

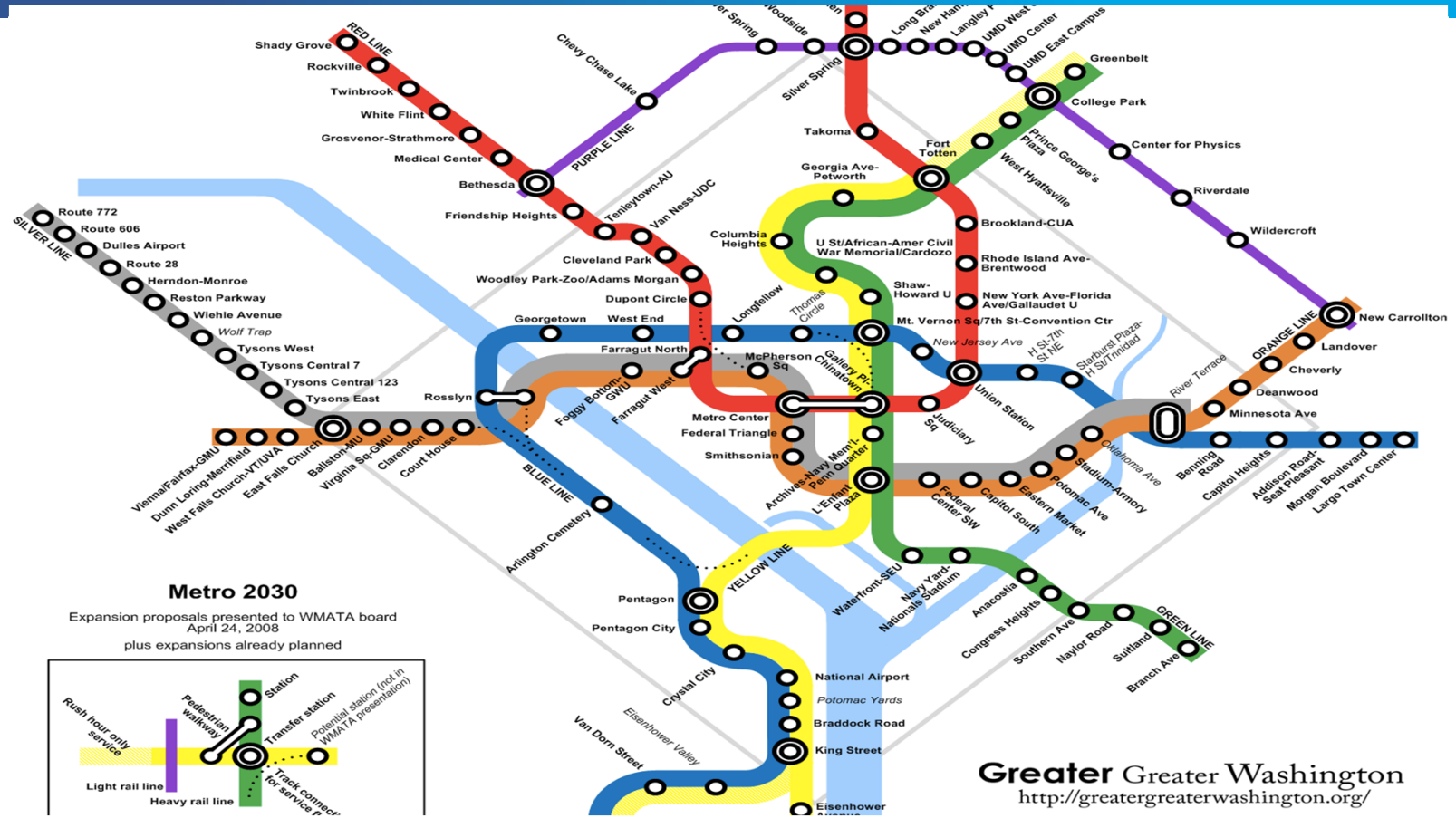
# Pathways to Opportunity: Community Development in the Purple Line Corridor

Gerrit-Jan Knaap  
Professor and Director  
National Center for Smart Growth  
University of Maryland





# Washington Rail System

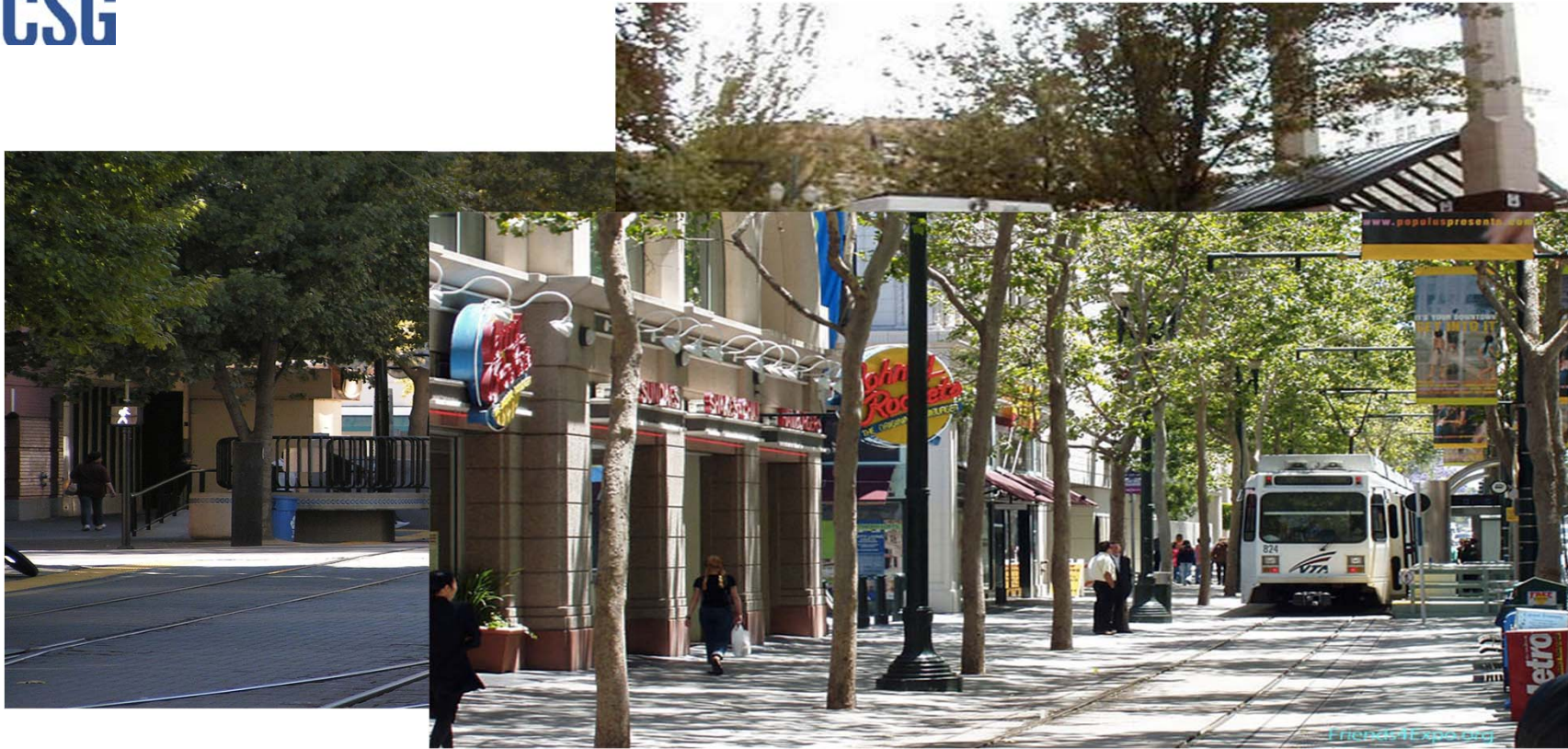


**Greater Greater Washington**  
<http://greatergreaterwashington.org/>

# This is NOT the Silver Line



# Light Rail can Stich Communities Together in a way Heavy Rail can not

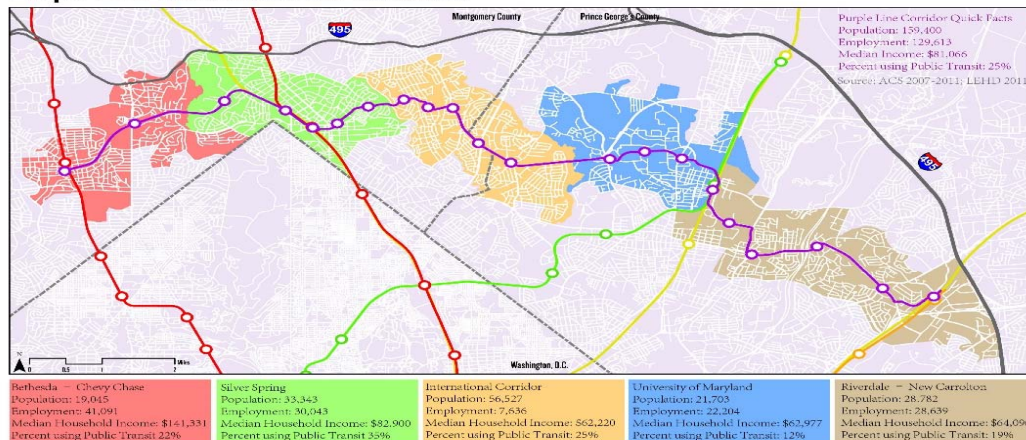




# The Purple Line: By the Numbers

- 16 miles, 21 stops, 74,000 average weekday trips
- \$2.0 billion construction, \$150 million operating cost
- 150,000 people
- 130,000 jobs
- 2 counties
- 1<sup>st</sup> light rail Line in the region

Purple Line Transit Corridor Subareas





# Purple Line Corridor Coalition



## Beyond the Tracks

An Agenda for Community and Economic Development in the Purple Line Corridor



PURPLE LINE CORRIDOR COALITION

National Center for Smart Growth at the University of Maryland



# PLCC Members

- [Action Committee for Transit](#)
- [Action Langley Park](#)
- [Affordable Housing Conference of Montgomery County](#)
- [BRIDGE Maryland](#)
- [CASA de Maryland](#)
- [Coalition for Smarter Growth](#)
- [Colvin Institute for Real Estate Development](#)
- [Enterprise Community Partners, Inc.](#)
- [Hispanic Chamber of Commerce Montgomery County](#)
- [Housing Opportunities Commission of Montgomery County](#)
- [Innovative Housing Institute](#)
- [Job Opportunities Task Force](#)
- [Laborer's International Union of North America](#)
- [Maryland-National Capital Building Industry Association](#)
- [Maryland Transit Administration](#)
- [Maryland Small Business & Technology Development Center](#)
- [Metropolitan Washington Council of Governments](#)
- [Montgomery County](#)
- [Montgomery County Planning Department](#)
- [Montgomery Housing Partnership](#)
- [City of New Carrollton](#)
- [Prince George's County](#)
- [Purple Line Now](#)
- [Purple Rail Alliance](#)
- [Town of Riverdale Park](#)
- [City of Takoma Park](#)
- [University of Maryland](#)

# Pathways to Opportunity: Four Goals



- Diverse, locally established businesses prosper both during and after the construction period.
- Workers in the corridor are well trained, grow in number, and are well matched with employers in skills and location.
- Housing opportunities are available for people of all incomes in communities throughout the corridor, especially existing low, middle-income, and transit-dependent residents.
- Vibrant and sustainable communities enhance health, culture, and a sense of place.





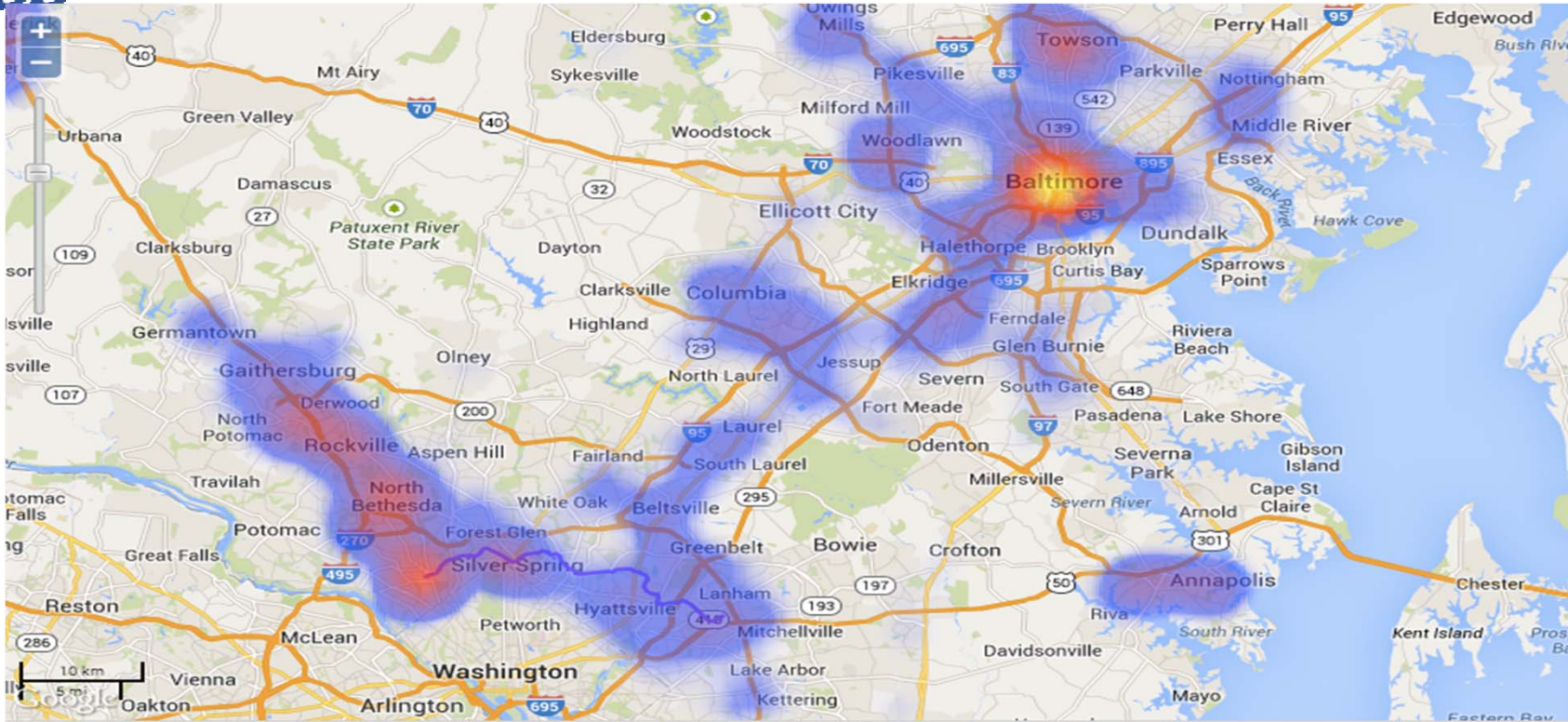
## Principal Signatories

- **Montgomery County Executive**
- **Prince George's County Executive**
- **Maryland National-Capital Park and Planning Commission**
- **CASA and the Fair Development Coalition**
- **Enterprise Community Partners, Inc.**
- **National Center for Smart Growth for the Purple Line Corridor Coalition**

Diverse, locally established businesses prosper both during and after the construction period.

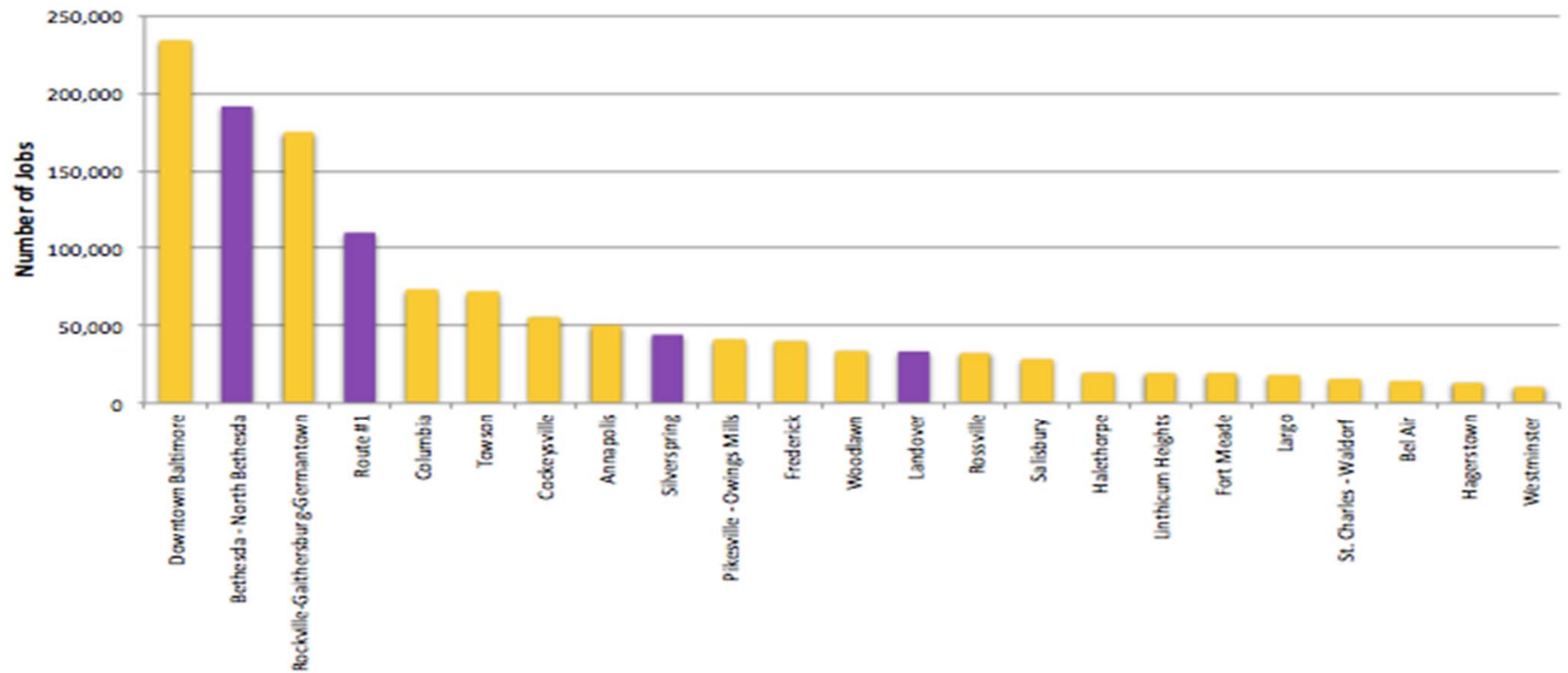


# Employment "Heat Map"



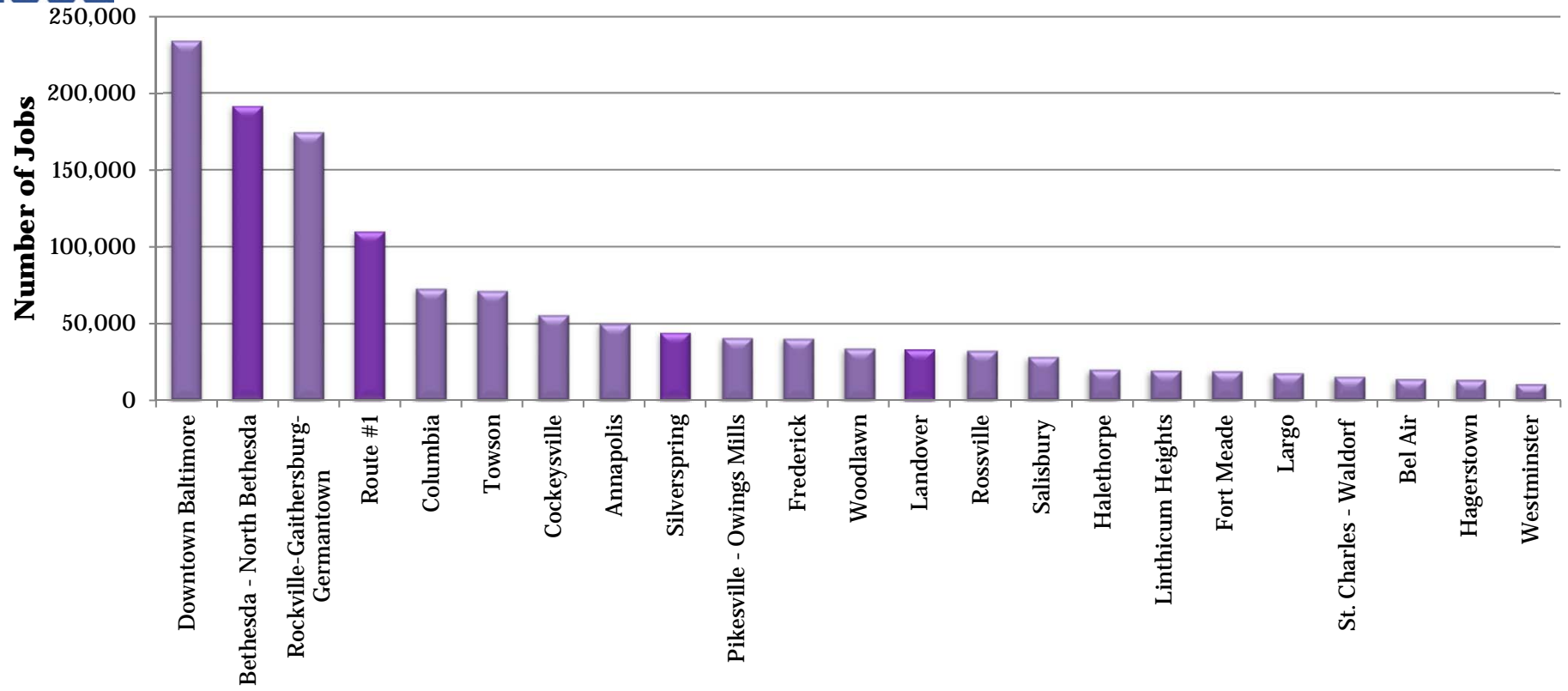


# Cluster Employment

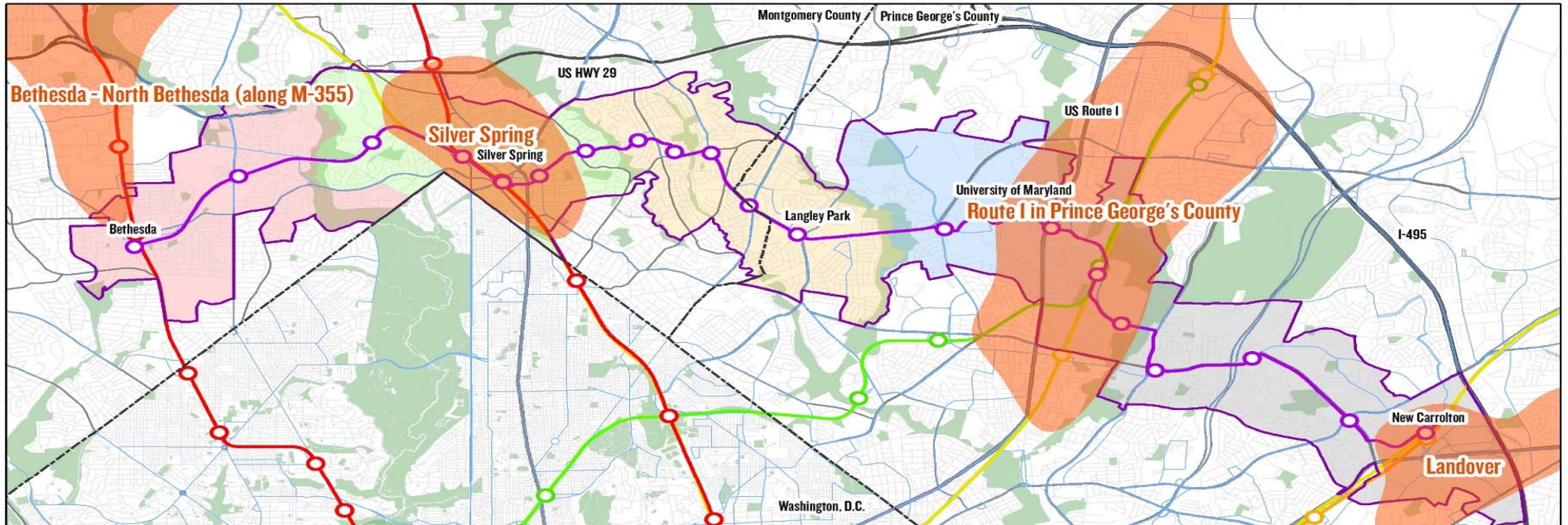




# Cluster Employment



# Access to Employment Clusters



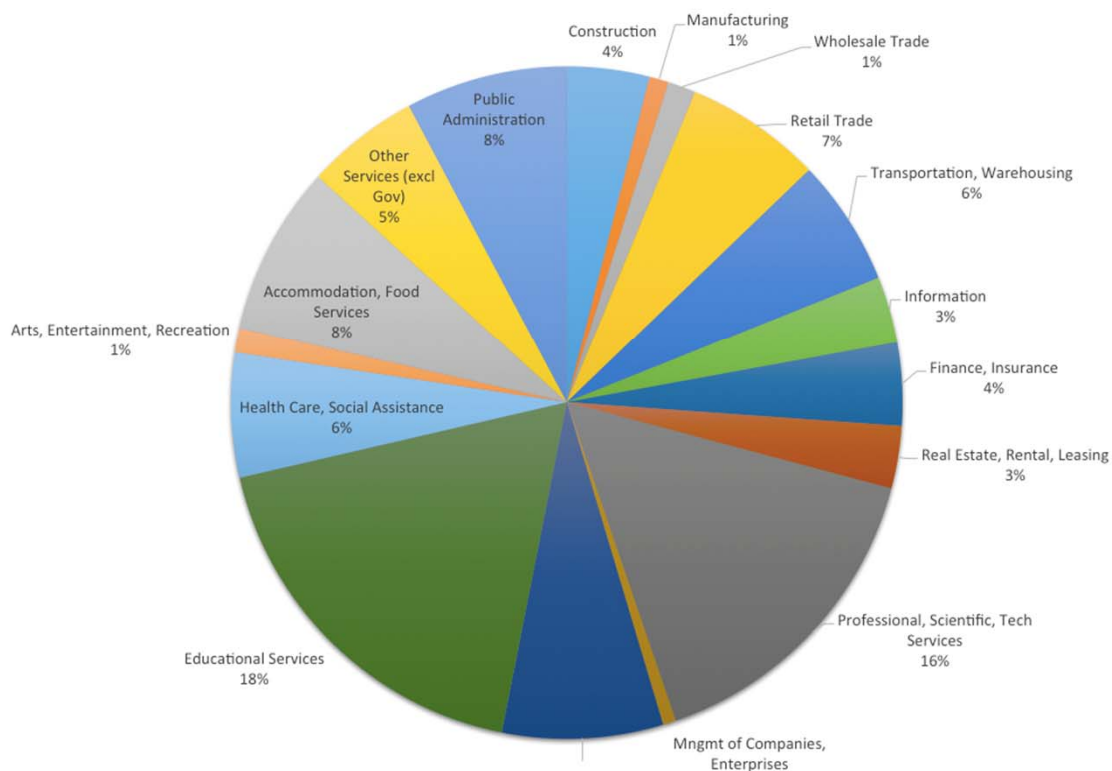
Employment Clusters	CountyBoundaryLine	Blue Line	Bethesda - Chevy Chase	Interstate Highway
Definition: TAZ has the minimum employment density of 9 workers per acre and has a total of at least 10,000 employees.	CorridorBoundary	Green Line	Silver Spring	Major Arterials
	Purple Line stations	Orange Line	International Corridor	US Highway
	Purple Line	Red Line	University of Maryland	Streets
	Bus Routes	Yellow Line	Riverdale - New Carrollton	Park
		MARC		

0 0.5 1 2 Miles Data Source: Quarterly Census of Employment and Wages, 2008



# Industrial Composition

## Corridor – Industry Structure



- Total 121,671 jobs in the PLC
- Five largest sectors
  - 1) Educational Services
  - 2) Professional, Scientific, Tech Services
  - 3) Accommodation, Food Services
  - 4) Public Administration
  - 5) Admin, Waste Services
- These five sectors account for 58% of regional employment

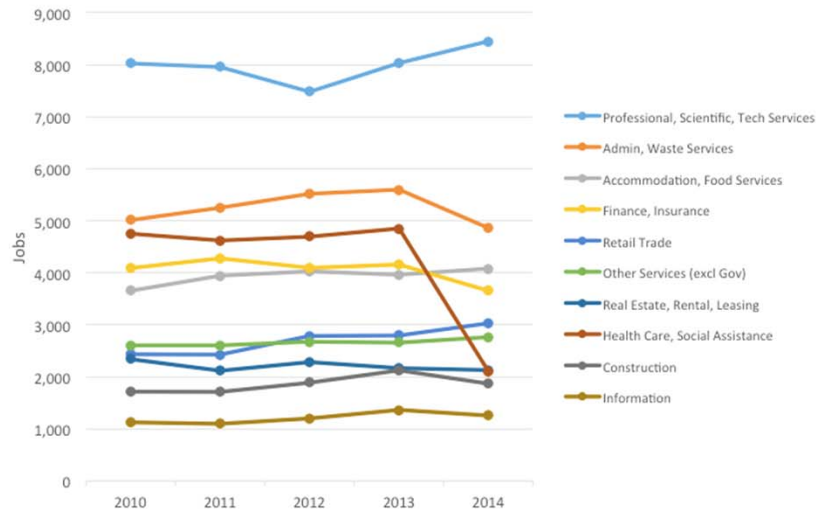
Sources: Census LEHD 2014



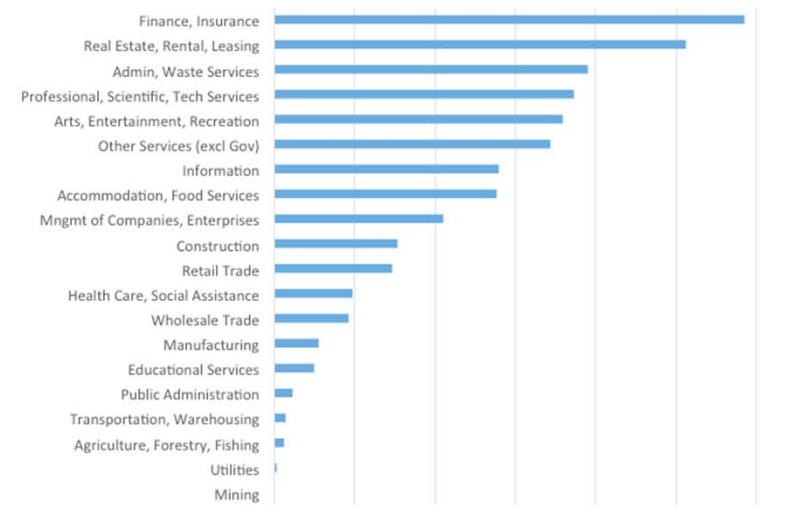
# Bethesda-Chevy Chase Subarea

## Subarea (1) Bethesda-Chevy Chase

Employment Growth for Largest 10 Sectors,  
Bethesda - Chevy Chase (2010-2014)



Location Quotient, Bethesda - Chevy Chase (2014)



- Professional, scientific, tech services has been consistently the largest sector.
- Finance, insurance and real estate, rental, leasing are highly concentrated compared to MoCo and PG economies.

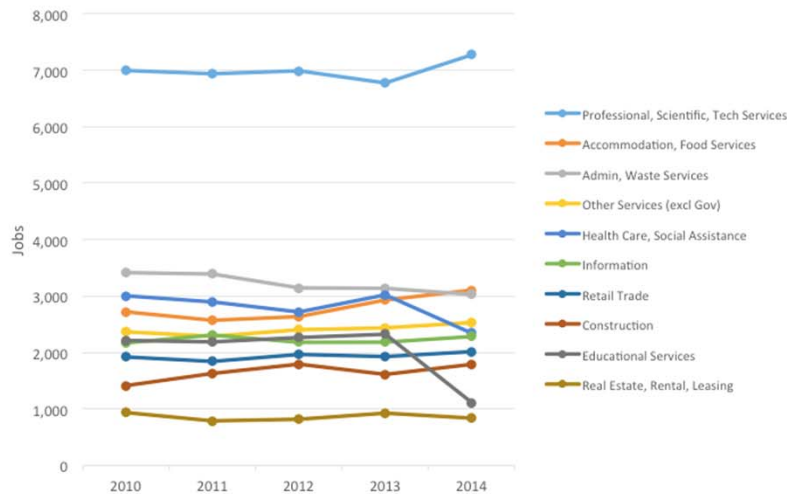




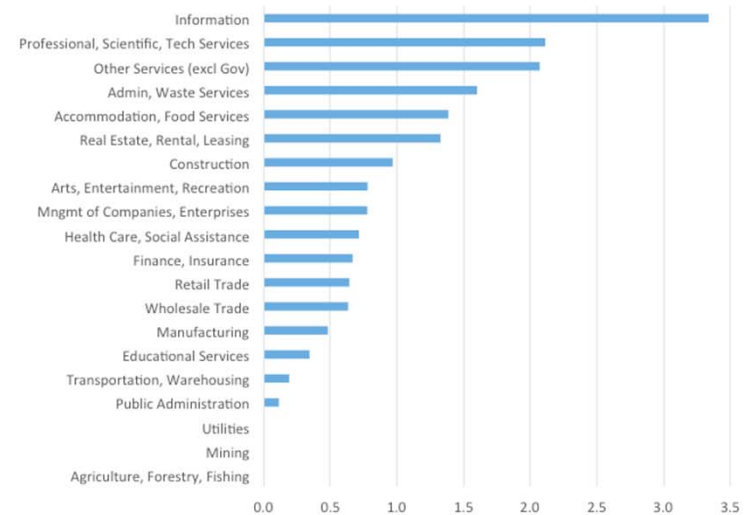
# Silver Spring Subarea

## Subarea (2) Silver Spring

Employment Growth for Largest 10 Sectors, Silver Spring (2010-2014)



Location Quotient, Silver Spring (2014)

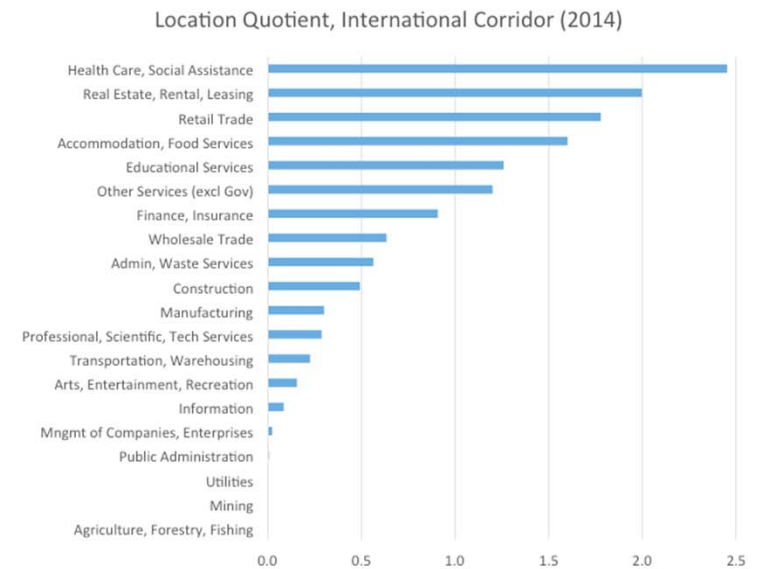
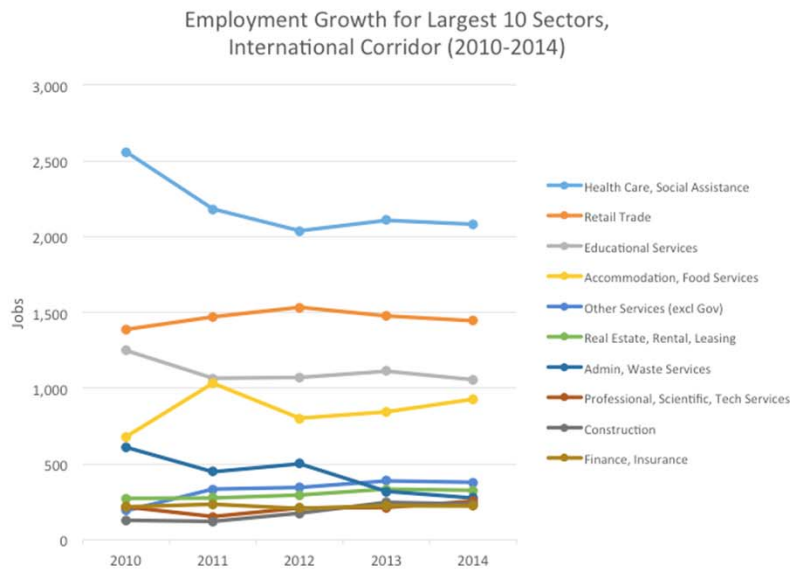


- Professional, scientific, tech services has been consistently the largest sector.
- Information, professional, scientific, tech services, other services are highly concentrated compared to MoCo and PG economies



# International Corridor Subarea

## Subarea (3) International Corridor



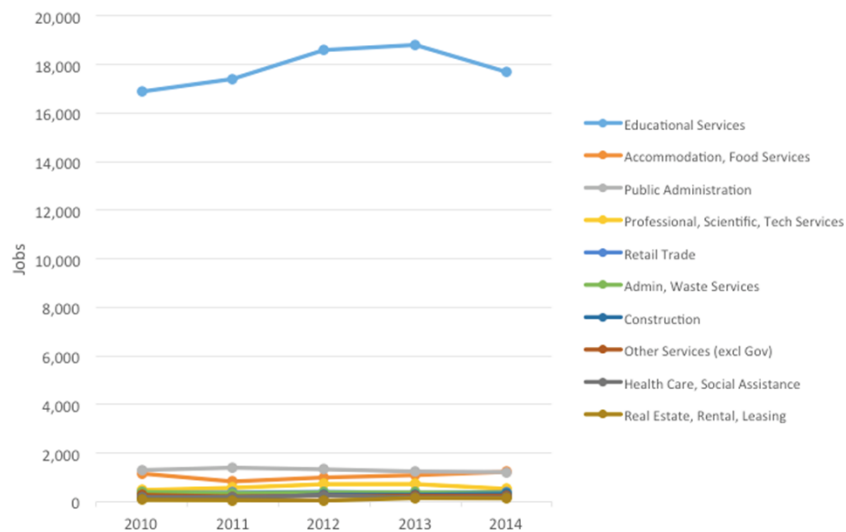
- Despite the largest loss, Health care, social assistance has been consistently the largest sector.
- Health care, social assistance, and real estate, rental, leasing are highly concentrated compared to MoCo and PG economies.



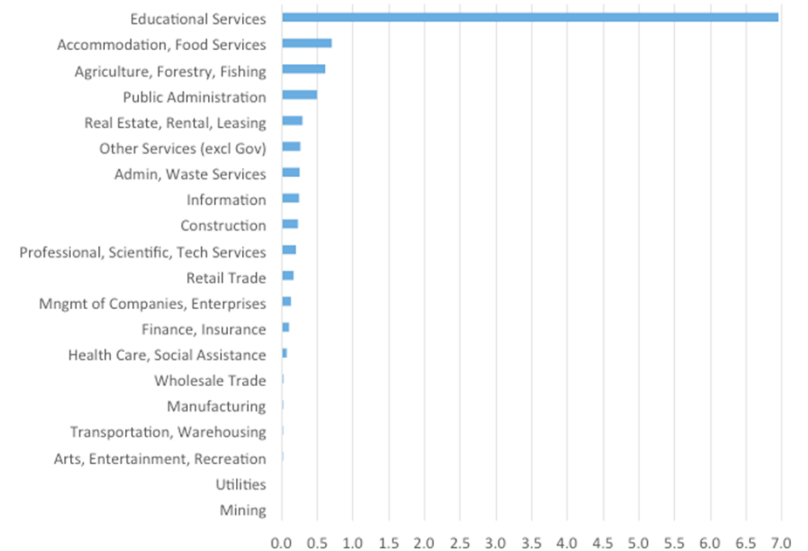
# University of Maryland Subarea

## Subarea (4) University of Maryland

Employment Growth for Largest 10 Sectors,  
University of Maryland (2002-2014)



Location Quotient, University of Maryland (2014)



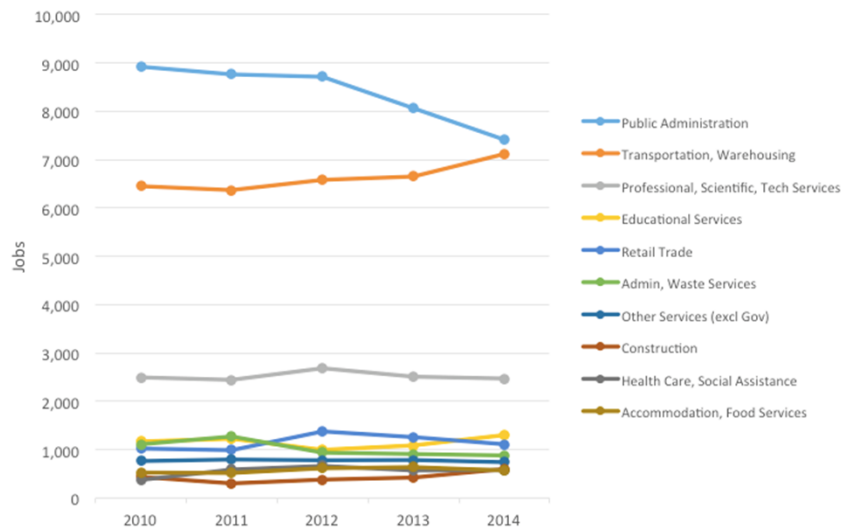
- Education services has been a dominating sector in terms of employment and the share of regional economy compared to MoCo and PG.



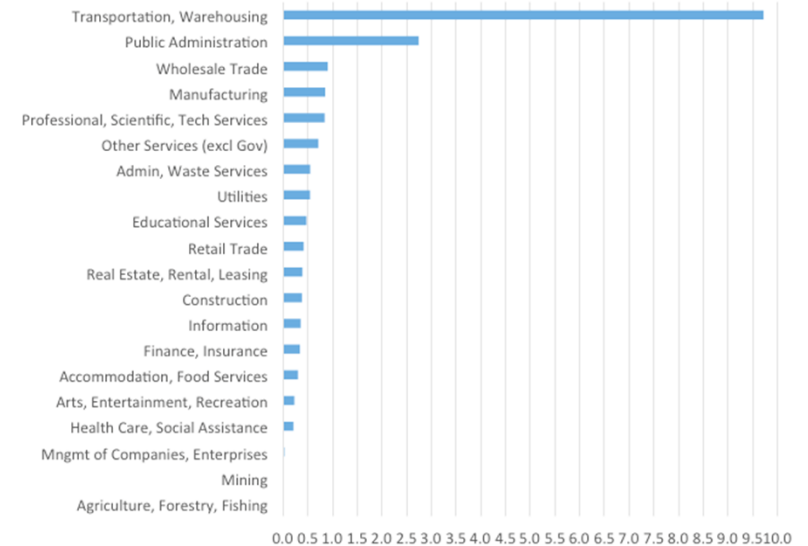
# Riverdale-New Carrollton Subarea

## Subarea (5) Riverdale-New Carrollton

Employment Growth for Largest 10 Sectors,  
Riverdale - New Carrollton (2002-2014)

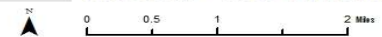
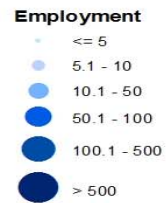
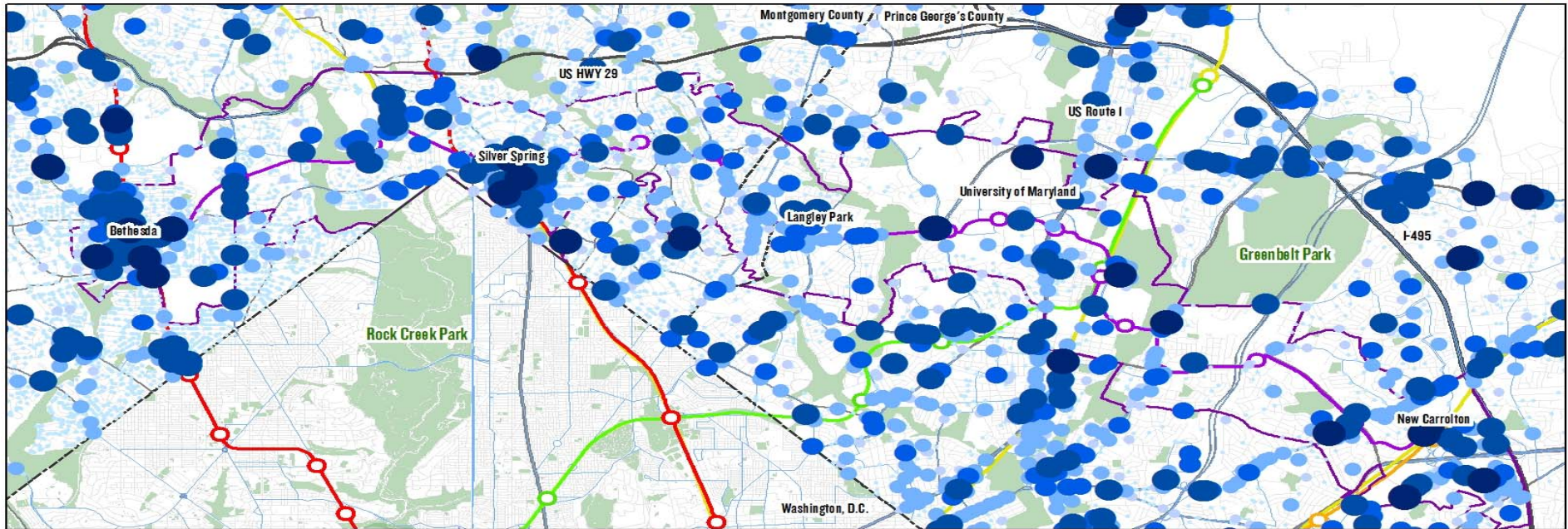


Location Quotient, Riverdale - New Carrollton (2014)



- The gap in employment growth between public administration and transportation, warehousing has shrunk.
- Transportation, warehousing is a dominating sector in terms of the share of regional economy compared to MoCo and PG.

# Employment by Size



Data Source: OCEW 2012

Workers in the corridor are well trained, grow in number, and are well matched with employers in skills and location.





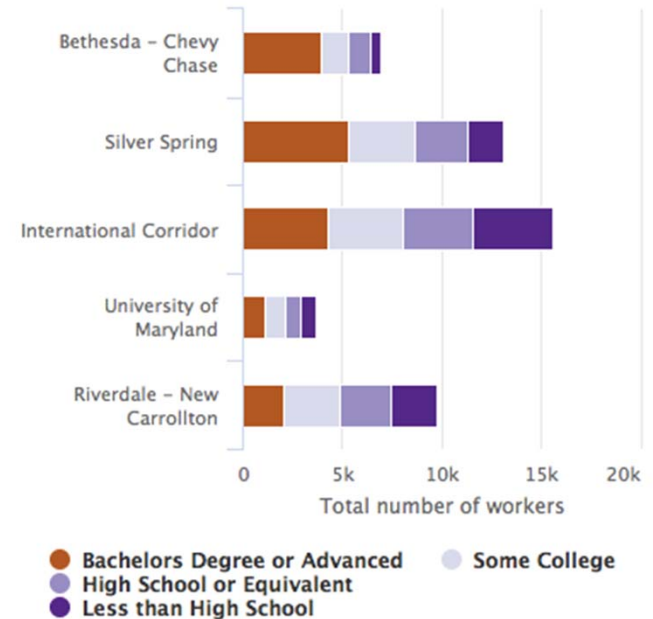
# Labor Market Balance

Subarea	Unemployment Rate (2000)	Unemployment Trend	Unemployment Rate (2014)	Periodic Unemployment Change	2014 - 2000 Change
Bethesda - Chevy Chase	2.09%		2.84%		▲0.76%
Silver Spring	3.26%		6.46%		▲3.19%
International Corridor	6.14%		9.11%		▲2.97%
University of Maryland	7.02%		11.80%		▲4.77%
Riverdale - New Carrollton	7.10%		48.40%		▲3.50%
<b>Total Unemployment Change</b>	<b>5.16%</b>		<b>8.19%</b>		<b>▲3.03%</b>

Denotations: D1 - Year 2000, D2 - Year 2006 to 2010, D3 - Year 2009 to 2013, D4 - Year 2010 to 2014. If you hover over the sparkline for unemployment trend, you can see the value in each division. Unemployment Change column depicts change in population per division.

## Workers by Education Level

Workers by Residence



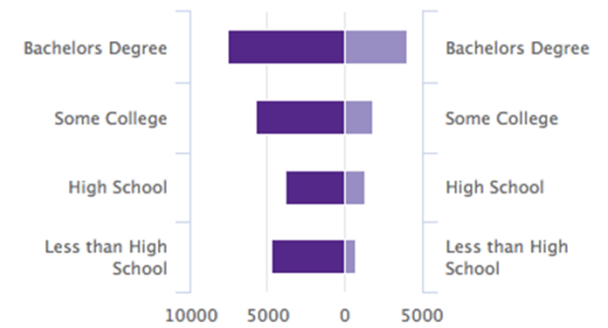
Highcharts.com



# Jobs-Housing Balance by Skill Level

Job-Housing Balance by Education Level

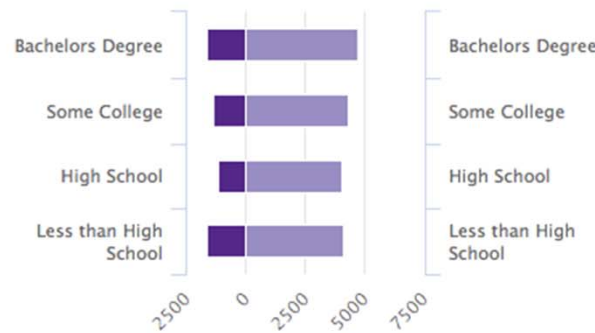
Bethesda  
(Snapshot 2014)



● Workers by Workplace ● Workers by Residence  
Highcharts.com

Job-Housing Balance by Education Level

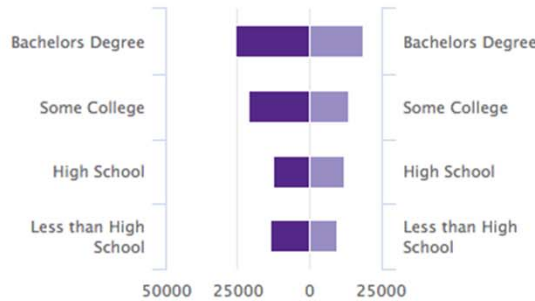
International Corridor  
(Snapshot 2014)



● Workers by Workplace ● Workers by Residence  
Highcharts.com

Job-Housing Balance by Education Level

Riverdale - New Carrollton  
(Snapshot 2014)



● Workers by Workplace ● Workers by Residence  
Highcharts.com

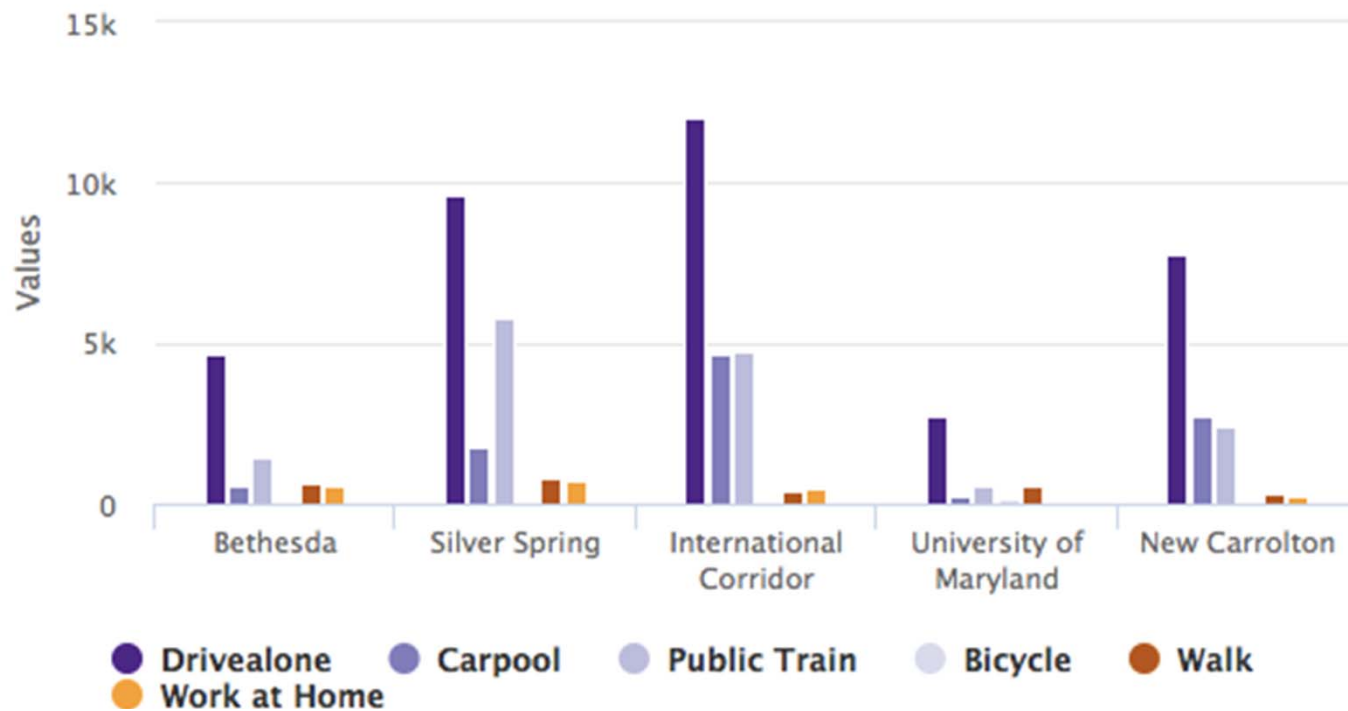




# Commute Mode Choice

## Travel pattern by Subarea

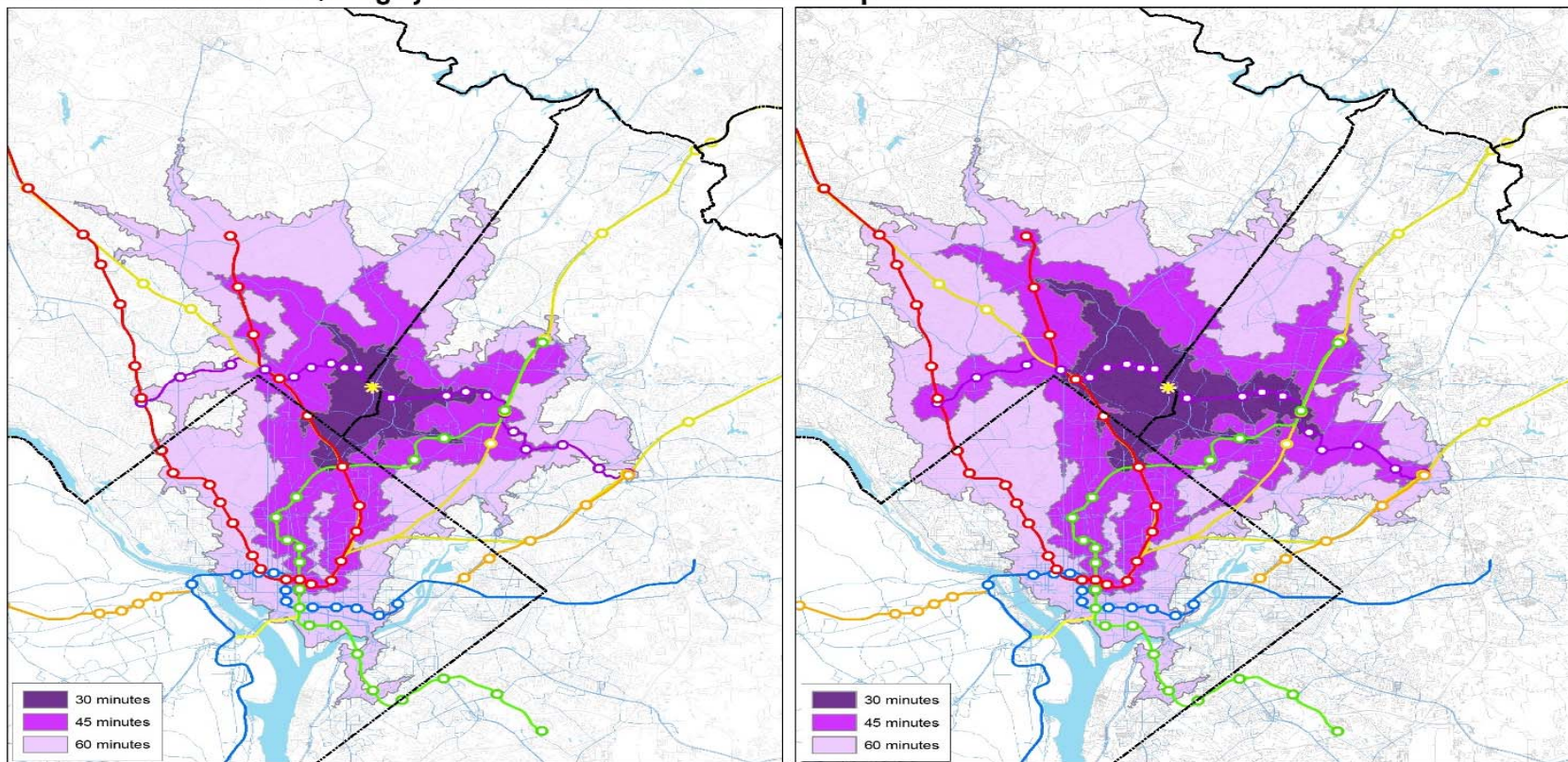
Snapshot: 2014





# Expanding Commute Sheds

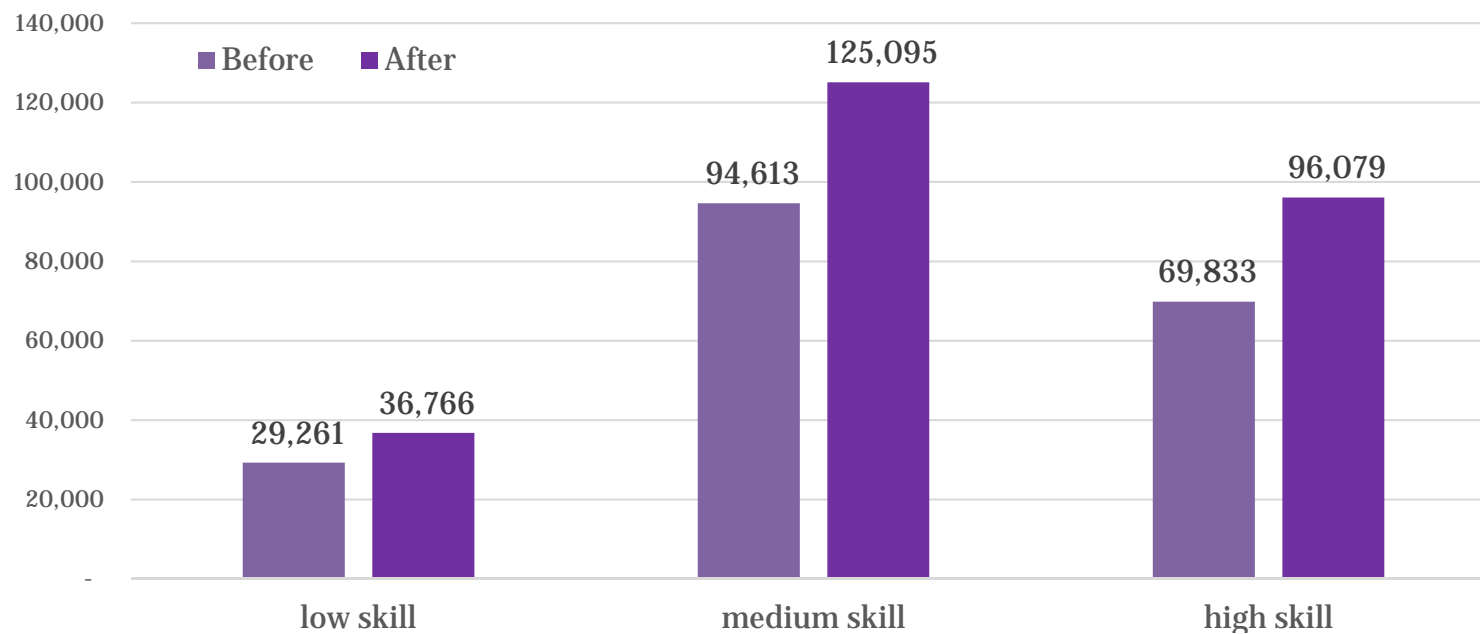
Commute Shed of Takoma/Langley Transit Station without vs. with Purple Line



Note: Commute shed at 9:15 AM Monday morning; calculation based on real and proposed transit schedule provided by transit agencies.  
Source: MWATA GTFS 2013; MTA GTFA 2013; Purple Line Schedule from MTA's DBS  
Author: Ting Ma from National Center for Smart Growth Research and Education

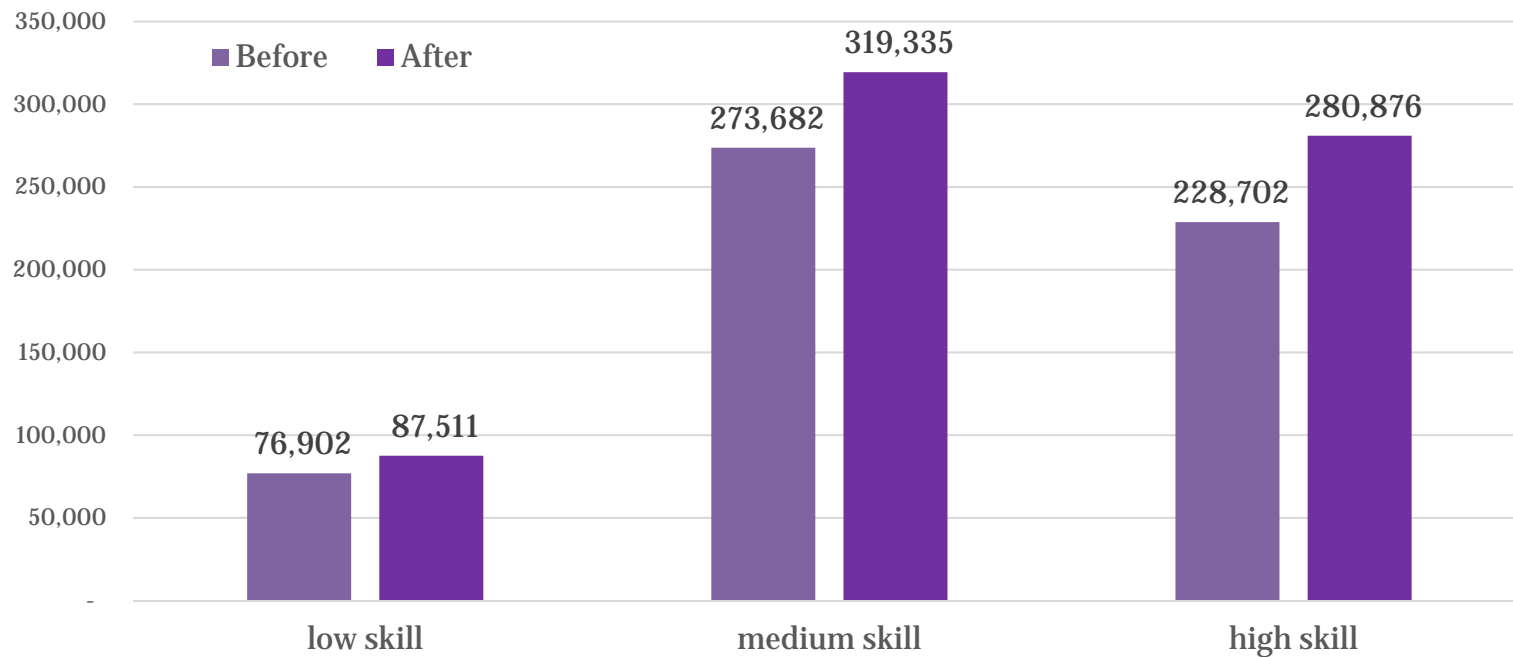


# Access to Jobs (45 minutes)





# Access to Jobs (60 minutes)



Housing opportunities are available for people of all incomes in communities throughout the corridor, especially existing low, middle-income, and transit-dependent residents.

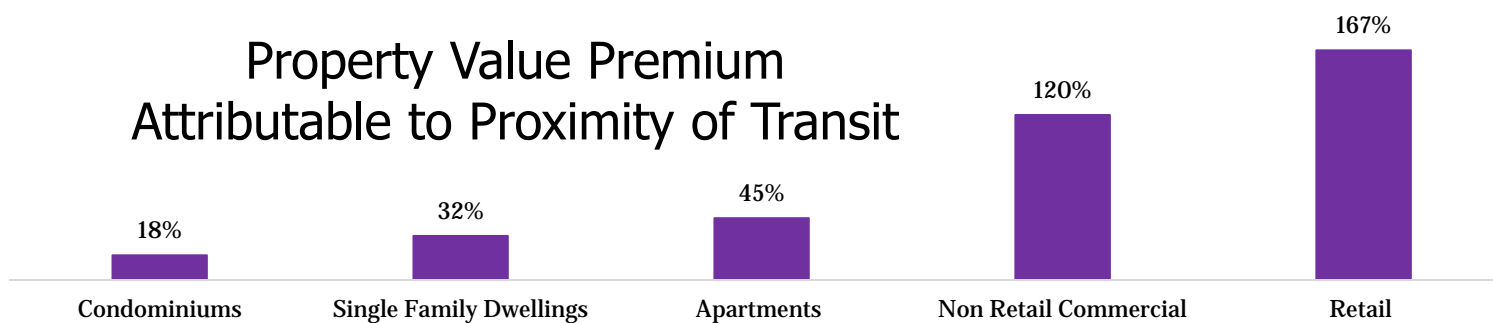




# Property Value Premium

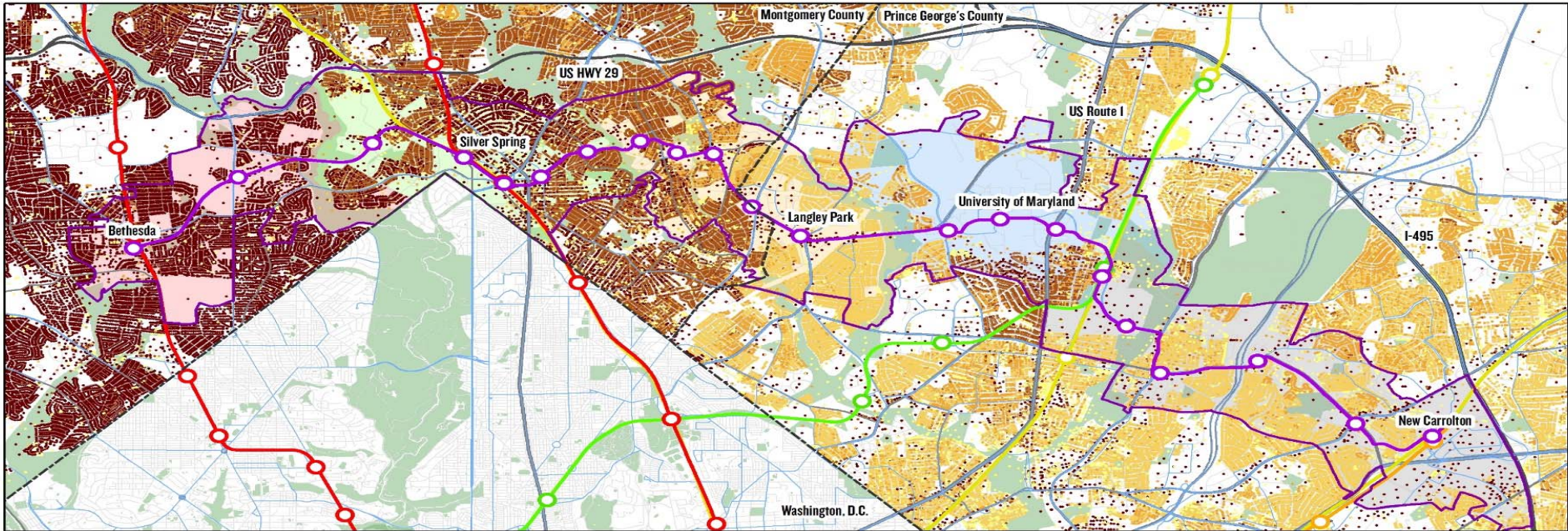


## Property Value Premium Attributable to Proximity of Transit



Source: CTOD, 2008

# Property Value



## Property Value

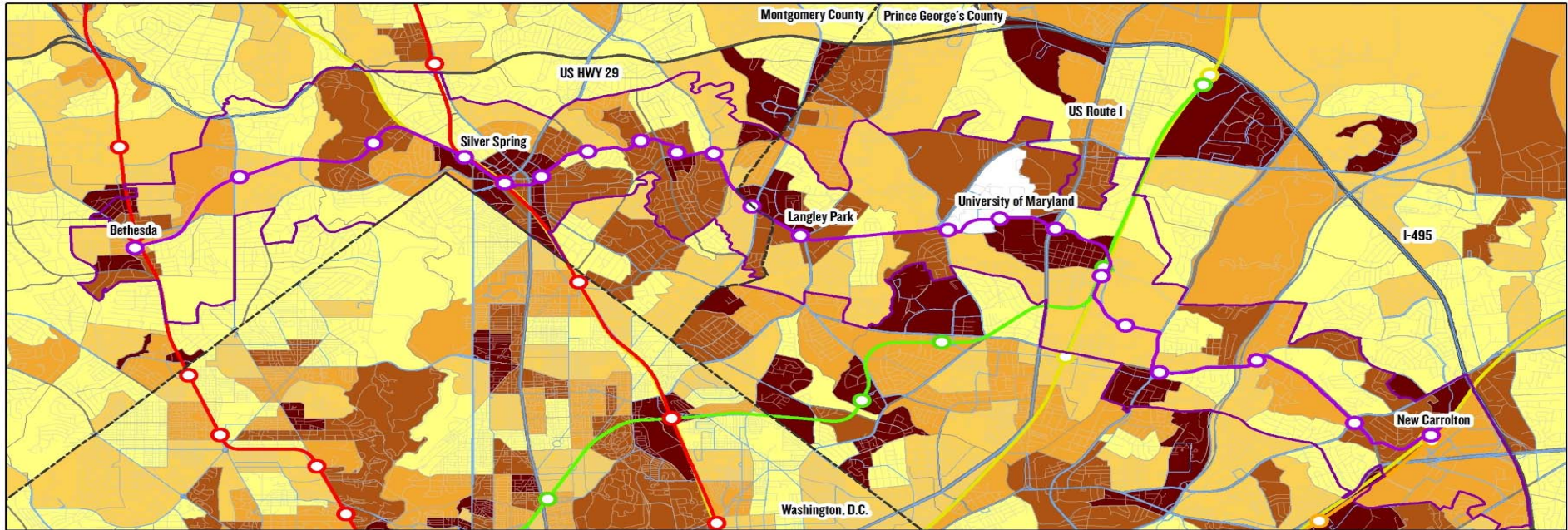
- \$0.00 - \$100,000.00
- \$100,000.01 - \$200,000.00
- \$200,000.01 - \$300,000.00
- \$300,000.01 - \$500,000.00
- \$500,000.01 +

----- CountyBoundaryLine	Blue Line	Bethesda - Chevy Chase	Interstate Highway
CorridorBoundary	Green Line	Silver Spring	Major Arterials
○ Purple Line stations	Orange Line	International Corridor	US Highway
Purple Line	Red Line	University of Maryland	Streets
Bus Routes	Yellow Line	Riverdale - New Carrollton	Park
	MARC		

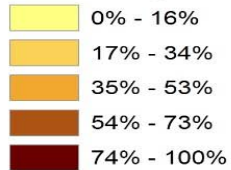


Data Source: Maryland Property View, 2011

# Percentage of Renter Occupied Housing Units



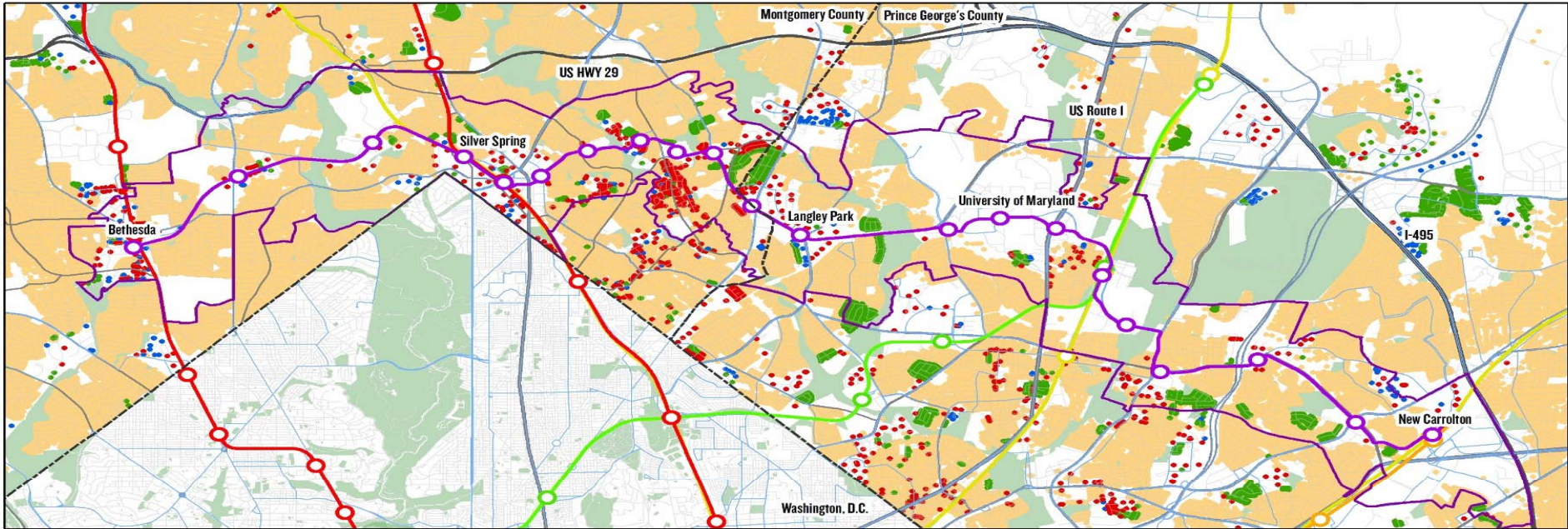
## Percentage of Renter Occupied



Data Source: American Community Survey, 2007-2011



# Residential Property Type



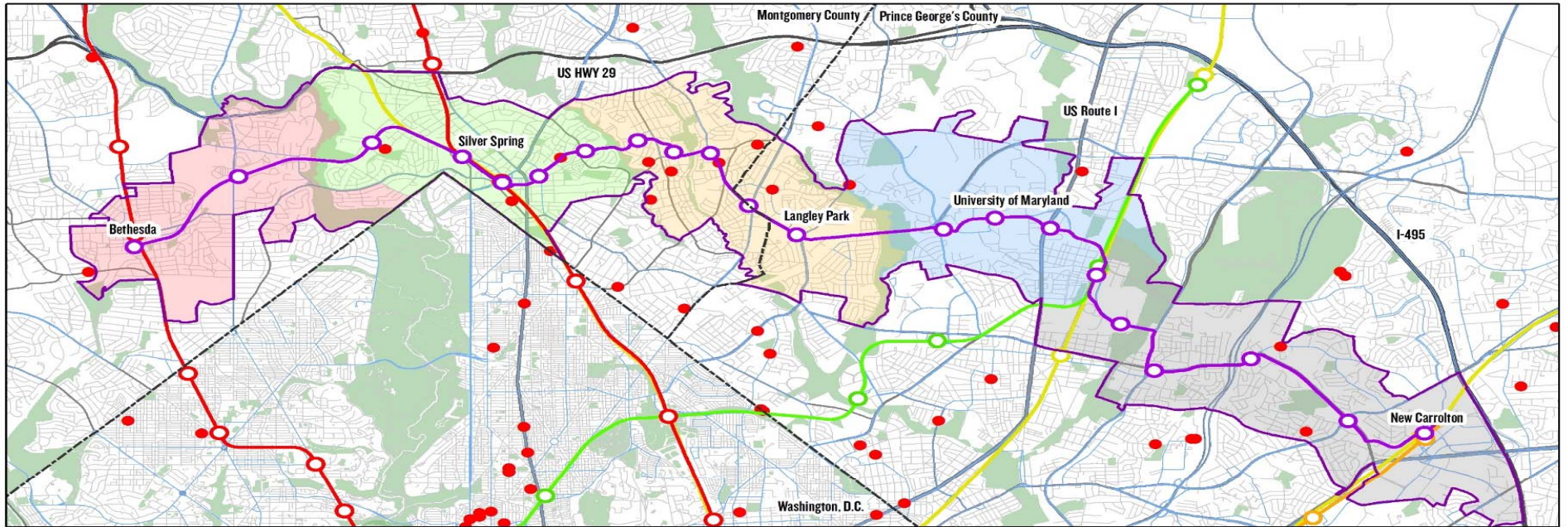
## Residential type

- Apartment
- Condominium
- Single Family
- Townhouse

----- CountyBoundaryLine	Blue Line	Bethesda - Chevy Chase	Interstate Highway
CorridorBoundary	Green Line	Silver Spring	Major Arterials
○ Purple Line stations	Orange Line	International Corridor	US Highway
— Purple Line	Red Line	University of Maryland	Streets
— Bus Routes	Yellow Line	Riverdale - New Carrollton	Park
	MARC		

Data Source: Maryland Property View, 2011

# Subsidized Housing at Risk (Expire by 2020)



- |                              |               |                              |                      |
|------------------------------|---------------|------------------------------|----------------------|
| ● Subsidized Housing at Risk | — Blue Line   | ■ Bethesda - Chevy Chase     | — Interstate Highway |
| - - - County Boundary Line   | — Green Line  | ■ Silver Spring              | — Major Arterials    |
| □ Corridor Boundary          | — Orange Line | ■ International Corridor     | — US Highway         |
| ○ Purple Line stations       | — Red Line    | ■ University of Maryland     | — Streets            |
| — Purple Line                | — Yellow Line | ■ Riverdale - New Carrollton | ■ Park               |
| — Bus Routes                 | — MARC        |                              |                      |

0 0.4 0.8 1.6 Miles  
 Data Source: National Housing Preservation Database, 2012



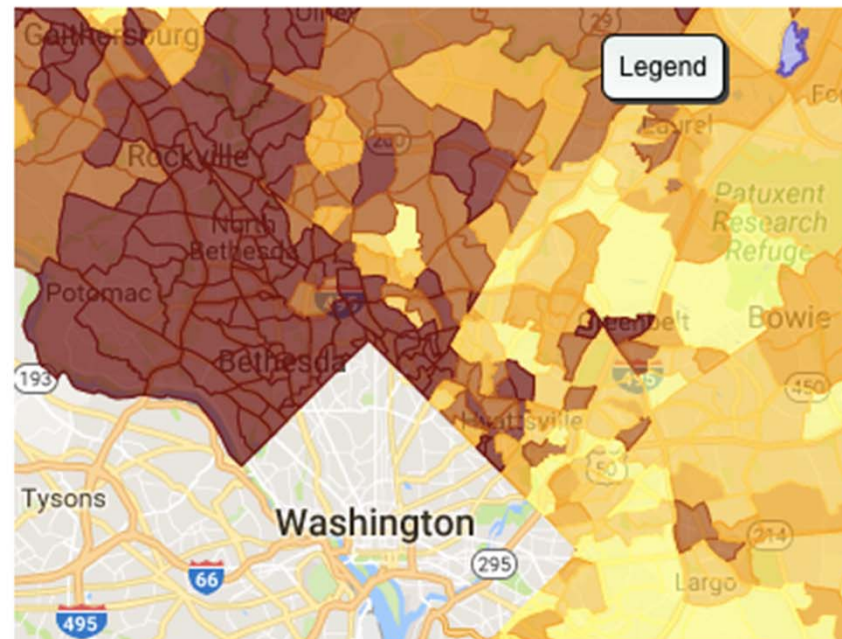
# Large and Persistent Disparities in Opportunity

Home

## OPPORTUNITY MAP

- EDUCATION
- HOUSING & NEIGHBORHOOD QUALITY
- SOCIAL CAPITAL
- PUBLIC HEALTH & SAFETY
- EMPLOYMENT & WORKFORCE
- TRANSPORTATION & MOBILITY

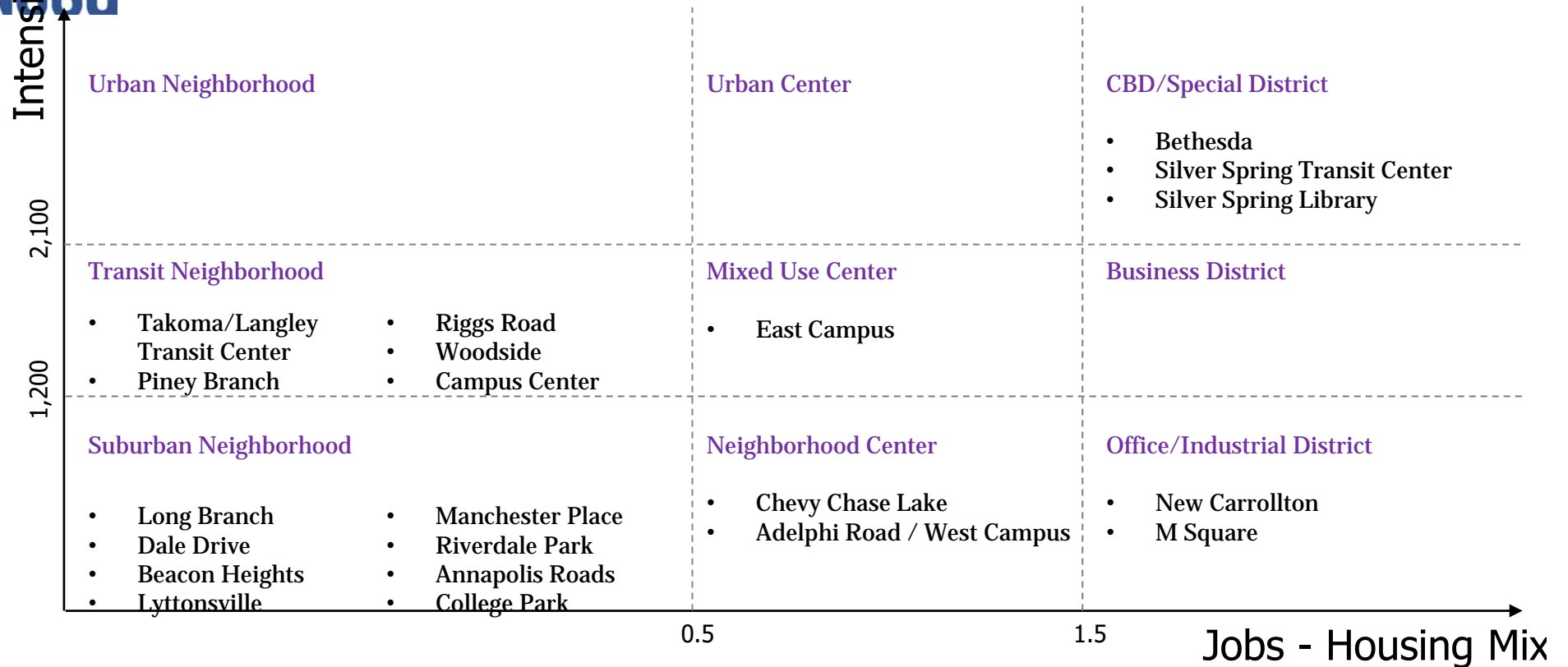
## OPPORTUNITY MAP



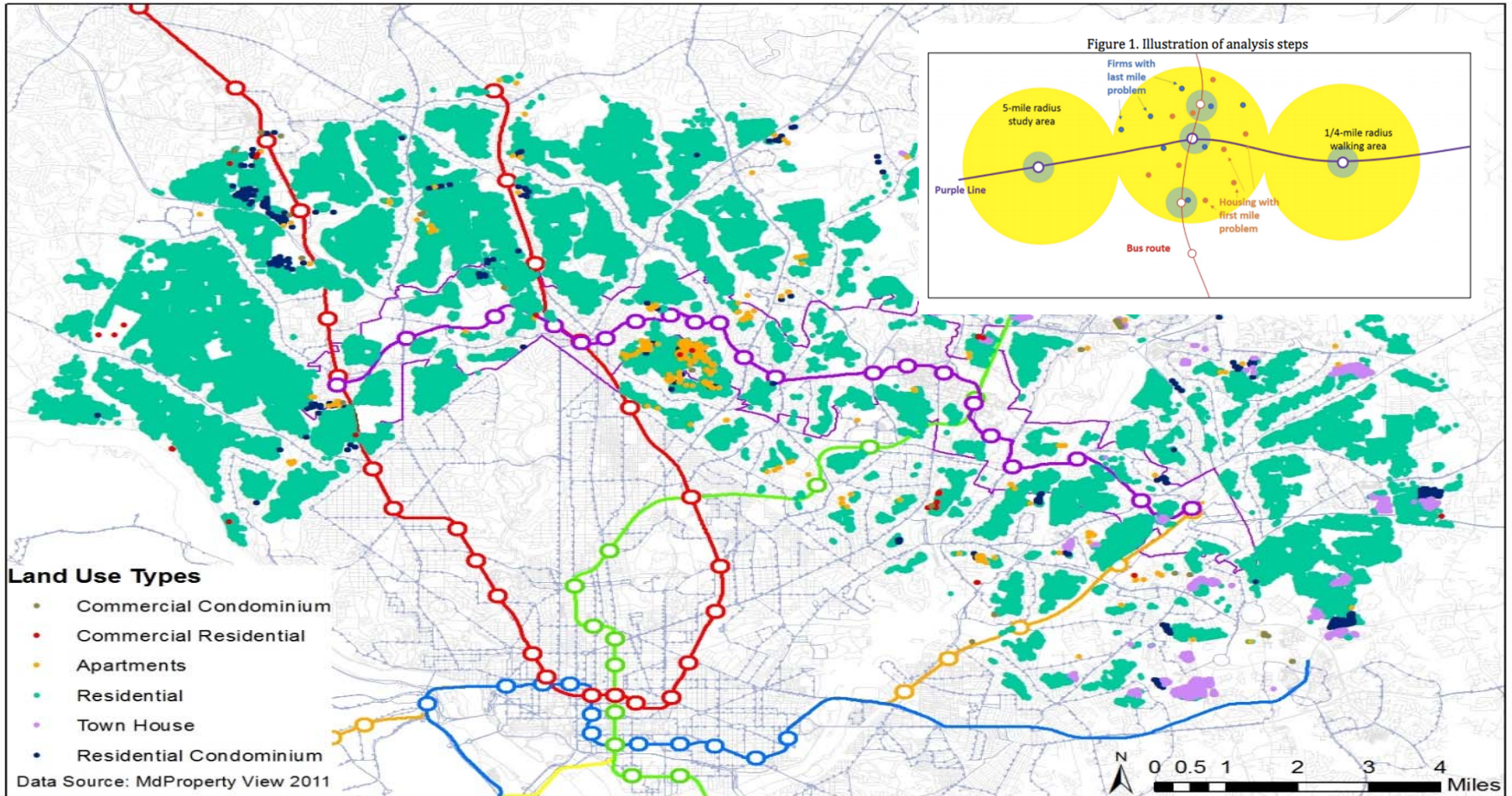
Vibrant and sustainable communities  
enhance health, culture, and a sense  
of place.



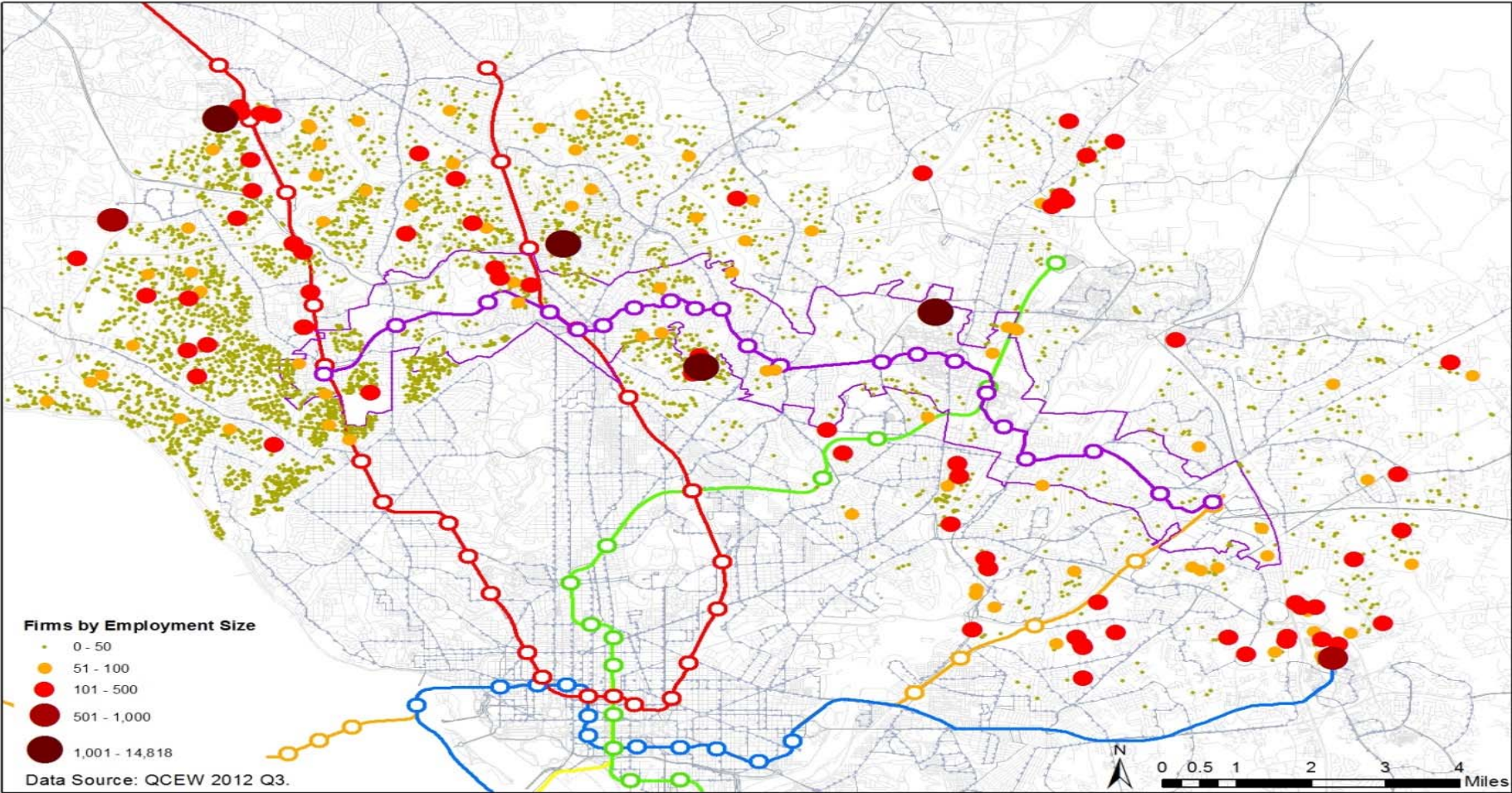
# TOD Typology



# Residential Units by Land Use Type with Last Mile Gap by Bus along Purple Line Corridor



# Firms by Employment Size with Last Mile Gap by Bus along Purple Line Corridor



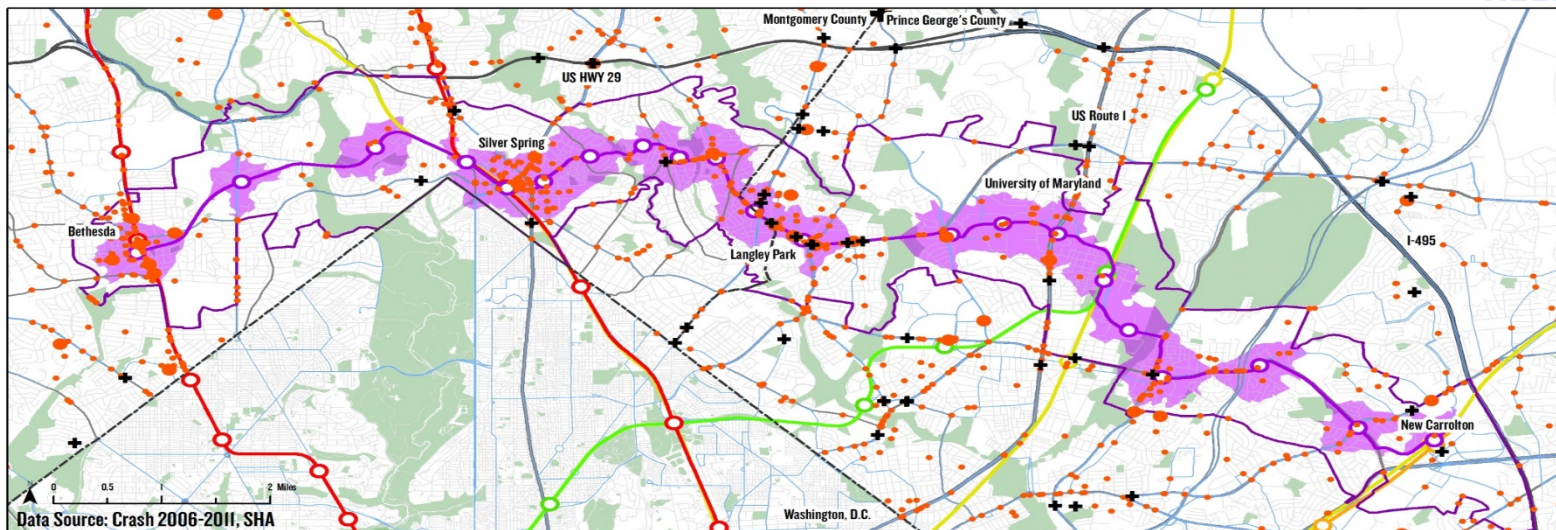
# Woodside Station cont.





# Pedestrian Crashes

## Crash by Number of Pedestrian Injured or Killed



Pedestrian killed Pedestrian injured Half mile walking distance

+	1	1
+	2 - 5	2 - 5
+	6 - 8	6 - 9



## Getting It Done

- “Toward these ends, we the undersigned pledge to pursue and annually review progress toward the goals, strategies, action items and indicators set out in the “Pathways to Opportunity: Purple Line Corridor Action Plan” developed by residents, government, business, philanthropic, community and academic organizations along the Purple Line Corridor over a multi-year period.”

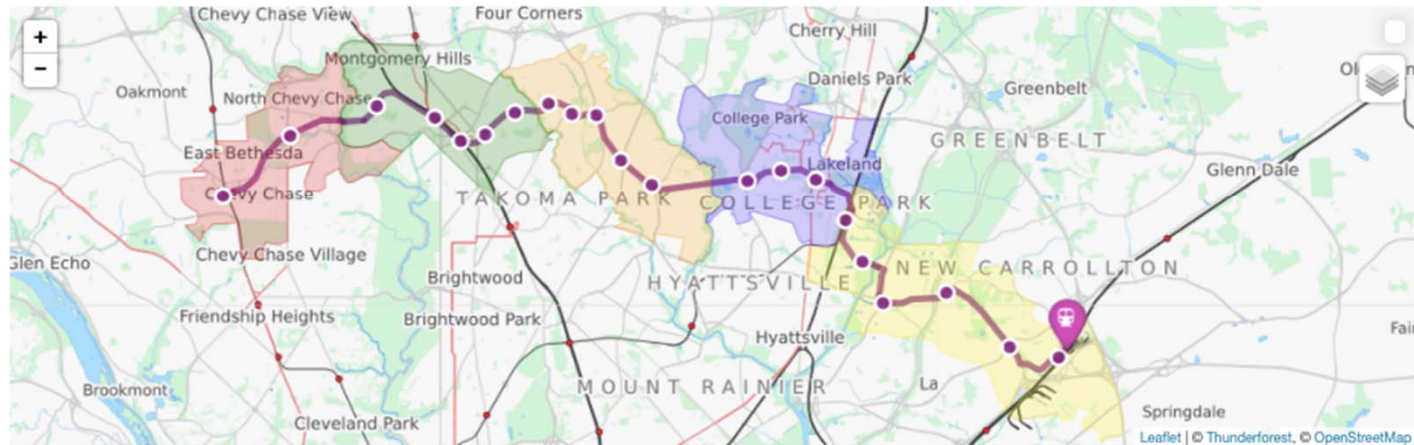


# Purple Line Corridor Dashboard



Neighborhood Housing Labor Business    
Tools ▾

## Purple Line Corridor Data Dashboard



Welcome to the **Purple Line Dashboard**. Here you can explore demographic, economic, employment and housing trends in the corridor with this pilot tool designed to help measure and monitor progress toward the Purple Line Community Compact. The Compact is a commitment by its signatories to work together to achieve a long-term vision for a prosperous, equitable, and environmentally sustainable Purple Line corridor. A public signing and release of the compact is expected this summer. This site provides baseline data to see where the corridor is now in four major goal areas. [Learn more.](#)



# Crowd-Sourced Monitoring Tool

## Purple Line Community Mapping



ALERT: This Is a Beta Version with Test Data. Please Do Not Quote or Cite.

### Use this tool to share ideas & concerns

**Drop a pin and input** challenges and opportunities of four community compact categories

**Draw** your new bike lane/road suggestions

**Review and comment** your neighbors' input

**Together** we can make the Purple Line an equitable & sustainable transit corridor

### Neighborhood

- Construction disruption
- Suggested bike lane
- Suggested road

### Housing

- Rent change

### Labor force

- Job Opening
- Training program

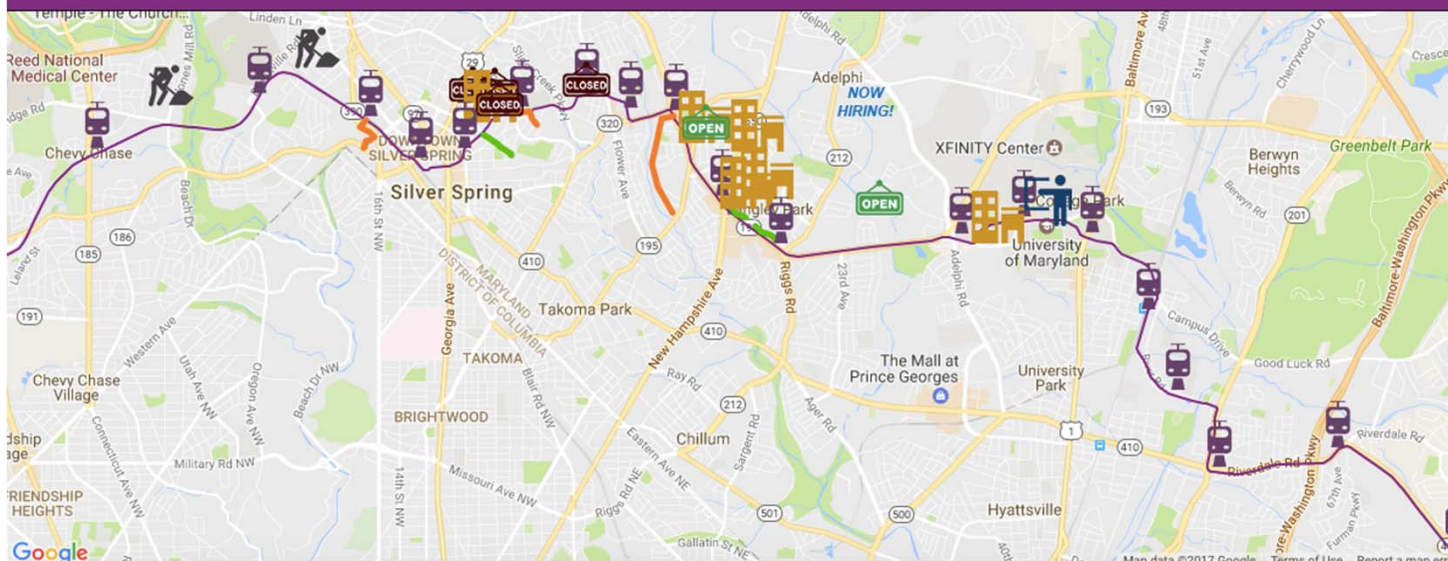
### Business

- New Business
- Closed business

### Base layers

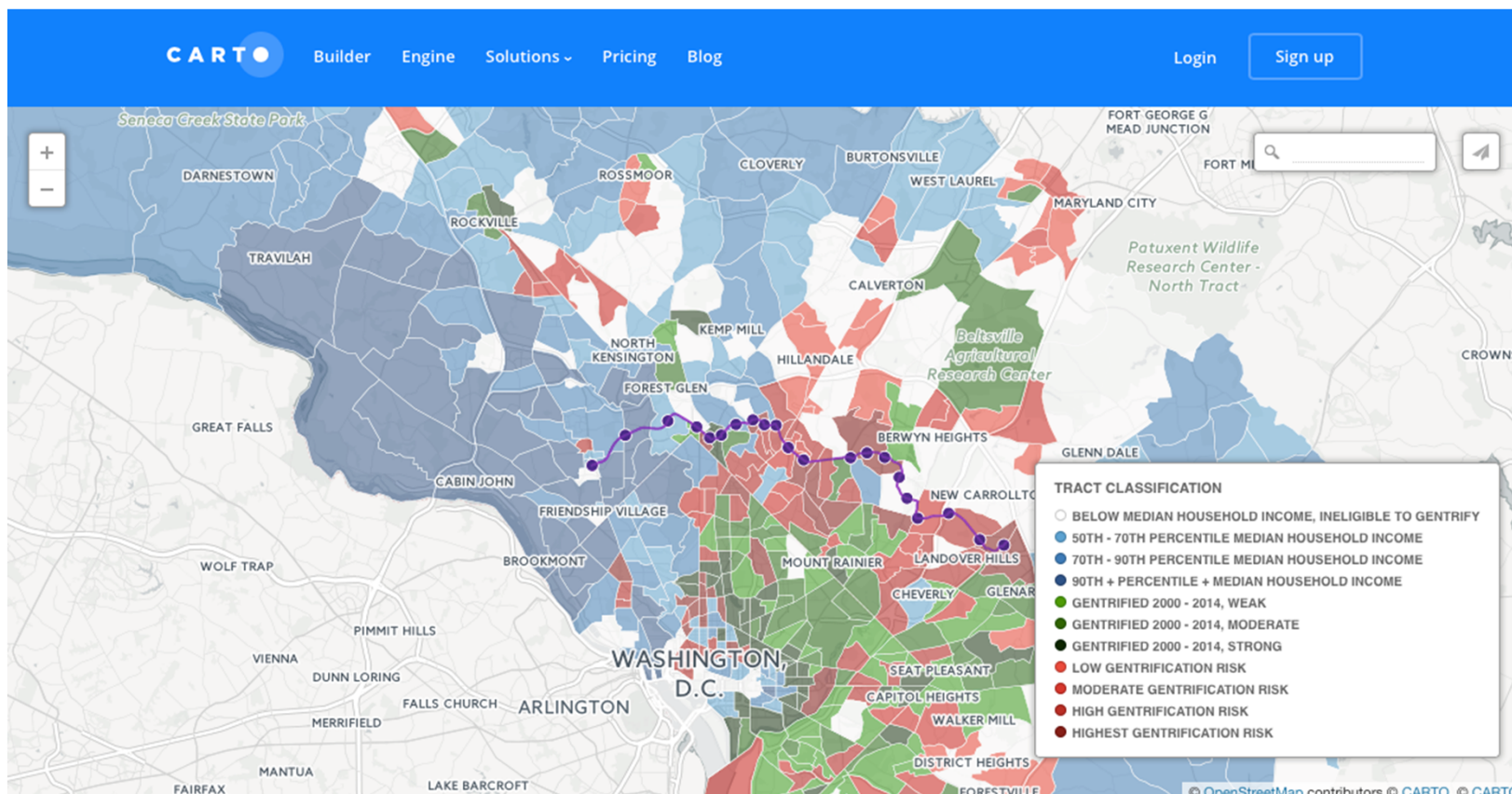
- Purple Line station
- Purple Line track

Zoom To Your Subarea Find Your Location Drop a Pin and Input Suggest a Route About & Help Photos

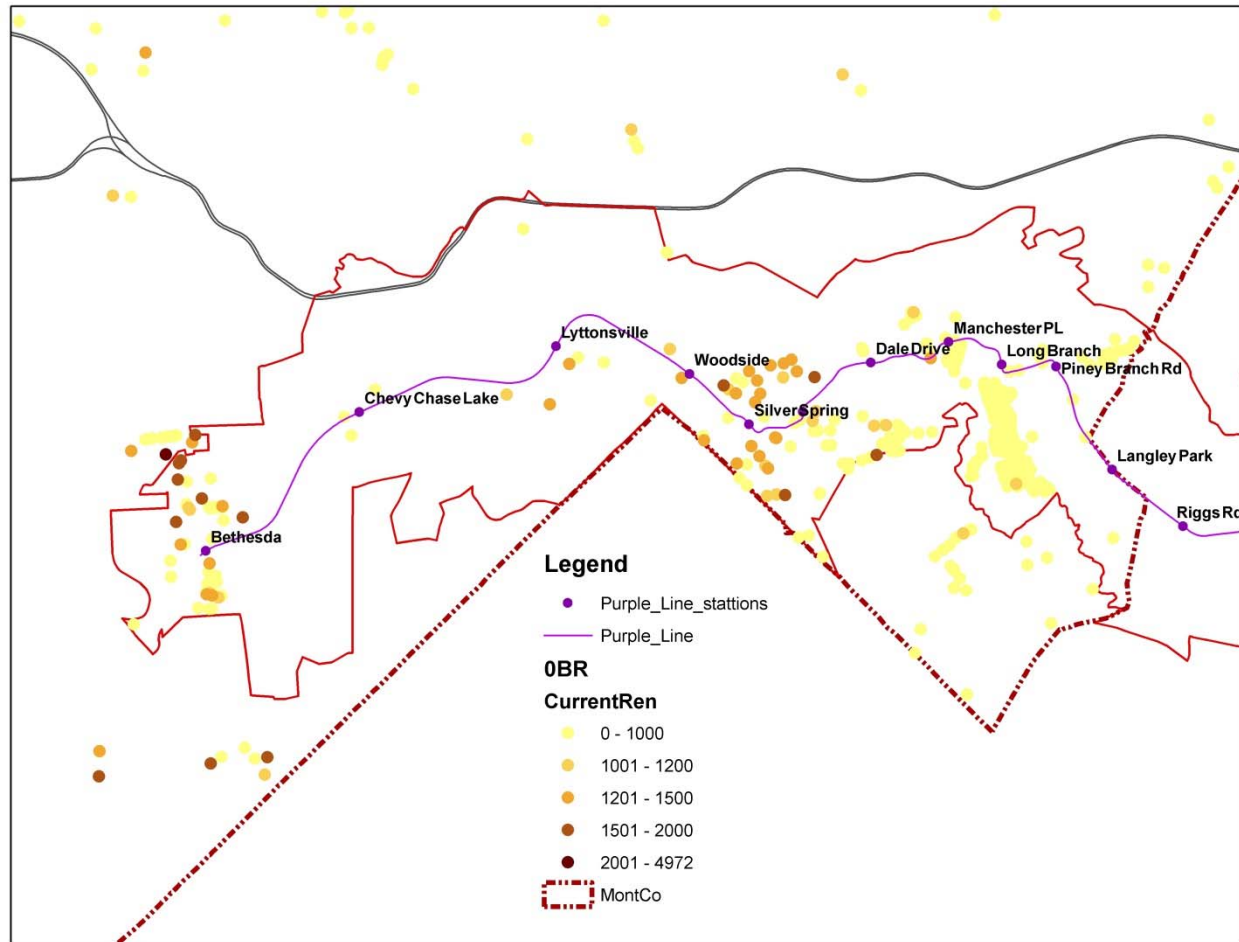




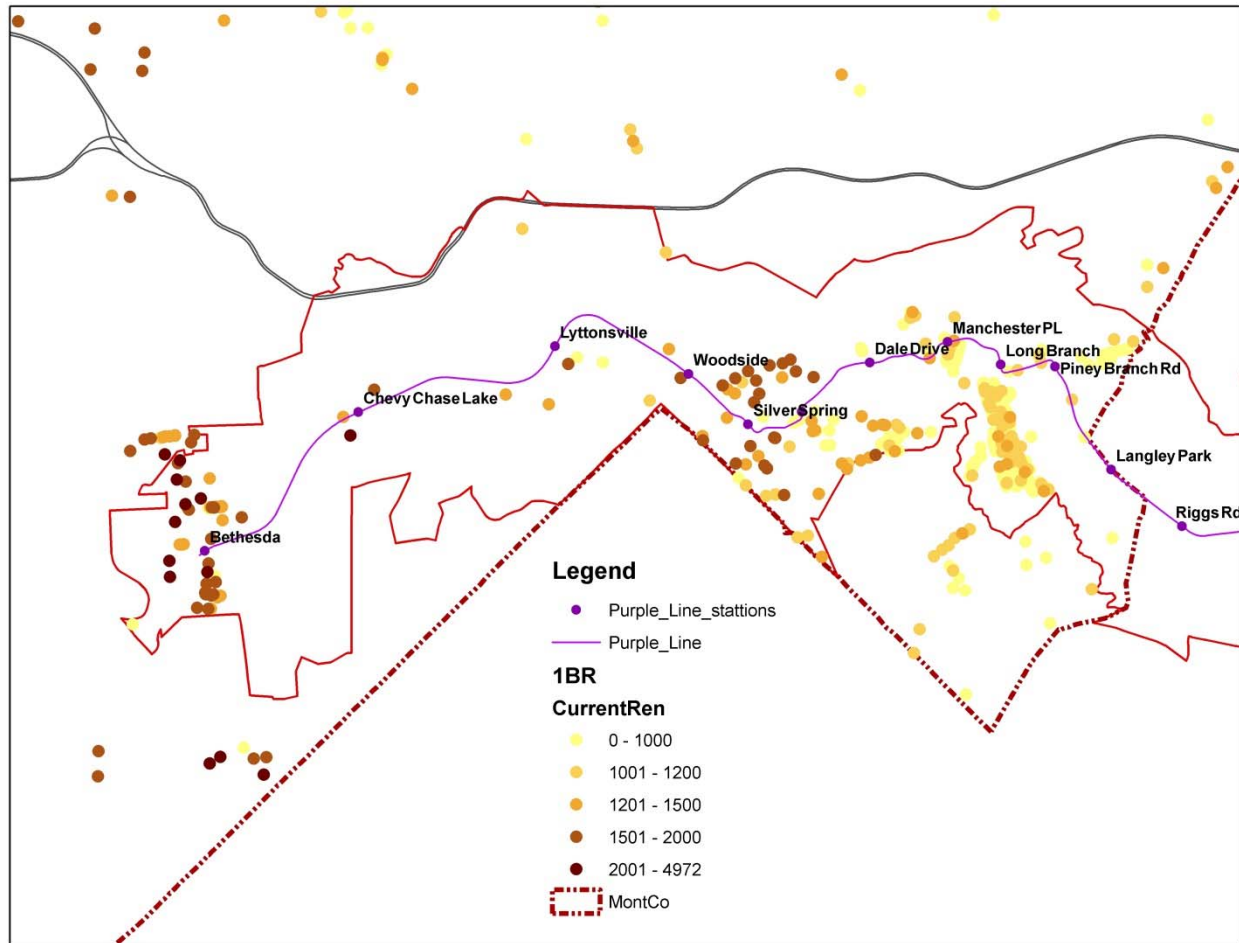
# Gentrification Risk Tool



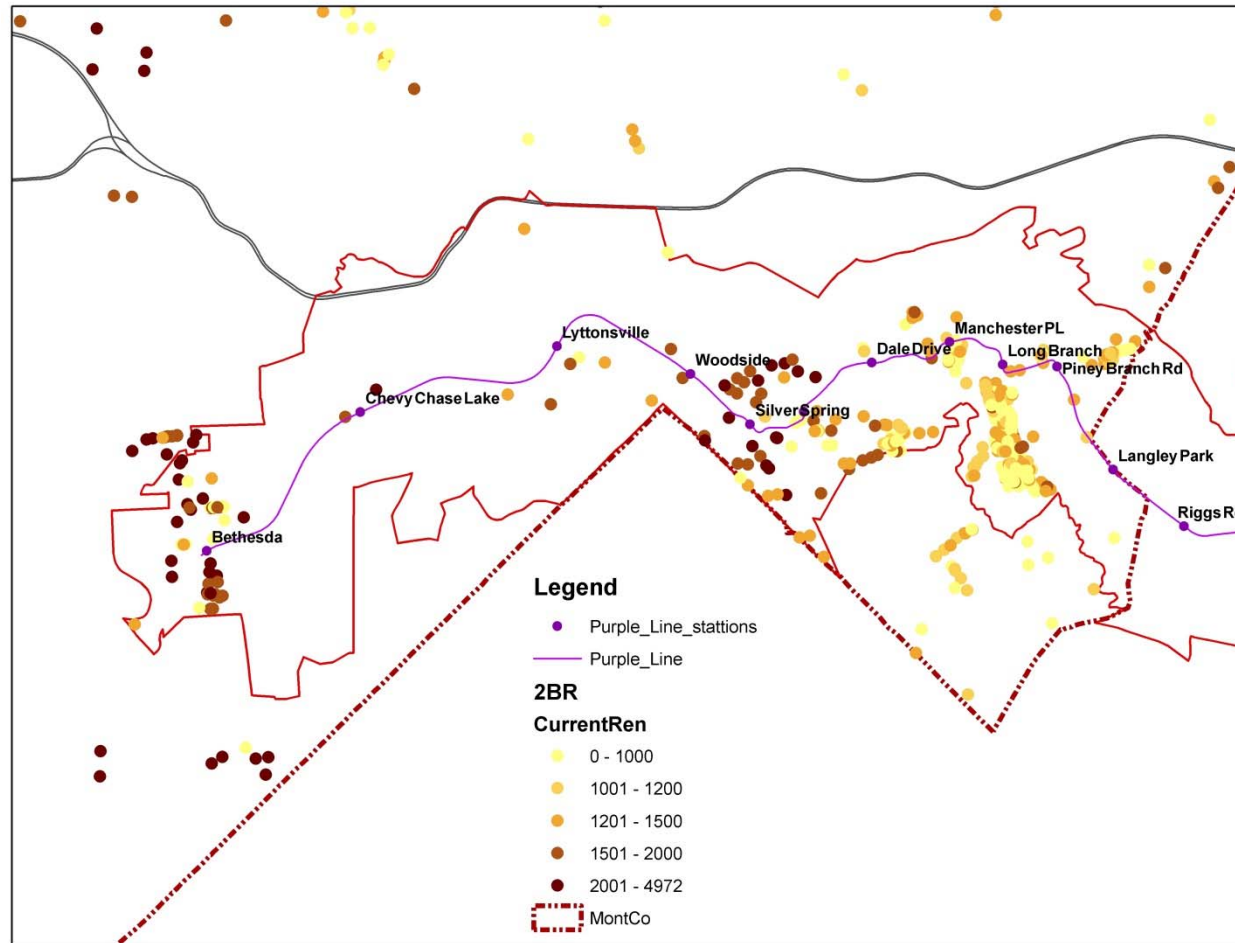
# Efficiency Apartment Average rent



# 1BR Apartment Average rent

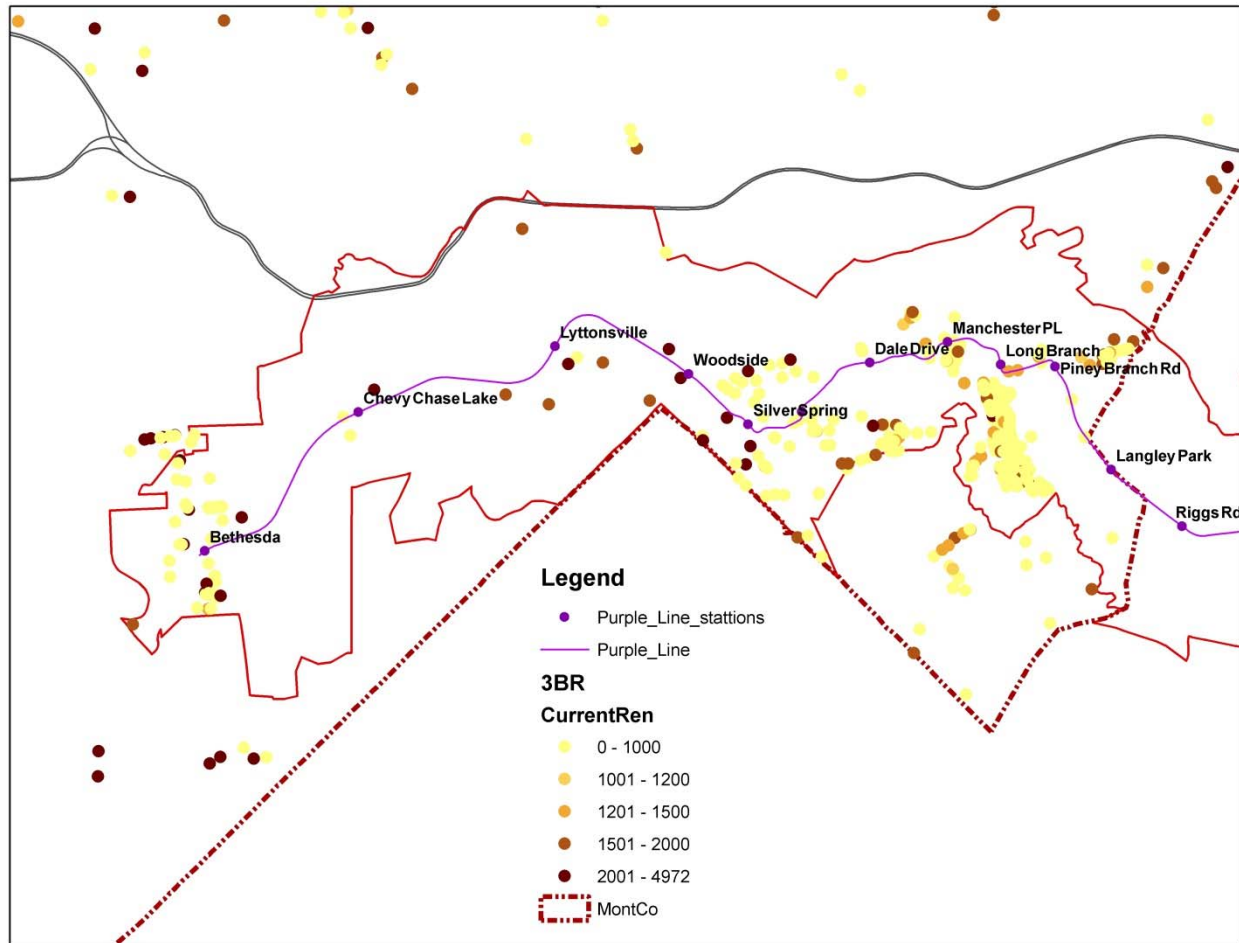


# 2BR Apartment Average rent

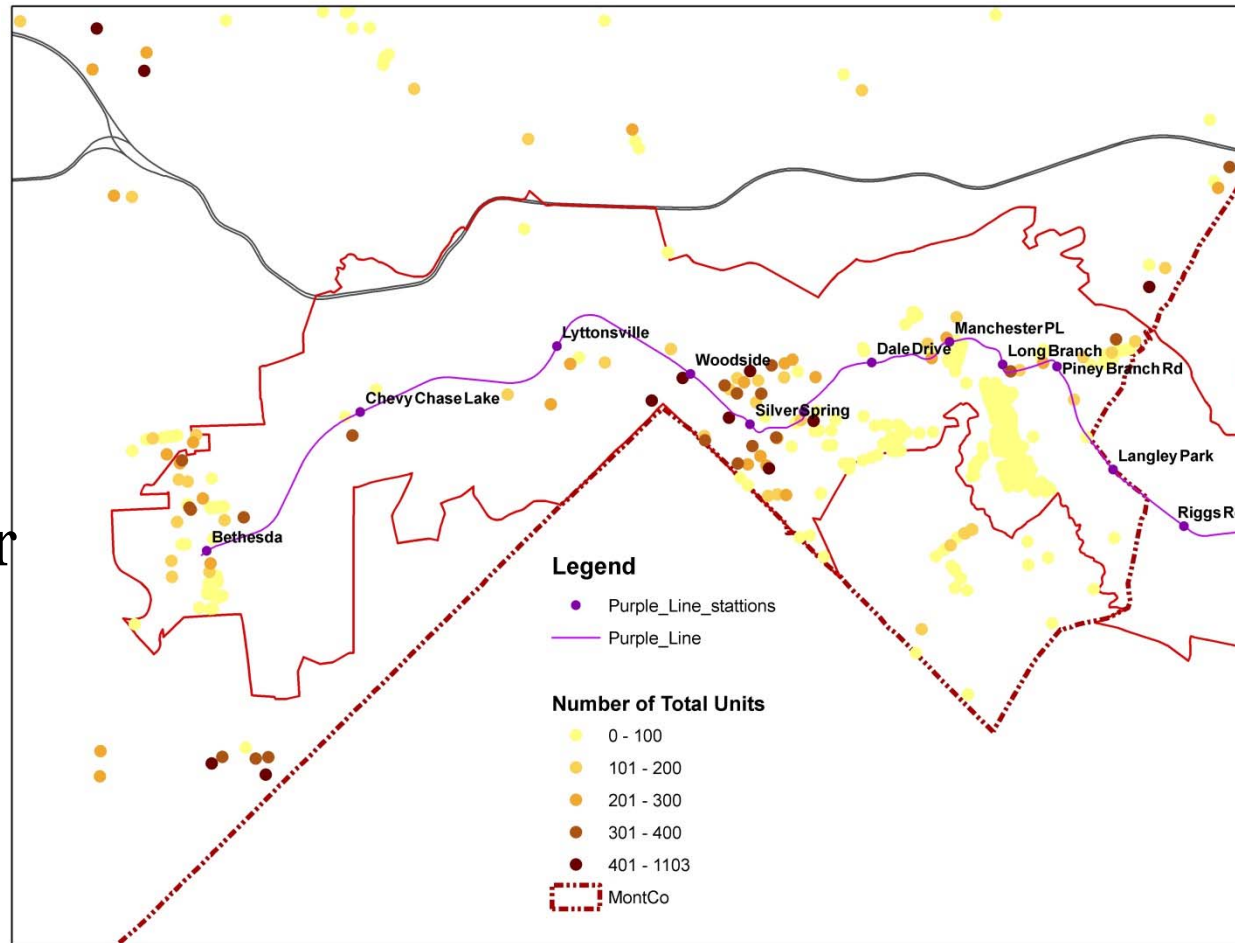




# 3BR Apartment Average rent



# Total Number of units per building



# Concluding Comments



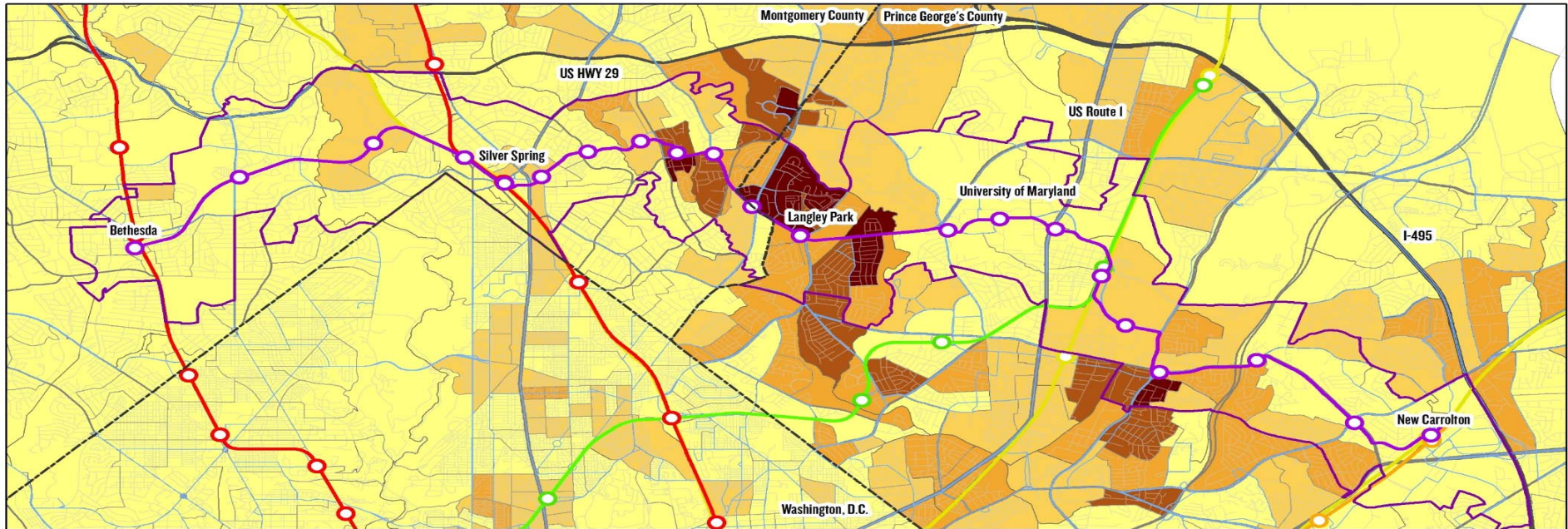
- The Purple Line corridor presents a number of difficult community development challenges;
- The corridor is an economic powerhouse, but demographically diverse, segregated, with many vulnerable businesses and communities;
- A collective commitment has been forged, however, among a large number of stakeholders to building a vibrant, equitable and sustainable corridor;
- And we can't wait to get started.



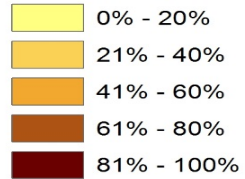
## Many Thanks to:

- Deon Castro
- Chao Lui
- Ting Ma
- Jae Sik Jeon
- Qiong Peng
- And other graduate students at the National Center for Smart Growth

# Percentage of Hispanic Population



## Percentage of Hispanic

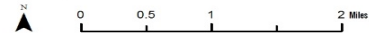


- CountyBoundaryLine
- CorridorBoundary
- Purple Line stations
- Purple Line
- Bus Routes

- Blue Line
- Green Line
- Orange Line
- Red Line
- Yellow Line
- MARC

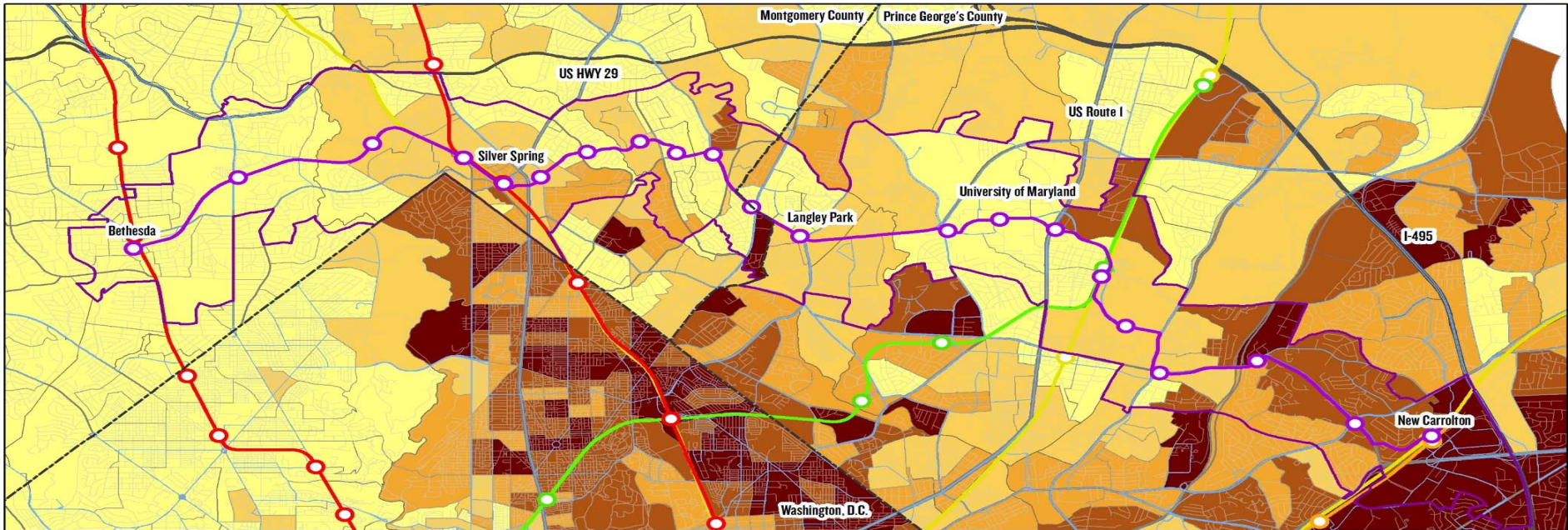
- Bethesda - Chevy Chase
- Silver Spring
- International Corridor
- University of Maryland
- Riverdale - New Carrollton

- Interstate Highway
- Major Arterials
- US Highway
- Streets
- Park

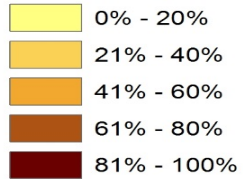


Data Source: American Community Survey, 2007-2011

# Percentage of African American Population



## Percentage of Black

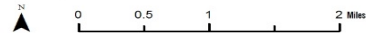


- CountyBoundaryLine
- CorridorBoundary
- Purple Line stations
- Purple Line
- Bus Routes

- Blue Line
- Green Line
- Orange Line
- Red Line
- Yellow Line
- MARC

- Bethesda - Chevy Chase
- Silver Spring
- International Corridor
- University of Maryland
- Riverdale - New Carrollton

- Interstate Highway
- Major Arterials
- US Highway
- Streets
- Park



Data Source: American Community Survey, 2007-2011

# Household Median Income



## Household Median Income

Lightest Yellow	\$6,791.00 - \$25,000.00
Light Orange	\$25,000.01 - \$50,000.00
Orange	\$50,000.01 - \$100,000.00
Dark Orange	\$100,000.01 - \$200,000.00
Dark Brown	\$200,000.01 - \$250,001.00

--- County Boundary Line
▭ Corridor Boundary
○ Purple Line stations
— Purple Line
— Bus Routes

— Blue Line
— Green Line
— Orange Line
— Red Line
— Yellow Line
— MARC

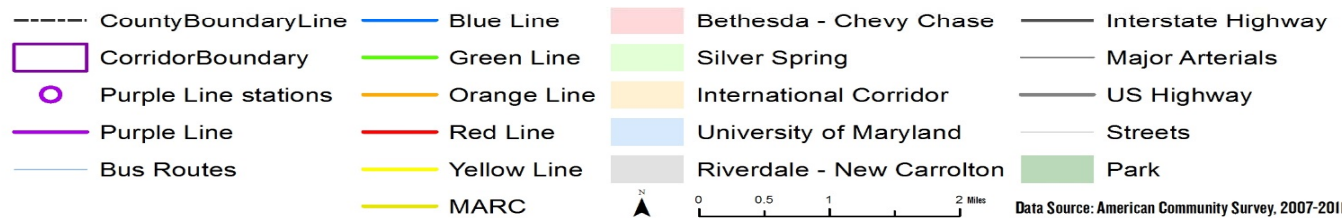
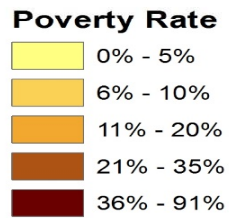
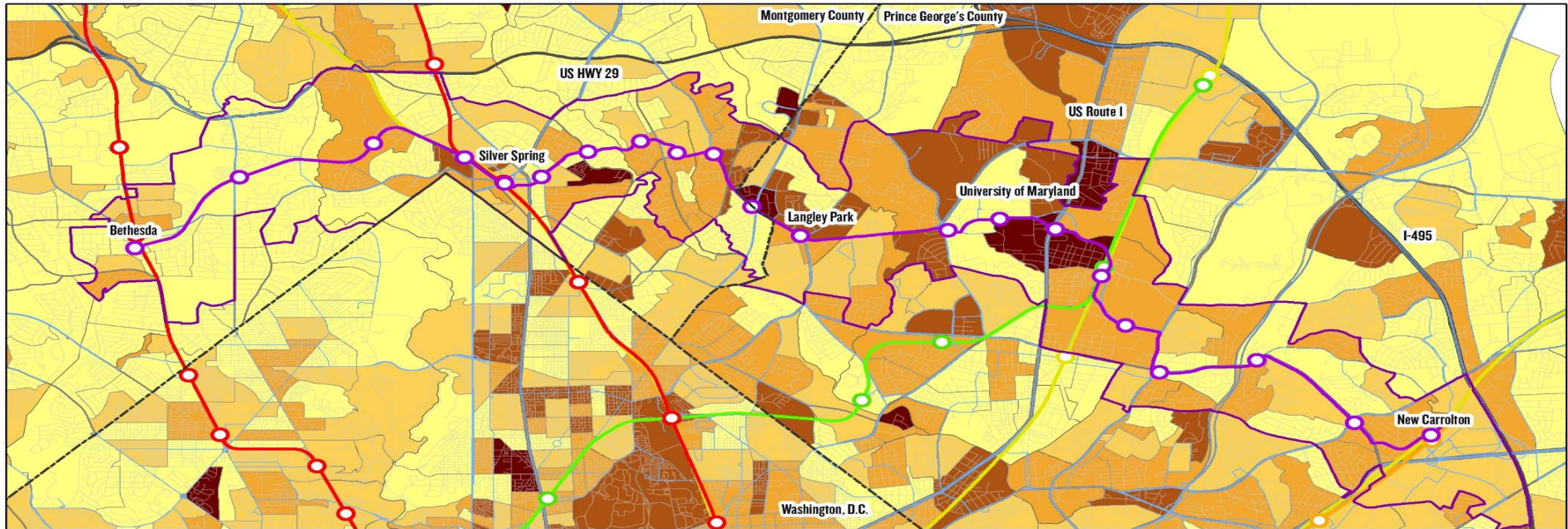
▭ Bethesda - Chevy Chase
▭ Silver Spring
▭ International Corridor
▭ University of Maryland
▭ Riverdale - New Carrollton

— Interstate Highway
— Major Arterials
— US Highway
— Streets
▭ Park



Data Source: American Community Survey, 2007-2011

# Poverty Rate



Data Source: American Community Survey, 2007-2011

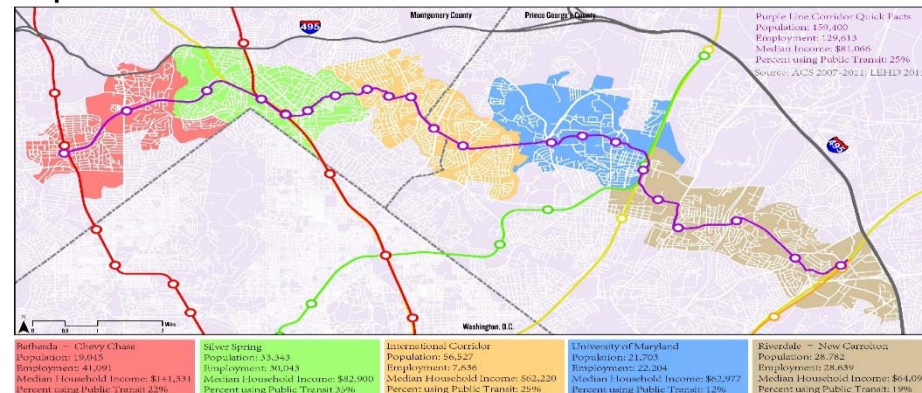


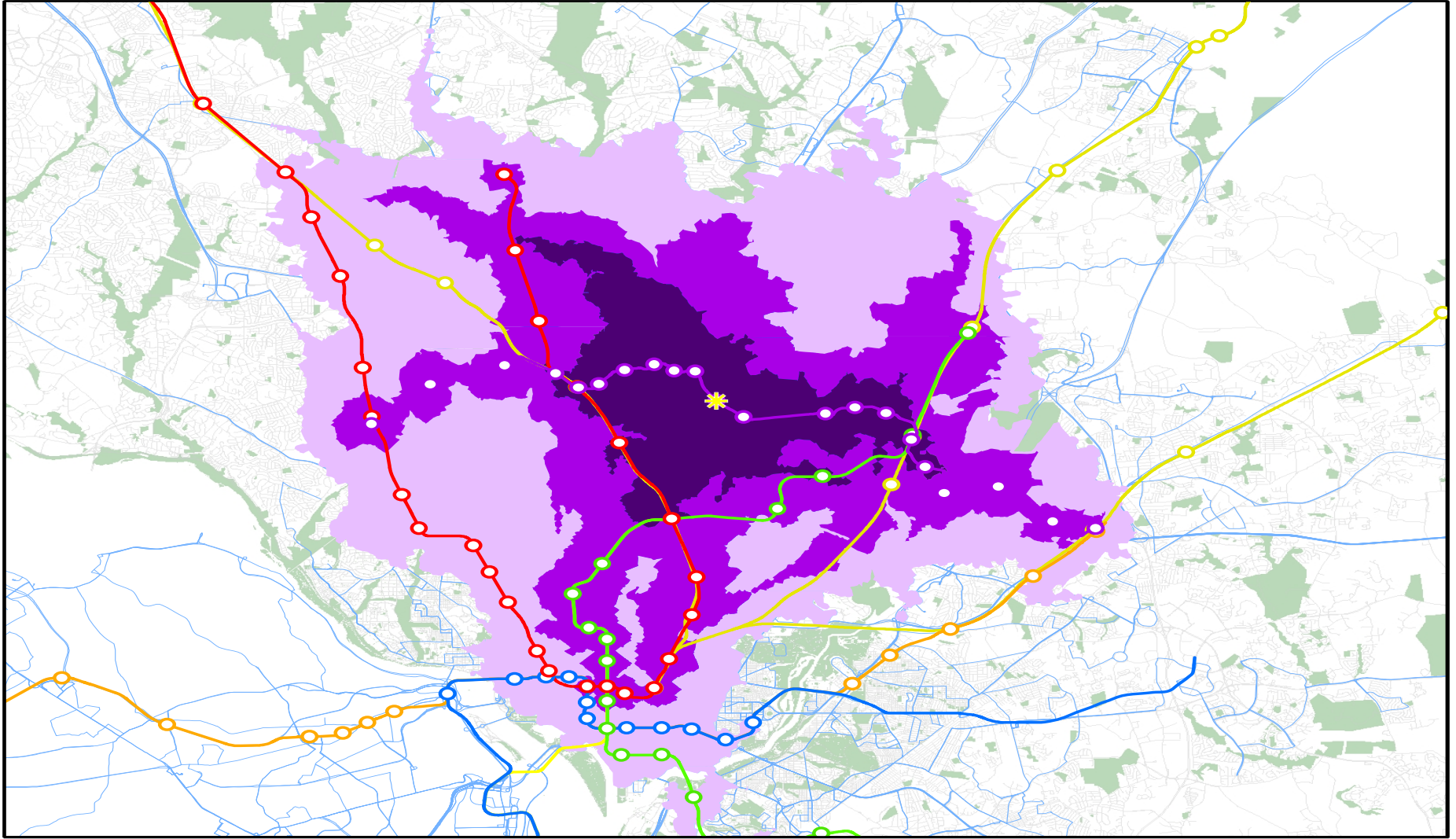


# The Purple Line: By the Numbers

- 16 miles, 21 stops, 61,000 average weekday trips
- \$2.37 billion construction, \$69.1 million operating cost
- 150,000 people
- 130,000 jobs
- 2 counties
- 1<sup>st</sup> light rail Line in the region

Purple Line Transit Corridor Subareas







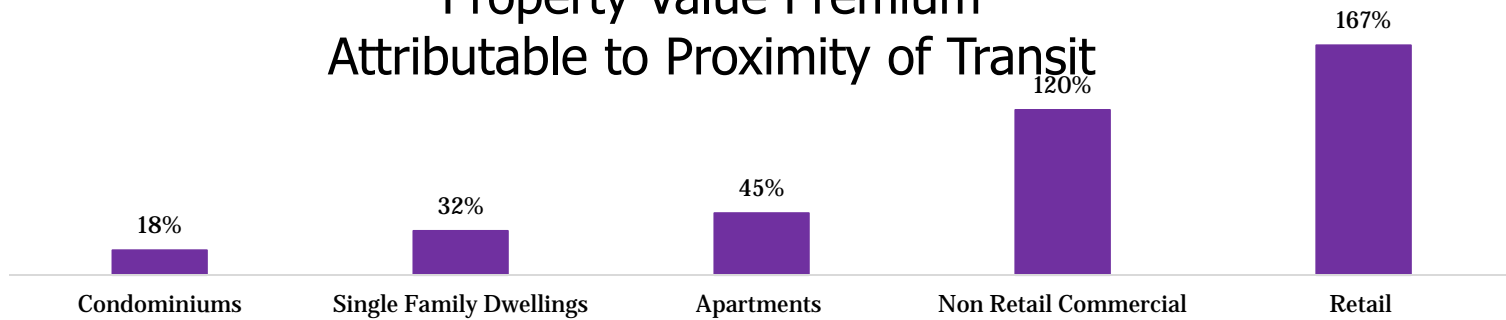
# A Single Line; A Diverse Corridor

	2000	2006-2010	2010-2014
<b>Population</b>			
Total	133,322	155,838	167,318
% White	42%	47%	48%
% Hispanic	24%	30%	33%
Median Household Income	\$53,281	\$72,804	\$79,608
Poverty Rate	9.0%	11.2%	12.2%
<b>Housing</b>			
Total	52,803	58,286	60,188
% Owner-Occupied	41%	42%	40%
% Renter-Occupied	59%	58%	60%
Vacancy Rate	3.6%	7.3%	6.1%
Median Value	\$198,623	\$467,603	\$436,814
Median Rent	\$789	\$1,199	\$1,356
<b>Employment</b>			
Labor Force	72,688	95,720	99,286
Unemployment Rate	5.2%	8.8%	8.2%

- The PLC have shown the growth of population, income, housing, and labor force.
- Both % White and % Hispanic have increased.
- Poverty rate has consistently increased.
- Median value and median rent in 2014 are twice as high as that in 2000.
- Both vacancy rate and unemployment rate reached a peak in 2010 and showed a slight decrease in the following.



### Property Value Premium Attributable to Proximity of Transit



Source: CTOD, 2008

# Market Rate Housing at Risk

Market Rate and Subsidized Housing Rent for Two Bedroom Units

