
Number of potential additional adults	92
Total additional adults with valid TripTracer™ data	7[1]

Recommendations

Given the effort required to collect trip data for additional adults in a given household, NuStats recommends modifying our approach for the full study so that we only attempt to gather trip data for more than one adult in a household during a single CATI contact. We will make no call-back attempts to reach other household adults. We believe the benefits of this alternate method are:

- It will save time spent monitoring and managing the sample;

[1] Four TripTracer™ cases from OAC have not yet been accounted for in the data analysis, these cases are not included in the dataset.

- It will enable us to focus on response among new households, which will be more cost and time efficient than trying to capture these additional adults for the same household.

4. Test the use of TripTracer™ within the CATI interview to ensure we capture the trip detail needed to meet project objectives.

Evaluation

TripTracer™ effectively captured trip details, particularly transit trip details. Table 3 below lists the information that was collected in the TripTracer™ interviews.

TABLE 3: NUMBER OF TRIP TRACER TRIPS INFORMATION

CHARACTERISTIC	NUMBER
Total number of linked[2] transit trips	184
Total number of transit-using households	75
Total number of trips in TripTracer™	392
The average number of linked trips per person	3
The total number of persons reporting trips	130

We captured 184 linked transit trips in TripTracer™ out of the total of 392 TripTracer™ trips, which is 47%. This mode share is representative of the two boroughs sampled – Manhattan and Queens. This represents 75 transit-using households out of the 154 total households, which is 49%. We captured TripTracer™ information for 130 persons out of the total of 165 persons in the CATI Trip File, which is 79%.

Recommendations

For the full study, we will need to decide with MTA and the modelers how to report progress in terms of linked trips, unlinked trips, and stops along the way. We will monitor the total number of linked transit trips weekly during the full study to ensure that we capture enough of these types of trips. We will make sure that interviewers are probing for mid-day trips, such as lunch trips, or evening trips, such as entertainment or restaurants.

5. Determine the utility of providing a paper, mailed-back version of the questionnaire.

Evaluation

NuStats mailed out 1,539 advance packets potential respondents from the Manhattan and Queens sample. We tracked the number of envelopes returned without being delivered and found 128 packets were not deliverable due to bad addresses. As of the writing of this report, a total of 41 questionnaires came back to NuStats for a 3% return rate Table 4 provides a quantitative assessment of the 41 returned questionnaires.

[2] A linked trip was defined as one have a single purpose, like home-to-work with an ultimate origin and an ultimate destination. A linked trip could have stops along the way.

Table 4: Print Questionnaire Outcomes

Completed Household (HH) Questions	Percent (N=41)
Yes	65%
No	30%
Partial	5%
Completed Person Question Grid	
Yes for all HH members	59%
Yes for some HH members	5%
Incomplete	14%
Partially complete (some items missed)	22%
Completed Trip Log	
Yes	19%
Inaccurate or incomplete	41%
Not returned, indicated trips in Q11	32%
Not returned, indicated no trips in Q11	8%
Answered Income Question	
Yes	95%
No	5%
Recontact HH to collect additional detail	
Yes	78%
No	22%

Our analysis of the packets found that without any follow-up contact with a household to clarify trip data or collect additional household or person data, about 22% or nine questionnaires would be considered complete and usable, meaning, they contained all the necessary information to be considered a completed survey: household data, person data for all members of the household, and complete trip data for at least one adult in the household. Approximately 78% of the returned surveys would require re-contacting the household, assuming they were part of the matched sample pool and we had a working telephone number. Reasons for not meeting the minimum criteria for a completed household included:

- Not answering the household questionnaire (in some cases, completing only a portion, while in other cases, not completing it at all);
- Not completing the person data grid; in most cases, it was incomplete for all household members; and
- Not completing the trip log or not accurately completing the trip log, e.g., no return trip home after going to work or school or another location. Some respondents did not send back their trip log at all; a few indicated no trips made yesterday, but several who indicated trips did not mail it back.

The item in the bullet above about not including a trip back home was the most prevalent issue on the returned paper questionnaires. Many respondents did not include a return trip home at the end of their travel day. In a few cases, the log did not appear to accurately capture all required trip information.

It is important to note that the pilot study materials were merely an approximation of the final materials in terms of design, layout and use of graphical elements. They were produced in a short time frame without the aid of graphic design software. That will not be the case for the full study. Our analysis took into consideration the likelihood that some respondents provided incorrect or incomplete data due to the design of the materials.

Recommendations

NuStats will produce high quality, easy-to-read and attractively desktop publishing designed materials for the full study – in particular, the trip log which is the most critical component of the survey data. The log will provide prompts to remember to include trips back home and other reminders. In the full study, NuStats will contact those households in the matched sample that mail-back a questionnaire and trip log(s) to follow-up on any missing or inconsistent data. We will add a request for household contact information on the paper questionnaire, which will allow NuStats to make follow-up phone calls to unmatched sample as needed to correct or supplement the data provided.

6. Evaluate the capability of our CATI center in Texas to effectively and productively interview New Yorkers, as compared with a CATI center in New York City.

Pilot survey interviewing was done at two CATI centers: (1) PTV DataSource in San Marcos, Texas, and (2) Opinion Access Corporation (OAC) in Long Island City, New York. DataSource and OAC each assigned six interviewers to the pilot.

Evaluation

The assessment of the interviewer performance was done both quantitatively and qualitatively. The quantitative assessment was through performance statistics generated directly from the CATI system (i.e., call outcomes). The qualitative assessment was via monitoring of the live interviews. Table 5 presents key performance statistics for both DataSource and OAC. Note that these performance statistics reflect English-language interviewing only.

Table 5: CATI Facilities' Performance Statistics

PERFORMANCE CRITERION	DATASOURCE	OAC
Productivity		
Total Completed Interviews	79	75
1 adult in household	70	72
2 adults in household	9	3
Total Hours Worked	99	164
Completes per Hour	0.87	0.47
Average Interview Length	23 minutes	31 minutes
Median – No travel reported	7 minutes	9 minutes

Median - 1 adult reporting	24 minutes	29 minutes
Median - 2 adults reporting	37 minutes	69 minutes
Completeness		
Total TripTracer™ Interviews	64	66
Zero Trip Households	21	12
Total Pricing Interviews	14	15
By Driver	8	9
By Passenger	6	6
Number of Partial Completes[3]	13	1
Number of TripTracer™ Partials[4]	0	4
Number of "Deliverable" HHs	79	75
Response		
Response Rate	11%	10%
Refusal Rate	21%	20%

Our analysis of the Table 5 information is as follows:

- **Productivity**: DataSource was more productive than OAC – completing more interviews in fewer hours. Productivity has implications for the project budget as well as for its schedule. We attributed DataSource's greater productivity to the experience of its interviewers in collecting trip information from respondents and their greater ability with TripTracer™ software. DataSource interviewers took less time to administer the interviews (23 vs. 31 minutes on average). We know the interview length can be influenced by a number of factors – such as whether travel was reported and the number of adults that were interviewed. Even controlling for these factors, DataSource interviewers still took significantly less time to administer the interviews.
- **Completeness**: For this evaluation, we defined "completeness" as having every necessary part or everything that is wanted from the interviews. From a completeness standpoint, DataSource was able to complete more interviews with more people; but 21 of these had zero trips. So, really, OAC collected a greater amount of trip data. (We are currently examining the data collected to determine what portion is "deliverable."

  It appears as though DataSource interviewers were able to keep respondents engaged during the TripTracer™ interviews with zero TripTracer™ partials. However, DataSource experienced 13 partial completes. Most of these respondents asked for a callback, saying that the CATI interview was long enough and they were too busy to continue at that time. OAC, on the other hand, experienced one partial complete and four TripTracer™ partials.
- **Response**: The response rates in a pilot are always lower than what one can expect in the full survey. This is because the time frame during a pilot study does not really

[3] A partial complete happens when the respondent terminates prior to entering the TripTracer™ software. There is only CATI data in the record.

[4] A TripTracer™ partial happens when the respondent terminates after collecting some TripTracer™ data.

enable the call center to call back soft refusals and all the callbacks. Given these factors, the response experienced by the two call centers was virtually the same. The Texas-based call center did not appear to have a significantly lower response than the New York-based call center.

The performance statistics from the CATI system indicate that DataSource interviewers were able to more efficiently conduct the necessary interviews than OAC, probably due to their greater experience in collecting trip data and familiarity with TripTracer™ software. It does not appear that calling from Texas (using Texas-based interviewers) affected response – there were similar response and refusal rates between DataSource and OAC.

From the monitoring experiences, the greater ability of the DataSource interviewers in conducting the necessary interviews was evident. There was less frustration voiced by respondents with the DataSource interviewers than with the OAC interviewers, particularly during the capture of the trip information. The "tricks" of trip data capture were necessary to keep the interview flowing and respondents from growing frustrated. OAC interviewers would need extensive training in trip data capture and use of TripTracer™ to effectively contribute to the main survey interviewing. Also, the OAC monitoring capabilities were less flexible than those offered by DataSource – adding to project management and client frustruation during the pilot.

Recommendations

We recommend using DataSource as the primary data collection firm, and placing OAC on hold for contingency purposes. The use of only one CATI center will greater facilitate technical elements like sample management, data extractions for weekly data deliveries, and weekly reporting of progress.

7. Assess the incidence of contacting and completing the pricing questions with adults who drive into the CBD of Manhattan.

Evaluation

Respondents were asked if they made a trip into the central business district of Manhattan in the past 30 days as a driver or passenger of a personal vehicle. Of the 170 persons asked this question, 31 responded "yes" – an 18 percent incidence. All 31 respondents provided data for all the pricing questions. Seventeen (17) of these respondents were drivers and 14 were passengers. There was a difference in the incidence between Manhattan and Queens sample (21% vs. 13%, respectively). Manhattan was better represented in the overall completed interviews (115 vs. 55 interviews, respectively).

Recommendation

What does this finding mean for the main survey? We will be able to complete the pricing questions with survey respondents; however, we will not reach the total of 5,000 completed pricing interviews at the incidence experienced in the pilot.

8. Identify languages other than English and Spanish encountered during the Pilot test.

Evaluation

All completed interviews reported upon in this pilot report were conducted in English. While the main survey will begin with English and Spanish interviewing, the Spanish portion of the Pilot was delayed as Spanish-language materials were being finalized. Spanish-speaking households contacted during the pilot were set for a callback. DataSource tallied four percent (4%) of sample as requiring a Spanish callback, and OAC tallied two percent (2%) of sample. The pilot was structured also to tally call attempts that resulted in contacting households in which a language other than English or Spanish was encountered. These other languages are identified in Table 6.

Table 6: Languages other than English encountered during Pilot

LANGUAGE	COUNT	PERCENT OF LANGUAGES	PERCENT OF ALL SAMPLE (N=2,539)
Spanish	81	51%	3%
Asian	12	7%	0.5%
Chinese	9	6%	0.3%
Eastern European, Polish	9	6%	0.3%
Russian	4	2%	0.1%
Japanese	3	2%	0.1%
Korean	2	1%	0.1%
Various Other	39	25%	1%
Total All Languages other than English	**159**	**100%**	**6%**

The languages encountered in the pilot would have been influenced by the boroughs sampled – Queens and Manhattan. The "various other" category included seven identified languages: Italian, French, Albanian, Hebrew, African, Indian, and Portuguese. The fact that interviewers were able to tally the languages encountered means that our proposed strategy of tallying languages and reporting the distributions weekly will be feasible. We need to provide additional training and scripted support to disentangle the "Asian" category so as to specify Chinese, Korean, or Japanese.

Recommendation

We will continue with our plan to track and monitor the languages other than English and Spanish that we encounter during the main survey. We propose to prepare "cheat sheet" instructions that spell out phonetically in the appropriate language: Is this Chinese? Is this Korean? We will evaluate the impact of not interviewing in other languages has on coverage errors and sample bias and will provide the results of our analysis to the MTA. Decisions of whether to alter our English and Spanish only interviewing plan will be made in conjunction with the MTA client based on the field results.

VI. Conclusions about the Pilot Results and Recommendations for Main Survey

The pilot test was effective in identifying issues that need to be addressed prior to the main survey. It also confirmed that with the TripTracer™ software tool, Texas-based interviewers could successfully interview New Yorkers about their travel. The recommendations for modifications are in two categories: (1) the interview script and (2) methods.

The Interview Script

The interview with its five parts is too long. The five parts are the household, person, pricing, trip, and closing information. To bring the interview length more in line with the budget assumptions and to address mid-interview terminations, we recommend switching the order of the five parts to place more emphasis on completing a time-efficient interview with one adult per household and reducing the number of questions. Table 7 provides an outline of the recommended order of questions.

Table 7: Recommended Order of and Changes to the Interview Script

Topic Area/ Questions	Notes
Adult #1 in Household	
A. Household Information	
Household Size	No change
Number of Vehicle Available	No change
Household Landline Phone	Add skip if matched sample
Personal Cell Phone	No change
Race/ Ethnicity	No change
B. Respondent Only – Person Data	
Gender	No change
Age	No change
Employment Status	No change
Usual Mode to Work	Ask only primary mode
If Auto: Usual Vehicle Occupancy	No change
# HH members in Vehicle	Suggest dropping
If Transit not Mentioned: Ever Take Transit to Work	No change
If No: Why Not?	Suggest dropping
If Transit: What route?	Suggest dropping
Status if Not Employed	Suggest dropping
Driver's License	No change
School Status	No change
Type of School	Suggest dropping

School Name	Suggest dropping
Borough of School Location	No change
Usual Mode to School	Ask only primary mode
C. Respondent Only – Pricing Questions	
Travel into CBD in last 30 days as auto driver or passenger	Change wording
Frequency	Suggest dropping
Last Time – Day of Week	No change
Last Time – Time of Day	No change
Vehicle Occupancy	No change
Trip Purpose	No change
Reason for Driving instead of Transit	Suggest dropping
Borough of Origin	Suggest dropping
Toll Cost	No change
EZPass Use	No change
Parking Cost	No change
Driving Subsidy	No change
Transit Subsidy	No change
Propensity to Switch	No change
D. Respondent Only – Trip Questions (All Travel Yesterday)	
Day of Week	No change
Confirm Zero Trips	No change
Reason for Zero Trips	No change
Total Trips	Suggest dropping
Trip Origin Type	No change
Trip Origin Location	Import home address to hot list – Import destination for previous trip to be origin for next trip
Trip Departure Time	No change
Trip Destination Type	No change
Destination Location	Use cross streets more
Arrival Time at Destination	No change
Trip Purpose	No change
Travel Mode	No change
If Transit: Route / Line #	No change
Waypoint Location	Use cross streets more
Arrival Time at Waypoint	Suggest dropping
Departure Time at Waypoint	Suggest dropping

Next Travel Mode (etc., to loop for all waypoints)	No change
If used Subway or Bus for any Segment: Fare Type	No change
E. Respondent Only – Concluding Questions	
Household Income	No change
MetroCard Serial Number	No change
Adult #2 in Household	
F. Adult #2 – Pricing Questions	
Travel into CBD in last 30 days as auto driver or passenger	Change wording
Frequency	Suggest dropping
Last Time – Day of Week	No change
Last Time – Time of Day	No change
Vehicle Occupancy	No change
Trip Purpose	No change
Reason for Driving instead of Transit	Suggest dropping
Borough of Origin	Suggest dropping
Toll Cost	No change
EZPass Use	No change
Parking Cost	No change
Driving Subsidy	No change
Transit Subsidy	No change
Propensity to Switch	No change
G. Adult #2 – Trip Questions (All Travel Yesterday)	
Day of Week	No change
Confirm Zero Trips	No change
Reason for Zero Trips	No change
Total Trips	Suggest dropping
Trip Origin Type	No change
Trip Origin Location	Import home address to hot list – Import destination for previous trip to be origin for next trip
Trip Departure Time	No change
Trip Destination Type	No change
Destination Location	Use cross streets more
Arrival Time at Destination	No change
Trip Purpose	No change
Travel Mode	No change
If Transit: Route / Line #	No change

Waypoint Location	Use cross streets more
Arrival Time at Waypoint	Suggest dropping
Departure Time at Waypoint	Suggest dropping
Next Travel Mode (etc., to loop for all waypoints)	No change
If used Subway or Bus for any Segment: Fare Type	No change

Other suggested modifications to the interview script that are incorporated into Table 7 include:

- Allowing interviewers to recall household information easily; this will be a programming modification that allows interviewers to easily recall household information and previously mentioned addresses;
- Moving the "go" button that launches TripTracer™ a few questions up in the survey instrument, providing several seconds for opening the program while not interfering with the interview length – this is why we have moved the pricing questions for adults #1 and #2 prior to the trip information;
- Requesting an updated address database to reduce the number of locations, zip codes, etc., not found during the interview.

Methods

Given the effort required to collect trip data for additional adults in a given household, we want to modify our approach for the full study so that we only attempt to gather trip data for more than one adult in a household during a single CATI contact. We will make no call-back attempts to reach other household adults. Also we believe that attempting to get pricing information from the second adult will increase the incidence of CBD-bound respondents. If adult #2 is willing to answer the trip questions, he or she will also be willing to answer the pricing questions.

We recommend using DataSource as the primary data collection firm, and placing OAC on hold for contingency purposes. The use of only one CATI center will greatly facilitate technical elements like sample management, data extractions for weekly data deliveries, and weekly reporting of progress. We will continue with our plan to interview only in English and Spanish, but to track languages encountered other than these two languages. This information will be provided to MTA on a weekly basis. Like we have OAC on contingency, will have contingency plans to bring on interviewers in other languages as necessary (i.e., the cost-benefit is mutually agreed upon).

The use of the paper questionnaire was worthwhile, but we will need to a way to contact households to clarify or correction information. NuStats will make a change in the print questionnaire to request household contact information, which will allow us to make follow-up phone call to matched and unmatched sample as needed.

We need an exact definition of a complete --- this definition will need to be mutually determined based on pilot test results and a review of pilot data by the modelers. We also

need to specify how to count “trips” per person for purposes of reporting upon linked transit trips.

Appendix I – Sample Design

Note: The first table consists of three pages—the first is the actual numbers of NYC workers (n=3,564,452) by their PUMA of residence and their place of work by County/Borough. In the right side of the table, we have categorized and calculated the trips as intra-borough (residence and workplace are in the same county), inter-borough (residence is in one NYC borough and workplace is in a different NYC borough), and extra-city (residence is in one NYC borough and workplace is outside the five boroughs of NYC). The second page of this table shows the percent distributions across each PUMA of residence, with the PUMAs in their numeric order.

The third page of the table shows the same information of percent distribution, but with the PUMAs in descending proportions of intra-borough trips. Overall for NYC, home to work trips are 55 percent intra-borough, 36 percent inter-borough, and 9 percent external to NYC. The Characteristics of Households Table displays the distribution of the 3.02 million households by borough and by PUMA, as well as nine relevant characteristics by PUMA. The Characteristics of Persons Table displays both total persons and total persons 18 years of age or older, by PUMA, as well as five selected characteristics of persons.

Technical Memorandum on Sampling Plan

New York Travel Customer Survey

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Prepared for:

Metropolitan Transportation Authority
New York City

February 18, 2009

1. SURVEY OBJECTIVES

The 2008 New York Travel Customer Survey will collect data on trip origins and destination, trip purposes, and travel and socio-economic characteristics of adult travelers for at least 20,000 linked transit trips. The survey dataset will contain all travel made by the interviewed New Yorkers, not just their transit trips. This assumption of transit trip generation by New York City adults will be monitored during survey administration and sampling adjustments and other contingency actions will be brought to MTA attention for review and approval as needed.

In addition to the total number of transit trips to be captured, the survey has the following important sub-objectives that affect the sample design:

- Coverage of travelers who rely on mobile phone only (not have a landline phone at their residence). The objective is to have at least 400 cell-only respondents.
- Coverage of specific demographic groups identified by age (65+ years old); minority status (Hispanics, African Americans and Asians); language (non-English speaking; especially Spanish); and household income (below $30,000).
- Appropriate distribution by day of week, including weekend.
- Appropriate distribution by time of day.

Table 1 shows the anticipated "minimum" number of cases to be included in the final dataset, based on the precision requirements specified by the MTA and rounded to the nearest hundred.

Table 1: Sample Sizes by Specified Subgroup or Transit Trip Characteristic

Population segment		Target N	
	Cell phone only	400	
	Older residents (65+ years of age)	600	
	Minority residents (Hispanic, Black, Asian, Native American)	400	
	Language – Spanish	400	
	Language – Other than Spanish or English	Not determined	
	Poor (household income under $30K)	400	
Trip characteristics		Subway	Bus
	Monday to Friday – AM Peak	2400	2400
	Monday to Friday – Midday	2400	2400
	Monday to Friday – PM Peak	400	400
	Monday to Friday – Evening	600	600
	Saturday	1100	1100
	Sunday	1100	1100

2. SURVEY DESIGN OVERVIEW

Sampling for population demographic characteristics is relatively straightforward and involves different levels of disproportionate sampling of the population. On the other hand, achieving specific targets for

trip characteristics cannot be achieved via sampling; it can only be done through screening for the particular time of travel.

The proposed sample design will use an address-based frame. The frame for this survey is the up-to-date listing of all deliverable city and rural route residential postal addresses within New York City. The data are regularly maintained by ADVO, Inc. and accessed by our sampling vendor, Marketing Systems Group (MSG). MSG is able to provide simple or basic appending of resident names and phone numbers for published listings in their database. This results in approximately 55% matched and 45% unmatched. The sampled addresses which have no matched name/phone number are then processed for additional appending of names and telephone numbers. The appending of resident names is done by Direct List, a specialized vendor; a typical rate of added name/address matching is 20%. Finally, the appending of phone numbers is done by another specialized vendor (Telematch); a typical rate of matching additional phone numbers to name/address is 10%. The resultant sample will be classified into three groups, with the expected proportions shown as percent of total:

Cases with address, name and phone number..... 58%

Cases with address and name..... 31%

Cases with only an address 11%

As described in the Technical Memorandum on Survey Design, each of the three groups of address types is treated differently. Based on recent experience in major urban areas on the East Coast, we anticipate that the rates of participation for the above types of cases will be similar, aided by the selective use of incentives.

3. SAMPLE SIZE

Estimating the number of interviews needed to produce a data set of 20,000 linked transit trips requires estimates of mode share and trip generation per person. Based on the NYMTC regional travel model and the 2006 ACS, we calculated a set of key characteristics by borough in order to calculate trip making, shown in the following table.

Table 2: Characteristics by NYC Borough, 2006 ACS and NYMTC Model

	House-holds	Adults 18+	Trips per Adult	Transit Share	Adults per HH
Manhattan	735,637	1,276,708	3.7	37%	1.74
Bronx	470,839	923,427	3.1	34%	1.96
Kings	872,186	1,817,430	3.0	31%	2.08
Queens	775,118	1,731,801	2.8	27%	2.23
Staten Island	166,501	350,370	3.8	15%	2.10
NYC Total	3,020,281	6,099,736	3.2	31%	2.02

Based on these rates, we calculated that we need a total of 64,927 captured trips, of which 20,000 will be transit mode trips. In turn, to capture this number of total trips, we will need to interview 20,606 adults. The final calculation is to determine how many households are required for collecting 20,606 adult interviews. Two factors contribute to this calculation. First, is the fact that in households with multiple adults, there is always a failure to interview 100% of adults in 100% of households. Second, we recognize that the common characteristics of multiple adults in a household would tend to dilute the variability of the total transit trips collected.

Therefore, we are proposing a compromise between the extremes of interviewing one adult per household and interviewing all adults per household. The following table shows the consequences of six options:

Table 3: Household Required by Interviews per Household

Adult Interviews per Household	Required Households in Sample
All	10,203
90% of all	11,337
80% of all	12,754
70% of all	14,576
60% of all	17,005
Only one	20,606

Our recommendation is to plan for 80% of all adults in the sampled households. This will require 12,754 households in the final sample of interviews. A set of rules for number of allowed interviews by number of adults per household will be set for the fieldwork.

Table 4: Sampled Households with Complete Data by Borough

	Transit Trips to Sample	Total Trips to Sample	Adults to Sample	Households to Sample
Manhattan	5,905	15,958	4,313	3,106
Bronx	3,288	9,671	3,120	1,988
Kings	5,710	18,419	6,140	3,683
Queens	4,423	16,381	5,850	3,273
Staten Island	675	4,498	1,184	703
NYC Total	20,000	64,927	20,606	12,754

4. SURVEY PLAN AND STRATIFICATION

The optimal survey plan would balance efficiency and compliance with required sample sizes by segment of interest. We started by drawing 40% of the required sample with a fully proportional to the population design, stratified by PUMAs (there are 55 in New York City) which have substantial demographic and travel behavior variability. Then, when we completed 25% of the projected interviews (approximately 3,500), we examined the actual distributions for demographic characteristics of respondents and for characteristics of their trips in order to estimate the gaps between actual and desired distributions.

At that point, another 40% of the required sample was drawn but with disproportional probability of selection to meet the gaps between the expected proportions and the actual proportions captured in the initial 25% phase of data collection.

Specifically, a comprehensive analysis of the data (delivered on 7/23/2008) indicated that low-income households (less than $25,000), Hispanics, Non-Hispanic Asians, and young respondents were under-represented (Refer Figures 1 through 4). In order to measure the extent of this under-representation, we compared census distributions of these target population groups with our data. The census distributions of the target populations were obtained at the Public Use Microdata Area (PUMA) level

from the 2006 American Community Survey. Similar distributions were generated using our data. The difference in the two distributions (measured in percentage points) was used to stratify the PUMAs into 5 categories that demarcate the gap in concentrations of target population groups. Specifically, a PUMA that falls in the category, "< 0 percentage points" has an over-representation of target population groups. The remaining 4 categories give us the extent (i.e. range of percentage points) of under-representation of the target population groups in our data at the PUMA level. The cut offs for these 4 categories were defined by using a quartile distribution of PUMAs such that each quartile had 25% of the PUMAs.

We also assessed the overall extent of under-representation of the target population groups at the PUMA level and mapped the level of need for oversampling (Refer Figure 5). The level of need for oversampling was classified into five categories – very low, low, medium, high, and very high. Specifically, PUMAs with the widest gap in concentration of low-income households, Hispanics, Non-Hispanic Asians, and young respondents, between census and our data were classified as PUMAs with 'very high' need for oversampling as they had the highest degree of under-representation of these groups. On the other hand, PUMAs with the widest gap in concentration of one of the four target population groups were classified as PUMAs with a 'low' need for oversampling as they had low levels of under-representation of the these groups. We oversampled the PUMAs with 'medium', 'high', and 'very high' need for oversampling with appropriate oversampling percentages to meet the gaps between the expected proportions from ACS and the actual proportions from our data.

5. SUPPORTING DATA RESOURCES

As noted above, the primary data source we are using is the 2006 American Community Survey (ACS). We have the Public Use Microdata Sample (PUMS) dataset which contains 25,126 and 61,890 unweighted cases for households and persons, respectively. This PUMS dataset is very useable for calculating disproportionate sample designs because it is quite recent, robust as to sample size, and geographically connected to demographically meaningful areas – Public Use Microdata Areas (PUMAs).

We created the following three tables from the dataset and these are found in the three Appendices (worksheets) of the document (NYC PUMA DATA.xls) attached to this technical memo:

- Appendix 1. An origin and destination matrix for Journey to Work trips
- Appendix 2. Characteristics of Households
- Appendix 3. Characteristics of Persons

The O/D table (Appendix 1) consists of three pages – the first is the actual numbers of NYC workers (n=3,564,452) by their PUMA of residence and their place of work by County/Borough. In the right side of the table, we have categorized and calculated the trips as intra-borough (residence and workplace are in the same county), inter-borough (residence is in one NYC borough and workplace is in a different NYC borough), and extra-city (residence is in one NYC borough and workplace is outside the five boroughs of NYC). The second page of the O/D table shows the percent distributions across each PUMA of residence, with the PUMAs in their numeric order. The third table of the O/D table shows the same information of percent distribution, but with the PUMAs in descending proportions of intra-borough trips. Overall for NYC, home to work trips are 55% intra-borough, 36% inter-borough, and 9% external to NYC.

The Characteristics of Households table (Appendix 2) displays the distribution of the 3.02 million households by Borough and by PUMA, as well as nine relevant characteristics by PUMA.

The Characteristics of Persons table (Appendix 3) displays both total persons and total persons 18 years of age or older, by PUMA, as well as five selected characteristics of persons.

Figure 1. Gap in Concentration of Low-Income Households (Between Census and MTA data)

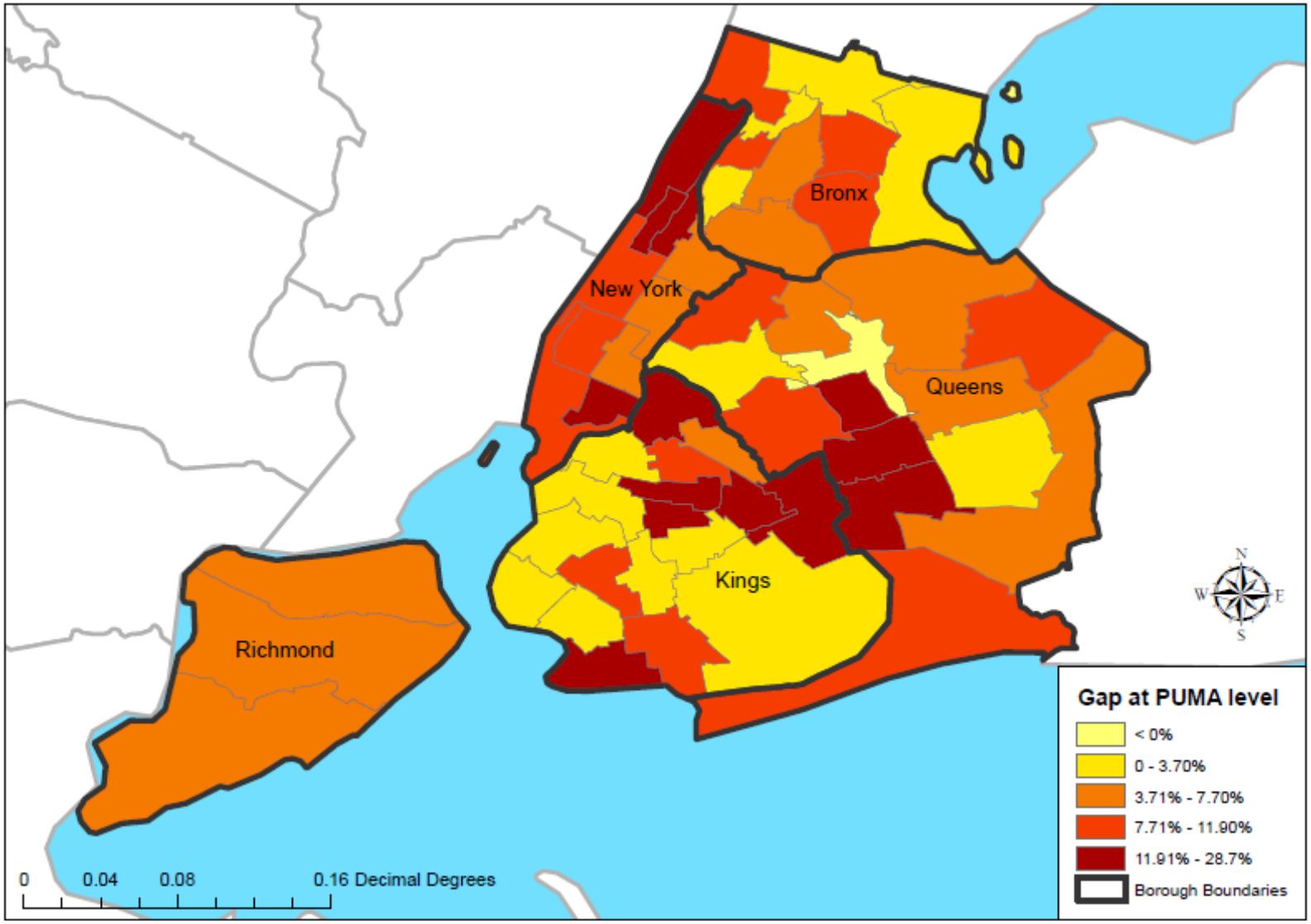


Figure 2. Gap in Concentration of Hispanics (Between Census and MTA data)

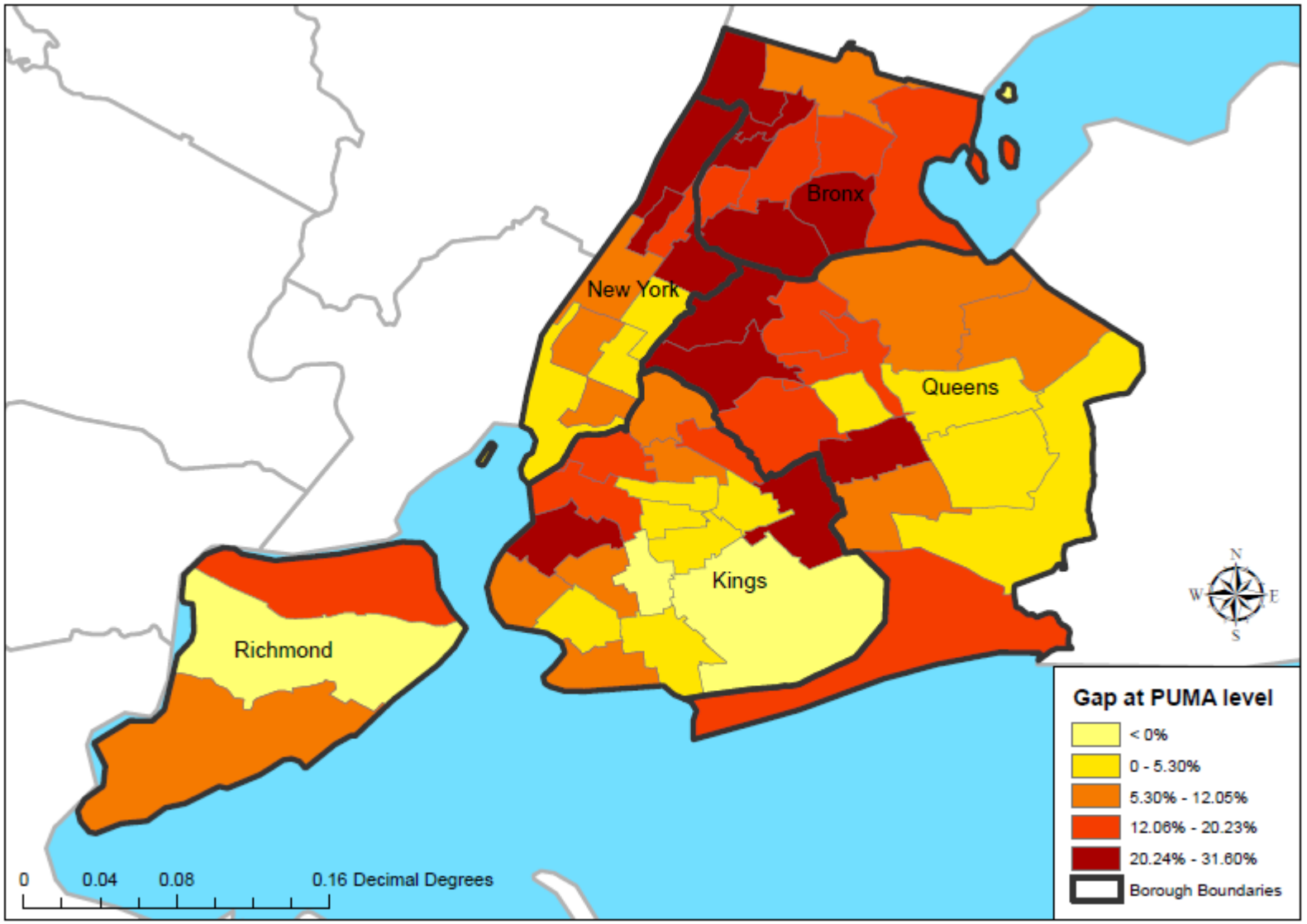


Figure 3. Gap in Concentration of Non-Hispanic Asians (Between Census and MTA data)

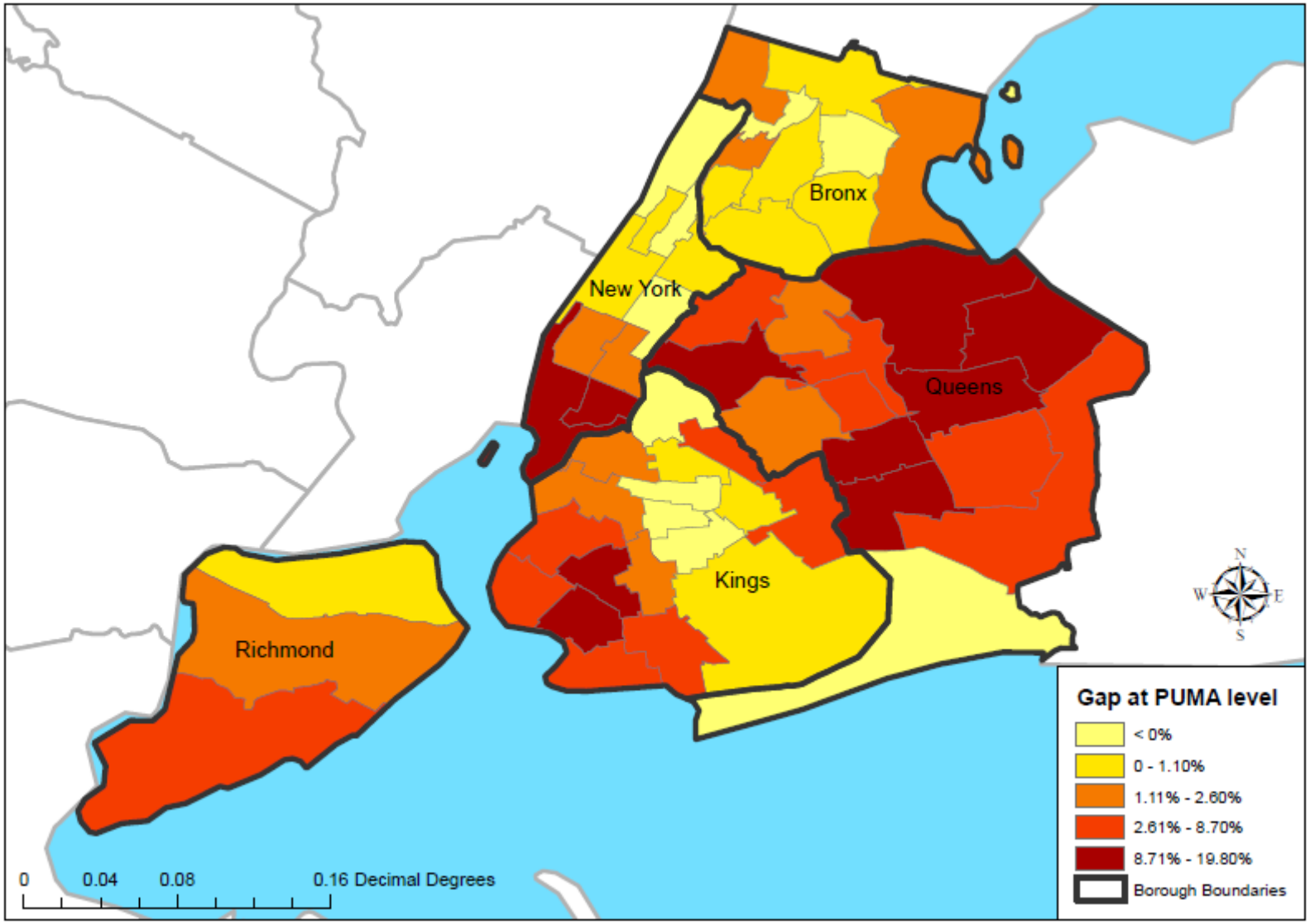


Figure 4: Gap in Concentration of Young Respondents – 18 to 24 years of age (Between Census and MTA data)

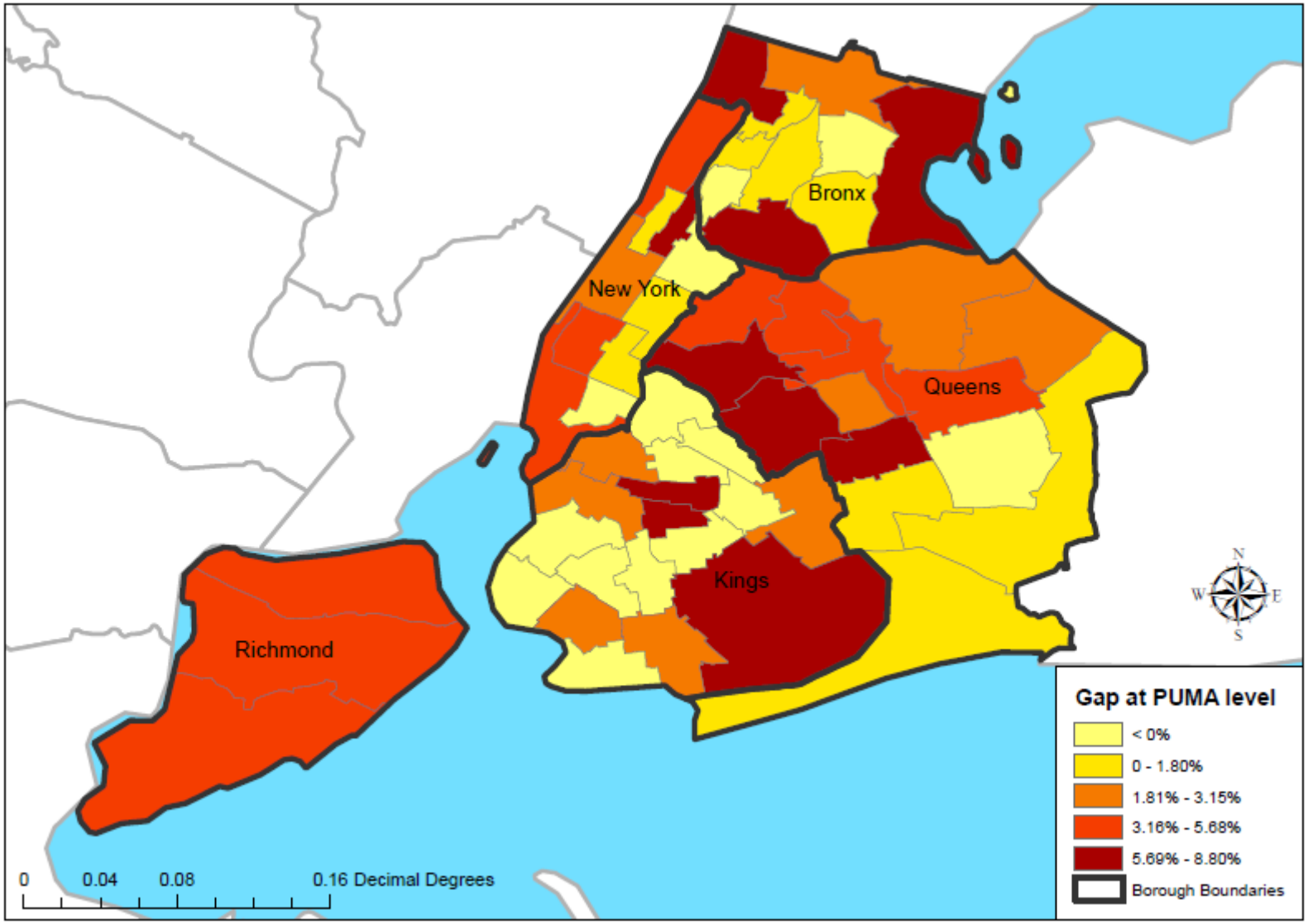
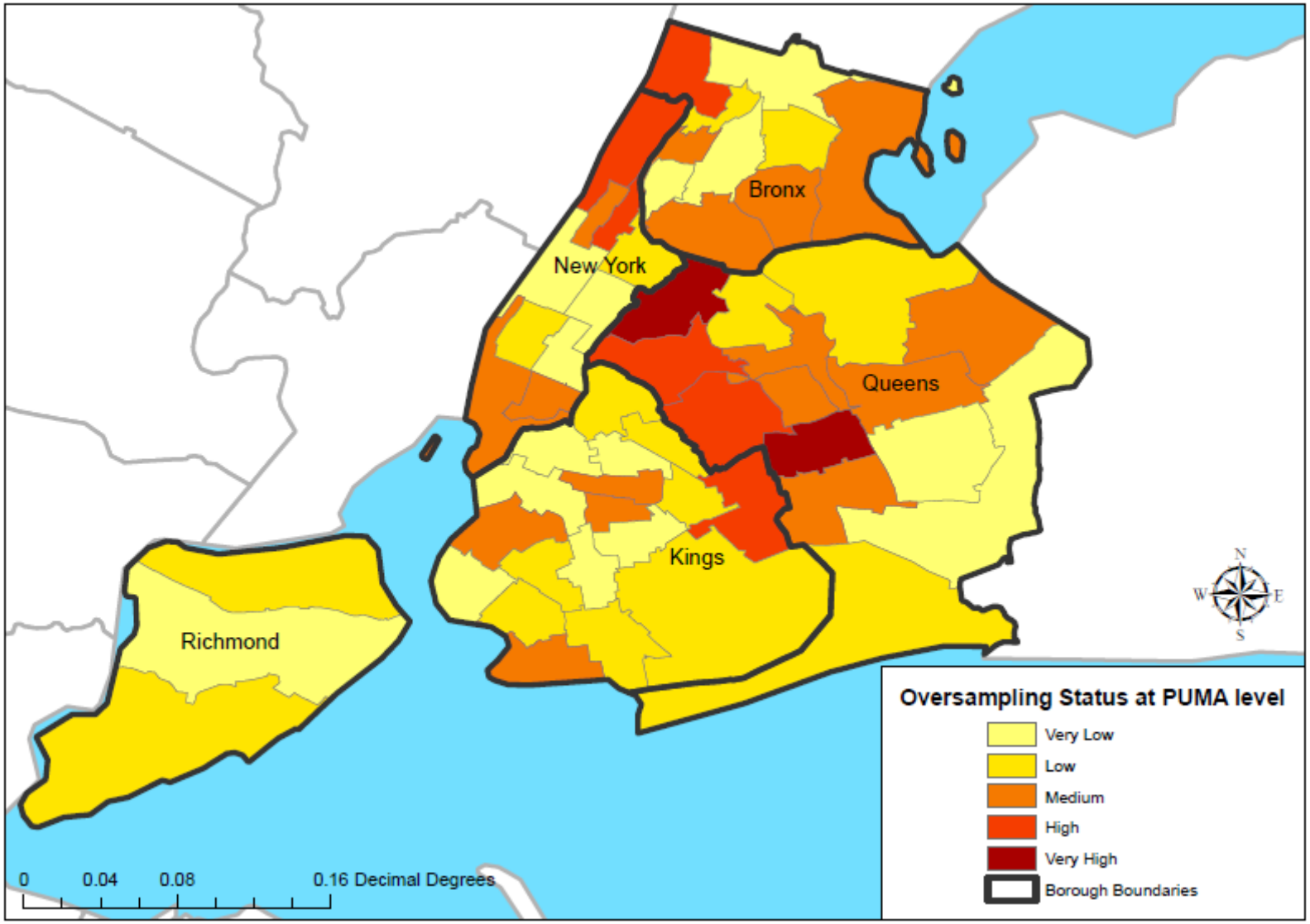


Figure 5. Oversampling Status of Minorities



Appendix J – Survey Methodology

Below is the original technical memorandum prepared by NuStats for MTA at the outset of the survey effort; during the course of data collection, some methods and approaches were altered. The Methods section in the main body of this report presents an accurate recap of the methods employed in conducting the 2008 New York Customer Travel Survey.

1. Survey Design Overview

NuStats will conduct a survey to collect data on trip origins and destination, trips purposes, and travel and socioeconomic characteristics from a sample of 13,650 New York residents. NuStats estimated that the 20,000+ linked transit trips required to be part of the final survey database could be captured from a sample of this size. This assumption will be monitored during survey administration and contingency actions will be brought to MTA attention as necessary.

In the survey, we will ask respondents about their travel "yesterday," starting at 4 a.m. or the time they awoke until midnight or the time they went to sleep. This is a retrospective survey approach, in which respondents report their trips via recall. This approach places great reliance on the interviewer for ensuring that accurate and comprehensive trip data is collected. It also necessitates a very detailed advance mailer in which information is provided to respondents on the type of detailed trip data that will be collected during the upcoming call. Finally, it requires a high-level of coordination between the timing of the receipt of the advance mailer and the telephone contact. The one-stage retrospective approach ensures that once we have a willing respondent we will not lose him or her at a later stage in the survey process.

The survey will cover residents (18+ years) living in households in the five boroughs comprising New York City. A separate technical memorandum will provide a detailed description of the sample design so details are not provided here except to report that the sampling frame will be address-based to capture both residents with landline telephone numbers and those without. Past experience has indicated that approximately 60-65 percent of all sample records will be matched to a landline telephone number and can be proactively called by survey interviewers (hereafter referred to as "matched sample"). About 35-40 percent of sampled addresses will not be matched to a landline telephone number (hereafter referred to as "unmatched sample"). These unmatched sampled addresses will be households that use a landline phone, use a landline and cell phone, and use only cell phones. Regardless of their telephone ownership and usage status, the two types of households (i.e., matched and unmatched) differ on significant socioeconomic and travel behavior characteristics. The unmatched sample cannot be proactively contacted by telephone and will be incentivized to "opt-in" to the survey. All sampled addresses will be geocoded and mapped for quality assurance purposes prior to the start of the survey process. Because the methodology differs for the two types of sampled addresses, each is discussed separately in the sections below.

2. Matched Sample

Matched sample are addresses that have been matched to a landline telephone number; we assume about 60-65 percent of all sampled addresses will fall into this category. So the methods described below will be followed for most of the interviews.

2a. Advance Mailer

An advance mailer will be sent to all sampled addresses to notify residents that they have been selected for the New York City Customer Survey sample. All advance mailers are sent by first class mail in a 6" X 9" envelope with an MTA return address. The sample will be matched to provide the name of the householder so that we can avoid a generic name on the outside of the envelope, such as "resident."

For the matched sampled addresses, the advance mailer contains a letter, a brochure, and a paper version of the survey instrument. All three will be printed in English and Spanish. However, Spanish surname sample only will receive the English and Spanish versions. All other sample will receive only English versions.

The letter explains the nature of the survey, identifies the fact that respondents will be asked about their travel "yesterday", notifies the respondent of the dates on which he/she will likely be contacted for the interview, and provides telephone and email contact information for NuStats and/ or MTA in case a respondent wants to verify that the survey is legitimate. The brochure contains a list of frequently asked questions designed to help respondents better understand the survey. An informative project website will also be set up for communicating with respondents.

In the pretest, we will test the utility of sending all sampled addresses (i.e., the matched and unmatched sample) a paper version of the questionnaire. They will be given the option of completing and returning the survey instrument by mail. The paper version of the questionnaire will be attractively designed in a respondent friendly format, using desktop publishing software. A postage paid envelope with a New York City address will be provided for the return of the questionnaire.

2b. Modes of Data Collection

Two modes of data collection will be used – telephone and mail – at least for the pretest. Each is discussed below.

Telephone. Telephone interviewing will be conducted using computer-assisted telephone interviewing (CATI) software. While the computerized interviewing instrument offers several benefits over a paper questionnaire, we are testing the utility of a paper questionnaire during the pretest because prior experience and previous research has indicated that some respondents prefer this mode of data collection. The benefits of CATI; however, should be mentioned. First, CATI automatically inserts any answer that a respondent gives in the beginning of a survey, such as a home address, in corresponding later questions. Next CATI verifies that all questions have been answered and that a respondent's answers are consistent throughout the questionnaire. CATI alerts the interviewer if there is a problem so that it can be resolved during the course of the interview. Also, CATI allows complex skip patterns to be programmed into the questionnaire to ensure consistent data quality and minimize human error. CATI also uses pop-up text boxes to instruct the interviewer to probe for more information when necessary. Overall, CATI reduces interviewer burden and clerical errors, ensures consistency and better data quality, and makes the interview experience more pleasant for respondents. When the interview is complete, the tasks of processing, editing, coding, and analyzing the data are expedited because all of the collected information is already stored in the computer. CATI greatly reduces the amount of data entry that is necessary, as well as the errors associated with it. In addition, the CATI will enable interviewers to use PTV TripTracer™ software (more on TripTracer™ in the survey instrument section) for the collection of detailed trip information.

During survey administration, the sample will be managed and released such that the survey will result in the necessary reports about weekday, Saturday, and Sunday trips. An interviewer at the telephone center will call the household within 3-5 days of the receipt of the advance mailing being sent to obtain a report about trips made on the previous day. When the interviewer enters the CATI system to conduct an interview, the first few screens that appear provide information such as the date of the advance mailing, the borough of residence, any outstanding call back scheduling comments, and other useful information. The interviewer will attempt to contact the designated household after reviewing this information. When that person is reached, the interviewer will introduce him or herself. The interviewer will verify that the respondent received the advance mailer explaining survey. If this has not been received, the interviewer will provide a brief explanation of the survey.

The interviewers will attempt calls throughout the day and will be required to make at least six call attempts to each sample number. Shift supervisors will utilize an automated sample management module of the CATI software to effectively manage all sample including scheduled callbacks, rotation of dialing times, or days of week. Once a household is contacted and the designated person agrees to complete the interview, the interviewer conducts the interview using CATI.

Mail. If questionnaires are returned by mail, they will be returned to the PB offices in New York City. The questionnaires will have a barcode that can be easily scanned by a PB staff person to indicate that the questionnaire has been returned. Scanned data can be emailed to NuStats daily. This information would be used to flag the telephone number as "do not to call." Households will be proactively called unless this flag is present. Then returned questionnaires would be shipped from New York City to Austin on a weekly basis for digitization via scanning technology. The paper questionnaire will be designed so that it can be electrically scanned. The scanning process involved scanning batches of approximately 100 questionnaires to produce an image file of the documents. Data results derived from the image files are individually reviewed and verified by comparing the scanned image to the data contained in the data file. As a quality control step, the project interviewers will call back the household to collect missing or corrected data.

3. Unmatched Sample

Unmatched sample are addresses that have not been matched to a landline telephone number; we assume about 35-40 percent of all sampled addresses. In order to be a representative city-wide survey, these households need to be included in the sample. This sample should also produce the requisite 400 interviews with persons who use only cell phones. This assumption will be monitored during survey administration and if this requirement appears to be at risk, a supplemental cell phone only sampling frame will be introduced to complete the necessary interviews.

3a. Advance Mailer

These households also receive an advance mailer, containing a letter, brochure, print questionnaire, and incentive. The brochure and questionnaire will be the same as those for the matched sample. The letter will have different text. The letter will reference the incentive and will ask sampled household (adult 18+) to call the telephone center on a specified set of days to complete the interview. The incentives will be in the form of an inactivated debit card for $25. The debit card can be activated only with a PIN number provided to the respondent by the interviewer at the completion of the interview. As an additional option, the household will be given the opportunity of completing the paper questionnaire and returning by mail.

3b. Modes of Data Collection

Mail. Mailed questionnaires will be treated like the matched sample above, but no proactively called because there is no telephone number associated with this sample. The unmatched sample will be offered an incentive because they are "opt-in." With this option, they will have to provide a telephone number or email address for us to provide the PIN number to activate the debit card. We can use that telephone number or email address to call them back to collect missing or corrected data, as needed.

Telephone. Respondent will be able to call in to the telephone center via a toll-free number. We will give them a range of days/dates in the advance letter to do this to control the inbound traffic. Once they call in, we will capture a telephone number from them and then continue with the telephone interview as with the matched sample.

4. The Interview

An eligible respondent is a person 18 years of age or older who resides in New York City. The interview will be a combination of structured questions and conversational interviewing. It will consist of four major topics: household information, person information, trip data for persons who are 18 years of age or older (at least one per household), and special questions for traveler to the CBD of Manhattan. Each section is described below in more detail.

S1: Introduction. The interviewer will identify him /herself, the MTA as the sponsor of the survey, and the survey purpose. The interviewer will ask to speak with someone in the household who is 18 years of age or older. This person becomes the household informant for household and person data. The interviewer will verify the household address. If the person refuses the interview or someone else in the household refuses for the adult, the interviewer records who refused and the reason for refusal.

S2: Household information: In this section, the interviewer collects household information such as household size, household auto ownership, telephone ownership and availability, and household income.

S3: Person information: The sex and age of each person in the household is collected. For persons over the age of 18, additional information is collected, such as race, drivers license, employment status, usual mode to work, student status, usual mode to school, use of subway or bus yesterday, and travel by auto to CBD of Manhattan within the past 30 days.

S4: Congestion pricing questions. The interviewer will ask to speak with the adult in the household who traveled by auto to CBD of Manhattan in past 30 days (as identified by prior section). No proxy reporting will be allowed. If no such adult resides in the household, interview will go directly to trip information section. Pricing questions include: frequency, reason for driving (not trip purpose), availability use of auto use subsidies, availability of transit subsidy, and mode switch propensity if addition $8 charge was imposed

S5: Trip information: Trip information will be obtained directly from individual adults in the household. The priority will be to collect trip information from persons who traveled by auto into the CBD of Manhattan or who used bus or subway yesterday. If no adult in the household meets these criteria, then the household informant will be asked about travel yesterday. This section starts with two general questions: Total number of trips yesterday (a trip is defined for the respondent), and how many trips used bus or subway. Then a detailed account of the respondents travel yesterday is captured.

For each trip reported, the interviewer asks location of trip origin, type of trip origin, departing time, mode of trip, if transit – access mode to first transit service, transit services used during trip, egress mode from last transit service, location of trip destination, type of trip destination and arriving time. If there is more than one adult (18+) in the household, the interviewer will attempt to collect trip information from those persons. However, no more than 3 callback attempts will be made to speak to another adult in the household. "No travel" yesterday is an acceptable response. Typically, we find between 5% and 8% of all households report "no travel".

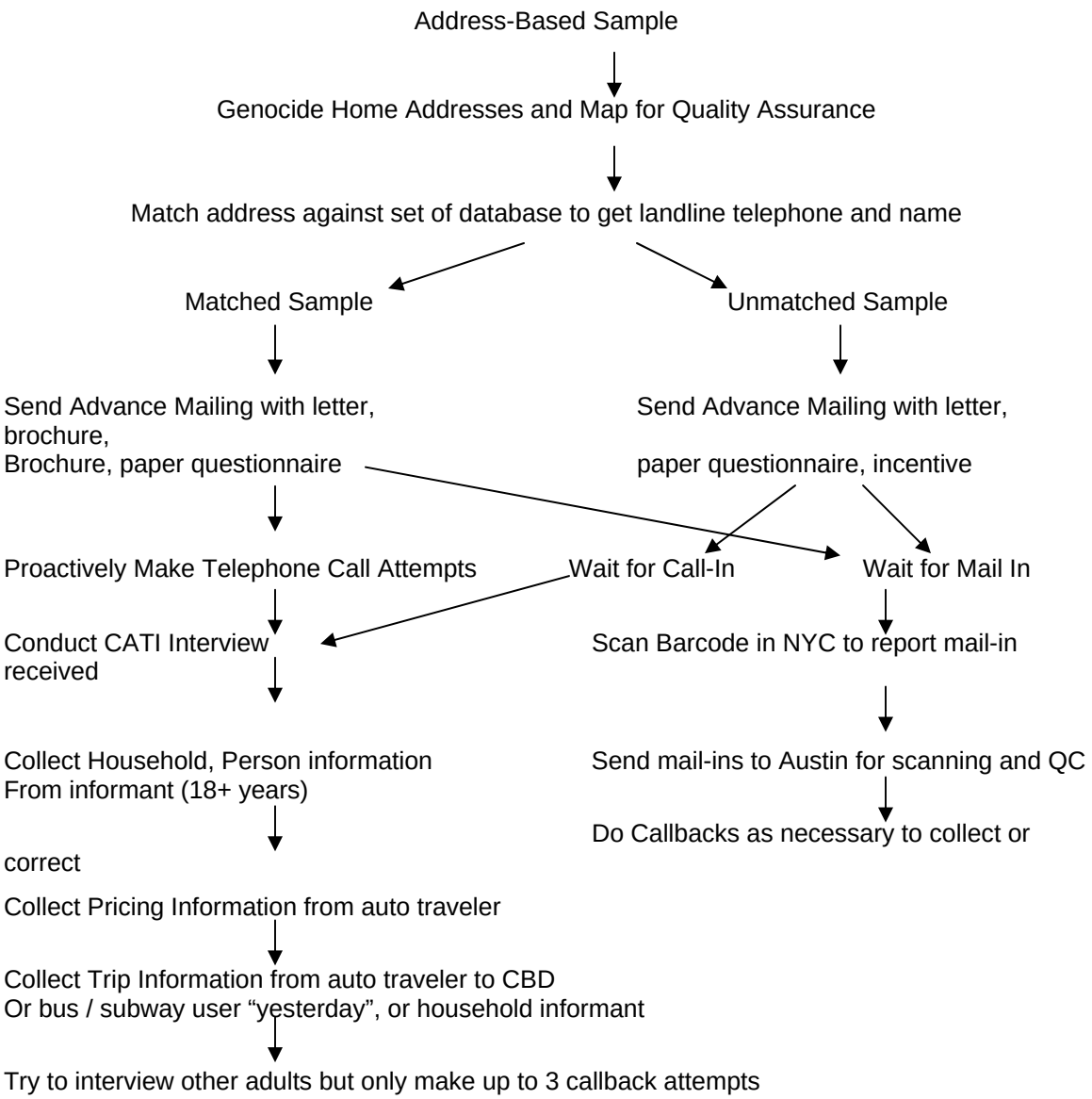
S9: Conclusion After the interview ends, the interviewer records any notes that may be helpful for coding the trip data. If the interview was not completed with all adults in the household, the interviewer makes an appointment to call back at the preferred day and time.

For all parts of the interview except the collection of the trip data, interviewers read scripted text on the CATI screen and enter the reported responses. For the trip data, the interviewer uses the TripTracer™ software and conversational interviewing rather than asking scripted questions. This is a more flexible interviewing technique designed to allow the respondent to report on his or her trips comfortably and accurately. This technique also allows interviewers to use methods to guide respondents through memory lapses, to probe in a non-leading way for the level of detail required to code trips, and to redirect respondents who are providing unnecessary information.

The interviewers are trained to ensure that the respondent reports trips actually done on the previous day, not activities done on a "usual" day. Interviewers do this by placing continual emphasis on the word "yesterday" throughout the interview.

An overview of the survey design is noted in Figure J1 below. This is the design as reported in this memo and it will be used for the pretest. Revisions to this design will be made subsequent to the pretest as necessary.

Figure J1: Overview of Survey Design



5. PTV TripTracer™

PTV **TripTracer™** (Figure 2) is basically an electronic map. It connects to the CATI program, which is why it is the last part of the telephone interview. It has five main sections:

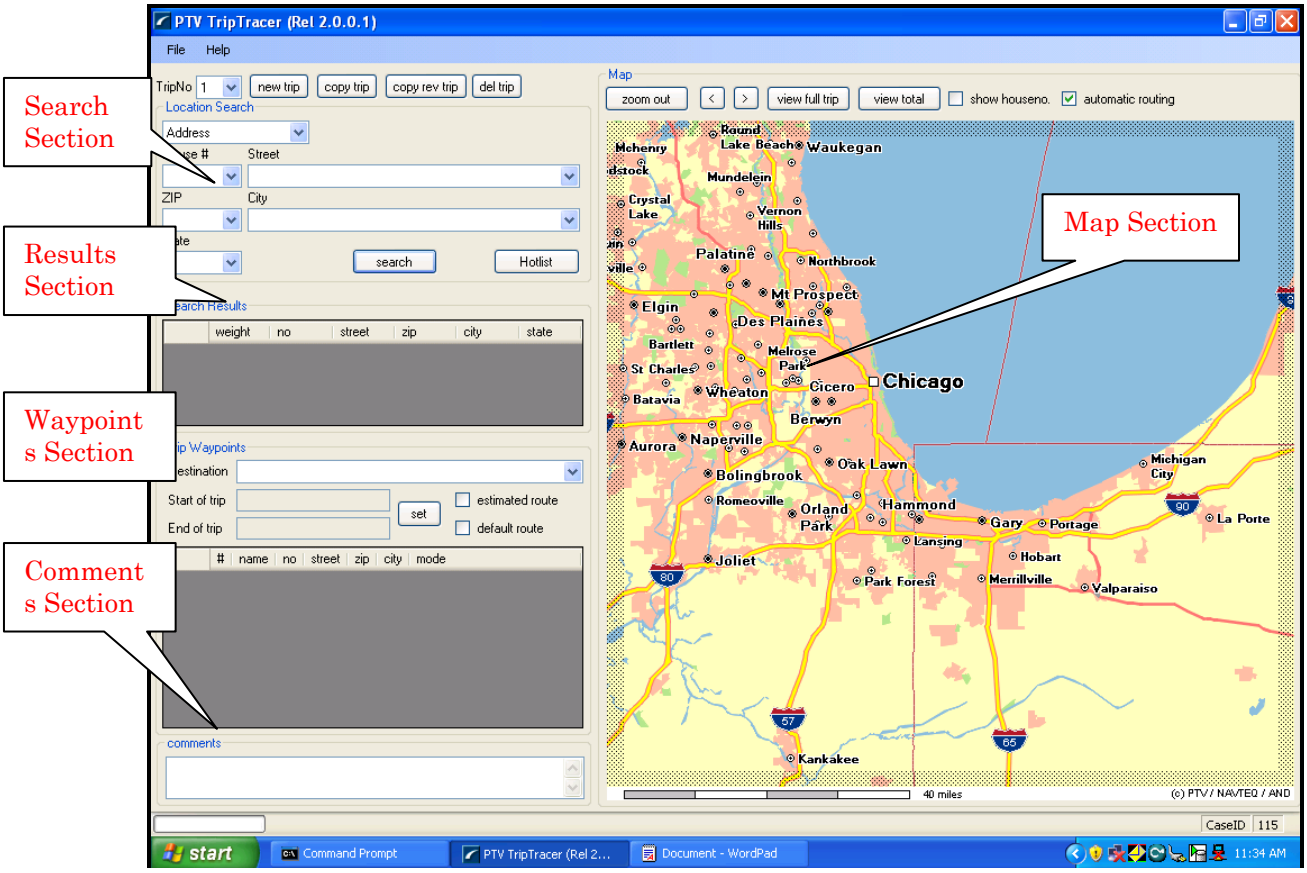
1) Search – where an address or location is entered from respondent
2) Results – where TripTracer™ displays what is found
3) Map – corresponds to the Result Section, showing the location or address

4) Waypoints – a list of each stop a respondent makes during the trip

5) Comments – place to write notes about the details of the trip, which may be unusual.

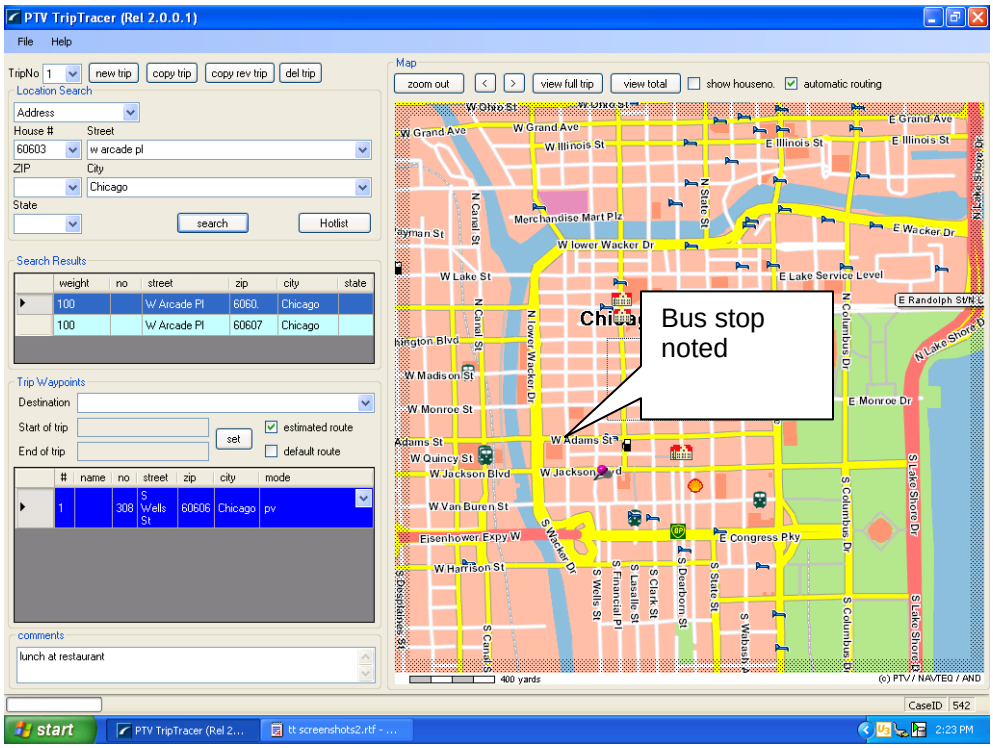
At the point that the interviewer switches from the CATI program over to PTV TripTracer™, the first screen will look something like Figure B2 (with a map of New York City of course).

Figure J2: PTV TripTracer™ Screen Shot with Major Sections Noted



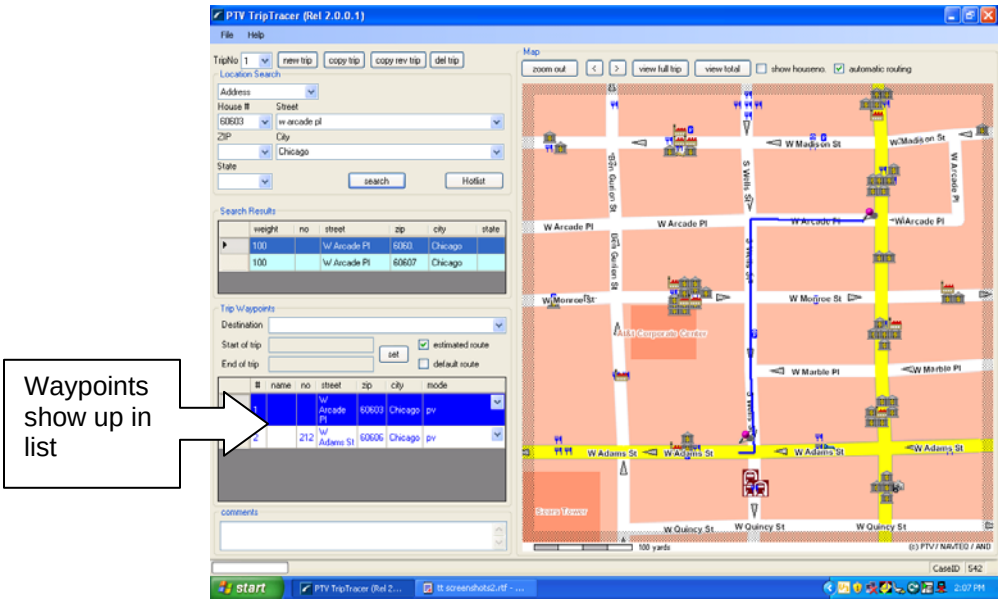
TripTracer™ is an application which has been developed to connect to the CATI interviewing programs to capture and digitize routes taken by persons either by auto, transit, or non-motorized travel modes by locating origins and destinations and points along the route. An interviewer starts by getting a origin address or location – a pushpin will appear in that spot on the map as a visual marking point of the origin, or beginning of the trip. The map function works in conjunction with a zoom feature to display different zoom levels and varying levels of detail. An interviewer can zoom in to a very small area to display minor streets, bus stops, etc., or can zoom out further to see only major roads, transit networks, etc. (see Figure B3). We are adding digitized versions of the bus, subway and commuter rail networks to TripTracer™ for the MTA survey to make using the map feature more suitable for the transit customer survey.

Figure J3: Zoom Feature on the Map



Waypoints are visual markers on the map indicating a stop during a trip. The waypoints, which look like a pushpin, mark spots on the map along the trip route (like thumbtacks on a wall map).During the interview, the interviewer captures the trip origin (starting point), stops along the way (waypoints), and a destination (end point) (see Figure B4).

Figure J4: Using Waypoints and Map to Capture Route Information



Using PTV TripTracer™ together with the CATI program, the retrospective survey design will be able to collect accurate and complete information about a respondent's travel. There are a couple of cautionary elements that should be noted. First, interviewers need to be thoroughly trained in both the CATI and in TripTracer™—adding to the complexity of interviewer training. Second, the interactive nature of using TripTracer™ makes for a potentially long dialogue with the respondent so we want to keep the CATI portion of the interview as short as possible.

6. Follow-Up Procedures

Interviewers will be trained to use all of their skills and knowledge to complete the telephone interviews at the time of first contact with the household. If an interview is not completed, the interviewer attempts to set an appointment with the respondent to complete the interview at a later time. If a respondent refuses to complete the interview, a refusal conversion letter will be mailed to reemphasize the importance of the survey and to request that the respondent reconsider participating in the survey. The interviewer will attempt to contact the respondent again.

7. Travel and Special Markets

We will have quotas for a certain number of interviews that contain transit trips by market (subway or bus), by day of week (weekday, Saturday, and Sunday), and by time of day (AM peak, Midday, PM Peak, and evening). We will release sample and time interviewing shifts to ensure that we collect enough Saturday and Sunday trips. The quotas for Saturday and Sunday are the same as weekdays (according to the RFP). These will need to be discussed with MTA because of the differential number of "yesterdays" (5 weekdays versus one each for Saturday and Sunday) that are available to report upon. Once these quotas have been designated, we will track progress against these quotas on a weekly basis. We assume that a single interview can be used to meet the requirements for more than one quota. For example, a single respondent can report a bus trip in the AM peak and another in the PM peak—thus, meeting two requirements.

In addition to the cell phone only special market, the RFP had identified other markets that would have quotas for interviews. The definitions for special markets are noted below. Progress toward meeting the required interviews with these subgroups will be tracked on a weekly basis.

- Low-income – Not exceeding 80% of the MSA median income. Median income for New York City is $39,285 according to 2002 American Community Survey data. So low-income would be below $30,628 (household variable)
- Elderly – Chronological age of 65 years or older (person variable)
- Minority – Non-White race and Hispanics who can be of any race (person variable)

Non-English Speaking – We will conduct interviews in English and Spanish; so non-English speaking will be primarily Spanish. But, we will monitor the distributions of responses by geography to ensure that the sample is not biased in terms of geography (completing the trip table) due to language of interview. The typical "language barrier" call disposition (outcome) will be disaggregated to record language group (Chinese, Russian, etc.) based on what the interviewer hears when the respondent answer in a non-English language. These dispositions will be provided to MTA in daily field reports (administrative variable—language of interview).

Appendix K – Project Management Plan

1. Project Synopsis

NuStats will conduct an origin-destination survey of New York City Transit (NYCT) customers and other travelers to refine the regional models that are used to support the development of fixed guideway transit New Starts projects. This survey will also satisfy upcoming Federal Transit Administration (FTA) requirements for transit ridership data collected within the past 5 years to validate the performance of these models.

Key elements of this work effort are as follows:

- Develop a survey approach for collecting transit and non-transit traveler information within New York City that is consistent with the needs of MTA's Regional Transit Forecasting Model (RTFM) model and anticipated FTA requirements
- Develop supporting survey instruments/methodologies
- Develop a sampling plan
- Develop a survey expansion plan
- Develop an implementation plan for survey administration and counts required for survey expansion
- Conduct a survey pretest including survey administration, collection of supporting counts, coding, and expansion
- Review pretest results and revise survey instrument, expansion plan, and implementation plan as necessary
- Administer the survey
- Code (including geographic coding) and weight survey results
- Produce a final report documenting survey methodology, expansion, and overview of results
- Provide an electronic data set containing all data

The survey objectives are straightforward. The survey will collect data on travel origins and destinations, trip purposes, and travel characteristics of riders with the aim of satisfying two goals:

- Provide data to assist in the recalibration of MTA's Regional Transit Forecasting Model (RTFM). Collect survey information sufficient to demonstrate that the RTFM evaluates networks appropriately and generates transit trip tables that matches observed transit trips tables.
- Satisfy Anticipated FTA requirements for "on-board" transit surveys. Understand the characteristics of transit customers in terms that can be compared to the travel forecasting models to confirm that the behavior represented in the forecasts match observed behavior patterns.

Each objective is discussed more fully, below.

The **RTFM Recalibration** will require collection of sufficient information necessary to prepare an "assignable" transit trip table. To accomplish this, the survey will collect data on trip origins and destinations, trip purposes, and travel characteristics of transit riders. In addition, information on boarding and alighting stations is needed to validate modeled paths. This transit trip table will be used to (1) confirm that it properly represents the major markets for transit and (2) confirm that the networks and network path building procedures properly represent how people travel over the transit network to complete their trips. Once these two objectives are met, the transit trip table can be used as a point of comparison to the output transit trip table developed by the RTFM. The characteristics of modeled transit trips (purpose, geography, traveler characteristics, and path characteristics) will be compared to survey results to determine the degree to which the model represents observed behavior.

The **FTA's requirements** require collection of data from all existing travel markets and travel services. The FTA desires transit ridership survey information that allows development of a cross-classification table that arrays the number/ percentages of travelers by service type, travel characteristics, and socioeconomic classifications.

To meet the RTFM and FTA requirements, the survey will be based on a statistically sound sampling plan that is designed to expand the data to represent the entire population of weekday and weekend New York City Transit Customers. Because some travel markets and traveler behaviors are directly related to specific geographic areas, a relatively large sample of transit trips is required – 20,000 linked transit trips. To capture 20,000 linked transit trips, we estimated that it would be necessary to capture 60,000 total trips. A trip is defined as travel from point to origin to ultimate destination, one-way. A linked transit trip is any trip for which at least one segment is via transit (i.e., subway or bus). To deliver, 20,000 linked transit trips, we estimated conducting 13,650 interviews[1].

A secondary set of project objectives has to do with collecting information to inform and support the New York City congestion pricing initiative. NuStats will interview 5,000 motorists who drive into the central business district (CBD) of Manhattan. We expect these 5,000 motorists to be captured as part of the 13,650 interviews noted above if the incidence encountered is 10% or greater. If it is less than 10%, this will require an additional level of effort. These motorists would be asked a series of simple questions: reason for driving, availability and use of auto-use subsidies, availability of subsidy for transit, mode switch propensity if additional $8 charge was imposed.

2. Project Organization/Tasks

NuStats is the prime contractor on this project (www.nustats.com) and as such will provide the leadership of the team and ensure coordination between work items and tasks. Subcontractors will include a PB (www.pbworld.com), PTV (www.ptvamerica.com), and a call center (DataSource and/ or other New York-based). Johanna Zmud has overall responsibility for this contract. She will serve as the primary point of contact to MTA and will oversee administrative requirements and well as work on each task of the project. The leaders for each task of the project and for product deliverables are shown below.

Task 1 – Develop Project Management / Quality Assurance Plans – Johanna Zmud (NS)

Project Management Plan – Johanna Zmud (NS)

Quality Assurance Plan – Sandra Rodriguez (NS)

Task 2 – Develop Passenger Counts – Wolfgang Scherr (PTV)

Technical Memo on Count Methodology – Wolfgang Scherr (PTV)

Task 3 – Develop Survey Methodology – Johanna Zmud (NS)

[1] In the end, NuStats interviewed more than 16,000 New York City residents.

Technical Memo on Survey Methodology – Johanna Zmud (NS)

Draft Survey Instruments – Johanna Zmud (NS)

Technical Memo on Sampling Approach and Expansion – Carlos Arce (NS)

Technical Memo on Market Analytical Plan – Carlos Arce (NS)

Special Market Sampling, Analytical, and Outreach Plan – Carlos Arce (NS)

Technical Memo on Modeling Approach – Bob Donnelly (PB)

Task 4 – Conduct Survey Pretest – Kim Hilsenbeck (NS)

Technical Memo on Pretest Results and Resolutions – Johanna Zmud (NS)

Task 5 – Survey Administration – Jesse Casas (NS)

Daily Field Report – Survey Call Center

Weekly Count Reports – Sandra Rodriguez (NS)

Task 6 – Analyze Survey Data – Sandra Rodriguez (NS)

Weekly Electronic Copies of Datasets – Sandra Rodriguez (NS)

Copy of Database, including expansion weights – Sudeshna Sen (NS)

Cross-tabulations – Sudeshna Sen (NS)

Task 7 – Prepare Final Reports – Johanna Zmud (NS)

Executive Summary and Final Report – Johanna Zmud (NS)

TransCad compatible GIS-based map with customized user interface for querying survey outcomes – Wolfgang Scherr (PTV)

Table A1 presents contact information for key project personnel involved with this contract.

Table K1: NYCT Customer Survey Personnel Contact Information

Company	Name	Phone	Email
MTA 347 Madison Ave. New York, NY	Larry Fleischer	212-878-7257	lfleisch@mtahq.org
	Julia Seltzer	212-878-7016	jseltzer@mtahq.org
	Jack Dean	212-878-7191	jdean@mtahq.org
	Jennifer Badali	212-878-4605	jbadali@mtahq.org
	Lydia Sloan	2212-878-7062	lsloan@mtahq.org
	Charlie Epstein	646-252-6892	charles.epstein@nyct.com
	Jim Barry	646-252-5631	james.barry@nyct.com
	Norm Silverman	718-445-3100	norman.silverman@mtabusco.com
	Bob Zurlo	718-445-3100	robert.zurlo@nyct.com
	Alexander Barron	646-252-5516	alexander.barron@nyct.com
NuStats 206 Wild Basin Road	Johanna Zmud	512-306-9065, x-2225	jzmud@nustats.com
	Carlos Arce	512-306-9065, x-2222	carce@nustats.com

Company	Name	Phone	Email
Building A, Suite 300 Austin, TX 78746	Sandra Rodriguez	512-306-9065, x-2231	srodriguez@nustats.com
	Kim Hilsenbeck	512-306-9065, x-2232	khilsenbeck@nustats.com
	Sudeshna Sen	512-306-9065, x-2247	ssen@nustats.com
	Jesse Casas	512-306-9065, x-2226	jcasas@nustats.com
PB Americas One Penn Plaza New York, NY 10119	Bob Donnelly	212-465-5115	donnelly@pbworld.com
	Peter Vovsha	212-465-5511	vovsha@pbworld.com
	Elizabeth Harper	212-465-5377	harper@pbworld.com
PTV America 130 N. Market St., Ste. 704 Wilmington, DE 19801	Wolfgang Scherr	302-654-4384	wscherr@ptvamerica.com
	Cherry Xiong	302-654-4384	cxiong@ptvamerica.com
	Ben Stabler	541-754-6836	bstabler@ptvamerica.com

3. Plan Detail

Design Tasks: Tasks 3, 4 (January 28 – March 7)

Our primary objectives for the Design Tasks will be to finalize the survey methodology and, once approved, produce the sample plan, develop the survey instruments, and translate, program, and test the instrument in preparation for data collection, and conduct and assess the results of the pretest.

Preliminary to the contract, NuStats coordinated a work session in New York City for a review of the project and its proposed methods. It was determined at that meeting to hold a weekly project team meeting on Thursdays at 2 p.m. (eastern). Dr. Johanna Zmud, the project director, will always attend these meetings primarily via conference call, and other key staff may participate, as necessary. She will lead most design subtasks, including documenting the survey methodology in a technical memo, developing the survey instrument, develop survey administration procedures, develop procedures for collecting data from non-English speakers, developing procedures for use of incentives, and developing the data coding procedures. In addition, as project director, Johanna Zmud will provide the overall project oversight in close collaboration with the MTA project manager. She will ensure the project schedule and scope of work is adhered to and will conduct the final quality control on all project deliverables. She will work closely with the MTA project manager to manage and/or coordinate reviews of materials, as appropriate.

Bob Donnelly will lead a team of Dr. Peter Vovsha and Elizabeth Harper (PB) with assistance from Wolfgang Scherr (PTV) in the development of the preliminary description of the modeling approach as input to the analytical plan. This technical memo will outline the key items to be considered to ensure that the survey will meet the requirements of the RTFM model. It will detail how information from the surveys and counts will support the MTA's modeling needs.

The sampling and data expansion plans will be carried out early during this phase and completed within the first six weeks (by early March). Dr. Carlos Arce will be lead the development of these plans, with technical assistance by Dr. Sudeshna Sen, a transportation engineer with strong statistical and sampling skills. Though Dr. Arce will be largely responsible for the sample design, Dr. Sen will execute the design to generate the required sampling frame. She will have support of a research associate once the sample is defined and acquired, to prepare it for the Data Collection phase activities. Closely related to the development of the sampling and data expansion plans is the development of travel market and special markets analytical plans. Dr. Arce and Dr. Sen will develop these plans in accordance with the sampling and data expansion plans. Travel markets are defined by time period (e.g., weekday with five time periods and Saturday/ Sunday with 5 time periods each). Special markets are: elderly, non-English speaking, minority, low-income, and cell-phone only.

The pretest is a complex endeavor that will test surveyor performance, the CATI program with TripTracer™ interface, and the utility of the mail-back questionnaire for the cell-only (no landline)

sample. The pretest implementation as well as interviewer training will be lead by Kim Hilsenbeck, a survey researcher with excellent training and communication skills and nearly 10 years of practical experience with NuStats. The pretest will be a random split sample with half of the sample assigned to DataSource (our call center affiliate) and half to another call center in the New York area. Each call center will complete approximately 80 interviews.

The sample records used to complete these interviews will be specially generated to represent English and Spanish speakers as well as households with landline phones and those without landline phones. The sample without landline phones will be offered an incentive of $25 to complete and mailback the questionnaire. The Table on the next page contains the anticipated milestones and deliverables for Design Phase work by task.

Table K2: Design Phase Milestones and Deliverables by Task

Design Phase Milestones and Deliverables by Task		Schedule
	Contract Award	**Still waiting for NTP**
Task 1	**Project Management and QA Plan**	
	QA Plan	February 4
Task 3	**Develop Survey Methodology**	
	Tech Memo on Survey Methodology	February 4
	Draft Survey Instrument	February 6
	Final Survey Instrument for Pretest	February 12
	Spanish Translation	February 15
	Program Instrument into CATI	February 18-22
	Sampling Plan	February 8
	Data Expansion Plan	April 30
	Tech Memo on Modeling Approach	April 30
	Travel Market and Special Markets Analytical Plan	March 7
Task 4	**Conduct Survey Pretest**	
	Conduct Pretest	March 12-21
	Pretest Plan	February 5
	Develop Training Materials	February 8
	Conduct Training and Pretest	March 10-21
	Tech Memo on Pretest Results	March 28
	Conference Calls	Weekly

Data Collection/Integration Tasks: Tasks 2, 5 (February 18 – June 27)

Our primary objectives for the Data Collection/Integration Tasks will be to collect and compile the requisite data to fulfill the survey objectives. As such, these tasks are to develop the passenger count database and administer the survey.

PTV will have the primary responsibility of developing the passenger count data by service, route, stop or station, day of week and time of day (Task 2). These data will be used to expand the sample of 20,000+ transit trips to all NYCT trips. Control data will be acquired from NYCT, but it will be from multiple sources and methodologies, varied collection timeframes, and may be missing key information. Thus, the three key issues in this task are: (1) data harmonization, (2) data imputation, and (3) compilation into a unified and standardized count data file. PB will support PTV in the development of this database.

Jesse Casas will have the primary responsibility of the survey administration (Task 5). Key staff working with him on this task are Kim Hilsenbeck (training) and Sandra Rodriguez (QA). The survey

administration process will require a totally integrated system between the call center facility and NuStats' researchers or analysts, allowing for continuous quality assurance.

Recruiting and staffing will depend on the results of the pretest—whether we will work with our call center (DataSource), a New York-based call center, or some combination of the two. Kim Hilsenbeck, a senior NuStats' representative, will train all interviewers on their respective roles and responsibilities in a formal training session before the survey begins. MTA will attend training sessions at its discretion. De-briefings with Ms. Hilsenbeck and MTA/NYCT staff will be held within the first three days of the initial training sessions. Interviewers will be provided a printed training manual with specialized geographic elements, attend ongoing project specific briefings, and receive documentation highlighting key points of appropriate interactions with respondents. Ongoing training will take place as new staff is recruited.

During the survey process, NuStats will react to unforeseen logistical problems (i.e., need to replace key staff, project missing budget or schedule requirements, progress toward meeting sample targets at risk, need to expand the sample of households) in a timely fashion and with proactive communications. Using our continuous data flow (CDF) system, we will be tracking and reporting survey progress on a daily basis. The CDF generates daily reports that reflect the status of respondent records, notifies staff that the data are ready for the next stage of the process, identifies respondents requiring specific intervention, and summarizes the aggregate status of the sample against target quotas, response rates, geographic, and travel day period allocations, and other diagnostic views to track survey progress relative to quality, timeline, and budget. For this study, the CDF system will provide continuously accessible reports on the summary status of data. An overriding objective of the CDF system is to perform continuous tests of data plausibility and logic in as close to real-time as possible. Another component of our CDF system is the continuous delivery of data for same day review to prevent any long-term error pattern. This is particularly important during the first few days of data collection when data are checked at least once per day and any exceptions immediately and systematically corrected to prevent recurrence. NuStats will use a password-protected project website to communicate status of the survey as well as to post raw data deliveries.

Interviewing will include screening and special branching to survey 5,000 motorists who commute to the central business district (CBD) of Manhattan. We expect two types of interviews in the full survey: (1) respondent completes main survey and supplemental questions about CBD travel, and (2) respondent completes only main survey questions.

Fieldwork will begin in March after the pretest results have been thoroughly evaluated and the decision about call centers has been made. Ms. Hilsenbeck will train interviewers prior to the start of interviewing. MTA staff is invited to these training sessions. All sessions will be recorded. A designated senior representative of the call center will be required to deliver daily field reports in a format required by NuStats/ MTA. Sandra Rodriguez, NuStats, will produce weekly count reports and deliveries of raw data. She has been designated as the QA manager of this survey project. All interviewing will end prior to the last day of public schools in the New York City area (identified as June 27).

Table K3: Data Collection/Integration Phase Milestones and Deliverables by Task[2]

Data Collection / Integration Milestones and Deliverables by Task		Schedule
Task 2	**Develop Passenger Counts**	
	Tech Memo on count methodology	April 30
	Delivery of passenger count database	July 26
Task 5	**Survey Administration**	
	Conduct Fieldwork	April 10 – June 26
	Daily Field Reports	April 10 – June 27
	Weekly Count Reports	April 10 – June 27

[2] Table shows original dates.

	Conference Calls	Weekly

Analysis and Reporting Tasks: Tasks 6, 7 (April – August 29, 2008)

Our primary objectives for the Analysis and Reporting Tasks will be to develop, check, expand, validate, and deliver the survey database and to prepare the final documentation and reports associated with the survey.

Survey data coding and error checking will be conducted simultaneous with data collection and will be done under the direct supervision of Sandra Rodriguez. All survey records designated, as being of "deliverable" quality will meet the MTA-provided definition of a completed interview. NuStats will deliver 13,650 completed interviews. After a fully deliverable data file has been developed, Dr. Sudeshna Sen, NuStats, will work with PB and PTV staff to expand the data in accordance with the analytical plan approved by the MTA. Once the weighting scheme as been approved by MTA, survey weights will be applied to the data to be expanded to the total survey population (users and non-users of NYCT) and to a detailed representation of total NYCT ridership by market segment and by line and route. PTV, under Wolfgang Scherr, will process the database to produce trip tables and conduct final quality assurance.

PB will validate the data set in accordance with the analytical plan approved by the MTA. As part of this process, some of the expansion rates may be adjusted as the data are being validated with the count information. The basic approach is to use the survey records by time-of-day periods as the seed structures describing the observed trip distribution patterns of transit users in NYC. The raw seed tables will be expanded and "smoothed up" using statistical models in order to obtain the most statistically significant estimates for the real trip table. The expansion and smoothing procedures will include trip table validation and (if necessary) adjustment to the established control targets like line-specific ridership and/ or station-specific boardings, etc. There are no absolute tests of a survey's validity, but at a minimum, survey results will be validated against census data, ridership counts, and MetroCard based O-D estimates. The information generated in validating the database will be part of the overall survey documentation. PB will compile the data in TransCAD format, aggregate data by RTFM zones, and prepare mapping and graphics as needed for data analysis. The data will be delivered by MTA for evaluation and approval.

After delivery, the NuStats team (NuStats, PB, and PTV) will work closely with MTA and NYCT staff to perform additional analyses to assess how closely the weighted survey results accurately represent NYCT ridership with respect to ridership counts by sub-mode, time period, and by station/bus stop (or bus stop group). Again, as part of this process, some of the expansion rates may be further adjusted to improve the accuracy of the survey data for its use as an assignable trip table and to understand limits of confidence. In the final data set and its documentation (at NuStats the responsibility of Dr. Sudeshna Sen and Sandra Rodriguez), the weighting variable(s) will be identified and documented in detail to facilitate subsequent re-analysis of the data set by MTA, NYCT, or consultant staff no involved in the primary research. Once final expanded data is approved, Sarah Parks, a NuStats' statistician, (under the direction of Dr. Sudeshna Sen) will run a minimum of five sets of cross-tabulations, with up to eight banners as specified by MTA and NYCT staff.

Dr. Johanna Zmud will take responsibility for documenting all aspects of the passenger counts and survey in a series of final reports. One report will detail survey results, and another report will detail passenger count results by time period, line, train and station, and by bus route and bus stops. A third report will take the form of an Executive Summary for presentation in Power Point format. Draft report outlines for all three reports will be provided to MTA and NYCT prior to the start of the analysis so that report content expectations are met. PTV will produce the TransCad compatible GIS-based map with customized user interface for querying various survey outcomes.

Table K4: Analysis and Reporting Phase Milestones and Deliverables by Task[3]

Analysis/ Reporting Milestones and Deliverables by Task		Schedule
Task 6	**Analyze Survey Data**	
	Weekly electronic copies of datasets	April – June 27
	Database to MTA for evaluation & approval	September 15
	Cross-tabulations	September 15
Task 7	**Prepare Final Reports**	
	Draft Report Outlines	August 1
	Draft Final Reports and Executive Summary	September 30
	TransCad Compatible GIS-based map	September 30
	Conference Calls	Weekly

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[3] Table shows original dates.