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# 2007/2008 TPB Household Travel Survey

## Technical Documentation

National Capital Region Transportation Planning Board  
Metropolitan Washington Council of Governments

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## **2007/2008 TPB Household Travel Survey**

### **1.0 Introduction**

An integral part of the regional transportation planning process is the measurement of daily travel to assess the performance and effectiveness of the transportation system in meeting household transportation needs and requirements. In fulfilling its role as the Metropolitan Planning Organization (MPO) for the Washington region, the National Capital Region Planning Board (TPB) at the Metropolitan Washington Council of Governments (COG) periodically conducts regional household travel surveys to monitor changes in daily travel and to gather information on the demographic, socioeconomic, and trip making characteristics of Washington area residents. Information collected in these surveys is also an important component in the development of regional travel demand forecasting models used to predict changes in daily travel in response to current development trends and changes in regional transportation policies and programs.

From February 2007 through April 2008, a survey of the demographic and travel behavior characteristics of persons living in households in the metropolitan Washington region and adjoining jurisdictions was conducted by a nationally recognized transportation survey research firm, NuStats, hired by COG/TPB for this purpose. Previous COG/TPB regional household surveys for the Washington area were conducted in 1968, 1987/1988, and 1994.

### **2.0 Survey Methodology**

#### *Survey Methodology Overview*

The TPB 2007/2008 Household Travel Survey was conducted in two stages. In the first stage of this survey, an introductory advance letter (Appendix A) was sent to an address list-based random sample of households in the TPB modeled area (Figure 1). This letter asked for the household's participation in a one-day travel survey. A short 10-question household questionnaire (Appendix B) was also included with the introductory letter. This questionnaire asked for some general information about the household, the persons living in the household, and the number of vehicles owned, leased or available for regular use by the members of the household. It also asked for a telephone number that could be used to contact the household and for the best time of the day to reach a household member at this phone number. Households receiving this introductory letter were asked to complete and mail back the household questionnaire or complete this questionnaire on-line by logging into a secure website established by the survey contractor for this purpose. A toll-free telephone number was also provided to permit the sampled households to provide the requested household questionnaire information via a short household recruitment telephone interview.

After ten days, follow-up telephone calls were made to households in the random sample that had published telephone numbers, but had not yet responded to the introductory

Figure 1  
Jurisdictions in the TPB Modeled Area



letter. In these follow-up calls, attempts were made to elicit the participation of these households in the one-day travel survey and to obtain household-level and person-level demographic information about the household and its vehicles, through a 12-25 minute recruitment interview. Reminder postcards were sent to households with unpublished telephone numbers that did not respond to the introductory letter after 10 days, a second reminder postcard was sent after 20 days of no response and a third and final reminder postcard was sent after 30 days no response (Appendix B).

Households that responded to the introductory letter or follow-up postcards by providing the requested household questionnaire information via mail back of the completed household survey questionnaire or through the secure website option were contacted by the contractor's survey interviewers. In a short follow-up household recruitment interview, the survey interviewers confirmed the household's commitment to participate in the travel survey, verified the accuracy of their submitted household questionnaire information and obtained some additional detail about the household and each of its members. A specific date for the household's one-day travel survey was also assigned in this recruitment interview.

In the second stage of this survey, sampled households that agreed to participate in the household travel survey were sent a travel survey packet containing information on the survey and a travel day diary that was to be completed for each member of the household (including children younger than 5 years old). Instructions in the survey packet asked that all travel and other major daily activities of each household member on a specified weekday be recorded in the travel diary<sup>1</sup>. The specified weekdays for the recording of this travel and other information were randomly assigned to each participating household and were typically scheduled for the week following the household's recruitment interview. Reminder calls were made to each household just before its scheduled travel survey day. Then, beginning the day after the household's assigned travel survey day, the contractor's survey interviewers began calling each participating household to obtain a telephone report of the travel and other daily activities of each household member on the household's specified travel survey day. If a participating household was not reached the day immediately following the household's scheduled travel day, the survey interviewers continued to call back the household on successive days to retrieve the travel day information.

### *Survey Pretest*

A comprehensive pre-test of proposed survey protocols was conducted in the fall of 2006. This pre-test was designed to evaluate the effectiveness of all data collection instruments, materials, and procedures, including the address list sample selection, the introductory advance mailing and follow-up postcards, the household questionnaire, the recruitment interview, the travel diary, the mailing procedures, the reminder call, the data retrieval interview, the survey data processing and address geocoding procedures.

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<sup>1</sup> The specified weekday could include federal and/or state holidays, such as New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Columbus Day, Thanksgiving, and Christmas Day.

The survey pretest also included an evaluation of four alternative modes for recruiting households to participate in the survey. These four alternative modes varied the sampling frame for the recruitment of households to be surveyed (mailing address list v. telephone random digit dialing) and the provision of monetary incentives to potential survey participants. This pretest evaluation included an assessment of differential response rates across the alternative modes of household recruitment as well as differences in the demographic and travel characteristics of households responding to each of these modes of survey recruitment. Based on the evaluation of these alternative modes of household recruitment, it was decided to use an address list-based sampling frame and offer households with unpublished phone numbers (including cell phone only households) a \$50 monetary incentive to participate in the survey.

### *Sample Selection*

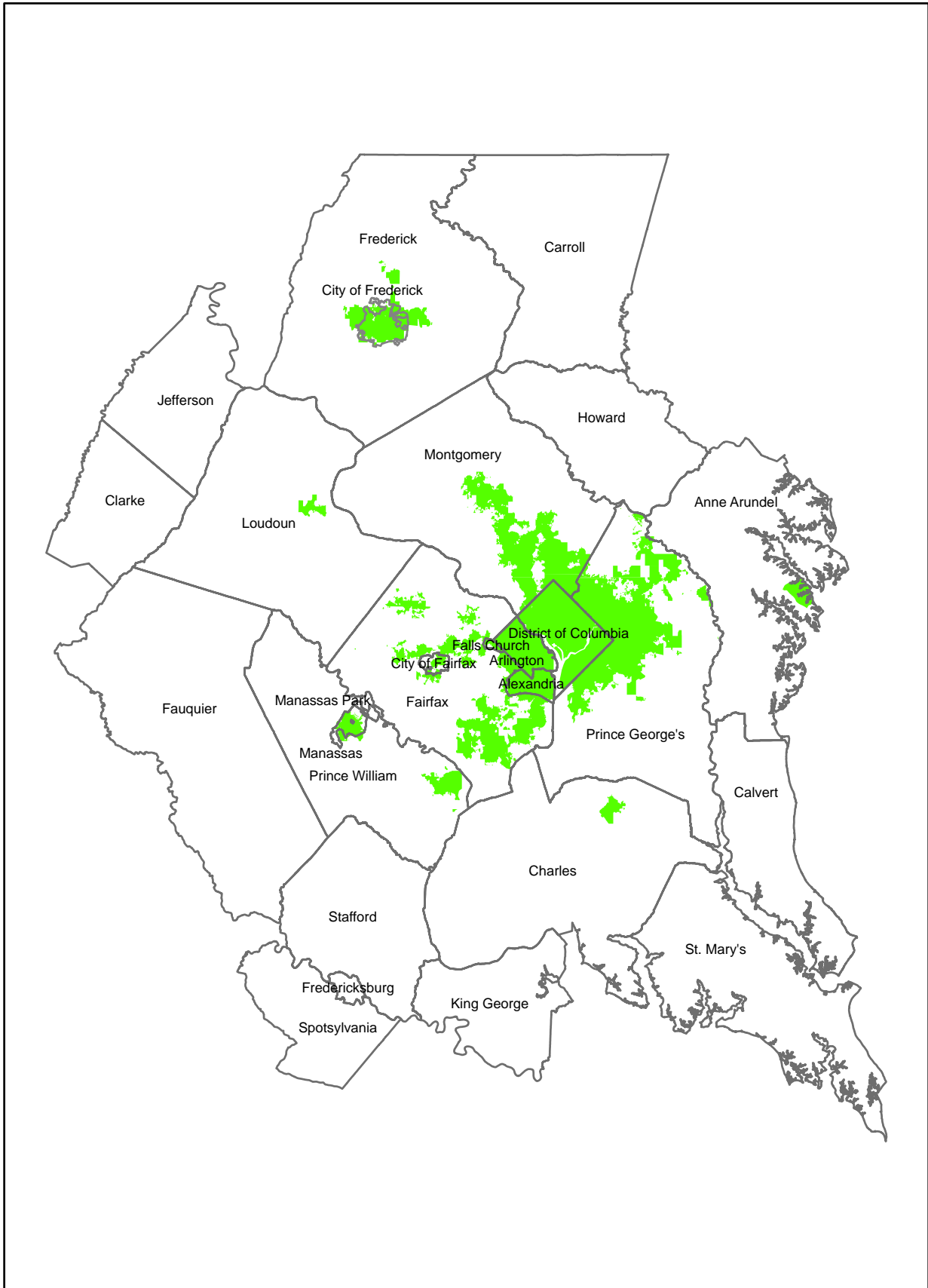
The sample frame for the 2007/2008 TPB Household Travel Survey was a listing of all deliverable city and rural route residential postal addresses for the TPB modeled area contained in a direct mail database maintained by ADVO, Inc. Post Office (P.O.) and Rural Route boxes were specifically excluded from the sampling frame for this survey. This was done for two reasons. First, research has shown that most residential P.O. Box addresses are used by persons who also have a directly deliverable residential address, thus including P.O. Box addresses would double count these households. Second, these P.O. Box addresses would in many cases not represent the geographic location of the household being sampled. The ADVO address-based sampling frame was used to mitigate the bias introduced by telephone-based sampling approaches, such as random digit dial (RDD) samples that would miss cell-only households and other households that did not have an active landline telephone.

The sampling frame was initially stratified by 30 geographic strata. These strata were composed of aggregations of individual postal carrier routes by jurisdiction and area type within jurisdiction. Two area types were defined for this survey: (1) higher-density, mixed-use urban areas, and (2) lower-density areas that are primarily residential. Demographic and travel behavior characteristics for each of these two area types are known to vary distinctly from each other. Households in the higher-density, mixed-use urban areas were sampled at a rate twice that of the lower-density suburban areas. These “over-sampled” higher density mixed-use areas are shown in Figure 2. This was done to achieve a sufficient number of completed household samples for transportation modeling purposes in these urban areas that generally have higher rates of transit use and pedestrian and bicycle travel.

The original target for the total number of completed household travel survey interviews was 10,000 households, with 5,980 to be completed in higher-density, mixed-use urban areas and 4,020 to be completed in lower-density suburban areas. In the second quarter of 2007, the Baltimore Metropolitan Council (BMC) and Arlington County, VA contracted with the TPB’s survey contractor to add an additional 1,000 completed households (300 in Anne Arundel County, 300 in Howard County, 300 in Carroll County and 100 in Arlington County) to the survey effort. This increased the target total in higher-density,



Figure 2  
Oversampled Areas in  
2007/2008 Household Travel Survey



mixed-use urban areas to 6,155 and increased the target total in lower-density suburban areas to 4,845. It also increased the number of geographic strata to 33 to include the add-on samples for the Columbia Pike, Rosslyn-Ballston and Shirlington areas in Arlington County.. The number of target samples within the higher density, mixed use and lower density, suburban area types were allocated roughly proportional to the estimated number of households in each of the jurisdiction. Table 1 shows the target number of completed household samples for each jurisdiction and area type stratum.

**Table 1**  
**Target Number of Completed Samples**

Jurisdiction	Higher-density, Mixed-use	Lower-density Mostly Residential	Total
District of Columbia	1,600	-	1,600
Montgomery County, MD	1,000	500	1,500
Prince George’s County, MD	1,100	400	1,500
Arlington County, VA	600	-	700
Alexandria City, VA	400	-	400
Fairfax County/Cities, VA	800	700	1,500
Loudoun County, VA	52	300	352
Prince William County/Cities, VA	148	348	496
Frederick County/City, MD	152	200	352
Howard County, MD	-	500	500
Anne Arundel County, MD	175	525	700
Charles County, MD	28	172	200
Carroll County, MD	-	400	400
Calvert County, MD	-	100	100
St. Mary’s County, MD	-	100	100
King George County, VA	-	52	52
Fredericksburg City, VA	48	-	48
Stafford County, VA	-	152	152
Spotsylvania County, VA	-	100	100
Fauquier County, VA	-	100	100
Clarke County, VA	-	48	48
Jefferson County, WV	-	100	100
Arlington+ ( Columbia Pike)	60	-	60
Arlington+ ( Rosslyn-Ballston)	30	-	30
Arlington+ ( Shirlington)	10	-	10
<b>Total</b>	<b>6,155</b>	<b>4,845</b>	<b>11,000</b>

Marketing System Group (MSG), a third-party vendor with access to the ADVO database, generated a systematic random sample of addresses from the postal carrier

routes within each of the geographic strata at the start of every survey quarter. COG/TPB staff calculated the required number of sampled addresses to be drawn in each stratum in each survey quarter. These calculations were done to achieve a sufficient number of household address sample records to obtain a target number of completed households each quarter. The survey contractor conducted a quarterly sample analysis to identify patterns of non-response across the survey strata, and adjustments were made in the required number of sample address records for the subsequent quarter to account for the non-response patterns. The 100 Arlington add-on samples were drawn only for the second quarter of the survey.

In addition to the collection of travel diary, the collection of vehicle-related Global Positioning System (GPS) data from a sub-sample of the randomly selected households agreeing to participate in the TPB 2007/2008 Household Travel Survey was also desired. A target sample of collecting GPS vehicle-related data from 500 of the households agreeing to participate in the travel survey was originally set. This original target sample increased to 1,000 households with additional GPS household samples added by the Baltimore Metropolitan Council (BMC) and the Maryland Department of Transportation (MDOT).<sup>2</sup> The purpose of the GPS sub-sample was to compare and analyze the consistency of vehicle trips reported in the travel survey diary with the GPS collected vehicle data. The reason for this was that prior studies had shown household travel survey respondents tended to under-report in their travel survey diaries the actual number of vehicle trips they actually made.

#### *Creation of Household Sample Types*

The sample address records obtained from the third-party vendor with access to the ADVO database were matched against resident mailing list and telephone directory databases to obtain, where possible, the resident name and telephone number of the household at the sampled address. MSG was able to provide simple or basic appending of resident names and phone numbers for published listings in their database for approximately 55 % of the sample records each quarter. The remaining 45% of the sampled addresses that were not matched were then processed for additional name/telephone number match by two additional third party vendors. Direct List, a specialized mailing list vendor, was able to match resident names to an additional 15 percent of the records not matched by MSG. Telematch, another specialized vendor, was able to match telephone numbers to an additional 10% of the address records not matched by MSG. After the completion of this matching process, the address records were classified into two basic sample types. These were:

- Address samples for which a current telephone listing match is obtained and coded in the survey database as Sample Type 21, and

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<sup>2</sup> GeoStats, 2007/2008 COG/TPB Household Travel Survey: GPS Technical Report (Metropolitan Washington Council of Governments, December 31, 2008)

- Address samples for which no current telephone listing match is obtained and coded in the survey database as Sample Type 22

Because sampled households not matched to a telephone listing can be reached only by a mail contact, these households are harder to reach and there is a greater burden on these households to initiate the contact to participate in the survey. In consideration of this increased burden, a \$50 incentive was offered to the Sample Type 22 households to participate in and fully complete the one-day travel survey.

A third sample type was created to differentiate the impact of a household having a published telephone number and the offering of a monetary incentive to participate in the survey. Five percent of the Sample Type 21 households were offered the \$50 incentive treated in the same manner as the Sample Type 22 households, which meant that they were only contacted by mail even though their phone number was available. These household were referred to as Sample Type 23 households.

A fourth sample type, a Sample Type 24 household, was also created in Quarter 2 of the survey to handle a special MDOT GPS add-on component of the survey. The address samples for this MDOT GPS add-on component were selected slightly differently from all other sample types in the survey and will be discussed in another section of this report.

### *Survey Interviewing*

Survey interviewing for the 2007/2008 HTS used Computer Assisted Telephone Interview (CATI) procedures and was conducted by NuStats and its field interviewing subcontractor, DataSource. All survey interviewing took place at DataSource's call center in San Marcos, Texas. The interviewer stations at the call center are designed to take full advantage of the CATI interviewing techniques and include automatic call dialing, silent monitoring systems, and computerized survey management. This special equipment enabled survey supervisors and COG/TPB staff to listen in on the survey interviews as they were being conducted and monitor survey operations for potential problems. COG/TPB staff closely supervised the training of the interviewers, and provided a specific lesson on local geography in the Washington metropolitan region.

COG/TPB staff worked closely with the consultant staff to develop the survey questions, materials, protocols, and procedures. NuStats staff programmed the survey questionnaire into the CATI system. A small pre-test of 50 samples was also conducted to test the survey questions and procedures. COG/TPB staff reviewed the results of the pre-test and interview training, and simplified the methodologies before the start of the actual survey interviewing.

### *Household Recruitment*

An introductory advance letter was sent to all four sample types. This letter asked for the household's agreement to participate in a one-day travel survey. A short 10-question household questionnaire was also included with the introductory advance letter. This

questionnaire asked for some general information about the household, the persons living in the household, and the vehicles owned, leased or available for regular use by the members of the household. It also asked for a telephone number that could be used to contact the household and for the best time of the day to reach a household member at this phone number. Households receiving this introductory letter were asked to complete and mail back the household questionnaire or complete this questionnaire on-line by logging into a secure website established by the survey contractor for this purpose. A toll-free telephone number was also provided to permit the sampled households to provide the requested household questionnaire information via a short household recruitment telephone interview.

Sample Type 21 households, households whose addresses had been matched to a known telephone number, received follow-up household recruitment interview phone calls regardless of whether or not they completed and submitted the 10-question household questionnaire within 10 days of the advance mailing. Sample Type 22 and Sample Type 23 households could only be contacted by the survey interviewers if they submitted the completed household questionnaire that provided a phone number at which a household member could be reached. Reminder postcards were sent to Sample Type 22 and 23 households that did not respond to the introductory letter after 10 days. A second reminder postcard was sent after 20 days of no response and a third and final reminder postcard was sent after 30 days of no response. These Sample Type 22 and 23 households were also offered a \$50 incentive for their full participation in this survey.

Once phone numbers were obtained for the Sample Type 22 and Sample Type 23 households, Nustats survey interviewers conducted the same follow-up household recruitment interviews as were conducted with the Sample Type 21 households (Appendix C). In these follow-up household recruitment interviews, the survey interviewers confirmed the household's commitment to participate in the travel survey, verified the accuracy of their submitted household questionnaire information and obtained some additional detail about the household and each of its members. A specific date for the household's one-day travel survey was also assigned in this recruitment interview. Household recruitment interviews were conducted in English or Spanish, depending on the language preference of the adult household member reached.

The day following the successful completion of the household recruitment interview, the household's information was processed into the master data set and mailing packets were assembled for each recruited household and mailed. These packets included a cover letter, a travel day diary for each household member, and example of a completed travel log. Travel days were scheduled 7 to 10 days after recruitment to allow for sufficient time for packets to reach the recruited households using First Class mail.

### *Travel Survey Diaries*

The survey packets sent to all households agreeing to participate in the survey included a personalized travel survey diary (Appendix D) for each member of the household. To facilitate data collection and avoid confusion, each travel diary in the survey packet was

imprinted with the specific respondent's name and travel date. For households that spoke only Spanish, the survey packet contained the same materials, but translated into Spanish.

Instructions printed on the travel survey diary asked that all travel and other major daily activities of the household member be recorded in the travel diary for a 24-hour period starting at 3:00 AM on their household's assigned travel day. The information to be recorded in the travel diary included the details of all places visited on the assigned travel day, the arrival and departure times at each place, the travel modes used to get to each place and the daily activities engaged in at each place.

### *Reminder Calls*

Reminder calls were placed to each participating household on the day before their assigned travel survey day.

These reminder calls served three key purposes:

1. Confirm that the household received the packet and answer any questions respondents might have about using the log to track their travel.
2. Schedule an appointment to conduct the retrieval interview.
3. Increase the likelihood that the household will follow through with recording their travel by reiterating the importance of the study and the household's commitment to participate.

For those instances where an answering machine was reached, the interviewers left brief messages that referenced a toll-free number for respondents to call if they had questions.

### *Retrieval Interviews*

The day after the assigned travel period or other appointed time, telephone calls were made to retrieve the travel and daily activity data recorded for each household member on the household's assigned travel day and some additional information regarding their work schedule, their travel options and transportation benefits provided by their employers. These retrieval interviews were guided by CATI programs of the retrieval instrument (Appendix E). The average length of the household retrieval interview was 24.3 minutes, and it took an average of 10.81 call attempts to retrieve the travel day travel and daily activity data for each household member.

An attempt was made to speak directly with each household member 16 years or older about their travel on the assigned travel day. The reason for wanting to speak with each household member directly was that the survey interviewers had been specifically trained to probe respondents for trips that they may have made on the travel survey day, but had forgotten to record in their travel diaries. If one of these household members was not available at the time of the retrieval survey interview, a call-back was arranged.

After three days, proxy interviews in which another household member reported on the trips recorded in the unavailable household member's travel diary were permitted. Additionally, proxy interviews were required for household members younger than 13, and permitted for children aged 13 to 17. With the permission of a responsible adult in the household, the survey interviewers were allowed to conduct a retrieval interview with a household member 13 to 17 years old.

The retrieval interviewing began in early February 2007 and was mostly complete by late April 2008. About 40 follow-up retrieval interviews were not completed until mid-May 2008.

### *GPS Sub-Sample Households*

Potential sub-sample GPS households were randomly selected from the main household sample at the start of each quarterly sample draw. The personalized introductory advance letters sent to these households informed them of the GPS add-on component to the survey and requested their participation in it. Confirmation of their household's participation in this GPS add-on component was obtained during the follow-up household recruitment call. Households in the pre-selected GPS sample found to have no vehicles and pre-selected GPS households with vehicles, but declining to participate in the GPS add-on component were still permitted to participate in the travel diary component of the household travel survey. Special GPS "GeoLogger" receivers were delivered in-person by Geostats, a subcontractor to NuStats, to the households agreeing to participate in the GPS add-on component of the survey. Depending on the number of vehicles owned, leased or available for regular use by the members of the household, up to three special GPS "GeoLogger" receivers were delivered to the participating households. These households were instructed to install the GPS "GeoLogger" devices in their vehicles the evening before the household's assigned travel diary survey day. Geostats personnel then picked up the "GeoLogger" receivers approximately 3 to 5 days after the household's assigned travel day and downloaded the GPS data for each vehicle into the GPS add-on database.

In the first quarter of the survey, which began in early February 2007, GPS equipment was deployed to the GPS subsample for one 24-hour weekday deployment period – to coincide with the assigned diary / travel date. In the second quarter of the survey, at the suggestion of BMC staff, the GPS deployment period was increased to two weekdays. Because it took from 3 to 5 days after the household's assigned travel day to pick up the "GeoLogger" devices from the household anyway, households were asked to leave the GPS receivers in their vehicles until the Geostats personnel came to pick them up. This change provided the collection of a second weekday GPS data at no additional cost. Consequently, beginning on April 16, 2007, the GPS add-on component switched to a two-weekday GPS deployment period, with Friday travel dates collecting Friday through Monday GPS data.

Also, in the second quarter of the survey, the Maryland Department of Transportation (MDOT) asked for the collection of GPS add-on data for an additional 150 households in

the suburban Maryland counties of Frederick, Montgomery, Prince George's, and Charles. The GPS data collected for these 150 MDOT GPS add-on households was also for two weekdays and occurred primarily between mid-April and the end of June 2007.

From February 2007 to mid-April 2008, complete GPS travel day vehicle data were obtained from 805 vehicles in 539 randomly selected Sample Type 21 households that also completed travel day retrieval interviews. Complete GPS data were obtained for 7,577 weekday vehicle trips made using 925 vehicles by these 539 Sample 21 Type households.

From February 28, 2008 to May 12, 2008 complete GPS travel day vehicle data were obtained from 276 vehicles in 207 randomly selected Sample Type 22 and Sample Type 23 households that also had completed their travel day retrieval interviews. GPS add-on subsamples for these sample types were added near the end of the survey interviewing when it was discovered that these sample types had not been included in the sampling for the GPS add-ons. The reason for adding these Sample Type 22 and Sample Type 23 GPS add-ons was to obtain some GPS data from these household types to see if their vehicle use was significantly different from the vehicle use of Sample Type 21 households. Complete GPS data were obtained for 2,289 weekday vehicle trips made using 290 vehicles by these 207 Sample 21 Type households.

From April 27, 2007 through August 29, 2007, complete GPS travel day vehicle data were obtained from 212 vehicles in 135 Sample Type 24 (MDDOT add-on) households who also completed travel day retrieval interviews. Because the need to collect the Sample Type 24 in a limited time frame, the GPS subsample for this sample type was drawn from 53 selected postal carrier routes spread across Frederick, Montgomery, Prince George's, and Charles Counties. This sample selection strategy clustered the MDDOT add-on GPS sample to enable the GeoStats personnel to efficiently deliver and pick-up the "GeoLogger" devices to the participating Sample Type 24 households.

Approximately 85% of the GPS data from the Sample Type 24 households were obtained between April and the end of June, 2007. Additional GPS travel day vehicle data were obtained from another four Sample Type 24 households between September 2007 and February 2008. In total, complete GPS data was obtained for 2,208 weekday vehicle trips made using 254 vehicles by 139 Sample 24 Type households.

#### *Survey Response Rates by Sample Types*

Tables 2 to 5 show the survey response rates by Sample Type for each of the survey stratum.

All households in the survey were sent an introductory advance letter and a short 10-question household questionnaire that they were asked to fill out and mail back or complete on-line by logging into a secure website. More than 151,000 introductory letters and household questionnaires were mailed out in this survey. Introductory advance letters returned by the Post Office because the addressee had moved without a forwarding



address or letters that were otherwise undeliverable were logged into an “undeliverables” database. This database was used to estimate the proportion of introductory letters that were actually delivered to potential survey respondents. The estimate from this database of the proportion of introductory letters delivered to potential survey respondents is clearly overstated. Because the Post Office will forward the mail sent to the former addresses of persons who have moved, not all of the delivered advance letters were received by the households at the intended sampled addresses. Indeed, it was found that about 5% of the households participating in the survey had moved to an address within the TPB modeled area that was different from the address to which their introductory letter had been sent. Thus, it is likely some additional introductory advance letters were forwarded to households who no longer resided in the TPB modeled area and these households would have no reason to respond to these letters.

In calculating response rates for each sample type, eligible households were defined as households receiving the introductory advance letter. Percent recruited is defined as the number of household completing a telephone recruitment interview divided by the number of eligible households. Percent retrieved is defined as the number of households completing retrieval interviews that provided complete travel survey day data for every member of the surveyed household divided by the number of recruited households. The overall response rate is defined as the number of households successfully completing retrieval interviews that provided complete travel survey day data for every member of the household divided by the by the number of eligible households.

Table 2 shows that the percent delivered for Sample Type 21 Households was above 95% in all survey strata, except one. The percent recruited figure for this household type ranged from 8% to 19% and averaged 14% across all strata. Except for the very small Shirlington stratum, the percent retrieved ranged from 59% to 80% and averaged 74%. The overall response rate ranged from 5% to 15% and averaged 10% across all strata. Assuming the estimated number of eligible is overstated by from 5% to 10%, the overall response rate may actually be about 1% higher.

Table 3 shows the response rate for Sample Type 22 households. This sample type consisted of households with addresses that could not be matched to a known telephone number. These households were contacted only by mail but were offered a \$50 incentive to participate in the survey. Table 3 shows that the percent delivered for Sample Type 22 Households was much lower than for Sample Type 21 Households (88% v. 97%). One of the reasons for this difference was because Sample 22 households were much more likely to live in apartments and other rental housing with higher turnover rates. The percent recruited was less than half that of the Sample Type 21 Households (7% v. 14%), but the percent retrieved was higher (85% v. 74%). Overall, the response rate for the Sample Type 22 Households was 4 percentage points lower than for Sample Type 21 Households (6% v. 10%).

Table 4 shows the response rate for Sample Type 23 households. This sample type consisted of households with addresses that could be matched to a known telephone

number, but the initial recruitment of these household was only by mail. These households were also offered a \$50 incentive to participate in the survey.

**Table 2**

**Survey Response Rates for Sample Type 21 Households**  
(Known Phone Number – Initial Recruitment by Mail & Phone – No \$ Incentive)

Stratum	Area Type Density	Letters Sent	Percent Delivered	Eligible HHs	Recruited HHs	Percent Recruited	Retrieved HHs	Percent Retrieved	Overall Response
1 - DC	High	8,257	97%	7,982	1354	17%	1037	77%	13%
2 – Montgomery	Low	2,897	98%	2,844	482	17%	347	72%	12%
3 – Montgomery	High	5,351	97%	5,199	917	18%	699	76%	13%
4 - Prince George's	Low	3,543	98%	3,469	417	12%	279	67%	8%
5 - Prince George's	High	9,830	96%	9,405	896	10%	578	65%	6%
6 – Arlington	High	2,782	96%	2,660	480	18%	381	79%	14%
7 - Alexandria	High	2,250	95%	2,140	331	15%	256	77%	12%
8 – Fairfax	Low	4,708	98%	4,620	723	16%	575	80%	12%
9 – Fairfax	High	4,938	96%	4,761	691	15%	545	79%	11%
10- Loudoun	Low	2,311	98%	2,271	316	14%	234	74%	10%
11- Loudoun	High	470	98%	462	57	12%	39	68%	8%
12- Prince William	Low	3,208	97%	3,126	352	11%	252	72%	8%
13 - Prince William	High	2,276	96%	2,178	185	8%	118	64%	5%
14 - Frederick	Low	1,919	98%	1,889	235	12%	167	71%	9%
15 - Frederick	High	1,084	97%	1,055	132	13%	91	69%	9%
16 – Howard	Low	4,196	98%	4,104	567	14%	427	75%	10%
17 - Anne Arundel	Low	5,844	97%	5,680	630	11%	470	75%	8%
18 - Anne Arundel	High	1,389	98%	1,363	171	13%	133	78%	10%
19 – Charles	Low	1,657	98%	1,632	162	10%	109	67%	7%
20 – Charles	High	572	97%	556	51	9%	30	59%	5%
21 – Carroll	Low	3,937	99%	3,882	476	12%	347	73%	9%
22 – Calvert	Low	784	98%	765	102	13%	80	78%	10%
23 - St Mary's	Low	662	96%	634	106	17%	80	75%	13%
24 - King George	Low	377	98%	370	64	17%	50	78%	14%
25 - Fredericksburg	High	394	97%	384	46	12%	31	67%	8%
26 – Stafford	Low	1,214	98%	1,195	157	13%	116	74%	10%
27 - Spotsylvania	Low	930	98%	914	116	13%	82	71%	9%
28 - Fauquier	Low	997	98%	980	101	10%	66	65%	7%
29 – Clarke	Low	531	99%	527	55	10%	46	84%	9%
30 - Jefferson	Low	583	95%	553	98	18%	72	73%	13%
40 - Columbia Pike	High	467	95%	443	74	17%	54	73%	12%
41 - Rosslyn-Ballston	High	94	95%	89	17	19%	13	76%	15%
42 - Shirlington	High	39	87%	34	5	15%	2	40%	6%
Total		80,491	97%	78,166	10,566	14%	7,806	74%	10%

**Table 3**

**Survey Response Rates for Sample Type 22 Households**  
(Unknown Phone Number – Initial Recruitment by Mail Only – \$50 Incentive)

Stratum	Area Type Density	Letters Sent	Percent Delivered	Eligible HHs	Recruited HHs	Percent Recruited	Retrieved HHs	Percent Retrieved	Overall Response
1 - DC	High	9,960	87%	8,703	686	8%	579	84%	7%
2 - Montgomery	Low	1,290	93%	1,198	111	9%	97	87%	8%
3 - Montgomery	High	3,483	89%	3,087	271	9%	225	83%	7%
4 - Prince George's	Low	2,416	90%	2,170	105	5%	88	84%	4%
5 - Prince George's	High	10,579	85%	9,006	441	5%	332	75%	4%
6 - Arlington	High	3,217	85%	2,736	232	8%	204	88%	7%
7 - Alexandria	High	2,359	82%	1,942	175	9%	149	85%	8%
8 - Fairfax	Low	1,997	91%	1,826	152	8%	139	91%	8%
9 - Fairfax	High	3,788	87%	3,287	251	8%	220	88%	7%
10- Loudoun	Low	1,331	90%	1,201	96	8%	86	90%	7%
11- Loudoun	High	379	83%	314	16	5%	14	88%	4%
12- Prince William	Low	2,029	88%	1,794	100	6%	80	80%	4%
13 - Prince William	High	1,757	80%	1,414	50	4%	42	84%	3%
14 - Frederick	Low	723	94%	682	45	7%	40	89%	6%
15 - Frederick	High	863	88%	757	43	6%	38	88%	5%
16 - Howard	Low	2,174	94%	2,052	122	6%	110	90%	5%
17 - Anne Arundel	Low	3,204	94%	3,015	140	5%	127	91%	4%
18 - Anne Arundel	High	941	93%	875	41	5%	33	80%	4%
19 - Charles	Low	925	91%	845	46	5%	38	83%	4%
20 - Charles	High	416	91%	380	20	5%	14	70%	4%
21 - Carroll	Low	1,576	91%	1,440	87	6%	74	85%	5%
22 - Calvert	Low	334	91%	305	22	7%	20	91%	7%
23 - St Mary's	Low	397	83%	330	29	9%	26	90%	8%
24 - King George	Low	193	89%	171	6	4%	5	83%	3%
25 - Fredericksburg	High	440	81%	357	20	6%	15	75%	4%
26 - Stafford	Low	693	89%	620	49	8%	35	71%	6%
27 - Spotsylvania	Low	457	92%	419	22	5%	20	91%	5%
28 - Fauquier	Low	493	89%	440	28	6%	23	82%	5%
29 - Clarke	Low	282	94%	265	10	4%	10	100%	4%
30 - Jefferson	Low	662	87%	574	44	8%	40	91%	7%
40 - Columbia Pike	High	622	82%	507	47	9%	40	85%	8%
41 - Rosslyn-Ballston	High	206	90%	185	24	13%	23	96%	12%
42 - Shirlington	High	113	87%	98	7	7%	7	100%	7%
<b>Total</b>		<b>60,299</b>	<b>88%</b>	<b>52,996</b>	<b>3,538</b>	<b>7%</b>	<b>2,993</b>	<b>85%</b>	<b>6%</b>

**Table 4**

**Survey Response Rates for Sample Type 23 Households**  
(Known Phone Number – Initial Recruitment by Mail Only – \$50 Incentive)

Stratum	Area Type Density	Letters Sent	Percent Delivered	Eligible HHs	Recruited HHs	Percent Recruited	Retrieved HHs	Percent Retrieved	Overall Response
1 - DC	High	405	96%	389	45	12%	42	93%	11%
2 - Montgomery	Low	148	97%	144	13	9%	10	77%	7%
3 - Montgomery	High	269	98%	264	36	14%	32	89%	12%
4 - Prince George's	Low	177	95%	168	22	13%	19	86%	11%
5 - Prince George's	High	488	95%	465	48	10%	35	73%	8%
6 – Arlington	High	136	95%	129	25	19%	21	84%	16%
7 - Alexandria	High	111	92%	102	10	10%	9	90%	9%
8 – Fairfax	Low	240	99%	237	28	12%	25	89%	11%
9 – Fairfax	High	240	95%	228	25	11%	23	92%	10%
10- Loudoun	Low	116	97%	113	9	8%	9	100%	8%
11- Loudoun	High	22	91%	20	1	5%	1	100%	5%
12- Prince William	Low	160	96%	153	10	7%	9	90%	6%
13 - Prince William	High	114	95%	108	9	8%	7	78%	6%
14 - Frederick	Low	92	98%	90	3	3%	2	67%	2%
15 - Frederick	High	54	98%	53	5	9%	4	80%	8%
16 – Howard	Low	17	100%	17	3	18%	3	100%	18%
17 - Anne Arundel	Low	20	90%	18	1	6%	1	100%	6%
18 - Anne Arundel	High	8	100%	8	0	0%	0	---	0%
19 – Charles	Low	82	100%	82	9	11%	7	78%	9%
20 – Charles	High	26	100%	26	1	4%	0	0%	0%
21 – Carroll	Low	11	100%	11	0	0%	0	----	0%
22 – Calvert	Low	38	100%	38	4	11%	4	100%	11%
23 - St Mary's	Low	32	97%	31	3	10%	3	100%	10%
24 - King George	Low	18	94%	17	1	6%	1	100%	6%
25 - Fredericksburg	High	18	94%	17	1	6%	0	0%	0%
26 – Stafford	Low	61	98%	60	9	15%	9	100%	15%
27 - Spotsylvania	Low	45	96%	43	1	2%	0	0%	0%
28 - Fauquier	Low	49	98%	48	2	4%	2	100%	4%
29 – Clarke	Low	26	92%	24	0	0%	0	---	0%
30 - Jefferson	Low	26	100%	26	1	4%	1	100%	4%
40 - Columbia Pike	High	22	82%	18	3	17%	3	100%	17%
41 - Rosslyn-Ballston	High	5	100%	5	0	0%	0	---	0%
42 - Shirlington	High	1	100%	1	1	100%	1	100%	100%
<b>Total</b>		<b>3,277</b>	<b>96%</b>	<b>3,153</b>	<b>329</b>	<b>10%</b>	<b>283</b>	<b>86%</b>	<b>9%</b>

**Table 5**

**Survey Response Rates for Sample Type 24 Households**  
(MDOT GPS Add-On, Initial Recruitment by Mail & Phone, No \$ Incentive)

Stratum	Area Type Density	Letters Sent	Percent Delivered	Eligible HHs	Recruited HHs	Percent Recruited	Retrieved HHs	Percent Retrieved	Overall Response
2 - Montgomery	Low	906	98%	889	73	8%	54	74%	6%
3 - Montgomery	High	1,781	97%	1,729	162	9%	121	75%	7%
4 - Prince George's	Low	726	98%	710	49	7%	31	63%	4%
5 - Prince George's	High	2,134	96%	2,042	165	8%	120	73%	6%
14 - Frederick	Low	377	98%	371	21	6%	18	86%	5%
15 - Frederick	High	276	97%	269	16	6%	13	81%	5%
19 - Charles	Low	568	97%	553	42	8%	28	67%	5%
20 - Charles	High	177	97%	172	6	3%	5	83%	3%
Total		6,945	97%	6,735	534	8%	390	73%	6%

Table 4 shows the response rate for Sample Type 23 households. This sample type consisted of households with addresses that could be matched to a known telephone number, but the initial recruitment of these household was only by mail. These households were also offered a \$50 incentive to participate in the survey. This sample type was created to examine the effects of initially recruiting households with a known telephone by mail only and offering them a \$50 monetary incentive to participate. The percent delivered for Sample Type 23 Households is very close to that of Sample Type 21 Households (96% v. 97%). The percent recruited was less than that of the Sample Type 21 Households (10% v. 14%), but higher than the Sample Type 22 Households (10% v. 7%). The percent retrieved was about the same as the Sample Type 22 Households (86% v. 85%). Overall, the response rate for the Sample Type 23 Households was slightly less than for Sample Type 21 Households (9% v. 10%). The conclusion from the analysis of Sample Type 23 Households is that it is more effective to recruit households with known telephone numbers by phone rather than by mail only with an incentive.

Table 5 shows the response rate for Sample Type 24 households. This sample type was created in the second quarter of the survey to handle a special MDOT GPS add-on component. Because of the need to collect the Sample Type 24 in a limited time frame, the GPS subsample for this sample type was drawn from 53 selected postal carrier routes spread across Frederick, Montgomery, Prince George's, and Charles Counties. The samples drawn for this sample type were households with known telephone numbers. Household in this sample type were mostly recruited by telephone and were not offered a monetary incentive. The percent delivered for this sample type was about the same as for the Sample Type 21 and Sample Type 23 Households, but the percent recruited was similar to the Sample Type 22 Households. The reason for the lower percent recruitment and percent retrieval for this sample type was primarily because of the need to complete the MDOT GPS add-on component quickly and the limited amount of time to fully work the household recruitment and retrieval interviewing protocols before the end of the

second quarter and the fact that the required number of households agreeing to participate in the MDOT GPS add-on had been reached.

### *Demographic Characteristics of Survey Respondents by Sample Type*

Although overall response rates for all sample types were much lower than desirable and lower than in previous TPB household travel surveys, the survey coverage in terms of reaching a representative sample of all persons living in the TPB modeled region appears to be much better. The results of previous surveys showed an under-representation of persons living in multi-family housing units, zero-car households and households in the lowest income quartile compared to decennial Census data. Comparison of the demographic characteristics of 2007/2008 TPB Household Travel Survey respondents with similar data obtained from respondents to Census Bureau's American Communities Survey (ACS) for a similar time period and geography shows a much closer agreement between the TPB and Census surveys, although the ACS data still show slightly greater percentages of persons living in multi-family housing units, zero-car households and households in the lowest income quartile than in the TPB survey.

Table 6 shows that stratifying the 2007/2008 TPB Household Travel Survey by Area and Sample Type appears to have resulted in better coverage of many demographic groups that may have been under-represented in prior TPB travel survey. The data presented in Table 6 shows that persons residing in households not having published telephone numbers, including cell-only households and other households without an active landline telephone, were more likely to be a single person household, live in a multi-family housing unit, to be renter, to be in the 25 to 34 age group, to have a household income of less than \$50,000 per year, not have a household vehicle available to them, and to make more of their daily trips by transit. The differences in demographic characteristics were more pronounced in higher-density mixed-used area type strata. The percentage of daily trips by persons 16 and older by persons in Sample Type 22 households in the higher density areas were also 4 percentage points greater than in Sample Type 21 households in these areas. There were fewer differences in household income, vehicle availability, daily transit use and daily walk trips between Sample Type 21 and Sample Type 22 households in lower-density primarily residential areas. There were too few completed Sample Type 23 and Sample Type 24 households in each area type for a meaningful comparison of the demographic characteristics of the persons living in these household sample types with those of persons living in Sample Type 21 and Sample Type 22 households.

### *Survey Response by Jurisdiction*

The number of completed household travel surveys compared to the target number of samples in each of the survey strata is shown in Table 7. In all but one of the survey strata 95% percent of the target number of samples were completed and overall, the total number of completed samples exceed the target number of samples by 4%.

**Table 6****Demographic Characteristics of Survey Respondents  
By Area Type and Sample Type**

Demographic Characteristic	Higher Density Area Types		Lower Density Area Types	
	Sample Type 21	Sample Type 22	Sample Type 21	Sample Type 22
% Living in Multi-Family Housing Unit	25%	63%	5%	21%
% Renters	18%	54%	7%	24%
% Single Person Households	35%	46%	18%	24%
% Cell Phone Only	1%	38%	1%	26%
% Persons Ages 25 to 34	8%	27%	7%	18%
% Household Income < \$50K	23%	38%	16%	17%
% Zero Vehicle Households	9%	18%	1%	1%
% Daily Trips by Transit by Persons 16+	9%	15%	3%	4%
% Daily Trips by Walking by Persons 16+	12%	15%	3%	3%
% Daily Trips by Bicycle by Persons 16+	1%	0.5%	0.1%	0.1%

**Table 7****Number of Completed Household Compared to Target Number of Samples**

Stratum	Jurisdiction	Area Density Type	Target Samples	Completed Samples	% of Target
1	District of Columbia	High	1,600	1,658	104%
2	Montgomery County, MD	Low	500	508	102%
3	Montgomery County, MD	High	1,000	1,077	108%
4	Prince George's County, MD	Low	400	417	104%
5	Prince George's County, MD	High	1,100	1,065	97%
6	Arlington County, VA	High	600	606	101%
7	Alexandria City, VA	High	400	414	104%
8	Fairfax County/Cities, VA	Low	700	739	106%
9	Fairfax County/Cities, VA	High	800	788	99%
10	Loudoun County, VA	Low	300	329	110%
11	Loudoun County, VA	High	52	54	104%
12	Prince William County/Cities, VA	Low	348	341	98%
13	Prince William County/Cities, VA	High	148	167	113%
14	Frederick County/City, MD	Low	200	227	114%
15	Frederick County/City, MD	High	152	146	96%
16	Howard County, MD	Low	500	540	108%

Stratum	Jurisdiction	Area Density Type	Target Samples	Completed Samples	% of Target
17	Anne Arundel County, MD	Low	525	598	114%
18	Anne Arundel County, MD	High	175	166	95%
19	Charles County, MD	Low	172	182	106%
20	Charles County, MD	High	28	49	175%
21	Carroll County, MD	Low	400	421	105%
22	Calvert County, MD	Low	100	104	104%
23	St. Mary's County, MD	Low	100	109	109%
24	King George County, VA	Low	52	56	108%
25	Fredericksburg City, VA	High	48	46	96%
26	Stafford County, VA	Low	152	160	105%
27	Spotsylvania County, VA	Low	100	102	102%
28	Fauquier County, VA	Low	100	91	91%
29	Clarke County, VA	Low	48	56	117%
30	Jefferson County, WV	Low	100	113	113%
40	Arlington+ (Columbia Pike)	High	60	97	162%
41	Arlington+ (Rosslyn-Ballston)	High	30	36	120%
42	Arlington+ (Shirlington)	High	10	10	100%
	Total		11,000	11,472	104%

### **3.0 Survey Processing**

#### *Survey Geocoding*

Geocoding of the survey data to Transportation Analysis Zones (TAZs) is an essential household travel survey task. Because of the development of new smaller TAZs for the TPB modeled area that was occurring concurrently with the household travel survey interviewing, the decision was made to geocode every reported trip end to an X,Y coordinate. Geocoding reported trip ends to X,Y coordinates allows for maximum flexibility in attaching any zonal system to the household travel survey data in the future. Geocoding of the survey data to X,Y coordinates occurred on a continuous basis throughout the entire survey. This was done to reduce the amount of time required for geocoding in post-data collection processing phase of the survey.

At the beginning of each survey quarter, COG/TPB staff would geocode home addresses of the residential address sample drawn for the survey interviewing and return the geocoded sample to NuStats at the start of the recruitment interviewing. During the recruitment interviewing, additional information on the geographic location of the household, such as subdivision name, was obtained for sampled addresses that could not be geocoded from the address information in the quarterly address sample. Of the addresses not geocoded, the majority were in areas of new housing developments where the streets had not yet been entered into standard street address files.

For the locations of places other than home reported by respondents during the travel diary retrieval interviews, the survey contractor made periodic deliveries of location files



for geocoding. COG/TPB staff made all efforts to geocode the places recorded in these location files as completely as possible. Any home addresses that were not geocoded at the beginning of the quarter were also included in these deliveries for a geocoding reattempt. All geocoded addresses and place locations were returned to the survey contractor with match code flags and X,Y coordinates.

At the beginning of the survey, COG/TPB staff used TIGER/line files in ArcGIS shape file formats and the autocoding tool in ArcToolbox of the ESRI ArcMap software. Approximately halfway through the survey, COG/TPB licensed a copy of the NAVTEQ database for streets throughout the region (and beyond). While the TIGER files have greatly improved in recent years, the NAVTEQ was superior, particularly for its inclusion of newly built streets and better address range coverage.

By the end of the survey, nearly 200,000 location records had been geocoded. These geocoded records included nearly the entire residential address sample and almost all work, school and other places visited by survey respondents on their travel days. About 97% of all the records in the location file received from the survey contractor could be geocoded to X,Y coordinates.

The geographic location of households, trip origins and trip destination were geocoded to both the current TPB 2191-TAZ and the new 3722-TAZ area system. At the request of local jurisdiction planning staff, the geographic location of households, trip origins and trip destination were also geocoded to 2000 Census Tracts, however, users of these data at the Census Tract level need to be aware of some slight consistency issues with the 2000 Census Tract geocodes, the TAZ geocodes and the assigned State and County FIPS codes (described below).

The geocoding of the survey data to the TPB 2191-TAZ and 3722-TAZ area systems was primarily performed using the NAVTEQ street centerline data for the TPB modeled area. The assignment of State and County FIPS codes was based on the State and County of the TPB 3722-TAZ to which the survey recorded was geocoded. Census Bureau TIGER line files were used to append 2000 Census Tract geocodes to the survey records. Because the boundaries of TPB TAZs are not based on Census Tract or Block geography (they are based on physical features that define local jurisdiction residential and commercial planning areas instead) and because the Census Tiger Line files do not perfectly line up with the NAVTEQ street centerline data, there may be some left side/right side of the street boundary issues that results in some Census Tract geocodes that are inconsistent with the State and County FIPS codes that were assigned using the State and County location of the TPB TAZ. This is particularly the case for the border areas between Maryland and the District of Columbia along Western, Eastern, and Southern Avenues.

#### *Data Checking and Editing*

Once the data collection was complete and the survey household, vehicle, person, and trip data files were received from the survey contractor, COG/TPB staff began the review,

checking and additional editing of the survey data. Because of the edit and logic checks run by NuStats before the delivery of the data, very few glaring inconsistencies were found in any of the survey data files. The standard data checks run by NuStats included checks for missing or out of scope data and identifying and resolving inconsistent data. Most of the data issues found by COG/TPB staff after the delivery of the survey data were the result of ambiguous survey questions or survey interviewer misinterpretation of information provided by the survey respondents. The biggest problem found was the failure of many survey respondents to report all modes of access and mode egress of trips involving various transit vehicles, especially Metrorail.

### *Geocoding Checks*

The first edit check was to review the geocoding of the household home addresses to determine if the household was in fact located inside the TPB modeled area. Because of the size of some of the postal carrier routes at the fringes of the TPB modeled area, some of the surveyed households were found to be located outside the modeled area and thus excluded from the final geocoded household file. This was a particular issue in Spotsylvania County where only the northern half of the county is inside the TPB modeled area. Person, vehicle, and trip records relating to these out of modeled area households were also respectively deleted from the survey person, vehicle and trip files.

The next geocoding check was to examine all the trip ends in the survey trip file that had been assigned a '99999' outside the region code to verify that the location of the trip end was in fact in an external area outside of the modeled area. Trips by respondents who reported that they only traveled between external areas outside the TPB modeled area for their entire travel day were deleted from the survey trip file after this verification process.

Another geocoding task performed after delivery of the survey data files was to resolve and geocode the approximately 3% of the reported trip ends that had not been geocoded to an X,Y coordinate. Many of these non-geocoded trip ends were resolved by finding another household member who went to the same place and provided more information on the location of this place. In other instances, having the previous origin and the next destination of the trip end with the missing geocode made it possible to determine the likely location of the place where a respondent had gone. Ultimately all trip ends were coded to X,Y coordinates.

### *No Travel on Travel Survey Day Check*

About 11% of all person interviewed reported that they did not make a trip on their travel survey day. In terms of households, about 6% reported that they did not make any trips on their travel day. These rates are within the range found in other household travel surveys. Analysis of the reasons given by survey respondents for no travel on their assigned travel day showed that about two-thirds of these respondents stated that they were doing work at home (for pay or no pay), personally sick or taking care of a sick family member, a home-bound elder or disabled. Further, more than half of the respondents reporting no trips on their travel day were found to be retired, disabled, stay

at-home homemakers, unemployed, or students. Thus, the percentage of households and persons reporting no travel on their assigned travel day was found to be reasonable and consistent with characteristics of households and person having low daily mobility.

### *Modal Edits*

In performing modal edits COG/TPB staff reviewed all reported public transportation trips to ensure that were correctly coded to their correct type of transit vehicle. All commuter rail and commuter bus trips were checked to make sure they were not really Metrorail or local bus trips or vice versa. For example, all trip records for survey respondents reporting use of commuter rail were checked to see that these respondents reported boarding and alighting their commuter rail train at verifiable commuter rail stations as opposed to a Metrorail station or some other transit stop. Similarly, trip records of respondents reporting use of Metrorail were checked to see that these reported trips began and ended at verifiable Metrorail stations. Trips records of respondents reporting use of commuter and local buses were checked to see that properly coded bus stops were coded on both ends of their trip. Incorrectly coded transit modes were corrected as required.

The modal edits also checked all reported public transportation trips to ensure that they included properly coded access and egress modes to the transit vehicle used. It was found that many Metrorail trips had missing modes of access or egress mode. For example, a respondent may have reported a walk trip from home to the Capitol South Metrorail station, a change of mode (from walk to Metrorail) trip purpose at the Capitol South station and then a trip to work at the Pentagon. This respondent inadvertently left out the change of mode (from Metrorail to walk) and the walk egress from the Pentagon Metrorail station to the Pentagon. To correct this omission the unlinked survey trip records for this respondent were edited to report a Metrorail trip from the Capitol South Metrorail Station to the Pentagon Metrorail station, a change of mode trip purpose at the Pentagon Metrorail Station and walk egress trip from the Pentagon Metrorail station to the Pentagon. This was done so that when the trip linking program was run for this respondent, the unlinked trip sequence would become a linked home to work Metrorail trip from a Capitol Hill residence to the Pentagon with a walk mode of access and walk mode of egress to Metrorail. Many such missing modes of access and egress trips to transit were added to the unlinked survey trip file to ensure that all legs of trips by transit were properly coded.

Other travel modes checked for reasonableness and for proper coding of their reported unlinked trip sequence included MetroAccess, shuttle bus, light rail, inter-city rail, inter-city bus, taxi, school bus motorcycle, heavy truck, and airplane.

### *Speed/Distance Checks*

Once the geocoding and modal checks were complete, speed and distance checks were performed. Vehicular trips with speeds greater than 90 miles per hour were reviewed for possible data errors. In some cases, a geocoding error was the reason for the unreasonably

high speed. In other instances, the geocoded trip origins and destinations were found to be correctly coded, but the reported departure and arrival times did not appear to be reasonable. Geocoding errors were fixed, but questionable departure and arrival times were left unchanged because it was not clear which of the two times should be corrected.

Speed and distance checks were also done for reported non-motorized bike and walk trips. Reported walk trips with distances greater than 3 miles and/or calculated travel speeds greater than 6 miles per hour were reviewed for potential geocoding errors or other trip coding problems. Reported bike trips with distances greater than 17 miles or and/or calculated travel speeds greater than 15 miles per hour were reviewed for potential geocoding errors or other trip coding problems. Reported bike trips with distances less than 0.4 miles were also checked. Again geocoding and misreported times accounted for the vast majority of problems identified, but a few incorrectly coded travel modes were also found. Geocoding and travel mode code errors were corrected, but questionable departure and arrival times were left unchanged.

#### *Households that Moved*

One data issue that surfaced in the speed/distance check was a surprising number of households with unreasonably high speeds for trips to and from home. Speeds for other trips by the members of these households appeared reasonable, but almost all trips to and from home appeared to be significantly off. It was as if the home address information for these households was incorrect. Investigation of the survey interviewing logs showed that the mailing addresses for these households were, in fact, different from the home addresses in the location file. Further checking showed that the mailing addresses for these households were usually very consistent with other trips made by the members of these households. It was at this point that it was realized that these households were not living at the residential address intended to be surveyed, but rather were living at a new address they had moved to before the start of the effort to recruit their participation into the survey. It became clear that the introductory advance letter had been forwarded to the respondent at their new address. It was found that about 5% of the households participating in the survey had home mailing addresses that were different from the sampled address for that household.

It was decided as a practical matter to update the home address locations for these households who had “moved” and to respectively assign their completed household travel survey data to the strata where these households were now living.

#### *Quick Stop/Trip Purpose Consistency Problem*

One of the trip purposes provided as a response choice in the travel diary activity list was a “*quick stop/drive thru*” option for activities such as getting coffee, fast food, gas or visiting an ATM, etc. This response choice created a problem for trip linking purposes because stops at a gas station needed to be separately identified from other types of quick stops for trip linking purposes. Further, it was discovered that some respondents had reported “*quick stop/drive thru*” in excess of 30 minutes. This created a consistency

problem with the coding of trip purposes because some stops at coffee shops and fast food restaurants with equivalent durations of time were coded as “*quick stop/drive thru*” and others were coded as “*eat a meal outside home or work*”. Consequently, all reported quick stop trips were reviewed. Reported quick stops at gas stations and other types of establishments were separately identified and assigned special quick stop sub-types codes for trip linking and trip purpose coding. This was done to ensure consistency with the trip linking and trip coding procedures used in the 1994 Household Travel Survey.

#### *Pick-Up/Drop-off Someone or Something Problem*

Another response choice problem in the travel diary activity list was the “*pick-up/drop-off someone or something*” option. Similar to the “*quick stop/drive thru*” problem, a review of the locations and names of the places reported by respondents choosing the “*pick-up/drop-off someone or something*” option identified a consistency problem with the coding of trip purposes. Many of the stops reported for this selected option were the drop-offs and pick up of children at schools, bus stops, recreational facilities and private residences. Others were stops at dry cleaners, drug stores, post offices, video rental stores, groceries stores, libraries, banks, doctor’s offices, fast food restaurants, auto repair shops and a variety of other retail or personal business establishments.

It was necessary for trip linking purposes to separate out auto “*pick-up/drop-off someone*” vehicle stops from non-auto “*pick-up/drop-off someone*” stops and from “*pick-up/drop-off something*” stops. It was also necessary to recode the “*pick-up/drop-off something*” stops to more specific quick stop activity sub-types such as “*shop at a store*”, “*personal business at an establishment*”, “*eat a meal outside of home or work*” for trip coding purposes. “*Pick-up/drop-off someone*” stops for auto trips were identified by examining the change in vehicle occupancy after the “*pick up/drop-off*” stop. Non-auto “*pick-up/drop-off someone*” stops, mostly parents walking their young children to and from the bus stop or to or from school, and “*pick-up/drop-off something*” stops were identified by examining the reported names of the places and locations of these stops. This re-coding of “*pick-up/drop-off someone or something*” stops was done to be consistent with the trip purpose coding and trip linking procedures used in the 1994 Household Travel Survey.

#### *Loops Trip Check*

Loop trips are defined as trips that begin and end at the exact same location with no intermediate stops. Examples of loop trips include someone walking their dog or taking a walk, a jog or bike ride for exercise or pleasure. Most loop trips begin and end at home, but not all. A lunch time walk or jog that starts and ends at a person’s place of employment would also be considered a loop trip.

An edit check was made to verify that all reported loops began and ended at the same location. A few reported loop trips that began and ended at different location were identified and assigned a correct trip purpose code based on the activities reported for the prior origin or next destination of the misreported loop trip.

### *Trip Linking Procedures*

Computer programs were written to convert the responses for the places visited, the activities at each place, and the travel modes used, which were collected in the retrieval interviews, to unlinked trip legs and linked trip records. Unlinked trip legs are defined as one-way travel to any place by a single mode of transportation. Linked trip records are trips between an origin and a destination for a single, primary trip purpose. Because a trip made for a single primary purpose can involve one or more changes in travel mode and/or include one or more incidental stops between the primary trip origin and destination, multiple unlinked legs of a trip made for a single purpose must be linked together and summarized into a single linked trip record for travel modeling and analysis purposes. Thus, the unlinked legs of reported single purpose trips that involved one or more “*change of mode(s)*”, or involved incidental “*pick-up/drop-off someone*” stops or were incidental stops at gas stations between primary trip origins and destinations had to be linked together and summarized into a single linked trip record. The following examples illustrate how places, activities, and travel modes reported by survey respondents were converted into unlinked trip legs and single-purpose linked trip records.

Example 1: A commute trip from a home in Greenbelt, MD to a workplace near 17th & T St NW in the District of Columbia that involved: (1) an auto drive alone trip leg to the Greenbelt Metrorail station, (2) a Metrorail trip leg from the Greenbelt Metrorail station to the U Street Metrorail station, (3) a walk trip leg from the U Street Metrorail station to a bus stop at 13th & U St NW, (4) a bus trip leg from the bus stop at 13th & U St NW to a bus stop at 17th & U St NW and (5) a walk trip leg from the bus stop at 17th & U St NW to a workplace near 17th & T St NW would be reported as six sequential activities at six places in the travel diary and the CATI data retrieval interview.

Example 1: Reported Places Visited, Travel Modes and Activities:

Person Number	Place Number	Place	Mode of Travel used to get to this Place	Main Activity at this Place
01	01	My Home		Sleep/Rest
01	02	Metrorail Station	Auto Driver	Change of Mode
01	03	Metrorail Station	Metrorail	Change of Mode
01	04	Bus Stop	Walk	Change of Mode
01	05	Bus Stop	Local Bus	Change of Mode
01	06	My Workplace	Walk	Work

The first step in the trip linking process would convert these reported places, travel modes and activities into five unlinked trip legs as follows:

Example 1: Unlinked Trip Legs

Person Number	Trip Number	Trip Origin	Origin Purpose	Travel Mode	Trip Destination	Destination Purpose
01	01	Home in Greenbelt, MD	HOME	Auto Driver	Greenbelt Metrorail Station	CHANGE OF MODE
01	02	Greenbelt Metrorail Station	CHANGE OF MODE	Metrorail	U St Metrorail Station	CHANGE OF MODE
01	03	U St Metrorail Station	CHANGE OF MODE	Walk	Bus Stop @ 13th& U St NW	CHANGE OF MODE
01	04	Bus Stop @ 13th& U St NW	CHANGE OF MODE	Local Bus	Bus Stop @ 17th & U St NW	CHANGE OF MODE
01	05	Bus Stop @ 17th & U St NW	CHANGE OF MODE	Walk	Workplace @ 17th & T St NW	WORK

Then, in the final step of the trip linking process, the five unlinked trip legs illustrated above would be summarized into a single linked HOME to WORK transit trip from Greenbelt, MD to 17<sup>th</sup> & U St NW in Washington, DC with an auto driver mode of access and a bus mode of egress.

Example 1: Linked Trip

Person Number	Trip Number	Trip Origin	Origin Purpose	PRIMARY TRAVEL MODE/ Detailed Travel Mode	Trip Destination	Destination Purpose
01	01	Home in Greenbelt, MD	HOME	TRANSIT/ Metrorail	Workplace @ 17th & T Ss NW	WORK

Example 1: Mode of Access and Egress for Linked Transit Trip

Person Number	Trip Number	Mode of Access	Mode of Egress
01	01	Auto Driver	Local Bus

Example 2: A mother on her commute to work drops off her child at school.

Example 2: Mother's Reported Places Visited, Travel Modes and Activities:

Person Number	Place Number	Place	Mode of Travel used to get to this Place	Main Activity at this Place
01	01	My Home		Sleep/Rest
01	02	Another Place	Auto Driver	Pick up/Drop Off
01	03	My Workplace	Auto Driver	Work

Example 2: Child's Reported Places Visited, Travel Modes and Activities:

Person Number	Place Number	Place	Mode of Travel used to get to this Place	Main Activity at this Place
03	01	My Home		Sleep/Rest
03	02	My School	Auto Passenger	Education /School-related

Example 2: Mother's Unlinked Trip Legs

Person Number	Trip Number	Trip Origin	Origin Purpose	Travel Mode	Trip Destination	Destination Purpose
01	01	Home in Fairfax, VA	HOME	Auto Driver	Fairfax Elementary School	DROP-OFF SOMEONE
01	02	Fairfax Elementary School	DROP-OFF SOMEONE	Auto Driver	Workplace in Alexandria, VA	WORK

Example 2: Child's Unlinked Trip Legs

Person Number	Trip Number	Trip Origin	Origin Purpose	Travel Mode	Trip Destination	Destination Purpose
03	01	Home in Fairfax, VA	HOME	Auto Driver	Fairfax Elementary School	SCHOOL

Example 2: Mother's Linked Trip

Person Number	Trip Number	Trip Origin	Origin Purpose	PRIMARY TRAVEL MODE/ Detailed Travel Mode	Trip Destination	Destination Purpose
01	01	Home in Fairfax, VA	HOME	AUTO DRIVER/ Auto Driver	Workplace in Alexandria, VA	WORK

Example 2: Child's Linked Trip

Person Number	Trip Number	Trip Origin	Origin Purpose	PRIMARY TRAVEL MODE/ Detailed Travel Mode	Trip Destination	Destination Purpose
03	01	Home in Fairfax, VA	HOME	AUTO PASSENGER/ Auto Passenger	Fairfax Elementary School	SCHOOL



Similar to as shown in Example 2, unlinked carpool pick-up and drop-off trip legs and pick-up and drop-offs at bus stops and most other transit stop locations were also summarized into single-purpose linked trips. Additionally, verified loop trips and incidental trips to and from a “gas station” made as a stop on the way to other destinations were linked out of the final survey trip file. These trip linking procedures were the same ones as used to process the 1994 TPB Household Travel Survey.

While the trip linking procedures summarized unlinked “change of means” and “drop-off” trip legs into single-purpose linked trips, there were a few notable exceptions. If the sole purpose of the trip was to transport an individual between home and another location, then that “served passenger” trip was not trip linked. For example, a trip to “drop my son off at soccer practice” and immediately back home was not linked into a single-purpose home-to-home trip, but rather categorized as two linked trips (a home-to-drop off/pick up trip and a drop off/pick up-to-home trip.) However, if another stop was made on the trip between home and soccer practice, such as an intermediate trip to the grocery store, then the drop-off at soccer practice trip was linked out of the trip file and the three unlinked trips in this example are reduced to two linked trips (one home-to-shop trip and one shop-to-home trip.) Pick-up and drop-off trips from one location to a transit stop and directly back to the same starting location and trips from a location to the gas station and directly back to the same location were also categorized as two linked trips.

Example 3: A father leaves home, picks up his son at soccer practice and returns directly home. Example 3 is an example of a “served passenger” trip.

Example 3: Father’s Reported Places Visited, Travel Modes and Activities:

Person Number	Place Number	Place	Mode of Travel used to get to this Place	Main Activity at this Place
01	05	My Home		Other Household Activity
01	06	Another Place	Auto Driver	Pick up/Drop Off
01	07	My Home	Auto Driver	Other Household Activity

Example 3: Father’s Unlinked Trip Legs

Person Number	Trip Number	Trip Origin	Origin Purpose	Travel Mode	Trip Destination	Destination Purpose
01	05	Home in Frederick, MD	HOME	Auto Driver	Frederick Sports Center	PICK-UP SOMEONE
01	06	Frederick Sports Center	PICK-UP SOMEONE	Auto Driver	Home in Frederick, MD	HOME

Example 3: Father’s Linked Trip

Person Number	Trip Number	Trip Origin	Origin Purpose	PRIMARY TRAVEL MODE/ Detailed Travel Mode	Trip Destination	Destination Purpose
01	05	Home in Frederick, MD	HOME	AUTO DRIVER/ Auto Driver	Frederick Sports Center	DROP OFF/ PICK-UP
01	06	Frederick Sports Center	DROP OFF/PICK-UP	AUTO DRIVER/ Auto Driver	Home in Frederick, MD	HOME

### *Trip Linking Hierarchy*

The computer program written to convert unlinked trip legs into single-purpose linked trips used the following hierarchy to assign the primary mode of travel for the linked trip and the secondary modes of access and egress for linked transit trips:

1. Metrorail
2. Commuter Rail
3. Light Rail
4. Commuter Bus
5. Local Bus
6. School Bus
7. MetroAccess/DAR
8. Shuttle Bus
9. Taxi
10. Auto Passenger
11. Auto Driver
12. Heavy Truck
13. Motorcycle
14. Bike
15. Other
16. Walk

In this hierarchy of modes, a trip that included use of Metrorail in any leg of a sequence of unlinked “change of mode” trip legs was assigned a primary mode code of “Metrorail”. Thus, a reported trip with a sequence of unlinked “change of mode” trip legs that began with an “Auto Driver” trip to “Commuter Rail” and was then followed by a change of mode from “Commuter Rail” to “Metrorail” and then by a change of mode from “Metrorail” to “Local Bus” and then by a change of mode from “Local Bus” to “Walk” would be assigned a primary mode code of “Metrorail”, a mode of access code of “Commuter Rail” and a mode of egress code of “Local Bus”. The resultant coding of the primary mode for this linked trip is “Metrorail” because “Metrorail” is higher on hierarchy of modes than either “Commuter Rail” or “Auto Driver”. Similarly, the resultant coding of the mode of access for this linked trip is “Commuter Rail” because “Commuter Rail” is higher than “Auto Driver” on this hierarchy. The resultant coding of the mode of egress for this linked trip is “Local Bus” because “Local Bus” is higher on the hierarchy than “Walk”.

The distribution of some types of daily trips by primary mode of travel that results from the above trip linking hierarchy is going to be different from other surveys that use a different method for assigning primary modes to multi-modal trips. For example, the Journey to Work question on the Census Bureau’s American Communities Survey (ACS) asks respondents to report the mode of travel used for the longest distance of their commute as their primary mode. Thus, the primary mode of a commuter who carools from a park-and-ride lot in Prince William County to the Pentagon and then transfers to Metrorail to travel to his or her job at L’Enfant Plaza would be “Carpool” under the ACS

methodology, but would be coded as a transit commuter with a detailed travel mode of “Metrorail” under the 2007/2008 TPB Household Travel Survey trip linking hierarchy. In general, the 2007/2008 TPB Household Travel Survey shows a greater percentage of daily commuters traveling to work by transit and a lower percentage by carpool compared to the ACS. The reason for some of this difference is because of the different procedures used in assigning primary travel modes to multi-modal trips in these two surveys.

#### *Home Trip Purpose Category*

Any reported trip that began at the home address of the surveyed household was assigned an origin trip purpose of “HOME” and any trip that ended at the home address of the surveyed household was assigned a destination trip purpose of “HOME” Respectively, reported origin and destination activities for trips assigned origin or destination trip purposes of “HOME” were reviewed for consistency of activities that would be performed at home. This review resulted in the recoding of a few reported inconsistent activities (eg. “eat a meal outside home or work”, “shop in a store”, etc) to the “other household activity” category.

#### *Work Trip Purpose Category*

In all but a few cases, any reported trip that began at the regular work address or the other work location of an employed household member was assigned an origin trip purpose of “WORK”. Similarly, in all but a few cases, any reported trip that ended at the regular work address or the other work location of an employed household member was assigned a destination trip purpose of “WORK”. Respectively, reported origin and destination activities for trips initially assigned origin or destination trip purposes of “WORK” were reviewed for consistency of activities that would be performed at a work location. This review resulted in the recoding of a few reported trips to or from work locations to the “SHOP”, “OTHER” or “PARKING POINT” trip purpose categories. Most of these recoding were for trips where the respondent drove to and parked at their regular workplace but did not work at that location on their travel survey day. An example of this type of trip recoding is a case where the respondent reported driving to their parking garage at their regular place of employment, but then walked to a retail store, their doctor’s office or a sporting event rather than going to work at their workplace.

#### *Shop Trip Purpose Category*

Almost all trips with reported origin or destination activities of “shop in a store” were respectively assigned an origin or destination purpose of “SHOP”. The locations and names of the places for reported trips with an origin or destination activity of “eat a meal outside home or work” were reviewed to determine whether these were trips to a food establishment of any type or to a private residence. Trips to or from restaurants, cafés, convenience stores, coffee shops or food establishment of any type were respectively assigned a trip purpose of “SHOP”. Trips with an origin or destination activity of “eat a

meal outside home or work” and were to or from the private residences of family, friends or co-workers were assigned a trip purpose of “OTHER”.

Trips with reported origin or destination activities of “quick shop/drive thru” and “pick-up/drop-off something” to retail establishments or food establishments of any type were also assigned a trip purpose of “SHOP”.

#### *Daycare Trip Purpose Category*

Trips with reported origin or destination activities of “daycare/preschool for child” were assigned a trip purpose of “DAYCARE”. The locations and names of the places for reported trips with an origin or destination activity of “pick-up/drop-off someone” were reviewed to identify trips to pick-up or drop-off young children at daycare location. Similar to what was done in the 1994 Household Travel Survey, these trips were also assigned a trip purpose of “DAYCARE”. The rationale for the assignment of these types of pick-up and drop-off trips to this trip purpose category was that these were not discretionary incidental stops on the way to other locations, but were repetitive daily trips to the same locations that needed to be scheduled and made on a daily basis.

In reviewing locations and names of the places for reported trips with an origin or destination activity of “pick-up/drop-off someone” to child daycare locations, a few trip origins and destinations to senior/elder care locations were identified. The trip origins and destinations to these senior/elder care sites were also a trip purpose of “DAYCARE”.

#### *School Trip Purpose Category*

Trips with reported origin or destination activities of “education/school-related activity” or “study/do homework” at verified school or university locations were assigned a trip purpose of “SCHOOL”. “Education/school-related activity” or “study/do homework” activities at origins or destinations other than school locations were assigned to other trip purposes. Trips to school for activities other than “Education/school-related activity” or “study/do homework” at school locations, such as parent-teacher conferences or after school athletic events, plays or concerts were assigned typically assigned origin or destination trip purposes of “OTHER”. In most cases, “pick-up/drop-off” of children at school locations were linked out and incorporated into other single purpose linked trips, unless they were “served passenger” trips. Served passenger trips to or from school location were respectively assigned an origin or destination trip purpose of “PICK-UP/DROP-OFF”.

#### *Other Trip Purpose Category*

Except for a few special trip purpose categories discussed below, trip origins and destinations not assigned to the HOME, WORK, SHOP, DAYCARE, or SCHOOL trip purpose categories were assigned to the “OTHER” trip purpose category.

### *Drop-Off/Pick-Up Someone Trip Purpose Category*

Reported served passenger trips where the sole purpose of the trip was to transport an individual from one location to another were separately identified in the trip purpose coding process assigned to a special “DROP-OFF/PICK-UP SOMEONE” trip purpose category. The origin and destination purposes of these served passenger trips were coded as “DROP-OFF/PICK-UP SOMEONE” as appropriate. For example, the origin and destination trip purposes of a trip by a parent from home to pick-up his or her child at school and then return directly home would be coded as two separate trips by the parent. The first trip would be a “HOME” to “DROP-OFF/PICK-UP” trip and the second trip would be a “DROP-OFF/PICK-UP” to “HOME” trip. Served passenger trips to an airport, inter-city rail terminal or inter-city bus station were not coded to the “DROP-OFF/PICK-UP” trip purpose category, but rather were coded to their own special trip purpose categories discussed below.

### *Parking Point Trip Purpose Category*

A special “PARKING POINT” trip purpose category was created for trips involving the parking of household or other vehicles that did not neatly fit into any other trip purpose categories. One example of the type of trips assigned to this trip purpose category included situations where a vehicle used to travel to a work location was parked some distance from the workplace location, usually a 5 to 15 minute walk away, and there were other intermediate trips between the parking location and the workplace. Some “slug” carpool trips also fall into this situation. Another example was a situation where an individual parked a vehicle at his or her normal place of employment but did work at their workplace on that day, but rather used this parking location as an anchor point for trips made for other purposes on that day. A third example is a situation where a worker returns from an out-of-town trip by airplane, takes a taxi to their workplace solely to pick up his or her vehicle and then drives this vehicle directly home. A fourth example is a situation where one household member parks a vehicle one location and then another member of the household picks up this vehicle and uses it for a trip to another location. A final example is a situation where an individual drives to a common parking location to meet another individual or group of individuals for a trip to a concert, a sporting event, an out-of-town shopping location or resort or some other type of special event.

### *Airport, Inter-City Rail and Inter-City Bus Trip Purpose Categories*

An unusual “change of mode” problem occurs with regard to trips involving airplanes, inter-city trains and inter-city buses. For example, several survey respondents reported driving or taking Metrorail to an airport and then changing their travel mode to “airplane” to fly to another city. Without special consideration, these trips to the airport would be linked out in the trip linking process and result in some very long linked trips by auto and transit to external locations (e.g. trips from downtown Washington to Atlanta, Georgia by the Metrorail subway). In order to keep these types of trips out of the trip linking process, the origin or destination trip purposes of these types of trips to or from airports,

inter-city rail terminals and inter-city bus stations were to the “Airport”, “Inter-City Rail” and “Inter-City Bus” trip purpose categories as appropriate.

Served passenger trips and other “pick-up/drop-off someone” trips to airports, inter-city rail terminals and inter-city bus stations were also assigned to the “Airport”, “Inter-City Rail” and “Inter-City Bus” trip purpose categories. The rationale for the assignment of these types of pick-up and drop-off trips to these special trip purpose categories was that these were not discretionary incidental stops on the way to other locations, but were required trips that needed to be scheduled and made on a specific date and time.

#### *Gas Station Trip Purpose Category*

Most reported trips to gas stations were linked out and incorporated into other single purpose linked trips in the trip linking process because they were incidental stops made on the way to other destinations. Nonetheless, there were a few identified trips to gas stations where the sole purpose of the trip was to drive the vehicle from one location to a gas station to fuel the vehicle and then directly drive the vehicle back to the same location from where the trip to the gas station. These types of trips were assigned to the “GAS STATION” trip purpose category.

#### *External Point Trip Purpose Category*

The origins and destinations of reported long distance trips to and from external locations outside the combined TPB and BMC modeled area were assigned to the “EXTERNAL POINT” trip purpose category. Most these trips were out-of-town business trips, vacation trips, or visits to friends and families.

#### *Imputation of Missing Household and Person Data*

Item non-response, i.e. the refusal or the inability of survey respondents to answer particular questions, complicates the use of the survey data for many purposes. These complications can be overcome by obtaining values for the missing data items by using a data imputation technique known as “hot decking.”

“Hot decking” is a data imputation technique that obtains a value for a missing data item by locating a nearest neighbor record with a non-missing value for the data item in question and assigning this value to the missing data item. A nearest neighbor record in hot decking is defined as one that most closely matches the respondent with the missing data item in terms of other key characteristics. For example, if a particular person did not answer the drivers license question, but the person’s age, county of residence, employment status, number of vehicles available in their household, and household size is known, this person’s driver status can be estimated on a probability basis using the distribution of driver license holding by others in the same age, county of residence, employment, vehicle availability, and household size categories.

Hot decking techniques were used to impute values for all missing data items in the household and person files. Fortunately, few data values had to be imputed in this manner. Except for the age and household income questions, item non-response was exceedingly low, less than 1% in most cases. Item non-response was 5% for the person's age question, 9% for the household income. Imputation data flags in the household and person data files identify all imputed data values in these survey data files.

#### **4.0 Expansion of Survey Data to Population Totals**

The survey data were weighted to 2007-2008 household and population totals using quarterly counts of residential delivery addresses in each survey stratum obtained from a third-party mailing list vendor with access to the ADV0 database. The sum of the four quarterly counts of residential delivery addresses was adjusted for under coverage of urban areas with large numbers of rental apartments and rural areas with significant percentages of rural non-city style addresses and divided by 4 to get an annual estimate for the survey period. Within each stratum, the annual estimate of residential delivery addresses was allocated to Sample Type sub-strata in proportion to the number of Sample Type samples within each stratum. Further, because of the small number of Sample Type 23 samples in most strata, Sample Type 23 samples and estimates of annual residential delivery addresses were aggregated into Sample Type 21 sub-strata. Initial household weighting factors were then computed by dividing the annual estimate of residential delivery addresses within each stratum Sample Type sub-strata by the respective number of completed household travel surveys within each stratum Sample Type sub-stratum.

The initial household weighting factors were then applied to the survey by stratum and Sample Type. Final household weighting factors for each household sample were then calculated by applying a household size adjustment factor derived from the 2007 ACS household size to the initial survey factor. This household size adjustment factor slightly reduced the initial household weighting factor for single person households and increased it for households with 2, 3, and 4 or more household members. This household size adjustment factor was necessary because the household completion rate for households with only one person was higher than the household completion rate for households with 2 or more person.

Final household weighting factors ranged from 52 to 1090. The final household weighting factors had a mean value of 205 and standard deviation of 116. Approximately, 90% of the final household weights were between 90 and 427. The mean weighting factor for Sample Type 21 households was 174 with a standard deviation of 88. The mean weighting factor for Sample Type 22 households was 278 with a standard deviation of 136. The mean and standard deviation of weighting factor for household sizes from 1 to 5+ were as follows: 1-Person Household (mean = 175 std = 86), 2-Person Household (mean = 170 std = 80), 3-Person Household (mean = 245 std = 117), 4-Person Household (mean = 272 std = 124), 5+ Person Household (mean = 386 std = 193).

The survey was designed so that the weighting factors for persons, vehicles and trips were the same as those for households.

Table 8 shows the expanded survey household totals by jurisdiction based on the survey weights compared to estimated household totals from the 2007 Census ACS.

**Table 8**  
**2007/2008 Household Travel Survey Expanded Household Totals**  
**Compared to Census 2007 American Community Survey Estimates**  
**for the TPB Modeled Area**

Jurisdiction	Households	Households	Ratio
	2007/2008 HTS	2007 ACS	HTS/ACS
District of Columbia , DC	251,931	251,039	1.00
Montgomery County, MD	342,575	343,540	1.00
Prince George's County, MD	294,326	297,614	0.99
Arlington County, VA	91,106	91,529	1.00
Alexandria City, VA	61,429	61,822	0.99
Fairfax County/Cities, VA	380,551	378,711	1.00
Loudoun County, VA	92,204	86,607	1.06
Prince William County/Cities, VA	139,089	138,787	1.00
Frederick County, MD	82,597	81,861	1.01
Howard County, MD	99,392	98,866	1.01
Anne Arundel County, MD	190,801	188,874	1.01
Charles County, MD	50,067	49,001	1.02
Carroll County, MD	60,692	58,783	1.03
Calvert County, MD	29,255	29,141	1.00
St. Mary's County, MD	36,558	36,841	0.99
King George, VA	8,228	8,248	1.00
Fredericksburg city, VA	9,028	8,976	1.01
Stafford County, VA	39,398	39,419	1.00
Spotsylvania County, VA	33,420	33,698	0.99
Fauquier County, VA	22,936	23,243	0.99
Clarke County, VA	5,319	5,384	0.99
Jefferson County, WV	18,693	18,626	1.00
Total TPB Modeled Area	2,339,595	2,330,608	1.00

**Notes:**

Only the Northern portion of Spotsylvania is included in the TPB Modeled Area. Fairfax County/Cities include household totals for Fairfax County and the independent cities of Fairfax and Falls Church, VA. Prince William/Cities includes household totals for Prince William County and the independent cities of Manassas and Manassas Park, VA. 2007 ACS household estimates for Fairfax City and Falls Church, VA, were estimated by applying the 2007 ACS PUMS derived vacancy rate for Fairfax County/Cities to the 2007 housing unit estimates for these two independent cities. 2007 ACS household estimates for Manassas and Manassas Park were estimated by applying the 2007 ACS PUMS derived vacancy estimates for Prince William County/Cities to the 2007 housing unit estimates for these independent cities. 2007 ACS household estimates for King George and City of Fredericksburg, VA were estimated by applying 2007 ACS PUMS derived vacancy rates for King George and Stafford County, VA to the 2007 housing unit estimates for these jurisdictions. 2007 ACS household estimates for Fauquier County, VA, Clarke County, VA and Jefferson County, WV were estimated by applying the 2007 ACS PUMS vacancy rates for Clarke County, Fauquier, Loudoun County, and Warren County, VA to the 2007 housing unit estimates for these jurisdictions.



The expanded survey household totals compare very well with the 2007 Census ACS estimates. The household estimates from both surveys generally agree within one or two percent of each other. The only major difference was for Loudoun County, VA. The estimated 2007 ACS vacancy estimated for housing units in Loudoun was much higher than one estimated from the 2007/2008 Household Travel Survey based on the count of residential delivery addresses and the percent of advance letter that were delivered. Loudoun County planning staff was consulted about this difference in 2007 household estimates and they stated that their own household estimate for 2007 was much higher than the ACS estimate and much closer the estimated 2007/2008 Household Travel Survey total.

# Appendix A: Advance Letters

METROPOLITAN WASHINGTON



COUNCIL OF GOVERNMENTS

*Local governments working together for a better metropolitan region*

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## Matched Sample Advance Letter

### Who is conducting the survey?

Metropolitan Washington Council of Governments (COG)

National Capital Region Transportation Planning Board (TPB)

### What is COG/TPB?

Transportation planning at the regional level is coordinated in the Greater Washington Metropolitan Area by the TPB, which is at COG.

Members of the TPB include locally elected officials and representatives of the transportation agencies of the states of Maryland and Virginia, the District of Columbia, and WMATA.

The TPB prepares plans and programs that federal government must approve in order for federal-aid transportation funds to flow to the region.

### The Survey Area Includes:

District of Columbia  
Anne Arundel County, MD  
Calvert County, MD  
Carroll County, MD  
Charles County, MD  
Frederick County, MD  
Howard County, MD  
Montgomery County, MD  
Prince Georges County, MD  
St Mary's County, MD  
City of Alexandria, VA  
Arlington County, VA  
Clarke County, VA  
City of Fairfax, VA  
Fairfax County, VA  
City of Falls Church, VA  
Fauquier County, VA  
City of Fredericksburg, VA  
King George County, VA  
Loudoun County, VA  
City of Manassas, VA  
City of Manassas Park, VA  
Prince William County, VA  
Spotsylvania County, VA  
Stafford County, VA  
Jefferson County, WV

**Regional transportation planners need your help to ensure that local road and public transport networks meet demand.** Your household, along with a few other households in your zip code, has been chosen to participate in a survey of daily travel in the Greater Washington Metropolitan area conducted by NuStats, a national transportation survey research firm.

### Why should you participate?

Transportation improvements are essential for your household's access to jobs, schools, health care, and other important daily activities. As transportation planners for the region, we need data on how, where, when, and why people travel. This information will support important transportation decisions including improving Metrorail and local bus services as well as improving or building new roads, sidewalks, and bike routes.

### What are we asking of you?

1. Participate in a 5-10 minute telephone interview, in which we will answer your questions and also ask some questions about your household. We will call you or if you prefer, you can call us toll-free at 877-261-4621 to complete the survey by phone or go on-line to provide your contact information and schedule the most convenient time for us to call you:  
**<http://surveys.nustats.com/start/mwcog/mwcog.htm>**. [To schedule on-line, you will be asked to enter the personalized PIN number that was included in the letter you received.]
2. Record the travel (e.g., places visited or stops made around town or out of town) of each household member for a 24-hour period in personalized travel diaries that we will send you.
3. Provide the travel diary information to us in a follow-up telephone call.

**All the information that your household gives to us will be held in strict confidence.** If you want to find out more about this survey, visit the Web site at [www.mwcog.org/hts](http://www.mwcog.org/hts) or call Clara Reschovsky, the project representative for the Metropolitan Washington Council of Governments, at 202-962-3332 or email her at [creschovsky@mwcog.org](mailto:creschovsky@mwcog.org).

Thank you – your participation will really make a difference.

Robert E. Griffiths, Director of Technical Services  
Metropolitan Washington Council of Governments  
National Capital Region Transportation Planning Board



Si tiene preguntas en Español por favor llame gratis al: 877-261-4247



*Local governments working together for a better metropolitan region*

777 North Capitol Street, N.E. Suite 300 Washington, D.C. 20002-4290  
Telephone (202) 962-3200 Fax (202) 962-3201 TDD (202) 962-3213 Internet <http://www.mwcog.org>

## Unmatched Sample Advance Letter

### Who is conducting the survey?

Metropolitan Washington Council of Governments (COG)

National Capital Region Transportation Planning Board (TPB)

### What is COG/TPB?

Transportation planning at the regional level is coordinated in the Greater Washington Metropolitan Area by the TPB, which is at COG.

Members of the TPB include locally elected officials and representatives of the transportation agencies of the states of Maryland and Virginia, the District of Columbia, and WMATA.

The TPB prepares plans and programs that federal government must approve in order for federal-aid transportation funds to flow to the region.

### The Survey Area Includes:

District of Columbia  
Anne Arundel County, MD  
Calvert County, MD  
Carroll County, MD  
Charles County, MD  
Frederick County, MD  
Howard County, MD  
Montgomery County, MD  
Prince Georges County, MD  
St. Mary's County, MD  
City of Alexandria, VA  
Arlington County, VA  
Clarke County, VA  
City of Fairfax, VA  
Fairfax County, VA  
City of Falls Church, VA  
Fauquier County, VA  
City of Fredericksburg, VA  
King George County, VA  
Loudoun County, VA  
City of Manassas, VA  
City of Manassas Park, VA  
Prince William County, VA  
Spotsylvania County, VA  
Stafford County, VA  
Jefferson County, WV

**Regional transportation planners need your help to ensure that local road and public transport networks meet demand.** This is why your household has been randomly selected to be part of a special focus group for a survey of daily travel in the Greater Washington Metropolitan area conducted by NuStats, a national transportation survey research firm. **If you agree to participate in this study and complete all four steps outlined below, we will send you a check for \$50.**

### Why should you participate?

Transportation improvements are essential for your household's access to jobs, schools, health care, and other important daily activities. As transportation planners for the region, we need data on how, when, where, and why people travel. This information will support important transportation decisions including improving Metrorail and local bus services as well as improving or building new roads, sidewalks, and bike routes.

### What are we asking of you?

1. Fill-out completely the enclosed Household Questionnaire, including a phone number where we can best reach you, and return it postage-paid to us. You can also call us toll-free at 877-261-4621 to complete the survey by phone or go on-line to provide your contact information and schedule the most convenient time for us to call you to collect the information: <http://surveys.nustats.com/start/mwcog/mwcog.htm>. Enter PIN#: <pinno>
2. Participate in a 5-10 minute telephone interview, in which we will answer your questions and also ask some questions about your household.
3. Record the travel (e.g., places visited or stops made around town or out of town) of each household member for a 24-hour period in personalized travel diaries that we will send you.
4. Provide the travel diary information to us in a follow-up telephone call.

**All the information that your household gives to us will be held in strict confidence.** If you want to find out more about this survey, visit the Web site at [www.mwcog.org/hts](http://www.mwcog.org/hts) or call Clara Reschovsky, the project representative for the Metropolitan Washington Council of Governments, at 202-962-3332 or email her at [creschovsky@mwcog.org](mailto:creschovsky@mwcog.org).

Thank you – your participation will really make a difference.

Robert E. Griffiths, Director of Technical Services  
Metropolitan Washington Council of Governments  
National Capital Region Transportation Planning Board



Si tiene preguntas en Español por favor llame gratis al: 877-261-4247

# Appendix B: Household Questionnaire & Reminder Postcards

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## Household Questionnaire

**Thank you for your participation,  
you can help make a difference  
in the future of transportation  
in the Greater Washington  
Metropolitan area!**

This questionnaire begins the Household Travel Survey process by asking about your household in general and capturing a phone number where we can best reach you to complete the interview and schedule your travel day. After you complete the questionnaire, please mail it back in the postage-paid envelope.

### Confidentiality:

*This survey is conducted in accordance with strict privacy provisions. All information, whether related to personal identity or travel and activities, will remain completely confidential. The information will not be published, sold, distributed, or otherwise made available to any third party.*

**9. How many motor vehicles are owned, leased, or available for regular use by the people who currently live in your household?**  
(Include motorcycles, mopeds, and RVs but exclude any vehicles in non-working condition)

Total #:

**10. Please tell us the make & model, year, type of fuel used, and the vehicle type for each vehicle.**

Note: if you have more than 8 vehicles in your household, please record the information on a separate piece of paper.

Vehicle #	Make & Model (e.g. Toyota Camry, etc.)	Year	Fuel Type	Vehicle Type
1			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
2			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
3			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
4			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
5			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
6			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
7			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____
8			<input type="checkbox"/> 1 Gas <input type="checkbox"/> 2 Diesel <input type="checkbox"/> 3 Electric/hybrid <input type="checkbox"/> 97 Other: _____	<input type="checkbox"/> 1 Car/Station wagon <input type="checkbox"/> 2 Van (mini, cargo, passenger) <input type="checkbox"/> 3 Sport utility vehicle (SUV) <input type="checkbox"/> 4 Pick-up truck <input type="checkbox"/> 5 Other truck <input type="checkbox"/> 6 Recreational vehicle (RV) <input type="checkbox"/> 7 Motorcycle <input type="checkbox"/> 97 Other: _____

1. Which best describes your home? \_\_\_\_\_ am / pm
- 1 One-family house, detached from any other house
  - 2 One-family house, attached to one or more houses (duplex, rowhouse, townhouse)
  - 3 Mobile home
  - 4 Building with 2 or more apartments (condo, apartment, etc.)
  - 5 Other (specify): \_\_\_\_\_
2. Is this home . . . ?
- 1 Owned by you/someone in household
  - 2 Rented for cash rent
  - 3 Occupied without payment of cash rent
  - 4 Other: \_\_\_\_\_
3. What is the best phone number to reach you? ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_
- Cell \_\_\_\_\_  
Landline \_\_\_\_\_
- Total #: \_\_\_\_\_

4. What is the best time of day to reach you at this number? \_\_\_\_\_ am / pm

5. Do you have an email account that you check daily, where we can contact you?  
 Yes: \_\_\_\_\_  
 No: \_\_\_\_\_

6. What types of telephone service does your household have? (Check all that apply)

- 1 Standard land-based telephone service
- 2 Wireless cellular or satellite service
- 3 Other: (specify) \_\_\_\_\_
- 4 Don't Know

7. How many people, including yourself, live in your home?  
 (DO NOT INCLUDE college students living away from home, household members on active duty, or anyone who lives somewhere else most of the time.)

\_\_\_\_\_ Total #: \_\_\_\_\_

8. Please complete the following information for each person who lives in your household (this should match the number you recorded in Question 7). Answer the questions about yourself in the first row and for the next person in row 2, etc. Note: if you have more than 8 household members, please record the information on a separate piece of paper.

Person #	First Name or Initials	Gender	Year of Birth	Race/Ethnicity (Check all that apply)	Person's Relationship to You	Employment	Number of Places Went on Most Recent Weekday
1		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Self	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
2		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
3		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
4		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
5		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
6		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
7		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home
8		<input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female		<input type="checkbox"/> 1 African American/Black <input type="checkbox"/> 2 American Indian/Alaska native <input type="checkbox"/> 3 Asian <input type="checkbox"/> 4 Hispanic (of any race) <input type="checkbox"/> 5 Pacific Islander <input type="checkbox"/> 6 White <input type="checkbox"/> 7 Other: _____	<input type="checkbox"/> Spouse/Partner <input type="checkbox"/> 5 Grandchild <input type="checkbox"/> 6 Other relative <input type="checkbox"/> 7 Not related	Is this person employed? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No	Total #: _____ <input type="checkbox"/> 2 Did not leave home

Continue



Metropolitan Washington Council of Governments  
National Capital Region Transportation Planning Board

c/o NUSStats  
2034 Eisenhower Ave., Suite 100  
Alexandria, VA 22314

## Reminder Postcard #1

**We need your Household Questionnaire for the Household Travel Survey!**



**Aren't you concerned about traffic?**

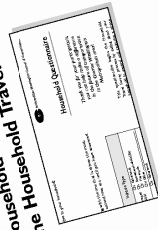


Metropolitan Washington Council of Governments  
National Capital Region Transportation Planning Board

c/o NUSStats  
2034 Eisenhower Ave., Suite 100  
Alexandria, VA 22314

## Reminder Postcard #2

**We're still waiting for your Household Questionnaire for the Household Travel Survey!**



**Come on . . . help us solve area transportation problems and receive \$50!**



**The information from the Household Travel Survey will help improve traffic conditions in your community!**

We really want to include your household, so please complete the **Household Questionnaire** we mailed to you about a week ago. Be sure to include your phone number and the best day/time to reach you.

**\*If you participate in all four steps of the survey, you will receive a check for \$50. We will call you after we receive your completed Household Questionnaire to begin step 2.**

If you already mailed it back to us - Thank you!

You can also provide the information over the phone by calling **877-261-4621** toll-free (from 11am - 10pm EST), or going on-line to schedule a convenient time for us to call you: <http://surveys.nustats.com/start/mwvcog.htm>

If you need another copy, please go to [www.mwvcog.org/hts](http://www.mwvcog.org/hts) to download and print a copy, or email Clara Reschovsky at [creschovsky@mwvcog.org](mailto:creschovsky@mwvcog.org).

**Thank you!**



**Your participation in the Household Travel Survey is very important to the study success!**

We really want to include your household, so please complete the **Household Questionnaire** we mailed to you a couple of weeks ago. Be sure to include your phone number and the best day/time to reach you.

**\*If you participate in all four steps of the survey, you will receive a check for \$50. We will call you after we receive your completed Household Questionnaire to begin step 2.**

If you already mailed it back to us - Thank you!

You can also provide the information over the phone by calling **877-261-4621** toll-free (from 11am - 10pm EST), or going on-line to schedule a convenient time for us to call you: <http://surveys.nustats.com/start/mwvcog.htm>

If you need another copy, please go to [www.mwvcog.org/hts](http://www.mwvcog.org/hts) to download and print a copy, or email Clara Reschovsky at [creschovsky@mwvcog.org](mailto:creschovsky@mwvcog.org).

**Thank you!**



Metropolitan Washington Council of Governments  
National Capital Region Transportation Planning Board

c/o NuStats  
834 Eisenhower Ave, Suite 100  
Alexandria, VA 22314

## Reminder Postcard #3

**There's still time to complete your Household Questionnaire for the Household Travel Survey!**



**LAST CHANCE**  
to participate and receive \$50!



### **Participate in this special focus group for the Household Travel Survey and receive \$50\*!**

We really want to include your household, so please complete the **Household Questionnaire** we mailed to you about a month ago. Be sure to include your phone number and the best day/time to reach you.

**\*If you participate in all four steps of the survey, you will receive a check for \$50. We will call you after we receive your completed Household Questionnaire to begin step 2.**

If you already mailed it back to us - Thank you!

You can also provide the information over the phone by calling **877-261-4621** toll-free (from 11am - 10pm EST), or going on-line to schedule a convenient time for us to call you:

<http://surveys.nustats.com/start/mwco/mwco.htm>

If you need another copy, please go to [www.mwco.org/hts](http://www.mwco.org/hts) to download and print a copy, or

email Clara Reschovsky at [creschovsky@mwco.org](mailto:creschovsky@mwco.org).



# Appendix C: CATI Recruitment Script

---

Hi, my name is \_\_\_\_ and I'm calling on behalf of the < Metropolitan Washington Council of Governments><sup>5</sup> about a transportation study we are conducting in your area. May I please speak with <Name>, or a member of this household who is at least 18 who can answer a few questions about the household? We are conducting a Household Travel Study to understand how and why people travel to plan for future transportation needs.

«CELLP»<sup>6</sup>

Have I reached you on a cell phone?

YES <sup>7</sup>	1
NO	2

Is there a different number where I can reach you?

YES	1
NO	2

What is that number? FORMAT: 999-999-9999. When would be a good time and day to call you on this number?

«ADVLT »

Did you receive the advance letter mailed to your household?

IF YES: Great, do you have any general questions about this study I can answer for you? NOTE IF NEEDED: The letter explained the project and that we would call to let you know more about it.

YES	1
NO	2
DK	8 <sup>8</sup>

We are conducting a household travel survey to understand how and why people travel to plan for future transportation needs. Your household was sent a letter about this survey on <LTRDT> and someone in your household returned a short questionnaire to us with your phone number so that we could contact you. May I please ask you a few questions about the members of your household and provide you with some additional information about this study? NO: By participating in this study, your information will be used to represent other households in your community, so it is very important that you participate. Will you please help your local and state governments by participating in this study?

This study will collect data to help local transportation planners understand why, when, and where people travel in the county. To do this, we're asking households to record their travel for a 24-hour period. If you could help us with this study, we'd ask you some questions about your household today to make sure that all regional households are represented. Then we ask for some details about each person in your household in order to prepare personalized logs, which we'd mail to you. After you record your travel, we call back to collect your information. Everything asked is for research purposes only and will be held in strict confidence.

To prepare for this study I have a few questions about the persons in your households that I would like to ask you now. Is this okay? NO/RF: May I call back at a more convenient time? IF YES, SET A CALLBACK. STILL NO: Is there someone else in the household who might be willing to answer these few questions for me now? It is very important for transportation planning in the region that we get travel information from households like yours.

«CELLL»

What is the best phone number to reach you? FORMAT: 999-999-9999 Is that a cell phone or landline?

CELL	1
LANDLINE	2
RF	9

---

<sup>5</sup> Items in <> denote merge fields where the actual information to be read may vary across respondents.

<sup>6</sup> Variable names are in brackets [ ].

<sup>7</sup> Items in ALL CAPS are programmer/ interviewer notes or response codes that are not read to the respondent.

<sup>8</sup> The numbering in choice sets may sometimes not be continuous. This is because standard codes are used for response categories of "other, don't know, and refused."

«BUSHM »

Is this a work or home number?

Work Number 1  
Home Number 2

«BEDAY»

What are the best day(s) and the best time to reach you at this number? SELECT ALL THAT APPLY

Monday 1  
Tuesday 2  
Wednesday 3  
Thursday 4  
Friday 5  
Saturday 6  
Sunday 7

«DECBT»

What is the best time of day to reach you at this number? ENTER IN MILITARY TIME, HHMM 0000-MIDNIGHT, 1200-NOON, 2359-11:59PM, 0030-12:30AM

RF 9999

«CCBTM»

COMPUTED BEST TIME TO CALL FOR CALLBACK REASSIGNING PURPOSES

Morning (before Noon) 1  
Afternoon (after Noon and before 6pm) 2  
Evening (after 6pm) 3

«HVEML»

Do you have an email account that you check daily where we can contact you?

YES 1  
NO 2  
RF 9

«EMAIL»

What is that address? FORMAT EXAMPLE: ELABORDE@DATASOURCE.US

THE HOUSEHOLD QUESTIONNAIRE WAS USED TO CAPTURE INFORMATION FROM THE HOUSEHOLD PRIOR TO THE CATI CONTACT. RESPONDENTS COULD COMPLETE THE HOUSEHOLD QUESTIONS BY MAIL OR INTERNET. IF THE RESPONDENT COMPLETED A HOUSEHOLD QUESTIONNAIRE, THE INFORMATION WAS JUST CONFIRMED. IF ONE WAS NOT COMPLETED, THE INTERVIEWER COLLECTED THE INFORMATION.

Let me verify the information you provided in the household questionnaire that you completed and sent to us.

«RESTY»

Which best describes your home?

One-family house detached from any other house 1  
One-family house attached to one or more houses (duplex, row house, townhouse) 2  
Mobile home 3  
Building with 2 or more apartments (condo, apartment, etc.) 4  
OTHER (SPECIFY) 7  
RF (REFUSED) 9

«OWN»

Is this home... ?

Owned by you/someone in household	1
Rented for cash rent	2
Occupied without payment of cash rent	3
OTHER (SPECIFY)	7
RF	9

«HHTEL»

What types of telephone service does your household have? SELECT ALL THAT APPLY

Standard land-based telephone service	1
Wireless cellular or satellite service	2
OTHER (SPECIFY)	7
RF	9

«HHSIZ»

How many people, including yourself, live in your home? INTERVIEWER NOTE: PLEASE CLARIFY WITH RESPONDENT Does this number include all persons who sleep there at least 3 nights per week? INCLUDE FOSTER CHILDREN, ROOMERS, HOUSEMATES, PEOPLE LIVING HERE MOST OF THE TIME WHILE WORKING, EVEN IF THEY HAVE ANOTHER PLACE TO LIVE Does this number include any family members who are college students, members of the military, or others who are temporarily living away from home at the current time? EXCLUDE COLLEGE STUDENTS LIVING AWAY WHILE ATTENDING COLLEGE OR PEOPLE WHO LIVE AT ANOTHER PLACE MOST OF THE TIME

ONE	01
TWO	02
THREE	03
FOUR	04
FIVE	05
SIX	06
SEVEN	07
EIGHT OR MORE	08
RF	99

«HHDIS»

Do any persons in your household have a health condition that has lasted for 6 or more months which has made it difficult for them to travel outside the home?

YES	1
NO	2
DK	8
RF	9

You indicated that there is <HHSIZ> person in your household. Now I need to get some information about you. FOLLOVED BY: Now I need to get some information about each household member.

What is the first name of this person? IF RELUCTANT: Initials are okay at this point. What is your first name?  
What is the first name of the other person living in your home? IF RELUCTANT: Initials are okay at this point.  
What is the first name of the next person in your home, from oldest to youngest? IF RELUCTANT: Initials are okay at this point.

«GEND »

What is this person's gender? INTERVIEWER NOTE: DON'T ASK FOR RESPONDENT

MALE	1
FEMALE	2
RF	9

«AGE »

How old are/is <YOU>? RANGE: 0 - 105 YRS

LESS THAN 1 YEAR OLD	000
105 OR OLDER	105
DK	998
RF	999

Many of our questions about (you)(this person) are based on (your)(this person's) age. Can you tell me if (you are)(this person is)...

Under 16	1
Age 16 or older	2
DK	8
RF	9

«AGEB »

«RACE»

What is (your)(this person's) race or ethnicity? SELECT ALL THAT APPLY. SELECT "MULTIRACIAL" ONLY IF RESPONDENT SAYS WITHOUT PROMPTING

African American/Black	01
American Indian/Alaska native	02
Asian	03
Hispanic (of any race)	04
Pacific Islander	05
White	06
MULTIRACIAL	07
OTHER (SPECIFY)	97
RF	99

«RELAT »

How is this person related to you? DON'T ASK RESPONDENT, SELECT BEST FIT. SELF/RESPONDENT/REFERENCE PERSON

SPOUSE/PARTNER	1
CHILD	2
PARENT	3
GRANDPARENT	4
GRANDCHILD	5
OTHER RELATIVE	6
NOT RELATED	7
RF	9

«EMPTY »

(Are)(Is) <YOU> employed?

*if AGE16=2*

YES	1
NO	2
DK	8
RF	9

«MOREJ »

(Are)(Is) <YOU> employed at more than one job?

*if NOT EMPTY=1*

YES	1
NO	2
DK	8
RF	9

«JOBS »

How many total jobs do(es) <YOU> currently work? RANGE: 1 - 9 JOBS

if *EMPTY=2*

1	01
2	02
3	03
4	04
5	05
6	06
7	07
8	08
9	09
DK	98
RF	99

«PLACE »

Approximately how many places did <YOU> go to, <PRON1>? RANGE: 0 - 25

DID NOT LEAVE HOME/NONE	00
DK	98
RF	99

«HHVEH »

How many motor vehicles in working condition are owned, leased, or available for regular use by the people who currently live in your household? CLARIFY: Does this number include all motorcycles, mopeds, RVs in addition to cars, trucks, vans and SUVs? Also, does this figure include any company cars available for household use on daily basis?

NONE	00
ONE	01
TWO	02
THREE	03
FOUR	04
FIVE	05
SIX	06
SEVEN	07
EIGHT OR MORE	08
DK	98
RF	99

You said that you had U<HHVEH>/U vehicles in your household. I have a few questions about each of these vehicles. Let's start with the vehicle that is driven the most.

«VEHNO »

VEHICLE NUMBER

- VEHICLE #1
- VEHICLE #2
- VEHICLE #3
- VEHICLE #4
- VEHICLE #5
- VEHICLE #6
- VEHICLE #7
- VEHICLE #8

«MAKE »

What make is <PRON2>

ACURA	11
AUDI	12
BMW	13
BUICK	14
CADILLAC	15
CHEVROLET	16
CHRYSLER	17

DAEWOO	18
DODGE	19
FORD	20
GEO	21
GMC	22
HARLEY DAVIDSON	23
HONDA	24
HUMMER	25
HYUNDAI	26
INFINITI	27
ISUZU	28
JAGUAR	29
JEEP	30
KAWASAKI	31
KIA	32
LEXUS	33
LINCOLN	34
MAZDA	35
MERCEDES	36
MERCURY	37
MINI	38
NISSAN	39
OLDSMOBILE	40
PLYMOUTH	41
PONTIAC	42
PORSCHE	43
RANGE ROVER	44
SAAB	45
SATURN	46
SCION	47
SUBARU	48
SUZUKI	49
TOYOTA	50
VOLKSWAGEN	51
VOLVO	52
YAMAHA	53
OTHER, SPECIFY	97 O
DON'T KNOW	98
REFUSED	99
«O_MAKEX »	

«MODLX »

What is the model name or number for that vehicle? IF YOU DON'T FIND IT IN THE TABLE, SELECT 997.  
OTHER, COLLECT IN NEXT QUESTION997

DK	998	=> /YEAR
RF	999	=> /YEAR

«YEAR»

What is the year of your vehicle?

1900	1900
1901	1901
1902	1902
1903	1903
1904	1904
1905	1905
1906	1906
1907	1907
1908	1908
1909	1909
1910	1910
1911	1911
1912	1912

1913	1913
1914	1914
1915	1915
1916	1916
1917	1917
1918	1918
1919	1919
1920	1920
1921	1921
1922	1922
1923	1923
1924	1924
1925	1925
1926	1926
1927	1927
1928	1928
1929	1929
1930	1930
1931	1931
1932	1932
1933	1933
1934	1934
1935	1935
1936	1936
1937	1937
1938	1938
1939	1939
1940	1940
1941	1941
1942	1942
1943	1943
1944	1944
1945	1945
1946	1946
1947	1947
1948	1948
1949	1949
1950	1950
1951	1951
1952	1952
1953	1953
1954	1954
1955	1955
1956	1956
1957	1957
1958	1958
1959	1959
1960	1960
1961	1961
1962	1962
1963	1963
1964	1964
1965	1965
1966	1966
1967	1967
1968	1968
1969	1969
1970	1970
1971	1971
1972	1972
1973	1973
1974	1974

1975	1975
1976	1976
1977	1977
1978	1978
1979	1979
1980	1980
1981	1981
1982	1982
1983	1983
1984	1984
1985	1985
1986	1986
1987	1987
1988	1988
1989	1989
1990	1990
1991	1991
1992	1992
1993	1993
1994	1994
1995	1995
1996	1996
1997	1997
1998	1998
1999	1999
2000	2000
2001	2001
2002	2002
2003	2003
2004	2004
2005	2005
2006	2006
2007	2007
2008	2008
DK	9998
RF	9999

«FUEL »

What type of fuel is used by this vehicle?

Gas	1
Diesel	2
Electric/Hybrid	3
Or something else (SPECIFY)	7
DK	8
RF	9

«BODY »

And is this a(n)...

Car or station wagon	01
Van (ANY TYPE)	02
SUV	03
Pick-up Truck	04
Other kind of truck	05
RV	06
Motorcycle,	07
Or something else?	97
DK	98
RF	99



«BIKES »

What is the total number of bicycles in working condition/u that are available for regular use by the people who currently live in your household? RANGE: 0 - 10

NONE	00
DK	98
RF	99

As I've said, the purpose of this study is to collect data to help local transportation planners understand how, when, where and why people travel. To do this, we're asking you to do two things. First, record your travel for a 24-hour period in travel diaries that that we will send you.

A RANDOM SAMPLE OF HOUSEHOLDS WAS PRE-CODED TO PARTICIPATE IN THE GPS STUDY. ONLY THESE HOUSEHOLDS WERE ASKED THE FOLLOWING QUESTIONS.

Second, We are also asking you to put a special GPS receiver in each of your household vehicles for this travel day. We will deliver to you and pick up this piece of GPS equipment. All you will need to do is to turn this unit on and off when you travel on <TRAVEL DAY>. I have a few more questions to ask you, then I will explain to you how the GPS equipment will be delivered, OK? RF: The GPS units are easy to install and take out and they simply track the places your vehicle goes during the <TRAVEL DAY>. Your vehicle will not be harmed in any way. It is very important to the study that households like yours participate.

«GPS »

AGREES TO GPS	1
REFUSES GPS	2

I have a few more questions about your household.

«LIC »

Do(es) <YOU> have a valid driver's license? IF HOUSEHOLD MEMBER ONLY HAS A LEARNER'S PERMIT CODE AS "NO"

*if AGE16=2*

YES	1
NO	2
DK	8
RF	9

«PEDIS »

Do(es) <YOU> have a health condition that has lasted for 6 or more months which has made it difficult for <YOU> to travel outside the home?

*if NOT HHDIS=1*

YES	1
NO	2
DK	8
RF	9

«WKSTAT »

Which of the following best describes <YOUR> status? *if EMPTY=2*

Retired,	1
Disabled/On Disability Status,	2
Homemaker,	3
Unemployed but looking for work,	4
Unemployed and not looking for work, or a Student?	5
OTHER (SPECIFY)	6
RF	7
	9

«ETYPE »

Which of the following categories best describes <YOUR> primary type of employment?

- Work for private for-profit firm 1
- Work for private non-profit firm 2
- Work for Federal government 3
- Work for state or local government 4
- Work for foreign government agency or international organization 5
- Self-employed 6
- DK 8
- RF 9

«WLOC »

What is <YOUR> primary work location? TRY HARD TO GET THIS INFO.

- HOME 1
- EMPLOYER NAME GIVEN 2
- EMPLOYER ADDRESS GIVEN 3
- VARIES - COLLECT MOST RECENT LOCATION 4
- NO SET WORK LOCATION - COLLECT CENTRAL OFFICE 5
- WILL PROVIDE AT RETRIEVAL 6
- DK 8
- RF 9

«WNAME »

What is the name of <YOUR> company or employer?

TRY TO GEOCODE THIS WORKPLACE NOW USING E-CATI. IF THEY REFUSED OR DIDN'T KNOW THE NAME, DO NOT TRY TO GEOCODE, SELECT "NO". DID THE WORKPLACE GEOCODE?

- YES 1
- NO 2

«WCNTX »

In what county do(es) <YOU> work?  
*if (NOT WSTA1=MD) OR WLOC=1*

- District of Columbia, DC 11001
- Anne Arundel County 24003
- Baltimore County 24005
- City of Baltimore 24510
- Calvert County 24009
- Carroll County 24013
- Charles County 24017
- Frederick County 24021
- Harford County 24025
- Howard County 24027
- Montgomery County 24031
- Prince George's County 24033
- St. Mary's County 24037
  
- Arlington County 51013
- Clarke County 51043
- Fairfax County 51059
- Faquier County 51061
- King George County 51099
- Loudoun County 51107
- Prince William County 51153
- Spotsylvania County 51177
- Stafford County 51179
- Alexandria City 51510
- Fairfax City 51600
- Fredericksburg City 51630

- Jefferson County 54037
- OTHER, SPECIFY 99997
- DK/RF 99999

«WCITX »

What city do(es) <YOU> work in?

OTHER, COLLECT IN NEXT QUESTION	997
DK	998
RF	999

«WADDR »

What is the street address there? TRY HARD TO GET THIS. ASK THEM TO LOOK IT UP.

«WZIP »

What is the zip code there? TRY TO GET THIS. ASK THEM TO LOOK IT UP.

DK/RF	99999
-------	-------

«WXSTR »

What is the name of the street or road nearest the workplace location? CAN BE BLANK

«VOLUN »

Do(es) <YOU> do any type of volunteer work on a regular basis?

YES	1
NO	2
DK	8
RF	9

«VDAYS »

How many days per week do(es) <YOU> perform these volunteer activities? RANGE: 1 - 7

DK	8
RF	9

«VLOC »

Where do(es) <YOU> usually perform these volunteer activities? TRY HARD TO GET THIS INFO. DO NOT USE CHOICE 6 UNLESS YOU HAVE TO.

HOME	1
EMPLOYER NAME GIVEN	2
EMPLOYER ADDRESS GIVEN	3
VARIABLES - COLLECT MOST RECENT LOCATION	4
NO SET WORK LOCATION - COLLECT CENTRAL OFFICE	5
WILL PROVIDE AT RETRIEVAL	6
DK	8
RF	9

«VNAME »

What is the name of <YOUR> volunteer organization?

*if VARFL=1*

TRY TO GEOCODE THIS VOLUNTEER WORKPLACE NOW USING E-CATI. IF THEY REFUSED OR DIDN'T KNOW THE NAME, DO NOT TRY TO GEOCODE, SELECT "NO".

DID THE WORKPLACE GEOCODE?

YES	1
NO	2

«VCNTX »

In what county do(es) <YOU> volunteer?

*if (NOT WSTA1=MD) OR WLOC=1*

District of Columbia, DC	11001
Anne Arundel County	24003
Baltimore County	24005
City of Baltimore	24510
Calvert County	24009
Carroll County	24013
Charles County	24017
Frederick County	24021
Harford County	24025

Howard County	24027
Montgomery County	24031
Prince George's County	24033
St. Mary's County	24037

Arlington County	51013
Clarke County	51043
Fairfax County	51059
Fauquier County	51061
King George County	51099
Loudoun County	51107
Prince William County	51153
Spotsylvania County	51177
Stafford County	51179
Alexandria City	51510
Fairfax City	51600
Fredericksburg City	51630

Jefferson County	54037
OTHER, SPECIFY	99997
DK/RF	99999

«VCITX »

What city do(es) <YOU> volunteer in?

OTHER, COLLECT IN NEXT QUESTION	997
DK	998
RF	999

«VADDR »

What is the street address there? TRY HARD TO GET THIS. ASK THEM TO LOOK IT UP.

«VZIP »

What is the zip code there? TRY TO GET THIS. ASK THEM TO LOOK IT UP.

DK/RF	99999
-------	-------

«VXSTR »

What is the name of the street or road nearest the volunteer location? CAN BE BLANK

«STUDE »

(Are)(Is) <YOU> currently enrolled in any type of school, including <PRON3> technical school, or university?

YES, FOLLOW-UP: Is that full-time or part-time? IF DK SELECT PART-TIME

YES-FULL TIME	1
YES-PART TIME	2
NO	3
DK/RF	9

«SCHOL »

What school grade or level do(es) <YOU> attend?

DAYCARE	01
NURSERY SCHOOL, PRE-SCHOOL	02
KINDERGARTEN TO GRADE 8	03
GRADE 9 TO 12	04
TECHNICAL/VOCATION SCHOOL	05
2 YEAR COLLEGE (COMMUNITY COLLEGE)	06
4-YEAR COLLEGE OR UNIVERSITY	07
GRADUATE SCHOOL/PROFESSIONAL	08
OTHER, SPECIFY	97
RF	99

«SLOC »

Where do(es) <YOU> attend <PRON4>? TRY HARD TO GET THIS INFO.  
DO NOT USE CHOICE 3 UNLESS YOU HAVE TO.

HOME	1
ADDRESS GIVEN, COLLECT IN NEXT QUESTIONS	2
WILL COLLECT AT RETRIEVAL	3
DK	8
RF	5

«SNAME »

What is the name of <YOUR> school?

«SBYPK »

Is there a secure bicycle parking facility at this school location?  
if AGE<6 OR STUDE>2

YES	1
NO	2
DK	8
RF	9

«SMODE »

How do(es) <YOU> normally get to <YOUR> school?  
IF NEEDED: That is, the method used for most of the distance.  
if SLOC <1

AUTO DROVE ALONE	01
2-PERSON CARPOOL	02
3+-PERSON CARPOOL	03
TRANSIT	04
TAXI/LIMO	05
WALK	06
BIKE	07
SCHOOL BUS	08
HOME SCHOOLED	96
OTHER (SPECIFY)	97
DK	98
RF	99

«SDAYS »

How many days per week did <YOU> attend <PRON5> last week? RANGE: 0 - 7

DK	8
RF	9

«AB40 »

To ensure our study is representative of all income groups in the region, could you tell me if your household's total income for 2006 was above or below \$40,000? NOTE: 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.

BELOW \$40,000	22	GO TO B40
AT OR ABOVE \$40,000	33	GO TO AB100
RF	99	

«AB100 »

And was it above or below \$100,000?

BELOW \$100,000	44	GO TO B100
AT OR ABOVE \$100,000	55	GO TO A100
RF	99	

«B40 »

Stop me when I say an income category that best matches your household income...

Less than \$10,000	01
\$10,000 - \$14,999	02
\$15,000 - \$29,999	03
\$30,000 - \$39,999	04
RF	99

«B100 »

Stop me when I say an income category that best matches your household income...

\$40,000 - \$49,999	05
\$50,000 - \$59,999	06
\$60,000 - \$74,999	07
\$75,000 - \$99,999	08
RF	99

«A100 »

Stop me when I say an income category that best matches your household income...

\$100,000 - \$124,999	09
\$125,000 - \$149,999	10
\$150,000 - \$199,999	11
\$200,000 or more	12
RF	99

«INCOM »

COMPUTED INCOME

Less than \$10,000	01
\$10,000 - \$14,999	02
\$15,000 - \$29,999	03
\$30,000 - \$39,999	04
\$40,000 - \$49,999	05
\$50,000 - \$59,999	06
\$60,000 - \$74,999	07
\$75,000 - \$99,999	08
\$100,000 - \$124,999	09
\$125,000 - \$149,999	10
\$150,000 - \$199,999	11
\$200,000 or more	12
Below \$40,000	22
At or above \$40,000	33
Above \$40,000 and Below \$100,000	44
At or above \$100,000	55
RF	99

Understanding your household's travel is very important for improving transportation in your area. We would like to send you a diary for each member of your household to keep track of their travel for just one day **READ DAY AND DATE. DON'T GIVE RESPONDENT OPPORTUNITY TO SAY THAT THIS DAY IS NOT GOOD. IF YOU NEED TO CHANGE, THEN SELECT SAME DAY OF WEEK IN THE FOLLOWING WEEK.**

Monday, 2/5	136 N
Tuesday, 2/6	137 N
Wednesday, 2/7	138 N
Thursday, 2/8	139 N
Friday, 2/9	140 N
Monday, 2/12	143 N
Tuesday, 2/13	144 N
Wednesday, 2/14	145 N
Thursday, 2/15	146 N
Friday, 2/16	147 N
Monday, 2/19	150 N
Tuesday, 2/20	151 N
Wednesday, 2/21	152 N
Thursday, 2/22	153 N

Friday, 2/23	154 N
Monday, 2/26	157 N
Tuesday, 2/27	158 N
Wednesday, 2/28	159 N
Thursday, 3/1	161 N
Friday, 3/2	162 N
Monday, 3/5	165 N
Tuesday, 3/6	166 N
Wednesday, 3/7	167 N
Thursday, 3/8	168 N
Friday, 3/9	169 N
Monday, 3/12	172 N
Tuesday, 3/13	173 N
Wednesday, 3/14	174 N
Thursday, 3/15	175 N
Friday, 3/16	176 N
Monday, 3/19	179 N
Tuesday, 3/20	180 N
Wednesday, 3/21	181 N
Thursday, 3/22	182 N
Friday, 3/23	183 N
Monday, 3/26	186 N
Tuesday, 3/27	187 N
Wednesday, 3/28	188 N
Thursday, 3/29	189 N
Friday, 3/30	190 N
Monday, 4/2	193 N
Tuesday, 4/3	194 N
Wednesday, 4/4	195 N
Thursday, 4/5	196 N
Friday, 4/6	197 N
Monday, 4/9	200 N
Tuesday, 4/10	201 N
Wednesday, 4/11	202 N
Thursday, 4/12	203 N
Friday, 4/13	204 N
Monday, 4/16	207
Tuesday, 4/17	208
Wednesday, 4/18	209
Thursday, 4/19	210
Friday, 4/20	211
Monday, 4/23	214
Tuesday, 4/24	215 N
Wednesday, 4/25	216 N
Thursday, 4/26	217 N
Friday, 4/27	218 N
Monday, 4/30	221 N
Tuesday, 5/1	222 N
Wednesday, 5/2	223 N
Thursday, 5/3	224 N
Friday, 5/4	225 N
Monday, 5/7	228 N
Tuesday, 5/8	229 N
Wednesday, 5/9	230 N
Thursday, 5/10	231 N
Friday, 5/11	232 N
Monday, 5/14	235 N
Tuesday, 5/15	236 N
Wednesday, 5/16	237 N
Thursday, 5/17	238 N
Friday, 5/18	239 N
Monday, 5/21	242 N

Tuesday, 5/22	243 N
Wednesday, 5/23	244 N
Thursday, 5/24	245 N
Friday, 5/25	246 N
Monday, 5/28	249 N
Tuesday, 5/29	250 N
Wednesday, 5/30	251 N
Thursday, 5/31	252 N
Friday, 6/1	253 N
Monday, 6/4	256 N
Tuesday, 6/5	257 N
Wednesday, 6/6	258 N
Thursday, 6/7	259 N
Friday, 6/8	260 N
Monday, 6/11	263 N
Tuesday, 6/12	264 N
Wednesday, 6/13	265 N
Thursday, 6/14	266 N
Friday, 6/15	267 N
Monday, 6/18	270 N
Tuesday, 6/19	271 N
Wednesday, 6/20	272 N
Thursday, 6/21	273 N
Friday, 6/22	274 N
Monday, 6/25	277 N
Tuesday, 6/26	278 N
Wednesday, 6/27	279 N
Thursday, 6/28	280 N
Friday, 6/29	281 N
Monday, 7/2	284 N
Tuesday, 7/3	285 N
Wednesday, 7/4	286 N
Thursday, 7/5	287 N
Friday, 7/6	288 N
Monday, 7/9	291 N
Tuesday, 7/10	292 N
Wednesday, 7/11	293 N
Thursday, 7/12	294 N
Friday, 7/13	295 N
Monday, 7/16	298 N
Tuesday, 7/17	299 N
Wednesday, 7/18	300 N
Thursday, 7/19	301 N
Friday, 7/20	302 N
Monday, 7/23	305 N
Tuesday, 7/24	306 N
Wednesday, 7/25	307 N
Thursday, 7/26	308 N
Friday, 7/27	309 N
Monday, 7/30	312 N
Tuesday, 7/31	313 N
Wednesday, 8/1	314 N
Thursday, 8/2	315 N
Friday, 8/3	316 N
Monday, 8/6	319 N
Tuesday, 8/7	320 N
Wednesday, 8/8	321 N
Thursday, 8/9	322 N
Friday, 8/10	323 N
Monday, 8/13	326 N
Tuesday, 8/14	327 N
Wednesday, 8/15	328 N



Thursday, 8/16	329 N
Friday, 8/17	330 N
Monday, 8/20	333 N
Tuesday, 8/21	334 N
Wednesday, 8/22	335 N
Thursday, 8/23	336 N
Friday, 8/24	337 N
Monday, 8/27	340 N
Tuesday, 8/28	341 N
Wednesday, 8/29	342 N
Thursday, 8/30	343 N
Friday, 8/31	344 N
Monday, 9/3	347 N
Tuesday, 9/4	348 N
Wednesday, 9/5	349 N
Thursday, 9/6	350 N
Friday, 9/7	351 N
Monday, 9/10	354 N
Tuesday, 9/11	355 N
Wednesday, 9/12	356 N
Thursday, 9/13	357 N
Friday, 9/14	358 N
Monday, 9/17	361 N
Tuesday, 9/18	362 N
Wednesday, 9/19	363 N
Thursday, 9/20	364 N
Friday, 9/21	365 N
Monday, 9/24	368 N
Tuesday, 9/25	369 N
Wednesday, 9/26	370 N
Thursday, 9/27	371 N
Friday, 9/28	372 N
Monday, 10/1	375 N
Tuesday, 10/2	376 N
Wednesday, 10/3	377 N
Thursday, 10/4	378 N
Friday, 10/5	379 N
Monday, 10/8	382 N
Tuesday, 10/9	383 N
Wednesday, 10/10	384 N
Thursday, 10/11	385 N
Friday, 10/12	386 N
Monday, 10/15	389 N
Tuesday, 10/16	390 N
Wednesday, 10/17	391 N
Thursday, 10/18	392 N
Friday, 10/19	393 N
Monday, 10/22	396 N
Tuesday, 10/23	397 N
Wednesday, 10/24	398 N
Thursday, 10/25	399 N
Friday, 10/26	400 N
Monday, 10/29	403 N
Tuesday, 10/30	404 N
Wednesday, 10/31	405 N
Thursday, 11/1	406 N
Friday, 11/2	407 N
Monday, 11/5	410 N
Tuesday, 11/6	411 N
Wednesday, 11/7	412 N
Thursday, 11/8	413 N
Friday, 11/9	414 N

Monday, 11/12	417 N
Tuesday, 11/13	418 N
Wednesday, 11/14	419 N
Thursday, 11/15	420 N
Friday, 11/16	421 N
Monday, 11/19	424 N
Tuesday, 11/20	425 N
Wednesday, 11/21	426 N
Thursday, 11/22	427 N
Friday, 11/23	428 N
Monday, 11/26	431 N
Tuesday, 11/27	432 N
Wednesday, 11/28	433 N
Thursday, 11/29	434 N
Friday, 11/30	435 N
Monday, 12/3	438 N
Tuesday, 12/4	439 N
Wednesday, 12/5	440 N
Thursday, 12/6	441 N
Friday, 12/7	442 N
Monday, 12/10	445 N
Tuesday, 12/11	446 N
Wednesday, 12/12	447 N
Thursday, 12/13	448 N
Friday, 12/14	449 N
Monday, 12/17	452 N
Tuesday, 12/18	453 N
Wednesday, 12/19	454 N
Thursday, 12/20	455 N
Friday, 12/21	456 N
Monday, 12/24	459 N
Tuesday, 12/25	460 N
Wednesday, 12/26	461 N
Thursday, 12/27	462 N
Friday, 12/28	463 N

(CONT FOR 2008)

These are all the questions that we have for you today. Thank you for your time and have a great day/evening. Goodbye.

«ILANG »

WAS THIS INTERVIEW CONDUCTED IN ENGLISH OR SPANISH?

ENGLISH	1
SPANISH	2

«MATRL »

In what language would you like to receive your study materials?

ENGLISH	1
SPANISH	2

We'll send you a survey packet with more details. To whom should we address the envelope?

To ensure that your package reaches you correctly, may I have your name?

What is your physical street address? Do you have an apartment number or suite number? YES: What is it?

What is the name of the subdivision that you live in? CAN BE BLANK IF UNKNOWN

«HCITY »

What city is that in?

«NCNTY »

In what county do you live?

DF/RF: This information is very important for transportation research and we would really like to include your household in our study.

District of Columbia, DC	11001
Anne Arundel County, MD	24003
Baltimore County, MD	24005
City of Baltimore, MD	24510
Calvert County, MD	24009
Carroll County, MD	24013
Charles County, MD	24017
Frederick County, MD	24021
Harford County, MD	24025
Howard County, MD	24027
Montgomery County, MD	24031
Prince George's County, MD	24033
St. Mary's County, MD	24037
Arlington County, VA	51013
Clarke County, VA	51043
Fairfax County, VA	51059
Fauquier County, VA	51061
King George County, VA	51099
Loudoun County, VA	51107
Prince William County, VA	51153
Spotsylvania County, VA	51177
Stafford County, VA	51179
Alexandria City, VA	51510
Fairfax City, VA	51600
Fredericksburg City, VA	51630
Jefferson County, WV	54037
OTHER, SPECIFY	99997
DK	99998
RF	00027

«HCNTY »

District of Columbia, DC	11001
Anne Arundel County, MD	24003
Baltimore County, MD	24005
City of Baltimore, MD	24510
Calvert County, MD	24009
Carroll County, MD	24013
Charles County, MD	24017
Frederick County, MD	24021
Harford County, MD	24025
Howard County, MD	24027
Montgomery County, MD	24031
Prince George's County, MD	24033
St. Mary's County, MD	24037
Arlington County, VA	51013
Clarke County, VA	51043
Fairfax County, VA	51059
Fauquier County, VA	51061
King George County, VA	51099
Loudoun County, VA	51107
Prince William County, VA	51153
Spotsylvania County, VA	51177
Stafford County, VA	51179
Alexandria City, VA	51510
Fairfax City, VA	51600
Fredericksburg City, VA	51630
Jefferson County, WV	54037
DK/RF	99999

«HZIP »

What is your zip code?

99999

DK/RF

99999

«RNGPS »

We will mail the travel logs to you in a few days and will call you again on the day before <ASSN> to make sure you have received them and to answer any questions. Then we will call to ask about your travel on the day after <ASSN>. Please keep your logs until we call you to collect your travel information. When would be the best time to reach you?

if GPS1=1 OR HHQFL=1

Morning

1

Afternoon

2

Evening

3

«RGPS »

IF GPS: We will mail the diaries to you in a few days and will call you again to set up a time to deliver the GPS units. When would be the best time to reach you? When we deliver the units, we'll arrange for a convenient time to pick them up. Then, we will call you to ask about your travel on the day after <ASSN>.

Morning

1

Afternoon

2

Evening

3

Let me verify I dialed the correct number, have I reached you at \$N? And should we call you at this telephone number or is there a daytime or different phone number where you would prefer to be called?

CALL ME AT THIS NUMBER (\$N)

1

CALL ME AT DAYTIME/DIFFERENT NUMBER

2

Is it a home, work or cell phone number?

HOME

1

WORK

2

CELL

3

OTHER, SPECIFY

7 0

And what is the number? FORMAT: 999-999-9999

Thank you for participating in this survey. We look forward to talking with you again. If you have any questions or comments, you can reach us at 1-877-261-4621. If you would like additional information about the study, the website address is <SITE>. Thank you and have a good day/night.

# Appendix D: Trip Log and Diary Cover Letter

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*Local governments working together for a better metropolitan region*

777 North Capitol Street, N.E. Suite 300 Washington, D.C. 20002-4290  
 Telephone (202) 962-3200 Fax (202) 962-3201 TDD (202) 962-3213 Internet <http://www.mwcog.org>

July 9, 2008

**Who is conducting the survey?**

*Metropolitan Washington Council of Governments (COG)*

*National Capital Region Transportation Planning Board (TPB)*

**What is COG/TPB?**

*Transportation planning at the regional level is coordinated in the Greater Washington Metropolitan Area by the TPB, which is at COG.*

*Members of the TPB include locally elected officials and representatives of the transportation agencies of the states of Maryland and Virginia, the District of Columbia, and WMATA.*

*The TPB prepares plans and programs that federal government must approve in order for federal-aid transportation funds to flow to the region.*

**The Survey Area Includes:**

- District of Columbia*
- Anne Arundel County, MD*
- Calvert County, MD*
- Carroll County, MD*
- Charles County, MD*
- Frederick County, MD*
- Howard County, MD*
- Montgomery County, MD*
- Prince Georges County, MD*
- St Mary's County, MD*
- City of Alexandria, VA*
- Arlington County, VA*
- Clarke County, VA*
- City of Fairfax, VA*
- Fairfax County, VA*
- City of Falls Church, VA*
- Fauquier County, VA*
- City of Fredericksburg, VA*
- King George County, VA*
- Loudoun County, VA*
- City of Manassas, VA*
- City of Manassas Park, VA*
- Prince William County, VA*
- Spotsylvania County, VA*
- Stafford County, VA*
- Jefferson County, WV*

«FIRSTNAME» «LASTNAME»

«ADDRESS»

«CITY», «STATE» «ZIP»

«SAMPN»-«ASSIGN»

Dear «FIRSTNAME»,

Thank you for participating in the **Household Travel Survey!**

**Your assigned travel day is:**  
«TDAY»

**What are we asking of you?**

- 1) **First, record your travel for 24 hours.** This package contains personalized travel diaries for each person in your household. Use them to record all the places visited, or stops made, whether around town or out of town, on «TDAY». Parents or guardians should fill out the travel diaries for children under age 12.
- 2) **Then, provide your travel information in a follow-up phone call.** On behalf of Metropolitan Washington Council of Governments, an interviewer from our survey contractor, NuStats, will call after «TDAY» to collect the information from each person's travel diary. The interviewer must speak directly with each person age 16 and older. Parents or guardians will need to provide the information for anyone under age 12. With your permission, we would like to speak directly to any household members between the ages of 12 and 16, however, if you prefer you may provide their travel information to us. Please have your completed diaries ready for the follow-up phone call so the interview will go faster!

Remember, all information will be held in strict confidence. If you have questions about anything related to this survey, please call the toll-free survey hotline at 877-261-4621 or contact Clara Reschovsky, the project representative for the Metropolitan Washington Council of Governments, at 202-962-3332 or email her at [creschovsky@mwcog.org](mailto:creschovsky@mwcog.org).

Thank you – your help with this important survey will make a difference!

Robert Griffiths, *Director of Technical Services*  
 Metropolitan Washington Council of Governments  
 National Capital Region Transportation Planning Board

# Household Travel Survey

Personal One-Day Travel Diary for:

**<First Name>**  
of the  
<Last Name>> household  
Your Travel Diary Day:  
**<Month, Date>**

<sample number>

## Here's what we need:

Record ALL the PLACES you go, HOW you travel, and WHAT you do there on your assigned travel day.  
 Begin at 3 a.m. (or when you wake up) on your assigned travel day and end at 2:59 a.m. the next day (or when you go to sleep on your travel day).



Carry this diary with you to help you remember to record **IMPORTANT** details like the exact address of each place, how you travel and the precise arrival and departure times.

See the **Instructions & Example inside!** 

## Thank You for Your Participation!

If you need help filling out your Travel Diary, please call the toll-free Survey Hotline: 1-877-261-4621

For more information about the survey, please call:  
 Clara Reschovsky, MWCOG  
 202-962-3332  
 creschovsky@mwkog.org  
 or  
 visit the survey webpage at  
[www.mwkog.org/hts](http://www.mwkog.org/hts)

Survey conducted by NuStats on behalf of:



Metropolitan Washington Council of Governments

# Diary Instructions

Use this diary to record information about **ALL** the **PLACES** you visit on your assigned travel day. Record one **PLACE** per page. Specifically, tell us the:

✓ **PLACES you visit.**

The place name, exact address and/or cross-streets, county, city, state and zipcode are critical for assessing areas with traffic congestion.

What is a **PLACE**?

A **PLACE** is any location you travel to whether it's for just a few minutes (such as a gas station, drive-thru window, dropping your child off at school, etc.) or for many hours (work, attending a sporting event, etc.)

**If you ride the bus/train or car/vanpool:**

please record each bus stop, train station, or car/vanpool meeting place where you get on or off as a separate place.

✓ **TIMES you arrive and leave** each place to the closest minute.

✓ **TRAVEL MODE or how you traveled to each place.** Identify the code on the TRAVEL MODES LIST and write it in the box under question C.

✓ **ACTIVITIES or what you did at each place.** Use the ACTIVITY LIST codes to help you. First, write the code for the main activity you did in the first box and then write codes for any other activities in the other boxes.

**Keep your completed Travel Diaries by the phone and we'll call you to collect the information.** For anyone who is unable to complete a diary, we ask that a parent or other adult complete the diary for them. **Thank you!**

**Confidentiality:**

This survey is conducted in accordance with strict privacy provisions. All information, whether related to personal identity or travel and activities, will remain completely confidential. The information will not be published, sold, distributed, or otherwise made available to any third party.

**Questions? Call the toll-free Survey Hotline: 877-261-4621**

**EXAMPLE PLACE**

**A WHAT is this PLACE?**

- My Home
- My Primary Workplace
- My School
- Bus Stop/Train Station or Car/Vanpool Meeting Place
- Another PLACE

Please provide as much of the address as possible:

Name of Place: Happy Kids Day Care  
 Street Address: 6929 Willow St., NW  
 City/County/State/Zip: Washington, DC 20012  
 Nearest Cross Streets: Aspen St., NW & Willow St., NW

**B What TIME did you ARRIVE?**

(Please be as exact as possible)

**C HOW did you get to this PLACE? (Write code from TRAVEL MODES LIST)**

Mode:  Code Specify if "97"  
 (One response only)

**D If you got there by:**

Private Motor Vehicle* Modes: 1 - 4	Public Transportation* Modes: 6 - 13
Total number of people traveling with you? (Don't include yourself) <input type="text" value="1"/>	How did you pay the fare? (check all that apply)
# of household members traveling with you? (Don't include yourself) <input type="text" value="1"/>	<input type="checkbox"/> Farecard <input type="checkbox"/> Cash or Credit card
	<input type="checkbox"/> Smart Trip <input type="checkbox"/> Transfer
	<input type="checkbox"/> SmartBenefits/ Ticket or Token
	<input type="checkbox"/> Metrocheeks <input type="checkbox"/> Other:
	<input type="checkbox"/> Pass

\* When we call to collect your information, we will also ask which household vehicle you used, your parking cost, if you traveled in an HOV lane, or if your fare was discounted (for transit users), etc.

**E What ACTIVITIES did you do? (Write code from ACTIVITY LIST)**

Main Activity:  Code Specify if "97"  
 (One response only) Other Activities:    
 (Record all that apply)

**F What TIME did you LEAVE?**

(Please be as exact as possible)

Did not leave → **DONE**



## TRAVEL MODES LIST

**C**  
Use these codes to answer question  
Specify if you can't find a matching code.

### Private Motor Vehicle:

1. Auto/Pick-up/Man/SUV - Driver
2. Auto/Pick-up/Man/SUV - Passenger
3. Motorcycle
4. Heavy Truck (1 ton or more)

### Public Transportation:

5. School bus
6. Metrorail/Subway
7. Local Public Bus (e.g. Metrobus, etc.)
8. Commuter Rail/MARC/VRE
9. Commuter/Express Bus
10. MetroAccess/Dial-a-Ride Bus
11. Shuttle Bus
12. Light Rail/Tram/Street Car
13. Taxi/Limo

### Other Travel Modes:

14. Walk
15. Bicycle
16. Inter-city Rail (e.g. AMTRAK)
17. Inter-city Bus (e.g. Greyhound)
18. Airplane
97. Other: write code & specify

## ACTIVITY LIST

**E**  
Use these codes to answer question  
Specify if you can't find a matching code.

### Basic Activities:

1. Sleep/Rest
2. Eat/Prepare a meal at home
3. Eat a meal at work
4. Eat a meal outside home or work
5. Care for children (your own or others)

### Travel-Related Activities:

6. Change Mode of Transportation (get on or off bus/train, meet car/vanpool, transfer, buses or to/from Metrorail, etc.)
7. Pick up/Drop off someone or something
8. Loop Trip that begins and ends at the same place (take a walk, jog, bike ride, walk dog, etc.)

### Work Activities (for pay):

9. Work (at regular place of employment)
10. Work at home/telecommute (for pay)
11. Work (at other location)
12. Work-related (meeting, sales call, etc.)

### Education/Childcare:

13. Education/School-related activity
14. Study/Do Homework
15. Childcare/Preschool for child

### Other Daily Activities:

16. Shop in store
17. Shop by phone/Internet/TV, etc.
18. Quick stop/Drive Thru (get coffee, fast food, gas, ATM, etc.)
19. Personal Business at an establishment (bank, health care, legal, etc.)
20. Personal Business by phone/Internet
21. Visit/Socialize with friends, relatives
22. Entertainment (Watch TV, movie, listen to music, read, browse Internet)
23. Recreation/Exercise
24. Civic or Religious activities
25. Mail package/letter or other postal activity

### Other:

26. Other household activities (cleaning, house/yard work, etc.)
97. Other: write code & specify

# PLACE 1

## BEGIN HERE

For this diary, the day begins at 3 a.m. Most people are home asleep at 3 a.m. If this is the case with you, check "My Home," then write all the activities you did before leaving and then the exact time you leave for the first time.

### IF YOU RIDE THE BUS/TRAIN OR CAR/VANPOOL:

Please record each bus stop, train station or car/vanpool meeting place where you got on or off as a separate PLACE.

#### A WHAT IS THIS PLACE?

- My Home  
 My Primary Workplace  
 My School  
 Bus Stop/Train Station or Car/Vanpool Meeting Place  
 Another PLACE

Name of Place (if any) or nearest landmark (e.g. building name) \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Nearest Cross Streets \_\_\_\_\_ & \_\_\_\_\_

#### B What ACTIVITIES did you do? (Write code from ACTIVITY LIST)

Main Activity:  Code: Specify if "97"

Other Activities:  Code: Specify if "97"

(Record all that apply)

#### C What TIME did you LEAVE?

(Please be as exact as possible)

: am / pm → Next PLACE

Did not leave → DONE

# PLACE 2

#### A WHAT IS THIS PLACE?

- My Home  
 My Primary Workplace  
 My School  
 Bus Stop/Train Station or Car/Vanpool Meeting Place  
 Another PLACE

Please provide as much of the address as possible:

Name of Place: \_\_\_\_\_

Street Address: \_\_\_\_\_

City/County/State/Zip: \_\_\_\_\_

Nearest Cross Streets: \_\_\_\_\_

#### B What TIME did you ARRIVE?

(Please be as exact as possible)

: am / pm

#### C HOW did you get to this PLACE? (Write code from TRAVEL MODES LIST)

Mode:  Code: Specify if "97"

(One response only)

#### D If you got there by:

Private Motor Vehicle* Modes: 1 - 4	Public Transportation* Modes: 6 - 13
Total number of people traveling with you? (Don't include yourself) <input type="text"/>	How did you pay the fare? (check all that apply)
# of household members traveling with you? (Don't include yourself) <input type="text"/>	<input type="checkbox"/> Farecard <input type="checkbox"/> Smart Trip <input type="checkbox"/> SmartBenefits/ Metrocheks <input type="checkbox"/> Ticket or Token <input type="checkbox"/> Other: _____ <input type="checkbox"/> Pass

\* When we call to collect your information, we will also ask which household vehicle you used, your parking cost, if you traveled in an HOV lane, or if your fare was discounted (for transit users), etc.

#### E What ACTIVITIES did you do? (Write code from ACTIVITY LIST)

Main Activity:  Code: Specify if "97"

Other Activities:  Code: Specify if "97"

(Record all that apply)

#### F What TIME did you LEAVE?

(Please be as exact as possible)

: am / pm → Next PLACE

Did not leave → DONE

# Appendix E: CATI Retrieval Script

---

Hi, my name is \_\_\_\_\_. I'm calling on behalf of < Metropolitan Washington Council of Governments>. Last week, we spoke with you about the regional travel survey and sent you a log to record your travel and activities on <ASSN DAY>. I'd like to collect your information now.

I need to verify that the information we show for your household is correct. I'd like to start by verifying the address where you live. Our records show that your address is < >.

«HHSIZ»

Our records show that there is/are <OHSIZ> person/people living in your household. Is this correct? MAKE CORRECTIONS AS NEEDED .

- ONE 01
- TWO 02
- THREE 03
- FOUR 04
- FIVE 05
- SIX 06
- SEVEN 07

EIGHT OR MORE, VERIFY EXACT NUMBER IN NEXT QUESTION

Okay- now I need to confirm the name, age, gender, employment status, and student status we have for each household member. VERIFY PERSON INFORMATION BY CLICKING ON PERSON SUMMARY BUTTON. SELECT THE PERSON(S) YOU NEED TO MAKE CHANGES TO.

	NO CHANGES NEEDED THIS PERSON	EDIT THIS PERSON	ADD THIS PERSON	DELETE THIS PERSON
PERSON 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSON 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«HHVEH»

In terms of vehicles available to your household, we show that you have <HHVEH> available. Is that right? CHANGE IF NEEDED

- NONE 00
- ONE 01
- TWO 02
- THREE 03
- FOUR 04
- FIVE 05
- SIX 06
- SEVEN 07

EIGHT OR MORE, VERIFY EXACT NUMBER IN NEXT QUESTION

08

Okay- now I need to confirm the year and body type we have for each household vehicle. VERIFY VEHICLE INFORMATION BY CLICKING ON VEHICLE SUMMARY BUTTON. <LKVEH>

	NO CHANGES NEEDED THIS VEHICLE	EDIT THIS VEHICLE	ADD THIS VEHICLE	DELETE THIS VEHICLE
<YMMA>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMB>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMC>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMD>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMME>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMF>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMG>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<YMMH>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«INCA»

IF INCOME IS MISSING: Including all 2006 income sources before taxes, what was your household income? HOUSEHOLD INCOME NOT ONLY ALLOWS US TO VERIFY THAT WE ARE INCLUDING ALL TYPES OF HOUSEHOLDS FROM THE REGION, BUT IT ALSO HAS BEEN FOUND TO BE RELATED TO THE TYPES OF TRIPS HOUSEHOLDS TYPICALLY MAKE.

Less than \$15,000	01
\$15,000 - \$29,999	02
\$30,000 - \$44,999	03
\$45,000 - \$59,999	04
\$60,000 to \$74,999	05
\$75,000 to \$99,999	06
\$100,000 to \$124,000	07
\$125,000 to \$149,000	08
\$150,000 to \$199,000	09
\$200,000 or more	10
DK/RF	99

Before we discuss the travel diary and the trips made on your household's travel day, I have some questions about a few things that typically affect daily travel patterns.

«HOUW1»

How many hours did <YOU1> work<PRON9> last week? RANGE: 0 - 99  
 DID NOT WORK LAST WEEK 000  
 DK 998  
 RF 999

«RSNW1»

What was the reason <YOU1> did not work<PRON9> last week?

ON VACATION/HOLIDAY	1
TEMPORARY LAY-OFF/NO WORK/NOT SCHEDULED TO WORK	2
LOST JOB/LOOKING FOR NEW/BETTER ONE	3
SICK OR UNPAID LEAVE	4
OTHER (SPECIFY)	7
DK	8
RF	9

«STAW1»

«ENDW1»

What are <YOUR1> typical work hours<PRON9>?  
 ENTER IN MILITARY TIME, HHMM 0000-MIDNIGHT, 1200-NOON, 2359-11:59PM, 0030-12:30AM

«FIXD1»

Do(es) <YOU1> work fixed business hours at this job or do(es) <YOU1> work a flexible and/or alternate work-hours schedule?

- MUST WORK FIXED HOURS 1
- FLEXIBLE, BUT FIXED 2
- WORK HOURS ARE COMPLETELY FLEXIBLE 3
- WORK AN ALTERNATE WORK-HOURS SCHEDULE (e.g. FOUR 10-HOUR DAYS, ETC.) 4
- OTHER (SPECIFY) 7
- DK 8
- RF 9

«WKDY1»

Do(es) <YOU1> typically work at <YOUR1><PRON9>/job on just weekdays or on both weekdays and weekends?

- JUST WEEKDAYS 1
- WEEKDAYS AND WEEKENDS 2
- JUST WEEKENDS 3
- VARIES, NO TYPICAL SCHEDULE 4
- DK 8
- RF 9

«HOUW2»

How many hours did <YOU1> work at <YOUR1> second job last week? RANGE: 0 - 99

- DID NOT WORK LAST WEEK 000
- DK 998
- RF 999

«RSNW2»

What was the reason <YOU1> did not work at <YOUR1> second job last week?

- ON VACATION/HOLIDAY 1
- TEMPORARY LAY-OFF/NO WORK/NOT SCHEDULED TO WORK 2
- LOST JOB/LOOKING FOR NEW/BETTER ONE 3
- SICK OR UNPAID LEAVE 4
- OTHER (SPECIFY) 7
- DK 8
- RF 9

«STAW2\_01»

«ENDW2»

What are <YOUR1> typical work hours at <YOUR1> second job.

«FIXD2»

Do(es) <YOU1> work fixed business hours at this job or do(es) <YOU1> work a flexible and/or alternate work-hours schedule?

- MUST WORK FIXED HOURS 1
- FLEXIBLE, BUT FIXED 2
- WORK HOURS ARE COMPLETELY FLEXIBLE 3
- WORK AN ALTERNATE WORK-HOURS SCHEDULE (e.g. FOUR 10-HOUR DAYS, ETC.) 4
- OTHER (SPECIFY) 7
- DK 8
- RF 9

«WKDY2»

Do(es) <YOU1> typically work at <YOUR1> second job on just weekdays or on both weekdays and weekends?

- JUST WEEKDAYS 1
- WEEKDAYS AND WEEKENDS 2
- JUST WEEKENDS 3
- VARIES, NO TYPICAL SCHEDULE 4
- DK 8
- RF 9

THE PRECEDING QUESTIONS CONTINUE FOR UP TO FIVE JOBS.

«GTOWK»

How did <YOU1> usually get to work LAST week? IF THIS PERSON USED MORE THAN ONE MODE OF TRAVEL, ASK WHICH ONE WAS USED FOR THE MOST DISTANCE OR TOOK THE MOST TIME.

AUTO DROVE ALONE	01
2 PERSON CARPOOL	02
3+ PERSON CARPOOL	03
TRANSIT	04
TAXI/LIMO	05
WALK	06
BIKE	07
DOES NOT APPLY (WORKS ONLY FROM HOME)	96
OTHER (SPECIFY)	97
DK	98
RF	99

«ELTLC»

Are/Is <YOU1> eligible to telecommute?

YES	1
NO	2
DK	8
RF	9

«DATLC»

How many weekdays last week did <YOU1> telecommute? RANGE: 0 – 5

DK	8
RF	9

«RECTB»

Do(es) <YOU1> receive any of the following employer provided transportation benefits? ALL THAT APPLY.

Free parking	01
Both employee and employer share parking charge	02
Preferential parking for carpool/vanpool	03
Discounts/Subsidies for carpooling/vanpooling	04
Metrochek/other subsidies for transit/vanpooling	05
Guaranteed ride home for emergencies/unscheduled overtime	06
Bike/pedestrian facilities or services (including lockers/showers)	07
Information on Commute Options	08
"Live Near Your Work" Benefits	10
A Commute Benefits Coordinator	11
NONE-EMPLOYER DOESN'T OFFER ANY TRANSPORTATION BENEFITS	09
DOES NOT APPLY (WORK ONLY FROM HOME/SELF-EMPLOYED)	96
DK	98
RF	99

«SECBF»

Is there a secure bicycle parking facility at <YOUR1> work location?

YES	1
NO	2
DK	8
RF	9

«BTRVL»

How many weekdays last week did <YOU1> use a bicycle for any type of travel? RANGE: 0 -7

DK	8
RF	9

«BUSER»

Did <YOU1> use...

Off-road bike trails or sidewalks		1
On-road lanes and surface streets		2
Evenly split between on-road and off-road trails	E-4	3
DK		8
RF		9

«BUSRL»

Do(es) <YOU1> consider travel by bus or rail a viable option for some of <YOUR1> daily travel?

YES 1  
NO 2  
DK 8  
RF 9

«BUNOT»

Why not? ALL THAT APPLY

TOO FAR AWAY FROM WHERE I LIVE OR WORK 01  
DOES NOT GO WHERE I GO 02  
TAKES TOO LONG TO GET WHERE I GO 03  
SERVICE IS TOO INFREQUENT 04  
SERVICE IS TOO EXPENSIVE 05  
TOO UNCOMFORTABLE, DIRTY 06  
NOT SAFE (CRIME) 07  
NOT SAFE TO WALK TO (NO SIDEWALKS, CROSSINGS, ETC) 08  
NOT FAMILIAR WITH AVAILABLE SERVICE 09  
NEVER THOUGHT ABOUT USING TRANSIT 10  
OTHER (SPECIFY) 97

Okay, now I'd like to collect the trip information your household recorded for <ASSN >. ALL: We'll begin with your information.

«CMPLG»

Now I'd like to talk about the trips <YOU> recorded in the travel log we sent. Did <YOU> complete the travel log?

YES 1  
NO 2  
DID NOT RECEIVE MATERIALS 3  
DK 8  
RF 9

«HVLOG»

Do you have <YOUR> completed log with you now? IF NEEDED: I can wait while you get it.

YES 1  
NO 2  
RF 9

«TOTPL»

How many total places did <YOU> visit over the course of the travel day? MAKE SURE THAT YOU ENTER TOTAL NUMBER OF PLACES VISITED. NOTE: THE 'ANCHOR' PLACE (PLACE 1) WILL BE ADDED TO THE NUMBER YOU ENTER HERE AUTOMATICALLY.

«PTYPE»

1ST PLACE: Okay, let's start at the beginning of <YOUR> travel day. Where were/was <YOU> at 3 am on <ASSN>? ALL OTHER PLACES: Where did <YOU> go next?

HOME 1  
WORK 2  
SCHOOL 3  
BUS STOP/TRAIN STATION, SPECIFY STOP/STATION NAME 5  
NEW PLACE, SPECIFY NAME OF THE PLACE 6  
OUT OF AREA (NOT IN DC, MD, VA, WV) 7  
OUT OF COUNTRY 8  
PREVIOUSLY ENTERED PLACE, SPECIFY NAME OF THE PLACE 4

«CHECK»

Did <YOU> make any stops along your travel to <PTYPE>/(this place), such as a quick errand, to stop for gas, grab some food, or to pick up or drop off a friend or family member?

YES, YOU BACK UP TO "WHERE DID YOU GO" 1  
NO 2

«GOSAM»

Did <YOU> go to someone else's work or school location? IS THIS A PLACE ALREADY RECORDED? SOMEONE ELSE'S WORK OR SCHOOL? A PREVIOUS PLACE FOR THIS PERSON? A PREVIOUS PLACE FOR ANOTHER PERSON? CLICK "TRIP SUM" FOR TRIP SUMMARIES TO CHECK.

YES 1  
NO 2  
DK 3

«PCNT2»

In what county was that?

District of Columbia, DC	11001	
Anne Arundel County	24003	
Carroll County	24013	
Baltimore County, MD	24005	
City of Baltimore, MD	24510	
Calvert County, MD	24009	
Charles County	24017	
Frederick County	24021	
Harford County, MD	24025	
Howard County	24027	
Montgomery County	24031	
Prince George's County	24033	
St. Mary's County	24037	
Arlington County	51013	
Clarke County	51043	
Fairfax County	51059	
Fauquier County	51061	
King George County	51099	
Loudoun County	51107	
Prince William County	51153	
Spotsylvania County	51177	
Stafford County	51179	
Alexandria City	51510	
Fairfax City	51600	
Fredericksburg City	51630	
OTHER, SPECIFY	99997	O
Jefferson County	54037	
OTHER, SPECIFY	99997	O
DK/RF	99999	

«CITYX»

What city was that in? OUT OF AREA, SELECT 997

OTHER, COLLECT IN NEXT QUESTION 997  
DK 998  
RF 999

«ADDR»

What is the street address there? ASK IF THERE IS AN APT/SUITE NUMBER AND INCLUDE IT IN ADDRESS RECORD FULL STREET ADDRESS. REMEMBER QUADRANT AND DIRECTIONAL. RECORD PO BOX AS DK/RF AS THEY ARE NOT GEO-CODABLE.

«PLZIP»

What is the zip code there?

99999  
DK/RF 99999

TRY TO GEOCODE THIS PLACE ADDRESS NOW IN EC CATI. IF THEY REFUSED OR DIDN'T KNOW THE ADDRESS DO NOT TRY TO GEOCODE, SELECT "NO".



«XSTRT»

Can you tell me the name of cross streets closest to that location? PROBE FOR THIS, BUT IT CAN BE BLANK.

«LAND»

Can you tell me a nearby landmark that can be found easily on a map? PROBE FOR THIS, BUT IT CAN BE BLANK.

«ARRTM»

PREVIOUS TIME <TIME2> IF THIS IS THE FIRST PLACE, DON'T ASK. ENTER 0300. What time did <YOU> arrive at this location? IF NEEDED: You can just tell me approximately when <YOU> arrived? ENTER IN MILITARY TIME, HHMM 0000-MIDNIGHT, 1200-NOON, 2359-11:59PM, 0030-12:30AM

«MODE»

How did <YOU> get to this place? DK/RF - INVALID OPTION - NEED TO OBTAIN MODE FOR SURVEY TO BE VALID

- DRIVER - AUTO/PICKUP/VAN/SUV 01
- PASSENGER - AUTO/PICKUP/VAN/SUV 02
- MOTORCYCLE 03
- HEAVY TRUCK (1 TON OR MORE) 04
- SCHOOL BUS 05
- LOCAL PUBLIC BUS (I.E. METROBUS, MTA, ANNAPOLIS TRANSIT, CATS, HARFORD TRANSIT, HOWARD TRANSIT) 07
- COMMUTER RAIL/VRE/MARC 08
- COMMUTER/EXPRESS BUS 09
- METROACCESS/DIAL-A-RIDE/MTA MOBILITY 10
- SHUTTLE BUS 11
- LIGHT RAIL/TRAM/STREETCAR 12
- TAXI/LIMO 13
- WALK 14
- BIKE 15
- INTER-CITY RAIL (AMTRAK) 16
- INTER-CITY BUS (GREYHOUND) 17
- AIRPLANE 18
- OTHER (SPECIFY) 97
- DK 98
- RF 99

«VHTNO»

Which vehicle did <YOU > use? CLICK "VEHICLES" TO REFER TO VEHICLE LIST. SELECT 97 FOR NON-HOUSEHOLD VEHICLE.

- ONE 01
- TWO 02
- THREE 03
- FOUR 04
- FIVE 05
- SIX 06
- SEVEN 07
- EIGHT 08
- NON-HOUSEHOLD VEHICLE 97
- DK/RF 99

«PARTY»

How many others traveled with <YOU>? NOT INCLUDING THIS RESPONDENT

- NONE 00 => NONHH
- ONE 01
- TWO 02
- THREE 03
- FOUR 04
- FIVE 05
- SIX 06
- SEVEN 07

EIGHT OR MORE

08

«HHMEM»

Of these how many were household members?

NONE	00	=> NONHH
ONE	01	
TWO	02	
THREE	03	
FOUR	04	
FIVE	05	
SIX	06	
SEVEN	07	
EIGHT OR MORE	08	

«PERTP\_01»

Who were the household members? SELECT PERSON #s OF HOUSEHOLD MEMBERS TRAVELING ALONG.  
CLICK "PERSONS" FOR PERSON LIST.

01	01
02	02
03	03
04	04
05	05
06	06
07	07
08	08
MORE THAN 8 PERSONS,	10
DK/RF	99

«HOVLN»

Did <YOU> use a HOV (High Occupancy Vehicle) Lane to travel to this place?

YES	1
NO	2
DK	8
RF	9

«HOVWF»

Which HOV facilities did <YOU> use?

I-395/Shirley Highway	1
I-95 (VIRGINIA)	2
I-66 (VIRGINIA)	3
I-270 (MONTGOMERY COUNTY, MD)	4
ROUTE 50 (PRINCE GEORGE'S COUNTY, MD)	5
DULLES TOLL ROAD	6
OTHER (SPECIFY)	7
DK	8
RF	9

«TLLAT»

Did <YOU> use a toll road for this auto travel?

YES	1
NO	2
DK	8
RF	9

«TLLHM»

How much was the toll?

DK	9998
RF	9999

«PFEEW»

Was there a fee or some sort of validated parking where you parked the vehicle?

YES	1
NO	2
DK	8
RF	9

«FEEWP»

Who paid or was responsible for paying the parking fee?

DRIVER	1
ONE OR MORE PASSENGERS	2
DRIVER AND ONE OR MORE PASSENGERS	3
EMPLOYER	4
STORE/RESTAURANT	5
OTHER (SPECIFY)	7
DK	8
RF	9

«PAYPR»

How much was the parking fee? FORMAT: 9999 (ROUND TO NEAREST DOLLAR)

\$R.2

FREE PARKING	00000
DK	99998
RF	99999

«PKBAS»

PARKING COST UNITS READ LIST IF NEEDED

PER TRIP	1
PER HOUR	2
PER DAY	3
PER WEEK	4
PER MONTH	5
PER SEMESTER	6
PER YEAR	7
DK	8
RF	9

«WTFPB\_01»

Was the trip fare paid by...

DC FARE OPTIONS

Farecard	01
SmarTrip	02
SmartBenefits/Metrochek	03
Pass	04
Cash/Credit Card	05
Transfer	06
Ticket or Token	07
MARC monthly pass	08
MARC weekly pass	09
MARC single ticket	10
TLC (Transit Link Card)	11
VRE (Virginia Railway Express)	12

BALTIMORE FARE OPTIONS

MTA monthly pass	13
MTA weekly pass	14
MTA daily pass	15
Cash fare	16
Baltimore City School ticket	17
School cash fare	18
Senior/disabled monthly pass	19
Senior/disabled day pass	20

Senior/disabled cash fare	21
OTHER (SPECIFY)	97
DK	98
RF	99

«FRCST»

How much was the fare? ENTER DOLLAR AMOUNT

DK	99998
RF	99999

«FRUNT»

TRANSIT FARE UNITS READ LIST IF NEEDED

PER TRIP	1
PER HOUR	2
PER DAY	3
PER WEEK	4
PER MONTH	5
PER SEMESTER	6
PER YEAR	7
DK	8
RF	9

«DICNT»

Was your fare discounted or partially paid by an employer in any way?

DISCOUNTED	1
PARTIAL EMPLOYER PAYMENT	2
DK	8
RF	9

«TPUR1»

What was <YOUR> main activity at <PLNAM>?

NO OTHER ACTIVITIES	00
---------------------	----

Home:

Sleep/Rest	01
Eat/Prepare a meal at home	02
Care for children	05
Work at Home or Telecommute (for pay)	10
OTHER AT HOME ACTIVITIES	26

At My Work:

Work	09
Work at Other location	11
Work-Related	12
Volunteer work	27
Eat a meal at work	03

At My School:

Education/School-related Activity	13
Study/Do Homework	14
Childcare/Preschool	15

At Other Places:

Eat a Meal outside Home or Work	04
Change mode of transportation	06
Pick up/Drop off someone or something	07
Loop Trip (walking the dog/jogging around the neighborhood)	08
Shop in store	16
Shop by phone/Internet/TV	17
Quick Stop/Drive Thru	18
Personal Business At establishment	19
Personal Business by Phone/Internet	20
Visit/Socialize	21

Entertainment	22
Recreation/Exercise	23
Civic or religious activities	24
Mail Package or Letter or other postal Activity	25
Other (Specify)	97 O
DK	98
RF	99

«TPUR»

And what other activities did <YOU > do there?  
SAME CODES AS PREVIOUS

«DEPTM»

ARRIVAL TIME: <ARRTM> IF LAST PLACE OF THE DAY, DON'T ASK. ENTER 0259. <PRON8>What time did <YOU> leave for the next place? IF NEEDED: You can just tell me approximately when <YOU> left? ENTER IN MILITARY TIME, HHMM 0000-MIDNIGHT, 1200-NOON, 2359-11:59PM, 0030-12:30AM  
COLLECT ALL OTHER TRIPS.

**QC QUESTIONS:**

Did <YOU> make any additional trips after <YOU> settled in for the evening, such as to run a quick errand, grocery shopping, video rental, grab a bite to eat, or to pick up or drop off another person?

<YOU> did not travel to work that day?

<YOU> did not travel to school that day?

«NOGO»

So, <YOU > made no trips, including for work or school? TRUE, MADE NO TRIPS: Why not?

PERSONALLY SICK	01
CARETAKING SICK KIDS	02
CARETAKING SICK OTHER	03
HOME-BOUND ELDERLY OR DISABLED	04
WORKED AT HOME FOR PAY	05
WORKED AROUND HOME (NOT FOR PAY)	06
OUT OF AREA, SPECIFY CITY AND STATE	07
OTHER, SPECIFY	97
DK	98
RF	99

FALSE, WILL SKIP BACK TO DEPARTURE TIME 00

Trip Summary for this Household of <HHSIZ> Persons Person # Total Trips ===== Person 1  
<TRA01> Person 2 <TRA02> Person 3 <TRA03> Person 4 <TRA04> Person 5 <TRA05> Person 6 <TRA06>  
Person 7 <TRA07> Person 8 <TRA08> Do you have trips for every person in the household? YES=1,

Great, those are all the questions I have for you today. We appreciate you for taking the time to help us with this important study. Thank you and good day/evening.

# Appendix F: Household File Format

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2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
sampn	Sample Number	N	8	Numeric Value
tpb_mod	TPB Modeled Area	N	1	1= In TPB Modeled Area 2= Not in TPB Modeled Area
bmc_mod	BMC Modeled Area	N	1	1= In BMC Modeled Area 2= Not in BMC Modeled Area
msa	MSA	C	5	12580= Baltimore, MD MSA 30500= Lexington Park, MD MSA 47900= Washington DC-MS-VA-WV MSA 99999= Non-Metropolitan Area
home_fips2	Residence Jurisdiction	C	5	11001 = District of Columbia 24003 = Anne Arundel County 24005 = Baltimore County 24009 = Calvert County 24013 = Carroll County 24017 = Charles County 24021 = Frederick County 24025 = Harford County 24027 = Howard County 24031 = Montgomery County 24033 = Prince George's County 24037 = St. Mary's County 240510 = Baltimore City

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
home_tract	Residence Census Tract	C	6	51013 = Arlington County 51043 = Clarke County 51059 = Fairfax County/Cities 51061 = Fauquier County 51099 = King George 51107 = Loudoun County 51153 = Prince William County/Cities 51177 = Spotsylvania County 51179 = Stafford County 51187 = Warren County 51510 = Alexandria 54037 = Jefferson County
home_tpb_taz	Residence TPB Transportaton Analysis Zone	N	4	Numeric Value with leading zeros
home_bmc_taz	Residence BMC Transportaton Analysis Zone	N	4	1-2191, 9999 = Outside TPB TAZ Area 1-2928, 9999=Outside BMC TAZ Area
housing_type	Housing Type	N	1	1 =Single family detached 2 =Single family attached 3 =Mobile home 4 =Multi-Family 7 =Other
o_housing_type	Other, Housing Type	C	35	Character Value



2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
tenure	Housing Tenure	N	1	1 = Owned 2 = Rented 3 = No Cash Rent
o_tenure	Other, Housing Tenure	C	35	Character Value
hhsiz	Household Size	N	1	Numeric Value
rc_hhsiz	Household Size - Recoded	N	1	1 = 1 2 = 2 3 = 3 4 = 4+
hhstu	Number of Students in HH	N	1	Numeric Value
hhlic	Number of Licensed Drivers in HH	N	1	Numeric Value
hhwrk	Number of Workers in HH	N	1	Numeric Value
hhdis	Person with Disability in HH	N	1	Numeric Value
hhveh	Number of HH Vehicles Available	N	2	Numeric Value
rc_hhveh	Number of Vehicles - Recoded	N	1	0 = 0 1 = 1

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
bikes	Number of HH Bicycles Available	N	1	2 = 2 3 = 3+ Numeric Value
incom	Household Income	N	2	1 = Less than \$10,000 2 = \$10,000 - \$14,999 3 = \$15,000 - \$29,999 4 = \$30,000 - \$39,999 5 = \$40,000 - \$49,999 6 = \$50,000 - \$59,999 7 = \$60,000 - \$74,999 8 = \$75,000 - \$99,999 9 = \$100,000 - \$124,999 10 = \$125,000 - \$149,999 11 = \$150,000 - \$199,999 12 = \$200,000 or more
imhousing	Housing Type - Imputation Flag	C	1	I = Imputed Value
imtenure	Housing Tenure - Imputation Flag	C	1	I = Imputed Value
impedis	Household Disability - Imputation Flag	C	1	I = Imputed Value
imbikes	Household Bicycle - Imputation Flag	C	1	I = Imputed Value

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
imincom	Household Income - Imputation Flag	C	1	I = Imputed Value
stratum	Stratum Number	N	1	1 - 50
home_cluster_id	Activity Cluster ID Number	N	2	1 =Downtown Washington 2 =Pentagon / Reagan Airport / Alexandria 3 =Dulles Corridor 4 =Tysons Corner 5 =Gaithersburg / Life Sciences Center 6 =Rockville / North Bethesda 7 =Rosslyn / Ballston Corridor 8 =Fairfax Center / City of Fairfax / GMU 9 =Greenbelt / College Park Area 10 =Bethesda / Friendship Heights Area 11 =South Dulles Area 12 =Frederick Area 13 =North Dulles Area 14 =Konterra / Route 1 Area 15 =Silver Spring / Takoma Park / Wheaton 16 =I-95 / Springfield Area 17 =Bailey's Crossroads Area 18 =Merrifield / Dunn Loring 19 =Manassas Area 20 =Germantown / Clarksburg 21 =New Carrollton / Largo Area 22 =Potomac Mills / Woodbridge Area

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
home_center_id	Activity Center ID	N	2	23 =Waldorf Commercial 24 =Leesburg Area 25 =White Oak Area 26 =National Harbor 27 =Gainesville Area 28 =Urbana Area 99 =Not in Cluster  1=Downtown Washington 2=Federal Center/Southwest/Navy Yard 3=Georgetown 4=Monumental Core 5=New York Avenue 6=Eisenhower Avenue 7=Downtown Alexandria 8=Ballston/Virginia Square 9=Clarendon/Court House 10=Crystal City 11=Pentagon City 12=Rosslyn 13=Friendship Heights 14=Bailey's Crossroads/Skyline 15=Bethesda CBD 16=Silver Spring CBD 17=White Flint 18=Twinbrook

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
				20=Herndon
				21=Merrifield/Dunn Loring
				23=Reston West
				24=Tysons Corner
				25=National Institutes of Health
				27=Beauregard Street
				28=Waldorf Commercial
				29=Beltway South
				30=Dulles Corner
				31=Dulles East
				32=Dulles West
				33=Fairfax Center
				35=Springfield
				36=City of Fairfax-GMU
				37=Md. 85/355 Evergreen Point
				38=Downtown Leesburg
				39=Corporate Dulles
				40=Germantown
				41=North Frederick Avenue
				42=Rockville Town Center
				43=Shady Grove/King Farm/Life Sciences
				44=White Oak
				45=US 1 Green Line
				46=Greenbelt
				47=New Carrollton
				48=US 1

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
styp2	Sample Type	N	2	49=Konterra 50=Potomac Mills 51=Airport/Monocacy Blvd. 53=Route 28 North 54=Largo Center 55=National Harbor 56=Bull Run - Sudley Area 58=Gainesville 59=Woodbridge 99 =Not in Center 21 = Sample Type 21 22 = Sample Type 22 23 = Sample Type 23 24 = Sample Type 24
surv_date	HH Travel Survey Date	C	10	YYYY-MM-DD
day	HH Travel Survey Day of Week	N	1	1 =Monday 2 =Tuesday 3 =Wednesday 4 =Thursday 5 =Friday
moved	HH at Address other than Sampled Address	N	1	1 = Sampled Household at Different Address

2007-2008 TPB Household Travel Survey

Household File Format  
TPB Modeled Area

File name = hts07\_TPB\_hf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
adj_fact	HH Size Adjustment Weighting Factor	N	16	Numeric Value
ffactor	Final Household Weighting Factor	N	16	Numeric Value
home_TPB_newtaz	TPB New_TAZ of Residence	N	4	1-3722, 9999 = Outside TPB TAZ Area

# Appendix G: Vehicle File Format

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## 2007-2008 TPB Household Travel Survey

## Vehicle File Format

File name = hts07\_TPB\_vf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
sampn	Sample Number	N	8	Numeric Value
vhtno	Household Vehicle Number	N	2	01-10 = Vehicle 1 to Vehicle 10
body	Vehicle Body Type	N	2	-1 = Not Reported 1 = CAR OR STATION WAGON 2 = VAN 3 = SUV 4 = PICKUP TRUCK 5 = OTHER TRUCK 6 = RV 7 = MOTORCYCLE 8 = OTHER
o_body	Vehicle Body Type, Other	C	30	-1 = Not Reported Character Values
fuel	Vehicle Fuel Type	N	1	-1 = Not Reported 1 = GAS 2 = DIESEL 3 = ELECTRIC/HYBRID 7 = OTHER
o_fuel	Vehicle Fuel Type, Other	C	30	-1 = Not Reported Character Values
year	Vehicle Model Year	N	4	-1 = Not Reported 1930-2008 = 1930 to 2008
make	Vehicle Make	N	2	-1 = Not Reported 11 = ACURA 12 = AUDI

2007-2008 TPB Household Travel Survey

Vehicle File Format

File name = hts07\_TPB\_vf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
				13 = BMW
				14 = BUICK
				15 = CADILLAC
				16 = CHEVROLET
				17 = CHRYSLER
				18 = DAEWOO
				19 = DODGE
				20 = FORD
				21 = GEO
				22 = GMC
				23 = HARLEY DAVIDSON
				24 = HONDA
				25 = HUMMER
				26 = HYUNDAI
				27 = INFINITI
				28 = ISUZU
				29 = JAGUAR
				30 = JEEP
				31 = KAWASAKI
				32 = KIA
				33 = LEXUS
				34 = LINCOLN
				35 = MAZDA
				36 = MERCEDES
				37 = MERCURY
				38 = MITSUBISHI

2007-2008 TPB Household Travel Survey

Vehicle File Format

File name = hts07\_TPB\_vf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
				39 = NISSAN 40 = OLDSMOBILE 41 = PLYMOUTH 42 = PONTIAC 43 = PORSCHE 44 = RANGE ROVER 45 = SAAB 46 = SATURN 47 = SCION 48 = SUBARU 49 = SUZUKI 50 = TOYOTA 51 = VOLKSWAGEN 52 = VOLVO 53 = YAMAHA 97 = OTHER 97 = OTHER
o_make	Vehicle Make, Other	C	30	-1 = Not Reported Character Values
model	Vehicle Model	C	30	-1 = Not Reported Character Values
ffactor	Final Vehicle Weighting Factor	N	16	Numeric Value

# Appendix H: Person File Format

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2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
sampn	Sample Number	N	8	Numeric Value
personid	Personid Number	C	10	Character Value
age	Age in Years	N	3	0-105, 0 = Less than 1 Year Old 105 = 105+
ageg	Age Group	N	1	0 = 0-4 1 = 5-15 2 = 16-18 3 = 19-24 4 = 25-34 5 = 35-44 6 = 45-54 7 = 55-64 8 = 65-74 9 = 75+
gend	Gender	N	1	1 = Male 2 = Female
race	Race/Hispanic Ethnicity	C	2	01=African American/Black 02=American Indian/Alaska Native 03=Asian 04=Hispanic(of any race) 05=Pacific Islander 06=White 07=Multiracial

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
relate	Relationship to Reference Person	N	1	0=Reference Person 1=Spouse/Partner 2=Child 3=Parent 4=Grandparent 5=Grandchild 6=Other relative 7=Not related 9=Unknown
lic	Have Drivers License? (Persons 16+)	N	2	--9 = Not Applicable --1 = Not Reported 1=YES 2=NO
pedis	Personal Disability that limits Mobility? (Persons 16+)	N	2	--9 = Not Applicable --1 = Not Reported 1=YES 2=NO
wkstat	Work Status (Persons 16+)	N	2	--9 = Not Applicable 0=Employed 1=Retired 2=Disabled 3=Homemaker 4=Unemployed, looking for a job 5=Unemployed, not looking for a job

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
employ	Currently Employed? (Work Status = Employed)	N	2	6=Student -9 = Not Applicable 1=YES 2=NO
jobs	Number of Current Jobs (Currently Employed = YES)	N	2	Number of Current Jobs -9 = Not Applicable 1-4 = 1 to 4 Jobs, 5 = 5+ Jobs
etype	Type of Employment/Classification (Currently Employed = YES)	N	2	-9 = Not Applicable -1 = Not Reported 1=profit firm 2=private non-profit firm 3=Federal government 4=State or Local government 5=Foreign Gov't or Int'l org 6=Self employed
hours	Number of Hours Worked Last Week (Currently Employed = YES)	N	2	-9 = Not Applicable -1 = Not Reported 0-59 = 0 to 59 Hours, 60=60+ Hours
reason	Reason Did Not Work Last Week (Hours Worked Last Week = 0)	N	2	-9 = Not Applicable -1 = Not Reported 1 =On Vacation/Holiday 2 = Temporary Layoff/No Work Scheduled 3 = Lost Job/Looking for New/Better Job

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
wloc	Work Location (Currently Employed = YES)	N	2	4 = Sick or Unpaid Leave 7 = Other -9 = Not Applicable -1 = Not Reported 1=Home 2=Regular Workplace 4=Varies - Most recent Location 5=Varies - Central Office Location
work_jur	Place of Work (Currently Employed = YES)	C	2	-9 = Not Applicable -1 = Not Reported State/County FIPS Code
gtowk	Usual Means of Transportation to Work Last Week (Currently Employed = YES and Hours Worked not equal 0)	N	2	-9 = Not Applicable -1 = Not Reported 0=Worked at Home 1=Auto Drove Alone 2=2-Person Carpool 3=3+-Person Carpool 4=Transit 5=Taxi/Limo 6=Walk 7=Bike 8 =Other
start01	Typical Work Start Time for Primary Job (Currently Employed = YES)	C	5	-9 = Not Applicable -1 = Not Reported



2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
end01	Typical Work End Time for Primary Job (Currently Employed = YES)	C	5	HH:MM -9 = Not Applicable -1 = Not Reported HH:MM
fixd1	Job Work Schedule Flexibility for Primary Job (Currently Employed = YES)	N	2	-9 = Not Applicable -1 = Not Reported 1=Must Work Fixed Hours 2=Flexible, but Fixed Work Hours 3=Hours sre Completely Flexible 4=Alternate Work Hours Schedule 7=Other
wkdy1	Work Days for Primary Job (Currently Employed = YES)	N	2	-9 = Not Applicable -1 = Not Reported 1=Just Weekday 2=Weekdays and Weekends 3=Just Weekends 4=Varies, No Typical Schedule
start01_w2	Typical Work Start Time for 2nd Job (Number of Jobs = 2 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
end01_w2	Typical Work End Time for 2nd Job (Number of Jobs = 2 or more)	C	5	-9 = Not Applicable -1 = Not Reported

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
fixd2	Job Work Schedule Flexibility for 2nd Job (Number of Jobs = 2 or more)	N	2	HH:MM -9 = Not Applicable -1 = Not Reported 1=Must Work Fixed Hours 2=Flexible, but Fixed Work Hours 3=Hours sre Completely Flexible 4=Alternate Work Hours Schedule 7=Other
wkdy2	Work Days for 2nd Job (Number of Jobs = 2 or more)	N	2	-9 = Not Applicable -1 = Not Reported 1=Just Weekday 2=Weekdays and Weekends 3=Just Weekends 4=Varies, No Typical Schedule
start01_w3	Typical Work Start Time for 3rd Job (Number of Jobs = 3 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
end01_w3	Typical Work End Time for 3rd Job (Number of Jobs = 3 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
fixd3	Job Work Schedule Flexibility for 3rd Job (Number of Jobs = 3 or more)	N	2	-9 = Not Applicable -1 = Not Reported

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
wkdy3	Work Days for 3rd Job (Number of Jobs = 3 or more)	N	2	1=Must Work Fixed Hours 2=Flexible, but Fixed Work Hours 3=Hours sre Completely Flexible 4=Alternate Work Hours Schedule 7=Other
start01_w4	Typical Work Start Time for 4th Job (Number of Jobs = 4 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
end01_w4	Typical Work End Time for 4th Job (Number of Jobs = 4 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
fixd4	Job Work Schedule Flexibility for 4th Job (Number of Jobs = 4 or more)	N	2	-9 = Not Applicable -1 = Not Reported 1=Must Work Fixed Hours 2=Flexible, but Fixed Work Hours 3=Hours sre Completely Flexible 4=Alternate Work Hours Schedule 7=Other

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
wkdy4	Work Days for 4th Job (Number of Jobs = 4 or more)	N	2	-9 = Not Applicable -1 = Not Reported 1=Just Weekday 2=Weekdays and Weekends 3=Just Weekends 4=Varies, No Typical Schedule
start01_w5	Typical Work Start Time for 5th Job (Number of Jobs = 5 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
end01_w5	Typical Work End Time for 5th Job (Number of Jobs = 5 or more)	C	5	-9 = Not Applicable -1 = Not Reported HH:MM
fixd5	Job Work Schedule Flexibility for 5th Job (Number of Jobs = 5 or more)	N	2	-9 = Not Applicable -1 = Not Reported 1=Must Work Fixed Hours 2=Flexible, but Fixed Work Hours 3=Hours sre Completely Flexible 4=Alternate Work Hours Schedule 7=Other
wkdy5	Work Days for 5th Job (Number of Jobs = 5 or more)	N	2	-9 = Not Applicable -1 = Not Reported 1=Just Weekday

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TP\_b\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
eltc	Eligible to Telecommute (Currently Employed = YES)	N	2	2=Weekdays and Weekends 3=Just Weekends 4=Varies, No Typical Schedule -9 = Not Applicable -1 = Not Reported 1=YES 2=NO
datc	Days Telecommuted Last Week (Eligible to Telecommute = YES)	N	2	-9 = Not Applicable -1 = Not Reported 1-7 = 1 to 7 Days
tb01	Employer Provides Free Parking (Employed, excluding Self-employed and Work Only from Home)	N	2	-9 = Not Applicable 1=YES 2=NO
tb02	Employer and Employee Share Parking Cost (Employed, excluding Self-employed and Work Only from Home)	N	2	-9 = Not Applicable 1=YES 2=NO
tb03	Employer Provides Preferential Parking for Carpools/Vanpools (Employed, excluding Self-employed and Work Only from Home)	N	2	-9 = Not Applicable 1=YES 2=NO
tb04	Employer Provides Subsidies for Carpool/Vanpools (Employed, excluding Self-employed and Work Only from Home)	N	2	-9 = Not Applicable 1=YES 2=NO

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TP\_b\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
tb05	Employer Provides Subsidies for Transit/Vanpooling (Employed, excluding Self-employed and Work Only from Home)	N	2	--9 = Not Applicable 1=YES 2=NO
tb06	Guaranteed Ride Home Available to Employee (Employed, excluding Self-employed and Work Only from Home)	N	2	--9 = Not Applicable 1=YES 2=NO
tb07	Employer Provides Bike/Pedestrian Facilities or Services (Employed, excluding Self-employed and Work Only from Home)	N	2	--9 = Not Applicable 1=YES 2=NO
tb08	Employer Provides Information on Commute Options (Employed, excluding Self-employed and Work Only from Home)	N	2	--9 = Not Applicable 1=YES 2=NO
tb09	Employer Does Not Offer Transportation Benefits (Employed, excluding Self-employed and Work Only from Home)	N	2	--9 = Not Applicable 1=Does Not Offers Benefits 2=Offers Benefits
secbf	Secure Bicycle Facility at Work Location (Employed, excluding Workers Who Work Only from Home)	N	2	--9 = Not Applicable --1 = Not Reported 1=YES 2=NO 8=Don't Know
btrvl	Number of Weekdays Used Bicycle Last Week	N	2	--9 = Not Applicable

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
buser	(Persons 16+) Type of Bikeway Mostly Used Last Week (Persons 16+ Using Bicycle at Least 1 Weekday Last Week)	N	2	-1 = Not Reported 0-5 = 0 to 5 Weekdays -9 = Not Applicable -1 = Not Reported 1=Off-Road Bike Trails or Sidewalks 2=On-Road Lanes or Surface Streets 3=Evenly Split between Road and Trails
stud	Attend School? (All Persons)	N	2	-9 = Not Applicable -1 = Not Reported 1=Yes-Full time 2=Yes- Part time 3=No
schol	Current Grade Level (Attend School = Yes)	N	2	-9 = Not Applicable -1 = Not Reported 1=Daycare 2=Nursery School, Pre-School 3=Kindergarten to 8th Grade 4=Grades 9-12 5=Technical/Vocation School 6=2-Year College 7=4-Year College or University 8=Graduate School/Prof Degree School 9=Other
sloc	School Location	N	2	-9 = Not Applicable

2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
	(Attend School = Yes)			-1 = Not Reported 1=Home 2=Public or Private School
sbypk	Secure Bicycle Location at School (School Location = Public or Private School, excluding Daycare, Nursery School and Pre-School)	N	2	-9 = Not Applicable -1 = Not Reported 1=YES 2=NO
smode	Usual Means to School Last Week (School Location = Public or Private School)	N	2	-9 = Not Applicable -1 = Not Reported 1=Auto drove alone 2=2-Person carpool 3=3+Person carpool 4=Transit 5=Taxi/Limo 6=Walk 7=Bike 8=School Bus 9=Other
sdays	Days Attended School Last Week (Attend School = Yes)	N	2	-9 = Not Applicable -1 = Not Reported 1-7 = 1 to 7 Days
volun	Volunteer on a Regular Basis (Persons 16+)	N	2	-9 = Not Applicable -1 = Not Reported 1=YES



2007-2008 TPB Household Travel Survey

Person File Format  
TPB Modeled Area

File name = hts07\_TPB\_pf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
vloc	Volunteer Location (Volunteer on Regular Basis = Yes)	N	2	2=NO -9 = Not Applicable -1 = Not Reported 1=Home 2=Volunteer Organization 4=Varies - Most Recent Location 5=Varies - Central Office Location
vdays	Volunteer Days Per Week	N	2	-9 = Not Applicable -1 = Not Reported 1-7 = 1 to 7 Days
ffactor	Final Weighting Factor	N	8	
impage	Age - Imputation Flag	C	1	I = Imputed Value
impageg	Age Group - Imputation Flag	C	1	I = Imputed Value
impgend	Gender - Imputation Flag	C	1	I = Imputed Value
imprace	Race/Hispanic Ethnicity - Imputation Flag	C	1	I = Imputed Value
implic	Driver License - Imputation Flag	C	1	I = Imputed Value
impwkstat	Work Status - Imputation Flag	C	1	I = Imputed Value
impmedis	Personal Disability Status - Imputation Flag	C	1	I = Imputed Value

# Appendix I: Trip File Format

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2007-2008 TPB Household Travel Survey

Linked Trip File Format  
TPB Modeled Area

File name = hts07\_TPB\_tf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
sampn	Sample Number	N	8	Numeric Value
personid	Personid Number	C	10	Character Value
rtripid	Linked Trip ID	C	15	Character Value
opurp	Origin Trip Purpose	C	2	01 = Home 02 = Work 04 = Shop 07 = Daycare 08 = School 09 = Other 11 = Drop Off/Pick Up Someone 13 = Parking Point 16 = Inter-City Rail Terminal 17 = Inter-City Bus Terminal 18 = Airport 77 = Gas Station 99 = External Point
oact1	Origin Activity	N	2	1 = SLEEP/ REST 2 = EAT / PREPARE A MEAL AT HOME 3 = EAT A MEAL AT WORK 4 = EAT A MEAL OUTSIDE HOME OR WORK 5 = CARE FOR CHILDREN 6 = CHANGE MODE OF TRANSPORTATION

2007-2008 TPB Household Travel Survey

Linked Trip File Format

TPB Modeled Area

File name = hts07\_TPB\_tf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
				7 = PICK UP / DROP OFF SOMEONE OR SOMETHING
				8 = LOOP TRIP
				9 = WORK (REGULAR PLACE)
				10 = WORK AT HOME OR TELECOMMUTE (FOR PAY)
				11 = WORK AT OTHER LOCATION
				12 = WORK-RELATED
				13 = EDUCATION/ SCHOOL-RELATED ACTIVITY
				14 = STUDY / DO HOMEWORK
				15 = CHILDCARE / PRESCHOOL
				16 = SHOP IN STORE
				17 = SHOP BY PHONE / INTERNET / TV
				18 = QUICK STOP / DRIVE THRU
				19 = PERSONAL BUSINESS AT ESTABLISHMENT
				20 = PERSONAL BUSINESS BY PHONE / INTERNET
				21 = VISIT/ SOCIALIZE
				22 = ENTERTAINMENT
				23 = RECREATION / EXERCISE
				24 = CIVIC OR RELIGIOUS ACTIVITY
				25 = MAIL PACKAGE OR LETTER OR OTHER POSTAL
				26 = OTHER HOUSEHOLD ACTIVITY
				97 = OTHER
ofips	Origin Fips Code	C	5	State/County Fips Code
otaz_tpb	Origin TPB TAZ Number	N	4	1-2191, 9999=External

2007-2008 TPB Household Travel Survey

Linked Trip File Format  
TPB Modeled Area

File name = hts07\_TPB\_tf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
otaz_bmc	Origin BMC TAZ Number	N	4	1-2928, 9999=External
dpurp	Destination Trip Purpose	C	2	(Same Codes as Origin)
dact1	Destination Activity	N	2	(Same Codes as Origin)
dfips	Destination Fips Code	C	5	State/County Fips Code
dtaz_tpb	Destination TPB TAZ Number	N		9999 = External
dtaz_bmc	Destination BMC TAZ Number	N		9999 = External
begt	Begin Trip Time	C	5	(HH:MM)
endt	End Trip Time	C	5	(HH:MM)
pmode	Primary Travel Mode	C	2	01 = Transit 02 = Auto D 03 = Auto P 06 = Walk 07 = Bike 09 = Other
mode	Detailed Travel Mode	C		00 = Subway 01 = Transit

2007-2008 TPB Household Travel Survey			
Linked Trip File Format TPB Modeled Area			
File name = hts07_TPB_tf.csv (ascii, comma-delimited)			
Data Item	Data Item Definition	Type	Length
			02 = Auto D 03 = Auto P 04 = Taxi/Limo 05 = Motorcycle 06 = Walk 07 = Bike 08 = School Bus 09 = Heavy Truck 41 = Local Bus 50 = Commuter Rail 51 = Commuter Bus 60 = Inter-City Rail 61 = Inter-city Bus 81 = Airplane 90 = Light Rail 91 = MetroAccess/DAR 92 = Shuttle Bus 96 = Other Subway 97 = Other
accmode	Transit Access Mode	C	2
egrmode	Transit Egress Mode	C	2

-9 = Not Applicable  
(Same Codes as Detailed Mode)

-9 = Not Applicable  
(Same Codes as Detailed Mode)

2007-2008 TPB Household Travel Survey

Linked Trip File Format  
TPB Modeled Area

File name = hts07\_TPB\_tf.csv (ascii, comma-delimited)

Data Item	Data Item Definition	Type	Length	Value/Codes
vehid	Vehicle ID Number	N	2	-9 = Not Applicable -1=Not Reported Numeric Value (1-10) 97 = Non-Household Vehicle
oocc	Origin Vehicle Occupancy	C	2	-9 = Not Applicable -1=Not Reported Numeric Value
docc	DestinationVehicle Occupancy	N	2	-9 = Not Applicable -1=Not Reported Numeric Value
tt	Reported Travel Time	N	8	Report Travel Tiime (in Minutes)
dist	Estimated Trip Distance	N	8	-9 = External Trip Distance (Rounded to nearest 0.1 mile) for I-I Trips
ffactor	Final Trip Weighting Factor	N	8	Numeric Value
newotaz_tpb	Origin TPB New TAZ Number	N	4	1-3722, 9999=External
newdtaz_tpb	Destination TPB New TAZ Number	N	2	1-3722, 9999=External
otract	Origin Census Tract	N	6	Numeric Value with leading zeros
dtract	Destination Census Tract	N	6	Numeric Value with leading zeros

# Appendix J: Household File Frequencies

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TPB Modeled Area  
Household File Tabulations

IN TPB MODELED AREA

TPB_MOD	Record Count	Weighted Total	Percent of Total
YES	11,436	2,339,595	100.0
Total	11,436	2,339,595	100.0

IN BMC MODELED AREA

BMC_MOD	Record Count	Weighted Total	Percent of Total
YES	6,810	1,322,315	56.5
NO	4,626	1,017,280	43.5
Total	11,436	2,339,595	100.0

METROPOLITAN STATISTICAL AREA

MSA	Record Count	Weighted Total	Percent of Total
Baltimore, MD MSA	1,721	350,885	15.0
Lexington Park, MD MSA	108	36,558	1.6
Washington DC-MS-VA-WV MSA	9,551	1,943,924	83.1
Non-Metropolitan Area	56	8,228	0.4
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

JURISDICTION OF RESIDENCE

HOME_FIPS2	Record Count	Weighted Total	Percent of Total
District of Columbia	1,657	251,931	10.8
Anne Arundel County	764	190,801	8.2
Calvert County	104	29,255	1.3
Carroll County	417	60,692	2.6
Charles County	232	50,067	2.1
Frederick County	363	82,597	3.5
Howard County	540	99,392	4.2
Montgomery County	1,594	342,575	14.6
Prince George's County	1,475	294,326	12.6
St. Mary's County	108	36,558	1.6
Arlington County	748	91,106	3.9
Clarke County	55	5,319	0.2
Fairfax County/Cities	1,534	380,551	16.3
Fauquier County	86	22,936	1.0
King George	56	8,228	0.4
Loudoun County	383	92,204	3.9
Prince William County/Cities	508	139,089	5.9
Spotsylvania County	85	33,420	1.4
Stafford County	160	39,398	1.7
Alexandria	408	61,429	2.6
Fredericksburg City	46	9,028	0.4
Jefferson County	113	18,693	0.8
Total	11,436	2,339,595	100.0

HOUSING TYPE

HOUSING_TYPE	Record Count	Weighted Total	Percent of Total
Single family detached	6,397	1,384,823	59.2
Single family attached	2,020	404,688	17.3
Mobile home	39	8,640	0.4
Multi-Family	2,977	539,981	23.1
Other	3	1,463	0.1
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

HOUSING TYPE - OTHER

O_HOUSING_TYPE	Record Count	Weighted Total	Percent of Total
BOAT	1	211	0.0
HOUSE BOAT	1	374	0.0
MILITARY HOUSING	1	878	0.0
Total	11,436	2,339,595	100.0

HOUSING TENURE

TENURE	Record Count	Weighted Total	Percent of Total
Owned	8,955	1,835,201	78.4
Rented	2,417	490,297	21.0
No Cash Rent	59	13,064	0.6
Other	5	1,034	0.0
Total	11,436	2,339,595	100.0

HOUSING TENURE - OTHER

O_TENURE	Record Count	Weighted Total	Percent of Total
COPORATE RELOCATION APARTMENT	1	250	0.0
OLDERLY HOME	1	102	0.0
OWN BY GOVRRNMENT	1	325	0.0
OWNED BY CHURCH	1	130	0.0
PUBLIC HOUSING	1	227	0.0
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

HOUSEHOLD SIZE

HHSIZ	Record Count	Weighted Total	Percent of Total
1	3,781	661,070	28.3
2	4,233	720,087	30.8
3	1,554	381,397	16.3
4	1,263	343,239	14.7
5	461	177,005	7.6
6	107	43,460	1.9
7	25	8,885	0.4
8	12	4,453	0.2
Total	11,436	2,339,595	100.0

HOUSEHOLD SIZE - RECODED

RC_HHSIZ	Record Count	Weighted Total	Percent of Total
1	3,781	661,070	28.3
2	4,233	720,087	30.8
3	1,554	381,397	16.3
4+	1,868	577,042	24.7
Total	11,436	2,339,595	100.0

NUMBER OF STUDENTS IN HOUSEHOLD

HHSTU	Record Count	Weighted Total	Percent of Total
0	7,837	1,402,731	60.0
1	1,919	438,613	18.7
2	1,178	317,859	13.6
3	392	135,275	5.8
4	81	32,524	1.4
5	23	9,970	0.4
6	6	2,623	0.1
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

NUMBER OF LICENSED DRIVERS

HHLIC	Record Count	Weighted Total	Percent of Total
0	401	66,187	2.8
1	4,205	760,173	32.5
2	5,866	1,244,234	53.2
3	782	210,470	9.0
4	160	50,005	2.1
5	21	8,297	0.4
6	1	230	0.0
Total	11,436	2,339,595	100.0

NUMBER OF WORKERS IN HOUSEHOLD

HHWRK	Record Count	Weighted Total	Percent of Total
0	2,456	406,711	17.4
1	4,693	939,081	40.1
2	3,788	851,128	36.4
3	425	118,989	5.1
4	68	21,489	0.9
5	5	1,748	0.1
6	1	450	0.0
Total	11,436	2,339,595	100.0

DISABILITY IN HOUSEHOLD

HHDIS	Record Count	Weighted Total	Percent of Total
YES	1,250	236,262	10.1
NO	10,186	2,103,333	89.9
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

NUMBER OF VEHICLES AVAILABLE

HHVEH	Record Count	Weighted Total	Percent of Total
NONE	828	136,540	5.8
1	4,080	734,814	31.4
2	4,371	947,548	40.5
3	1,531	361,328	15.4
4	450	113,343	4.8
5	123	32,535	1.4
6	36	8,895	0.4
7	9	2,848	0.1
8	5	1,011	0.0
9	2	513	0.0
10	1	221	0.0
Total	11,436	2,339,595	100.0

VEHICLES AVAILABLE - RECODED

RC_HHVEH	Record Count	Weighted Total	Percent of Total
0	828	136,540	5.8
1	4,080	734,814	31.4
2	4,371	947,548	40.5
3+	2,157	520,693	22.3
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

NUMBER OF BIKES

BIKES	Record Count	Weighted Total	Percent of Total
0	5,872	1,095,511	46.8
1	2,007	404,400	17.3
2	1,825	381,433	16.3
3	788	196,976	8.4
4	575	152,139	6.5
5	191	58,246	2.5
6	105	31,534	1.3
7	39	9,925	0.4
8	20	6,320	0.3
9	2	508	0.0
10	12	2,602	0.1
Total	11,436	2,339,595	100.0

HOUSEHOLD INCOME

INCOM	Record Count	Weighted Total	Percent of Total
Less than \$10,000	229	42,330	1.8
\$10,000 - \$14,999	233	42,746	1.8
\$15,000 - \$29,999	649	121,412	5.2
\$30,000 - \$39,999	740	140,969	6.0
\$40,000 - \$49,999	838	160,570	6.9
\$50,000 - \$59,999	919	181,553	7.8
\$60,000 - \$74,999	1,263	251,925	10.8
\$75,000 - \$99,999	1,797	377,133	16.1
\$100,000 - \$124,999	1,932	418,024	17.9
\$125,000 - \$149,999	1,127	248,407	10.6
\$150,000 - \$199,999	939	197,756	8.5
\$200,000 or more	770	156,770	6.7
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

IMPUTED HOUSING TYPE

imhousing	Record Count	Weighted Total	Percent of Total
11,422	11,422	2,336,253	99.9
I	14	3,342	0.1
Total	11,436	2,339,595	100.0

iMPUTED TENURE

imtenure	Record Count	Weighted Total	Percent of Total
11,401	11,401	2,331,426	99.7
I	35	8,169	0.3
Total	11,436	2,339,595	100.0

IMPUTED PERSONAL DISABILITY IN HOUSEHOLD

impedis	Record Count	Weighted Total	Percent of Total
11,341	11,341	2,318,450	99.1
I	95	21,145	0.9
Total	11,436	2,339,595	100.0

IMPUTED NUMBER OF BIKES

imbikes	Record Count	Weighted Total	Percent of Total
11,417	11,417	2,335,938	99.8
I	19	3,657	0.2
Total	11,436	2,339,595	100.0



TPB Modeled Area  
Household File Tabulations

IMPUTED HOUSEHOLD INCOME

imincom	Record Count	Weighted Total	Percent of Total
ff	10,327	2,133,606	91.2
I	1,109	205,989	8.8
Total	11,436	2,339,595	100.0
ff			

TPB Modeled Area  
Household File Tabulations

HOUSEHOLD STRATUM

stratum	Record Count	Weighted Total	Percent of Total
District of Columbia	1,658	252,124	10.8
Montgomery County - Out	508	168,779	7.2
Montgomery County - In	1,077	171,703	7.3
Prince George's County - Out	417	120,187	5.1
Prince George's County - In	1,065	175,431	7.5
Arlington County	532	76,432	3.3
Alexandria City	414	62,004	2.7
Fairfax County/Cities - Out	739	246,109	10.5
Fairfax County/Cities - In	788	133,772	5.7
Loudoun County - Out	329	85,513	3.7
Loudoun County - In	54	6,840	0.3
Prince William County/Cities - Out	341	113,235	4.8
Prince William County/Cities - In	167	25,854	1.1
Frederick County/City - Out	222	55,980	2.4
Frederick County/City - In	146	28,238	1.2
Howard County	540	99,519	4.3
Anne Arundel County - Out	598	173,136	7.4
Anne Arundel County - In	166	17,665	0.8
Charles County - Out	182	41,057	1.8
Charles County - In	49	8,566	0.4
Carroll County	412	59,241	2.5
Calvert County	104	29,255	1.3
St Mary's County	109	37,002	1.6
King George County	56	8,228	0.4
Fredericksburg City	46	9,028	0.4
Stafford County	160	39,398	1.7
Spotsylvania County	85	33,420	1.4
Faquier County	86	22,936	1.0
Clarke County	53	4,894	0.2
Jefferson County	113	18,693	0.8
Baltimore County	1	312	0.0
Arl+ - Columbia Pike	152	10,531	0.5
Arl+ - Rosslyn-Ballston	50	2,963	0.1
Arl+ - Shirlington	15	1,274	0.1
Warren County	2	277	0.0
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

Table of HOME\_CLUSTER\_ID

HOME_CLUSTER_ID	Record Count	Weighted Total	Percent of Total
-----			
Downtown Washington	1,035	155,838	6.7
Pentagon / Reagan Airport / Alexandria	173	26,139	1.1
Dulles Corridor	69	17,038	0.7
Tysons Corner	37	7,519	0.3
Gaithersburg / Life Sciences Center	86	18,448	0.8
Rockville / North Bethesda	99	15,342	0.7
Rosslyn / Ballston Corridor	208	26,924	1.2
Fairfax Center / City of Fairfax / GMU	48	14,092	0.6
Greenbelt / College Park Area	145	24,789	1.1
Bethesda / Friendship Heights Area	170	26,590	1.1
South Dulles Area	10	2,975	0.1
Frederick Area	16	3,406	0.1
North Dulles Area	14	3,555	0.2
Konterra / Route 1 Area	7	2,141	0.1
Silver Spring / Takoma Park / Wheaton	216	37,057	1.6
I-95 / Springfield Area	28	5,229	0.2
Bailey's Crossroads Area	186	28,015	1.2
Merrifield / Dunn Loring	30	6,076	0.3
Manassas Area	38	10,484	0.4
Germantown / Clarksburg	16	5,192	0.2
New Carrollton / Largo Area	55	9,577	0.4
Potomac Mills / Woodbridge Area	84	12,562	0.5
Waldorf Commercial	22	4,647	0.2
Leesburg Area	31	4,124	0.2
White Oak Area	37	8,481	0.4
National Harbor	1	352	0.0
Gainesville Area	11	3,244	0.1
Urbana Area	8	1,906	0.1
Not in Cluster	8,556	1,857,852	79.4
Total	11,436	2,339,595	100.0
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TPB Modeled Area  
Household File Tabulations

Table of HOME\_CENTER\_ID

HOME_CENTER_ID	Record Count	Weighted Total	Percent of Total
#####			
Downtown Washington	232	34,801	1.5
Federal Center/Southwest/Navy Yard	56	8,553	0.4
Georgetown	8	949	0.0
Monumental Core	5	787	0.0
New York Avenue	10	1,374	0.1
Eisenhower Avenue	15	2,164	0.1
Downtown Alexandria	71	9,636	0.4
Ballston/Virginia Square	82	8,711	0.4
Clarendon/Court House	56	7,646	0.3
Crystal City	31	5,549	0.2
Pentagon City	20	3,087	0.1
Rosslyn	30	4,833	0.2
Friendship Heights	63	9,506	0.4
Bailey's Crossroads/Skyline	17	2,256	0.1
Bethesda CBD	28	4,366	0.2
Silver Spring CBD	29	5,495	0.2
White Flint	2	228	0.0
Twinbrook	2	400	0.0
Herndon	7	2,798	0.1
Merrifield/Dunn Loring	26	5,342	0.2
Reston West	10	1,874	0.1
Tysons Corner	31	6,225	0.3
National Institutes of Health	2	473	0.0
Beauregard Street	53	8,598	0.4
Waldorf Commercial	20	4,178	0.2
Beltway South	1	255	0.0
Dulles Corner	8	2,896	0.1
Dulles East	2	724	0.0
Dulles West	3	810	0.0
Fairfax Center	37	8,836	0.4
Springfield	3	469	0.0
City of Fairfax-GMU	3	1,105	0.0
Md. 85/355 Evergreen Point	5	1,395	0.1
Downtown Leesburg	28	3,801	0.2
Corporate Dulles	4	913	0.0
Germantown	1	463	0.0
North Frederick Avenue	22	3,999	0.2
Rockville Town Center	13	2,147	0.1
Shady Grove/King Farm/Life Sciences	14	2,258	0.1
White Oak	9	1,667	0.1
US 1 Green Line	43	7,823	0.3
Greenbelt	26	5,187	0.2
New Carrollton	1	106	0.0
US 1	1	164	0.0
#####			

TPB Modeled Area  
Household File Tabulations

Table of HOME\_CENTER\_ID

HOME_CENTER_ID	Record Count	Weighted Total	Percent of Total
Konterra	2	648	0.0
Potomac Mills	1	180	0.0
Airport/Monocacy Blvd.	4	597	0.0
Route 28 North	7	1,945	0.1
Largo Center	30	5,183	0.2
National Harbor	2	458	0.0
Bull Run - Sudley Area	18	4,063	0.2
Gainesville	3	1,117	0.0
Woodbridge	64	8,739	0.4
Not in Center	10,175	2,131,816	91.1
Total	11,436	2,339,595	100.0

SAMPLE TYPE

stype2	Record Count	Weighted Total	Percent of Total
21	7,774	1,352,138	57.8
22	2,988	831,913	35.6
23	283	47,537	2.0
24	391	108,007	4.6
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-02-05	15	2,729	0.1
2007-02-06	28	4,322	0.2
2007-02-07	34	6,951	0.3
2007-02-08	33	6,516	0.3
2007-02-09	3	865	0.0
2007-02-12	33	5,984	0.3
2007-02-13	28	6,093	0.3
2007-02-14	39	8,212	0.4
2007-02-15	8	1,564	0.1
2007-02-16	3	675	0.0
2007-02-19	52	9,709	0.4
2007-02-20	20	3,503	0.1
2007-02-21	15	2,731	0.1
2007-02-22	64	12,900	0.6
2007-02-23	7	1,048	0.0
2007-02-26	30	6,079	0.3
2007-02-27	26	5,125	0.2
2007-02-28	22	4,983	0.2
2007-03-01	32	6,820	0.3
2007-03-02	16	3,516	0.2
2007-03-05	34	7,684	0.3
2007-03-06	45	8,097	0.3
2007-03-07	45	8,309	0.4
2007-03-08	38	7,623	0.3
2007-03-09	44	10,892	0.5
2007-03-12	50	13,067	0.6
2007-03-13	42	8,118	0.3
2007-03-14	45	8,743	0.4
2007-03-15	34	8,550	0.4
2007-03-16	43	8,774	0.4
2007-03-19	54	11,038	0.5
2007-03-20	55	10,572	0.5
2007-03-21	50	10,248	0.4
2007-03-22	39	7,295	0.3
2007-03-23	45	10,973	0.5
2007-03-26	56	12,721	0.5
2007-03-27	49	11,229	0.5
2007-03-28	47	10,940	0.5
2007-03-29	22	5,744	0.2
2007-03-30	31	6,560	0.3
2007-04-02	38	7,272	0.3
2007-04-03	37	7,185	0.3
2007-04-04	39	6,775	0.3
2007-04-05	34	6,824	0.3

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-04-06	41	8,237	0.4
2007-04-09	34	5,917	0.3
2007-04-10	42	7,926	0.3
2007-04-11	43	8,563	0.4
2007-04-12	27	5,271	0.2
2007-04-13	21	4,202	0.2
2007-04-16	33	7,124	0.3
2007-04-17	46	9,940	0.4
2007-04-18	40	6,699	0.3
2007-04-19	21	5,002	0.2
2007-04-20	21	3,403	0.1
2007-04-23	32	6,972	0.3
2007-04-24	22	3,938	0.2
2007-04-25	17	3,537	0.2
2007-04-26	19	4,317	0.2
2007-04-27	16	3,486	0.1
2007-04-30	38	8,846	0.4
2007-05-01	34	8,255	0.4
2007-05-02	32	6,490	0.3
2007-05-03	27	7,522	0.3
2007-05-04	9	2,827	0.1
2007-05-07	28	7,236	0.3
2007-05-08	10	4,150	0.2
2007-05-09	19	5,021	0.2
2007-05-10	10	2,091	0.1
2007-05-11	6	901	0.0
2007-05-14	30	6,673	0.3
2007-05-15	19	4,911	0.2
2007-05-16	10	2,703	0.1
2007-05-17	5	1,414	0.1
2007-05-18	10	2,328	0.1
2007-05-21	8	2,150	0.1
2007-05-22	12	1,596	0.1
2007-05-23	20	3,313	0.1
2007-05-24	23	4,116	0.2
2007-05-25	2	370	0.0
2007-05-28	31	4,168	0.2
2007-05-29	37	6,634	0.3
2007-05-30	23	3,905	0.2
2007-05-31	14	2,707	0.1
2007-06-01	18	3,165	0.1
2007-06-04	48	8,059	0.3
2007-06-05	13	2,400	0.1
2007-06-06	19	2,986	0.1

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-06-07	15	2,922	0.1
2007-06-08	13	2,481	0.1
2007-06-11	34	5,811	0.2
2007-06-12	38	6,162	0.3
2007-06-13	47	7,679	0.3
2007-06-14	30	5,047	0.2
2007-06-15	22	4,981	0.2
2007-06-18	39	6,899	0.3
2007-06-19	43	8,431	0.4
2007-06-20	24	4,045	0.2
2007-06-21	40	7,801	0.3
2007-06-22	30	4,844	0.2
2007-06-25	39	7,552	0.3
2007-06-26	46	7,665	0.3
2007-06-27	25	4,897	0.2
2007-06-28	24	4,758	0.2
2007-06-29	72	14,681	0.6
2007-07-02	34	6,647	0.3
2007-07-03	46	8,443	0.4
2007-07-04	9	1,752	0.1
2007-07-05	25	5,470	0.2
2007-07-06	43	8,384	0.4
2007-07-09	43	8,034	0.3
2007-07-10	41	7,861	0.3
2007-07-11	61	13,331	0.6
2007-07-12	47	9,031	0.4
2007-07-13	41	7,009	0.3
2007-07-16	36	8,043	0.3
2007-07-17	30	5,571	0.2
2007-07-18	58	11,221	0.5
2007-07-19	69	12,533	0.5
2007-07-20	54	12,799	0.5
2007-07-23	57	12,248	0.5
2007-07-24	61	13,311	0.6
2007-07-25	38	7,290	0.3
2007-07-26	79	13,783	0.6
2007-07-27	67	12,521	0.5
2007-07-30	72	14,197	0.6
2007-07-31	64	10,890	0.5
2007-08-01	42	8,261	0.4
2007-08-02	46	9,139	0.4
2007-08-03	44	8,067	0.3
2007-08-06	58	12,144	0.5
2007-08-07	57	11,430	0.5



TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-08-08	46	10,765	0.5
2007-08-09	58	13,146	0.6
2007-08-10	51	10,405	0.4
2007-08-13	49	9,681	0.4
2007-08-14	58	13,531	0.6
2007-08-15	58	10,982	0.5
2007-08-16	54	13,177	0.6
2007-08-17	40	7,824	0.3
2007-08-20	59	12,483	0.5
2007-08-21	45	10,988	0.5
2007-08-22	40	10,031	0.4
2007-08-23	14	2,846	0.1
2007-08-24	25	5,048	0.2
2007-08-27	71	15,913	0.7
2007-08-28	25	5,198	0.2
2007-08-29	46	9,509	0.4
2007-08-30	10	2,087	0.1
2007-08-31	26	5,160	0.2
2007-09-03	16	3,805	0.2
2007-09-04	22	5,073	0.2
2007-09-05	48	11,041	0.5
2007-09-06	8	1,188	0.1
2007-09-07	22	4,486	0.2
2007-09-10	67	12,953	0.6
2007-09-11	17	4,239	0.2
2007-09-12	11	2,298	0.1
2007-09-13	73	13,075	0.6
2007-09-14	28	6,100	0.3
2007-09-17	70	12,312	0.5
2007-09-18	18	3,596	0.2
2007-09-19	63	10,659	0.5
2007-09-20	57	8,759	0.4
2007-09-21	24	4,020	0.2
2007-09-24	60	10,441	0.4
2007-09-25	37	6,300	0.3
2007-09-26	59	10,879	0.5
2007-09-27	29	4,655	0.2
2007-09-28	53	9,569	0.4
2007-10-01	72	15,490	0.7
2007-10-02	74	12,667	0.5
2007-10-03	57	11,170	0.5
2007-10-04	63	12,037	0.5
2007-10-05	51	10,354	0.4
2007-10-08	65	13,032	0.6

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-10-09	79	15,729	0.7
2007-10-10	48	9,346	0.4
2007-10-11	62	12,640	0.5
2007-10-12	57	11,891	0.5
2007-10-15	59	10,228	0.4
2007-10-16	59	12,948	0.6
2007-10-17	80	17,647	0.8
2007-10-18	68	12,643	0.5
2007-10-19	59	11,629	0.5
2007-10-22	66	13,059	0.6
2007-10-23	58	10,962	0.5
2007-10-24	79	14,234	0.6
2007-10-25	65	12,708	0.5
2007-10-26	70	13,740	0.6
2007-10-29	66	11,894	0.5
2007-10-30	49	9,418	0.4
2007-10-31	63	12,774	0.5
2007-11-01	66	13,729	0.6
2007-11-02	58	11,291	0.5
2007-11-05	46	10,346	0.4
2007-11-06	60	14,129	0.6
2007-11-07	66	15,011	0.6
2007-11-08	53	11,814	0.5
2007-11-09	37	7,489	0.3
2007-11-12	52	11,204	0.5
2007-11-13	27	7,277	0.3
2007-11-14	63	13,361	0.6
2007-11-15	19	3,286	0.1
2007-11-16	36	9,283	0.4
2007-11-19	48	10,251	0.4
2007-11-20	29	5,909	0.3
2007-11-21	7	1,853	0.1
2007-11-22	19	4,384	0.2
2007-11-23	29	6,805	0.3
2007-11-26	42	9,059	0.4
2007-11-27	48	11,259	0.5
2007-11-28	39	9,490	0.4
2007-11-29	40	8,868	0.4
2007-11-30	34	7,754	0.3
2007-12-03	35	8,041	0.3
2007-12-04	13	4,150	0.2
2007-12-05	42	9,279	0.4
2007-12-06	4	629	0.0
2007-12-07	30	6,856	0.3

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2007-12-10	33	8,885	0.4
2007-12-11	18	3,720	0.2
2007-12-12	18	4,186	0.2
2007-12-13	9	1,608	0.1
2007-12-14	19	3,951	0.2
2007-12-17	46	9,059	0.4
2007-12-18	19	4,865	0.2
2007-12-19	32	6,611	0.3
2007-12-20	7	1,066	0.0
2007-12-21	12	2,694	0.1
2007-12-24	8	1,797	0.1
2007-12-26	16	4,009	0.2
2007-12-27	15	2,297	0.1
2007-12-28	15	3,118	0.1
2007-12-31	12	2,377	0.1
2008-01-01	2	330	0.0
2008-01-02	16	3,775	0.2
2008-01-03	3	475	0.0
2008-01-04	6	1,271	0.1
2008-01-09	22	3,885	0.2
2008-01-10	2	442	0.0
2008-01-11	1	221	0.0
2008-01-14	1	274	0.0
2008-01-15	3	338	0.0
2008-01-18	58	10,037	0.4
2008-01-21	27	4,941	0.2
2008-01-22	24	4,287	0.2
2008-01-23	27	4,647	0.2
2008-01-24	14	2,499	0.1
2008-01-29	45	8,087	0.3
2008-01-30	57	11,552	0.5
2008-01-31	58	10,257	0.4
2008-02-01	51	10,109	0.4
2008-02-04	57	11,600	0.5
2008-02-07	47	8,373	0.4
2008-02-08	51	9,104	0.4
2008-02-11	40	7,810	0.3
2008-02-12	36	6,866	0.3
2008-02-13	39	7,480	0.3
2008-02-18	64	12,183	0.5
2008-02-19	27	4,533	0.2
2008-02-20	37	6,813	0.3
2008-02-21	7	1,198	0.1
2008-02-22	19	3,643	0.2

TPB Modeled Area  
Household File Tabulations

SURVEY DATE

surv_date	Record Count	Weighted Total	Percent of Total
2008-02-27	33	6,300	0.3
2008-02-28	93	19,307	0.8
2008-02-29	43	8,172	0.3
2008-03-03	11	2,273	0.1
2008-03-04	71	15,576	0.7
2008-03-07	30	5,714	0.2
2008-03-10	73	17,265	0.7
2008-03-11	57	10,400	0.4
2008-03-12	61	11,323	0.5
2008-03-13	76	14,916	0.6
2008-03-18	45	10,898	0.5
2008-03-19	113	23,792	1.0
2008-03-20	94	20,764	0.9
2008-03-21	64	12,708	0.5
2008-03-24	67	14,290	0.6
2008-03-27	35	7,924	0.3
2008-03-28	109	23,926	1.0
2008-03-31	79	18,117	0.8
2008-04-01	44	10,225	0.4
2008-04-02	44	9,339	0.4
2008-04-07	33	7,093	0.3
2008-04-08	90	20,371	0.9
2008-04-09	86	18,027	0.8
2008-04-10	10	2,176	0.1
2008-04-11	35	6,931	0.3
2008-04-16	26	5,730	0.2
2008-04-17	62	14,432	0.6
2008-04-18	27	5,751	0.2
2008-04-21	13	3,595	0.2
2008-04-22	30	8,234	0.4
2008-04-25	31	8,414	0.4
2008-04-28	49	13,821	0.6
2008-04-29	6	2,129	0.1
2008-04-30	8	2,647	0.1
2008-05-01	4	738	0.0
2008-05-06	16	4,529	0.2
2008-05-07	10	2,780	0.1
2008-05-08	7	1,841	0.1
2008-05-09	2	466	0.0
2008-05-12	4	1,024	0.0
Total	11,436	2,339,595	100.0

TPB Modeled Area  
Household File Tabulations

DAY OF WEEK

day	Record Count	Weighted Total	Percent of Total
Monday	2,583	526,523	22.5
Tuesday	2,511	522,220	22.3
Wednesday	2,420	493,451	21.1
Thursday	1,953	391,710	16.7
Friday	1,969	405,692	17.3
Total	11,436	2,339,595	100.0

Table of moved

moved	Record Count	Weighted Total	Percent of Total
	10,988	2,229,414	95.3
YES	448	110,182	4.7
Total	11,436	2,339,595	100.0

# Appendix K: Vehicle File Frequencies

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TPB Modeled Area  
Vehicle File Tabulations

HOUSEHOLD VEHICLE NUMBER

vehno	Record Count	Weighted Total	Percent of Total
01	10,608	2,203,056	49.9
02	6,527	1,468,010	33.2
03	2,158	520,925	11.8
04	625	158,825	3.6
05	177	46,563	1.1
06	53	13,488	0.3
07	17	4,593	0.1
08	8	1,745	0.0
09	3	734	0.0
10	1	221	0.0
Total	20,177	4,418,160	100.0

VEHICLE BODY TYPE

BODY	Record Count	Weighted Total	Percent of Total
NO RESPONSE	25	4,153	0.1
CAR OR STATION WAGON	12,741	2,696,889	61.0
VAN	1,776	448,137	10.1
SUV	3,338	766,025	17.3
PICKUP TRUCK	1,801	393,987	8.9
OTHER TRUCK	64	13,309	0.3
RV	42	8,221	0.2
MOTORCYCLE	347	78,138	1.8
OTHER	43	9,301	0.2
Total	20,177	4,418,160	100.0

TPB Modeled Area  
Vehicle File Tabulations

VEHICLE BODY TYPE - OTHER

O_BODY	Record Count	Weighted Total	Percent of Total
NO RESPONSE	20,134	4,408,859	99.8
AIRCRAFT	1	157	0.0
ANTIQUE	1	374	0.0
ATV	2	657	0.0
BOAT	2	336	0.0
BOX TRUCK	1	634	0.0
BUS	3	1,435	0.0
CAR/SUV	1	166	0.0
COMPACT SUV	1	233	0.0
CROSS-OVER (	1	205	0.0
CROSSOVER	1	102	0.0
CUBE TRUCK	1	230	0.0
JEEP	2	197	0.0
MAXI SCOOTE	1	125	0.0
MOPED	5	1,425	0.0
SCOOTER	8	904	0.0
SCOOTER/MOP	4	605	0.0
SEDAN	2	306	0.0
SPORTS CAR	2	394	0.0
TRACTOR	2	519	0.0
TRACTOR TRA	1	156	0.0
TRAILER	1	141	0.0
Total	20,177	4,418,160	100.0

VEHICLE FUEL TYPE

FUEL	Record Count	Weighted Total	Percent of Total
NO RESPONSE	25	4,283	0.1
GAS	19,569	4,295,296	97.2
DIESEL	238	50,070	1.1
ELECTRIC/HYBRID	343	68,005	1.5
OTHER	2	506	0.0
Total	20,177	4,418,160	100.0



TPB Modeled Area  
 Vehicle File Tabulations

VEHICLE FUEL TYPE - OTHER

O_FUEL	Record Count	Weighted Total	Percent of Total
NO RESPONSE	20,175	4,417,654	100.0
BIODIESEL (	1	365	0.0
DOESNT USE	1	141	0.0
Total	20,177	4,418,160	100.0

TPB Modeled Area  
 Vehicle File Tabulations

VEHICLE MODEL YEAR

YEAR	Record Count	Weighted Total	Percent of Total
NO RESPONSE	511	114,797	2.6
1930	1	113	0.0
1937	1	399	0.0
1938	1	110	0.0
1940	1	166	0.0
1941	1	132	0.0
1947	1	100	0.0
1949	1	117	0.0
1950	3	669	0.0
1953	1	230	0.0
1954	2	559	0.0
1955	4	866	0.0
1956	4	492	0.0
1957	3	768	0.0
1959	3	746	0.0
1960	3	722	0.0
1961	1	259	0.0
1962	5	787	0.0
1963	3	497	0.0
1964	6	794	0.0
1965	8	1,856	0.0
1966	18	4,719	0.1
1967	10	2,354	0.1
1968	11	2,098	0.0
1969	24	5,116	0.1
1970	16	2,800	0.1
1971	12	2,313	0.1
1972	14	3,533	0.1
1973	12	3,261	0.1
1974	19	5,096	0.1
1975	10	1,928	0.0
1976	17	3,500	0.1
1977	20	3,519	0.1
1978	23	4,076	0.1
1979	16	3,080	0.1
1980	25	4,840	0.1
1981	9	1,775	0.0
1982	18	3,445	0.1
1983	25	5,264	0.1
1984	37	9,074	0.2
1985	65	11,737	0.3
1986	79	15,962	0.4
1987	90	19,539	0.4
1988	110	21,315	0.5

TPB Modeled Area  
 Vehicle File Tabulations

VEHICLE MODEL YEAR

YEAR	Record Count	Weighted Total	Percent of Total
1989	162	33,662	0.8
1990	198	43,051	1.0
1991	257	55,059	1.2
1992	286	59,971	1.4
1993	393	85,430	1.9
1994	485	100,003	2.3
1995	682	146,395	3.3
1996	769	166,609	3.8
1997	842	181,874	4.1
1998	1,009	214,859	4.9
1999	1,176	255,800	5.8
2000	1,547	340,614	7.7
2001	1,513	335,609	7.6
2002	1,691	364,654	8.3
2003	1,694	374,216	8.5
2004	1,793	393,987	8.9
2005	1,700	378,703	8.6
2006	1,470	337,728	7.6
2007	1,131	255,701	5.8
2008	135	28,712	0.6
Total	20,177	4,418,160	100.0

TPB Modeled Area  
Vehicle File Tabulations

VEHICLE MAKE

MAKE	Record Count	Weighted Total	Percent of Total
NO RESPONSE	201	41,089	0.9
ACURA	407	89,339	2.0
AUDI	152	34,119	0.8
BMW	501	105,792	2.4
BUICK	390	74,853	1.7
CADILLAC	221	40,626	0.9
CHEVROLET	1,461	336,044	7.6
CHRYSLER	568	127,015	2.9
DODGE	832	193,427	4.4
FORD	2,330	525,959	11.9
GEO	58	10,967	0.2
GMC	226	51,579	1.2
HARLEY DAVIDSON	117	25,168	0.6
HONDA	2,623	588,925	13.3
HUMMER	6	1,951	0.0
HYUNDAI	317	73,043	1.7
INFINITI	119	25,629	0.6
ISUZU	70	16,249	0.4
JAGUAR	63	14,268	0.3
JEEP	470	107,076	2.4
KAWASAKI	20	4,522	0.1
KIA	96	22,548	0.5
LEXUS	345	73,828	1.7
LINCOLN	163	34,941	0.8
MAZDA	504	103,134	2.3
MERCEDES	426	87,192	2.0
MERCURY	275	53,546	1.2
MITSUBISHI	156	34,686	0.8
NISSAN	828	186,410	4.2
OLDSMOBILE	177	35,324	0.8
PLYMOUTH	104	24,513	0.6
PONTIAC	309	71,266	1.6
PORSCHE	44	9,551	0.2
RANGE ROVER	29	5,635	0.1
SAAB	113	21,294	0.5
SATURN	415	87,619	2.0
SCION	41	9,670	0.2
SUBARU	494	95,065	2.2
SUZUKI	68	17,393	0.4
TOYOTA	3,274	708,113	16.0
VOLKSWAGEN	578	120,659	2.7
VOLVO	461	99,532	2.3
YAMAHA	34	8,788	0.2
OTHER	91	19,815	0.4

TPB Modeled Area  
Vehicle File Tabulations

VEHICLE MAKE

MAKE	Record Count	Weighted Total	Percent of Total
Total	20,177	4,418,160	100.0

VEHICLE MAKE - OTHER

O_MAKE	Record Count	Weighted Total	Percent of Total
NO RESPONSE	20,137	4,409,779	99.8
ALFA ROMEO	1	117	0.0
ALFA-ROMEO	2	529	0.0
APOLO	1	430	0.0
ARNOLT-BRIS	1	117	0.0
BUELL	1	222	0.0
BW	1	205	0.0
DAMON	1	106	0.0
DATSUN	2	461	0.0
DUCATI	2	574	0.0
EAGLE	5	1,197	0.0
EXPRESS	1	223	0.0
FERRARI	1	255	0.0
FREIGHT LIN	1	79	0.0
GEORGIE BOY	1	178	0.0
HOLIDAY RAM	2	287	0.0
ITASCA	1	213	0.0
MASARATI	1	386	0.0
MG	5	877	0.0
MOONY	1	157	0.0
ROLLS ROYCE	1	157	0.0
SEGWAY	1	100	0.0
TIERRA	1	113	0.0
TRACTOR	1	259	0.0
TRIUMPH	3	536	0.0
VICTORY	1	374	0.0
WINNEBAGO	1	229	0.0
Total	20,177	4,418,160	100.0

# Appendix L: Person File Frequencies

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TPB Modeled Area  
Person File Tabulations

AGE

age	Record Count	Weighted Total	Percent of Total
0	301	85,908	1.5
1	243	72,079	1.2
2	300	90,184	1.5
3	293	87,370	1.5
4	310	96,843	1.7
5	269	78,719	1.3
6	284	89,236	1.5
7	261	83,241	1.4
8	272	81,642	1.4
9	274	87,043	1.5
10	286	84,294	1.4
11	262	81,088	1.4
12	272	83,888	1.4
13	307	88,638	1.5
14	314	91,206	1.6
15	334	96,272	1.6
16	328	93,874	1.6
17	303	86,001	1.5
18	180	52,221	0.9
19	141	44,499	0.8
20	130	34,465	0.6
21	143	39,350	0.7
22	160	44,242	0.8
23	179	47,574	0.8
24	192	49,444	0.8
25	219	54,119	0.9
26	253	55,950	1.0
27	262	59,152	1.0
28	276	62,977	1.1
29	276	61,706	1.1
30	387	88,209	1.5
31	252	63,591	1.1
32	300	67,720	1.2
33	318	77,507	1.3
34	279	68,686	1.2
35	361	83,673	1.4
36	329	86,374	1.5
37	376	92,879	1.6
38	335	91,945	1.6
39	342	86,822	1.5
40	418	105,606	1.8
41	336	86,215	1.5
42	377	93,789	1.6
43	399	98,375	1.7

TPB Modeled Area  
 Person File Tabulations

AGE

age	Record Count	Weighted Total	Percent of Total
44	418	102,831	1.8
45	429	105,232	1.8
46	404	95,867	1.6
47	403	97,230	1.7
48	424	100,573	1.7
49	442	101,373	1.7
50	596	133,008	2.3
51	382	84,861	1.4
52	420	88,364	1.5
53	415	86,041	1.5
54	436	88,340	1.5
55	499	96,625	1.6
56	422	80,402	1.4
57	432	83,227	1.4
58	456	83,745	1.4
59	404	74,088	1.3
60	591	109,044	1.9
61	357	64,929	1.1
62	378	71,876	1.2
63	333	60,408	1.0
64	324	56,758	1.0
65	329	60,253	1.0
66	239	39,907	0.7
67	253	43,499	0.7
68	211	36,303	0.6
69	203	34,357	0.6
70	273	46,097	0.8
71	175	29,556	0.5
72	196	33,230	0.6
73	160	25,909	0.4
74	160	28,526	0.5
75	174	26,387	0.5
76	165	27,846	0.5
77	141	22,721	0.4
78	151	25,458	0.4
79	121	20,881	0.4
80	115	17,424	0.3
81	81	12,970	0.2
82	103	17,517	0.3
83	81	15,464	0.3
84	77	15,194	0.3
85	83	13,638	0.2
86	79	13,039	0.2
87	42	7,235	0.1



TPB Modeled Area  
Person File Tabulations

AGE

age	Record Count	Weighted Total	Percent of Total
88	48	8,239	0.1
89	37	5,984	0.1
90	30	4,528	0.1
91	18	2,330	0.0
92	11	3,462	0.1
93	9	1,351	0.0
94	4	1,013	0.0
95	3	611	0.0
97	1	166	0.0
99	3	800	0.0
102	1	178	0.0
105+	4	486	0.0
Total	25,179	5,861,992	100.0

AGE GROUP

ageg	Record Count	Weighted Total	Percent of Total
0-4	1,447	432,384	7.4
5-15	3,135	945,267	16.1
16-18	811	232,096	4.0
19-24	945	259,574	4.4
25-34	2,822	659,618	11.3
35-44	3,691	928,508	15.8
45-54	4,351	980,887	16.7
55-64	4,196	781,102	13.3
65-74	2,199	377,636	6.4
75+	1,582	264,919	4.5
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

GENDER

gend	Record Count	Weighted Total	Percent of Total
Male	11,774	2,768,974	47.2
Female	13,405	3,093,018	52.8
Total	25,179	5,861,992	100.0

RACE/ETHNICITY

race	Record Count	Weighted Total	Percent of Total
African American/Black	3,876	937,556	16.0
American Indian or Alaskan Native	112	25,913	0.4
Asian	1,131	318,029	5.4
Hispanic(of any race)	1,033	267,316	4.6
Pacific Islander	42	11,184	0.2
White	18,481	4,184,641	71.4
Multiracial	504	117,354	2.0
Total	25,179	5,861,992	100.0

RELATIONSHIP

relate	Record Count	Weighted Total	Percent of Total
Respondent/Reference Person	11,436	2,339,595	39.9
Spouse/Partner	6,504	1,434,371	24.5
Child	6,025	1,762,257	30.1
Parent	311	89,221	1.5
Grandparent	14	5,697	0.1
Grandchild	176	49,846	0.9
Other relative	338	91,883	1.6
Not related	357	82,177	1.4
Unknown	18	6,945	0.1
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

DRIVER'S LICENSE?

lic	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Yes	19,034	4,122,935	70.3
No	1,563	361,405	6.2
Total	25,179	5,861,992	100.0

PERSONAL DISABILITY

pedis	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Not Reported	125	28,174	0.5
Yes	2,254	469,254	8.0
No	18,218	3,986,912	68.0
Total	25,179	5,861,992	100.0

WORK STATUS

wkstat	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Employed	13,847	3,095,700	52.8
Retired	3,948	684,192	11.7
Disabled	426	86,191	1.5
Homemaker	1,111	286,187	4.9
Unemployed,looking for job	340	82,501	1.4
Unemployed,Not looking for job	94	19,074	0.3
Student	831	230,496	3.9
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

EMPLOYED?

employ	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Yes	13,847	3,095,700	52.8
No	6,750	1,388,641	23.7
Total	25,179	5,861,992	100.0

NUMBER OF JOBS

jobs	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
1	12,938	2,878,597	49.1
2	827	197,489	3.4
3	79	19,210	0.3
4	2	203	0.0
5	1	200	0.0
Total	25,179	5,861,992	100.0

TYPE OF EMPLOYMENT

etype	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	138	30,526	0.5
Profit firm	6,055	1,404,852	24.0
Private Non-profit firm	1,874	394,758	6.7
Federal government	2,776	600,904	10.3
State or Local government	1,674	378,786	6.5
Foreign Gov't or Int'l org	91	16,262	0.3
Self employed	1,239	269,611	4.6
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

HOURS WORKED LAST WEEK

hours	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	422	94,876	1.6
0	609	134,843	2.3
1	5	1,034	0.0
2	11	2,039	0.0
3	24	5,036	0.1
4	49	12,360	0.2
5	41	9,328	0.2
6	34	6,179	0.1
7	16	3,671	0.1
8	97	25,386	0.4
9	20	3,897	0.1
10	102	22,480	0.4
11	10	2,769	0.0
12	84	18,672	0.3
13	10	2,099	0.0
14	19	4,943	0.1
15	126	30,485	0.5
16	108	24,491	0.4
17	20	5,121	0.1
18	43	9,434	0.2
19	6	1,422	0.0
20	376	86,125	1.5
21	27	6,512	0.1
22	30	6,454	0.1
23	19	3,136	0.1
24	225	50,411	0.9
25	173	41,156	0.7
26	32	7,239	0.1
27	32	6,879	0.1
28	56	12,643	0.2
29	6	1,438	0.0
30	382	85,048	1.5
31	8	1,697	0.0
32	338	75,188	1.3
33	23	5,164	0.1
34	26	4,953	0.1
35	345	75,446	1.3
36	173	40,917	0.7
37	96	19,823	0.3
38	111	22,890	0.4
39	16	3,613	0.1
40	5,153	1,163,341	19.8
41	42	8,574	0.1

TPB Modeled Area  
 Person File Tabulations

HOURS WORKED LAST WEEK

hours	Record Count	Weighted Total	Percent of Total
42	156	36,437	0.6
43	66	13,355	0.2
44	133	30,867	0.5
45	937	198,261	3.4
46	59	13,658	0.2
47	50	11,214	0.2
48	189	40,793	0.7
49	16	3,156	0.1
50	1,185	260,118	4.4
51	16	4,209	0.1
52	70	17,097	0.3
53	18	3,925	0.1
54	21	4,381	0.1
55	298	64,191	1.1
56	52	13,375	0.2
57	10	2,245	0.0
58	23	4,919	0.1
59	5	798	0.0
60+	998	223,487	3.8
Total	25,179	5,861,992	100.0

REASON DID NOT WORK LAST WEEK

reason	Record Count	Weighted Total	Percent of Total
Not Applicable	24,570	5,727,149	97.7
Not Reported	8	1,498	0.0
On Vacation/Holiday	352	79,328	1.4
Temporary Lay-Off/Not Scheduled to Work	111	24,495	0.4
Lost Job/Looking for new/better One	11	2,912	0.0
Sick or Unpaid Leave	81	16,361	0.3
Other	46	10,249	0.2
Total	25,179	5,861,992	100.0

TPB Modeled Area  
 Person File Tabulations

WORK LOCATION

wloc	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	31	6,391	0.1
Home	1,229	266,484	4.5
Regular Workplace	12,381	2,780,105	47.4
Varies - Most recent Location	129	27,758	0.5
Varies - Central Office Location	77	14,962	0.3
Total	25,179	5,861,992	100.0

TPB Modeled Area  
 Person File Tabulations

PLACE OF WORK

work_jur	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	36	7,812	0.1
California	3	509	0.0
Connecticut	1	229	0.0
Delaware	1	194	0.0
District of Columbia,DC	3,687	718,258	12.3
Florida	2	260	0.0
Illinois	1	194	0.0
Kentucky	1	295	0.0
Anne Arundel County,MD	722	188,645	3.2
Baltimore County,MD	207	43,163	0.7
Calvert County,MD	75	21,248	0.4
Carroll County,MD	266	44,316	0.8
Charles County,MD	165	41,080	0.7
Dorchester County,MD	2	522	0.0
Frederick County,MD	341	77,568	1.3
Harford County,MD	8	1,551	0.0
Howard County,MD	422	91,564	1.6
Montgomery County,MD	1,714	394,475	6.7
Prince George's County,MD	1,200	278,466	4.8
Queen Anne's County,MD	5	724	0.0
St. Mary's County,MD	140	44,378	0.8
Talbot County,MD	3	538	0.0
Washington County,MD	7	1,590	0.0
Worcester County,MD	1	229	0.0
Baltimore City,MD	245	54,658	0.9
Michigan	1	325	0.0
Minnesota	1	229	0.0
New Hampshire	1	250	0.0
New Jersey	3	429	0.0
New Mexico	1	110	0.0
New York	5	1,084	0.0
North Carolina	3	570	0.0
Ohio	1	205	0.0
Pennsylvania	10	1,863	0.0
South Carolina	1	374	0.0
Texas	1	298	0.0
Vermont	1	113	0.0
Arlington County,VA	903	182,595	3.1
Caroline County,VA	1	125	0.0
Clarke County,VA	24	2,837	0.0
Culpeper County,VA	8	2,659	0.0
Fairfax County/Cities,VA	1,993	497,053	8.5
Fauquier County,VA	47	11,287	0.2



TPB Modeled Area  
Person File Tabulations

PLACE OF WORK

work_jur	Record Count	Weighted Total	Percent of Total
Henrico County,VA	2	416	0.0
King George,VA	63	12,671	0.2
Loudoun County,VA	400	92,389	1.6
Prince William County/Cities,VA	411	113,033	1.9
Rockingham County,VA	1	169	0.0
Shenandoah County,VA	1	79	0.0
Spotsylvania County,VA	63	22,996	0.4
Stafford County,VA	94	25,557	0.4
Warren County,VA	2	244	0.0
Westmoreland County,VA	2	485	0.0
Alexandria,VA	369	74,575	1.3
Fredericksburg City,VA	65	18,372	0.3
Hampton City,VA	1	132	0.0
Lynchburg City,VA	1	297	0.0
Norfolk City,VA	1	122	0.0
Richmond City,VA	7	2,014	0.0
Virginia Beach City,VA	1	211	0.0
Winchester City, VA	21	3,420	0.1
Berkeley County,WV	16	2,604	0.0
Jefferson County,WV	65	10,735	0.2
Outside USA	1	309	0.0
Total	25,179	5,861,992	100.0

USUAL MEANS TO WORK LAST WEEK

gtowk	Record Count	Weighted Total	Percent of Total
Not Applicable	11,941	2,901,135	49.5
Not Reported	275	63,462	1.1
Worked at Home	1,268	271,809	4.6
Auto Drove Alone	8,756	2,041,082	34.8
2-Person Carpool	464	107,491	1.8
3+-Person Carpool	102	25,993	0.4
Transit	1,920	370,285	6.3
Taxi/Limo	18	3,070	0.1
Walk	320	55,578	0.9
Bike	100	19,153	0.3
Other	15	2,934	0.1
Total	25,179	5,861,992	100.0

TPB Modeled Area  
 Person File Tabulations

PRIMARY JOB START TIME

start01	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	528	118,841	2.0
00:00	12	2,973	0.1
01:00	4	887	0.0
01:30	1	414	0.0
02:00	3	664	0.0
02:30	1	141	0.0
03:00	32	6,462	0.1
03:30	5	1,003	0.0
04:00	39	9,424	0.2
04:30	23	4,764	0.1
04:45	1	356	0.0
05:00	118	30,044	0.5
05:15	5	887	0.0
05:20	1	201	0.0
05:30	91	21,420	0.4
05:35	1	255	0.0
05:40	3	673	0.0
05:45	7	2,566	0.0
05:50	1	268	0.0
06:00	554	130,340	2.2
06:12	1	178	0.0
06:15	34	7,802	0.1
06:20	4	737	0.0
06:25	1	121	0.0
06:30	440	101,687	1.7
06:31	1	106	0.0
06:40	4	1,033	0.0
06:45	64	15,701	0.3
06:50	6	1,040	0.0
06:55	1	125	0.0
07:00	1,555	372,430	6.4
07:10	10	2,233	0.0
07:15	64	14,338	0.2
07:20	6	986	0.0
07:25	3	410	0.0
07:30	1,140	248,668	4.2
07:35	1	261	0.0
07:40	5	809	0.0
07:45	107	23,639	0.4
07:50	8	1,592	0.0
08:00	2,690	604,732	10.3
08:03	1	125	0.0
08:10	4	503	0.0

TPB Modeled Area  
Person File Tabulations

PRIMARY JOB START TIME

start01	Record Count	Weighted Total	Percent of Total
08:15	76	14,868	0.3
08:17	1	186	0.0
08:20	8	1,342	0.0
08:30	1,401	298,870	5.1
08:35	2	283	0.0
08:40	2	512	0.0
08:45	61	11,620	0.2
08:50	1	156	0.0
08:55	1	165	0.0
09:00	2,418	517,448	8.8
09:10	1	211	0.0
09:15	39	7,082	0.1
09:17	1	211	0.0
09:20	1	441	0.0
09:30	431	88,011	1.5
09:40	3	830	0.0
09:45	9	2,413	0.0
10:00	641	144,212	2.5
10:07	1	95	0.0
10:15	6	1,345	0.0
10:30	58	12,905	0.2
10:45	3	567	0.0
11:00	142	30,273	0.5
11:04	1	121	0.0
11:15	2	312	0.0
11:30	23	4,709	0.1
11:45	1	230	0.0
11:50	1	169	0.0
12:00	152	32,872	0.6
12:30	15	2,894	0.0
12:45	1	129	0.0
13:00	72	16,744	0.3
13:30	10	1,940	0.0
13:45	1	369	0.0
14:00	77	18,801	0.3
14:15	1	527	0.0
14:30	19	3,976	0.1
14:45	1	142	0.0
15:00	121	31,336	0.5
15:15	1	103	0.0
15:30	17	4,035	0.1
15:45	1	306	0.0
16:00	116	30,418	0.5
16:15	1	283	0.0

TPB Modeled Area  
Person File Tabulations

PRIMARY JOB START TIME

start01	Record Count	Weighted Total	Percent of Total
16:20	1	294	0.0
16:27	1	273	0.0
16:30	11	3,238	0.1
17:00	76	17,614	0.3
17:15	1	200	0.0
17:30	16	3,220	0.1
17:36	1	113	0.0
18:00	50	13,068	0.2
18:05	1	130	0.0
18:30	13	3,424	0.1
18:45	2	355	0.0
19:00	53	12,038	0.2
19:15	1	229	0.0
19:30	5	955	0.0
20:00	14	3,924	0.1
20:30	2	675	0.0
20:40	1	130	0.0
21:00	16	4,296	0.1
21:30	3	632	0.0
22:00	19	4,555	0.1
22:15	1	186	0.0
22:30	7	1,787	0.0
22:45	1	205	0.0
23:00	28	7,520	0.1
23:30	2	343	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
 Person File Tabulations

PRIMARY JOB END TIME

end01	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	528	118,841	2.0
00:00	50	15,019	0.3
00:15	1	338	0.0
01:00	13	2,660	0.0
01:30	2	381	0.0
02:00	24	6,887	0.1
02:30	1	102	0.0
02:59	25	5,300	0.1
03:00	21	5,343	0.1
03:30	2	558	0.0
04:00	4	1,567	0.0
04:30	1	434	0.0
04:45	1	268	0.0
05:00	12	2,985	0.1
05:30	2	617	0.0
06:00	21	5,295	0.1
06:15	1	186	0.0
06:30	4	838	0.0
07:00	60	15,503	0.3
07:15	1	252	0.0
07:25	1	130	0.0
07:30	8	1,796	0.0
08:00	20	5,140	0.1
08:15	1	95	0.0
08:30	8	1,962	0.0
08:45	1	298	0.0
08:59	1	106	0.0
09:00	11	3,002	0.1
09:15	1	175	0.0
09:30	5	844	0.0
10:00	26	6,948	0.1
10:30	6	1,335	0.0
10:35	1	130	0.0
11:00	20	3,414	0.1
11:30	11	3,234	0.1
11:45	1	226	0.0
11:59	1	325	0.0
12:00	144	32,256	0.6
12:01	1	113	0.0
12:15	4	642	0.0
12:30	15	3,219	0.1
12:45	2	543	0.0
12:48	1	255	0.0

TPB Modeled Area  
Person File Tabulations

PRIMARY JOB END TIME

end01	Record Count	Weighted Total	Percent of Total
13:00	119	26,360	0.4
13:15	4	806	0.0
13:30	59	12,825	0.2
13:45	1	328	0.0
13:50	4	608	0.0
13:53	1	174	0.0
14:00	279	64,777	1.1
14:05	1	90	0.0
14:10	2	263	0.0
14:15	7	1,654	0.0
14:30	175	41,688	0.7
14:40	4	1,412	0.0
14:45	19	4,571	0.1
14:50	1	95	0.0
15:00	687	163,013	2.8
15:10	3	459	0.0
15:15	42	8,500	0.1
15:20	2	793	0.0
15:25	2	200	0.0
15:30	618	141,839	2.4
15:40	8	1,282	0.0
15:45	40	9,200	0.2
15:50	1	156	0.0
16:00	1,468	334,151	5.7
16:05	1	169	0.0
16:07	1	156	0.0
16:10	4	588	0.0
16:15	42	9,534	0.2
16:19	1	178	0.0
16:20	1	174	0.0
16:30	1,090	248,346	4.2
16:35	5	666	0.0
16:43	1	93	0.0
16:45	75	16,212	0.3
16:50	3	411	0.0
16:55	3	773	0.0
17:00	2,772	627,325	10.7
17:08	1	338	0.0
17:10	3	763	0.0
17:13	2	286	0.0
17:15	54	10,614	0.2
17:20	5	926	0.0
17:30	1,032	223,130	3.8
17:45	29	6,977	0.1

TPB Modeled Area  
 Person File Tabulations

PRIMARY JOB END TIME

end01	Record Count	Weighted Total	Percent of Total
17:50	3	490	0.0
17:55	1	123	0.0
17:59	1	231	0.0
18:00	1,692	362,773	6.2
18:10	2	350	0.0
18:15	28	5,876	0.1
18:29	1	229	0.0
18:30	508	103,625	1.8
18:40	2	582	0.0
18:45	12	2,375	0.0
18:59	1	162	0.0
19:00	719	150,902	2.6
19:10	2	267	0.0
19:15	11	1,905	0.0
19:30	165	36,147	0.6
19:35	1	309	0.0
19:38	1	230	0.0
19:45	1	511	0.0
19:50	1	107	0.0
20:00	320	67,666	1.2
20:15	2	468	0.0
20:30	47	9,514	0.2
20:40	1	90	0.0
20:45	5	1,246	0.0
21:00	232	49,778	0.8
21:05	1	273	0.0
21:15	1	222	0.0
21:30	34	7,958	0.1
21:45	3	782	0.0
22:00	159	39,448	0.7
22:15	3	921	0.0
22:30	19	4,613	0.1
22:40	1	156	0.0
22:45	1	391	0.0
23:00	109	28,260	0.5
23:30	16	2,989	0.1
23:59	5	1,269	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

PRIMARY JOB WORK SCHEDULE

fixdl	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	332	76,198	1.3
Must Work Fixed Hours	5,456	1,262,186	21.5
Flexible, but Fixed	4,456	959,335	16.4
Hours are Completely Flexible	3,088	677,112	11.6
Alternate Work Hours Schedule	493	115,602	2.0
Other	22	5,267	0.1
Total	25,179	5,861,992	100.0

PRIMARY JOB WORK DAYS

wkdyl	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	330	76,509	1.3
Just Weekday	9,586	2,116,281	36.1
Weekdays and Weekends	3,421	790,739	13.5
Just Weekends	74	19,805	0.3
Varies, No Typical Schedule	436	92,365	1.6
Total	25,179	5,861,992	100.0



TPB Modeled Area  
 Person File Tabulations

2ND JOB START TIME

start01_w2	Record Count	Weighted Total	Percent of Total
Not Applicable	24,270	5,644,890	96.3
Not Reported	157	37,428	0.6
00:00	1	325	0.0
01:00	1	90	0.0
02:00	1	175	0.0
03:00	7	1,440	0.0
04:00	2	678	0.0
05:00	7	2,793	0.0
05:30	1	184	0.0
05:45	1	201	0.0
06:00	15	4,468	0.1
06:30	7	2,269	0.0
07:00	33	9,575	0.2
07:15	1	284	0.0
07:30	18	4,663	0.1
07:45	1	145	0.0
08:00	83	20,160	0.3
08:15	2	346	0.0
08:30	15	3,231	0.1
09:00	63	13,957	0.2
09:30	7	1,410	0.0
10:00	44	9,704	0.2
10:30	5	692	0.0
11:00	18	3,746	0.1
11:30	2	197	0.0
12:00	36	8,812	0.2
12:15	1	90	0.0
12:30	5	1,243	0.0
13:00	16	4,670	0.1
13:30	1	328	0.0
13:45	1	107	0.0
14:00	18	4,652	0.1
14:30	5	936	0.0
15:00	33	7,749	0.1
15:30	7	2,029	0.0
16:00	39	9,902	0.2
16:15	1	205	0.0
16:30	22	5,462	0.1
17:00	45	9,727	0.2
17:30	14	3,184	0.1
17:45	1	141	0.0
18:00	70	15,606	0.3
18:15	1	184	0.0
18:20	1	125	0.0

TPB Modeled Area  
 Person File Tabulations

2ND JOB START TIME

start01_w2	Record Count	Weighted Total	Percent of Total
18:30	17	4,036	0.1
19:00	40	8,946	0.2
19:15	1	297	0.0
19:30	7	1,573	0.0
20:00	19	4,897	0.1
20:30	1	181	0.0
21:00	4	1,149	0.0
21:30	1	294	0.0
22:00	6	1,247	0.0
23:00	4	1,171	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

2ND JOB END TIME

end01_w2	Record Count	Weighted Total	Percent of Total
Not Applicable	24,270	5,644,890	96.3
Not Reported	157	37,428	0.6
00:00	17	5,298	0.1
01:00	3	1,033	0.0
02:00	4	1,058	0.0
02:59	6	1,117	0.0
03:00	3	600	0.0
03:30	1	294	0.0
04:00	2	269	0.0
05:00	1	350	0.0
06:00	2	223	0.0
07:00	4	1,294	0.0
07:30	1	541	0.0
08:00	4	1,604	0.0
08:30	2	667	0.0
09:00	4	490	0.0
09:30	1	229	0.0
10:00	17	3,451	0.1
10:30	2	543	0.0
10:45	1	221	0.0
11:00	14	3,246	0.1
11:30	3	762	0.0
12:00	40	9,962	0.2
12:30	4	832	0.0
12:45	1	123	0.0
13:00	20	4,464	0.1
13:30	4	673	0.0
14:00	25	5,554	0.1
14:30	2	633	0.0
14:45	1	90	0.0
15:00	45	13,708	0.2
15:15	1	634	0.0
15:30	9	3,100	0.1
15:45	1	107	0.0
16:00	56	13,981	0.2
16:30	12	2,932	0.1
16:45	1	166	0.0
17:00	53	12,614	0.2
17:30	12	2,307	0.0
18:00	57	13,064	0.2
18:30	12	2,768	0.0
18:45	1	168	0.0
19:00	51	10,717	0.2
19:15	1	117	0.0

TPB Modeled Area  
Person File Tabulations

2ND JOB END TIME

end01_w2	Record Count	Weighted Total	Percent of Total
19:30	8	1,889	0.0
19:45	1	91	0.0
20:00	49	10,803	0.2
20:30	5	1,684	0.0
21:00	63	14,131	0.2
21:20	1	125	0.0
21:30	16	4,111	0.1
21:45	1	174	0.0
22:00	69	15,327	0.3
22:30	5	1,173	0.0
22:50	1	205	0.0
23:00	29	7,429	0.1
23:30	2	403	0.0
23:59	1	129	0.0
Total	25,179	5,861,992	100.0

2ND JOB WORK SCHEDULE

fixd2	Record Count	Weighted Total	Percent of Total
Not Applicable	24,270	5,644,890	96.3
Not Reported	49	12,933	0.2
Must Work Fixed Hours	294	71,567	1.2
Flexible, but Fixed	154	37,204	0.6
Hours are Completely Flexible	352	81,279	1.4
Alternate Work Hours Schedule	56	13,023	0.2
Other	4	1,097	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

2ND JOB WORK DAYS

wkdy2	Record Count	Weighted Total	Percent of Total
Not Applicable	24,270	5,644,890	96.3
Not Reported	56	14,714	0.3
Just Weekday	272	64,058	1.1
Weekdays and Weekends	349	80,665	1.4
Just Weekends	122	32,384	0.6
Varies, No Typical Schedule	110	25,282	0.4
Total	25,179	5,861,992	100.0

3RD JOB START TIME

start01_w3	Record Count	Weighted Total	Percent of Total
Not Applicable	25,097	5,842,379	99.7
Not Reported	18	4,072	0.1
05:30	2	813	0.0
06:00	1	205	0.0
07:00	1	174	0.0
07:30	1	175	0.0
08:00	4	930	0.0
09:00	7	1,331	0.0
09:30	1	391	0.0
09:45	1	110	0.0
10:00	6	1,295	0.0
11:00	1	507	0.0
12:00	5	1,843	0.0
13:00	3	575	0.0
13:30	1	547	0.0
14:00	1	196	0.0
15:00	3	581	0.0
15:45	1	174	0.0
16:00	6	955	0.0
17:00	5	1,301	0.0
18:00	4	829	0.0
18:30	4	693	0.0
19:30	2	787	0.0
20:00	3	835	0.0
21:30	1	297	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

3RD JOB END TIME

end01_w3	Record Count	Weighted Total	Percent of Total
Not Applicable	25,097	5,842,379	99.7
Not Reported	18	4,072	0.1
00:00	1	91	0.0
03:00	1	634	0.0
07:45	1	226	0.0
10:00	1	110	0.0
11:30	1	391	0.0
12:00	4	826	0.0
12:15	1	110	0.0
13:00	3	1,171	0.0
14:00	6	1,304	0.0
15:00	5	1,715	0.0
15:30	1	547	0.0
16:00	2	308	0.0
16:30	1	166	0.0
17:00	4	900	0.0
17:30	2	295	0.0
18:00	5	862	0.0
19:00	5	851	0.0
20:00	6	1,901	0.0
21:00	3	483	0.0
21:30	5	1,279	0.0
22:00	3	681	0.0
23:00	2	394	0.0
23:30	1	297	0.0
Total	25,179	5,861,992	100.0

3RD JOB WORK SCHEDULE

fixd3	Record Count	Weighted Total	Percent of Total
Not Applicable	25,097	5,842,379	99.7
Not Reported	9	2,279	0.0
Must Work Fixed Hours	16	3,199	0.1
Flexible, but Fixed	15	3,373	0.1
Hours are Completely Flexible	36	9,122	0.2
Alternate Work Hours Schedule	6	1,640	0.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

3RD JOB WORK DAYS

wkdy3	Record Count	Weighted Total	Percent of Total
Not Applicable	25,097	5,842,379	99.7
Not Reported	8	2,067	0.0
Just Weekday	31	7,067	0.1
Weekdays and Weekends	23	5,530	0.1
Just Weekends	9	2,184	0.0
Varies, No Typical Schedule	11	2,765	0.0
<b>Total</b>	<b>25,179</b>	<b>5,861,992</b>	<b>100.0</b>

4TH JOB START TIME

start01_w4	Record Count	Weighted Total	Percent of Total
Not Applicable	25,176	5,861,589	100.0
Not Reported	1	200	0.0
09:00	1	90	0.0
14:00	1	113	0.0
<b>Total</b>	<b>25,179</b>	<b>5,861,992</b>	<b>100.0</b>

4TH JOB END TIME

end01_w4	Record Count	Weighted Total	Percent of Total
Not Applicable	25,176	5,861,589	100.0
Not Reported	1	200	0.0
16:00	1	113	0.0
17:00	1	90	0.0
<b>Total</b>	<b>25,179</b>	<b>5,861,992</b>	<b>100.0</b>

TPB Modeled Area  
Person File Tabulations

4TH JOB WORK SCHEDULE

fixd4	Record Count	Weighted Total	Percent of Total
Not Applicable	25,176	5,861,589	100.0
Not Reported	1	200	0.0
Must Work Fixed Hours	1	90	0.0
Hours are Completely Flexible	1	113	0.0
Total	25,179	5,861,992	100.0

4TH JOB WORK DAYS

wkdy4	Record Count	Weighted Total	Percent of Total
Not Applicable	25,176	5,861,589	100.0
Not Reported	1	200	0.0
Just Weekday	1	90	0.0
Weekdays and Weekends	1	113	0.0
Total	25,179	5,861,992	100.0

5TH JOB START TIME

start01_w5	Record Count	Weighted Total	Percent of Total
Not Applicable	25,178	5,861,792	100.0
Not Reported	1	200	0.0
Total	25,179	5,861,992	100.0

5TH JOB END TIME

end01_w5	Record Count	Weighted Total	Percent of Total
Not Applicable	25,178	5,861,792	100.0
Not Reported	1	200	0.0
Total	25,179	5,861,992	100.0



TPB Modeled Area  
Person File Tabulations

5TH JOB WORK SCHEDULE

fixd5	Record Count	Weighted Total	Percent of Total
Not Applicable	25,178	5,861,792	100.0
Not Reported	1	200	0.0
Total	25,179	5,861,992	100.0

5TH JOB WORK DAYS

wkdy5	Record Count	Weighted Total	Percent of Total
Not Applicable	25,178	5,861,792	100.0
Not Reported	1	200	0.0
Total	25,179	5,861,992	100.0

ELIGIBLE TO TELECOMUTE?

eltlc	Record Count	Weighted Total	Percent of Total
Not Applicable	11,332	2,766,292	47.2
Not Reported	497	112,647	1.9
Yes	3,380	725,508	12.4
No	9,970	2,257,545	38.5
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

DAYS TELECOMMUTED LAST WEEK

datlc	Record Count	Weighted Total	Percent of Total
Not Applicable	21,799	5,136,484	87.6
Not Reported	30	5,544	0.1
0	1,524	328,049	5.6
1	586	130,575	2.2
2	286	61,044	1.0
3	170	35,797	0.6
4	105	21,715	0.4
5	679	142,784	2.4
Total	25,179	5,861,992	100.0

Employer Provides Free Parking

tb01	Record Count	Weighted Total	Percent of Total
Not Applicable	12,973	3,124,979	53.3
Yes	6,401	1,492,044	25.5
No	5,805	1,244,969	21.2
Total	25,179	5,861,992	100.0

Employer and Employee Share Parking Cost

tb02	Record Count	Weighted Total	Percent of Total
Not Applicable	12,973	3,124,979	53.3
Yes	317	66,036	1.1
No	11,889	2,670,977	45.6
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

Employer Provides Preferential Parking for Carpools/Vanpools

	Record Count	Weighted Total	Percent of Total
tb03			
Not Applicable	12,973	3,124,979	53.3
Yes	385	83,388	1.4
No	11,821	2,653,624	45.3
Total	25,179	5,861,992	100.0

Employer Provides Subsidies for Carpool/Vanpools

	Record Count	Weighted Total	Percent of Total
tb04			
Not Applicable	12,973	3,124,979	53.3
Yes	287	62,741	1.1
No	11,919	2,674,271	45.6
Total	25,179	5,861,992	100.0

Employer Provides Subsidies for Transit/Vanpooling

	Record Count	Weighted Total	Percent of Total
tb05			
Not Applicable	12,973	3,124,979	53.3
Yes	2,284	469,699	8.0
No	9,922	2,267,314	38.7
Total	25,179	5,861,992	100.0

Guaranteed Ride Home Available to Employee

	Record Count	Weighted Total	Percent of Total
tb06			
Not Applicable	12,973	3,124,979	53.3
Yes	426	97,250	1.7
No	11,780	2,639,763	45.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

Employer Provides Bike/Pedestrian Facilities or Services

tb07	Record Count	Weighted Total	Percent of Total
Not Applicable	12,973	3,124,979	53.3
Yes	1,355	298,619	5.1
No	10,851	2,438,393	41.6
Total	25,179	5,861,992	100.0

Employer Provides Information on Commute Options

tb08	Record Count	Weighted Total	Percent of Total
Not Applicable	12,973	3,124,979	53.3
Yes	1,092	234,830	4.0
No	11,114	2,502,183	42.7
Total	25,179	5,861,992	100.0

Employer Does Not Offer Transportation Benefits

tb09	Record Count	Weighted Total	Percent of Total
Not Applicable	12,973	3,124,979	53.3
Does Not Offer Benefits	2,939	653,040	11.1
Offeres Benefits	9,267	2,083,972	35.6
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

SECURE BICYCLE FACILITY AT WORK?

secbf	Record Count	Weighted Total	Percent of Total
Not Applicable	12,561	3,032,776	51.7
Not Reported	118	25,327	0.4
Yes	4,595	1,003,329	17.1
No	6,178	1,419,951	24.2
Unknown	1,727	380,609	6.5
Total	25,179	5,861,992	100.0

NUMBER OF WEEKDAYS USED BICYCLE

btrvl	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Not Reported	581	140,134	2.4
0	19,171	4,162,905	71.0
1	324	69,775	1.2
2	216	50,781	0.9
3	114	22,501	0.4
4	70	15,163	0.3
5	121	23,082	0.4
Total	25,179	5,861,992	100.0

TYPE OF BIKEWAY MOSTLY USED

buser	Record Count	Weighted Total	Percent of Total
Not Applicable	24,334	5,680,690	96.9
Not Reported	42	11,041	0.2
Off-Road Bike Trails or Sidewalks	221	49,517	0.8
On-Road Lanes or Surface Streets	305	62,809	1.1
Evenly Split between Road and Trails	277	57,934	1.0
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

ATTEND SCHOOL?

stud	Record Count	Weighted Total	Percent of Total
Not Reported	14	3,727	0.1
Yes-Full time	4,759	1,397,713	23.8
Yes- Part time	1,168	278,394	4.7
No	19,238	4,182,158	71.3
Total	25,179	5,861,992	100.0

CURRENT GRADE LEVEL

schol	Record Count	Weighted Total	Percent of Total
Not Applicable	19,252	4,185,885	71.4
Not Reported	1	268	0.0
Daycare	265	73,657	1.3
Nursery School, Pre-School	425	123,801	2.1
Kindergarten to 8th Grade	2,418	743,241	12.7
Grades 9-12	1,269	361,513	6.2
Technical/Vocation School	84	17,852	0.3
2-Year CollegeE	392	106,007	1.8
4-Year College or University	519	131,083	2.2
Graduate School/Professional Degree School	461	99,690	1.7
Other	93	18,994	0.3
Total	25,179	5,861,992	100.0

SCHOOL LOCATION

sloc	Record Count	Weighted Total	Percent of Total
Not Applicable	19,252	4,185,885	71.4
Not Reported	7	1,988	0.0
Home	245	68,669	1.2
Public or Private School	5,675	1,605,451	27.4
Total	25,179	5,861,992	100.0

TPB Modeled Area  
 Person File Tabulations

SECURE BICYCLE FACILITY AT SCHOOL?

sbypk	Record Count	Weighted Total	Percent of Total
Not Applicable	22,523	5,167,815	88.2
Not Reported	731	189,450	3.2
Yes	1,467	381,850	6.5
No	458	122,877	2.1
Total	25,179	5,861,992	100.0

USUAL MEANS TO SCHOOL

smode	Record Count	Weighted Total	Percent of Total
Not Applicable	19,504	4,256,541	72.6
Not Reported	58	13,976	0.2
Auto drove alone	1,403	368,336	6.3
2-Person carpool	1,136	317,289	5.4
3+Person carpool	393	124,752	2.1
Transit	346	86,001	1.5
Taxi/Limo	10	3,267	0.1
Walk	499	142,673	2.4
Bike	44	11,704	0.2
School Bus	1,786	537,454	9.2
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

DAYS ATTENDED SCHOOL LAST WEEK

sdays	Record Count	Weighted Total	Percent of Total
Not Applicable	19,253	4,186,153	71.4
Not Reported	86	21,414	0.4
0	1,295	384,460	6.6
1	365	84,946	1.4
2	403	101,817	1.7
3	375	97,482	1.7
4	349	91,987	1.6
5	3,015	883,433	15.1
6	12	3,144	0.1
7	26	7,155	0.1
Total	25,179	5,861,992	100.0

VOLUNTEER ON A REGULAR BASIS?

volun	Record Count	Weighted Total	Percent of Total
Not Applicable	4,582	1,377,652	23.5
Not Reported	52	12,310	0.2
Yes	3,459	721,353	12.3
No	17,086	3,750,678	64.0
Total	25,179	5,861,992	100.0

VOLUNTEER LOCATION

vloc	Record Count	Weighted Total	Percent of Total
Not Applicable	21,720	5,140,639	87.7
Not Reported	24	4,496	0.1
Home	2,826	595,437	10.2
Volunteer Organization	573	114,471	2.0
Varies - Most Recent Location	31	6,111	0.1
Vaires - Central Office Location	5	838	0.0
Total	25,179	5,861,992	100.0



TPB Modeled Area  
 Person File Tabulations

VOLUNTEER DAYS PER WEEK

vdays	Record Count	Weighted Total	Percent of Total
Not Applicable	21,720	5,140,639	87.7
Not Reported	104	19,467	0.3
1	1,767	373,262	6.4
2	804	166,344	2.8
3	393	83,308	1.4
4	135	27,991	0.5
5	135	28,538	0.5
6	23	3,931	0.1
7	98	18,512	0.3
Total	25,179	5,861,992	100.0

IMPUTED AGE FLAG

impage	Record Count	Weighted Total	Percent of Total
Not Imputed	24,185	5,588,390	95.3
Imputed Value	994	273,602	4.7
Total	25,179	5,861,992	100.0

IMPUTED AGE GROUP FLAG

impageg	Record Count	Weighted Total	Percent of Total
Not Imputed	24,185	5,588,390	95.3
Imputed Value	994	273,602	4.7
Total	25,179	5,861,992	100.0

TPB Modeled Area  
Person File Tabulations

IMPUTED GENDER FLAG

impgend	Record Count	Weighted Total	Percent of Total
Not Imputed	25,161	5,856,065	99.9
Imputed Value	18	5,927	0.1
Total	25,179	5,861,992	100.0

IMPUTED RACE FLAG

imprace	Record Count	Weighted Total	Percent of Total
Not Imputed	24,797	5,769,179	98.4
Imputed Value	382	92,813	1.6
Total	25,179	5,861,992	100.0

IMPUTED WORK STATUS FLAG

impwkstat	Record Count	Weighted Total	Percent of Total
Not Imputed	25,139	5,852,565	99.8
Imputed Value	40	9,427	0.2
Total	25,179	5,861,992	100.0

IMPUTED PERSONAL DISABILITY FLAG

imppedis	Record Count	Weighted Total	Percent of Total
Not Imputed	24,628	5,752,167	98.1
Imputed Value	551	109,825	1.9
Total	25,179	5,861,992	100.0

# Appendix M: Trip File Frequencies

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TPB Modeled Area  
Trip File Tabulations

ORIGIN PURPOSE

opurp	Record Count	Weighted Total	Percent of Total
HOME	31,651	7,420,920	36.5
WORK	13,605	3,001,649	14.8
SHOP	15,742	3,517,147	17.3
DAYCARE	1,545	436,065	2.1
SCHOOL	3,243	939,266	4.6
OTHER	19,766	4,412,468	21.7
PICK-UP SOMEONE	1,460	378,561	1.9
PARKING POINT	660	142,177	0.7
INTER-CITY RAIL	13	2,588	0.0
INTER-CITY BUS	5	881	0.0
AIRPORT	153	32,821	0.2
GAS STATION	58	17,086	0.1
EXTERNAL POINT	25	4,712	0.0
Total	87,926	20,306,341	100.0

TPB Modeled Area  
Trip File Tabulations

ORIGIN ACTIVITY

oact1	Record Count	Weighted Total	Percent of Total
#####			
SLEEP/ REST	21,449	5,020,649	24.7
EAT / PREPARE A MEAL AT HOME	3,143	745,970	3.7
EAT A MEAL AT WORK	45	9,459	0.0
EAT A MEAL OUTSIDE HOME OR WORK	4,032	875,274	4.3
CARE FOR CHILDREN	589	175,031	0.9
CHANGE MODE OF TRANSPORTATION	760	164,313	0.8
PICK UP / DROP OFF SOMEONE OR SOMETHING	4,900	1,199,735	5.9
WORK (REGULAR PLACE)	12,334	2,725,227	13.4
WORK AT HOME OR TELECOMMUTE (FOR PAY)	548	115,517	0.6
WORK AT OTHER LOCATION	980	216,049	1.1
WORK-RELATED	1,593	335,876	1.7
EDUCATION/ SCHOOL-RELATED ACTIVITY	3,257	943,916	4.6
STUDY / DO HOMEWORK	271	75,952	0.4
CHILDCARE / PRESCHOOL	664	188,778	0.9
SHOP IN STORE	9,566	2,148,828	10.6
SHOP BY PHONE / INTERNET / TV	414	82,221	0.4
QUICK STOP / DRIVE THRU	2,626	607,363	3.0
PERSONAL BUSINESS AT ESTABLISHMENT	6,456	1,413,929	7.0
PERSONAL BUSINESS BY PHONE / INTERNET	267	54,559	0.3
VISIT/ SOCIALIZE	2,569	587,544	2.9
ENTERTAINMENT	1,340	301,182	1.5
RECREATION / EXERCISE	3,051	709,723	3.5
CIVIC OR RELIGIOUS ACTIVITY	1,082	232,120	1.1
MAIL PACKAGE OR LETTER OR OTHER POSTAL ACTIVITY	743	160,833	0.8
OTHER HOUSEHOLD ACTIVITY	4,758	1,087,818	5.4
OTHER	489	128,476	0.6
Total	87,926	20,306,341	100.0
#####			

TPB Modeled Area  
Trip File Tabulations

ORIGIN JURISDICTION

ofips	Record Count	Weighted Total	Percent of Total
District of Columbia,DC	13,329	2,428,670	12.0
Anne Arundel County,MD	5,656	1,544,773	7.6
Baltimore County,MD	547	106,385	0.5
Calvert County,MD	882	254,843	1.3
Carroll County,MD	2,814	476,025	2.3
Charles County,MD	1,751	426,702	2.1
Frederick County,MD	3,018	700,697	3.5
Harford County,MD	17	4,249	0.0
Howard County,MD	4,149	844,842	4.2
Montgomery County,MD	13,252	3,141,400	15.5
Prince George's County,MD	9,066	2,161,857	10.6
St. Mary's County,MD	1,048	335,040	1.6
Baltimore City,MD	513	110,757	0.5
Arlington County,VA	5,010	773,576	3.8
Clarke County,VA	271	29,076	0.1
Fairfax County/Cities,VA	12,723	3,470,986	17.1
Fauquier County,VA	513	135,633	0.7
King George,VA	332	52,524	0.3
Loudoun County,VA	3,222	752,395	3.7
Prince William County/Cities,VA	3,957	1,202,099	5.9
Spotsylvania County,VA	670	254,720	1.3
Stafford County,VA	1,028	300,761	1.5
Alexandria,VA	2,484	454,598	2.2
Fredericksburg City,VA	529	137,735	0.7
Jefferson County,WV	744	125,911	0.6
Delaware	14	2,798	0.0
Indiana	1	184	0.0
Allegany County,MD	4	513	0.0
Caroline County,MD	1	328	0.0
Cecil County,MD	1	158	0.0
Dorchester County,MD	2	522	0.0
Kent County,MD	2	722	0.0
Queen Anne's County,MD	20	2,901	0.0
Somerset County,MD	1	467	0.0
Talbot County,MD	8	1,890	0.0
Washington County,MD	41	8,384	0.0
Wicomico County,MD	1	382	0.0
Worcester County,MD	2	388	0.0
Maine	1	629	0.0
North Carolina	2	443	0.0
New Jersey	6	1,338	0.0
New York	5	1,060	0.0
Ohio	1	95	0.0
Pennsylvania	77	14,917	0.1

TPB Modeled Area  
Trip File Tabulations

ORIGIN JURISDICTION

ofips	Record Count	Weighted Total	Percent of Total
South Carolina	2	260	0.0
Caroline County,VA	7	2,177	0.0
Carroll County,VA	3	694	0.0
Chesterfield County,VA	2	573	0.0
Culpeper County,VA	11	3,166	0.0
Frederick County,VA	4	482	0.0
Hanover County,VA	6	1,705	0.0
Henrico County,VA	8	2,627	0.0
New Kent County,VA	2	685	0.0
Northumberland County,VA	2	204	0.0
Orange County,VA	1	122	0.0
Page County,VA	1	79	0.0
Rappahannock County,VA	2	699	0.0
Roanoke County,VA	1	79	0.0
Rockingham County,VA	1	230	0.0
Shenandoah County,VA	3	376	0.0
Warren County,VA	9	1,313	0.0
Westmoreland County,VA	6	1,393	0.0
Charlottesville City,VA	7	2,112	0.0
Hampton City,VA	4	809	0.0
Harrisonburg City,VA	2	268	0.0
Lynchburg City,VA	1	297	0.0
Norfolk City,VA	1	122	0.0
Portsmouth City,VA	1	129	0.0
Richmond City,VA	16	4,762	0.0
Staunton City,VA	1	399	0.0
Virginia Beach City,VA	3	434	0.0
Williamsburg City,VA	8	1,720	0.0
Winchester City, VA	56	6,164	0.0
Berkeley County,WV	33	5,420	0.0
Greenbrier County,WV	1	430	0.0
Monongalia County,WV	1	166	0.0
Morgan County,WV	2	1,457	0.0
Upshur County,WV	1	178	0.0
Outside USA	2	234	0.0
Total	87,926	20,306,341	100.0

TPB Modeled Area  
Trip File Tabulations

DESTINATION PURPOSE

dpurp	Record Count	Weighted Total	Percent of Total
HOME	31,456	7,370,041	36.3
WORK	13,605	3,001,541	14.8
SHOP	15,720	3,511,590	17.3
DAYCARE	1,548	436,729	2.2
SCHOOL	3,246	940,321	4.6
OTHER	19,926	4,455,613	21.9
PICK-UP SOMEONE	1,460	378,561	1.9
PARKING POINT	662	142,940	0.7
INTER-CITY RAIL	20	3,771	0.0
INTER-CITY BUS	5	881	0.0
AIRPORT	154	30,994	0.2
GAS STATION	58	17,086	0.1
EXTERNAL POINT	66	16,274	0.1
Total	87,926	20,306,341	100.0



TPB Modeled Area  
Trip File Tabulations

DESTINATION ACTIVITY

dact1	Record Count	Weighted Total	Percent of Total
#####			
SLEEP/ REST	8,475	1,976,091	9.7
EAT / PREPARE A MEAL AT HOME	9,873	2,339,138	11.5
EAT A MEAL AT WORK	45	9,459	0.0
EAT A MEAL OUTSIDE HOME OR WORK	4,056	882,882	4.3
CARE FOR CHILDREN	1,128	324,799	1.6
CHANGE MODE OF TRANSPORTATION	773	164,917	0.8
PICK UP / DROP OFF SOMEONE OR SOMETHING	4,918	1,204,638	5.9
WORK (REGULAR PLACE)	12,338	2,725,989	13.4
WORK AT HOME OR TELECOMMUTE (FOR PAY)	698	146,503	0.7
WORK AT OTHER LOCATION	973	214,805	1.1
WORK-RELATED	1,599	336,846	1.7
EDUCATION/ SCHOOL-RELATED ACTIVITY	3,257	944,014	4.6
STUDY / DO HOMEWORK	446	131,511	0.6
CHILDCARE / PRESCHOOL	666	189,220	0.9
SHOP IN STORE	9,534	2,139,798	10.5
SHOP BY PHONE / INTERNET / TV	420	83,248	0.4
QUICK STOP / DRIVE THRU	2,623	606,726	3.0
PERSONAL BUSINESS AT ESTABLISHMENT	6,494	1,421,121	7.0
PERSONAL BUSINESS BY PHONE / INTERNET	301	62,978	0.3
VISIT/ SOCIALIZE	2,719	626,595	3.1
ENTERTAINMENT	2,180	499,524	2.5
RECREATION / EXERCISE	3,100	721,516	3.6
CIVIC OR RELIGIOUS ACTIVITY	1,087	233,720	1.2
MAIL PACKAGE OR LETTER OR OTHER POSTAL ACTIVITY	745	161,063	0.8
OTHER HOUSEHOLD ACTIVITY	8,965	2,026,289	10.0
OTHER	513	132,950	0.7
Total	87,926	20,306,341	100.0
#####			

TPB Modeled Area  
 Trip File Tabulations

DESTINATION JURISDICTION

dfips	Record Count	Weighted Total	Percent of Total
District of Columbia,DC	13,338	2,432,647	12.0
Anne Arundel County,MD	5,633	1,537,129	7.6
Baltimore County,MD	550	107,018	0.5
Calvert County,MD	879	253,871	1.3
Carroll County,MD	2,801	474,375	2.3
Charles County,MD	1,750	426,936	2.1
Frederick County,MD	3,021	702,027	3.5
Harford County,MD	17	4,249	0.0
Howard County,MD	4,148	845,031	4.2
Montgomery County,MD	13,237	3,134,224	15.4
Prince George's County,MD	9,044	2,155,225	10.6
St. Mary's County,MD	1,045	333,499	1.6
Baltimore City,MD	513	111,793	0.6
Arlington County,VA	5,005	773,524	3.8
Clarke County,VA	272	29,245	0.1
Fairfax County/Cities,VA	12,721	3,469,005	17.1
Fauquier County,VA	516	136,835	0.7
King George,VA	329	51,990	0.3
Loudoun County,VA	3,215	750,198	3.7
Prince William County/Cities,VA	3,941	1,197,514	5.9
Spotsylvania County,VA	673	254,742	1.3
Stafford County,VA	1,034	303,671	1.5
Alexandria,VA	2,479	453,391	2.2
Fredericksburg City,VA	531	137,910	0.7
Jefferson County,WV	744	125,950	0.6
Delaware	11	2,329	0.0
Georgia	5	1,641	0.0
Allegany County,MD	4	570	0.0
Caroline County,MD	3	877	0.0
Cecil County,MD	1	158	0.0
Dorchester County,MD	4	736	0.0
Garrett County,MD	6	1,495	0.0
Kent County,MD	2	722	0.0
Queen Anne's County,MD	17	2,649	0.0
Talbot County,MD	7	1,774	0.0
Washington County,MD	44	8,994	0.0
Wicomico County,MD	2	649	0.0
Worcester County,MD	1	121	0.0
North Carolina	9	1,754	0.0
New Jersey	7	1,653	0.0
New York	16	4,501	0.0
Ohio	4	1,031	0.0
Pennsylvania	96	19,605	0.1
Rhode Island	2	1,053	0.0

TPB Modeled Area  
Trip File Tabulations

DESTINATION JURISDICTION

dfips	Record Count	Weighted Total	Percent of Total
South Carolina	3	480	0.0
Tennessee	1	252	0.0
Campbell County,VA	1	95	0.0
Caroline County,VA	5	1,428	0.0
Carroll County,VA	3	694	0.0
Culpeper County,VA	9	2,819	0.0
Fluvanna County,VA	3	926	0.0
Frederick County,VA	2	157	0.0
Greensville County,VA	1	117	0.0
Hanover County,VA	7	1,836	0.0
Henrico County,VA	9	2,472	0.0
Lancaster County,VA	2	181	0.0
Madison County,VA	2	368	0.0
Montgomery County,VA	1	325	0.0
New Kent County,VA	3	1,027	0.0
Northumberland County,VA	3	434	0.0
Page County,VA	1	79	0.0
Rappahannock County,VA	7	2,181	0.0
Roanoke County,VA	1	79	0.0
Rockbridge County,VA	2	312	0.0
Rockingham County,VA	4	1,767	0.0
Shenandoah County,VA	3	312	0.0
Warren County,VA	9	1,313	0.0
Westmoreland County,VA	6	1,393	0.0
Charlottesville City,VA	5	1,104	0.0
Chesapeake City,VA	1	356	0.0
Danville City,VA	2	763	0.0
Hampton City,VA	5	924	0.0
Harrisonburg City,VA	3	472	0.0
Lynchburg City,VA	1	297	0.0
Newport News City,VA	1	511	0.0
Norfolk City,VA	2	322	0.0
Portsmouth City,VA	1	129	0.0
Radford City,VA	2	462	0.0
Richmond City,VA	16	5,460	0.0
Staunton City,VA	1	399	0.0
Virginia Beach City,VA	5	680	0.0
Williamsburg City,VA	10	1,792	0.0
Winchester City, VA	53	6,283	0.0
Berkeley County,WV	38	6,208	0.0
Hardy County,WV	2	1,306	0.0
Monongalia County,WV	4	721	0.0
Morgan County,WV	4	1,642	0.0
Ohio County,WV	1	105	0.0

TPB Modeled Area  
 Trip File Tabulations

DESTINATION JURISDICTION

dfips	Record Count	Weighted Total	Percent of Total
#####			
Raleigh County,WV	1	268	0.0
Summers County,WV	1	430	0.0
Upshur County,WV	1	178	0.0
Outside USA	1	169	0.0
Total	87,926	20,306,341	100.0
#####			

TPB Modeled Area  
 Trip File Tabulations

TRIP BEGIN TIME

begt	Record Count	Weighted Total	Percent of Total
00:00-03:59	358	86,802	0.4
04:00-04:59	265	65,457	0.3
05:00-05:29	408	98,712	0.5
05:30-05:59	703	165,455	0.8
06:00-06:29	1,161	272,266	1.3
06:30-06:59	2,113	526,923	2.6
07:00-07:29	2,900	712,295	3.5
07:30-07:59	3,215	751,132	3.7
08:00-08:29	3,460	799,473	3.9
08:30-08:59	3,286	766,583	3.8
09:00-09:29	2,392	546,202	2.7
09:30-09:59	2,072	452,178	2.2
10:00-10:29	2,109	461,509	2.3
10:30-10:59	2,132	468,923	2.3
11:00-11:59	5,094	1,153,581	5.7
12:00-12:59	5,895	1,316,723	6.5
13:00-13:59	5,163	1,152,131	5.7
14:00-14:59	5,568	1,307,163	6.4
15:00-15:29	3,473	865,273	4.3
15:30-15:59	3,382	806,141	4.0
16:00-16:29	3,568	833,055	4.1
16:30-16:59	3,432	799,542	3.9
17:00-17:29	4,134	957,211	4.7
17:30-17:59	3,702	856,695	4.2
18:00-18:29	3,668	827,529	4.1
18:30-18:59	2,961	687,774	3.4
19:00-19:29	2,686	600,332	3.0
19:30-19:59	1,927	449,645	2.2
20:00-20:59	3,155	735,963	3.6
21:00-21:59	2,122	472,288	2.3
22:00-22:59	1,019	221,043	1.1
23:00-23:59	403	90,342	0.4
Total	87,926	20,306,341	100.0

TPB Modeled Area  
 Trip File Tabulations

TRIP END TIME

endt	Record Count	Weighted Total	Percent of Total
00:00-03:59	452	109,040	0.5
04:00-04:59	107	25,343	0.1
05:00-05:29	166	41,164	0.2
05:30-05:59	394	92,599	0.5
06:00-06:29	654	153,714	0.8
06:30-06:59	1,228	291,263	1.4
07:00-07:29	2,356	587,674	2.9
07:30-07:59	2,922	696,665	3.4
08:00-08:29	3,479	824,152	4.1
08:30-08:59	3,686	862,683	4.2
09:00-09:29	3,293	773,972	3.8
09:30-09:59	2,260	494,432	2.4
10:00-10:29	2,268	491,825	2.4
10:30-10:59	2,109	467,027	2.3
11:00-11:59	4,932	1,112,183	5.5
12:00-12:59	5,835	1,314,322	6.5
13:00-13:59	5,233	1,158,971	5.7
14:00-14:59	5,128	1,188,284	5.9
15:00-15:29	3,086	741,256	3.7
15:30-15:59	3,142	777,636	3.8
16:00-16:29	3,522	834,565	4.1
16:30-16:59	3,088	716,458	3.5
17:00-17:29	3,615	830,011	4.1
17:30-17:59	3,834	891,778	4.4
18:00-18:29	4,122	951,892	4.7
18:30-18:59	3,556	825,896	4.1
19:00-19:29	3,275	743,933	3.7
19:30-19:59	2,412	548,424	2.7
20:00-20:59	3,492	804,229	4.0
21:00-21:59	2,341	529,116	2.6
22:00-22:59	1,333	291,829	1.4
23:00-23:59	606	134,005	0.7
Total	87,926	20,306,341	100.0

TPB Modeled Area  
Trip File Tabulations

PRIMARY TRAVEL MODE

pmode2	Record Count	Weighted Total	Percent of Total
Transit	5,500	1,055,994	5.2
Auto D	53,656	12,126,508	59.7
Auto P	17,364	4,609,025	22.7
Walk	7,714	1,533,109	7.5
Bike	472	91,448	0.5
Other	3,220	890,258	4.4
Total	87,926	20,306,341	100.0

DETAILED TRAVEL MODE

pmode	Record Count	Weighted Total	Percent of Total
Metrorail	3,890	723,778	3.6
Auto D	53,656	12,126,508	59.7
Auto P	17,364	4,609,025	22.7
Taxi/Limo	288	50,880	0.3
Motorcycle	87	17,447	0.1
Walk	7,714	1,533,109	7.5
Bike	472	91,448	0.5
School Bus	2,554	767,252	3.8
Heavy Truck	48	7,603	0.0
Local Bus	1,383	275,631	1.4
Commuter Rail	141	37,057	0.2
Commuter Bus	86	19,528	0.1
Light Rail	6	1,914	0.0
MetroAccess/DAR	56	9,213	0.0
Shuttle Bus	178	34,917	0.2
Other	3	1,033	0.0
Total	87,926	20,306,341	100.0

TPB Modeled Area  
Trip File Tabulations

TRANSIT - MODE OF ACCESS

accmode	Record Count	Weighted Total	Percent of Total
Not Applicable	82,426	19,250,347	94.8
Auto D	546	124,085	0.6
Auto P	207	42,014	0.2
Taxi/Limo	4	942	0.0
Motorcycle	5	1,118	0.0
Walk	4,172	777,619	3.8
Bike	29	4,507	0.0
School Bus	7	2,005	0.0
Local Bus	405	77,089	0.4
Commuter Rail	41	10,777	0.1
Commuter Bus	14	3,450	0.0
Shuttle Bus	70	12,388	0.1
Total	87,926	20,306,341	100.0

TRANSIT - MODE OF EGRESS

egrmode	Record Count	Weighted Total	Percent of Total
Not Applicable	82,426	19,250,347	94.8
Auto D	574	126,753	0.6
Auto P	193	38,946	0.2
Taxi/Limo	21	5,428	0.0
Motorcycle	4	952	0.0
Walk	4,158	775,103	3.8
Bike	27	4,191	0.0
School Bus	4	1,614	0.0
Local Bus	391	76,493	0.4
Commuter Rail	39	10,133	0.0
Commuter Bus	16	3,825	0.0
Shuttle Bus	73	12,557	0.1
Total	87,926	20,306,341	100.0



TPB Modeled Area  
Trip File Tabulations

VEHICLE ID NUMBER

vehid	Record Count	Weighted Total	Percent of Total
Not Applicable	16,906	3,570,808	17.6
Not Reported	69	15,630	0.1
01	43,463	9,760,687	48.1
02	19,896	4,981,616	24.5
03	3,419	955,873	4.7
04	672	207,151	1.0
05	96	36,769	0.2
06	13	4,679	0.0
07	5	1,259	0.0
Non-Household Vehicle	3,387	771,867	3.8
Total	87,926	20,306,341	100.0

ORIGIN VEHICLE OCCUPANCY

ooccp	Record Count	Weighted Total	Percent of Total
Not Applicable	34,270	8,179,833	40.3
Not Reported	19	4,568	0.0
1	40,598	8,895,774	43.8
2	9,438	2,188,419	10.8
3	2,482	687,339	3.4
4	794	241,310	1.2
5	229	78,251	0.4
6	51	18,077	0.1
7	21	6,796	0.0
8	8	1,596	0.0
9	16	4,378	0.0
Total	87,926	20,306,341	100.0

TPB Modeled Area  
Trip File Tabulations

DESTINATION VEHICLE OCCUPANCY

doccup	Record Count	Weighted Total	Percent of Total
Not Applicable	34,270	8,179,833	40.3
Not Reported	21	4,472	0.0
1	40,912	8,971,158	44.2
2	9,242	2,147,739	10.6
3	2,396	665,374	3.3
4	778	236,132	1.2
5	218	73,415	0.4
6	49	16,957	0.1
7	17	5,642	0.0
8	7	1,241	0.0
9	16	4,378	0.0
Total	87,926	20,306,341	100.0

REPORTED TRAVEL TIME (in Minutes)

tt	Record Count	Weighted Total	Percent of Total
< 5	5,866	1,350,144	6.6
5-9	15,164	3,474,374	17.1
10-14	14,706	3,462,382	17.1
15-19	13,171	3,085,187	15.2
20-24	7,819	1,828,079	9.0
25-29	4,900	1,141,120	5.6
30-34	7,741	1,756,228	8.6
35-39	2,997	665,407	3.3
40-44	2,693	613,438	3.0
45-49	3,201	707,847	3.5
50-59	2,623	586,204	2.9
60-69	2,873	647,419	3.2
70-79	1,524	355,664	1.8
80-89	698	161,842	0.8
90-99	770	191,365	0.9
100-119	536	123,341	0.6
120-179	479	116,003	0.6
180+	165	40,295	0.2
Total	87,926	20,306,341	100.0

TPB Modeled Area  
 Trip File Tabulations

ESTIMATED TRIP DISTANCE (in Miles)

dist	Record Count	Weighted Total	Percent of Total
Not Applicable	1,427	316,674	1.6
< 0.1	947	195,806	1.0
0.1 - 0.4	8,580	1,842,785	9.1
0.5 - 0.9	8,577	1,963,703	9.7
1.0 - 1.4	8,380	1,931,625	9.5
0.5 - 1.9	4,804	1,082,128	5.3
2.0 - 2.4	5,014	1,174,800	5.8
2.5 - 2.9	4,180	963,382	4.7
3.0 - 3.9	6,960	1,628,700	8.0
4.0 - 4.9	5,441	1,253,990	6.2
5.0 - 6.9	7,894	1,833,088	9.0
7.0 - 9.9	7,484	1,723,984	8.5
10.0 - 14.9	7,062	1,687,076	8.3
15.0 - 19.9	4,086	1,010,760	5.0
20.0 - 24.9	2,433	590,879	2.9
25.0 - 29.9	1,618	388,647	1.9
30.0 - 39.9	1,705	397,622	2.0
40.0 - 49.9	767	182,062	0.9
50.0+	567	138,630	0.7
Total	87,926	20,306,341	100.0