



2011 TPB Geographically-Focused Household Travel Surveys Initial Results

Robert E. Griffiths
Technical Services Director

TPB Travel Forecasting Subcommittee
May 18, 2012



Project Background

- Follow-on to 2007-2008 TPB Regional Household Travel Survey that was primarily conducted for the development of the new travel demand model
- Household Travel Survey data collection in specific geographic sub-areas of the region (Case Studies)
- Addresses a need expressed by local planners
- Will provide some current small area community-level socio-economic data that are no longer available from the Decennial Census



Project Objectives

- Analyze daily travel behavior in communities with different densities, physical characteristics and transportation options
- Assist local planners with current local land use and transportation planning efforts
- Build a household travel survey database that can measure changes in local community travel behavior over a period of time (Before and After comparisons)



Arlington County Spring 2010 Supplemental Survey Effort

Three areas in Arlington County, Virginia were surveyed:

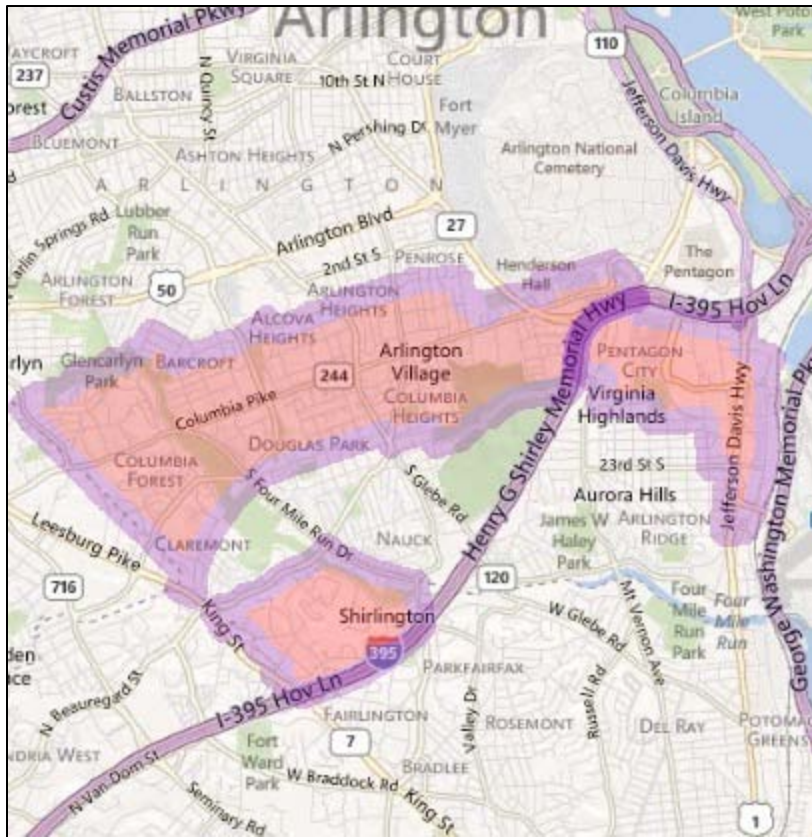
- The Jefferson Davis Highway/Crystal City/Pentagon City Area
- The Village of Shirlington
- The Columbia Pike Corridor

Collaborative effort between Arlington County and TPB staff to supplement the 2007-2008 TPB Household Travel Survey with additional household travel data collected in 2010.

Interested in knowing more about how new higher density residential and commercial development was affecting daily travel behavior in these areas.



Arlington County Subareas Spring 2010



Jeff Davis Hwy/Crystal City/Pentagon City

Land Area	=	0.7 sq mi
Households	=	9,600
Population	=	15,300
Pop Density	=	22,300 persons/sq mi

Shirlington Area

Land Area	=	0.6 sq mi.
Households	=	4,200
Population	=	7,200
Pop Density	=	12,900 persons/sq mi

Columbia Pike Corridor

Land Area	=	2.5 sq mi
Households	=	15,000
Population	=	35,200
Pop Density	=	14,100



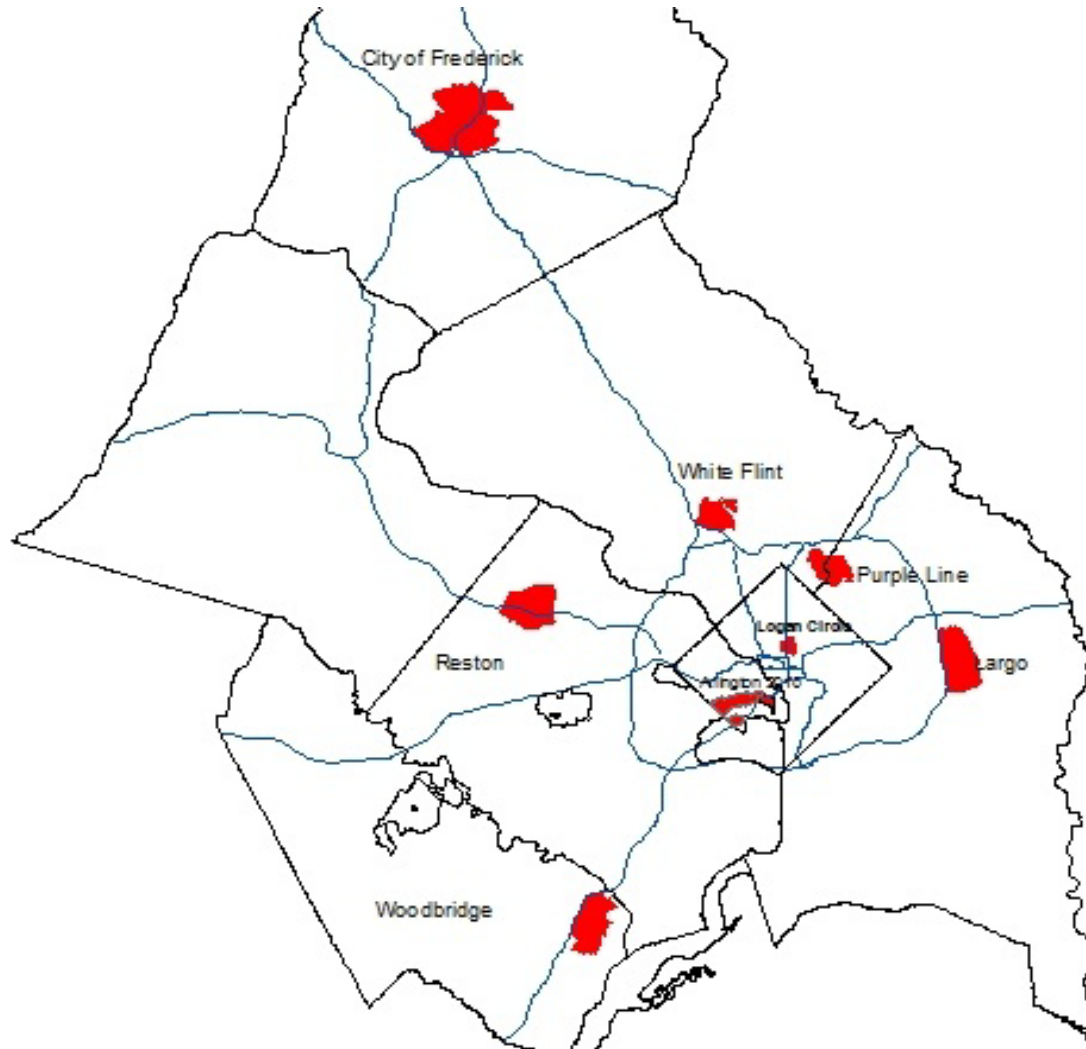
Fall 2011 TPB Survey Areas

The seven areas surveyed in the fall of 2011 are:

- The Logan Circle/14th St NW in the District of Columbia (from Massachusetts Ave NW to north of Florida Ave NW)
- The Purple Line /International Corridor in Montgomery and Prince George's Counties, Maryland (University Blvd from south of I-495 to Adelphi Rd)
- The White Flint area in Montgomery County, Maryland
- The Largo area in Prince George's County, Maryland
- The Reston area in Fairfax County, Virginia
- The Woodbridge area in Prince William County, Virginia
- The City of Frederick, Maryland

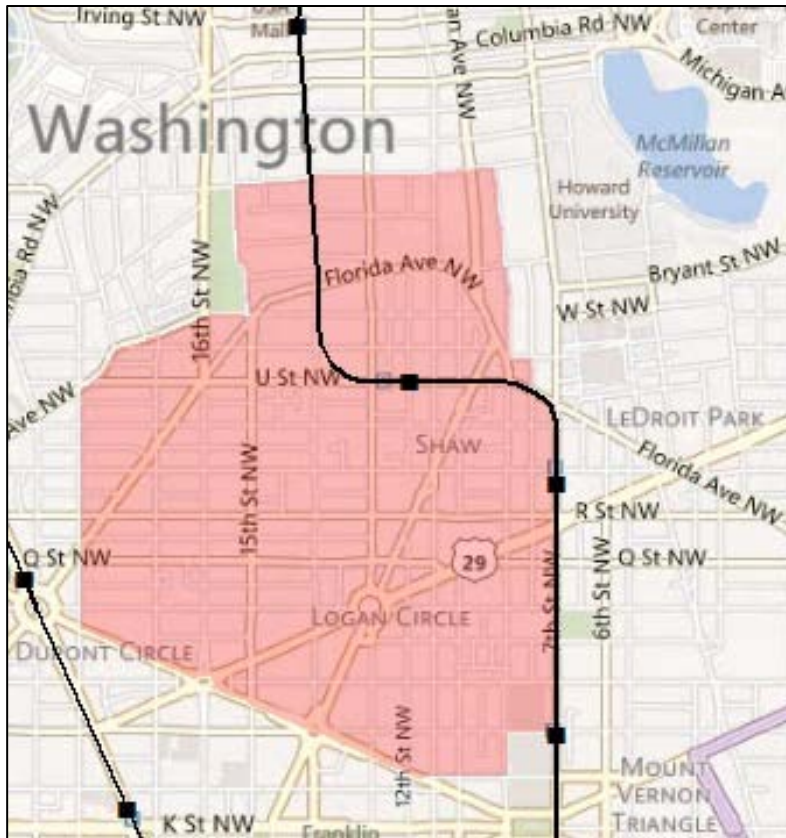


Now Have Collected Survey Data in Ten Focused Areas





Logan Circle/ 14th St NW



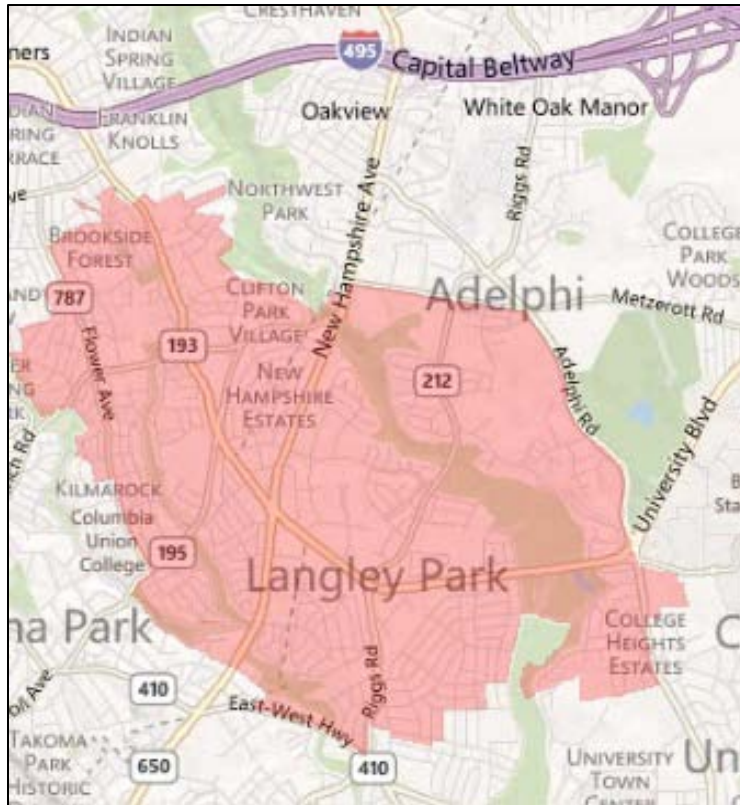
Notable Features:

Land Area	=	1.1 sq mi
Households	=	23,900
HH Population	=	41,300
Pop Density	=	37,100 persons/sq mi

- 85% - Live in an apartment or condo
- 57% - "Cell Phone Only" households
- Median Household Income = \$87,900
- More Bicycles than Vehicles per HH
(Av # of Vehicles = 0.65/HH
Av # of Bikes = .82/HH)



Purple Line / International Corridor – Prince’s George’s and Montgomery Counties



Notable Features:

Land Area:	=	4.9 sq mi
Households	=	16,100
Population	=	53,800
Pop Density	=	11,000 persons/sq mi

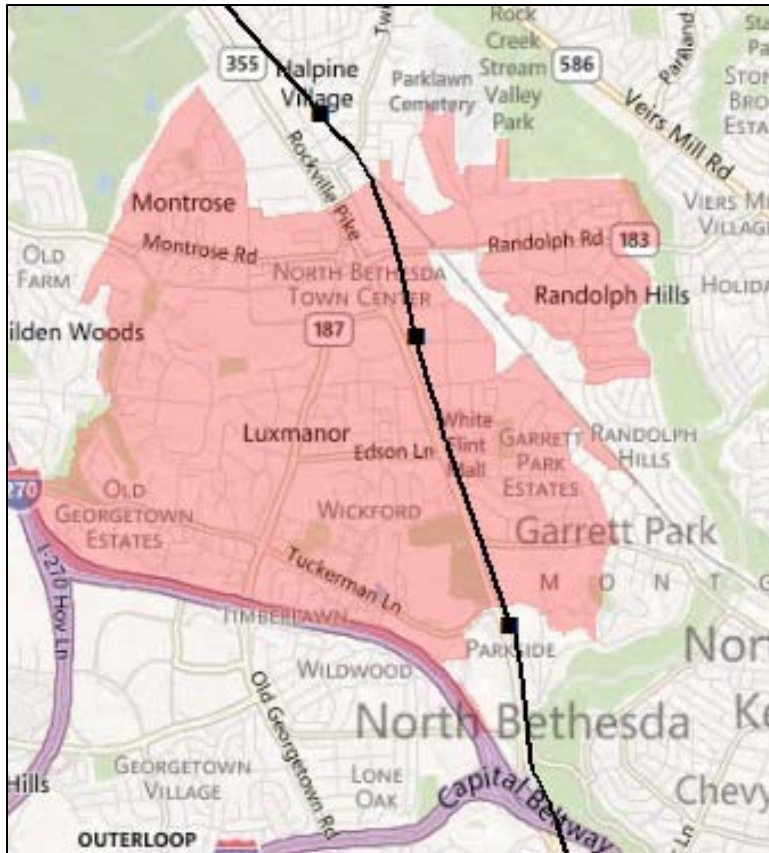
45% - Live in an apartment or condo

46% - “Cell Phone Only” households

Median Household Income = \$54,500



White Flint – Montgomery County



Notable Features:

Land Area	=	4.6 sq mi
Households	=	12,500
Population	=	27,800
Pop Density	=	6,000 persons/sq mi

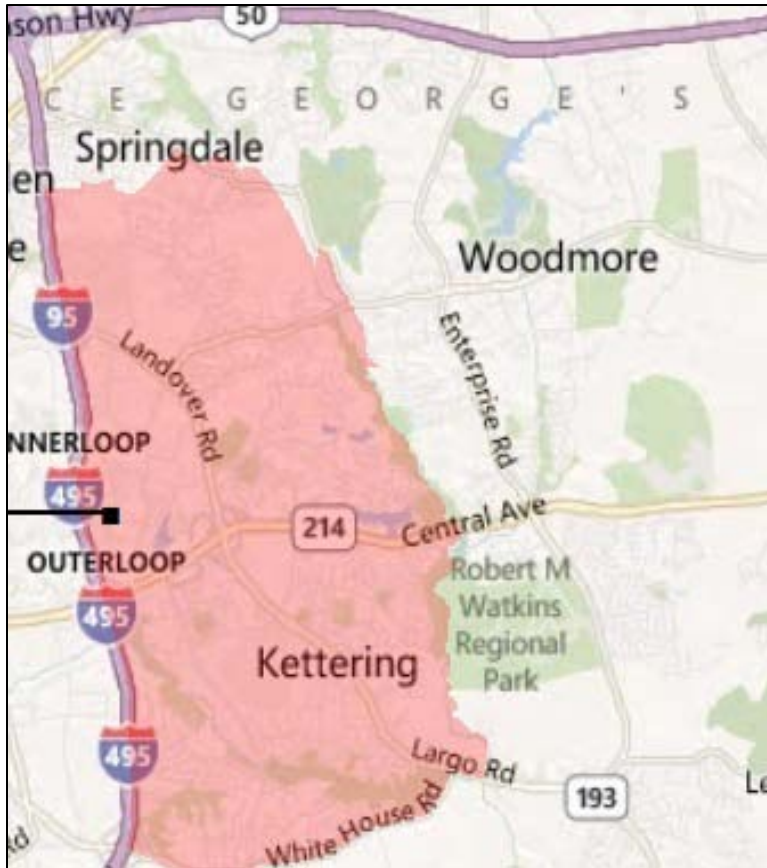
61% - Live in an apartment or condo

33% - “Cell Phone Only” households

Median Household Income = \$92,800



Largo/Kettering – Prince George’s County



Notable Features:

Land Area	=	9.4 sq mi
Households	=	12,200
Population	=	30,900
Pop Density	=	3,300 persons/sq mi

19% - Live in an apartment or condo

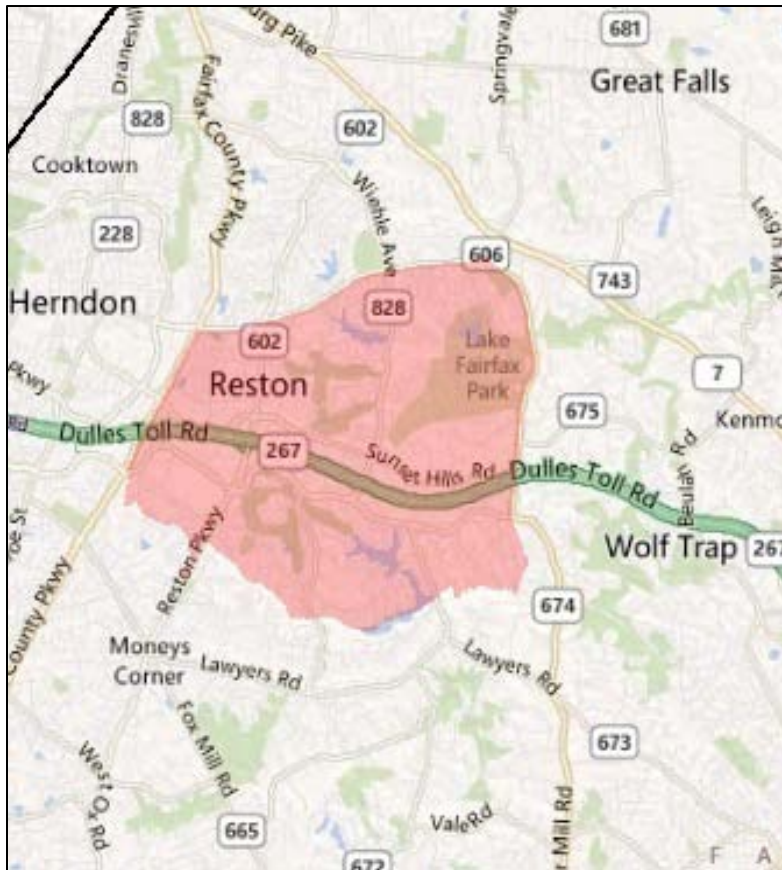
12% - “Cell Phone Only” households

Median Household Income = \$83,400

New Development is taking place now close to Metro, future opportunities for more growth



Reston – Fairfax County



Notable Features:

Land Area	=	8.2 sq mi
Households	=	15,700
HH Population	=	34,700
Pop Density	=	4,200 persons/sq mi

49% - Live in an apartment or condo
35% - “Cell Phone Only” households
Median Household Income = \$94,200



Woodbridge – Prince William County



Notable Features:

Land Area	=	8.0 sq mi
Households	=	12,900
Population	=	40,300
Pop Density	=	5,000 persons/sq mi

34% - Live in an apartment or condo

33% - “Cell Phone Only” households

Median Household Income = \$68,800



City of Frederick, Maryland



Notable Features:

Land Area	=	19.8 sq mi
Households	=	26,500
HH Population	=	68,300
Pop Density	=	3,400 persons/sq mi

28% - Live in an apartment or condo

35% - "Cell Phone Only" households

Median Household Income = \$70,200



Daily Modal Shares – All Weekday Trips

Area	Drive Alone (SOV)	Carpool (HOV2+)	Transit	Walk	Bike	Other
Logan Circle	13%	6%	15%	56%	7.2%	3%
Crystal City	30%	14%	21%	31%	0.2%	4%
Shirlington	47%	23%	13%	15%	0.4%	2%
Columbia Pike	45%	30%	11%	11%	0.3%	2%
Purple Line	32%	30%	7%	23%	2.4%	5%
White Flint	40%	28%	8%	18%	0.5%	6%
Largo	50%	32%	4%	9%	0.5%	5%
Reston	48%	32%	3%	14%	0.2%	3%
Woodbridge	39%	41%	2%	12%	0.3%	6%
Frederick	45%	37%	2%	11%	0.9%	5%
Regional Average	43%	37%	6%	9%	0.6%	4%

Commuting Trip Modal Shares



Area	Drive Alone (SOV)	Carpool (HOV2+)	Transit	Walk	Bike	Other
Logan Circle	21%	4%	28%	33%	10.6%	2%
Crystal City	22%	4%	53%	19%	0.7%	2%
Shirlington	57%	3%	34%	4%	0.9%	---
Columbia Pike	64%	8%	25%	2%	1.3%	---
Purple Line	56%	17%	16%	4%	6.6%	1%
White Flint	61%	12%	20%	6%	0.2%	2%
Largo	70%	11%	13%	3%	2.8%	---
Reston	70%	17%	8%	3%	0.7%	2%
Woodbridge	76%	13%	8%	1%	0.3%	2%
Frederick	78%	12%	4%	4%	1.5%	---
Regional Average	70%	8%	18%	3%	1.1%	1%



Household Size Distribution

Area	1-Person HH	2-Person HH	3-Person HH	4+-Person HH
Logan Circle	56%	31%	7%	6%
Crystal City	57%	32%	8%	3%
Shirlington	53%	32%	9%	6%
Columbia Pike	38%	28%	14%	20%
Purple Line	22%	23%	15%	40%
White Flint	37%	34%	14%	16%
Largo	32%	28%	17%	23%
Reston	38%	33%	14%	16%
Woodbridge	22%	26%	17%	35%
Frederick	30%	31%	16%	23%
Regional Average	28%	30%	16%	26%



Vehicle Availability Distribution

Area	0-Vehicle HH	1-Vehicle HH	2-Vehicle HH	3+-Vehicle HH
Logan Circle	44%	49%	6%	1%
Crystal City	21%	60%	19%	1%
Shirlington	1%	71%	24%	3%
Columbia Pike	10%	57%	29%	5%
Purple Line	9%	46%	32%	13%
White Flint	9%	49%	32%	10%
Largo	3%	40%	36%	20%
Reston	4%	42%	40%	14%
Woodbridge	3%	32%	47%	18%
Frederick	4%	34%	47%	16%
Regional Average	7%	34%	40%	19%



Age Distribution

Area	0-4	5-17	18-34	34-49	50-64	65+
Area 23%						
Logan Circle	3%	5%	50%	24%	12%	6%
Crystal City	3%	2%	52%	20%	13%	10%
Shirlington	6%	5%	42%	27%	15%	4%
Columbia Pike	7%	12%	35%	25%	15%	6%
Purple Line	9%	14%	36%	22%	13%	6%
White Flint	6%	12%	25%	22%	18%	17%
Largo	6%	18%	22%	24%	21%	10%
Reston	7%	13%	27%	23%	19%	12%
Woodbridge	9%	19%	30%	23%	14%	6%
Frederick	7%	16%	26%	22%	17%	11%
Regional Average	7%	17%	25%	23%	18%	10%



What's Next?

- More Analysis of Survey Data
- Use/Non-Use of Transit Analysis
- Follow-on to Center for Neighborhood Technology (CNT) Housing and Transportation Cost Study
- Additional Data Collection



Spring 2012 Data Collection

The seven areas now being surveyed are:

- Friendship Heights in the District of Columbia and Montgomery County, Maryland
- New York Avenue Corridor in the District of Columbia
- St. Charles Urbanized Area in Charles County, Maryland
- National Harbor in Prince George's County, Maryland
- Beauregard Corridor in the City of Alexandria, Virginia
- East Falls Church and West Falls Church Metrorail Station areas in Arlington County, the City of Falls Church and Fairfax County, Virginia
- The Dulles North Area in Loudoun County, Virginia



Fall 2012 Data Collection

The six areas to be surveyed in the fall of 2012 are:

- Federal Center/Southwest/Navy Yard in District of Columbia
- H Street NE Corridor in the District of Columbia
- Silver Spring in Montgomery County, Maryland
- US 1/Green Line in Prince George's County, Maryland
- City of Fairfax in Virginia
- City of Manassas in Virginia

(areas subject to further review and refinement)



Fall 2013 Data Collection?

Thinking ahead – additional areas to be surveyed in 2013:

- Tysons Corner in Fairfax County
- St Elizabeth/Anacostia in the District of Columbia
- Greenbelt in Prince George's County

(areas subject to further review and refinement)