THE HOUSEHOLD TRAVEL SURVEY

INTRODUCTION

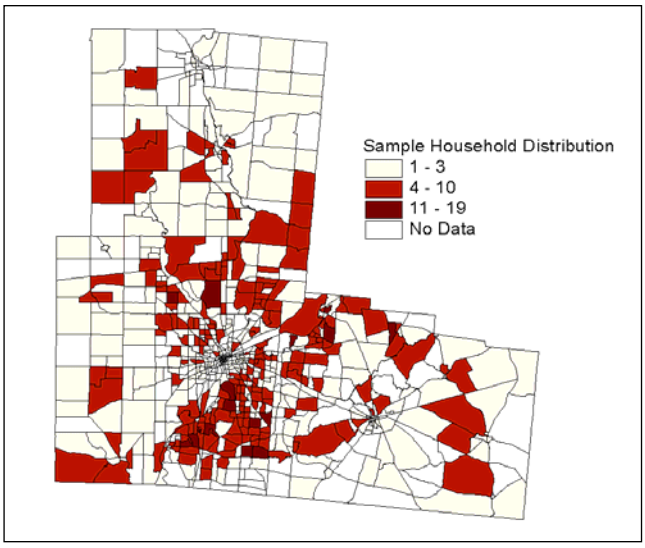
The Ohio Department of Transportation (ODOT), in cooperation with the Miami Valley Regional Planning Commission (MVRPC), has recently completed a household travel survey for the Miami Valley Region including Greene, Miami, and Montgomery Counties.

The purpose of a household travel survey is to better understand travel patterns of the Miami Valley Region residences by observing and identifying travel behaviors of the area residents. The last effort of this type was done in the late 60s and information collected by the survey will be used for updating the MVRPC's regional travel demand model, in particular, the trip generation and the trip distribution modules to better replicate actual travel patterns.

SURVEY DESIGN AND IMPLEMENTATION

The survey was designed as an ***activity-based*** survey focusing on the activities of household members rather than the traditional trip-based survey. The literature suggests that the activity concept (e.g. work, school, shopping, etc.) is better understood by the survey participants and therefore minimizes under-reporting problems.

A random sample of 1950 households, which represents approximately 0.6 percent of households in the region, was selected to participate in the survey. This sample size is comparable to modern household surveys recently completed around the country. The distribution of sample households at the Traffic Analysis Zone level is illustrated in the map.

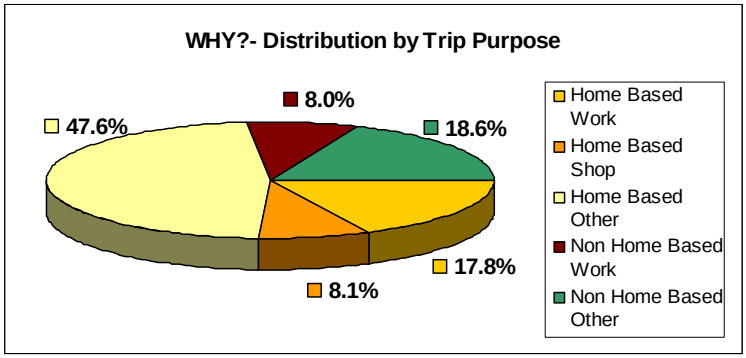


The survey was administered between August 2001 and May 2003 using the "telephone-mail-telephone" technique. A household was recruited for the survey via telephone using a random digit dialing and eligible households agreeing to participate were assigned a travel day between ***Monday thru Thursday*** and sent travel diaries. After the assigned travel day, the household was contacted and pertinent data recorded on the travel diary was collected via telephone.

A total of 4,354 persons in 1,950 households participated in the survey with information collected on 14,603 trips, 727 persons made no trips on their assigned travel day. The data collected by the survey was then weighted and expanded to represent the socio-economic distribution of the general household population based on the 2000 Census and activity information was translated into distinct trips.

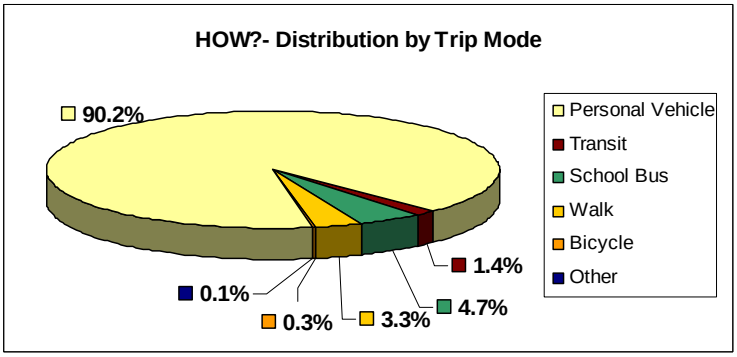
SELECTED SURVEY RESULTS

For the purposes of calibrating a regional travel demand model, trips are typically divided between ***Home-Based*** and ***Non-Home-Based*** trips. Home-Based trips are those trips that start or end at home while Non-Home-Based trips are those trips that do not start or end at home. Trips are further subdivided by purpose **(WHY?)** between Work, Shop, and Other (recreational, personal business, school, etc). For each trip, information about the mode **(HOW?)** and the time period **(WHEN?)** is also collected.

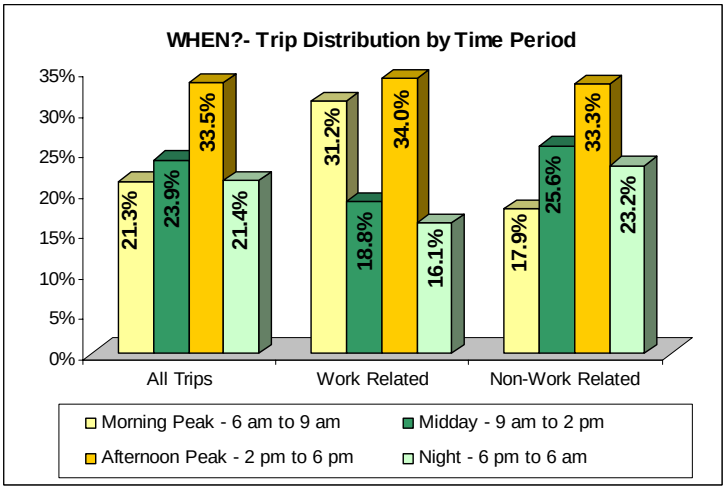


As illustrated in the **Distribution by Trip Purpose** chart, Home-Based-Other trips represent the largest proportion of trips at nearly 48%, followed by Non-Home-Based-Other trips at nearly 19% and Work related trips (both home and non home based) represent over 25 percent of the total household trips.

The distribution of trips by mode, as shown in the chart, reveals that the personal vehicle is the predominant mode of transportation in our region with a 90.2% share, followed by school bus at nearly 5% and walk (3.3%).



A look at the distribution of trips by time of the day reveals that the afternoon peak period from 2 to 6 pm includes the largest proportion of all trips at approximately 34 percent, with other periods having approximately equal shares of 20 percent. However if trips are classified between Work and Non-Work Related, a different pattern emerges showing that Work Related trips are concentrated in the morning and afternoon peak periods (65 %) compared to Non-Work trips (51%) which are approximately equally divided between the peak and the off-peak periods.



COMING SOON

The information presented is only a small fraction of the information collected by the household survey. As the data is further analyzed, more information regarding the findings will be added.