

# Cincinnati Household Travel Survey

## Overview

(Survey Conducted Aug 09-Aug 10)

- 100% GPS travel survey of ~2500 households (simple child diaries to <13)
- We are not obtaining trip purpose, mode, occupancy, or costs directly.
- Using the Prompted Recall surveys to train Neural Networks to impute the trip purpose and mode.
- Household vehicle occupancy should be obtained from the total number of GPS devices/child diaries that make a trip.

## Survey Complete Definition

- All members in a household over 12 years old (given a GPS unit), completing 1 concurrent day of full GPS recording.
- If a household member did not travel on a day when the other(s) did fully record, it counts as a complete.
- GPS HH completes include households where 4+ persons were assigned a GPS unit and a single household member failed to record complete travel on a concurrent day.

## Recruit/Participate/Complete

Month	# of Weeks	HH Recruited	Cum. HH Recruited	HH Participated	Cum. HH Participated	HH Completed*	Cum. HH Completed	HH PR Links Completed*	Cum. HH PR Links
Aug-09	4	223	223	223	223	123	123	39	39
Sep-09	8	510	733	474	697	291	414	88	127
Oct-09	12	519	1252	509	1206	285	699	46	173
Nov-09	16	458	1710	431	1637	243	942	15	188
Dec-09	20	452	2162	399	2036	242	1184	37	225
Jan-10	24	389	2551	355	2391	187	1371	63	288
Feb-10	28	420	2971	361	2752	199	1570	85	373
Mar-10	32	503	3474	376	3128	221	1791	28	401
Apr-10	36	500	3974	381	3509	207	1998	55	456
May-10	40	420	4394	265	3774	133	2131	42	498
Jun-10	44	500	4894	203	3977	114	2245	45	543
Jul-10	48	455	5349	206	4183	115	2360	49	592
Aug-10	52	215	5564	55	4238	31	2391	9	601
<b>Total</b>		<b>5564</b>		<b>4238</b>		<b>2391</b>		<b>601</b>	

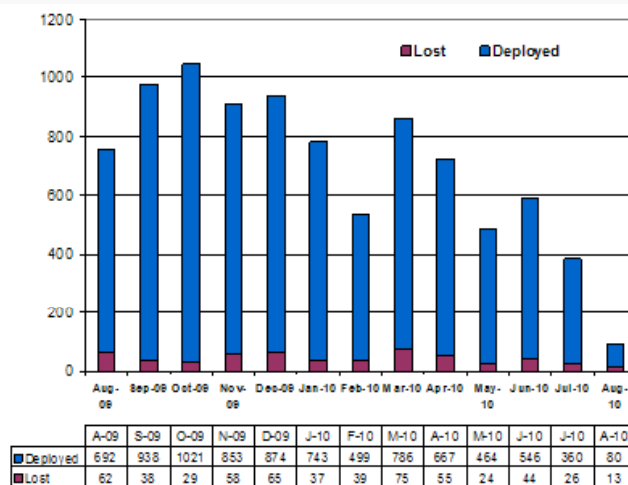
Not all recruited households were able to participate due to the lag in GPS device returns.

Households in under-represented groups were re-contacted later in the study.

## Return of GPS Units

- 700 GPS units were available at the beginning of study, plus 133 more mid-progress. A total of 833 units were deployed.
- The pilot suggested a 2.7% loss rate for the project as a whole, but the rate in the actual study averaged 7% per month.
- 4,238 recruited households were sent GPS units; of them, 292 (6.8%) failed to send at least one of their GPS units back.

## Deployed / Lost



## Unit Recycling

Circulation	# of Units	% of Units
Less than 5 times	269	32.3%
6 to 10 times	218	26.2%
11 to 15 times	147	17.6%
16 to 20 times	91	10.9%
More than 20 times	108	13.0%
Total	833	100.0%

- # times ranged from 1 – 28
- Average was 10 times
- 7 were returned damaged

## Overall Representativeness

HOUSEHOLD SIZE	Recruit				Complete	
	Recruit	Received	Recruit	Received	Frequency	Percent
1 PERSON	1691	1253	30.4%	29.6%	729	30.5%
2 PERSONS	1998	1433	35.9%	33.8%	828	34.6%
3 PERSONS	774	635	13.9%	15.0%	318	13.3%
4+ PERSONS	1101	917	19.8%	21.6%	516	21.6%
TOTAL	5564	4238	100.0%	100.0%	2391	100.0%

HOUSEHOLD SIZE	Sampling Plan		% Difference Completes/ Target
	HHs	Percent	Percent
1 PERSON	218622	27.27%	3.22%
2 PERSONS	256794	32.04%	2.59%
3 PERSONS	132757	16.56%	-3.26%
4+ PERSONS	193384	24.13%	-2.55%
TOTAL	801557	100.00%	

## Overall Representativeness

HOUSEHOLD INCOME	Recruit				Complete	
	Recruit	Received	Recruit	Received	Frequency	Percent
UP TO \$25,000	1187	912	21.3%	21.5%	373	15.6%
OVER \$25,000 TO \$50,000	1220	916	21.9%	21.6%	523	21.9%
OVER \$50,000 TO \$75,000	969	732	17.4%	17.3%	455	19.0%
MORE THAN \$75,000	1695	1304	30.5%	30.8%	862	36.1%
DON'T KNOW/REFUSED	493	374	8.9%	8.8%	178	7.4%
TOTAL	5564	4238	100.0%	100.0%	2391	100.0%

HOUSEHOLD INCOME	Sampling Plan		Sampling Target W/ Oversample	% Difference Completes/ Target
	HHs	Percent	Percent	Percent
UP TO \$25,000	164803	20.56%	25.52%	-9.91%
OVER \$25,000 TO \$50,000	201541	25.14%	27.48%	-5.61%
OVER \$50,000 TO \$75,000	161650	20.17%	21.70%	-2.67%
MORE THAN \$75,000	273563	34.13%	25.30%	10.75%
DON'T KNOW/REFUSED			0.00%	7.44%
TOTAL	801557	100.00%	100.00%	

## Overall Representativeness

HOUSEHOLD TYPE (LIFECYCLE)	Recruit				Complete	
	Recruit	Received	Recruit	Received	Frequency	Percent
ADULT HH	2741	2027	49.3%	47.8%	1194	49.9%
ADULT STUDENT HH	232	158	4.2%	3.7%	93	3.9%
RETIREE HH	1093	801	19.6%	18.9%	397	16.6%
HH WITH CHILDREN	1498	1252	26.9%	29.5%	707	29.6%
TOTAL	5564	4238	100.0%	100.0%	2391	100.0%

HOUSEHOLD TYPE (LIFECYCLE)	Sampling Plan		Sampling Target W/ Oversample	% Difference Completes/ Target
	HHs	Percent	Percent	Percent
ADULT HH	368555	45.98%	43.64%	6.30%
ADULT STUDENT HH	22894	2.86%	7.42%	-3.53%
RETIREE HH	116567	14.54%	15.30%	1.30%
HH WITH CHILDREN	293541	36.62%	33.64%	-4.07%
TOTAL	801557	100.00%	100.00%	

## Contacts

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