



GPS-based Prompted Recall Studies: Jerusalem & NYC

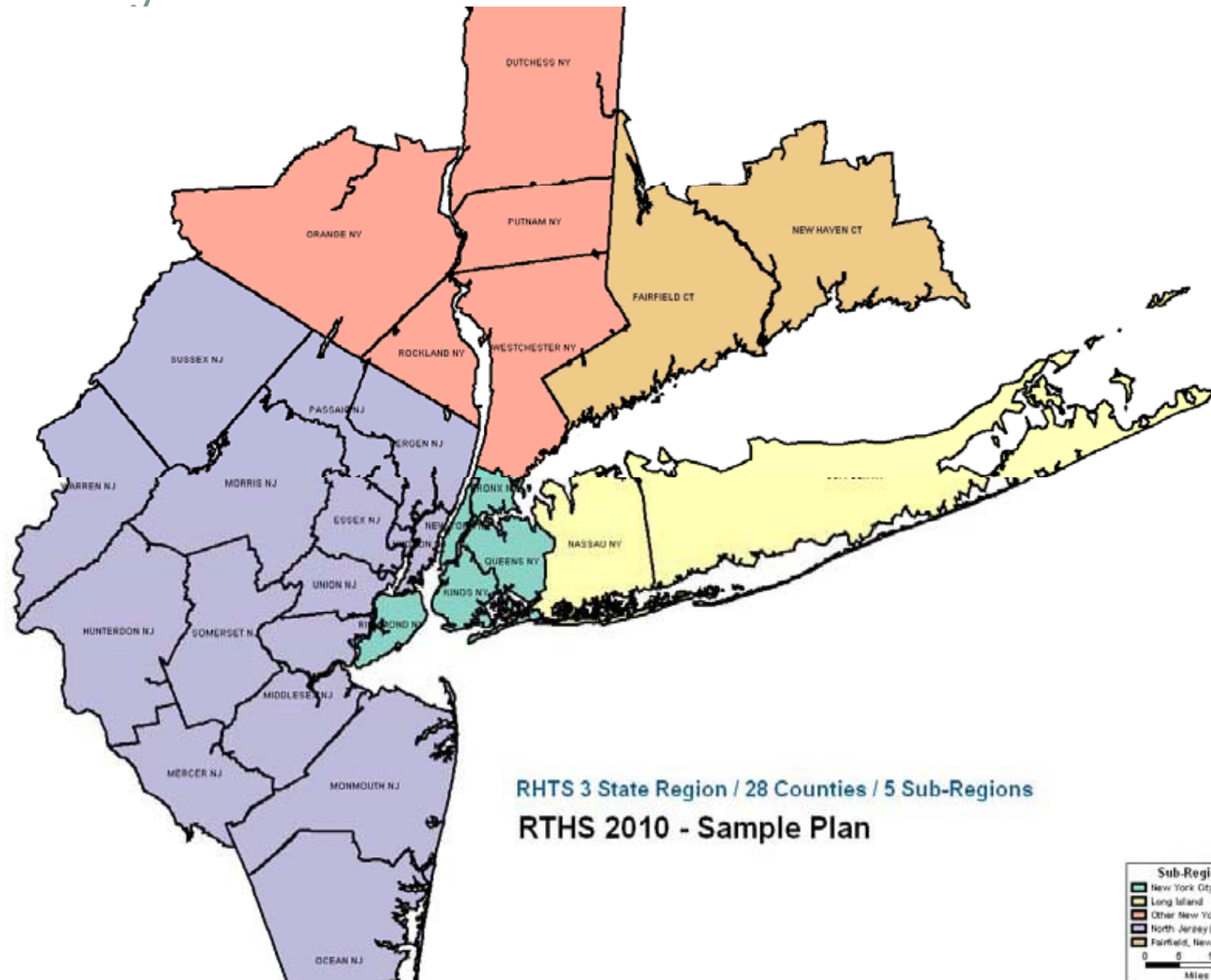
TRB Annual Meeting
ABJ40(4) New Technologies Subcommittee
January 25, 2011

Overview of Studies

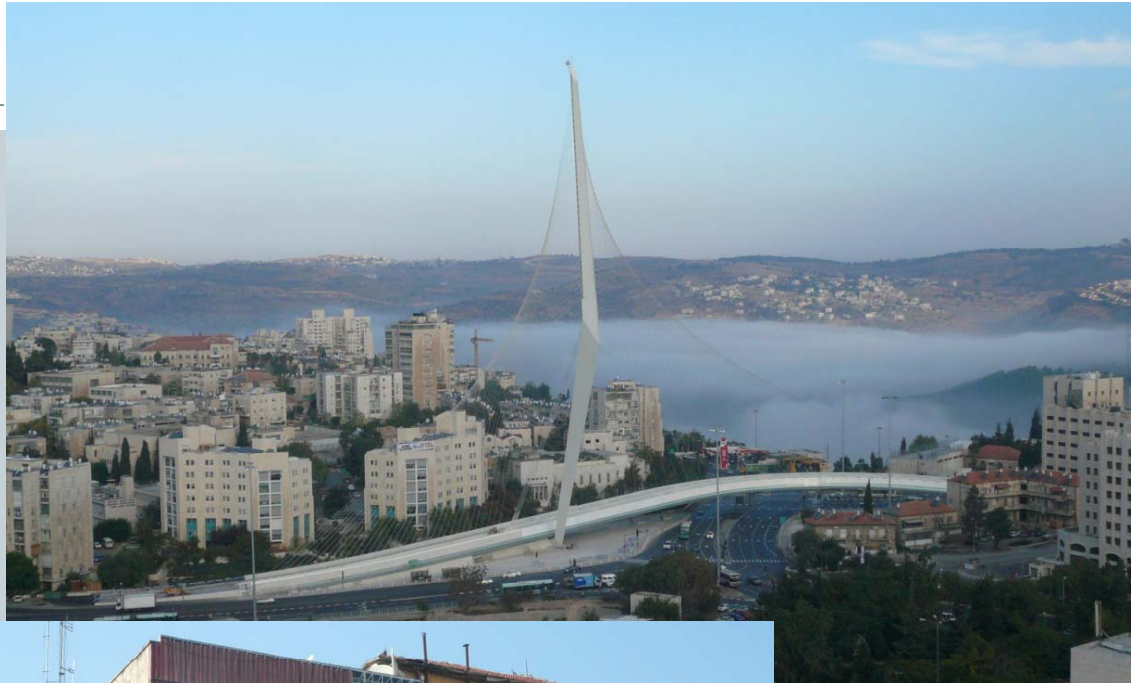


	Overall Sample Size (#hh)	# hh in region	Main Survey	GPS Sample	GPS Approach	GPS Ages
Jerusalem	Yr 1: 6000 -> 8000; Yr 2-4: 800 each	315,000	Mar-10 to Feb-11	100%	wearable GPS with PR to replace diaries	15+
NYC	Yr 1: 18,800	7,892,940	Sep-10 to Jun-11	10%	wearable GPS with PR to replace diaries and to generate trip rate correction factors for remaining 90%	16 - 75

NYC Study Area



Jerusalem



Survey Design



	Sample	Recruit Methods	# travel days	# GPS days	Retrieval Methods	Incentives	Progress to Date
Jerusalem	100% GPS	CAPI	1 (M-W)	1	CAPI	Yes	80-90%
NYC	10% GPS	CATI or Web	1 (M-F)	2, 4	CATI or Web	\$25 matched \$75 unmatched	25%
	90% Diary	CATI or Web	1 (M-F)	NA	CATI, Web, or Mailback	\$50 unmatched	25-30%

Wearable GPS Device



GlobalSat DG-100

- Used in many GPS travel surveys & physical activity studies
- Rugged, easy to wear, to use, and to recharge
- Large LEDs clearly indicate power on and logging states

VOXCO/TripBuilder for Jerusalem



- Both components are PC-based to support remote field data collection (CAPI)
- Supports collection of both diary and GPS travel with real-time geocoding of all trip ends
- Automated matching of GPS trip destinations with geocoded habitual locations (home, work, school)
- Multi-language support (Hebrew, Arabic, Russian), including right-to-left displays (even maps in Hebrew)
- Fuzzy string searches and geocoding in Hebrew
- SP survey extensions triggered by GPS measured or reported travel

JHTS GPS PR – TripBuilder Windows

Select Participant - 1.0.1.25449

Sample: 1000 Swap Travel Data... Geocode Common Places...

ID	First Name	Last Name	Age	Download Date	Number of Places	Number Confirmed	Status	Download GPS	Edit
1									
2									

GeoStats Trip Builder - 1.0.3699.19218

סך מקומות: 41 יום הנסיעות: 12/02/2010 מסק בית: 100001
לא מאושר: 41 סוג הימון: דסה-לוגו מס' כלי הנסיעה: 2 מס' מכונית: 1

לאן הלכת לאחר מכן? [מקום 3] חחח

מקום הביקור: מקום נופץ: מקום קודם: מסעדה: מקום אחר:

זמן: זמן הגעה למקום: 0713 תוצאות החיפוש:
זמן עזיבה מהמקום: 0733

אמצעי: איד הגעת למקום הזה?
ארטובוס: אחר: או: פצל למספר אמצעים...

מקום: שם: כתובת: מספר: קומה/דירה: עיר: צומת או מקום:

הוסף מקום חצב מקום... כל המקומות התמקד במקום מבט כללי מידע חזו מבט החוצה מבט פנימה מבט קודם

מס' מקום	על המפה	מקום	אמצעי	זמן הגעה	זמן עזיבה	זמן שהייה	מסרה	מאושר
1	<input checked="" type="checkbox"/>			03:00	06:24	3:24		<input type="checkbox"/>
2	<input checked="" type="checkbox"/>		ארטובוס	06:44	07:12	0:27		<input type="checkbox"/>
3	<input checked="" type="checkbox"/>		ארטובוס	07:13	07:33	0:19		<input checked="" type="checkbox"/>
4	<input checked="" type="checkbox"/>		ארטובוס	07:37	07:42	0:05		<input type="checkbox"/>
5	<input checked="" type="checkbox"/>		נהג מכונית...	07:56	08:02	0:05		<input type="checkbox"/>
6	<input checked="" type="checkbox"/>			08:41	08:42	0:00		<input type="checkbox"/>
7	<input checked="" type="checkbox"/>	צמ"א	הליכה	08:50	14:17	5:26		<input type="checkbox"/>
8	<input checked="" type="checkbox"/>	מסעדה	הליכה	14:18	15:35	1:17		<input type="checkbox"/>
9	<input checked="" type="checkbox"/>		נהג מכונית...	16:27	16:33	0:05		<input type="checkbox"/>
10	<input checked="" type="checkbox"/>		נהג מכונית...	16:44	16:53	0:09		<input type="checkbox"/>
11	<input checked="" type="checkbox"/>		נהג מכונית...	17:04	18:29	1:24		<input type="checkbox"/>
12	<input checked="" type="checkbox"/>		נהג מכונית...	18:38	07:33	12:55		<input type="checkbox"/>
13	<input checked="" type="checkbox"/>		ארטובוס	07:35	07:44	0:08		<input type="checkbox"/>
14	<input checked="" type="checkbox"/>		נהג מכונית...	08:01	08:07	0:05		<input type="checkbox"/>

הוסף מקום חדש השתמש בנטיעה הוסף לפני
הסר מקום הסר מסלול שווא הוסף אחר

מ: 647134.4, 201196.7 עיר: מודיעין מכבים רעות שכונה:

VOXCO/TripBuilder for NYC



- Components are web-based to support CASI and CATI recruitment and retrieval as well as mail-back retrievals
- Also supports collection of both diary and GPS travel with real-time geocoding of all trip ends
- Automated matching of GPS trip destinations with geocoded habitual locations (home, work, school)
- Public website provided as participant-friendly portal to recruit and retrieval 'questionnaire'
- TripBuilder provided in English and Spanish
- Public website provided in English, Spanish, Chinese, and Russian

Public Website (NYMTC)



Regional Travel Survey

For a better transportation future.

New York
New Jersey
Connecticut

Welcome

Invited to Join?

Report Travel

FAQs

Materials

Contact Us

Welcome! The Regional Travel Survey is a joint effort of the New York Metropolitan Transportation Council (NYMTC), the North Jersey Transportation Planning Authority (NJTPA), and their partners in regional transportation planning. If you received a participation letter, click [Start Here](#) to join the survey.

Hear more about the survey



Click on the video to listen to a member of the NY/NJ/CT tri-state region discuss the importance of the Regional Travel Survey.

Invited to join the survey? **Step 1**

[Start Here](#)
(PIN required)

Finished your travel day? **Step 2**

[Report Travel](#)
(PIN required)

Why your participation matters

The Regional Travel Survey will collect travel data from households in 28 counties in the tri-state area of New York, New Jersey and Connecticut. The goal is to help the region's transportation planning organizations answer important questions about travel in the region.

Results from the Regional Travel Survey will help guide future transportation projects in the region. In order to plan for the projects of tomorrow, we need to know how people move around, reasons they travel and who uses the transportation system today. With YOUR input, we will be better able to develop plans for transportation improvements that affect mobility, access to jobs, air quality, and quality of life in the region.

We take your privacy very seriously, and have strict rules and procedures that will safeguard the information you provide. Under no circumstances will your name or other information be given or sold to anyone. View the Privacy Statement here.

[More information about the Survey sponsors >>](#)

[View frequently asked questions about the study.](#)

The Study Region



North Jersey
Transportation
Planning
Authority



South Western
Regional
Planning Agency



Greater
Bridgeport
Regional
Planning Agency



Poughkeepsie-
Dutchess County
Transportation Council



Orange County
Transportation
Council



Valley Council of
Governments

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[Privacy Statement](#)

[Contact Us](#)



Record Your Travel

Household:
 Person:
 Travel on: **Wednesday, May 19 2010**
 From 3:00 am to the next day at 2:59 am

Total Places: **7**
 Places with errors: **6**

Undo
Redo

[Instructions for GPS reporting](#)

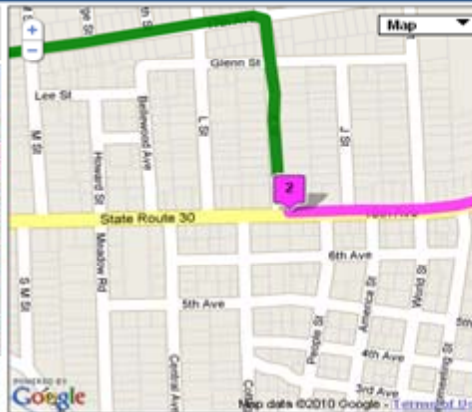
[Return to Select Person Page](#)

Your Online Travel Diary

The places you visited from 3:00 am to the next day at 2:59 am.

View #	Place	Mode	Arrival Time	Departure Time	Duration (hr:min)	
1	Home depot		3:00 AM	1:40 PM	10:40	✓
2	Auto (car or...)		1:45 PM	1:48 PM	0:02	✗
3	Auto (car or...)		2:40 PM	2:58 PM	0:17	✗
4	Walk		3:03 PM	8:25 PM	5:21	✗
5	Local Bus (R...)		8:27 PM	8:27 PM	0:00	✗
6	Auto (car or...)		9:17 PM	9:21 PM	0:03	✗
7	Home depot		9:23 PM	9:23 PM	0:00	✗

Insert Before Block (Phantom) Add New Place
Insert After Remove Place



Zoom All Zoom to Place Set Location
Zoom to Trip

Help
Click **Zoom All** to view all places you've reported.
Click **Zoom to Place** to zoom into the current place.
Click **Set Location** and then click on the map to adjust the place on the map.
You can also drag and drop the selected place to adjust its location.
[More help...](#)

Where Did You Go Next? (Place 2)

< Previous Place Next Place >

What is the location of this place?

Is it a home, work or school?
Home
GOODYEAR SERVICE CENTER (Work - Jeffery)

Is it a new location?
[Add New Location](#)

Is it a previously visited location?
(Places you or others in your household have visited.)
The Home Depot (3540 State Route 66, Neptune home depot)

Specify location details

Location Name:

Location name is required.
[Ex. Starbucks, Grand Central Station, Arby's, Bus stop](#)

Search for a location by address or intersection below, or press Set Location above and click on map.

Address:

Ex. 100 East 42nd Street, New York, NY

Intersection:

Ex. Market & Broad, Newark, NJ

For a new location, click Add New Location.

Time

What time did you arrive here?

What time did you leave this place?

(If this is the last place you visited, set time to 2:59 am.)

Mode

How did you travel to this place?

Which vehicle did you use?

Please select a vehicle.

Other Travelers

How many other travelers with you?
 number of other people

If you travelled with household members, select them below:
 Jeffery
 Diane

Reported all of your travel for the day?
(Be sure to include travel through the next day at 2:59 am)

Need help?
[Instructions for GPS reporting](#)

TripBuilder Windows / Web



- **TripBuilder Windows: Single system for collection of all travel data**
 - Jerusalem GPS participants: CAPI (GPS-based PR)
 - Jerusalem diary participants: CAPI
 - TripBuilder Web: Single system for collection of all travel data
 - NYMTC GPS participants: CATI or CASI/web (GPS-based PR)
 - NYMTC diary participants: CATI, CASI/web, or mail-back entry
- **Single system ensures consistency of question flow/branching, logic checks / validation, geocoding method, and data formats**

Special thanks and acknowledgements:

Jerusalem Transport Mgmt Team

- Yehoshua Birotker
- Danny Givon

NYMTC and NJTPA

- Jorge Argote and Kuo-Ann Chiao
- Bob Diogo

NuStats, PB, GeoStats Project Team

- Jesse Casas, Julie Paasche, Kelly Castleberry, Cheryl Stecher
- Bob Donnelly, Peter Vovsha
- Marcelo Oliveira, Glenn Frankel, Jeremy Wilhelm, Michelle Lee

