1995, NCR OD SURVEY

Executive Summary:

Prior to the 1995 Origin Destination Travel Survey, the most recent comprehensive travel survey in the National Capital Region (NCR) was undertaken in September 1986. Surveys of this nature are critical elements in gaining a solid understanding of local trip characteristics, patterns and trends. Trip origins and destinations for all trips taken by a specific household are collected along with the time of trip, mode of transportation and trip purpose. Due to the age of the data collected in 1986 local agencies agreed that it was time to undertake this comprehensive travel survey to establish new baseline information reflecting current travel and related household demographic characteristics.

This survey was a joint initiative under the direction of the Joint Administrative Committee on Planning and Transportation (JACPAT) with participation from the National Capital Commission (NCC), the Regional Municipality of Ottawa-Carleton (RMOC), the Communauté urbaine de L'Outaouais (CUO), OC Transpo, the Société de transport de l'outaouais (STO), the Ministère Des Transports Québec (MTQ) and the Ministry of Transportation Ontario (MTO). TRANS, the joint technical sub-committee of JACPAT on transportation systems planning, was responsible for ensuring the survey achieve the primary objectives of TRANS:

- Compiling, maintaining, and updating a land use and transportation database for application to Study transportation studies and issues;
- Maintaining and updating a travel demand forecasting model in the National Capital Region under the direction of JACPAT; and
- Identifying and undertaking activities to facilitate land use modelling, strategic planning, and sub-area analysis with the primary purpose of discerning travel trends in the Study Area.

The area covered by the survey consists of the Regional Municipality of Ottawa-Carleton (RMOC), Communauté urbaine de l'Outaouais (CUO) and the Municipalité régionale de Comté Des Collines-de- l'Outaouais (MRC). Interviews of 21,000 households were conducted by telephone between September 6th and December 14th 1995. A respondent in each household was asked to provide all the information for that household including the details of the trips made by each person on the proceeding weekday. Expansion factors were assigned to the data for each household thus expanding the data for the 21,000 households survey to provide a "snap shot" of weekday travel behaviour for the entire 375,000 households in the survey area.
Survey content was established by reviewing the TRANS committee's identified potential requirements using a weighting and ranking methodology. As a result survey content includes:

Household Data	Person Data	Trip Data
Receipt of advance letter	Gender	Destination location
Location	Age	Purpose
Dwelling type	Driver's license	Start time
Number of people	Employment status	Mode of travel
Number of autos	Place of employment	Number of auto occupants
Number of bicycles	Pay to park at work	Bridge crossing
	Student status	Transit routes used
	School location	Access mode to transit
	Start location of 1st trip	Egress mode from transit
	Reason for not going to work	Use of Park n' ride lot

While it was originally concluded that a question on occupation should be included, difficulties encountered in collecting this information in a consistent manner to avoid interviewer interpretation resulted in this item being dropped from the survey.
A survey centre was established at a central downtown location so interviewers could have convenient access to public transportation. A total of 25 workstations were established of which 23 were used for interviewing, one for monitoring, and one for sample control. Normal surveying hours were from 4:30 p.m. to 10:00 p.m. Monday to Friday and on Saturday 10:00 a.m. to 5:00 p.m. The Monday night shift was subsequently added on October 16th 1995 to enhance production.

The survey used Direct Data Entry (DDE) computer software. The DDE software prompts the interviewer with the appropriate script, records the responses and performs on-line validation checks while the interview is in progress. The software developed for the 1991 Transportation Tomorrow Survey (TTS) in Toronto was used as a starting point for the design. The most significant modifications were the addition of a bilingual script and the use of a Local Area Network (LAN) to link the interview computers to a central control unit. The use of a LAN enhanced quality control as validation checks were performed on each interview following completion allowing for immediate corrections of any problems encountered with the data. The operation of the software was tested in two pretests, carried out in June and August 1995, and a pilot survey just prior to the start of the main survey. The main survey commenced September 6th and finished December 14th, as scheduled.

Publicity for the survey included a news release to local media, and a letter to government officials and police departments. These were released one week prior to the main survey.

An introductory letter was also mailed to each household in the sample approximately one week before they scheduled to be interviewed. This letter is considered to have been a critical item in the conduct of the survey, in terms of both encouraging a high response rate minimizing the amount of time interviewers needed to spend explaining reasons for the survey. The advance letter also legitimized the survey even for those who did not recall receiving it. Overall the survey had a non-response rate of approximately 22% which is relatively low compared to the experience of recent market research efforts recently within the National Capital Region.

Overall the survey has provided a database that will have may useful applications including analysis and optimization of existing transportation services, the setting of transportation related policies and the planning of new facilities. Readers are referred to the accompanying data Guide report for details on the database and its validation, and the Profile Report for an overview of survey results.

Overall the survey confirmed the following should be repeated when conducting another travel survey of this magnitude by telephone:

- use of direct data entry software in a network environment;
- use of automated geocoding software;
- the procedures for training and quality control from this study be used as guidelines
- The use of an effective advance household letter
- the use of a strong community relations package including a media release, letters to officials, and an automated phone in line.

With respect to changes for future surveys the following are recommended:

- adequate lead time must be available for survey design and development and testing of survey software and procedures. For a repeat survey using the same process with nearly identical content 12 months is recommended; 18 months is recommended for a new application;
- survey content be limited so average interview time does not exceed eight minutes, which was about the average this survey.