Household Travel Survey Comparison Report

Analysis of three Household Travel Surveys completed over two decades brings certain travel trends to light, including longer commute trips, more transit and walk trips, shortened discretionary trips, a slowed rate of travel growth, and changing patterns of travel.

Household Travel from 1985 to 2006

The Household Travel Survey Comparison Report contains summaries of the household travel surveys conducted by the Puget Sound Council of Governments (PSCOG) between 1985-1988 and the Puget Sound Regional Council (PSRC) in 1999 and 2006. The surveys were conducted in the central Puget Sound region of King, Kitsap, Pierce, and Snohomish counties. The report compares regional characteristics, household and person trip rates, and other trip characteristics to identify trends in household travel over the 20-year time frame. For some characteristics, results from 1961 and 1971 surveys are included.

Rate of Travel Growth

The increase in the rate of average person-trips per household slowed between 1999 and 2006. Average person-trips per household increased 10 percent from 1961 to 1971, and increased another 10 percent between 1971 and 1999 (see note). From 1999 to 2006, the rate slowed to 1 percent. Average daily person-trips per person slowed similarly.

Figure 1. Person-Trips per Household

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Non-Home-Based</td>
<td>7.00</td>
<td>7.73</td>
<td>9.89</td>
<td>8.47</td>
<td>8.50</td>
</tr>
<tr>
<td>Home-Based-Other</td>
<td>3.90</td>
<td>4.62</td>
<td>4.91</td>
<td>4.44</td>
<td>4.51</td>
</tr>
<tr>
<td>Home-Based-Work</td>
<td>1.68</td>
<td>1.69</td>
<td>1.83</td>
<td>1.47</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Note: The 1961, 1971 and 1985-1988 surveys were not weighted and expanded to represent the full population and may contain biases inherent in not weighting surveys, they are likely to be over-estimating trip rates as a result. The 1999 and 2006 surveys were weighted to account for these biases.

Sidenotes: Comparisons between the 1985-1988 survey and the later surveys have been limited by the differences in how the surveys were processed and weighted. The 1999 and 2006 surveys are compatible because they were processed and weighted using the same assumptions. The 1985-1988 data, however, were not weighted and their processing may have some differences from those used in the 1999 and 2006 surveys.

A home-based travel tour is defined as a chain of trips that both begins and ends at home. For example, leaving home at 7 a.m., going to work, and returning home at 6 p.m. is one complete tour. Leaving home again at 8 p.m. to go to the gas station and coming back home 10 minutes later is a second tour. Often a tour will involve many separate activities, such as various stops one makes on the way home from work.
Patterns of Travel

The analysis of tours (see note) elucidates some of the underlying trends in travel purposes and behavior. On average, across all travel, people are making the same number of stops (2.7) per tour. However, they are trip chaining (grouping trips) less for work, eating out and recreation tours. Tour data shows us that work tours are not increasing at the pace of tours in general or of population growth. Further analysis shows that compared to 1999, fewer people had more than one job than in 2006. Having more than one job often requires more work tours.

Figure 2. Tours by Purpose

![Tours by Purpose Graph]

Note: Tours not created for 1985-1988 survey.

Additionally, the number of social/civic tours increased significantly during this time, but recreation and shopping types of tours decreased. This may be attributed to the relative expense of each of these types of tours. More tours with the main purpose of eating out suggests that people are still making special trips to eat out, while fewer stops to eat out suggests people are curtailing impulsive decisions to eat out. Personal business tours increased during this time as well. Personal business tours include tours with the main purpose of going to the doctor, bank, financial advisor, post office, and so on. The increase in these types of tours probably relates to our aging population, which has more travel needs for medical purposes. A declining economy may also lead to more trips to use financial services.

Commute Trips

Time and distance data for home-based work trips show that the length in distance and time of the average commute trip has steadily increased since the 1960s, with a dip in length of time during the recession in the 1970s. From these data we conclude that residents are living farther from regional employment centers. Many competing factors are involved in people’s decisions about where to live, including lifestyle choices, housing costs, the economy, school quality, crime rates, etc.

Figure 3. Commute Trips

![Commute Trips Graph]

Note: 1960, 1970 and 1980 distance and time data for Puget Sound Region are from the U.S. Census Journey-to-Work data.
Transit and Walk Trips

The percent of transit and walk trips increased between 1999 and 2006. Together, they increased 2.5 percent to almost 12 percent of all trips in the region. The percent of transit trips increased the most in central King County, which uses the most transit, at 23.4 percent for home-based work trips and 8.6 percent for all types of trips in 2006. However, when looking at commute travel alone, Snohomish County had the largest increase in transit use, at 3 percent.

Table 1. Transit and Walk Trips

<table>
<thead>
<tr>
<th>Mode</th>
<th>SOV</th>
<th>HOV</th>
<th>Transit</th>
<th>Walk</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999 Household Survey</td>
<td>43.7%</td>
<td>42.8%</td>
<td>3.3%</td>
<td>5.9%</td>
<td>4.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>2006 Household Survey</td>
<td>43.4%</td>
<td>40.3%</td>
<td>4.1%</td>
<td>7.6%</td>
<td>4.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Discretionary Trips

From 1999 to 2006, distance and time decreased for home-based other trips and stopped increasing for non-home-based trips. Home-based other and non-home-based trips are a combination of essential and discretionary trips. Examples of essential trips are trips to the grocery store or daycare center. Discretionary trips are dispensable, such as to a restaurant or to the shopping mall. This trend indicates that discretionary trips are being shortened.

Figure 4. Discretionary Trips

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