## 2007/2008 Household Travel Survey Data Files and Documentation

Presentation to
Travel Forecasting Subcommittee
by

Robert E. Griffiths
Technical Services Director

National Capital Region Transportation Planning Board Metropolitan Washington Council of Governments

**January 22, 2010** 

#### Survey Data Files for TPB Modeled Area

- Four Survey Data Files
  - → Household File (11, 436 Records)
  - → Vehicle File (20,177 Records)
  - → Person File (25,179 Records)
  - → Trip File (87,926 Records)
- All files are ascii, comma-delimited (.csv) format
- Trip File can be linked to other survey data files by Household Sample Number, Person ID Number, and Household Vehicle Number

#### **Technical Documentation Outline**

- 1.0 Introduction
- 2.0 Survey Methodology
- 3.0 Survey Processing
- 4.0 Trip Linking Procedures
- 5.0 Survey Weighting
- 6.0 Expanded Household and Population Total Checks
- **7.0 Conclusion**
- Technical Appendices

### 2.0 – Survey Methodology

- Survey Design
- Survey Pre-Test
- Sample Selection
- Household Recruitment
- Travel Survey/Activity Diaries
- Reminder Calls
- Person Interviews and Retrieval of Travel/Activity
   Data
- GPS Add-On Data Collection
- Survey Response Rates

#### 3.0 - Survey Processing

- NuStats CATI System
- Survey Geocoding and Interim Data Deliveries
- Survey Logic and Edit Checks
  - → No Reported Travel Check
  - Modal Edit Checks
  - → Travel Time/Speed/Distance Checks
  - → Identification of "Moved" Households"
  - → Trip Purpose Consistency Checks

#### 4.0 – Trip Linking Procedures

- Trip Linking Hierarchy
  - → Metrorail Commuter Rail Commuter Bus Local Bus – Auto Pass – Auto Driver – Bike – Walk
- Incidental Stops v. Served Passenger Trips
  - → Pick-Up/Drop Off Someone or Something Problem
  - → Daycare Trip Purpose
  - → Gas Station Stops
  - → "Quick Stop" Problem
- Airport and Inter-City Rail and Bus Trips
- Trips to External and Parking Point Locations

#### 5.0 - Survey Weighting

- (A) Postal Carrier Route Household Counts by Jurisdiction/Area Type Stratum
  - → Average of 4 Quarterly Household Counts adjusted for incomplete sample frame coverage
- (B) Proportion of Households of each Sample Type in each Stratum
- (C) Proportion of Household Recruitment Letters by Sample Type delivered in each Stratum
- (D) Number of Completed Household Travel
   Survey Interviews by Sample Type in each Stratum
- (E) Household Size Adjustment Factor
- Survey Weight Factor = (((A\*B)\*C)/D) \* E

# 6.0 – Expanded Household and Population Total Checks

- Expanded Households Totals are within 0.3% of the Census ACS 2007 Household Estimate
- The Expanded Survey Household Size Distribution also matches the ACS Household Size Distribution
- Expanded Household Population Totals are 5.4% lower than 2007 ACS Estimate
- The 2007 ACS Household Population Estimate for the TPB modeled area is inconsistent with the 2007 ACS Household Size Distribution for this same area
- The HTS survey data may require some re-weighting once the results of the 2010 Census become available.

### **Technical Appendices**

- Appendix A Survey Advance Letter
- Appendix B Household Questionnaire
- Appendix C CATI Recruitment Script
- Appendix D Trip Diary
- Appendix E CATI Retrieval Script
- Appendix F Household File Format
- Appendix G Vehicle File Format
- Appendix H Person File Format
- Appendix I Trip File Format
- Appendix J Household File Frequencies
- Appendix K Vehicle File Frequencies
- Appendix L Person File Frequencies
- Appendix M Trip File Frequencies