2011 TPB Geographically-Focused Household Travel Surveys Initial Results

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Cooperative Forecasting Subcommittee
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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 <u>Jefferson Davis Highway/Crystal City/Pentagon City</u> Area
- The Village of <u>Shirlington</u>
- The <u>Columbia Pike</u> 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
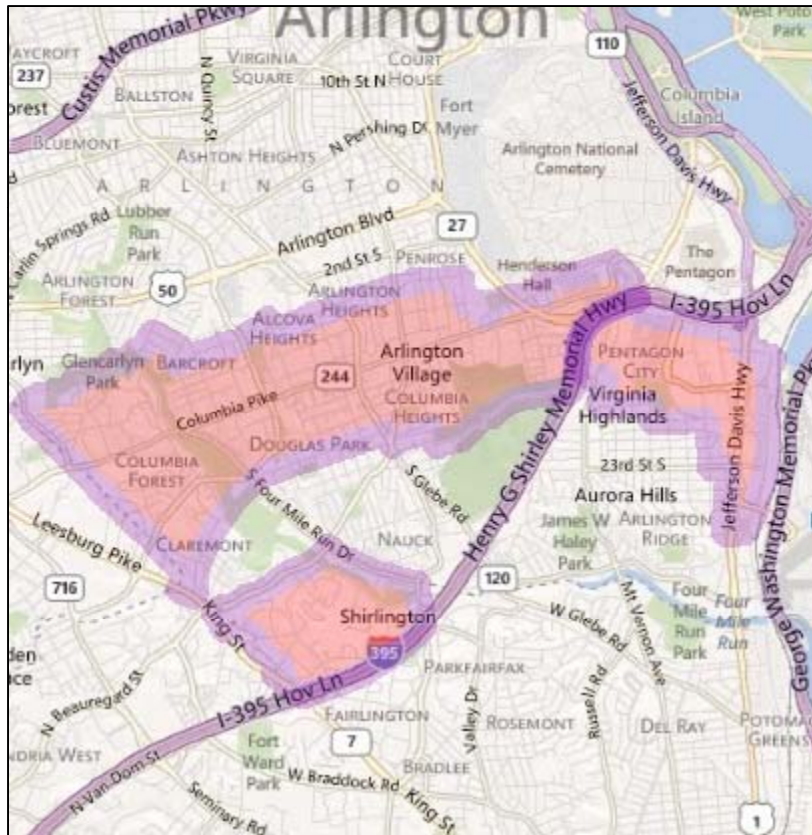
Jeff Davis Hwy/Crystal City/Pentagon City

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

Daily Modal Shares – All Weekday Trips

Area	Drive Alone (SOV)	Carpool (HOV2+)	Transit	Walk	Bike	Other
Crystal City	30%	14%	21%	31%	0.2%	4%
Shirlington	47%	23%	13%	15%	0.4%	2%
Columbia Pike	45%	31%	11%	11%	0.3%	2%

Commuting Trip Modal Shares

| Area	Drive Alone (SOV)	Carpool (HOV2+)	Transit	Walk	Bike	Other
Crystal City	22%	4%	53%	19%	0.7%	2%
Shirlington	57%	3%	34%	4%	0.9%	---
Columbia Pike	64%	8%	25%	2%	1.3%	---

Fall 2011 TPB Survey Areas

The seven areas surveyed in the fall of 2011 are:

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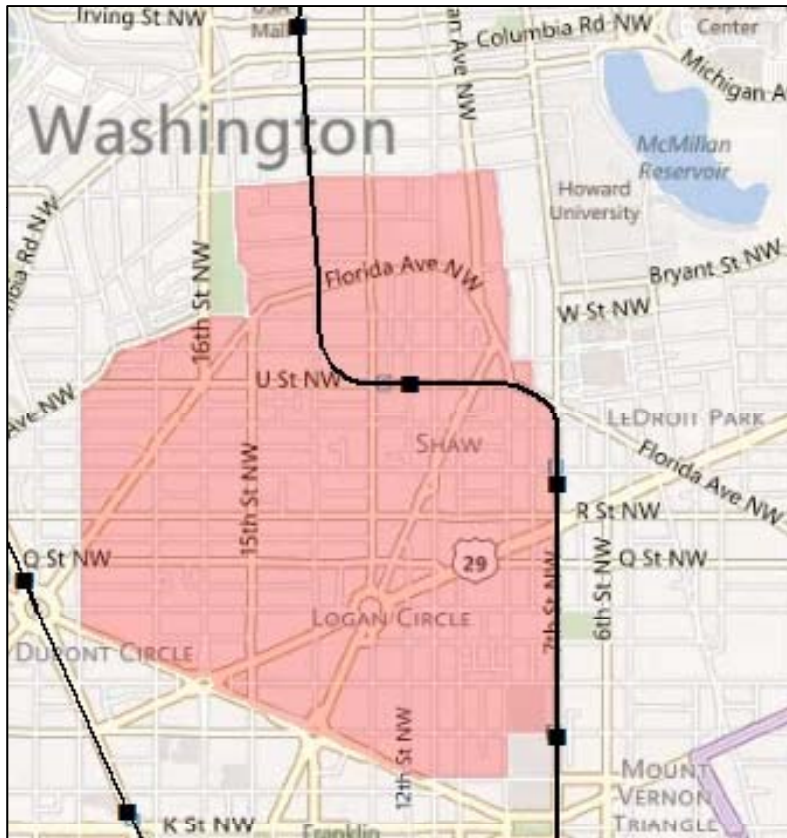- The <u>City of Frederick</u>, Maryland

Now Have Collected Survey Data in Ten Focused Areas
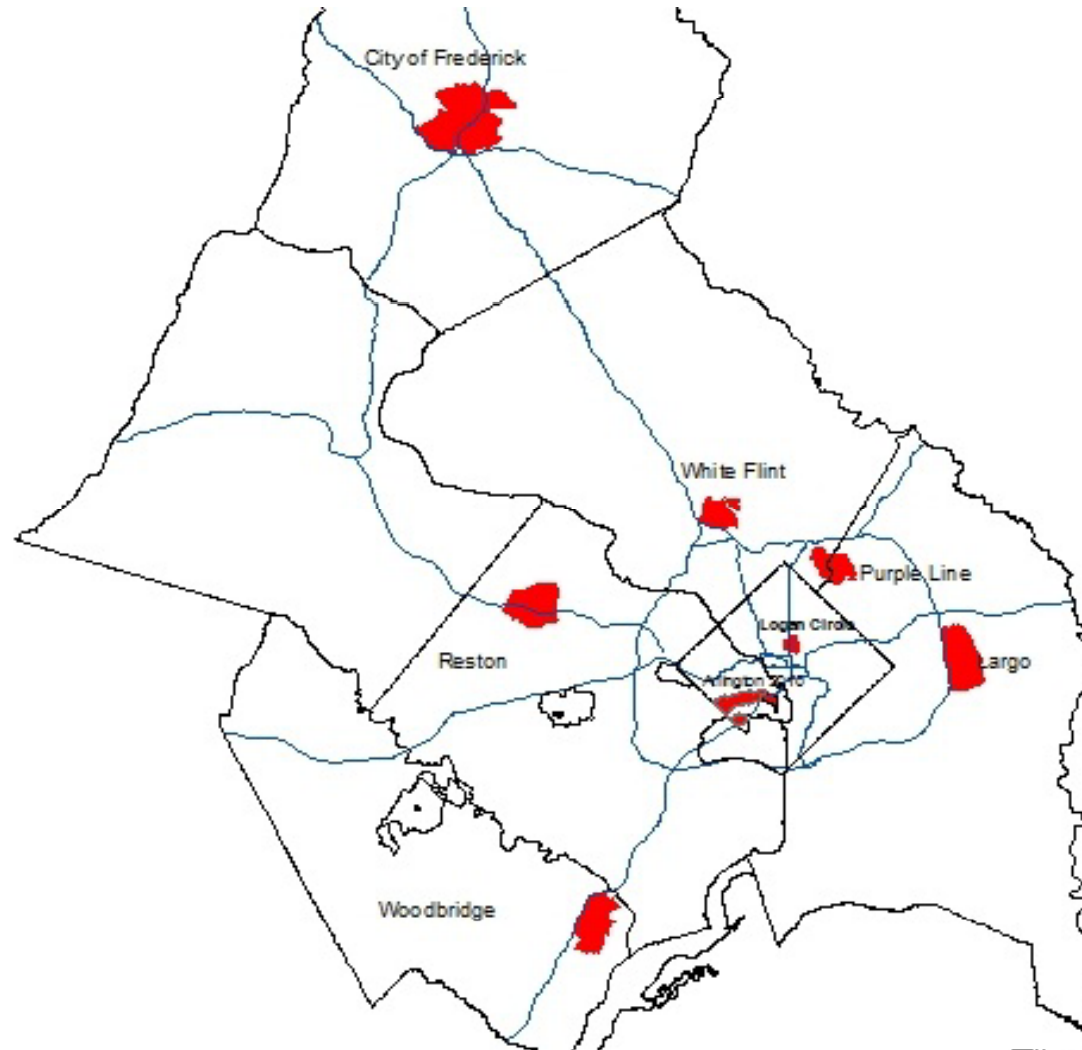
Logan Circle/ 14th St NW

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

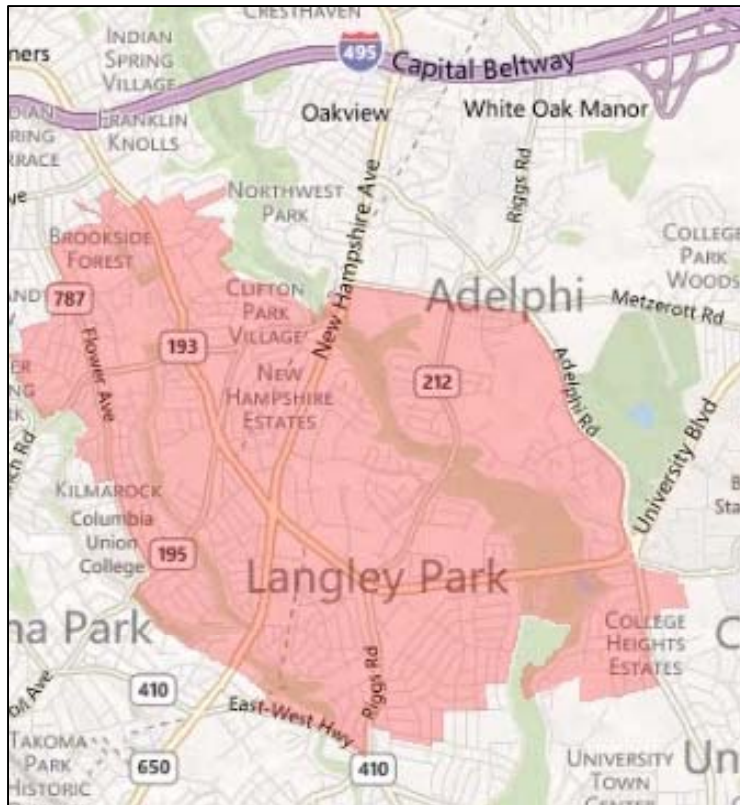57% - "Cell Phone Only" households

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:

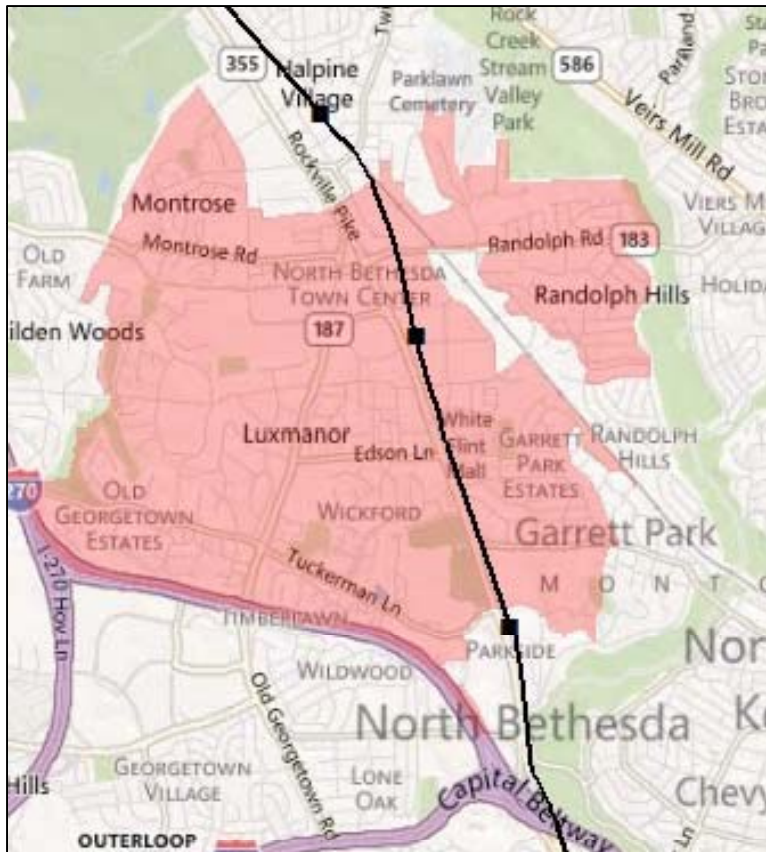|		
Land Area:	=	4.9 sq mi
Households	=	16,100
Population	=	53,800
Pop Density	=	11,000 persons/sq mi

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
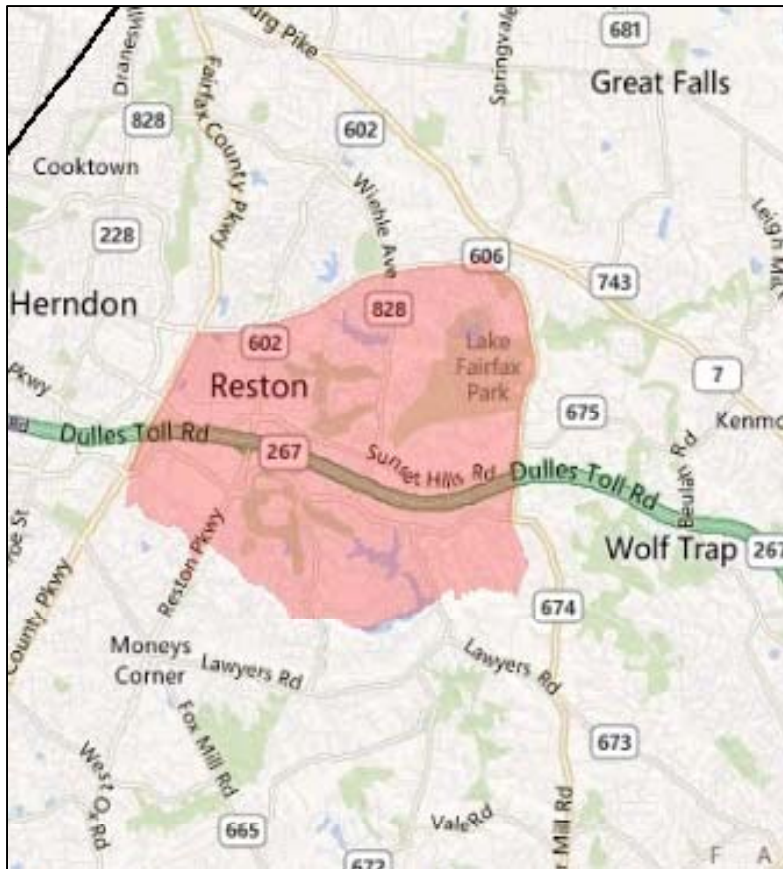
19% - Live in an apartment or condo
12% - "Cell Phone Only" households
Median Household Income = $83,400

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
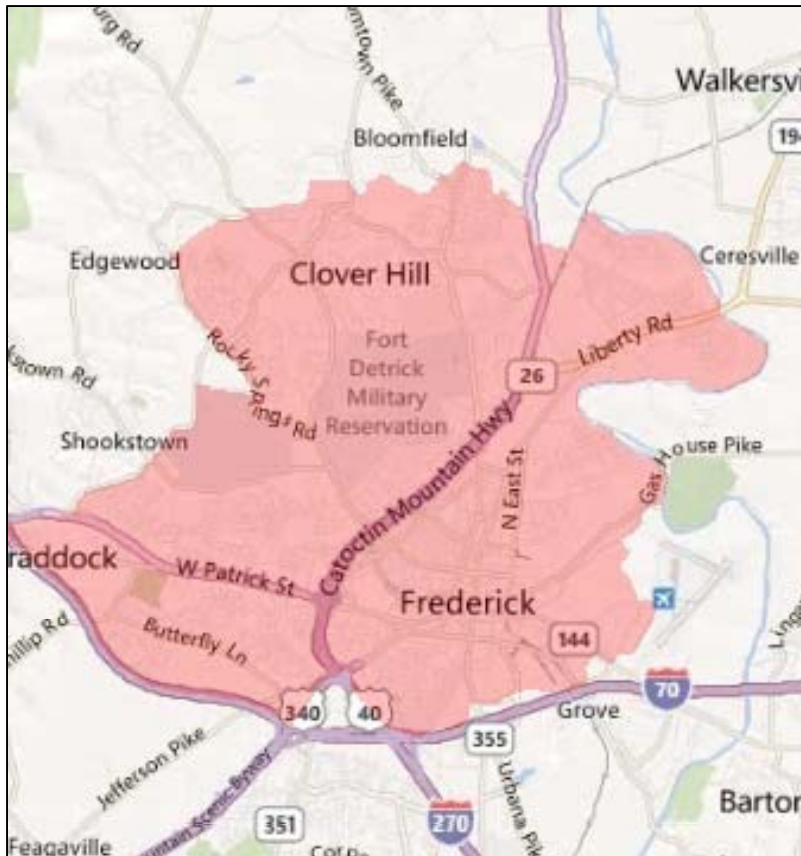
Notable Features:

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

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

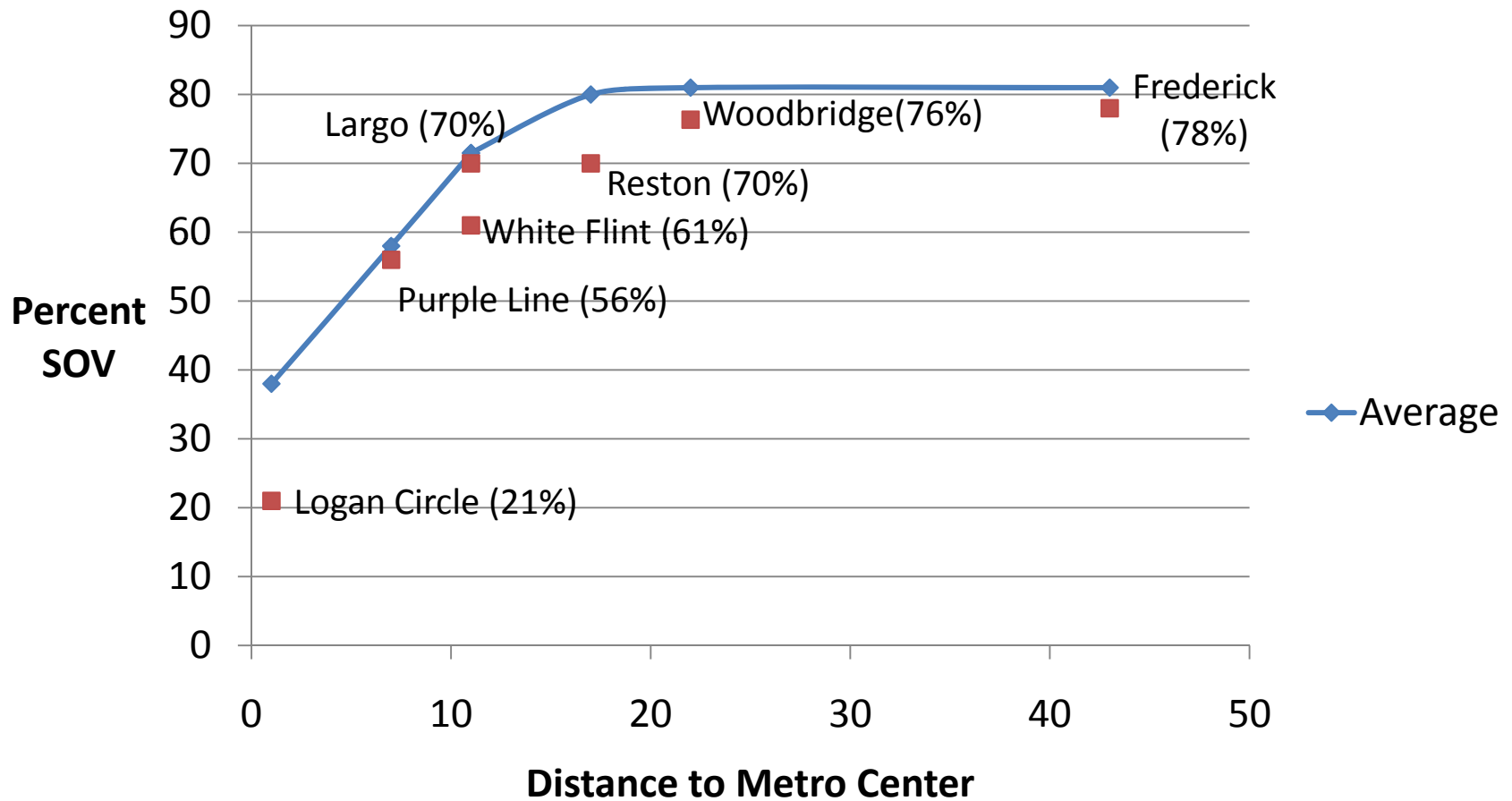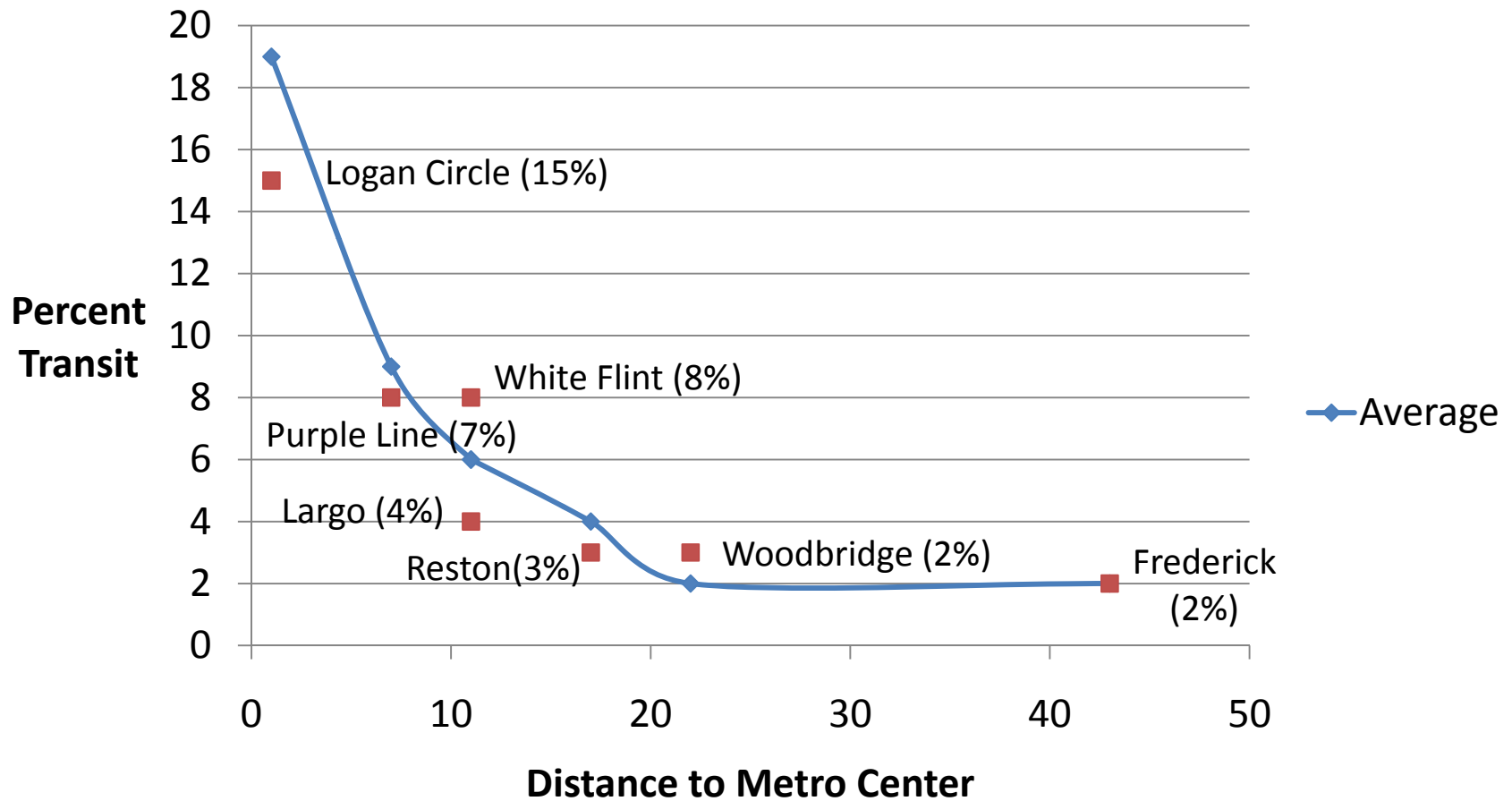| Area23%	0-4	5-17	18-34	34-49	50-64	65+
Logan Circle	3%	5%	50%	24%	12%	6%
Crystal City	3%	2%	52%	20%	13%	10%
Shirlington	6%	5%	42%	27%	15%	4%
Columbia Pike	7%	12%	35%	25%	15%	6%
Purple Line	9%	14%	36%	22%	13%	6%
White Flint	6%	12%	25%	22%	18%	17%
Largo	6%	18%	22%	24%	21%	10%
Reston	7%	13%	27%	23%	19%	12%
Woodbridge	9%	19%	30%	23%	14%	6%
Frederick	7%	16%	26%	22%	17%	11%
Regional Average	**7%**	**17%**	**25%**	**23%**	**18%**	**10%**

Percent SOV – All Weekday Trips
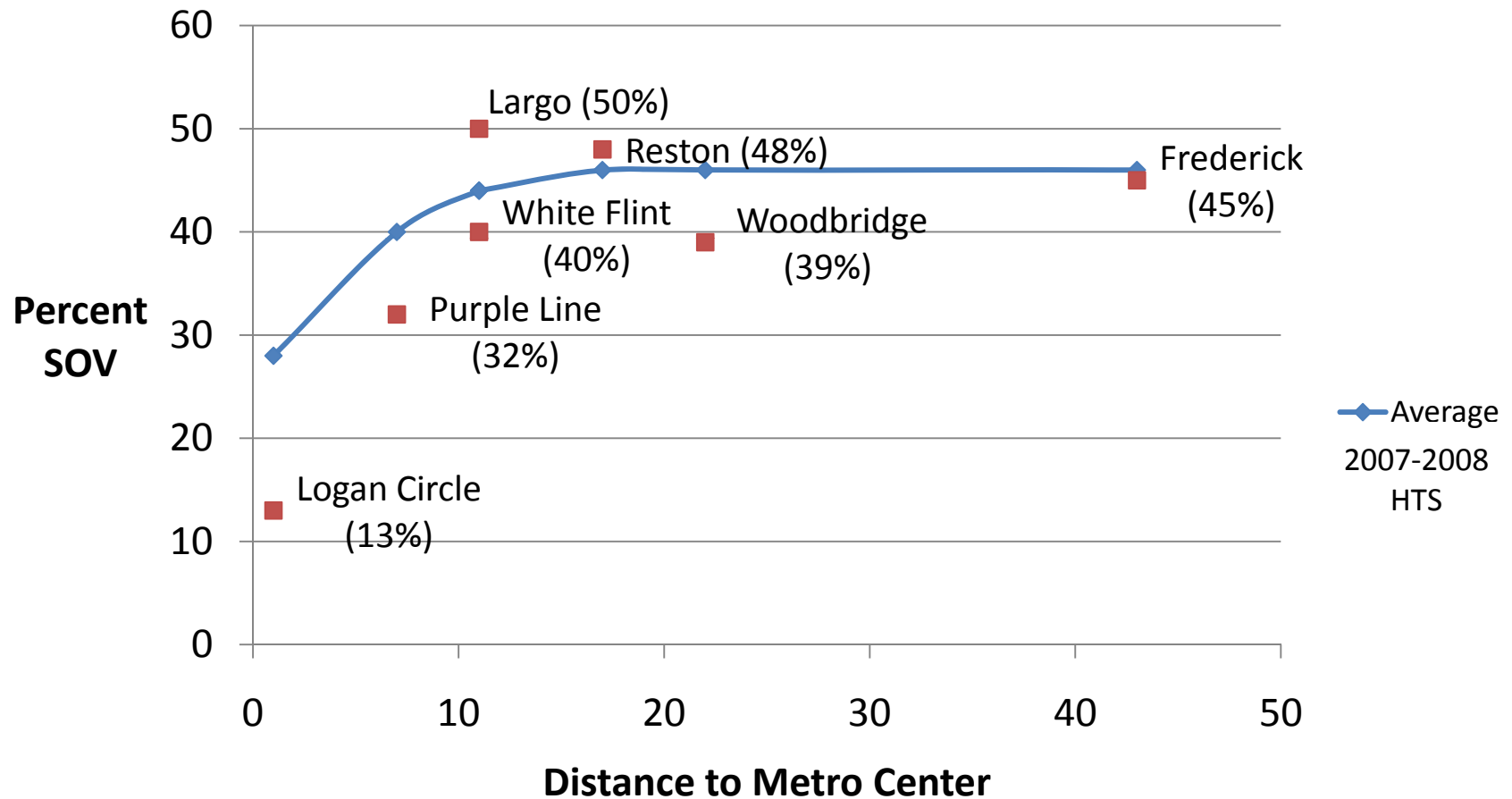
Percent SOV – Commuting Trips

Percent Transit – All Weekday Trips

23

Percent Transit – Commuting Trips
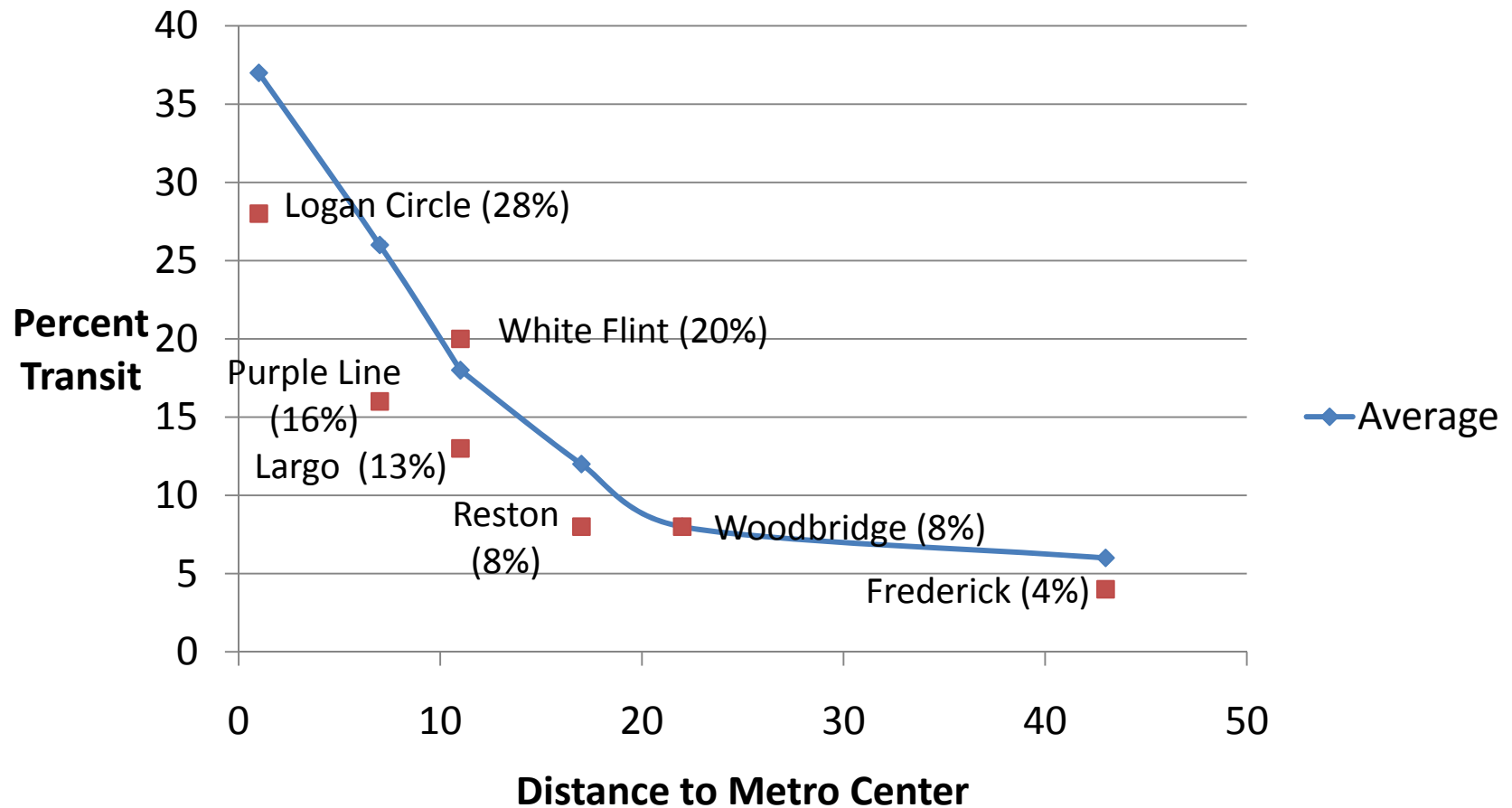
Percent Walk – All Weekday Trips

Chart: Percent Walk vs. Distance to Metro Center

- Logan Circle (56%)
- Purple Line (23%)
- White Flint (18%)
- Reston (14%)
- Woodbridge (11%)
- Frederick (11%)
- Largo (9%)
- Average

Y-axis: Percent Walk (0 to 60)
X-axis: Distance to Metro Center (0 to 50)
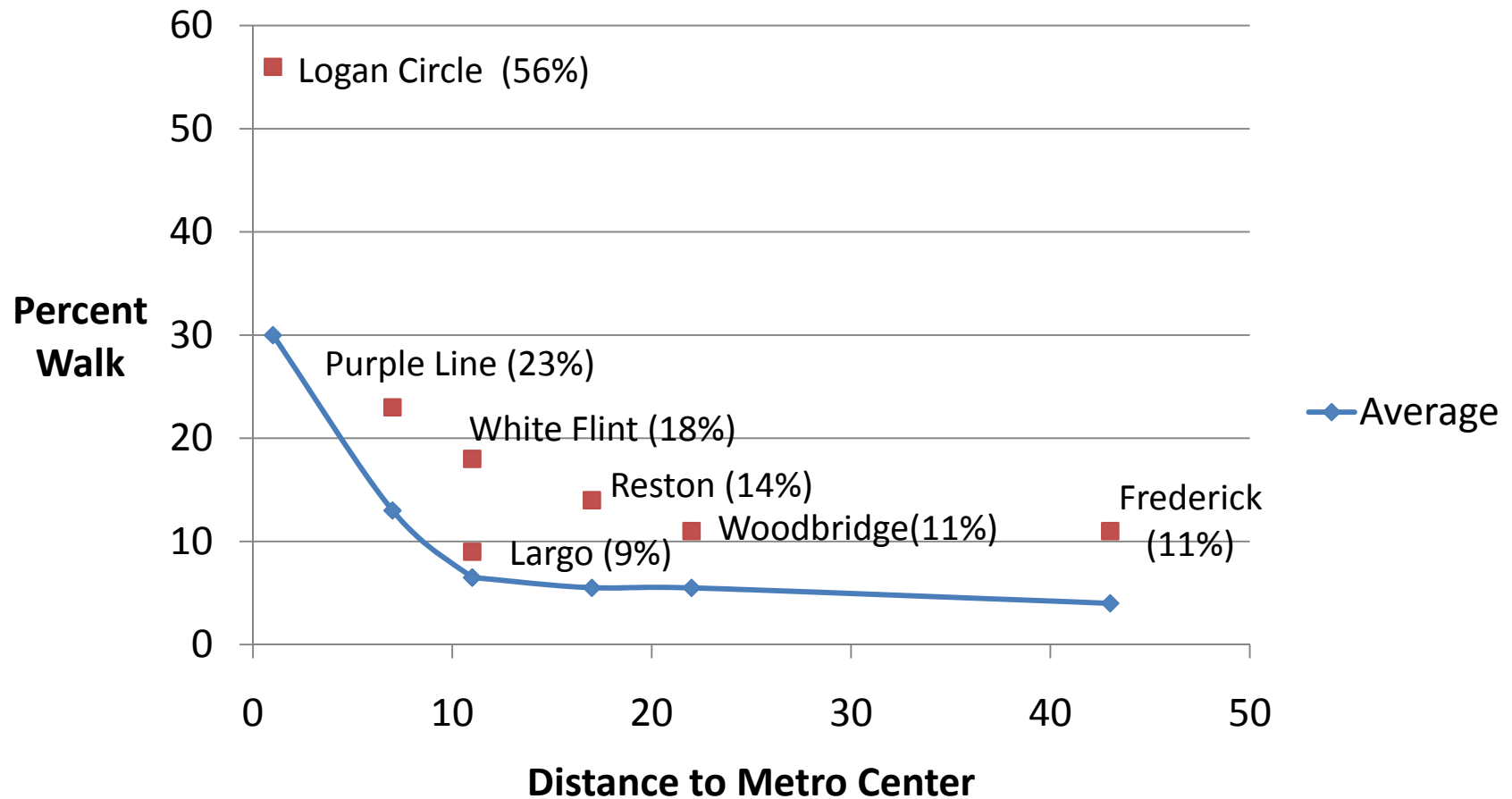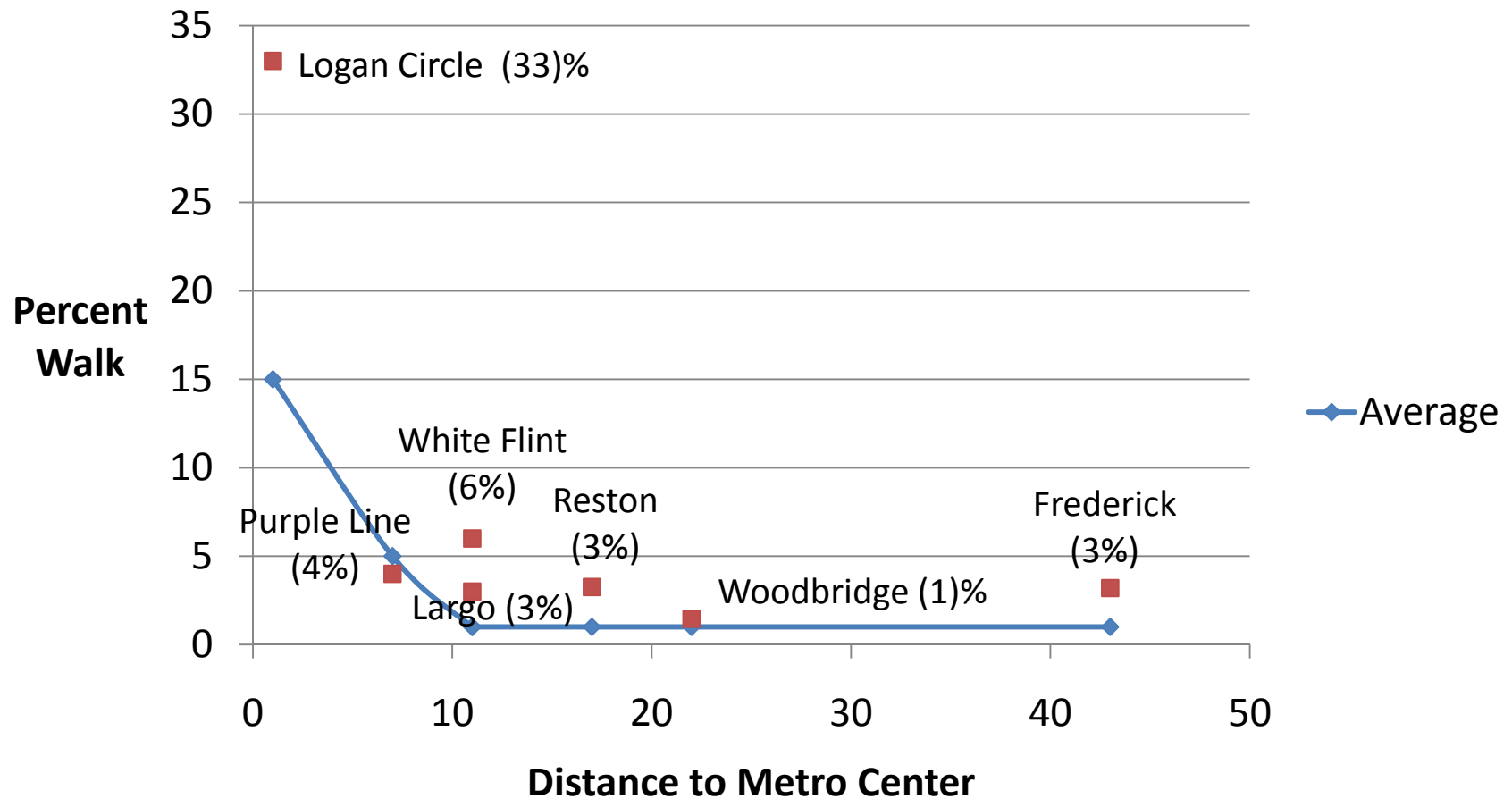
Percent Walk – Commuting Trips

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

Survey Coverage

- http://www.regionforward.org/

- http://www.washingtonpost.com/local/trafficand
  commuting/neighborhood-affects-how-much-
  we-walk-bike-and-take-transit-survey-
  finds/2012/05/16/gIQA7ipoUU_story.html

Spring 2012 Data Collection

The seven areas now being surveyed are:

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

Fall 2012 Data Collection

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

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

(areas subject to further review and refinement)

Fall 2013 Data Collection?

Thinking ahead – additional areas to be surveyed in 2013:

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

(areas subject to further review and refinement)