

PSRC 2006
Household Activity Survey

Project Overview

Puget Sound Regional Council
PSRC



Background

- **Travel surveys: monitor travel behavior and support models**
- **Survey geography**
 - 4-county Puget Sound Region
- **Previous surveys**
 - 1985-88 Origin-Destination surveys
 - 1989-2002 Puget Sound Transportation Panel
 - 1999 Household Activity Survey
 - 2006 Household Survey

PSRC 2

Study Goals

- **Develop a more complete assessment of current travel behavior**
- **Identify key drivers of transit use among current and potential transit users**
- **Establish the foundation for building better “choice” models**
- **Begin to define Transit Markets**

PSRC 3

Budget

- **Partnership with Washington State DOT**
- **Total Budget: \$1,000,000**
 - PSRC: \$600,000
 - WSDOT: \$400,000
- **Overbudget on data collection**

PSRC 4

Timeline

- **Nov-Dec 2005** **Planning, RFP**
- **Jan-Feb 2006** **Contract signed, survey design**
- **Early March** **Pilot**
- **Mar-Jun** **Fieldwork**
- **Jul-Aug** **Preliminary report, data files**
- **Sep** **Stated Preference**
- **Oct-Dec** **Preliminary Analysis**
- **Jan-Apr 2007** **Review, final report**

PSRC 5

Study Components

Two-Day Activity and Travel diaries

- Weekday only
- Households (4,700+)
- Persons (10,500)
- Trips (78,000+)

Follow-up Stated Preference Survey (900 persons)

- Transit mode choices/potential toll alternatives
- Attitudinal questions

GPS Tracking of auto trips (220 households)

PSRC 6

Two-Day Diary

Place # 2 WHAT is Place #2? ☒ Day 1 ☐ Day 2

☐ My Home
☐ My Primary Workplace
☐ My Regular School Location
☒ Another Place (Complete the information below):

WHAT kind of place is this? **Health Club**

Name of Place
Health Happy Fitness Club

Street Address
314 Pleasant Rd.

City State Zip
Anytown WA 98000

Neighb. Cross Streets
Lovely Lane Sea Way

At WHAT TIME did you ARRIVE at Place #2? **7:45 am**

WHAT did you do at Place #2?

Main Activity (Check only one)

Other Activities (Check all that apply)

☐ Home - Paid Work
☐ Home - Other
☐ Work
☐ Attend Childcare
☐ Attend School
☐ Attend College
☐ Eat Out
☐ Personal Business
☐ Everyday Shopping
☐ Major Shopping
☐ Religious/Community
☐ Social
☒ Recreation - Participate
☐ Recreation - Watch
☐ Accompany Another Person
☐ Pick-Up/Drop-Off Passenger
☐ Turn Around

HOW did you get here from Place #1? Show all the methods of travel you used to make this trip and related travel details

Travel method (See "List of Travel Methods" below)

	1st	2nd	3rd	4th	5th
Vehicle used	Honda Civic				
Driver or passenger	Driver				
Total # of persons in vehicle	2				
Parking cost paid	\$ 0	\$	\$	\$	\$

If an auto method (1 or 2)

If a transit method (3 thru 11)

If walking or bicycle - Time (minutes)

Which activities did you do for more than 15 minutes? (See "List of Activities" below)

While Travelling

Name(s) of household member(s) with you for each segment of the trip

1 Car, van, truck 5 School Bus 9 Train (Operator)
2 Motorcycle/ 6 Taxi/Shuttle 10 Public Bus (Operators)
3 Bicycle 7 Dial-A-Ride/ ACCESS Metro Rtes. 30
4 Walk 8 Ferry 11 Other (Specify)

List of Activities

1 Work (reading, laptop computer, cell phone, etc.)
2 Maintenance (washing, sleeping, personal grooming, etc.)
3 Recreation (games, visiting, cell phone, DVD, etc.)
4 None

At what time did you leave Place #2 to go to Place #3

8:45 am

Next Place #3

Transit Information

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Stated Preference Survey

- **Stated-preference Survey as a follow-up to the main Activity Survey**
 - 25 attitudinal statements
 - 4 Stated-preference choice tasks between car and transit options
 - 4 Stated-preference choice tasks between car tolled and non-tolled options
- **Attitudinal data used to segment the market along subjective dimensions.**

PSRC 9

Transit Choice Experiment Definitions

Travel Method Features

Method of travel:	<ul style="list-style-type: none"> • Provides the form of transportation for your door-to-door trip, including an option of traveling by auto and by various forms of public transportation. • Includes how you get to transit and how you get from transit to your destination.
Service frequency:	<ul style="list-style-type: none"> • This is how often buses or trains arrive at your stop at the day and time-of-day that you traveled. Assume buses and trains will arrive twice as frequently during peak travel times as during the rest of the day.
Time to get to transit:	<ul style="list-style-type: none"> • This is the time you spend by walking or driving to your primary form of transit (a bus, shuttle or train).
Time in vehicle(s):	<ul style="list-style-type: none"> • This is the time you are driving your car to your destination or riding in a bus, shuttle or train.
Time spent transferring between buses or trains:	<ul style="list-style-type: none"> • This is the total time you spend walking to the next bus or train and waiting for it. This may include up to three transfers.
Time to walk from your car or transit stop to your workplace:	<ul style="list-style-type: none"> • This is the time spent walking from where you park your car or from your last transit stop to your destination.
Gas cost:	<ul style="list-style-type: none"> • This is the daily cost of gas if you drive to the destination or to a transit stop close to where you live.
Fare cost:	<ul style="list-style-type: none"> • This is the cost of your transit fare, including all transfers.
Parking cost:	<ul style="list-style-type: none"> • This is how much it will cost to park for a day either at your destination or at a Park-n-Ride location if you drive to transit.
Seat availability:	<ul style="list-style-type: none"> • Sometimes transit services can be crowded, so that some passengers may need to stand. This is how often you would need to stand on the trip.
Reliability:	<ul style="list-style-type: none"> • Autos, buses, and trains can all be prone to unexpected delays. This is how often your trip will take more than 15 minutes longer than the usual total travel time.

PSRC 10

Transit Choice Experiment

Exercise 1 example

CHOICE EXERCISE 1

Suppose these were your transportation options for your trip from:
a private home at 1001 QUEEN ANNE AVE N UNIT 501 in SEATTLE to a workplace at 9706 4TH NE in SEATTLE

Your choices are...	OPTION 1	OPTION 2	OPTION 3
<i>Method of travel</i>	You drive by yourself from your trip origin to a parking place at or near your destination. You walk from the parking place to your destination.	You walk to the RAIL system and ride to a stop at or near your destination. You transfer between transit vehicles 1 time. You walk from the final transit stop to your destination.	You walk to a BUS A stop and ride to a stop at or near your destination. You transfer between transit vehicles 1 time. You walk from the final transit stop to your destination.
<i>Service frequency</i>	---	Every 20 minutes	Every 20 minutes
<i>Time to get to transit</i>	---	16 minutes	12 minutes
<i>Time in vehicle(s)</i>	17 minutes	20 minutes	23 minutes
<i>Time spent transferring between buses or trains</i>	---	15 minutes	12 minutes
<i>Time to walk from your car or transit stop to your workplace</i>	4 minutes	6 minutes	4 minutes
<i>Gas cost</i>	\$4.30	\$0.00	\$0.00
<i>Fare cost</i>	---	\$2.00	\$2.00
<i>Parking cost</i>	\$4.00	\$0.00	\$0.00
<i>Seat Availability: You will need to stand on the bus or train...</i>	---	Two times a month	One time a week
<i>Reliability: You will be more than 15 minutes late...</i>	One time per month	Two times per month	One time per month



GPS Subsample

- Conducted over 12-week period, concurrent with main survey.
- 150 GPS devices to 285 households with 518 different vehicles.
- Mail-out/mail-back GPS logger, easily installed by respondent.



Summary of Lessons Learned

- **Sufficient planning, pre-testing**
- **Compatibility with earlier surveys**
- **Recruiting hard-to-reach populations-incentives**
- **Project management, cost overruns**
- **Geocoding issues**
- **Internal staff time**



13

Questions?

Final Analysis Report:

<http://www.psrc.org/data/surveys/hhsurvey/index.htm>

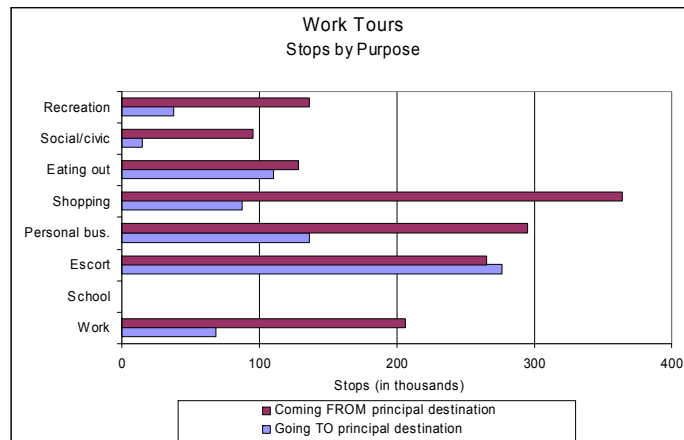
Contact:

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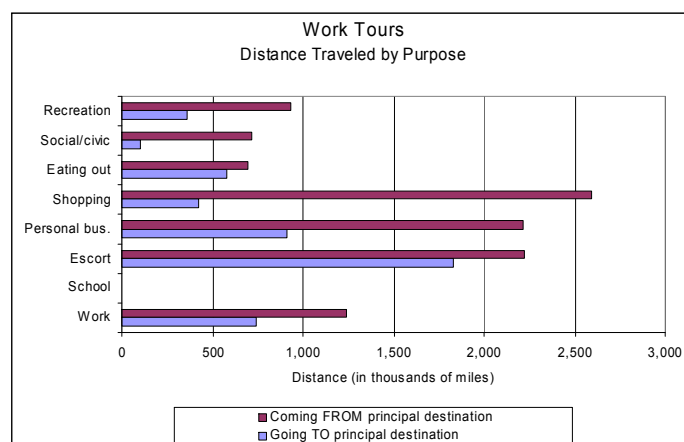
14

Anatomy of a Work Tour



PSRC 15

Anatomy of a Work Tour



PSRC 16