



# Metro | *Research Center*

## TRANSPORTATION RESEARCH & MODELING SERVICES

### Summary of 2011 Travel Activity Survey Results

#### **SURVEY CHARACTERISTICS**

Survey completed 2011

- Last survey record – December 2011
- Data delivered to Metro – May/June 2012

Why so long since last survey (1994)?

- Transit mall construction/MAX Green line completion
- Difficulty in securing funding
- Coordination with other state MPOS and ODOT

How is survey data used?

- Ensure that travel model reflects the correct value system of the travelers (elasticities between variables – time v. cost v. demographics v. urban form)
- Create large scale snapshot of travel characteristics. Not possible to report characteristics at fine grain geographies due to constrained sample size (see below).

Number of households

- Multnomah/Clackamas/Washington counties – appx 4800 households
- Clark county – appx 1650 households
- Less than 1% sampling rate

Sampling method

- Choice based methods – certain types of households and modes were oversampled in order to gain statistically relevant information about the specific group

Data capture techniques – place survey v. activity survey

- Activity survey (1994) – listed all personal activities of the day – eating, home maintenance, work (in home or not), etc. Question stream: “What did you do next? Where did that activity take place?” Solicited detail led to fatigue and non-reported information. “Time use” surveys were in vogue then.
- Place survey (2011) – focus on places – Question stream: “Where did you go next? What did you do when you went to that place?” This technique is more intuitive and direct – leads to more complete reporting.
- Visual mapping utilized when data captured – survey questioner could “see” the place location on a map – leads to more trip chain continuity and accurate placement of places

Confidentiality

- The information captured is sensitive
- Safeguards are in place to preserve confidentiality

## PERSON TRIP MAKING

### How many trips are made from households per day?

9.2 trips per HH per day

Note: 2011 v. 1994 rates appear comparable, given the variance in survey methodologies.

### What influences trip making?

#### HH size

- 1 person hh – 3.3 trips per day
- 2 person hh – 6.2
- 3 person hh – 11.4
- 4 person hh – 17.5
- 5 person hh – 22.8
- G.T. 5 persons per hh – 26.8

#### Income

- L.T \$35K – 6.9 trips per day
- \$35K to \$75K – 8.7
- G.T. \$75K – 11.6

#### Number of children

- 0 children – 5.6
- 1 child – 14.0
- 2 children – 17.4
- G.T 2 children – 25.0

#### Household vehicles

- 0 veh – 5.3
- 1 veh – 6.5
- 2 veh – 10.9
- 3 veh – 11.9
- G.T. 3 veh – 12.1

## CROSS-COLUMBIA RIVER TRAVEL PATTERNS

### Who uses the Columbia River bridges?

	<u>2011</u>
Pct of Clark County travelers to Clackamas, Multnomah, or Washington counties:	17.9%
Pct of Clackamas, Multnomah, or Washington County travelers to Clark county:	2.0%

## AUTO

### How has regional mode share for persons in autos changed?

	<u>1994</u>	<u>2011</u>
Commuter	90.0%	80.9% (820,000)
All	87.3%	83.7% (5,730,000)

### How has mode share for persons in autos going to the CBD changed?

	<u>1994</u>	<u>2011</u>
Commuter	58.4%	43.9% (30,000)
All	56.3%	46.0% (120,000)

### Who forms carpools?

	<u>2011</u>
Intra-household members	85%
Non-household members	15%

### How big are carpools?

	<u>2011</u>
2 persons	67%
3 persons	22%
4 persons	8%
5+ persons	3%

### Has VMT per driver changed since 1994?

<u>1994</u>	<u>2011</u>
21.1	17.1

### Has VMT per HH changed since 1994?

<u>1994</u>	<u>2011</u>
30.9	22.7

### Has average trip length (miles) changed?

<u>1994</u>	<u>2011</u>
5.1	4.4

## TRANSIT

### How has regional transit mode share changed?

	<u>1994</u>	<u>2011</u>
Commuter	5.6%	10.9% (110,000)
All	2.9%	4.2% (290,000)

### How has transit mode share to the CBD changed?

	<u>1994</u>	<u>2011</u>
Commuter	33.6%	44.5% (30,000)
All	14.4%	21.4% (60,000)

### How does transit mode share vary by place of residence?

	<u>1994</u>	<u>2011</u>
Portland CBD	15.9%	16.2%
Portland Central City (excl CBD)	10.0%	22.0%*
Portland: outside CC, E. of river to I-205	6.0%	6.0%
Portland: outside CC, W. of river	3.1%	6.1%**
Oregon suburbs	2.0%	4.2%
Clark County	1.0%	1.4%

\* Why big increase? More LRT service to Lloyd Center, Goose Hollow; transit Center at Rose Quarter; streetcar to NW/SW Portland.

\*\* Why increase? WS LRT, improved bus service.

### Does vehicle ownership affect transit mode share?

	<u>1994</u>	<u>2011</u>
0 car HH	34.8%	31.3%*
1 car HH	4.5%	7.0%
3 car HH	1.5%	2.2%

\*Why decrease? Car share programs and diversion to bike are possibilities. Difference could be potentially due to survey noise.

### How does transit mode share vary by household income?

	<u>2011</u>
L.T. \$25,000	9.0%
\$25,000 to \$75,000	4.4%
G.T. \$75,000	2.3%

### How does transit modes share vary by age?

	<u>1994</u>	<u>2011</u>
0 to 14	1.1%	2.1%
15 to 24	4.9%	9.5%
25 to 34	4.2%	8.2%
35 to 44	2.3%	5.3%
45 to 54	2.9%	4.0%
55 to 64	3.7%	3.5%
G.T. 64	2.1%	3.3%

## NON-MOTORIZED TRAVEL

### How has the walk and bike mode share for the region changed?

		<u>1994</u>	<u>2011</u>
Commuter	Walk	3.3%	3.7% (approximately 40,000 trips per day)
	Bike	1.0%	4.6% (50,000)
All	Walk	8.7%	9.2% (630,000)
	Bike	1.1%	2.8% (190,000)

### How has the walk and bike mode share to and within the CBD changed?

		<u>1994</u>	<u>2011</u>
Commuter	Walk	6.4%	3.9%*
	Bike	1.6%	7.7%
All	Walk	27.4%	26.9%
	Bike	1.9%	5.8%

\*Why decrease? Potentially due to switch to bike use – provides more flexibility in tours; significant transit investment – streetcar, LRT, etc.

### How does walk and bike mode share vary by place of residence?

	<u>1994</u>	<u>2011</u>
Walk		
Portland CBD	39.5%	47.0%
Portland Central City (excl CBD)	35.6%	22.7%*
Portland: outside CC, E. of river to I-205	11.7%	16.2%
Portland: outside CC, W. of river	14.6%	10.5%**
Oregon suburbs	6.4%	7.7%
Clark County	6.9%	4.7%
Bike	1994	2011
Portland CBD	1.8%	2.5%
Portland Central City (excl CBD)	2.8%	13.0%***
Portland: outside CC, E. of river to I-205	2.0%	8.1%
Portland: outside CC, W. of river	1.3%	2.0%
Oregon suburbs	0.7%	1.5%
Clark County	1.1%	1.0%

\*Why decrease? Potentially due to better transit and bike infrastructure; significant increase between cross river travel between CBD and Lloyd District (non-walk movement) is also a factor.

\*\* Why decrease? Potentially due to more disperse development; better transit service is a factor.

\*\*\* Why big increase? Potentially due to bike infrastructure investments; people matching housing location with lifestyle choices.

### Is bike ownership significant?

	<u>2011</u>
Pct of adults in Clack., Mult., Wash. owning a bike	28.5%

## NEXT STEPS

- Use survey data to update travel models
- Prepare a report of regional travel behavior statistics
- Prepare a report of travel behavior statistics for several subareas
- Begin long term planning for small “focused topic” surveys