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?

	2011
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?

	1994	2011
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?

	1994	2011
Commuter	58.4%	43.9% (30,000)
All	56.3%	46.0% (120,000)

Who forms carpools?

	2011
Intra-household members	85%
Non-household members	15%

How big are carpools?

	2011
2 persons	67%
3 persons	22%
4 persons	8%
5+ persons	3%

Has VMT per driver changed since 1994?

1994	2011
21.1	17.1

Has VMT per HH changed since 1994?

1994	2011
30.9	22.7

Has average trip length (miles) changed?

1994	2011
5.1	4.4

TRANSIT

How has regional transit mode share changed?

	1994	2011
Commuter	5.6%	10.9% (110,000)
All	2.9%	4.2% (290,000)

How has transit mode share to the CBD changed?

	1994	2011
Commuter	33.6%	44.5% (30,000)
All	14.4%	21.4% (60,000)

How does transit mode share vary by place of residence?

	1994	2011
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?

	1994	2011
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?

	2011
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?

	1994	2011
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?

		1994	2011
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?

		1994	2011
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?

Walk	1994	2011
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?

	2011
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