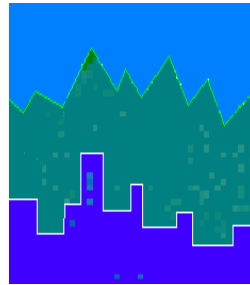


# National Household Travel Survey Add On Workshop

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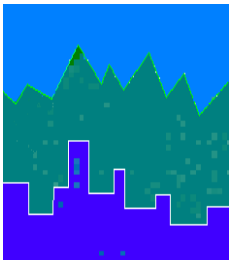
***August 12, 2009***

***Start time: 2:30 to 4:00 ET***

***Teleconference number to Access Audio  
Portion***

***888-677-5635***

***Code: 89342***



# Thank you!

A few webinar protocols:

Please mute your phone and

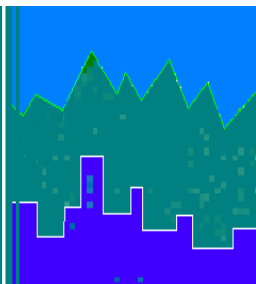
Type questions into 'chat' box

AND

We appreciate your feedback!



Please Mute your  
phones...



# ***NHTS Team Members:***

---

***Team Leader: Heather Contrino***

***[Heather.Contrino@dot.gov](mailto:Heather.Contrino@dot.gov)***

***Nancy McGuckin***

***[Nancy.McGuckin@dot.gov](mailto:Nancy.McGuckin@dot.gov)***

***Adella Santos***

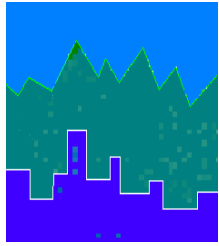
***[Adella.Santos@dot.gov](mailto:Adella.Santos@dot.gov)***

***Yuki Nakamoto***

***[Yuki.Nakamoto@dot.gov](mailto:Yuki.Nakamoto@dot.gov)***

***Susan Liss***

***[Susan.Liss@dot.gov](mailto:Susan.Liss@dot.gov)***



# Greetings from Tianjia Tang

The Federal Highway Administration  
congratulates  
all the agencies and organizations  
on  
your wise investments  
with  
the NHTS program.

# FHWA Office of Highway Policy Information

David Winter, PE

**Highway Funding  
and  
Motor Fuel**  
Ralph Erickson

**Highway System  
Performance**  
Ralph Gillmann

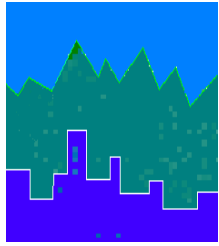
**Travel Monitoring  
and  
Surveys**  
Tianjia Tang, PE., Ph.D.,

## **Travel Monitoring:**

Acting Technical Leader: Ron Erickson  
Harshad Desai – TMG, Speed  
David Jones – WIM, TMG  
Ron Erickson – MTAS, Data Integration  
Steven Jessberger – TMAS, TVT  
Vacant – data analyst  
Vacant – Technical leader

## **Travel Surveys:**

Technical Leader: Heather Contrino  
Yuki Nakamoto  
Nancy McGuckin  
Adella Santos



# Re-Authorization – Data Program

## US. House of Representative:

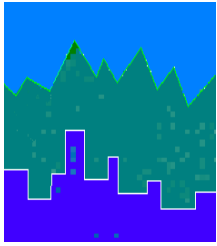
- ❖ Transportation and Infrastructure Committee - James Oberstar (D-MN)
- ❖ Ways and Means Committee Charles B. Rangel (D-NY)



# Re-Authorization – Data Program

## **US. Senate:**

- ❖ Environment and Public Works  
Committee (Barbara Boxer, D-CA)
- ❖ Banking, Housing and Urban Affairs  
Committee ( Christopher J. Dodd, D-CT)
- ❖ Commerce, Science and Transportation  
Committee (Jay Rockefeller, D-WV)

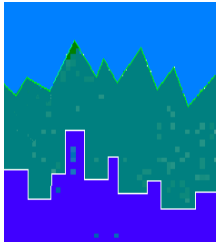


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**The Surface Transportation Authorization Act  
of 2009**  
**"A Blueprint for Investment and Reform"**

**Silent on Data Program**

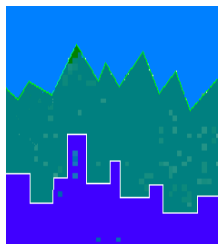




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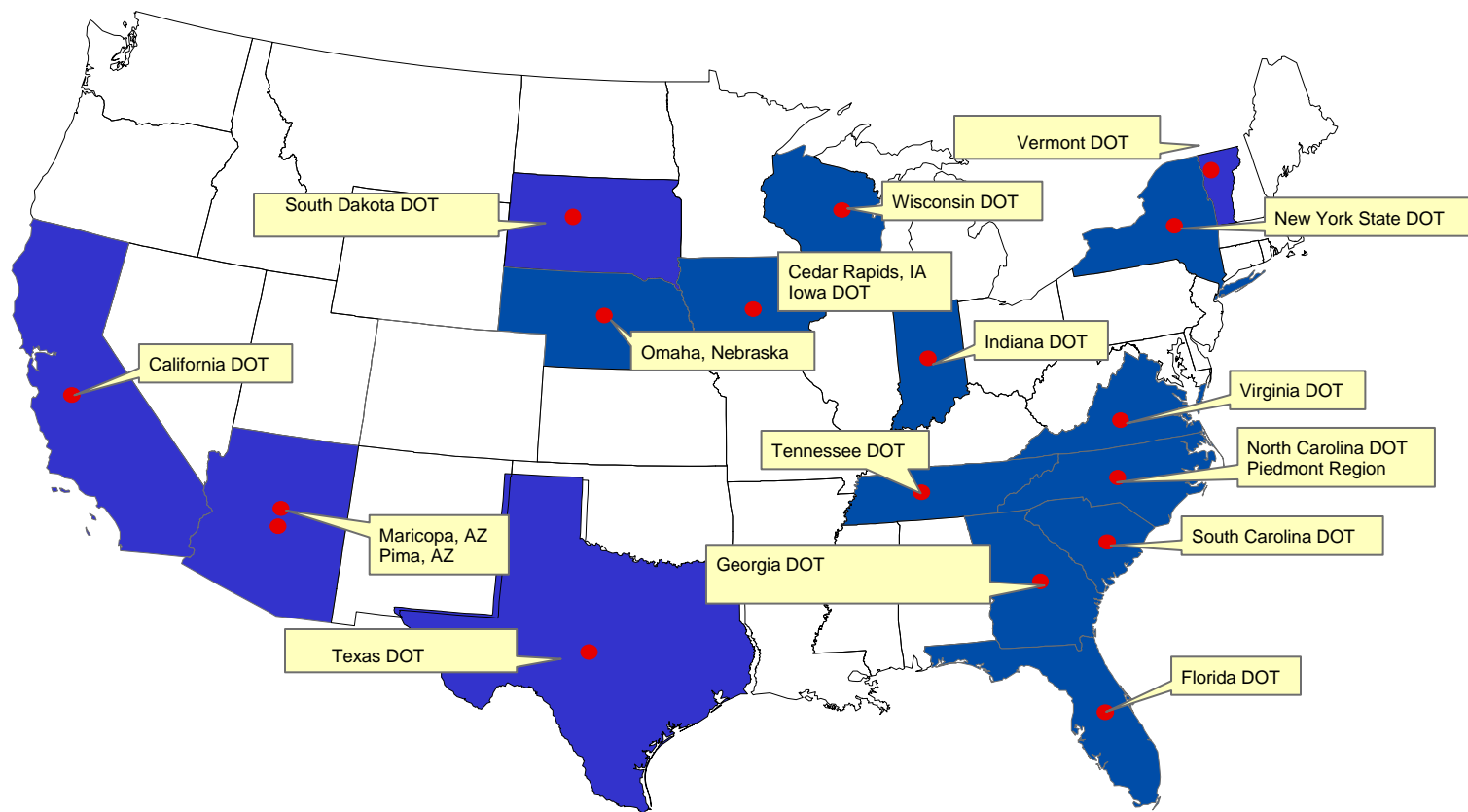
**On Behalf  
of  
The Office of Highway Policy  
Information**

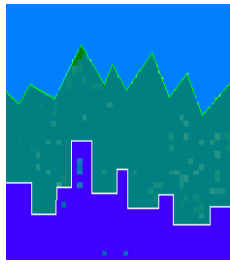
**THANK YOU!**



# 2008 NHTS Add On Program Participants

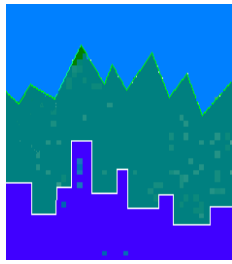
125,000 Add-On Samples





# Overview of the 2008 NHTS

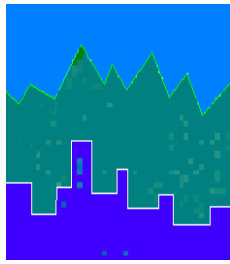




# NHTS Design

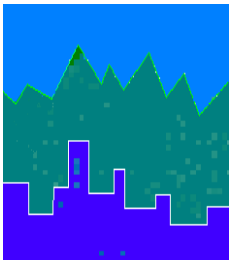
- List-assisted RDD sample
- Computer-Aided Telephone Interviews
- 13-month data collection period:  
April08 through May09
- Advance letter with \$5 incentive
- Household recruitment
- Mail-out Dairy packets
- Reminder calls
- Person level retrieval





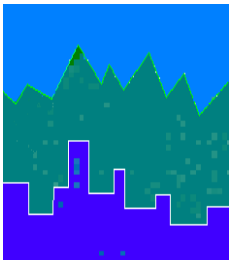
# 2008 NHTS Data Collection

- Collected interviews from HH people ages 5 & older within 7 days of Travel Date
- Collected Proxy interviews
  - 5 – 13 year olds (always)
  - 14 – 15 year olds (unless parent requests in-person)
  - 16+ years old (only after day 3)
- Recruit—10 minutes/Retrieval – 18 minutes per interview
- A complete HH interview required 50% of all adult household members: Non-responding HH members are accounted for in the weights



# 2008 NHTS Data Coverage

- Weighted to represent one calendar year for annual estimates
- Every sampled HH was assigned a travel day:
  - Ensured **balance** across **each day** of the week and month of the year
  - Compare Mondays to Fridays and weekdays to weekend



# Scheduled Dates

- Data Processing Phase: **May-September 2009**
- **August 17:** Location files sent to Add-Ons
- Individual data sets: **October 5, 2009**
- Full National & Add-On Public data files:  
Available **January 2010**.

# NHTS Website: <http://nhts.ornl.gov>.

NHTS Home - Windows Internet Explorer

http://nhts.ornl.gov/

Norton Phishing Protection on Identity Safe Log-ins

msn Powered by Live Search Search

News Entertainment Video Sports Money Autos Shopping Lifestyle Health A-List 32°F

NHTS Home

**NHTS**  
National Household Travel Survey

U.S. Department of Transportation  
Federal Highway Administration

Home | New Users | Online Analysis Tools | Publications | Download Data | User Support

### About the NHTS

The NHTS is the authoritative source of national data on the travel behavior of the American public. The dataset allows analysis of daily travel by all modes, including characteristics of the people traveling, their household, and their vehicles. The project is funded and managed by the Federal Highway Administration, [Office of Policy and Information](#).

### 2008 Survey

- 155,000 US households will participant
- Survey conducted from April 2008 through May 2009
- Add On Program: 20 Add-on partners
- Public use dataset - planned for late Fall of 2009

[2008 NHTS...](#)

### 2008 Survey Participant

[An FAQ for participants](#) of the 2008 NHTS is available at FHWA.


### 2001 Survey

- Available to [download](#) or [tabulate](#)
- 70,000 households
- 9 Add-on partners and a national sample
- [Reports, Briefs and Publications](#) including the [User's Guide](#)

### Earlier Surveys

This site has [data](#) for the 2001 NHTS, 1995 NPTS, 1990 NPTS, and 1983 NPTS, [publications](#) from all surveys, and [Online Analysis Tools](#) for the 2001 NHTS and the 1995 NPTS.

### NHTS Brief



*How have gas prices affected summer travel?*  
[Vacation Travel, NHTS Brief, August, 2008 \[PDF\]](#)

Internet | Protected Mode: On 100%

2008nhtS Microsoft PowerPoi... NHTS Home - Wind...

9:03 PM





# NHTS

## National Household Travel Survey



U.S. Department of Transportation

# Federal Highway Administration

[Home](#) | [New Users](#) | [Online Analysis Tools](#) | [Publications](#) | [Download Data](#) | [User Support](#)

## Online Analysis Tools

[Table Designer](#) Build customized data tabulations quickly and easily. Tabulations are in HTML and Excel spreadsheet formats.

[Transferability](#) Transferability refers to "transferring" the 2001 Nationwide Household Travel Survey (NHTS) results to small geographic areas (e.g., Census Tracts). The Transferability methodology provides estimates of regional or local travel, including vehicle trips (VT), vehicle miles of travel (VMT), person trips (PT), and person miles of travel (PMT) by trip purpose. NHTS Transferability is a GIS-based tool that enables users to download trip statistics for selected Census Tracts and Transportation Analysis Zones (TAZ). The output dataset is an Excel spreadsheet in XML format (Excel 2003 and above).

Note that the National datasets are available on the [download page](#).

[FHWA](#) | [Plug-Ins](#) | [Privacy Notice](#)

This web-based tool was developed by the [Center for Transportation Analysis, Oak Ridge National Laboratory](#) (ORNL) under funding from the [Federal Highway Administration](#)

[Home](#)[What's New](#)[e-Mail Notification](#)

[FHWA](#) > [Knowledge Communities](#) > [Highway CommunityExchange](#) > [National Household Travel Survey](#)

Welcome to the Federal Highway Administration's National Household Travel Survey "Community of Practice" (CoP). The purpose of CoP is exchange of information and knowledge of transportation issues can take place. Users are encouraged to share their "best practices"; information or transportation issues that face their communities on a national, state or local level. The NHTS team has dedicated this site to keep the 2008 NHTS. The site will post NHTS News Briefs and a host of other trend data news resulting from the 2008 NHTS data. Participation

ISSUES: [Current status \(as of 3/17/08\)](#):

The recent surface transportation authorizing legislation, SAFETEA-LU, drastically reduced the research funding available to Federal Highway Administration. Highway funding has been the backbone source of support for the survey series. However, the 2008 NHTS has been funded along with 19 Add-On household travel survey. The 2008 NHTS commenced early March of 2008 and will continue to collect data until spring of 2009.

CHECK AT THIS SITE FOR UPDATES ON STATUS

### **The NHTS User Community**

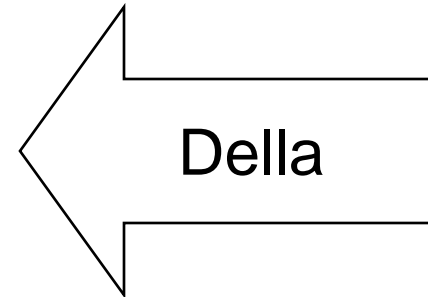
Please post a description on this CoP site of how you have used the NHTS data and the impact it contributes to your work. See the discussion of other users.

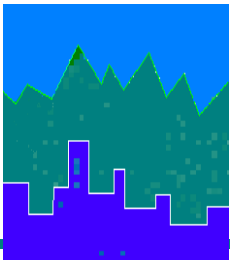
[Discussion](#)[Reference](#)[Works in Progress](#)[Directory](#)



# Add-on Deliverables

1. Questionnaire
2. Code Book
3. Data Dictionary
4. Copies of Field documents
5. User's Guide ( Spring 2010)
6. Examples of Data Uses
7. Location file (Geo-coded)
8. Structure and Use of the  
Main data files (4)
  1. Household
  2. Person
  3. Vehicle
  4. Daytrip

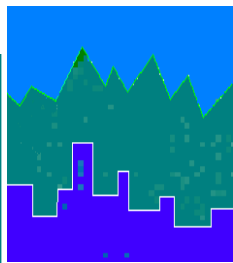




# Questions Added in 2008

---

- Internet purchases and home deliveries in last month
- Commercial licenses and hybrid vehicles, motorcycles
- Self employment
- Flexible arrival time to work
- Interstate and toll use
- Section on Safe Routes to School
- Park or dropped off at public transportation
  - Originally VA add-on but added to core content: Thanks VA!



# Questionnaire

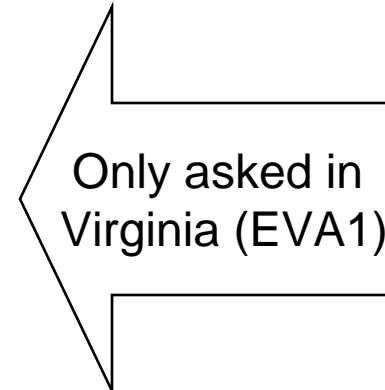
Exact wording of question, response categories and codes, core or add-on specific and CATI variable name

EVA1. Do you usually park your vehicle more than one block from your workplace?

(EVA1)



- YES ..... 1
- NO ..... 2 GO TO Eb
- REFUSED ..... -7 GO TO Eb
- DON'T KNOW ..... -8 GO TO Eb



EVA2. How many minutes does it take you to walk from where you park to your workplace?

(EVA2)

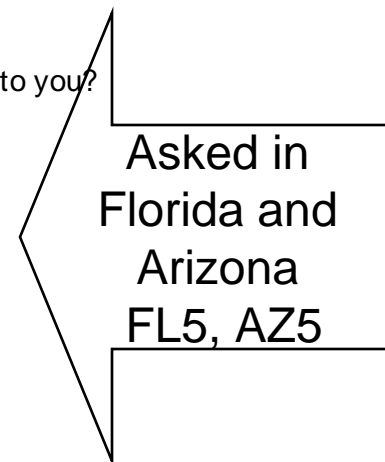
- NUMBER OF MINUTES ..... |\_\_|\_\_|
- REFUSED ..... -7
- DON'T KNOW ..... -8

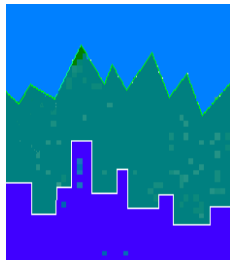
E5. For public transit like a bus, the subway, or a train to be a good option for {your/FNAME/AGE/SEX's} commute, which of the following would be most important to you?

Would you say that it's...

(FL5, AZ5)

- a. Close to work and home, ..... 1
- b. Faster than driving, ..... 2
- c. Reasonable in cost, ..... 3
- d. Consistently on time, or ..... 4
- e. Fits your schedule. .... 5
- REFUSED ..... -7
- DON'T KNOW ..... -8





# Questionnaire (cont.)

[N\_F12]

Ec. {Do you/Does SUBJECT} have the ability to set or change your own start work time?

**(FLEXTIME)**



- YES ..... 1
- NO ..... 2
- REFUSED ..... -7
- DON'T KNOW ..... -8

Core Content:  
asked of all  
workers

[N\_F13]

Ed. {Do you/Does SUBJECT} have the option of working at home instead of going into your primary workplace?

**(WKRMMH)**

- YES ..... 1
- NO ..... 2      GO TO BOX BEFORE F1
- REFUSED ..... -7      GO TO BOX BEFORE F1
- DON'T KNOW ..... -8      GO TO BOX BEFORE F1

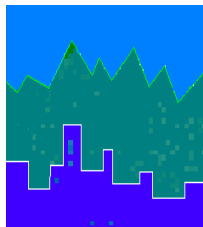
[N\_F9]

E20. How many times in the last month did {you/SUBJECT} work only at home for an entire work day instead of traveling to your usual {primary} workplace?

**(WKFMHMXX)**

**[DO NOT INCLUDE DAYS WORKED AT HOME IN ADDITION TO AT THE WORKPLACE.]**

- TIMES ..... |\_\_|\_\_|
- REFUSED ..... -7
- DON'T KNOW ..... -8



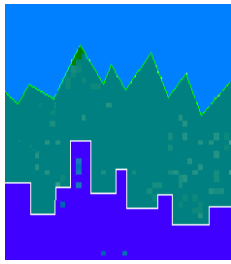
# Code Book

Your key to everything: Var name, type, length, label, code and frequency

<i>2008 Variable Name</i>	<i>Variable Type</i>	<i>Variable Length</i>	<i>Label</i>	<i>Value Range Code</i>	<i>Frequency</i>
WRKCOUNT	N	8	Number of workers in HH	108,572	.
				1	141,903 .
				2	126,399 .
				3	26,166 .
				4	5,705 .
				5	866 .
				6	83 .
WTTRDFIN	N	8	Final trip weight	*	409,694 .

# Data Dictionary

## Alphabetic listing of all variables



Microsoft Word non-commercial use - DATADictionary (Read-Only) [Compatibility Mode]

Home Insert Page Layout References Mailings Review View Design Layout

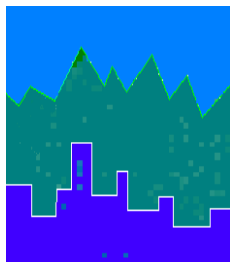
Clipboard Font Paragraph Styles Editing

NHTS  
Listing of All Variables By Alphabetical Order  
DOTR File

Question Number	2008 Variable Name	Variable Type	Variable Length	Variable Format Length	Label	HHOLD Var	PER Var	VEH Var	DTRIP Var
*	AGE5PLUS	C	2		Age is 5 - 16 yrs old		P		
C10	AGERANGE	C	2		Over/Under 18 for HHMs missing age		P		
*	ANNUALZD	N	8		Odometer-based annual miles estimate			V	
*	ANN_FLG	C	2		Reasons for missing ANNUALZD value			V	
*	ANULZDSE	N	8		Standard error of ANNUALZD estimate			V	
*	ASKSECTF	C	2		Asked Section F		P		
*	AWAYHMSP	C	30		Travel day reason S was away from home - specified				D
G25	AWAYHOME	C	2		Travel day reason S was away from home				D
*	AZ1	N	3		Number of months S lives in AZ	H			
*	AZ2_MO	N	3		How long ago moved here - months	H			
*	AZ2_YR	N	3		How long ago moved here - years	H			
*	AZ3A	C	2		Most important reason chose home location	H			
*	AZ3A_O	C	30		Most important reason chose home location - other specified	H			

Page: 1 of 30 Words: 5,306 100%





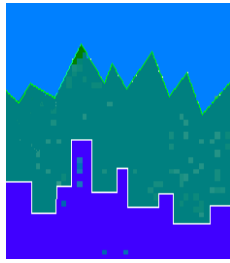
# Field Documents

## Advance letter, brochure, trip diary

At the beginning of my travel day (4:00 a.m.) I was:

Home     Some other place

WHERE did you go? (Name of place)	What TIME did you start and end each trip?		WHY did you go there?	HOW did you travel?	How FAR was it? (blocks or miles)
	Started at:	Arrived at:			
<i>EXAMPLE: West Park Theater</i>	<i>2:00 p.m.</i>	<i>2:55 p.m.</i>	<i>To see a movie</i>	<i>walk, bus, walk</i>	<i>6 miles</i>
1.					
2.					
3.					
4.					
5.					
6.					



# User's Guide

The documentation for the entire data collection, weighting, and coding conventions

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Brief list of the Table of Contents Include:

Purpose and Scope of the Survey

Interview Process

Procedures and Methods Used

Survey Response Rates

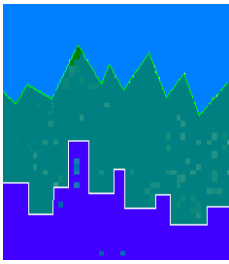
Weight Calculations

Description of Data Files

Use of the Data (Travel Concepts)

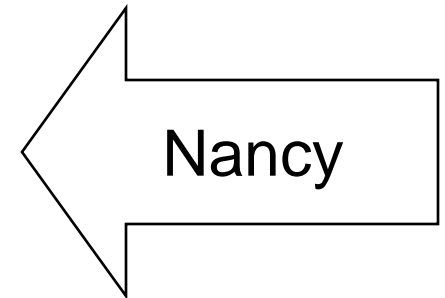
Standard Tables

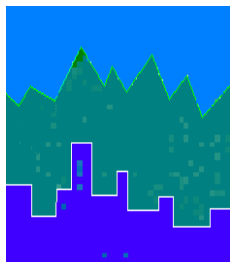
Appendices (Q, Code Book, Dictionary, Glossary etc...)



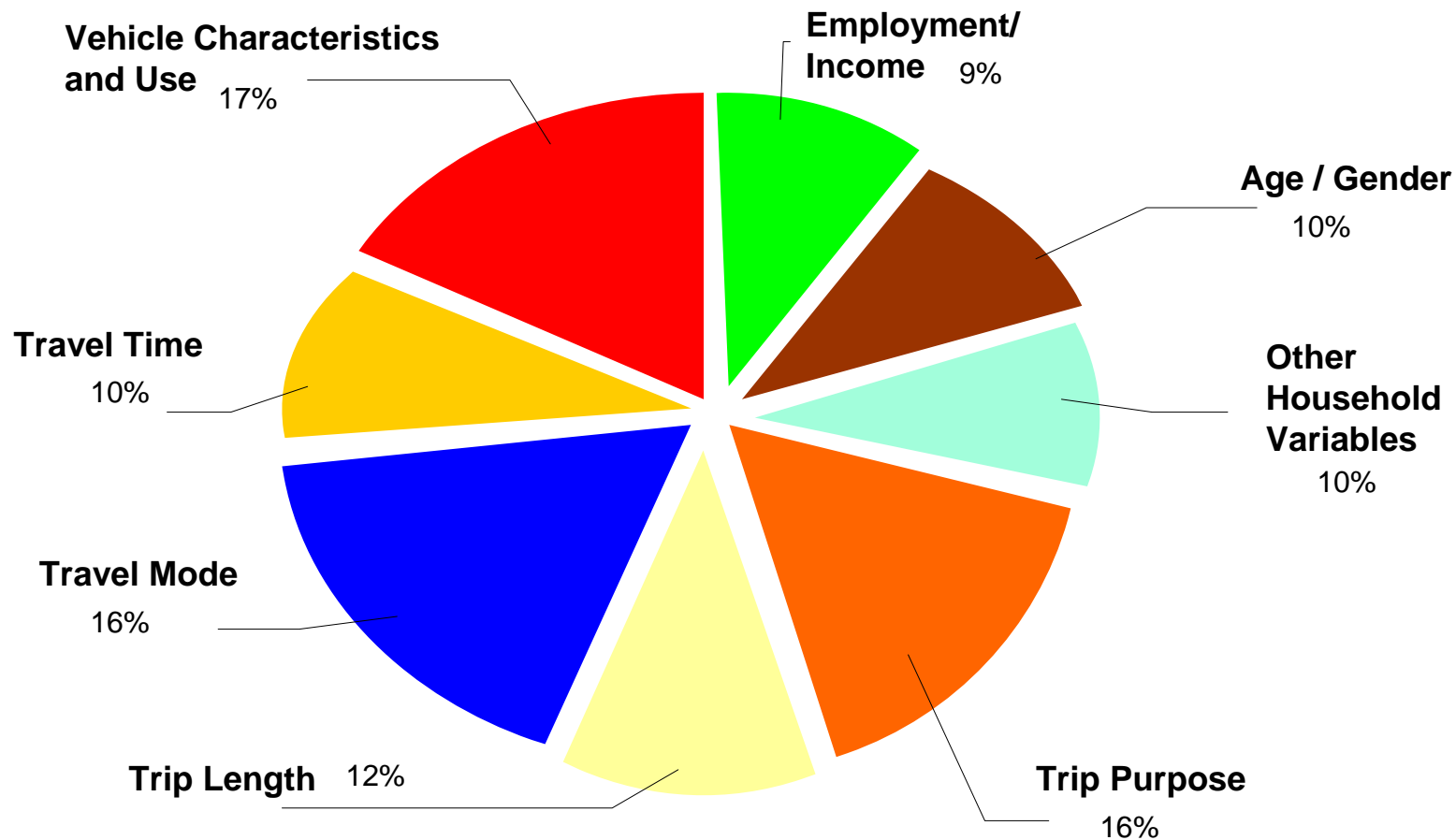
# Add-on Deliverables

1. Questionnaire
2. Code Book
3. List of variable names
4. Copies of Field documents
5. User Guide ( Spring 2010)
6. Examples of Data Uses
7. Location file (lat/long of trip ends)
8. Structure and Use of the  
Main data files (4)
  1. Household
  2. Person
  3. Vehicle
  4. Daytrip

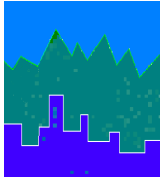




# Most Commonly Used Variables

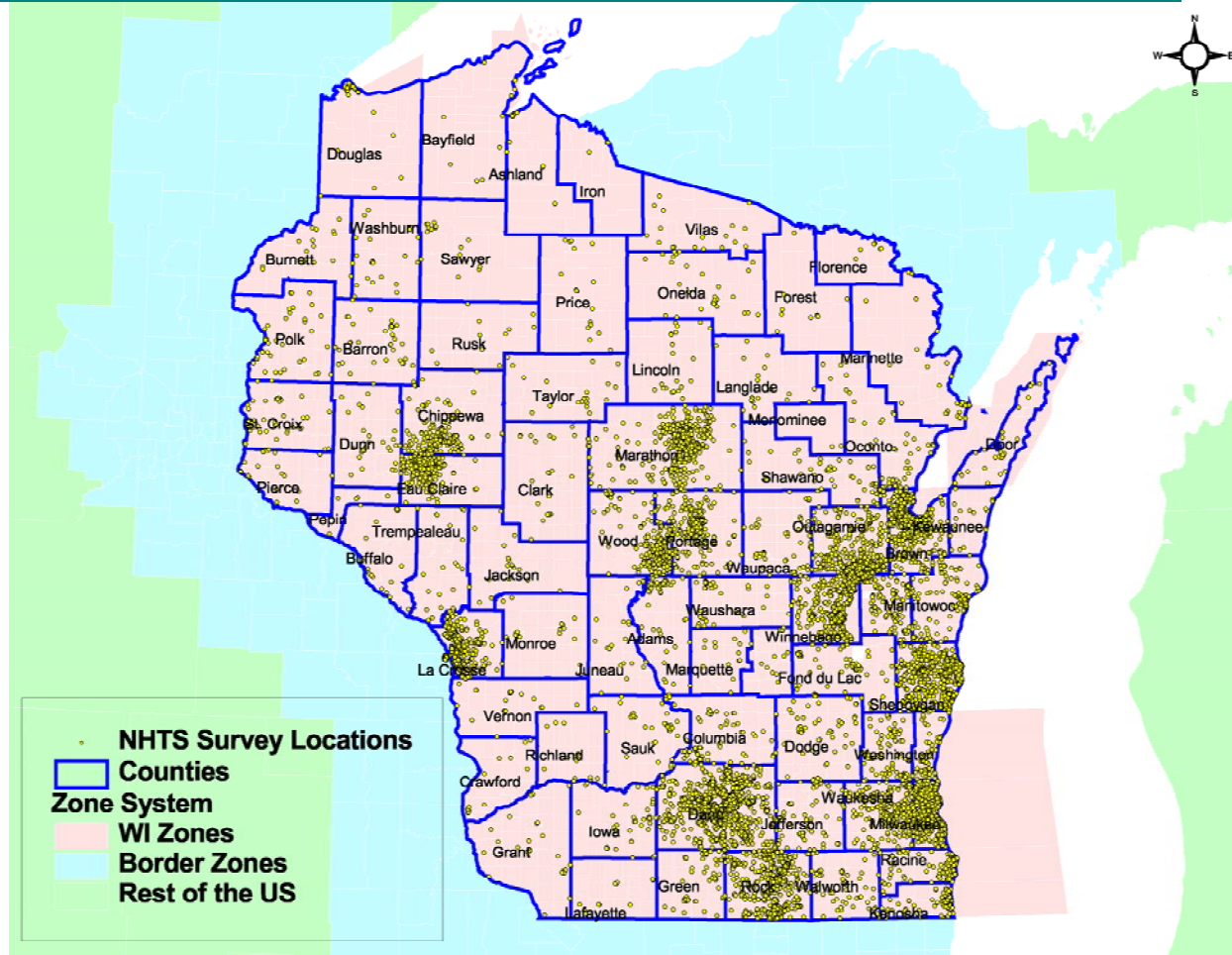


Source: "National Household Travel Survey Data Use: An Overview Prepared by: MacroSys Research and Technology for the Bureau of Transportation Statistics, 2005

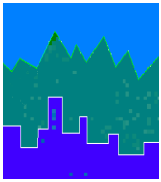


# Example of Add-on Uses: Wisconsin Statewide Model

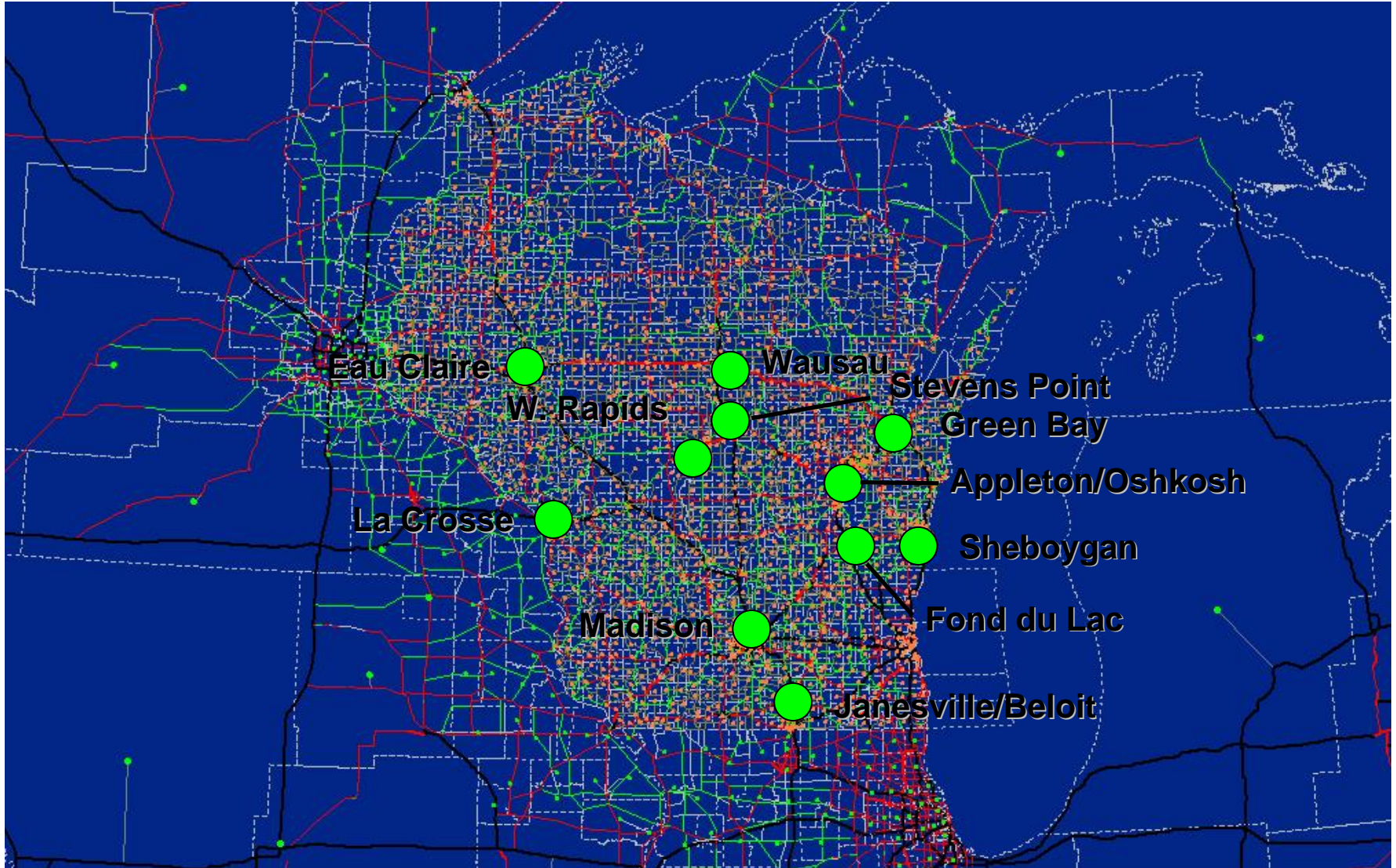
Location of WI-NHTS Sampled Households

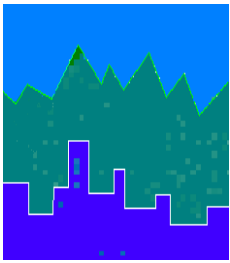


WI State DOT Example Courtesy: Kimon Proussaloglou, Cambridge Systematics Inc.



# Wisconsin Statewide and individual MPO Models

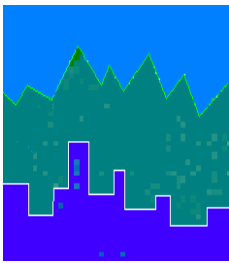




# Integration of Statewide and MPO Models

---

- Consistency in
  - Travel data sources: NHTS add-on
  - Zonal structure and socioeconomic inputs
  - Network detail and input assumptions
  - Software platform and overall model approach
- MPO model results within the MPO boundaries
- Best practical approach to model integration
- External station trip data from statewide model



# Example Data Use: Des Moines IA

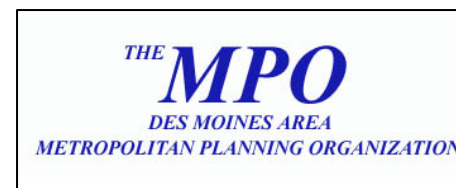
## Mode Choice Modeling and Travel Time Survey

Findings from the 2001 add-on:

- Transit usage accounted for less than 1 percent of total trips and approximately 1 percent of work trips
- Mode Choice Modeling not warranted by transit use percentage
- In terms of person trips, the afternoon/evening commute is the most heavily traveled time of day
- Lunchtime also is more heavily traveled than the morning commute hours

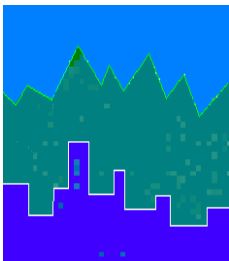
### Time of Day Analysis

Person Trips		
<u>Rank</u>	<u>Hour</u>	<u>Percent</u>
1	3:00 p.m. to 4:00 p.m.	9.1
2	4:00 p.m. to 5:00 p.m.	9.0
3	5:00 p.m. to 6:00 p.m.	8.9
4	11:00 a.m. to 12:00 p.m.	8.1
5	12:00 p.m. to 1:00 p.m.	7.3
6	7:00 a.m. to 8:00 a.m.	7.3
11	8:00 a.m. to 9:00 a.m.	5.0



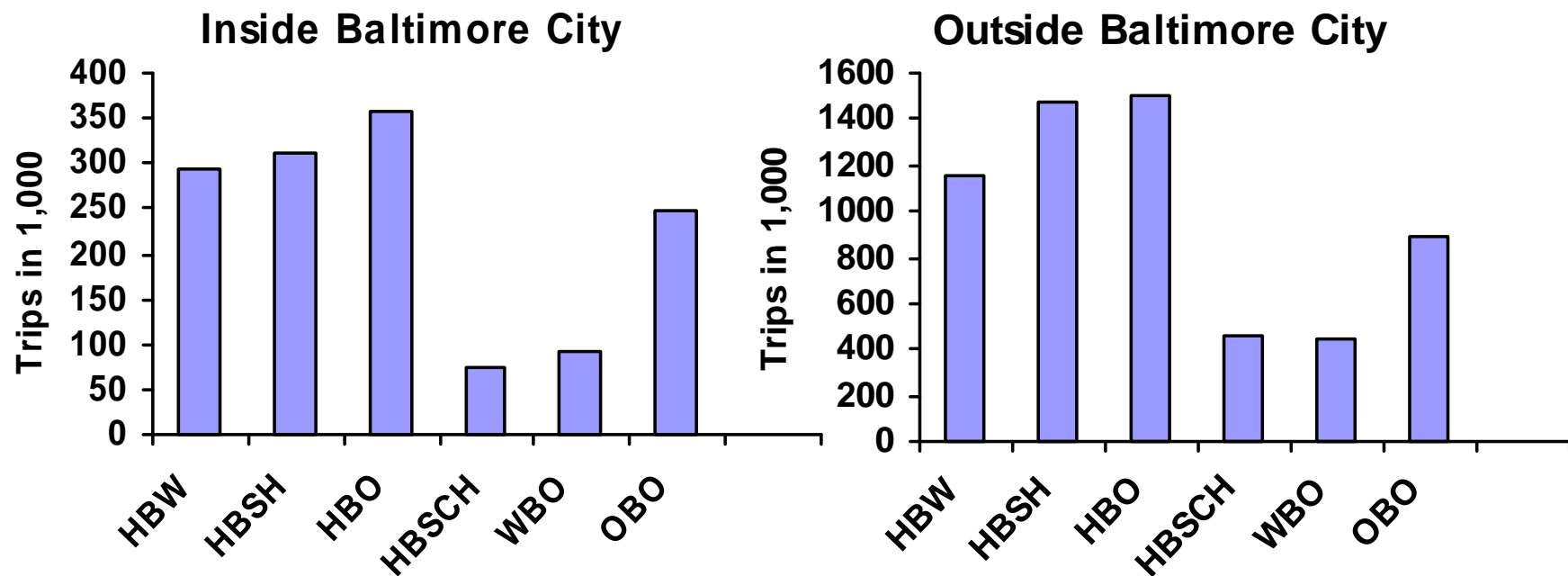
Courtesy: Adam Noelting, Des Moines Area MPO



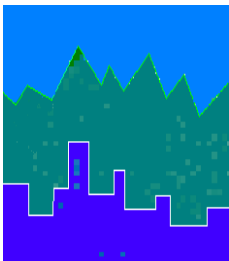


# Example Analysis: Baltimore, MD Add-on

## Motorized Person Trips by Purpose

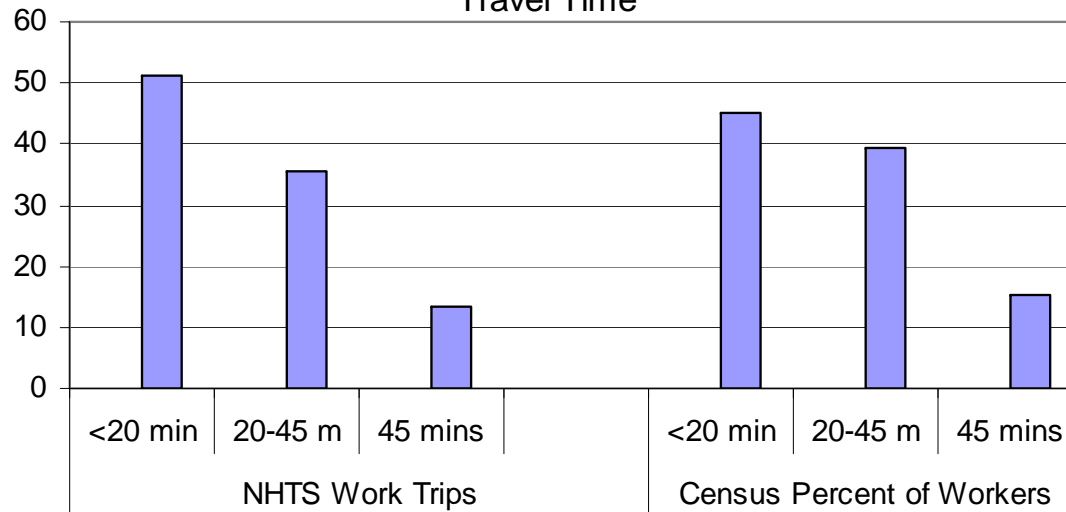


Courtesy: Charles Baber, Baltimore MPO



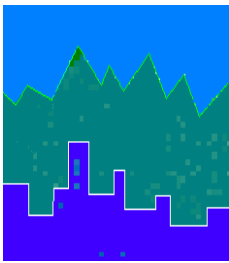
# Example Analysis: Comparison to Census Data

Percent of Census Workers and NHTS Work Trips by  
Travel Time



Comparison of Census Departure Time and NHTS Departure Time

	Census	2001 NHTS
5:00 – 6:59am	26.2%	25.0%
7:00 – 7:59am	29.9%	28.4%
8:00 – 8:59am	15.5%	16.0%
9:00 – 9:59am	5.3%	5.6%
All Other Departure Times	19.8%	25.1%

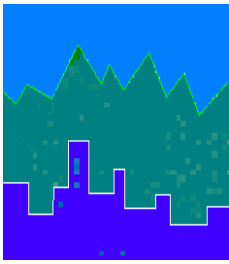


# Example Analysis: Understanding Journey-to-Work

## Percent of Workers by Usual and Actual Mode to Work on Travel Day, 2001 NHTS

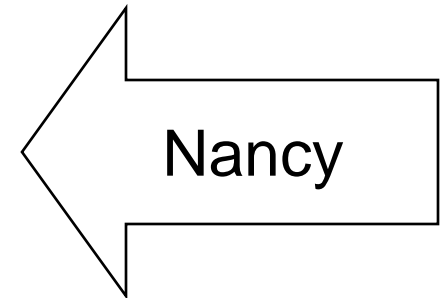
Usual Mode is:	On Travel Day Took:				
	Single Occupant Vehicle	Drove with Others	Transit	Walked	Biked
Drove Alone	90.0%	9.3%	0.2%	0.3%	0.1%
Carpool	22.2%	74.8%	1.0%	1.4%	0.4%
Transit	7.8%	9.7%	69.4%	10.1%	0.5%
Walk	8.1%	9.2%	2.6%	79.5%	0.2%
Bike	6.7%	8.4%	1.7%	6.1%	77.1%

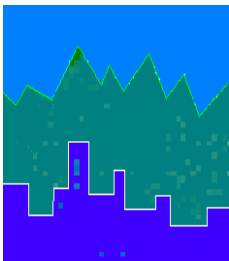
Source: "Journey to Work Trends in the United States and its Major Metropolitan Areas, 1960-2000" FHWA-EP-03-058, Nancy McGuckin and Nandu Srinivasan, 2003)



# Add-on Deliverables

1. Questionnaire
2. Code Book
3. List of variable names
4. Copies of Field documents
5. User Guide ( Spring 2010)
6. Examples of Data Uses
7. Location file (lat/long of trip ends)
8. Structure and Use of the  
Main data files (4)
  1. Household
  2. Person
  3. Vehicle
  4. Daytrip





# Location File:

Each **Trip End** latitude and longitude based on:  
street address / place name  
cross streets (if needed)  
landmarks (if needed)

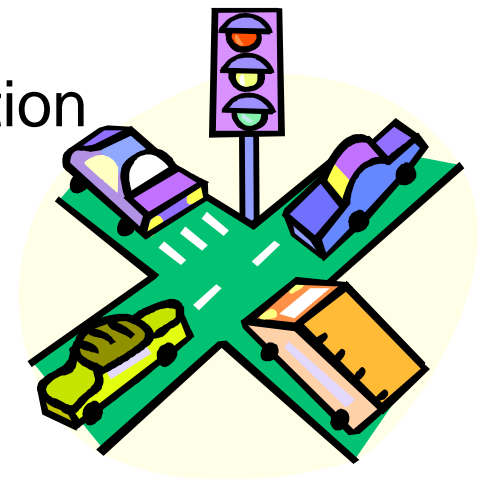
Linked by **HOUSEID PERSONID TRIPID**

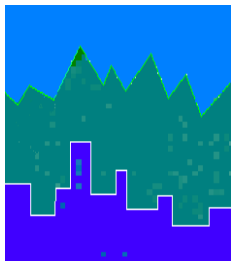
Results to address or nearest intersection

Household = 94.9%

Workplace = 91.4%

Trip ends = 90.8%





# Location File Variables

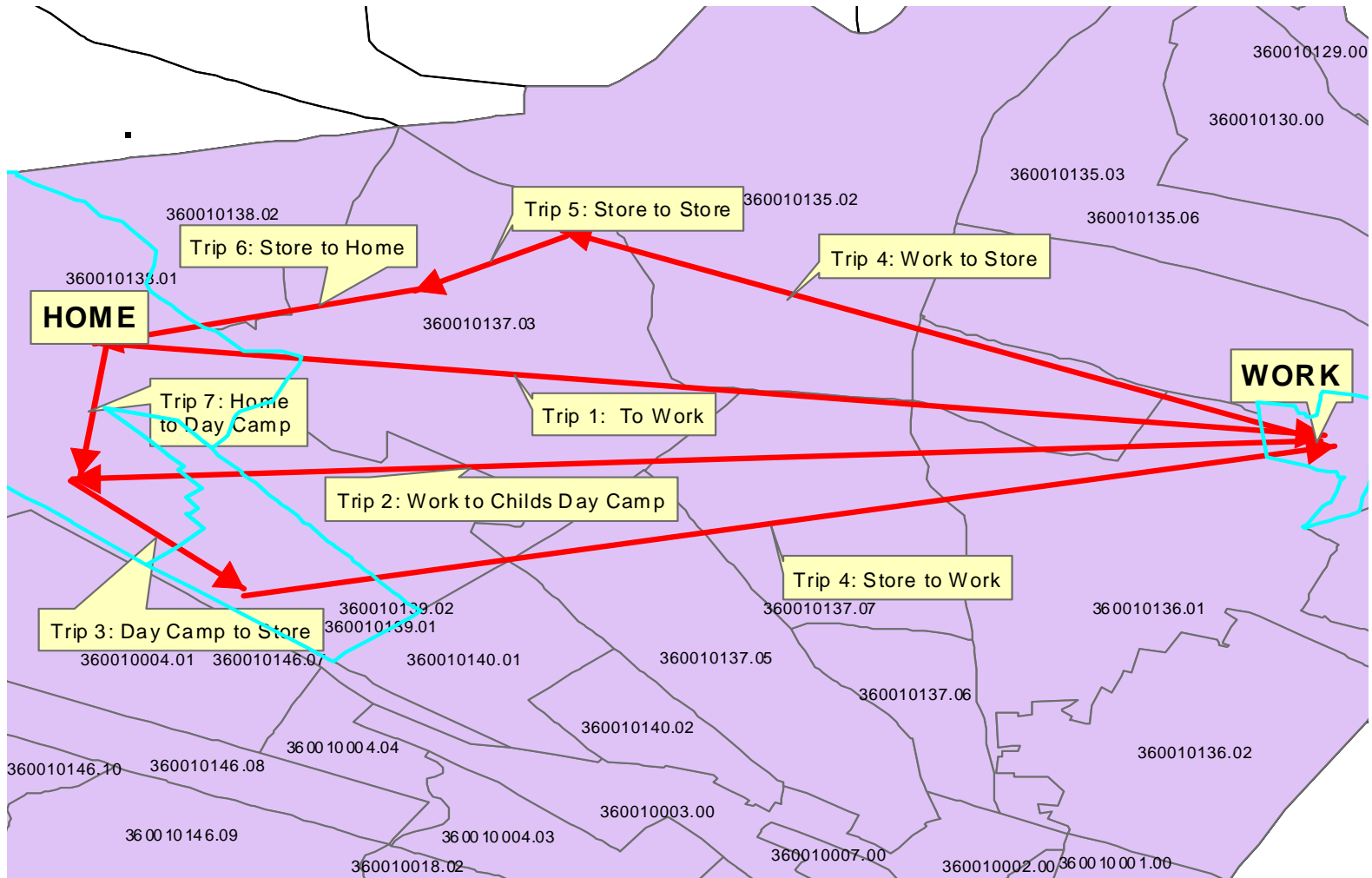
LOCATION FILE VARIABLES  
2008 NHTS

#	Variable	Type	Len	Format	Informat	Label
5	HOUSEID	Char	8	14.	14.	Household ID
4	PERSONID	Char	2			Person identification number
27	PLBG	Char	2			Trip Destination, Block Group
12	PLCITY	Char	20			Travel day trip end - city or town
25	PLCNTYFP	Char	3			County of Trip Destination (FIPS code)
26	PLCP	Char	6			Trip Destination, Census Place
28	PLCT	Char	6			Trip Destination, Census Tract
17	PLLMRK1	Char	25			Travel day trip end landmark1
18	PLLMRK2	Char	25			Travel day trip end landmark2
19	PLLMRK3	Char	25			Travel day trip end landmark3
15	PLROAD1	Char	45			Travel day trip end intersection, road1
16	PLROAD2	Char	45			Travel day trip end intersection, road2
13	PLSTATE	Char	2			Travel day trip end - state
24	PLSTATFP	Char	2			State of trip destination (FIPS code)
11	PLSTNAME	Char	45			Travel day trip end - street name
10	PLSTNUM	Char	10			Travel day trip end - street number
14	PLZIP	Char	5			Travel day trip end - ZIP code
2	TDCASEID	Char	12			Composite travel day trip ID number
3	TDTRPNUM	Char	2			Travel day trip number for respondent
23	TRPEDGEO	Char	2			Level of geocoding trip end location
32	TRPENDLA	Num	8	16.	16.8	Trip end latitude
31	TRPENDLO	Num	8	16.	16.8	Trip end longitude
1	WHERE	Char	2			Travel day trip destination
6	WHEREOS	Char	30			Travel day trip destination - other

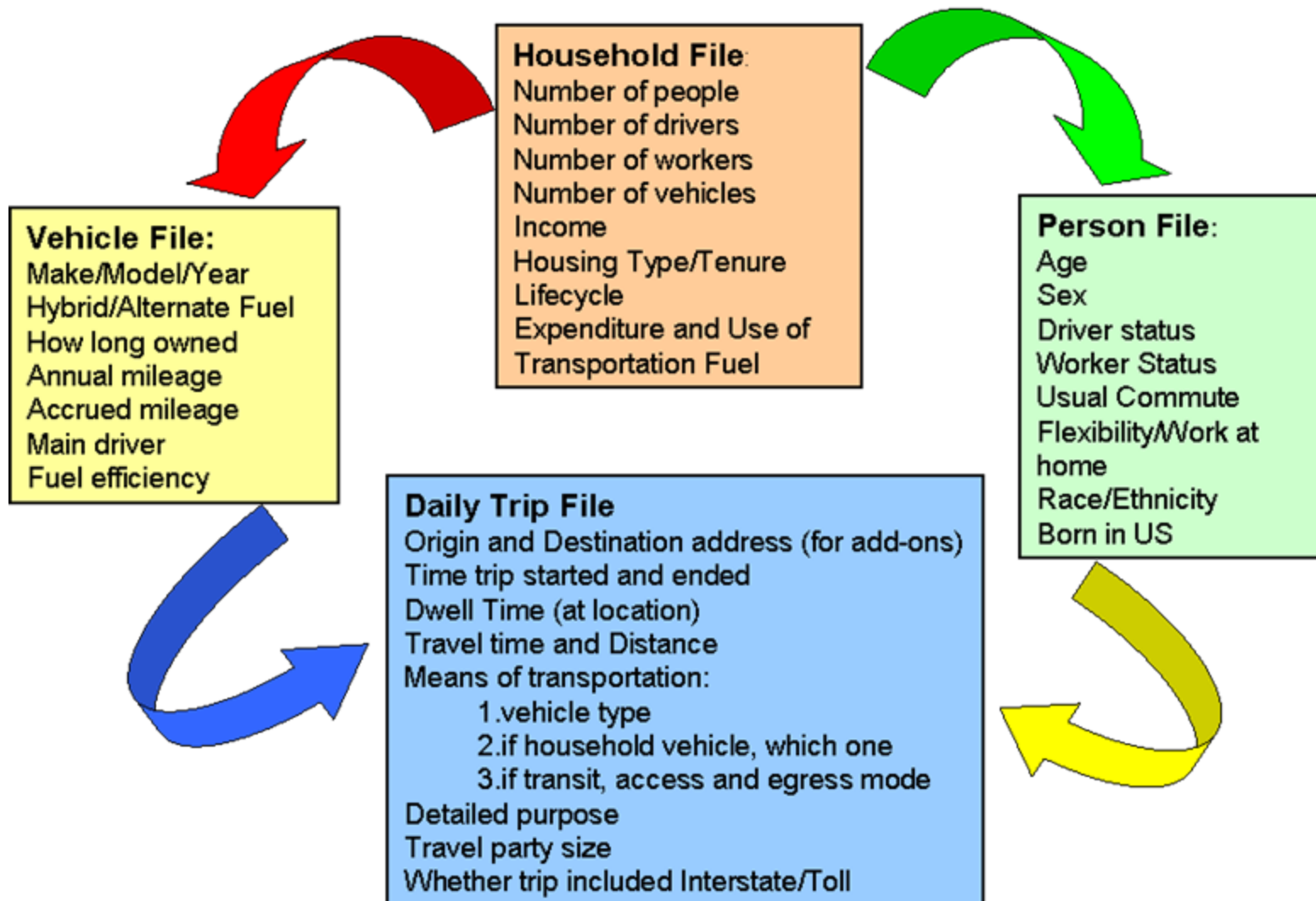
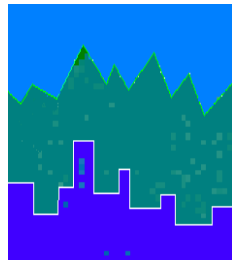
Plus: FRSTHM, HOMELAT, HOMELONG, WORKLAT, WORKLONG

# Location File

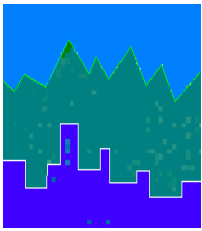
## Geo-Coded Trip Ends



# NHTS Data File Overview







# Household File

Example of Key Variables

## WEIGHT: WTHHFIN

**HHSTATE:** 'AL' through 'WI'

**SMPLAREA:** 'US' plus 'CA' through 'WI' for each add-on

Includes ALL samples (National plus Add-on)

**HHSIZE:** Number of HH members from 1-14

**HHVEHCNT:** Number of HH vehicles from 0-19

**HHFAMINC:** '01' (<\$5,000) to '18' (\$100,000 +)

Note: You'll want to group these into combined categories, e.g.

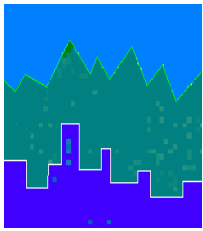
'01' - '07' = '< \$35K'

'08' - '12' = '\$35K-\$60K'

'13' - '16' = '\$60K-\$80k+'

'17' - '18' = '\$80k+'

**CNTTDTR:** Count of Travel Day Trips for the HH from 0-119



# Household File Only

Example analysis: Mean Person Trips per HH by HH size and Number of Vehicles

VAR: Person Trips (**CNTTDDHH**)

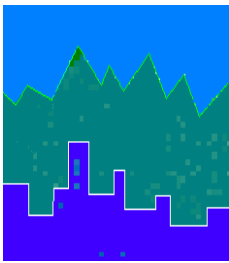
By **HHSIZE** and **HHVEHCNT** where **SMPLAREA**='VA'

Weight: **WTHHFIN**

---

## Autos per Household

Household Size:	Zero	One	Two+
One Person	1.9	3.5	3.9
Two People	5.8	7.9	8.9
Three People	9	11.4	13.8
Four People	10.3	15.1	18
5 or More	15.4	17.2	22.9



# Vehicle File:

## Example of Key Variables

### Weight: WTHHFIN

**SMPLAREA** - 'CA' through 'WI' for Add-Ons

**VEHTYPE** - Car, Van, SUV, Pickup, etc.

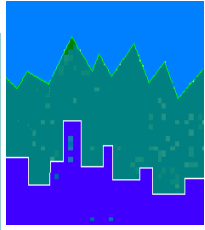
**HYBRID** – Whether Hybrid/Alt fuel is used

**VEHCOMM** – Whether vehicle has commercial license plate

**ANNMILE** - Estimate of annual miles for each vehicle

**OD\_READ** – Odometer reading (accrued miles)

**WHOMAIN** - Primary Vehicle Driver (**PERSONID**)



# Vehicle File Only

## Example Analysis: Annual Miles per Vehicle by Vehicle Type

VAR: **VEHTYPE** and **ANNMILE**

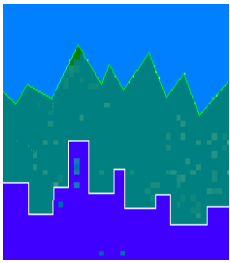
Where **SMPLAREA**='NC' and

**HYBRID**='01' (Yes) or '02' (No)

**WEIGHT**=**WTHHFIN**

### Miles per Vehicle by Vehicle Type (Hybrid separate)

	Percent of Fleet	Annual Miles per Vehicle
<b>CAR</b>	<b>50.35</b>	<b>9,749</b>
<b>Pick-Up</b>	<b>18.94</b>	<b>9,536</b>
<b>SUV</b>	<b>17.19</b>	<b>11,458</b>
<b>Van</b>	<b>8.86</b>	<b>11,179</b>
<b>All Hybrid/Alt Fuel</b>	<b>5.03</b>	<b>13,224</b>



# Person File:

Example of Key Variables

## Weight: WTPERFIN

**MAINRSLT:** 'C1' and 'C2' are completed persons, 'J1' ages 0-4, 'NG' is military deployed

**SMPLAREA:** 'CA' through 'WI' for add-ons

**R\_AGE/R\_SEX** - Age and Gender

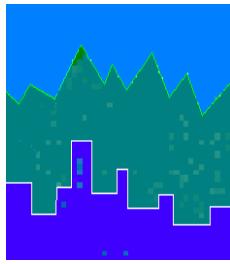
**WORKER/DRIVER** - '01'-Yes, '02'='No'

**WKFTPT** – Employed full-time or part-time

**WRKTRANS** - Usual mode used to work last week

**WRKTIME** – Usual arrival time to work

**FLEXTIME** – Option of setting own arrival time

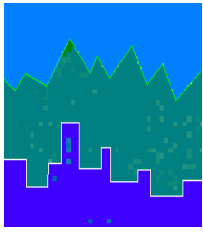


# Person File Only

## Example analysis: Worker Characteristics

VAR:WKFTPT, FLEXTIME, WKRMHM, SELF\_EMP, OCCAT  
 Where **WORKER**='01' and **SMPLAREA**='CA' and  
**MAINRSLT**='C1' or 'C2' and **R\_AGE** between 16-64 and 65+  
 Weight=**WTPERFIN**

	All Workers	Workers 65 and Older
Full-Time	76.9	43.4
Part-Time	23.1	56.6
Have Flex-Time	35.8	45.9
Option to Work from Home	9.5	12.2
Self-Employed	15.0	38.9
Occupation		
Sales or Service	27.5	30.8
Clerical/Admin. Support	10.6	15.8
Manuf/Construction	20.2	16.8
Professional/Managerial	39.0	32.0



# Trip File

## Example of Key Variables

Weight: **WTTRDFIN**

**SMPLAREA:** 'CA' through 'WI'

**STRTTIME:** Trip Start Time, Military

**WHYTO and WHYFROM:** Detailed Trip Purpose

**TRPTRANS:** '01'-'07' (Personal Vehicles)

'09'-'14' (Bus, e.g. Transit, School, Greyhound)

'15'-'18' (Train, e.g. AMTRAK, Subway, Trolley)

'19'-'24' (Other, e.g. Bike, Walk, Ferry, Airplane)

Note: You'll want to group these into different categories to combine transit, separate walk and/or bike, etc.

# Trip File Only

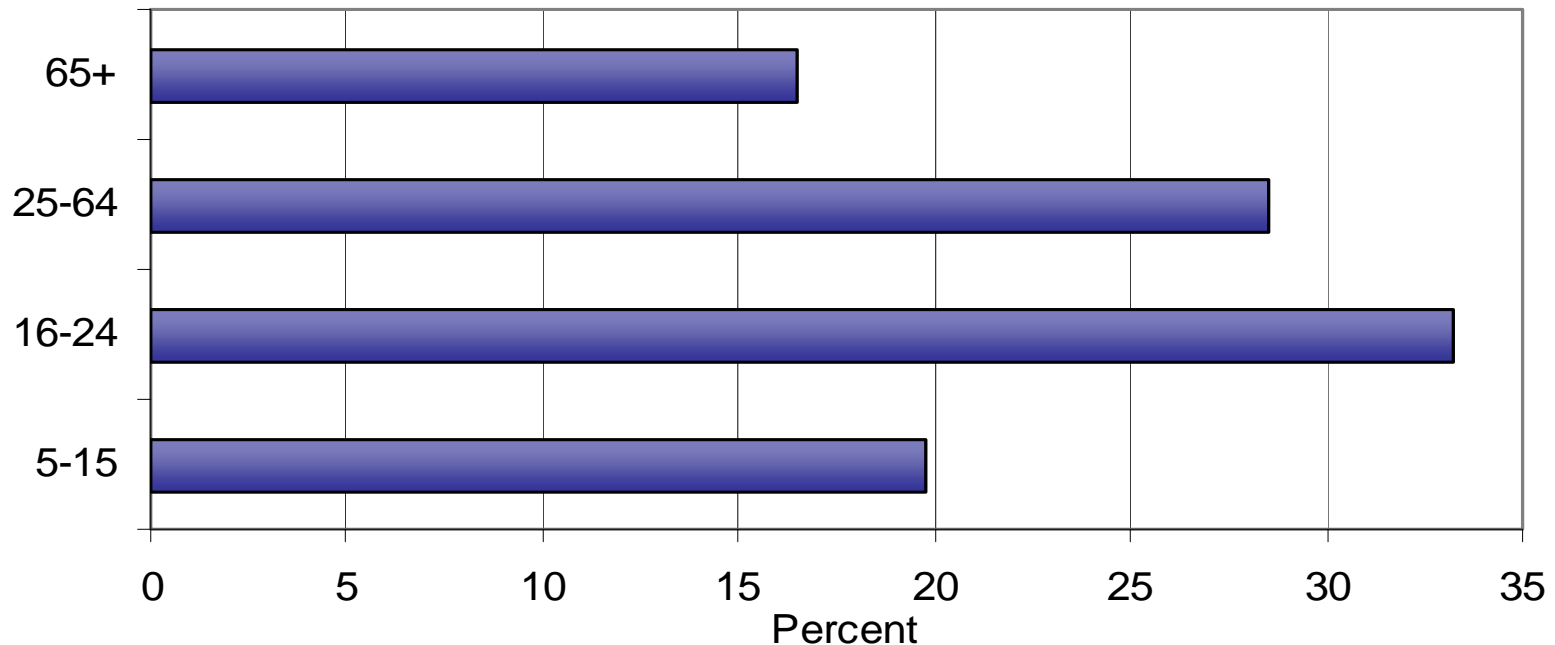
Example analysis: Walk Trips by Time of Day and Age of Traveler

VAR: Walk Trips (TRPTRANS='23')

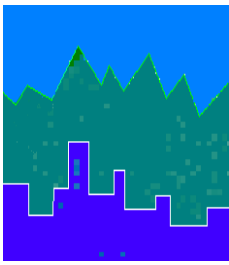
**STRTTIME** by R\_AGE where **SMPLAREA**='CA'

Weight= **WTTRDFIN**

Nighttime (6 PM to 6 AM) Walk Trips by Age



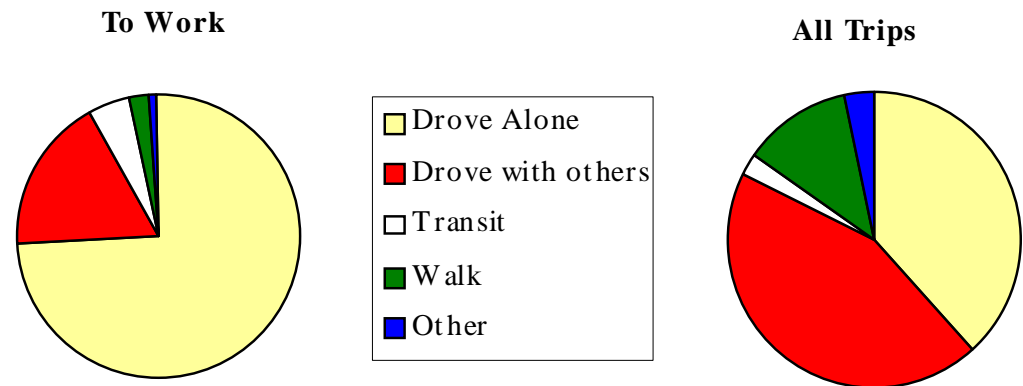


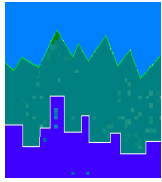


# Trip File Only: Mode of Travel for Work and Non-Work

Var: **TRPTRANS** by **WHYTO** (Work and Non-Work)  
 where **.WORKER='01'** and **SMPLAREA='GA'**  
 Weight: **WTTRDFIN**

Percent of Workers	To Work	All Trips
Drove Alone	73.8	38.4
Drove with others	18.1	43.9
Transit	4.7	2.3
Walk	2.5	12.4
Other	0.9	2.9





# Trip File combined with Household File

## Example Analysis: Person Trips per HH by Income and Purpose

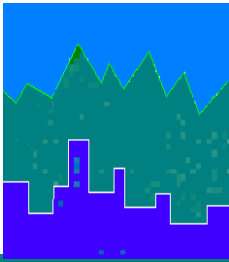
VAR: Average Person Trips (Summed from Trip File)

**HHFAMINC** by **WHYFROM** and **WHYTO**

where **SMPLAREA**='FL'

**WEIGHT**=**WTTRDFIN**

<b>HHFAMINC</b>	<b>HBW per HH per Day</b>	<b>HBO per HH per Day</b>	<b>NHB per HH per Day</b>
<b>&lt; \$35K</b>	<b>0.78</b>	<b>4.8</b>	<b>2.4</b>
<b>35K-\$60K</b>	<b>1.3</b>	<b>6.58</b>	<b>3.81</b>
<b>60K-\$80k+</b>	<b>1.61</b>	<b>7.79</b>	<b>4.53</b>
<b>80k+</b>	<b>1.54</b>	<b>8.27</b>	<b>5.04</b>

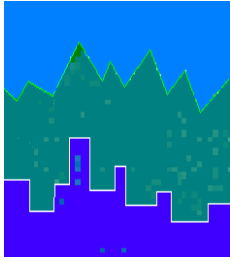


# Have Questions?

Ask us through the

**Community EXchange:**

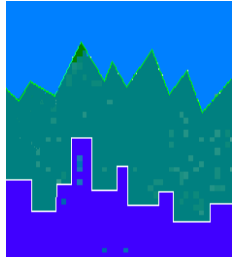
<http://knowledge.fhwa.dot.gov>



# Polling Questions

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**How did we  
do?**



**From all of us...**

**Thank You  
Add-ons!**