



WILMAPCO

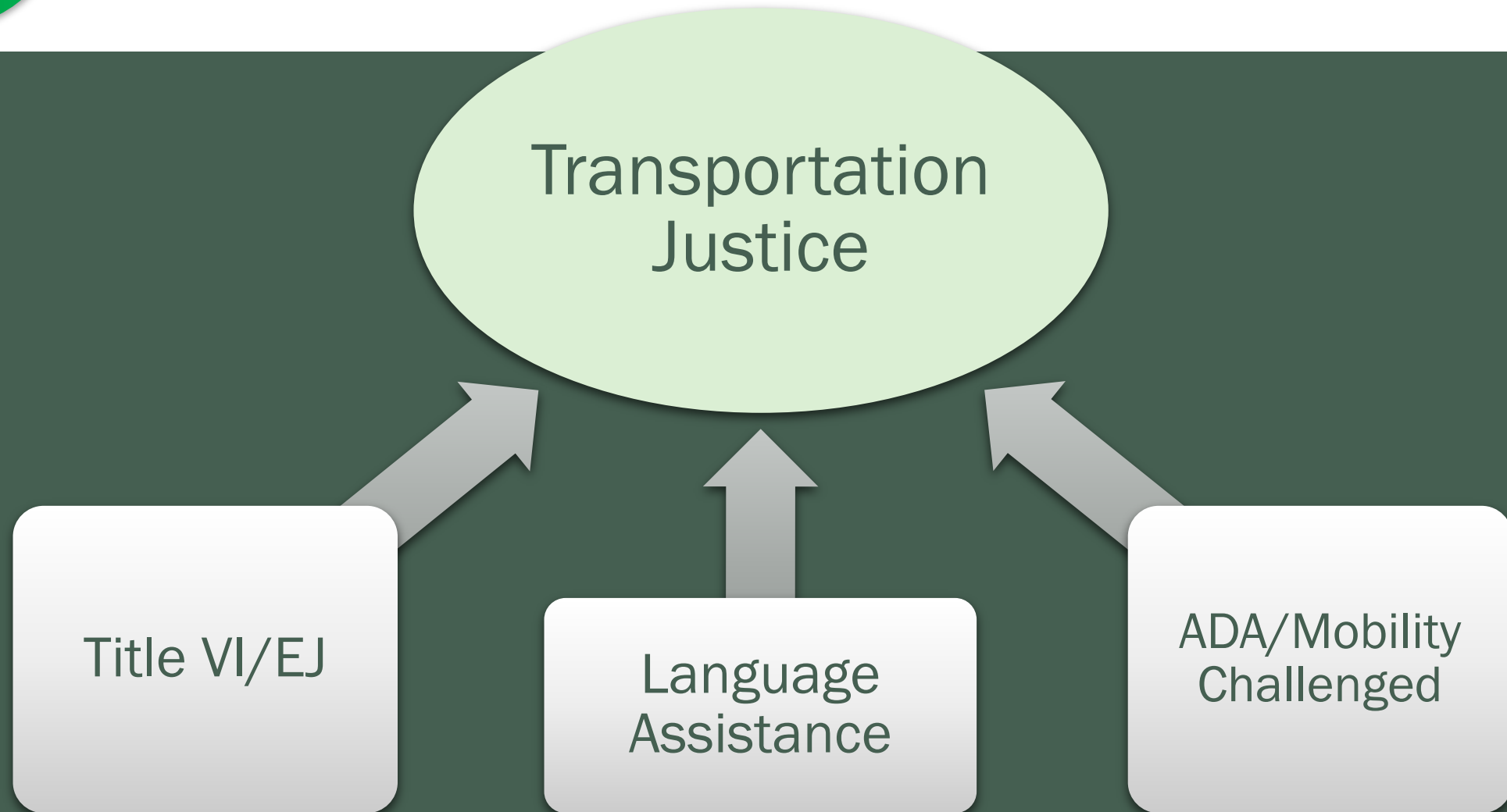
2019 Transportation Justice & Title VI Report

*Analysis Update
& Findings*

TJ Working Group
June 2019



Putting it all together





Title VI and Environmental Justice Analysis

Low-income and racial/ethnic minorities

- Introduction
- Basic reporting requirements
- Demographic profile
- Public opinion survey
- Spatial analysis
- Public outreach
- Key recommendations





Mobility Challenged Analysis

Seniors, disabled, and zero-car households

- Introduction
- ADA self evaluation
- Demographic profile
- Spatial analysis
- Key recommendations





Language Assistance Plan

Limited English proficiency/low literacy

- Introduction
- Demographic Profile
- Spatial analysis
- Public outreach
- Key recommendations





Title VI/EJ: Spatial Analysis



EJ Areas

- Concentrations of low-income and minority populations
- Used in WILMAPCO project prioritization processes
 - Points for projects given, or taken
- Historically, other spatial analyses





EJ Area Definitions

2012-2016 American Community Survey

- Census block group level analysis
- ID **heaviest concentrations** of EJ groups

Affordable housing data and elementary school demographic data to ID other areas





EJ Area Definitions

MODERATE – 5 paths

1. Poverty greater than the regional average, and
 - NH Blacks 3x the regional average, or
 - Hispanics 3x the regional average, or
 - NH Asians 3x the regional average
2. Racial/ethnic minorities 2x the regional average
3. Poverty 2x the regional average
4. Within elementary school feeder zone with the above demographic conditions (1, 2, or 3)
5. Affordable housing development w/25 -99 units

SIGNIFICANT - 5 paths

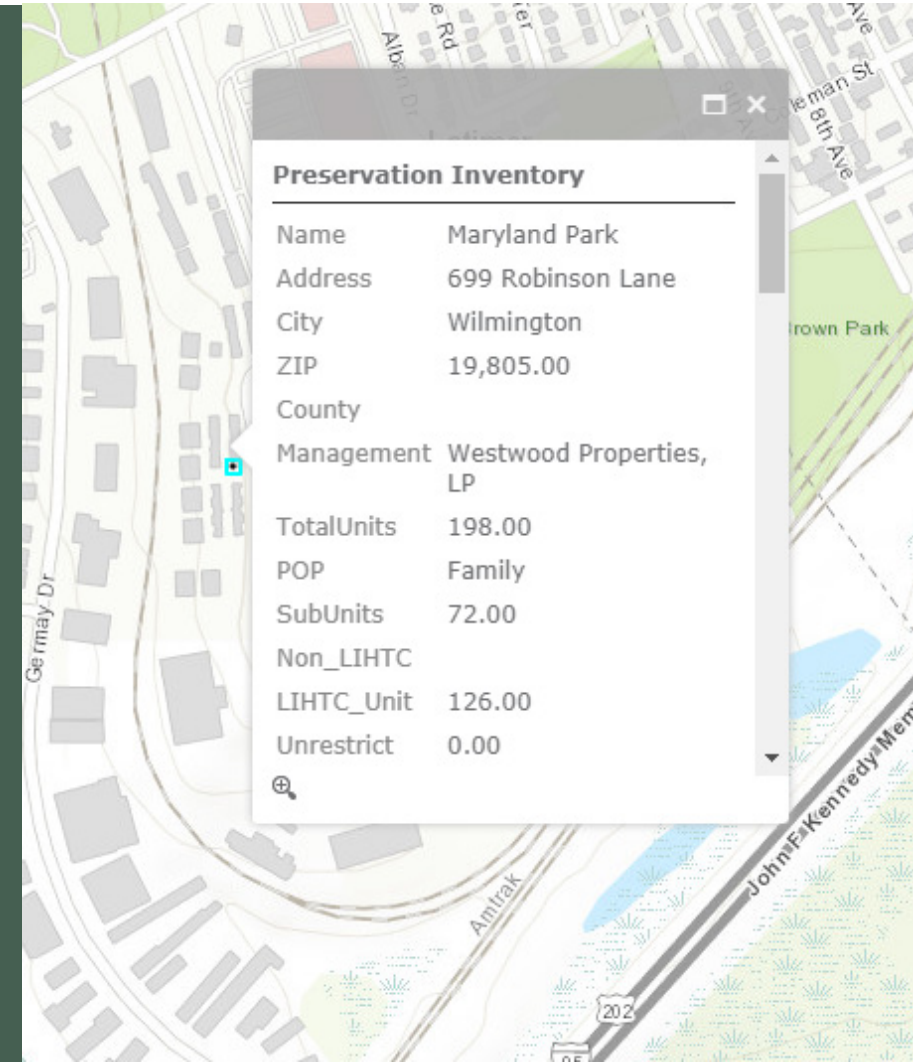
1. Poverty 2x greater than the regional average, and
 - NH Blacks 3x the regional average, or
 - Hispanics 3x the regional average, or
 - NH Asians 3x the regional average
2. Racial/ethnic minorities 90% or more the block group's population
3. Poverty 3x the regional average
4. Within elementary school feeder zone with the above demographic conditions (1, 2, or 3)
5. Affordable housing development w/> 99 units



METHOD – Affordable Housing Data

Delaware's 2016 Preservation Inventory (DSHA)

- Point file to parcels
- Total affordable units = Sum of “Subunits,” “Non-LIHTC_Income Restricted” and “IncRestricted (tax credits)”





METHOD - Affordable Housing Data

Maryland Housing Search

www.socialserve.com


- Built upon old subsidized property file
- IDed accepted rental voucher or income based rent developments
- Created parcel file
- Populated units from development websites or analysis of external housing unit files/air photos

Housing Search: Cecil, MD

[Choose a different area](#)

Basic

Advanced

 Accessible

General Search Information

Do you have a Housing Choice Voucher or other rental assistance? [\[?\]](#) ☐ Yes

Bedroom[s]

Bath

Rent range to a month

Optional Filters

Wait Listed Properties ☒ Display ☐ Hide

Senior/Disability Housing

ZIP Code[s]
[List relevant ZIP codes](#)

Public Transit

Smoking Policy [\[?\]](#)

Landlord Speaks

Show me Properties per Page

CLICK HERE TO SEARCH

EJ NEIGHBORHOODS*

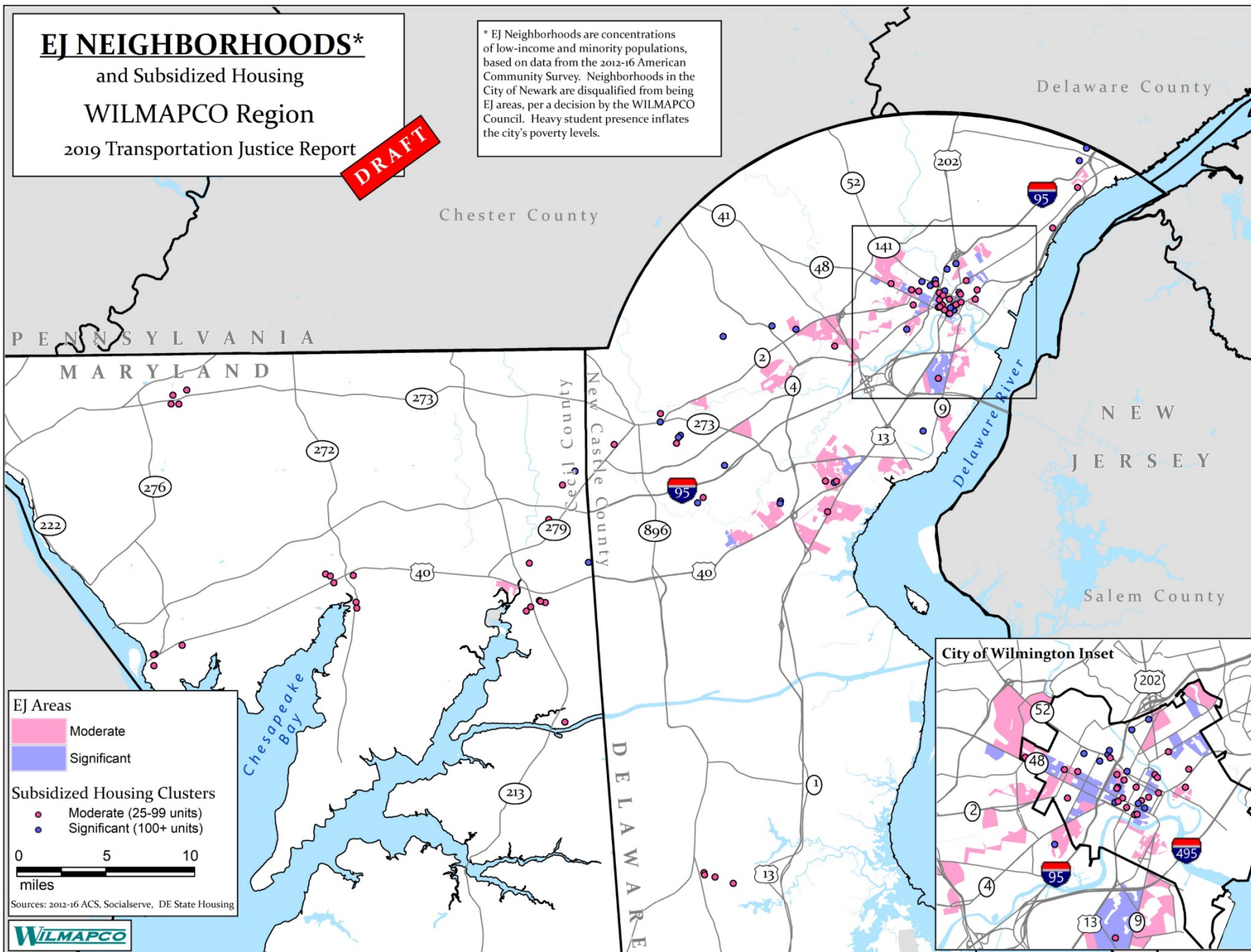
and Subsidized Housing

WILMAPCO Region

2019 Transportation Justice Report

DRAFT

* EJ Neighborhoods are concentrations of low-income and minority populations, based on data from the 2012-16 American Community Survey. Neighborhoods in the City of Newark are disqualified from being EJ areas, per a decision by the WILMAPCO Council. Heavy student presence inflates the city's poverty levels.



MODERATE EJ AREA

Census defined or
Affordable developments
w/25 – 99 units

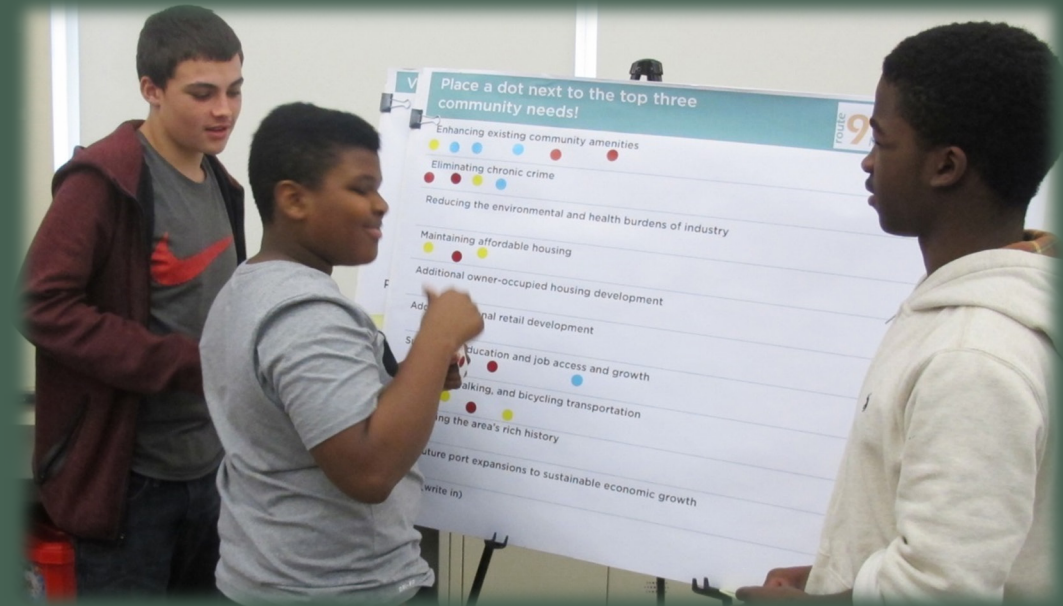
SIGNIFICANT EJ AREA

Census defined or
Affordable developments
w/ >99 units



School Demographic Data

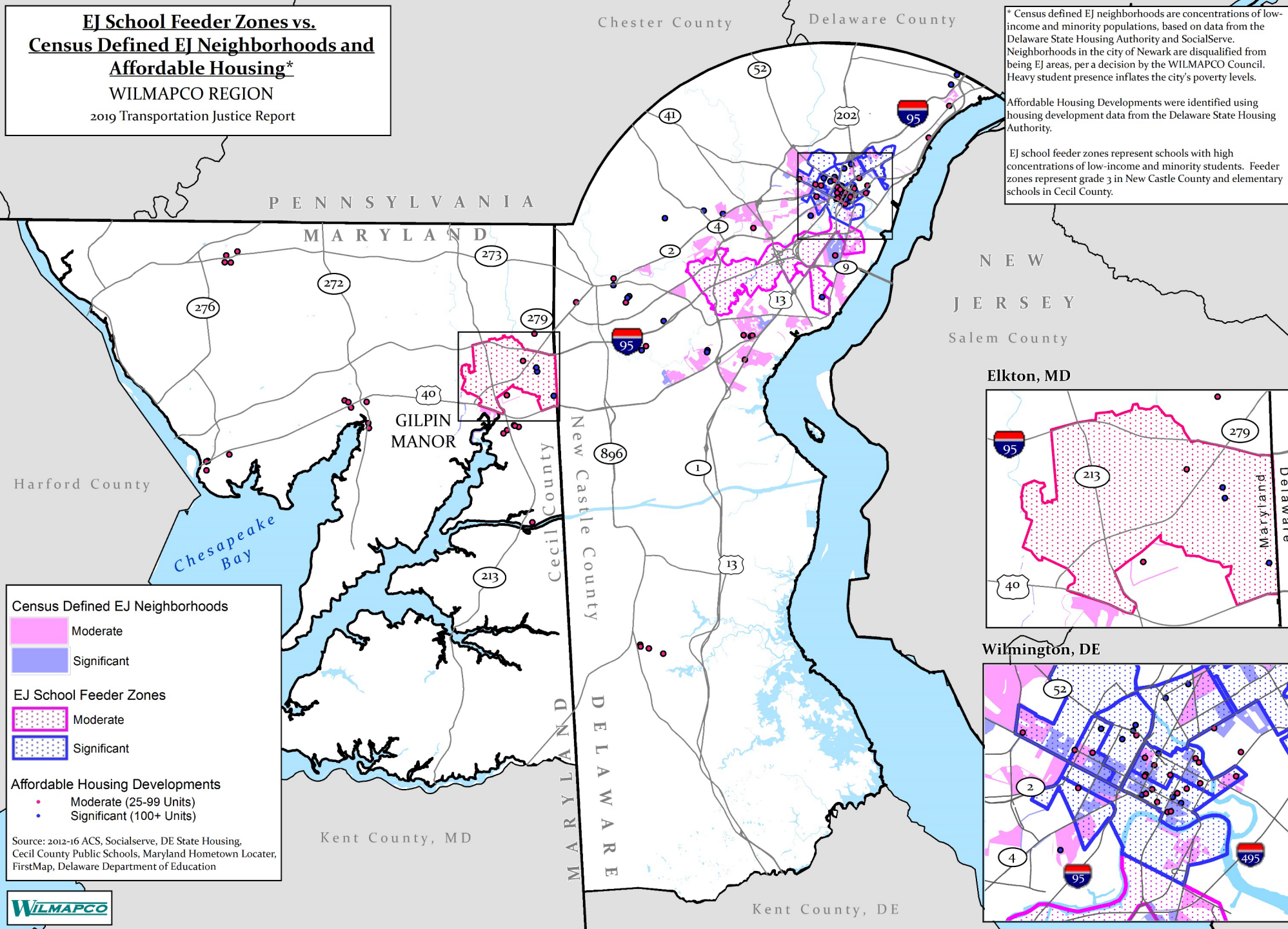
- Race/ethnicity and income
- Grade 3 school feeder zones vs. IDed EJ areas
- Flag feeder zones w/high minority or low-income NOT covered by IDed EJ areas
- Consider these zones for EJ classification



EJ School Feeder Zones vs. Census Defined EJ Neighborhoods and Affordable Housing*

WILMAPCO REGION

2019 Transportation Justice Report

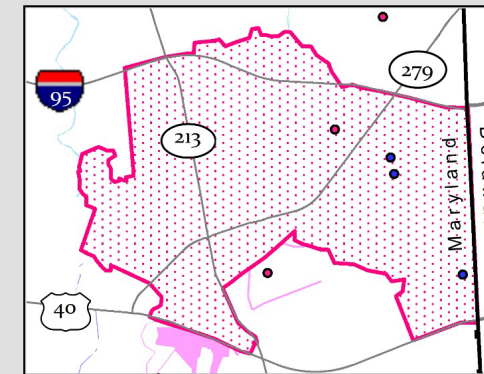


* Census defined EJ neighborhoods are concentrations of low-income and minority populations, based on data from the Delaware State Housing Authority and SocialServe. Neighborhoods in the city of Newark are disqualified from being EJ areas, per a decision by the WILMAPCO Council. Heavy student presence inflates the city's poverty levels.

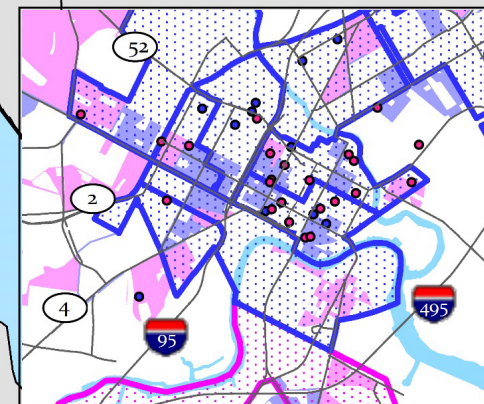
Affordable Housing Developments were identified using housing development data from the Delaware State Housing Authority.

EJ school feeder zones represent schools with high concentrations of low-income and minority students. Feeder zones represent grade 3 in New Castle County and elementary schools in Cecil County.

Elkton, MD



Wilmington, DE

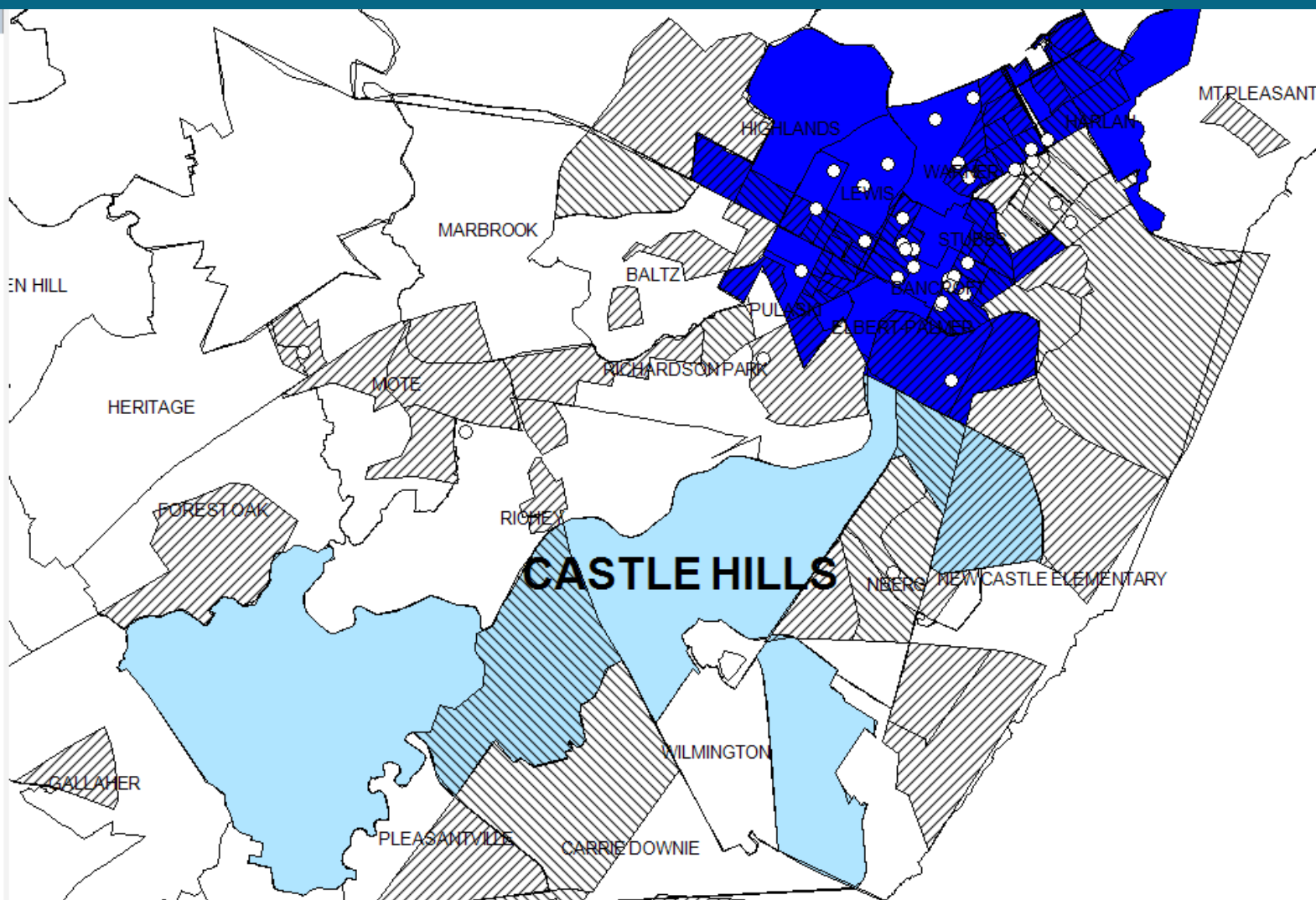


Layer Control



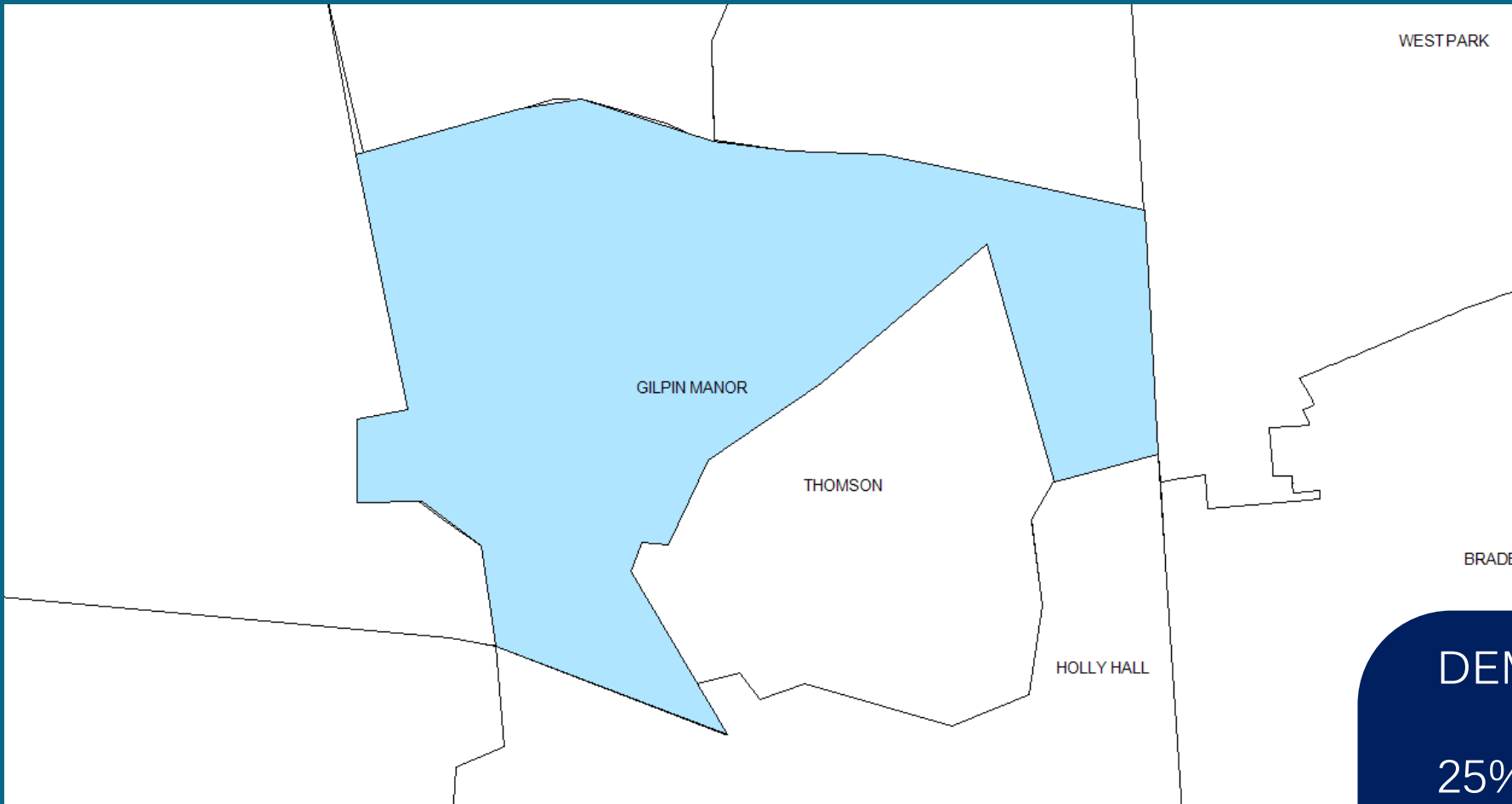
Subsidized_Housing_points,Grade3_feederPatterns_FINALv2 Map

- ☒ Cosmetic Layer
- ☒ Subsidized_Housing_points
- ☒ Significant_EJ_Areas
- ☒ Moderate_EJ_Areas
- ☒ Ind. Value with EJ_Designation
- ☒ Grade3_feederPatterns_FINALv2



Step 1

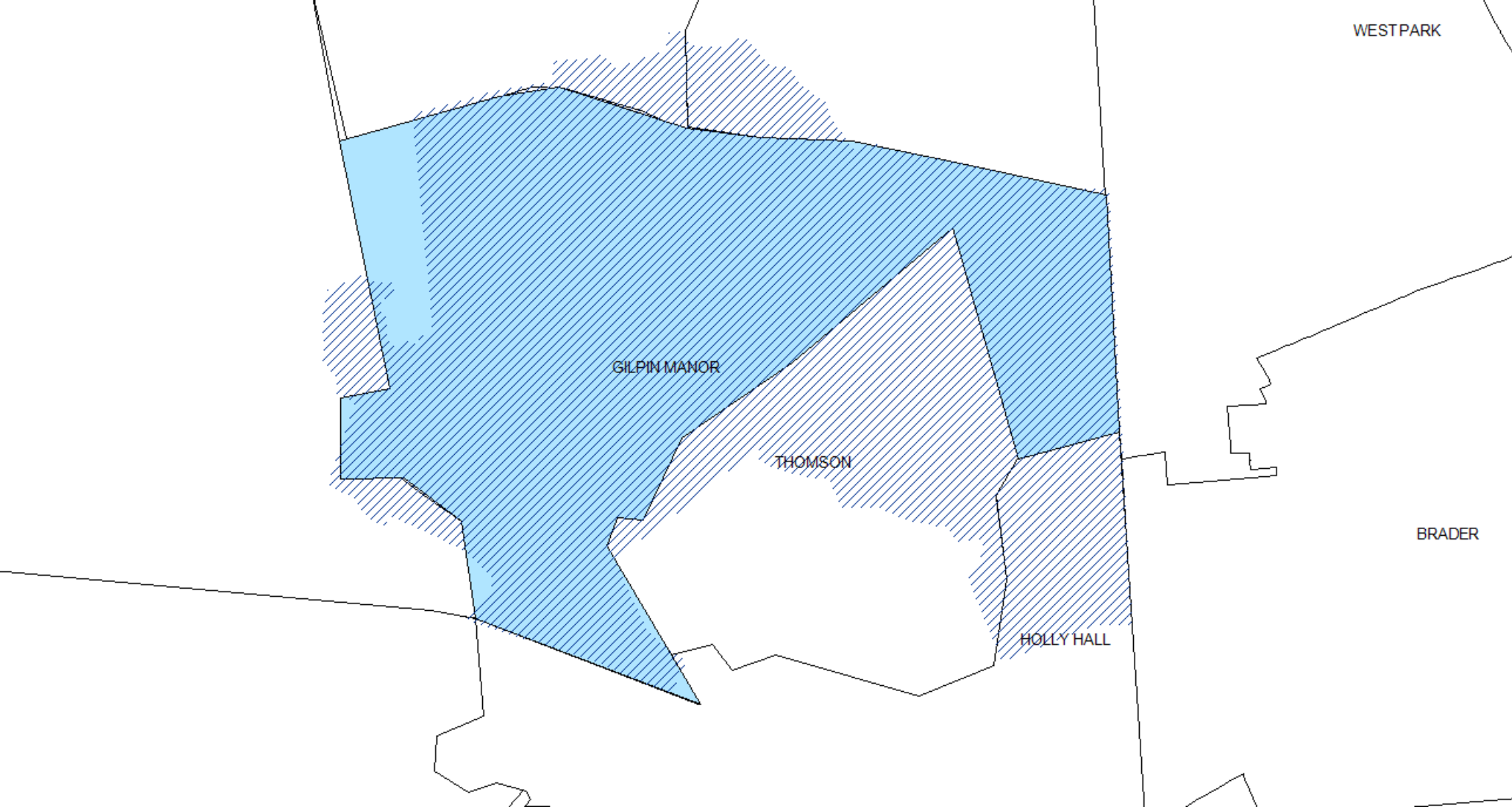
Gilpin Manor EJ Area ID



DEMOGRAPHICS

25% Black
6% Hispanic
1% Asian
21% 2 or more races

81% Free/reduced lunch



Refined Gilpin Manor's Feeder Boundaries
www.maryland.hometownlocator.com

Step 2
Gilpin Manor EJ Area ID

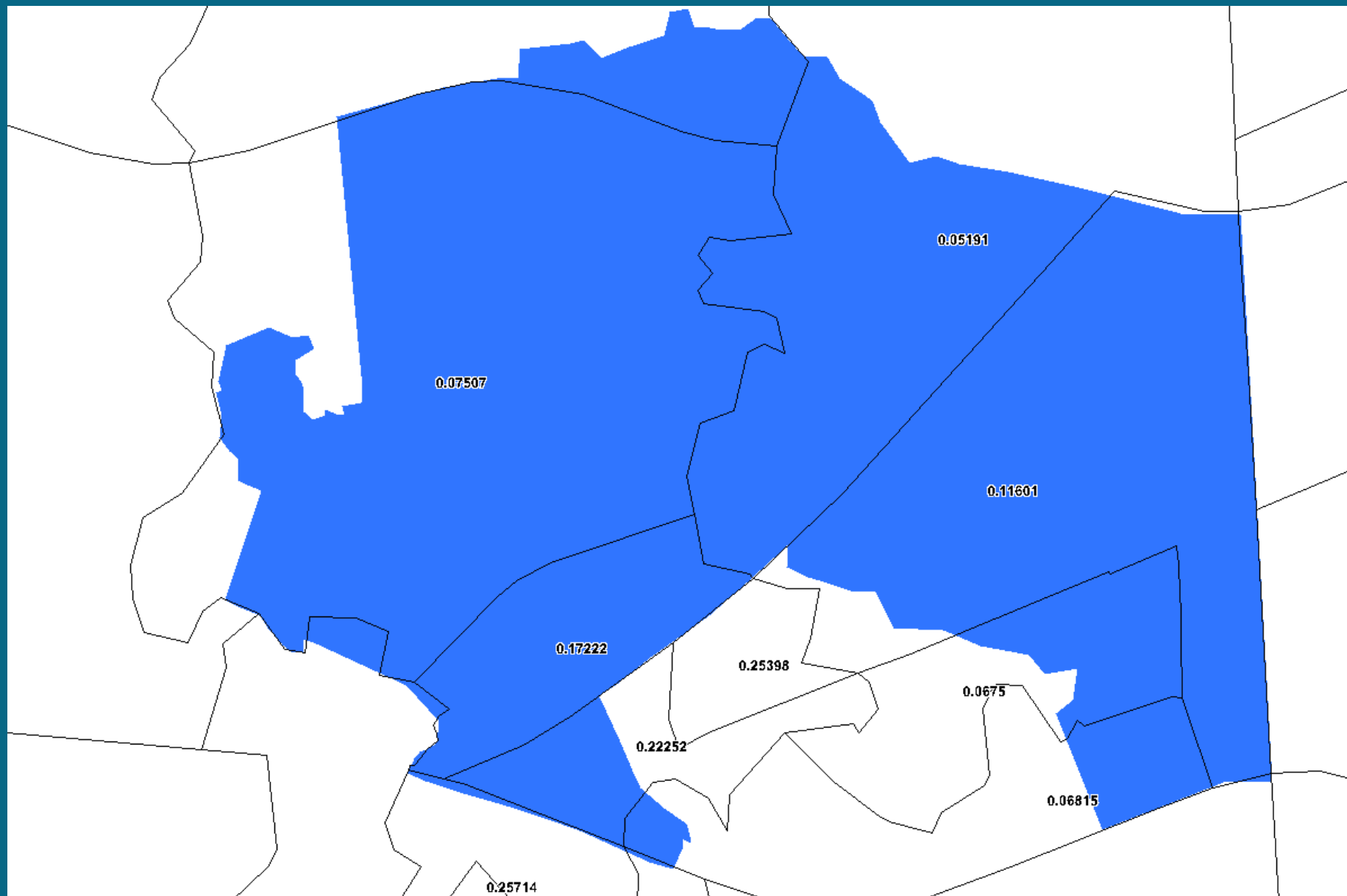
Step 3

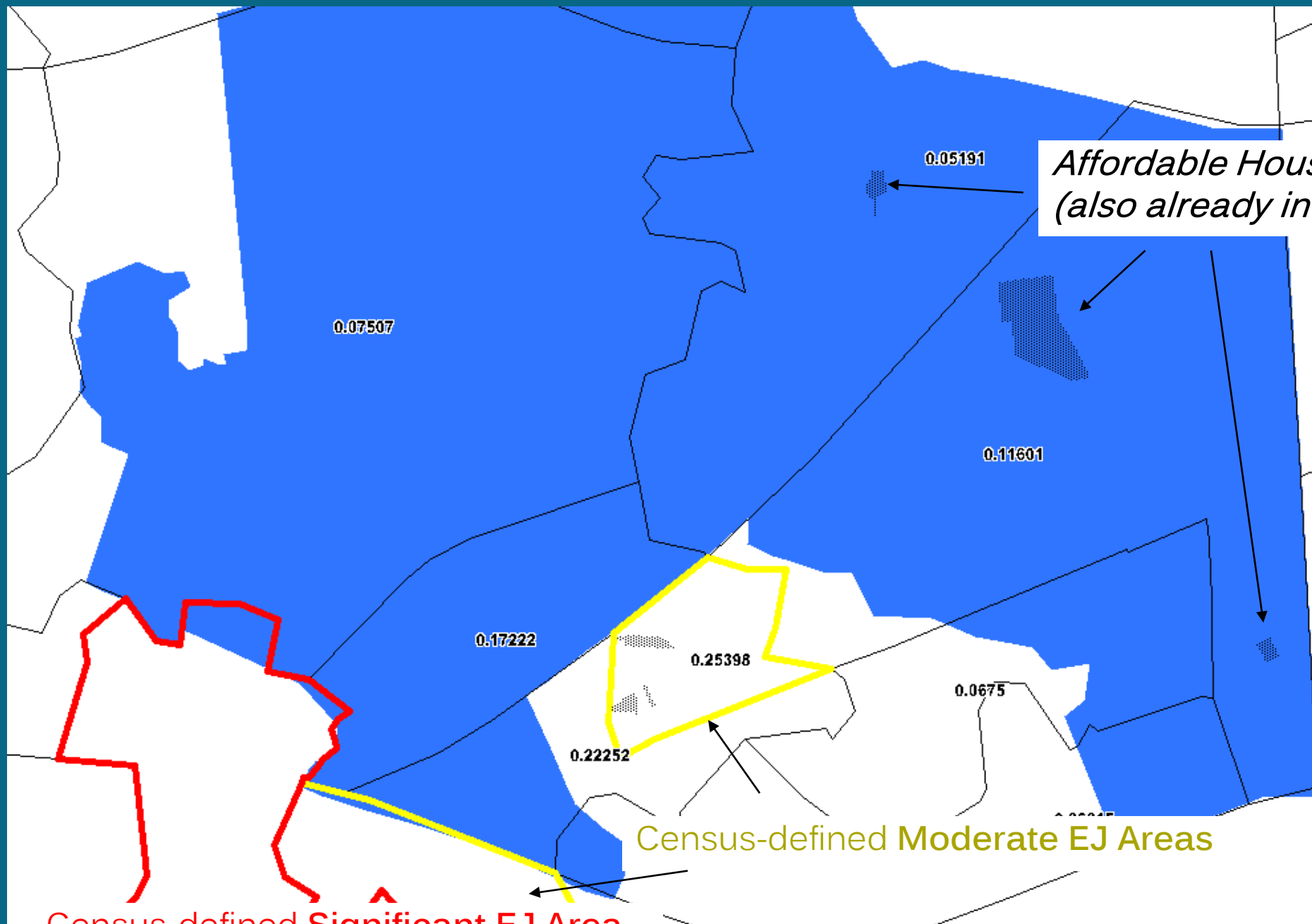
Gilpin Manor EJ Area ID

Gilpin Manor
Feeder Zone

vs.

Census Block
Group Poverty





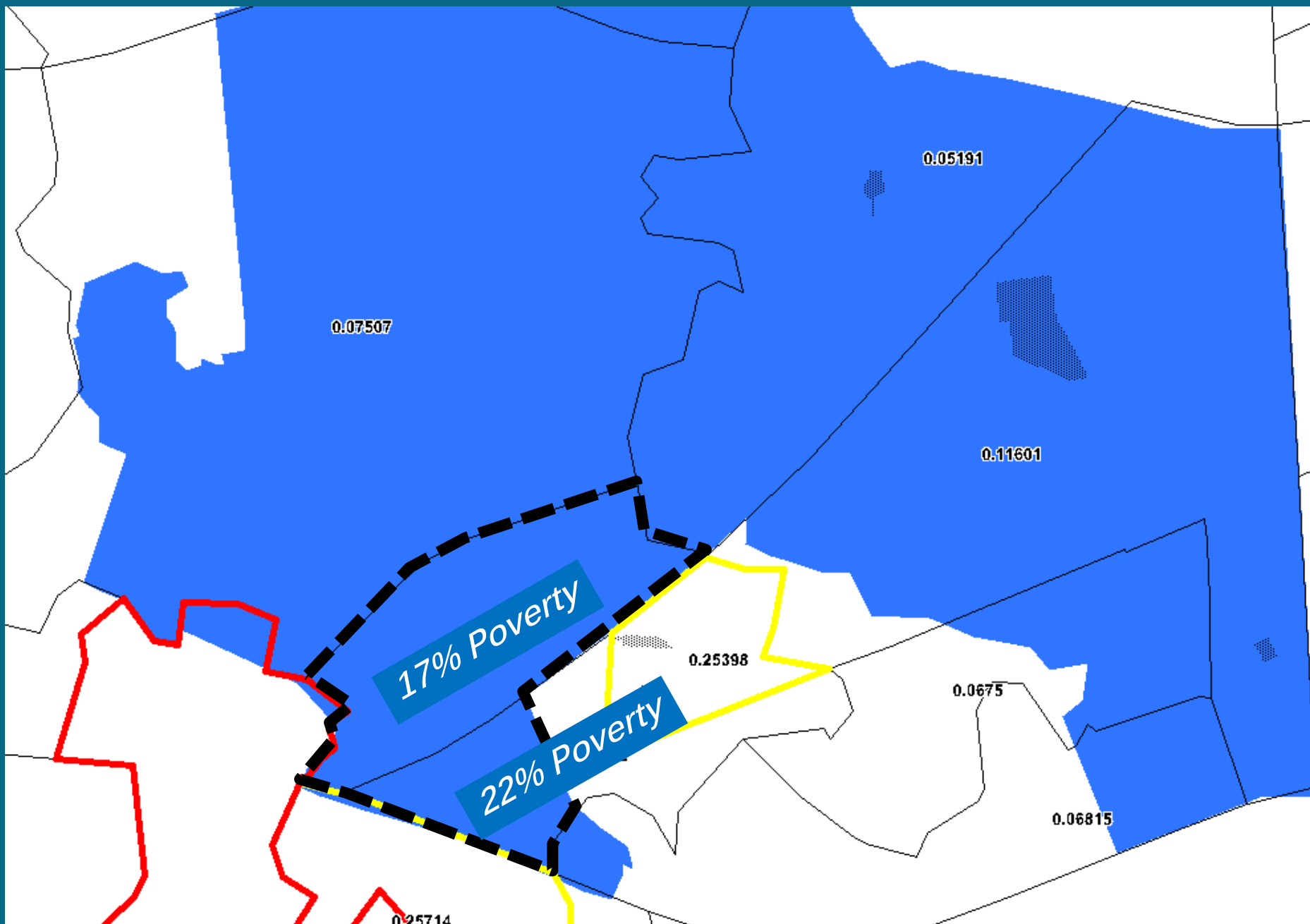
*Affordable Housing Developments
(also already in EJ analysis)*

Census-defined Significant EJ Area

Census-defined Moderate EJ Areas

Step 4

Gilpin Manor EJ Area ID



Step 4
Gilpin Manor EJ Area ID

Step 4

Gilpin Manor EJ Area ID

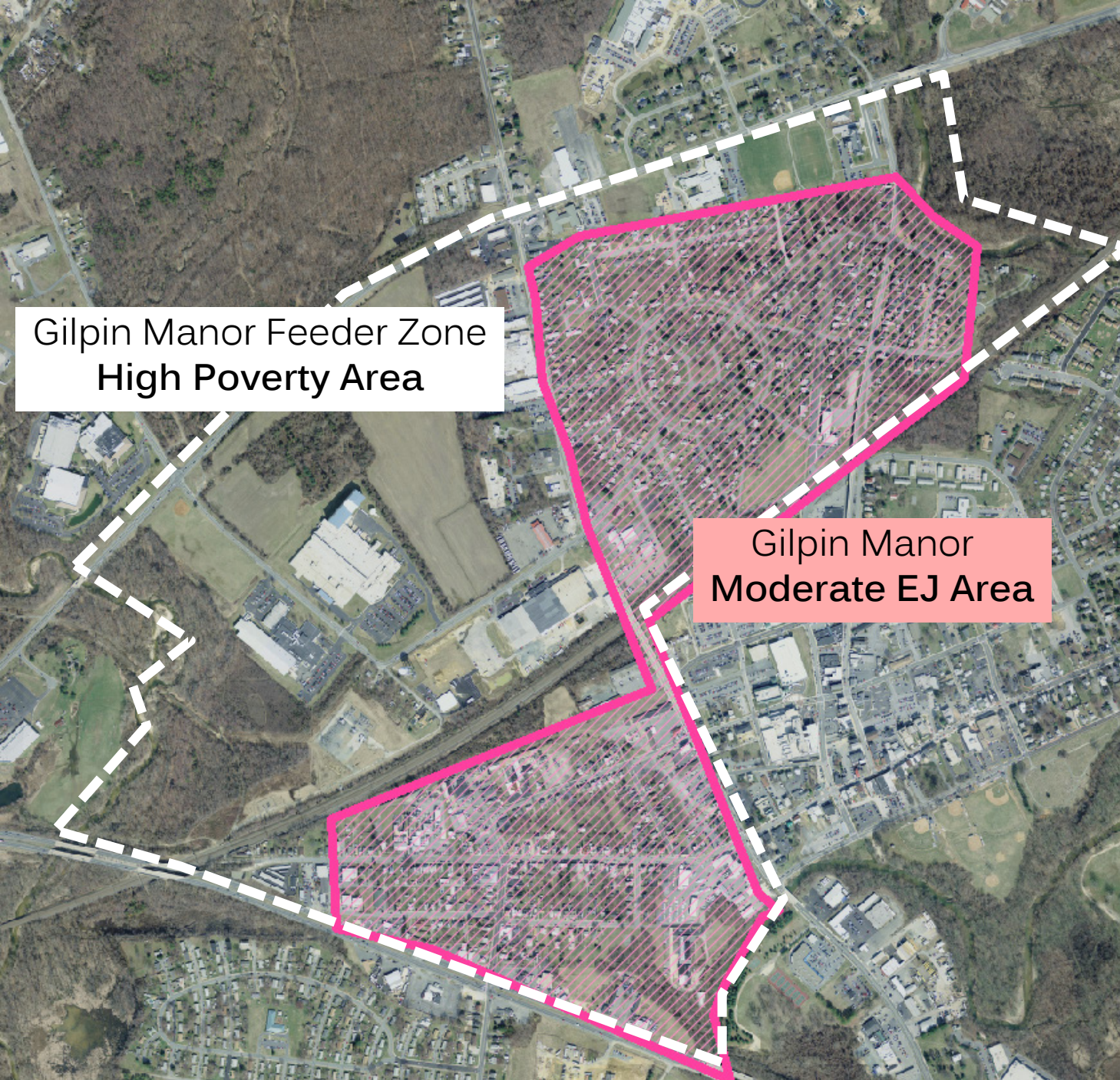
Gilpin Manor Feeder Zone
High Poverty Area

Delineated
high poverty area
within the feeder zone



Step 5

Gilpin Manor EJ Area ID



Gilpin Manor Feeder Zone
High Poverty Area

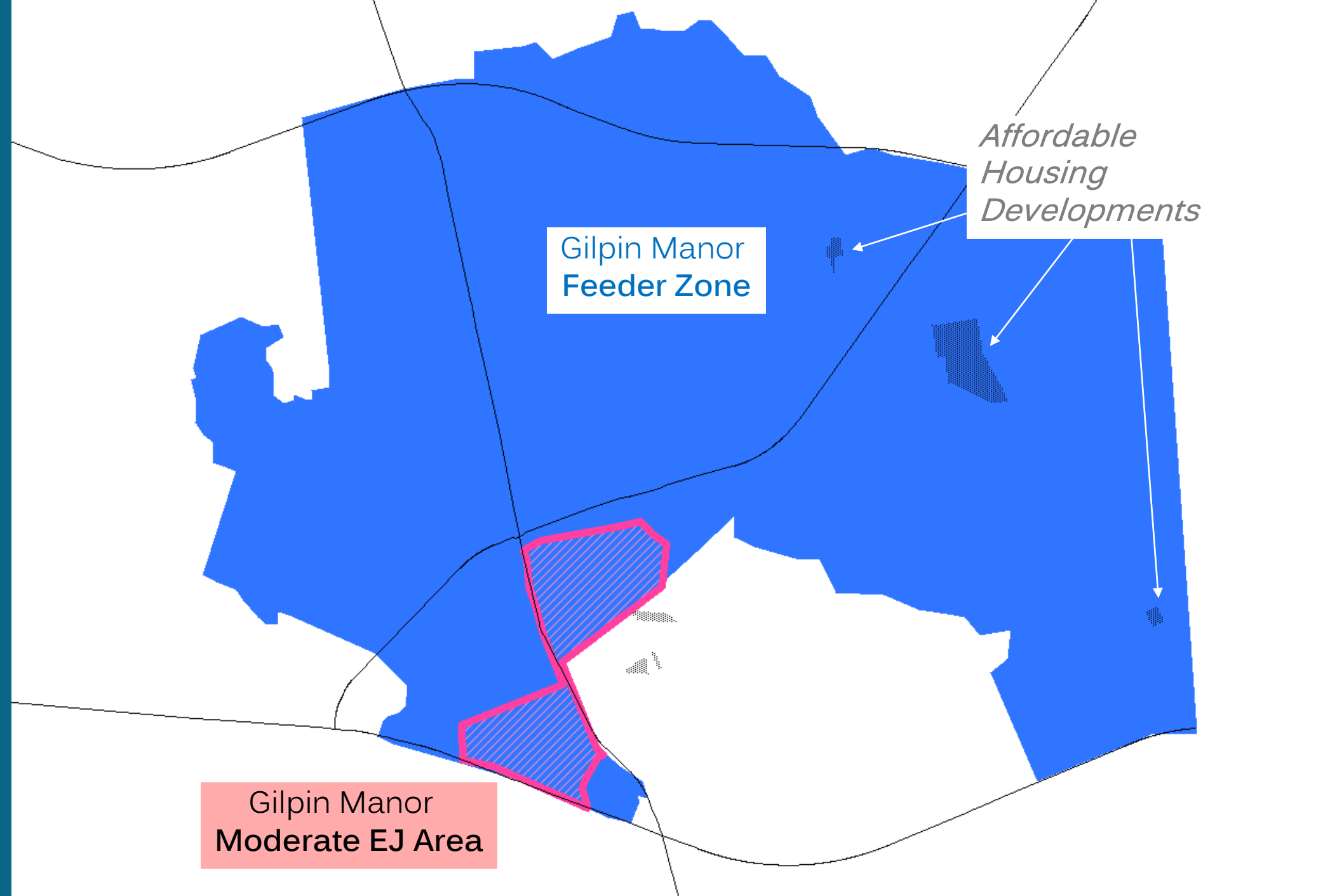
Gilpin Manor
Moderate EJ Area

Trimmed non-residential
away from the high
poverty area to form a
new moderate EJ area

Gilpin Manor
Moderate EJ Area

Gilpin Manor
Feeder Zone

Affordable
Housing
Developments

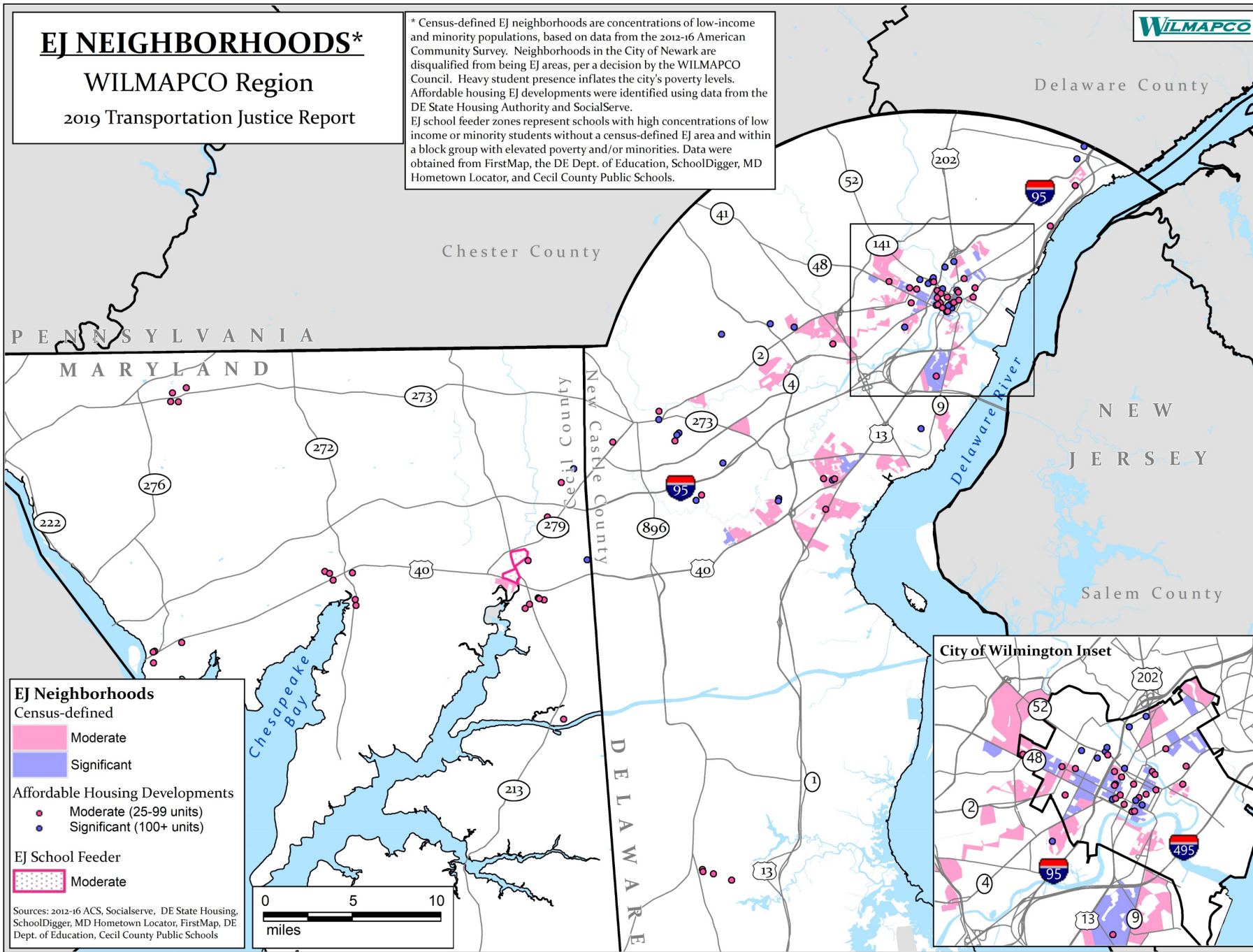


EJ NEIGHBORHOODS*

WILMAPCO Region

2019 Transportation Justice Report

* Census-defined EJ neighborhoods are concentrations of low-income and minority populations, based on data from the 2012-16 American Community Survey. Neighborhoods in the City of Newark are disqualified from being EJ areas, per a decision by the WILMAPCO Council. Heavy student presence inflates the city's poverty levels. Affordable housing EJ developments were identified using data from the DE State Housing Authority and SocialServe. EJ school feeder zones represent schools with high concentrations of low income or minority students without a census-defined EJ area and within a block group with elevated poverty and/or minorities. Data were obtained from FirstMap, the DE Dept. of Education, SchoolDigger, MD Hometown Locator, and Cecil County Public Schools.



EJ Neighborhoods
Census-defined

Moderate
 Significant

Affordable Housing Developments

Moderate (25-99 units)
 Significant (100+ units)

EJ School Feeder

Moderate

Sources: 2012-16 ACS, Socialserve, DE State Housing, SchoolDigger, MD Hometown Locator, FirstMap, DE Dept. of Education, Cecil County Public Schools













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10

miles

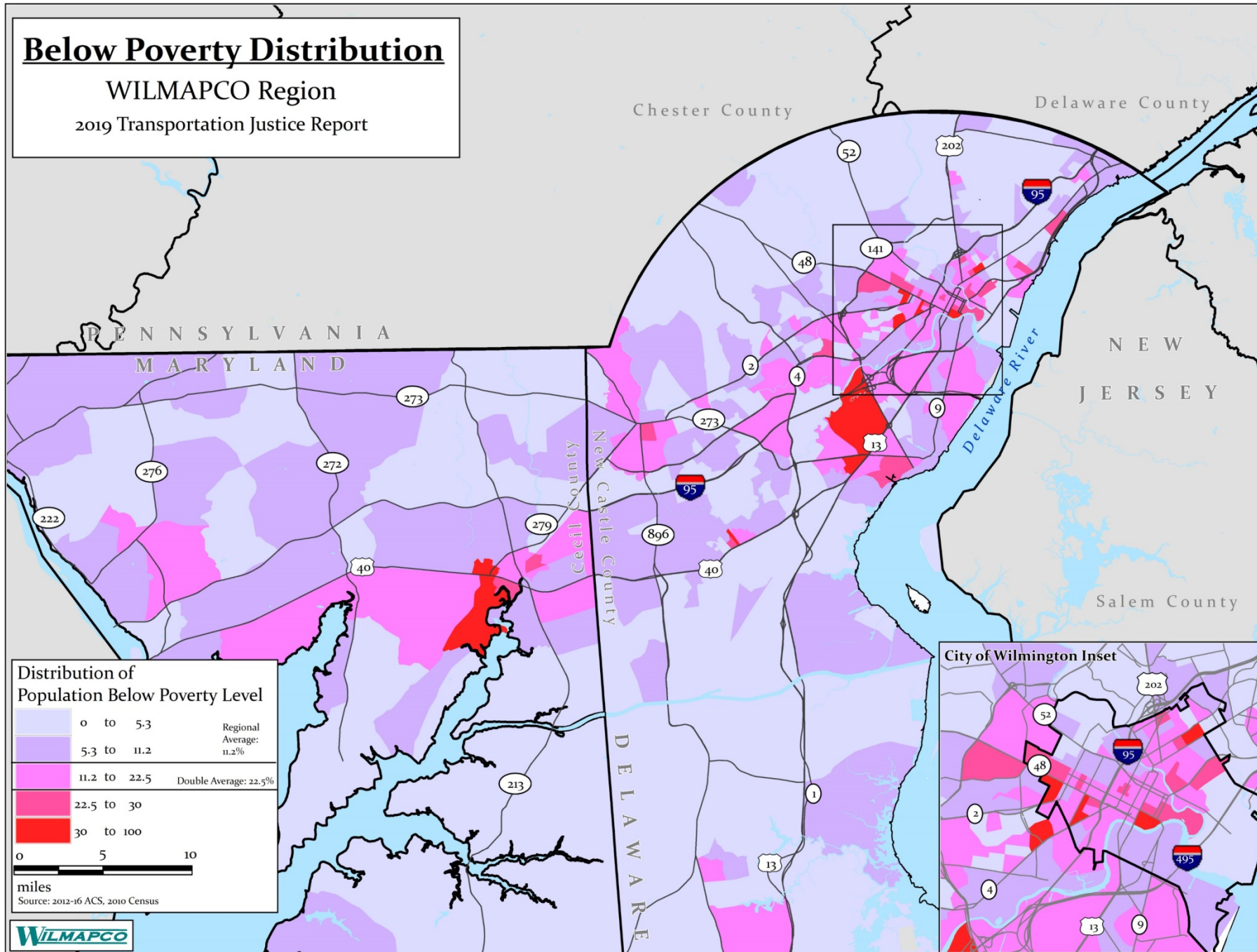
Transportation Equity Concerns, to date

	Poverty/low-income	Blacks	Hispanics
 Transportation Access (in General)	yes	yes	
 Neighborhood Transportation/Housing Costs	yes		
 Travel Time from Neighborhoods			
 Travel Time on Public Transit (in General)		yes	
 Traffic Volumes	yes	yes	yes
 All Vehicle Crashes			
 Pedestrian and Bike Crashes		yes	
 Bike Level of Traffic Stress			
 Public Electric Vehicle Stations	yes	yes	yes
 Community Transportation Project Funding		yes	
 WILMAPCO Community Planning			
 Knowledge of WILMAPCO	yes	yes	yes

Below Poverty Distribution

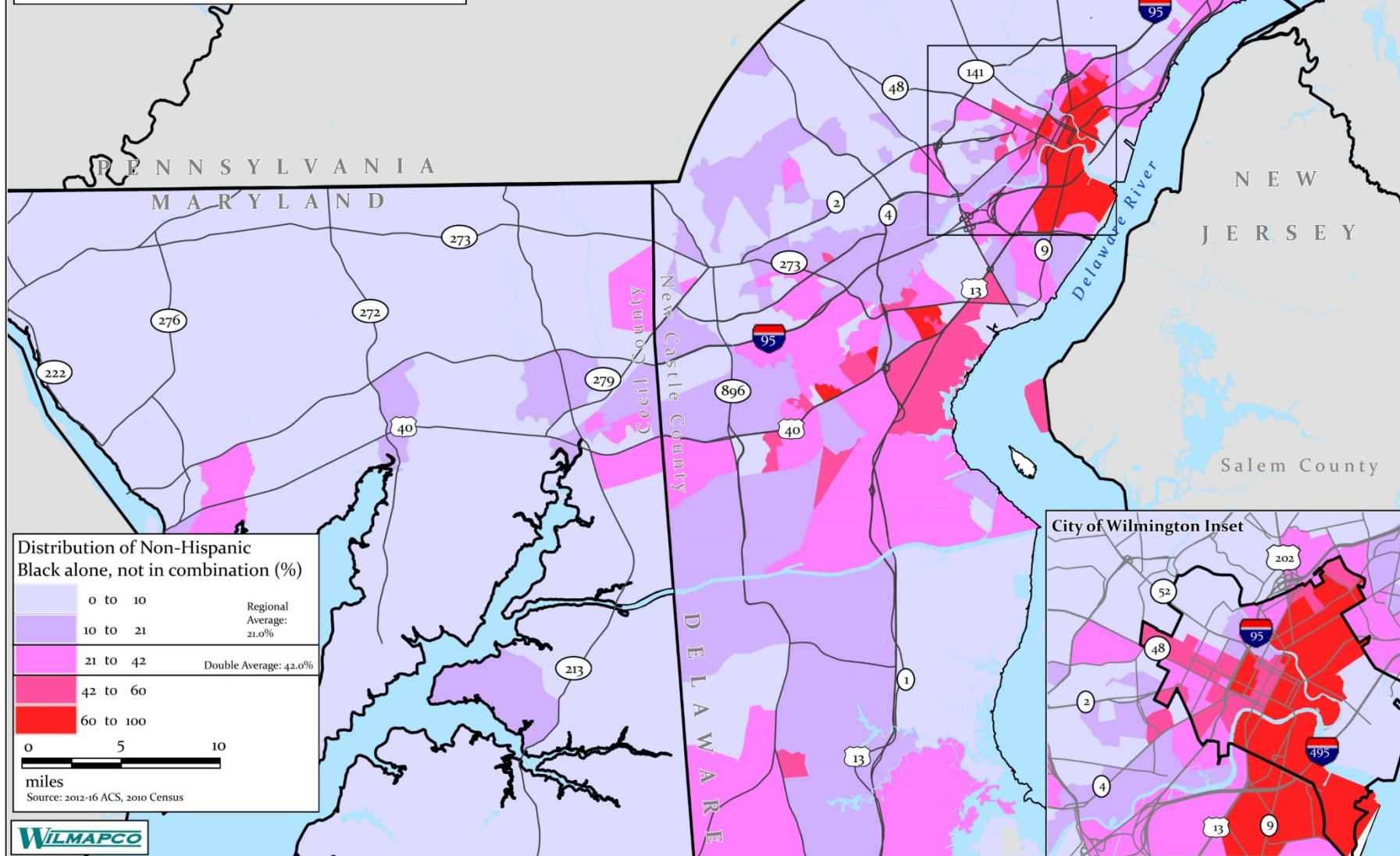
WILMAPCO Region

2019 Transportation Justice Report



Non-Hispanic Black Distribution

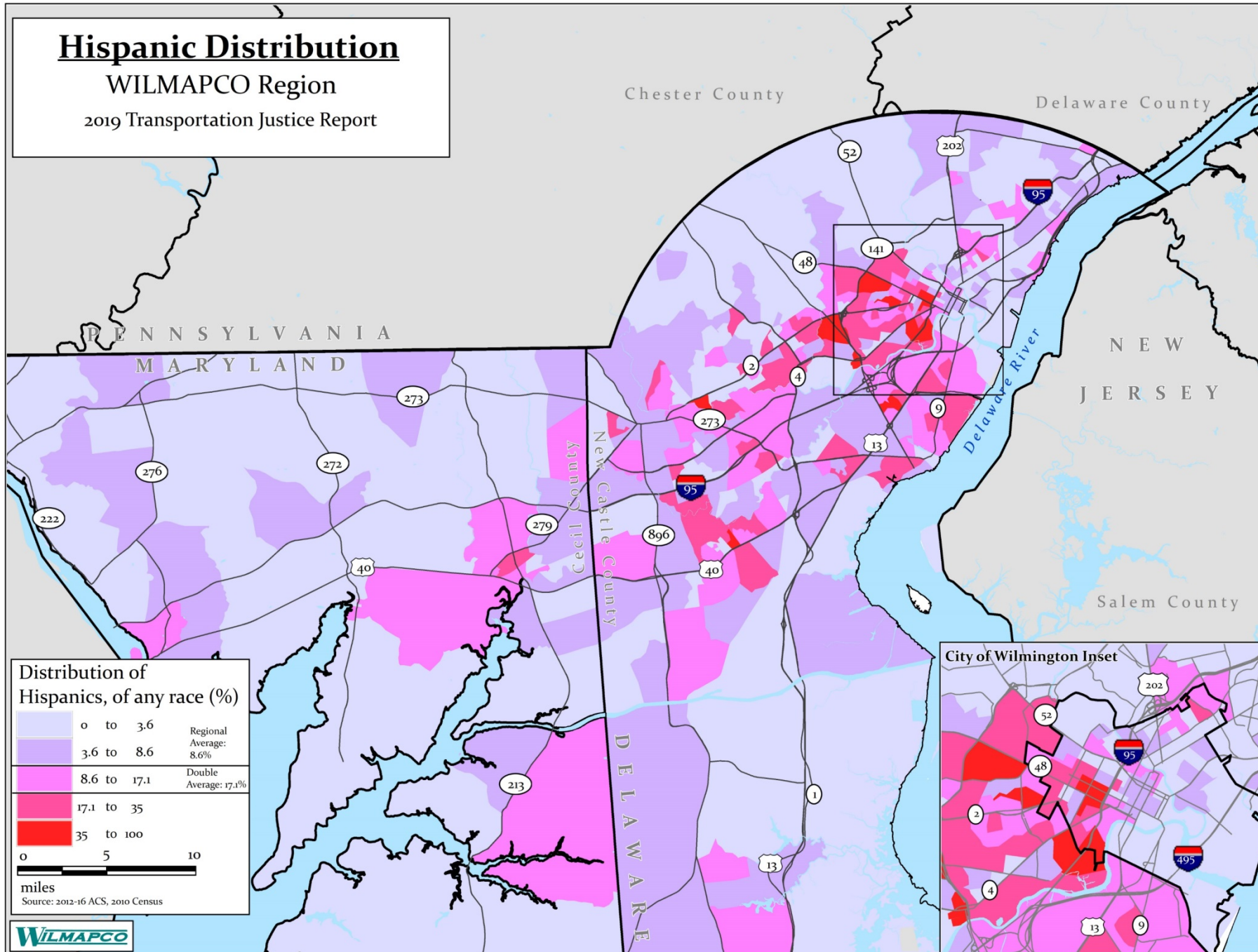
WILMAPCO Region
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Hispanic Distribution

WILMAPCO Region

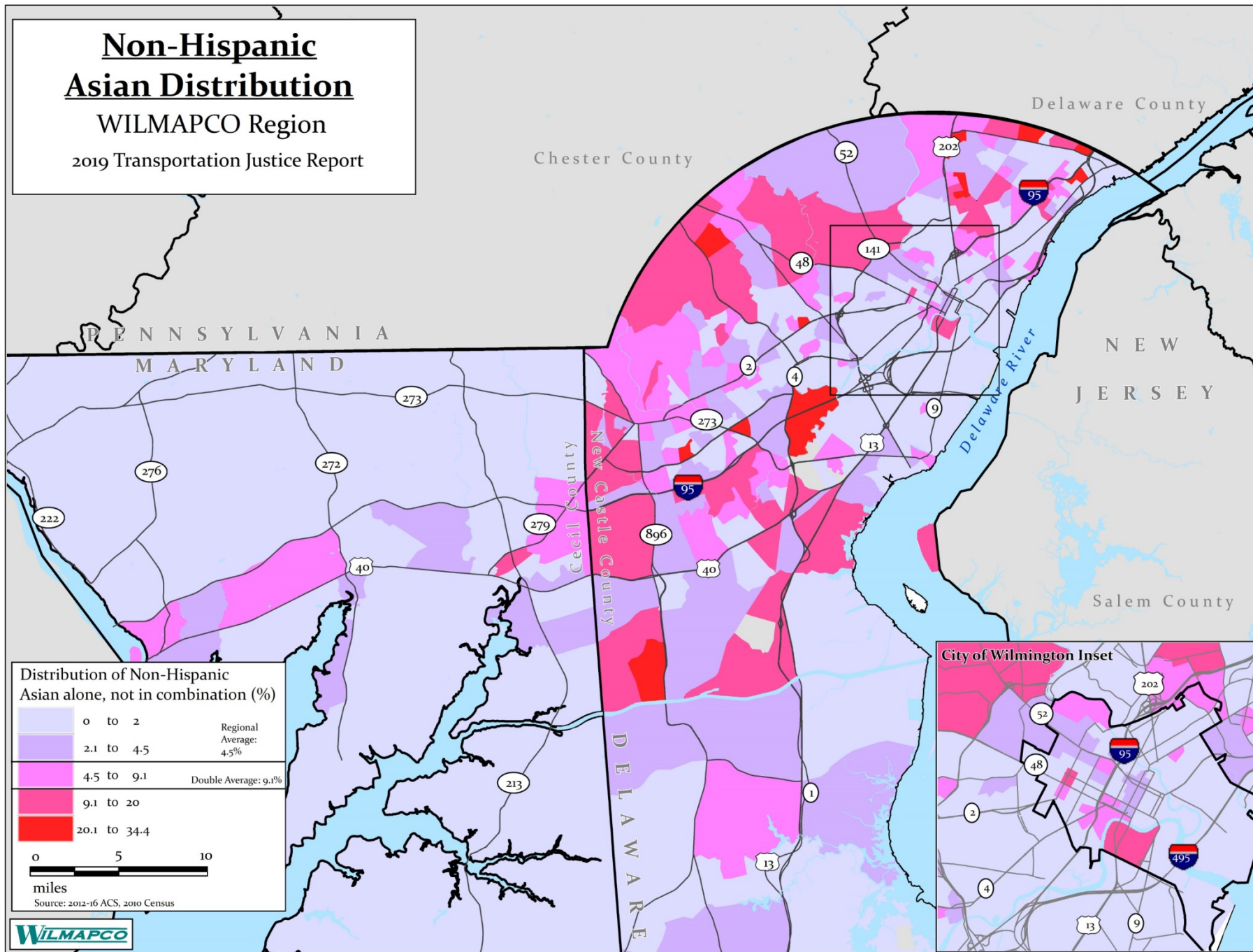
2019 Transportation Justice Report



Non-Hispanic Asian Distribution

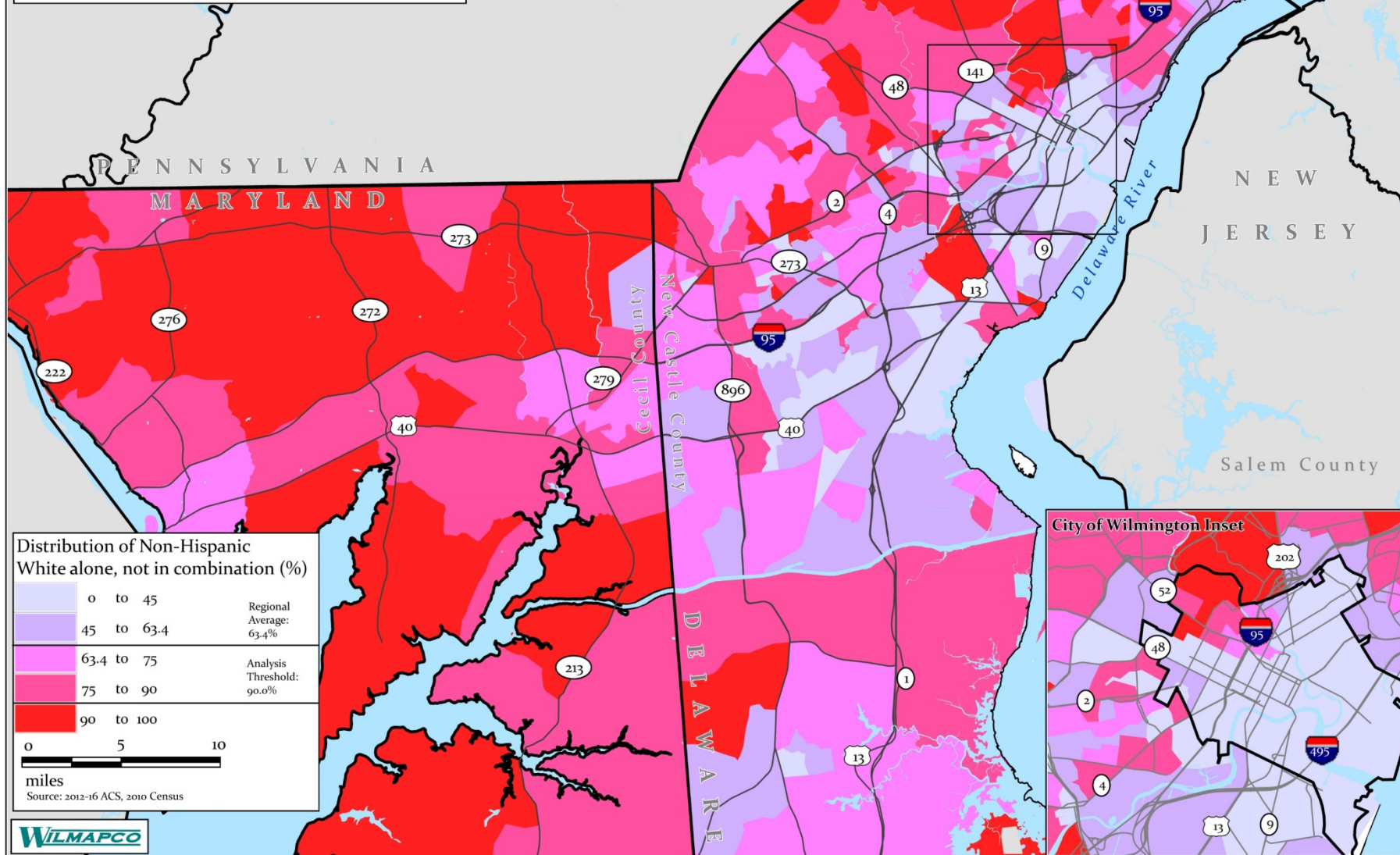
WILMAPCO Region

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Non-Hispanic White Distribution

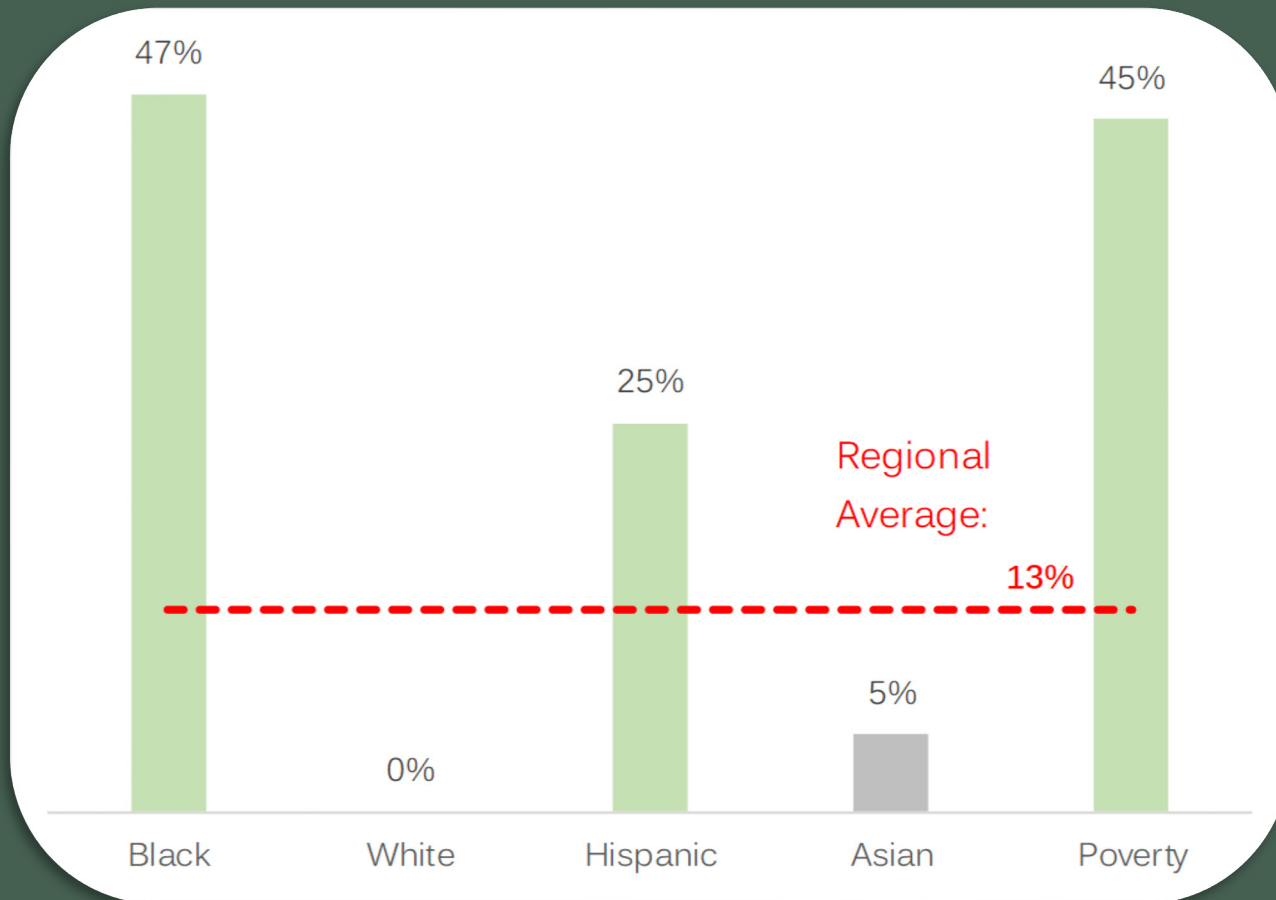
WILMAPCO Region
2019 Transportation Justice Report





TJ Analysis: Location Efficiency

Affordable neighborhoods by concentration



T+H Affordability within Areas of Concentration 2012-2016

- Percentage of affordable neighborhoods (block groups) within areas of concentration.
- Affordable is defined as having combined transportation and housing costs less than 48% of household expenses for a household earning 80% of median regional income.
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2012 – 2016 ACS

TRANSPORTATION AND HOUSING COSTS

for Lower Income Households
versus Poverty Concentrations

WILMAPCO Region


2019 Transportation Justice Report


PENNSYLVANIA

Combined Transportation and Housing Costs

 Affordable*

Poverty Concentrations

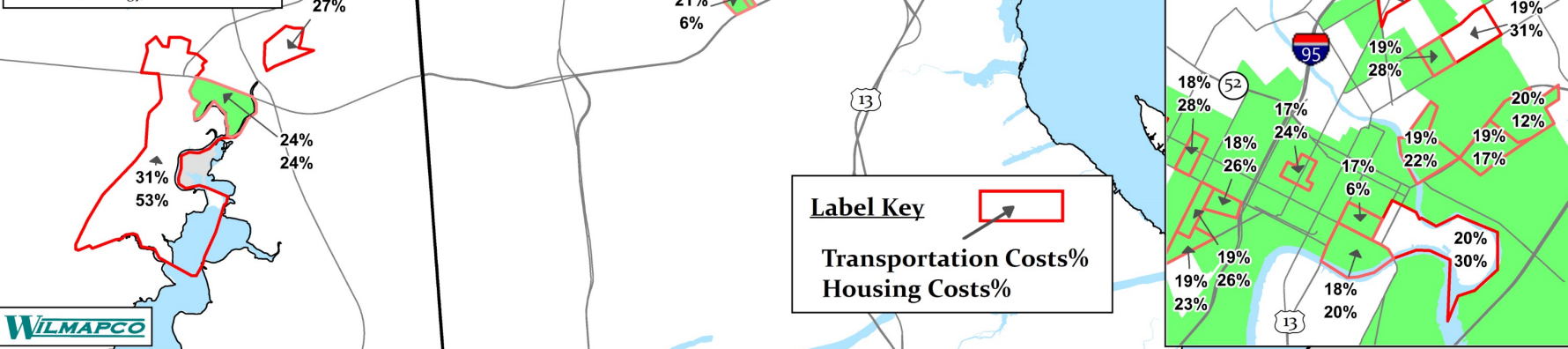
 In Affordable Areas

 In Unaffordable Areas

0 3
miles

*Block groups are considered affordable for low income households if combined transportation and housing costs do not exceed 48% (18% for transportation and 30% for housing) of 80% of area median income.

Sources: Center for Neighborhood Technology, 2012-16 ACS



T+H COST AFFORDABILITY
FOR LOWER INCOME HH
WITHIN
POVERTY CONCENTRATIONS

6% of high poverty
neighborhoods have affordable
transportation costs

58% of high poverty
neighborhoods have affordable
housing costs

1/4 of high poverty
neighborhoods have equal or
higher transportation costs
than housing costs



Transportation Impact Story

It's really hard to save for your bills, take care of the home, and go to work.

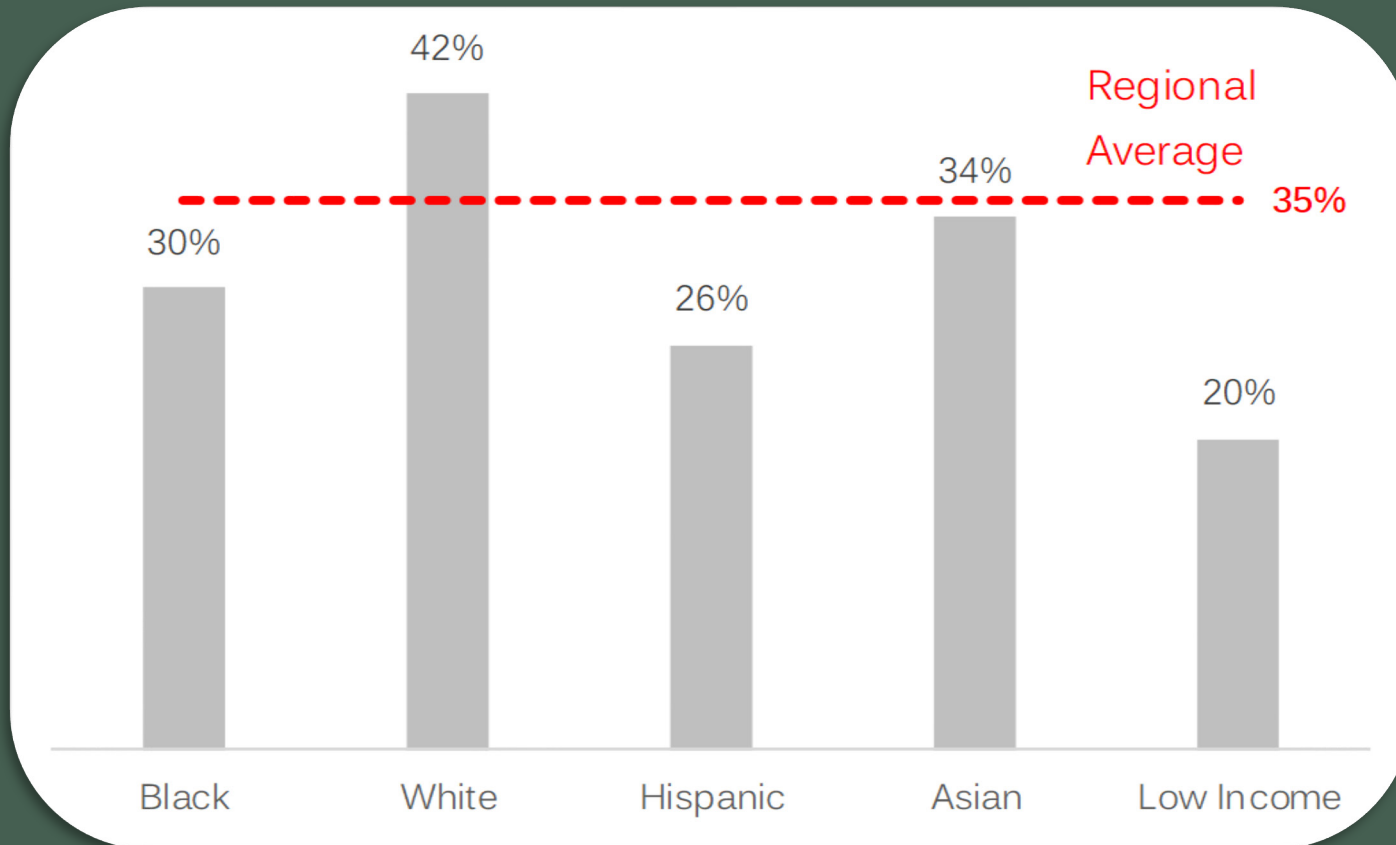
[I may be able to] pay for my child's medicine this month, but I also need car insurance, gas, and rent all in the same week. And it doesn't add up.





TJ Analysis: Travel Time to Work

Driving Alone to Work >30 minutes



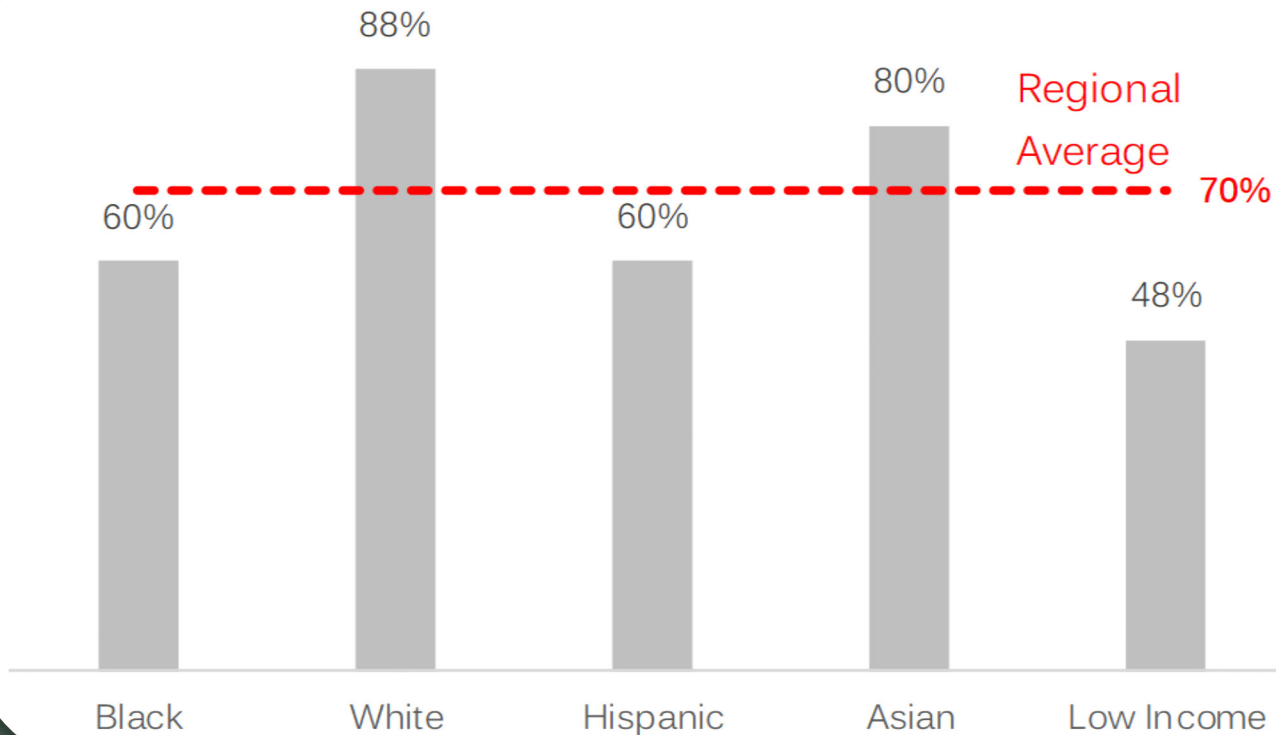
Travel Time Equity within Areas of Concentration 2012-2016

- Travel times greater than 30 minutes within areas of racial/ethnic and low income population concentrations.
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2012 – 2016 ACS



TJ Analysis: Travel Time to Work

Taking Transit to Work >30 minutes



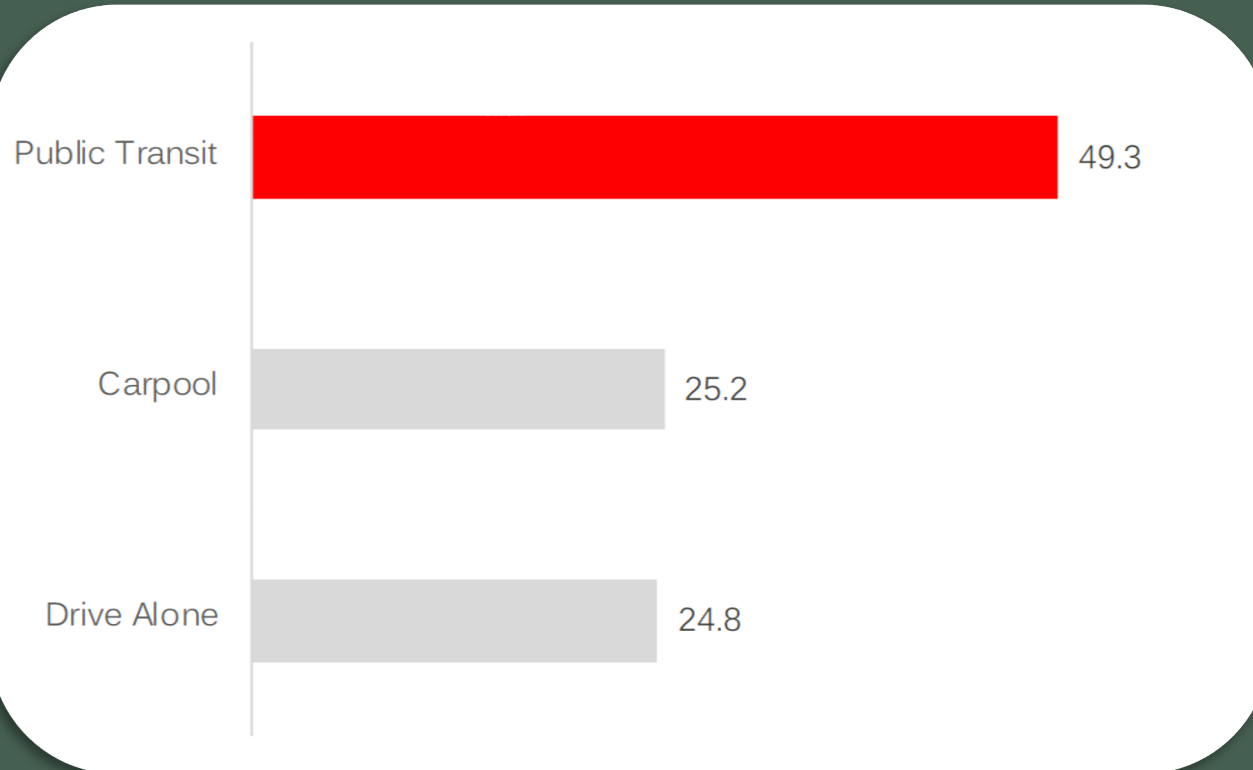
Travel Time Equity within Areas of Concentration 2012-2016

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- 2012 – 2016 ACS



TJ Analysis: Travel Time to Work

Average Commute to Work in minutes



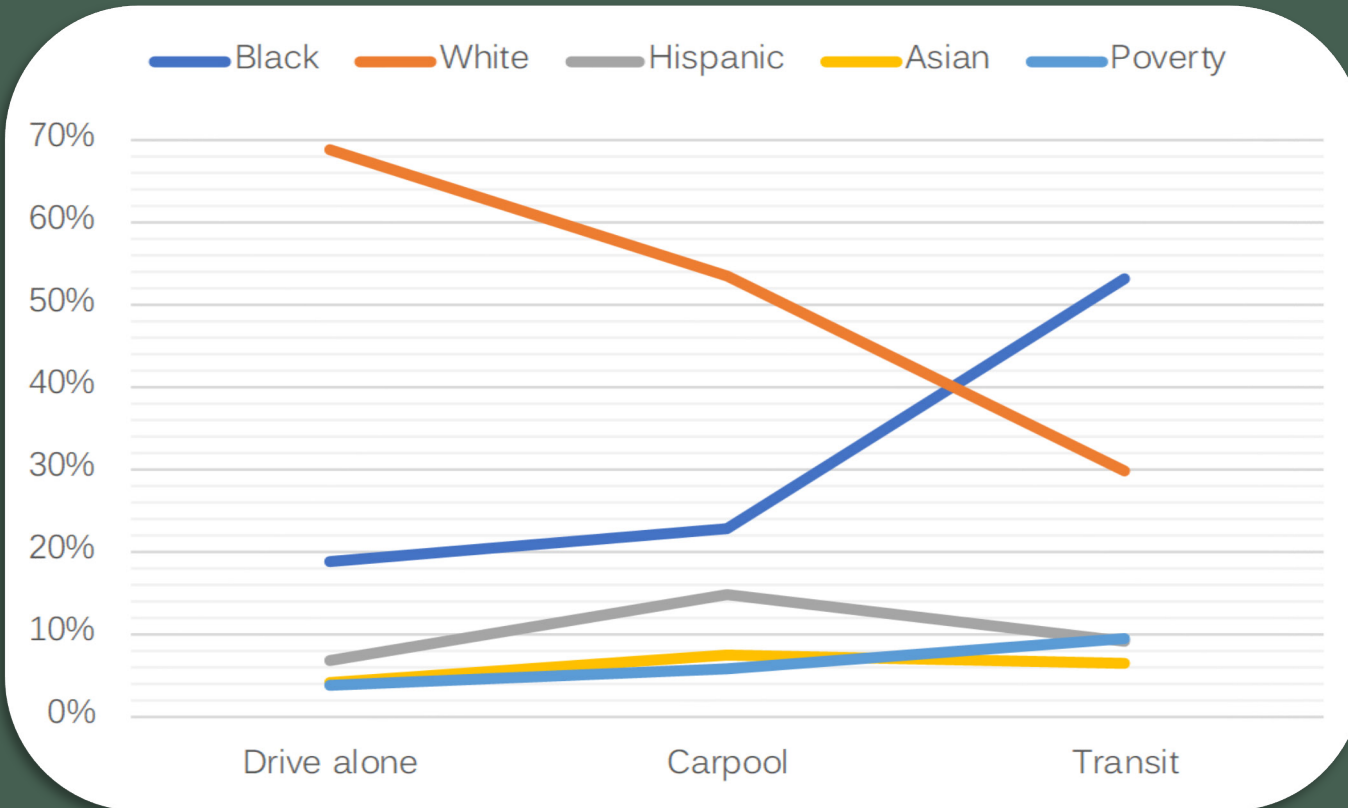
Average Commute Time WILMAPCO Region 2012-2016

- Only commutes to work considered
- 2012 - 2016 ACS



TJ Analysis: Travel Time to Work

Commuter Demographic Composition



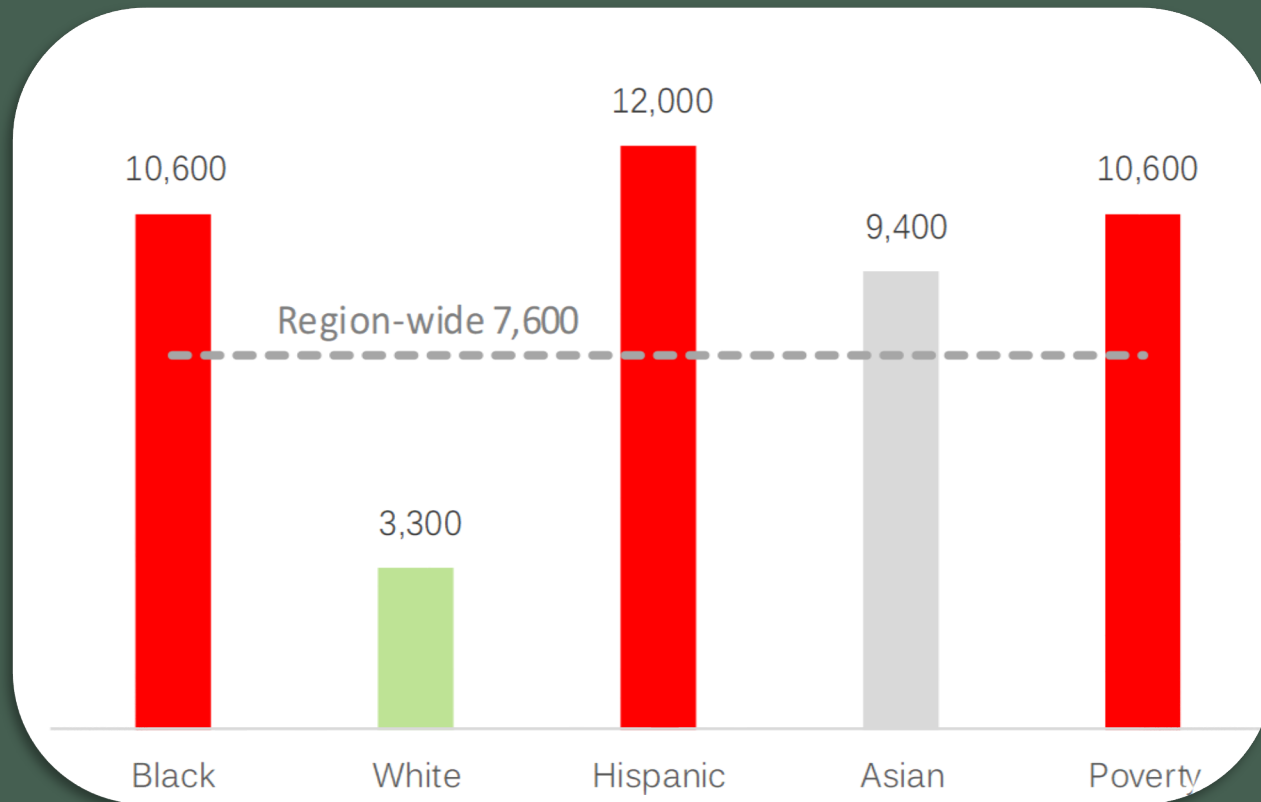
Commuter Demographics WILMAPCO Region 2012-2016

- Demographic/socio-economic composition of commuters using each mode
- 2012 – 2016 ACS



TJ Analysis: Traffic Levels

Median Traffic Levels by neighborhood



Traffic Level Equity WILMAPCO Region

- Median AADT of roadway segments within group concentrations vs. regional median
- Figures rounded to hundreds
- 2012 – 2016 ACS; DeIDOT; MDOT



TJ Analysis: Crash Equity

Crashes in TJ group concentration vs. total population within those concentrations

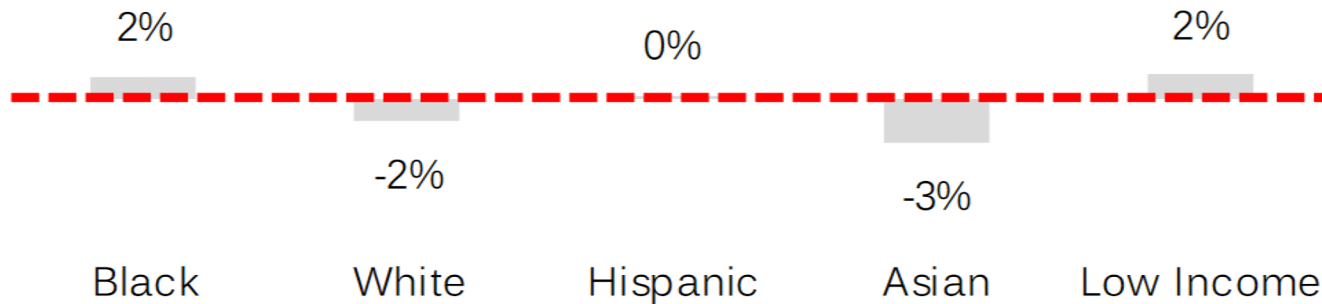
- Expressway crashes excluded
- Year 2016 data
- Total crashes, pedestrian, and bicycle



Photo: Denis Hehman



TJ Analysis: Crash Equity

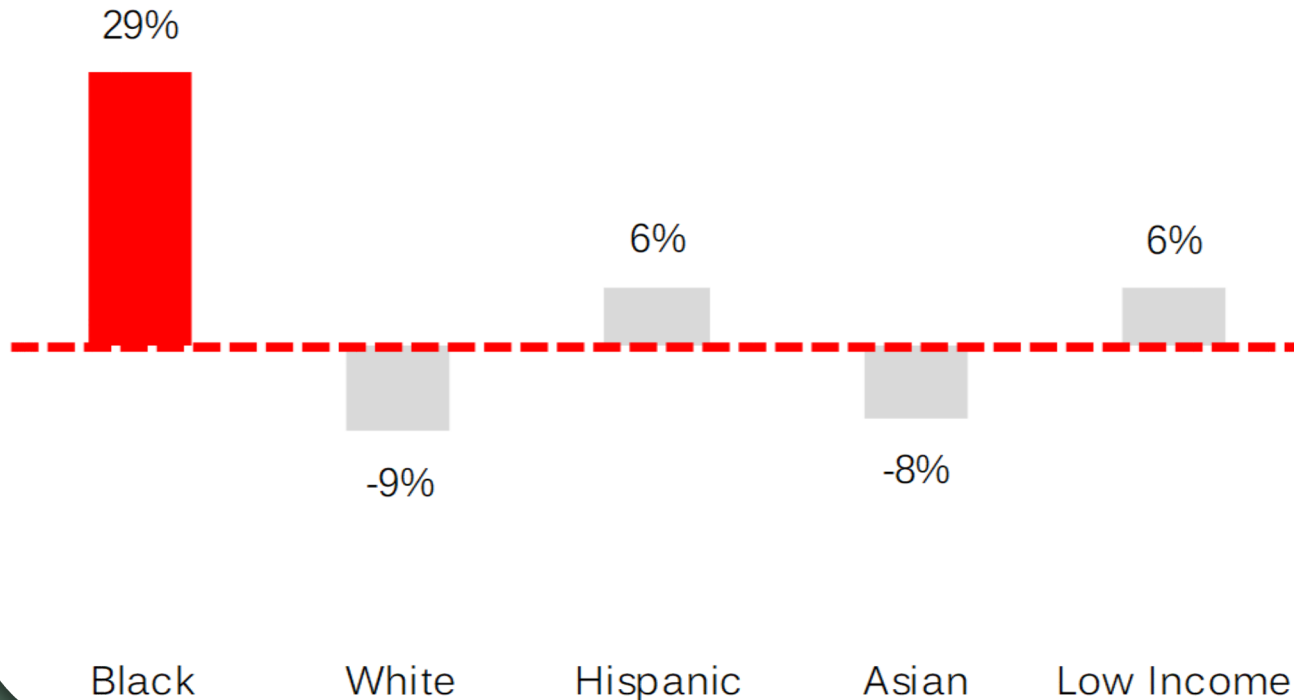


All Crash Equity within Areas of Concentration in 2016

- Deviation from “expected” crash levels. Total crashes compared to the total population within the concentrations.
- Expressway crashes excluded
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2016 data from DeIDOT and MDOT; 2012 – 2016 ACS



TJ Analysis: Pedestrian Crash Equity

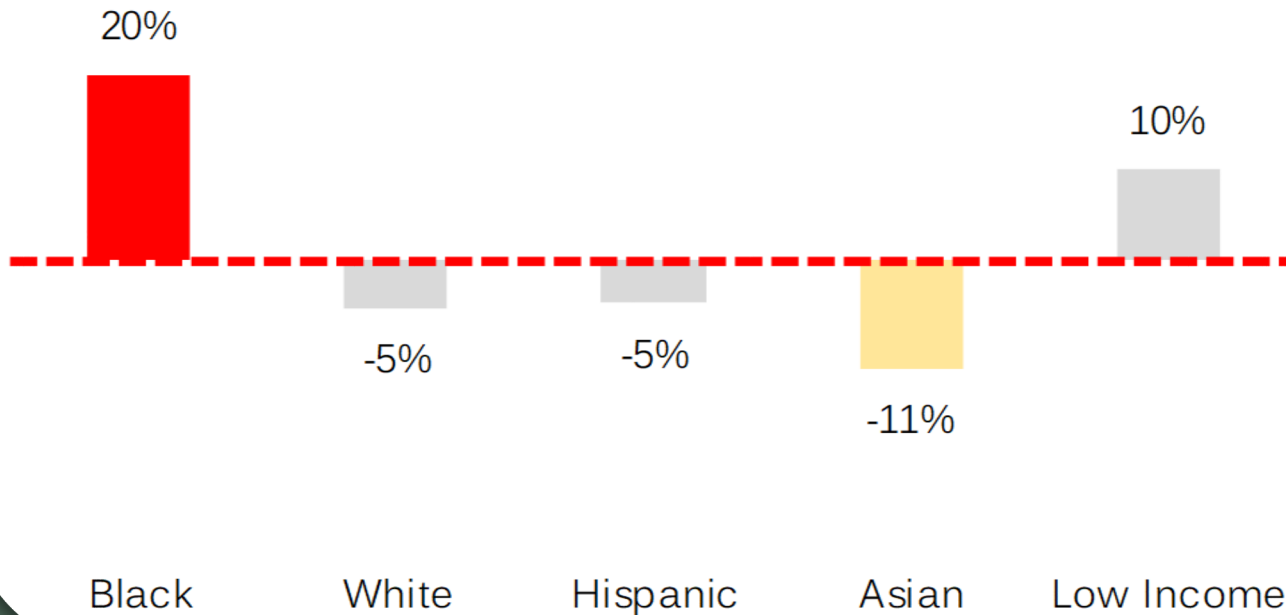


Pedestrian Crash Equity within Areas of Concentration in 2016

- Deviation from “expected” crash levels. Total crashes compared to the total population within the concentrations.
- Expressway crashes excluded
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2016 data from DeIDOT and MDOT; 2012 – 2016 ACS



TJ Analysis: Bicycle Crash Equity



Bicycle Crash Equity within Areas of Concentration in 2016

- Deviation from “expected” crash levels. Total crashes compared to the total population within the concentrations.
- Expressway crashes excluded
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2016 data from DeIDOT and MDOT; 2012 – 2016 ACS



TJ Analysis: Crash Equity

Pedestrian/Bike Crashes within in Black Concentrations in 2016

- **142 pedestrian crashes** - 51% of all NCC ped crashes
- **19 bicycle crashes** - 41% of all NCC bike crashes

16% - NCC's population within black concentrations

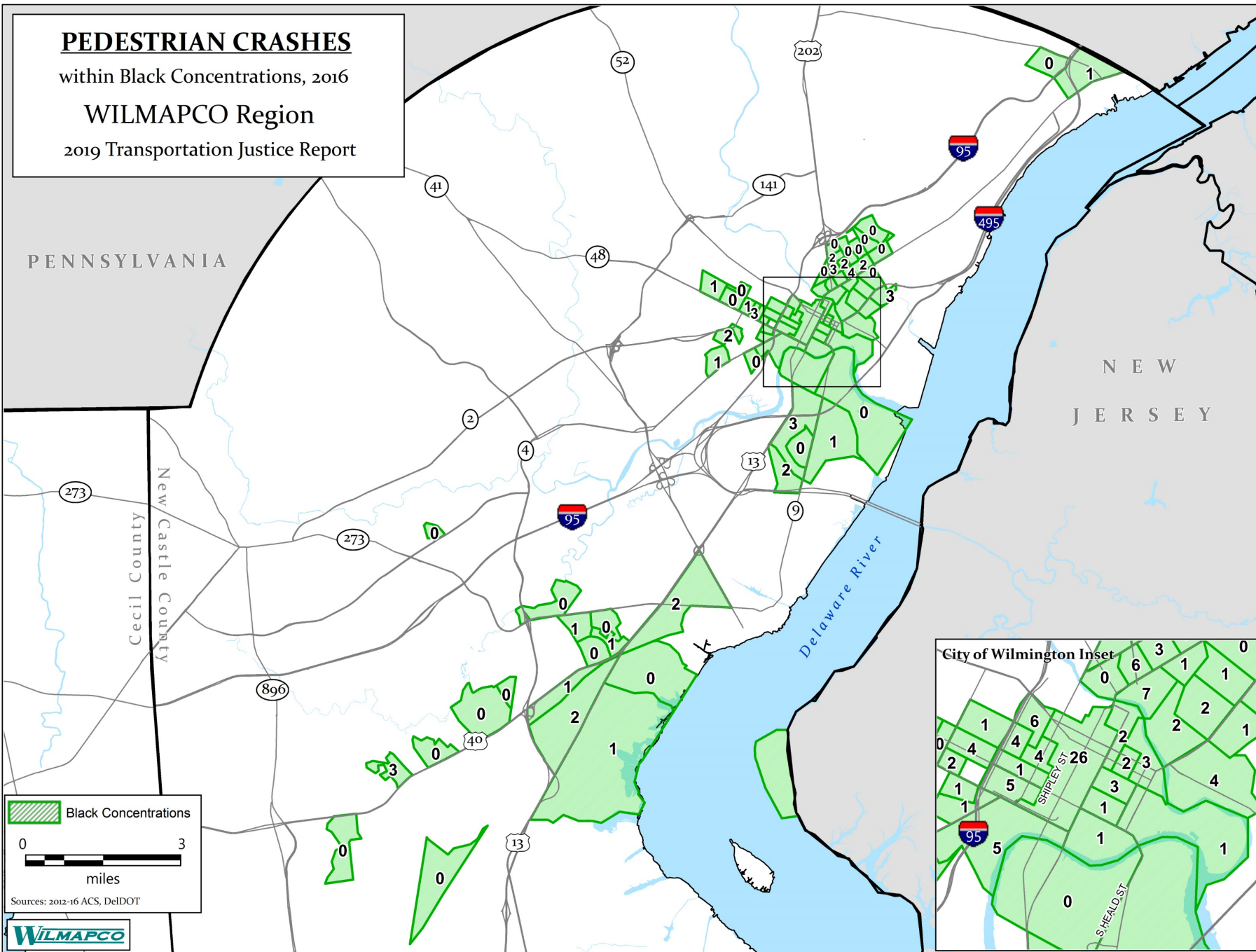


PEDESTRIAN CRASHES

within Black Concentrations, 2016

WILMAPCO Region

2019 Transportation Justice Report



BICYCLE CRASHES

within Black Concentrations, 2016

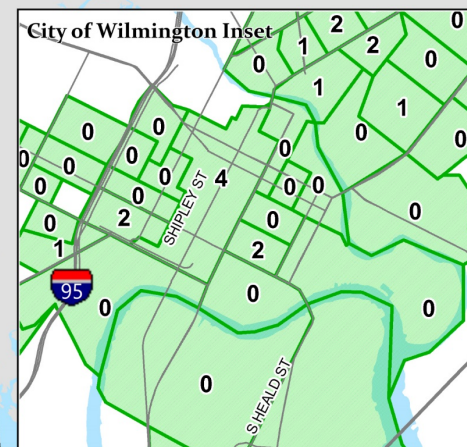
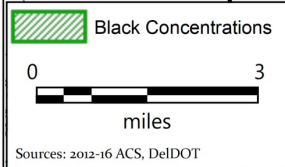
WILMAPCO Region

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PENNSYLVANIA

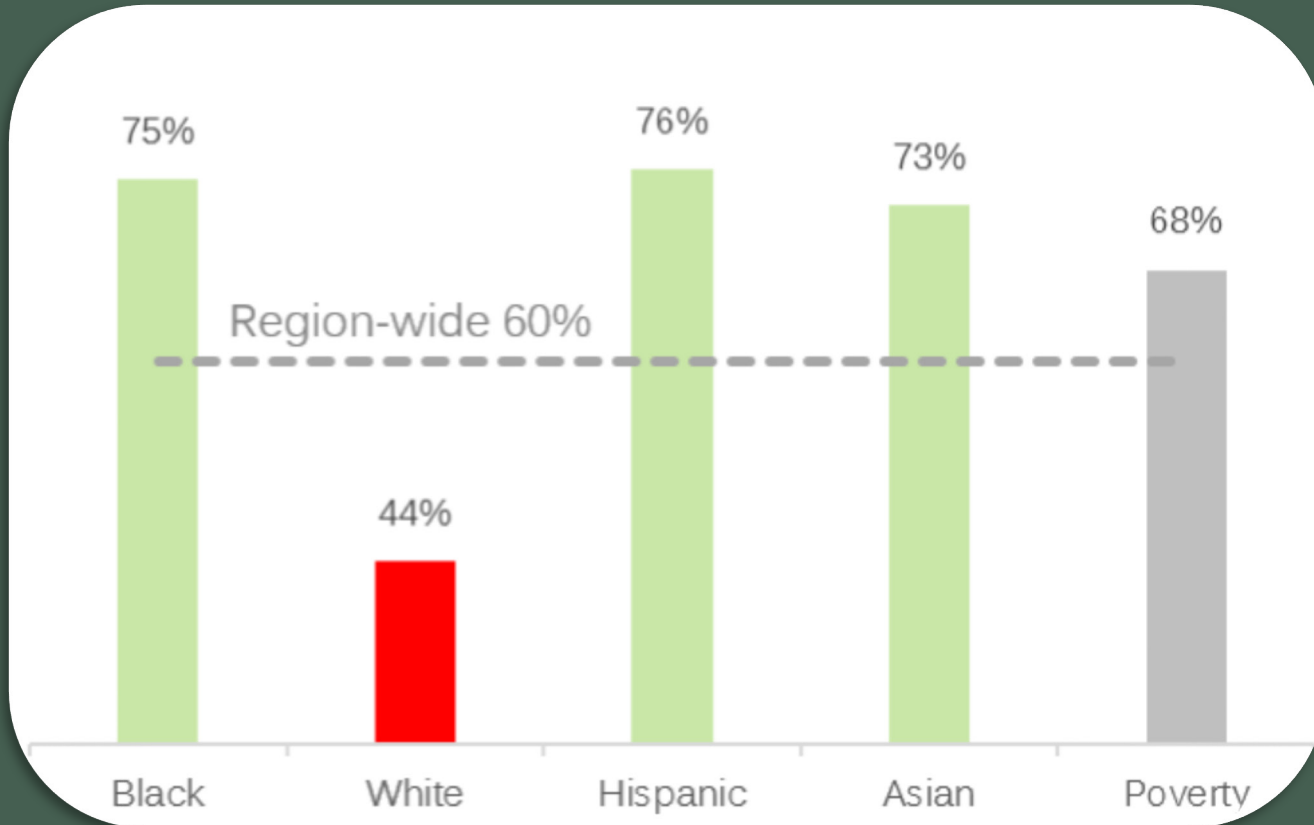
NEW
JERSEY

Delaware River





TJ Analysis: Bicycle LTS Equity



Bicycle LTS Equity within Areas of Concentration in 2019

- Percentage of roads within areas of concentration with low levels of traffic stress (LTS)
- Delaware = LTS 1 and 2
- Maryland = Level of Traffic Comfort 1 and 2
- Sources: DeIDOT and MDOT



TJ Analysis: EV Station Location Equity

Equitable distribution of public electric vehicle (EV) charging stations

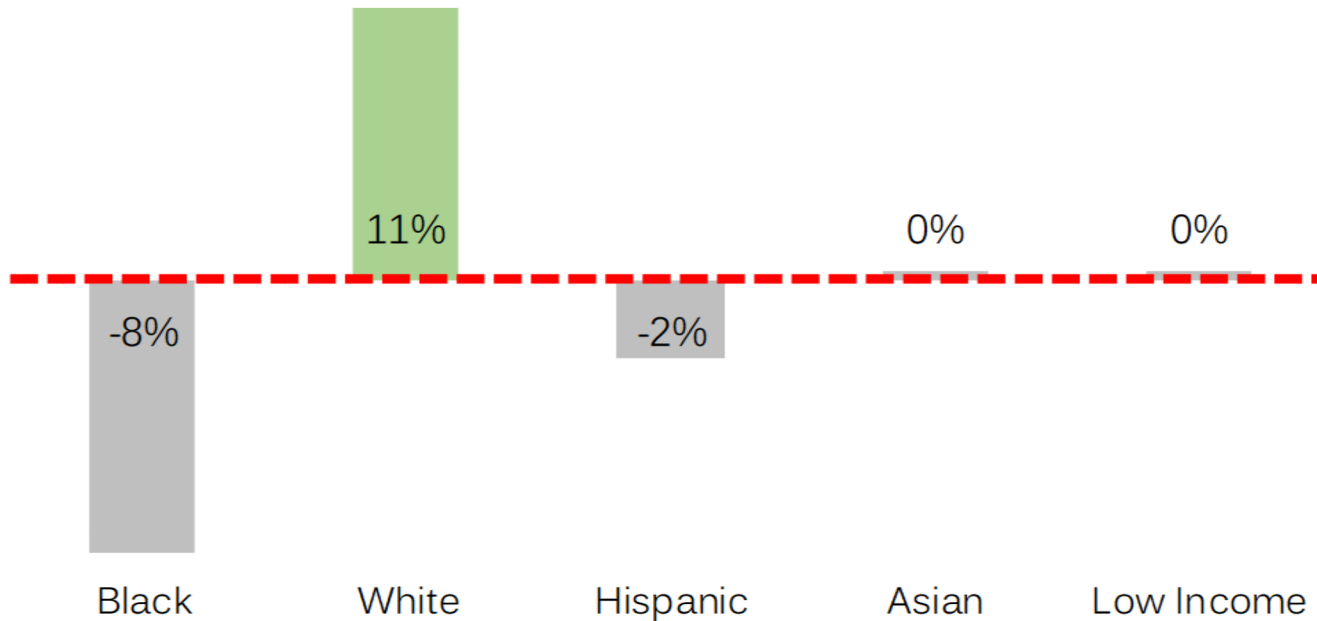
- 21 regionally as of 2019
- Tag census block groups with EV stations
- Calculate racial/ethnic and poverty makeup of those places vs. regional average





TJ Analysis: EV Station Location Equity

EV Station Location Equity in 2019



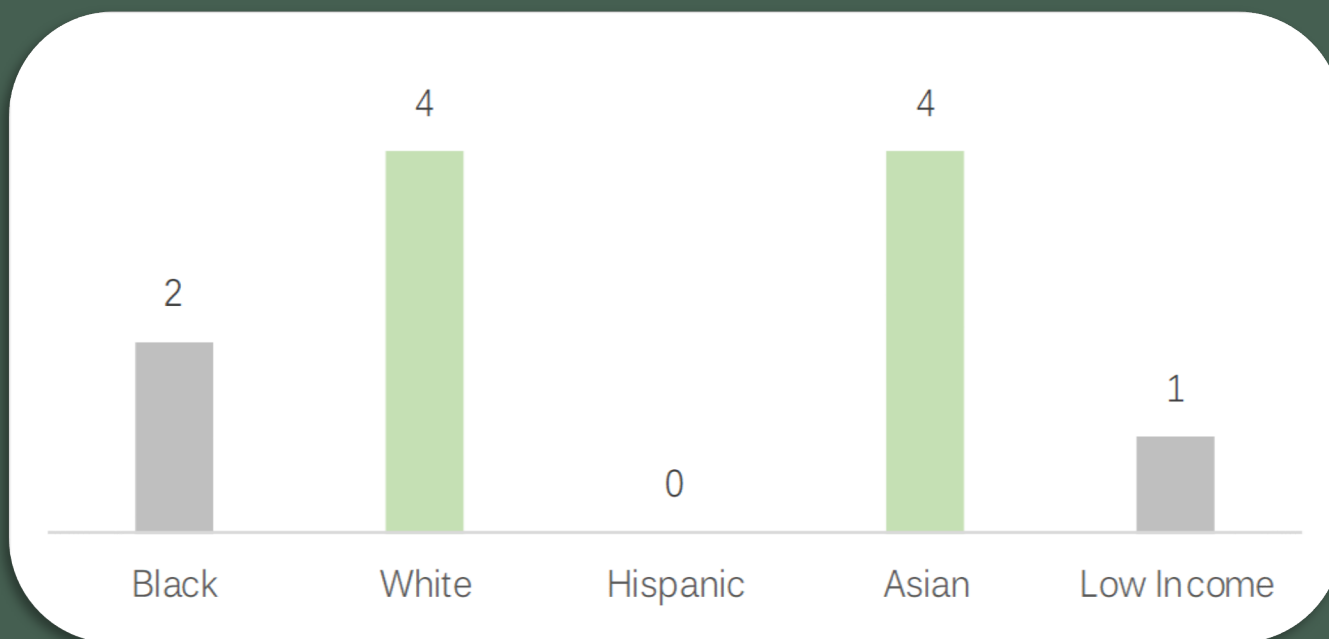
■ Deviation from “expected” levels. The total racial/ethnic and low income populations with block groups with EV charging stations compared to the regional averages for those populations.

■ 2019 data from Alternative Fuels Data Center; 2012 – 2016 ACS



TJ Analysis: EV Station Location Equity

Count of EV Station Locations

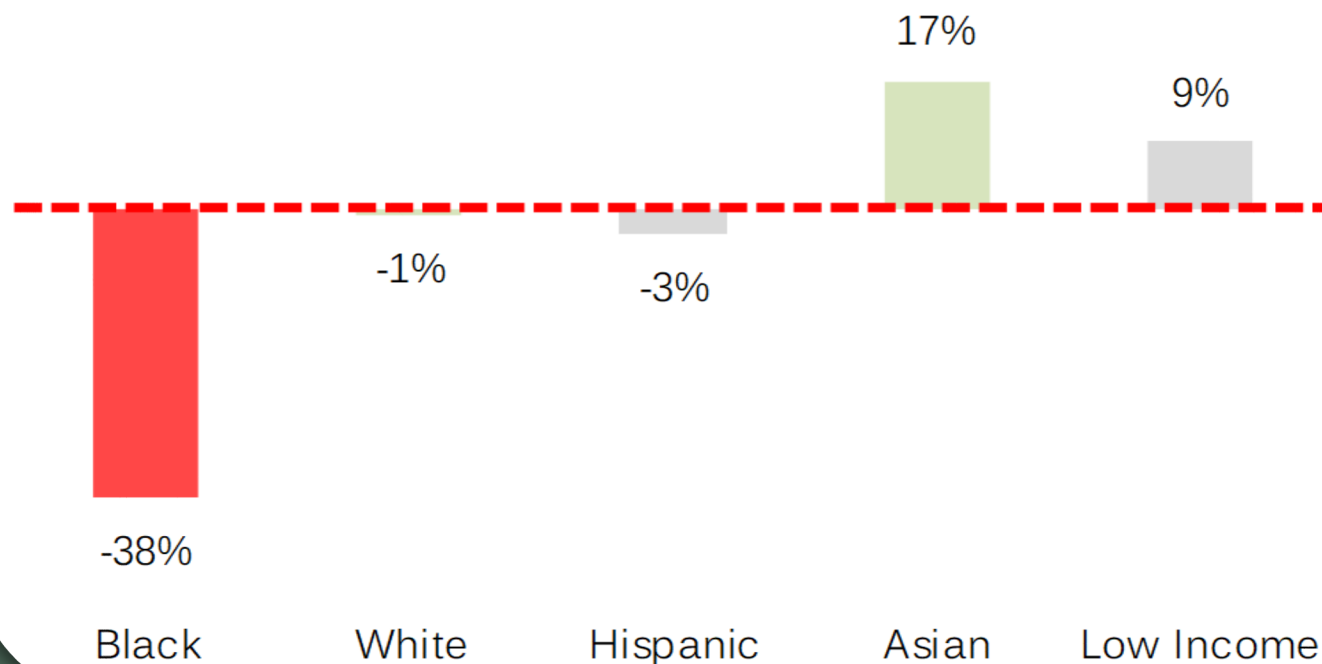


EV Station Location Equity within Areas of Concentration 2019

- Tally of EV station locations within areas of racial/ethnic and low income population concentrations.
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- 2019 data from Alternative Fuels Data Center; 2012 - 2016 ACS



TJ Analysis: TIP Project Equity



TIP Project Funding Equity within Areas of Concentration 2002 - 2018

- Deviation from “expected” funding levels. Project funding received compared to the total population with the concentrations.
- Summed TIP Spending on “community projects” from years 2002, 2006, 2010, 2014, and 2018. Compared to total mappable TIP spend.
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- Census data: 2000 Census, 2006 - 2010 ACS, 2012 - 2016 ACS



Title VI/EJ: Spatial Analysis recommendations – page 73



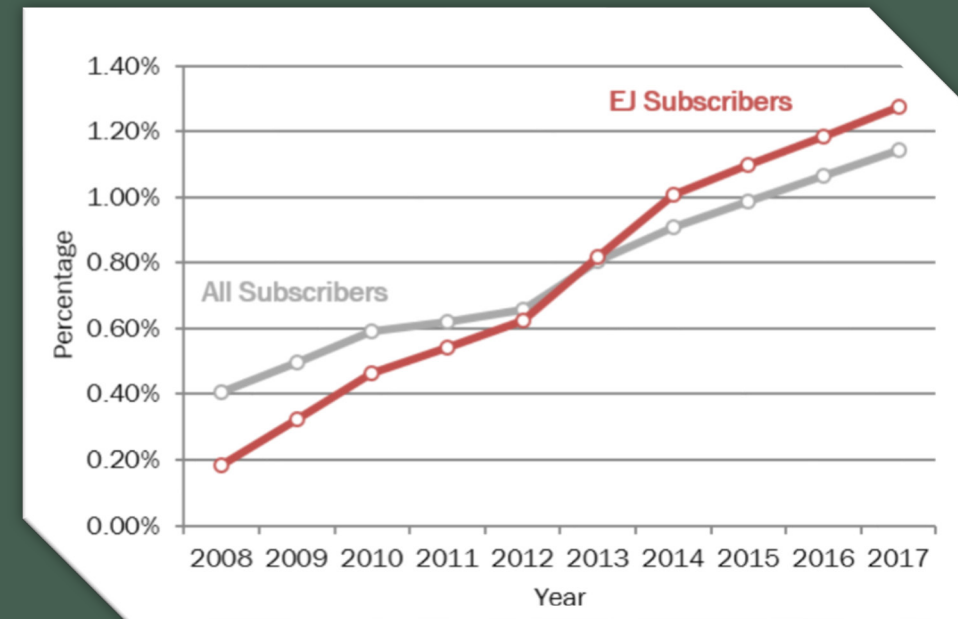
Title VI/EJ: Engagement



Title VI/EJ: Public Engagement

- WILMAPCO has a strong outreach program
- Specific outreach to low-income/minorities since 2008
- Some success in implementation...
But not enough to end disparities
- Revamp recommendations for 2019

Newsletter Subscribers





TJ Analysis: Public Opinion Survey

Public Opinion Survey

Low-income and black residents

- * more transportation difficulties
- * less familiarity with WILMAPCO





Title VI/EJ: Public Engagement

LITERATURE REVIEW



+

OUR EXPERIENCES





Title VI/EJ: Engagement recommendations – page 99



Mobility Challenged Analysis



Mobility Challenged Analysis

Seniors, disabled, and zero-car households

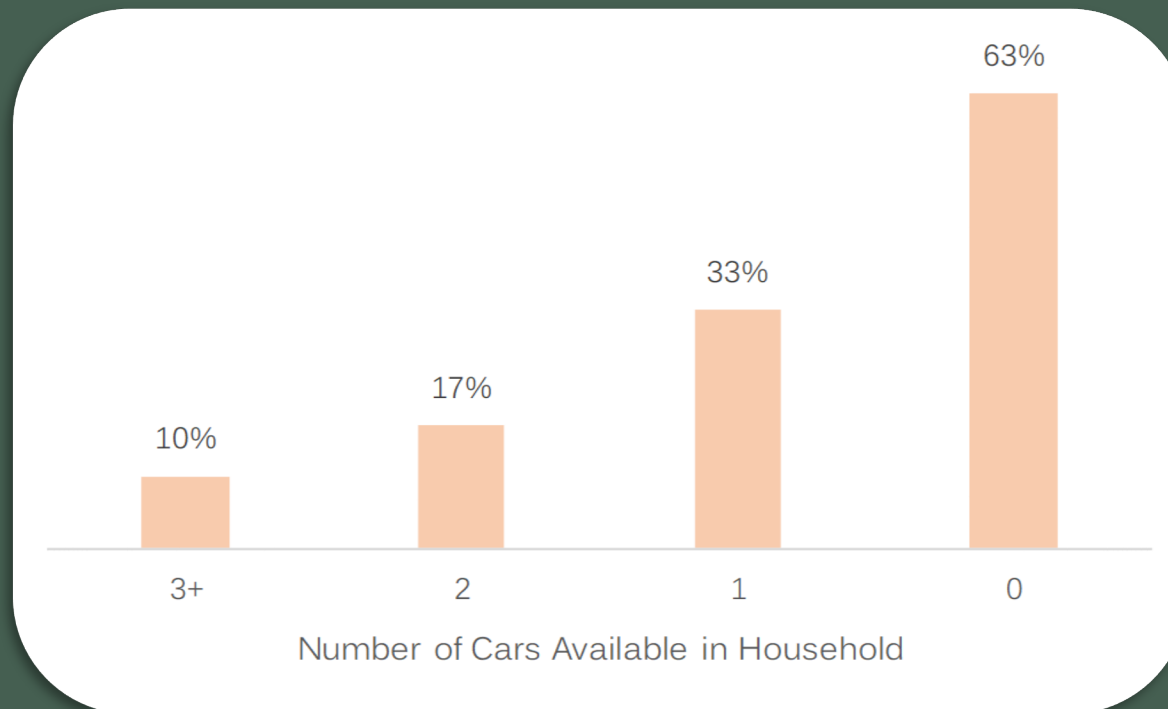
- Introduction
- ADA self evaluation
- Demographic profile
- Spatial analysis
- Key recommendations





IPA Mobility in Motion Survey

Unable to travel due to lack of transportation
in the past 6 months
New Castle County





ADA Self Evaluation - findings

- Physical access barriers are limited
- Agency policies generally meet ADA guidelines
- Communication of policies needs improvement
- Front line communications should consider needs of people with disabilities





New MC Area Definitions

- Use latest available data: 2012-2016 American Community Survey
- Census block group level analysis
- Tweak methodology
 - High percentages of groups only (not in combination) become at least a moderate area
 - Very high percentage of households without vehicles needed to become significant area





New MC Area Definitions

MODERATE – 4 paths

1. Households without vehicles greater than 2x the regional average, and
 - Disabled greater than the regional average, or
 - Seniors greater the regional average, or
2. Households without vehicles greater than 3x the regional average
3. Disabled greater than 3x the regional average
4. Seniors greater than 3x the regional average

SIGNIFICANT

1. Households without vehicles greater than 3x the regional average, and
 - Disabled greater than the regional average, or
 - Seniors greater than the regional average, or

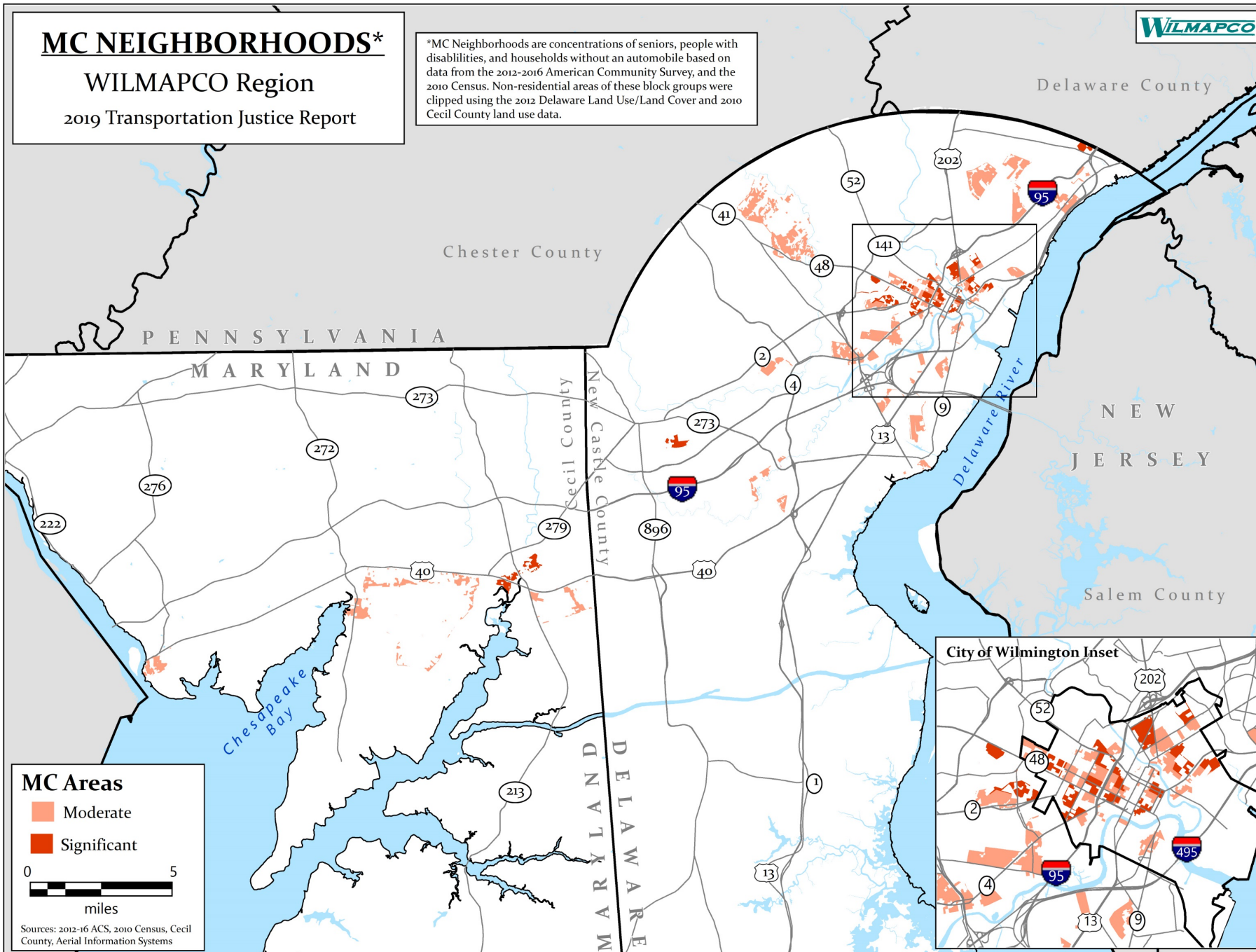
MC NEIGHBORHOODS*

WILMAPCO Region

2019 Transportation Justice Report

*MC Neighborhoods are concentrations of seniors, people with disabilities, and households without an automobile based on data from the 2012-2016 American Community Survey, and the 2010 Census. Non-residential areas of these block groups were clipped using the 2012 Delaware Land Use/Land Cover and 2010 Cecil County land use data.

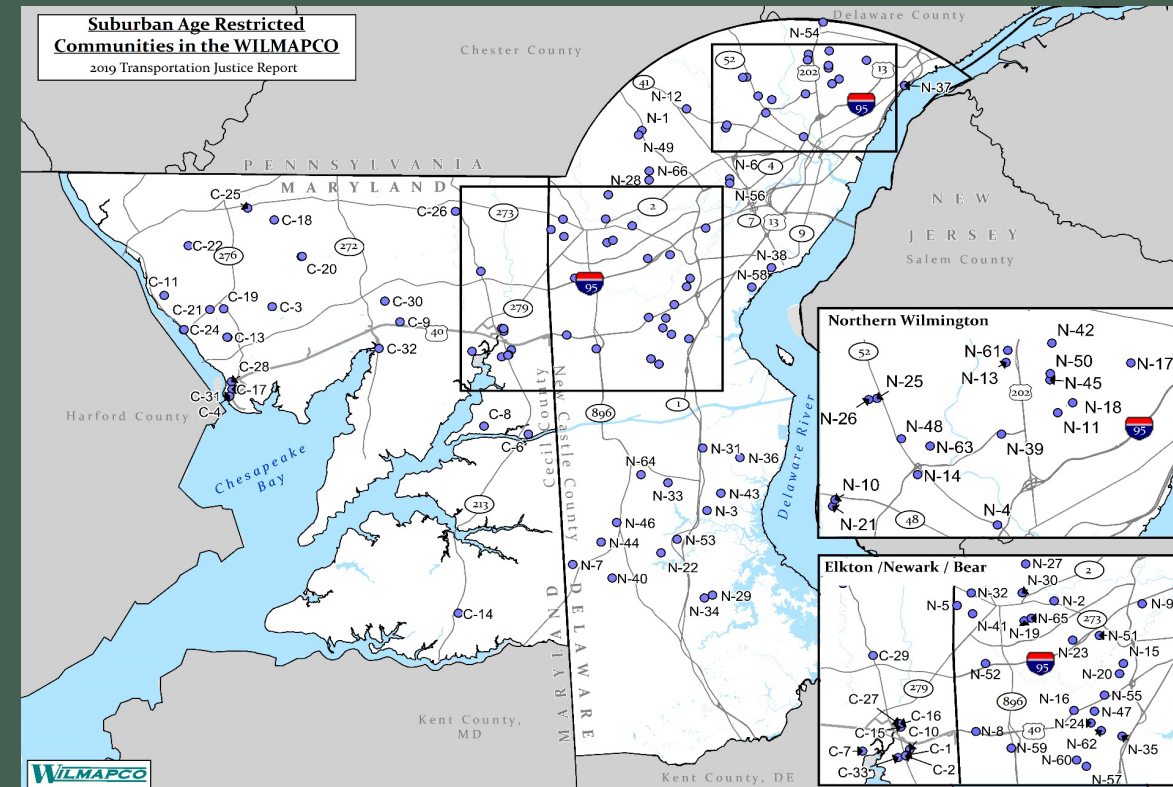
WILMAPCO





ARCCA Analysis

- Age-restricted Community Connectivity Analysis (ARCCA)
- Developed in 2011 and further refined by WILMAPCO/Bucknell Univ.
- *How connected (or not) are suburban age-restricted communities to the fixed route bus system and pedestrian system?*





ARCCA Analysis – Pedestrian

Unlikely/difficult

- There are no sidewalks, trails or paths surrounding the community, and connections to public uses/other networks exist beyond one mile

Long-term improvement

- The sidewalks, trails or paths surrounding the community are not connected, or do not exist, but connections to public uses/other networks exist between a quarter mile to one mile

Short-term improvement

- The sidewalks, trails or paths surrounding the community are not fully connected, but connections to public uses/other networks exist within a quarter mile

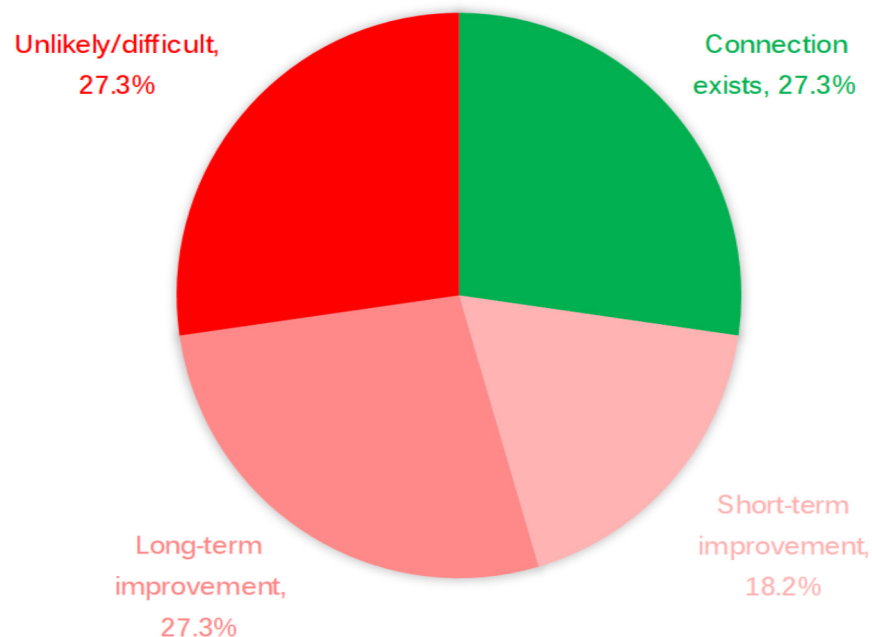
Connection exists

- The sidewalks, trails, or paths have connections are clearly defined from the community to public uses/other networks within a quarter mile

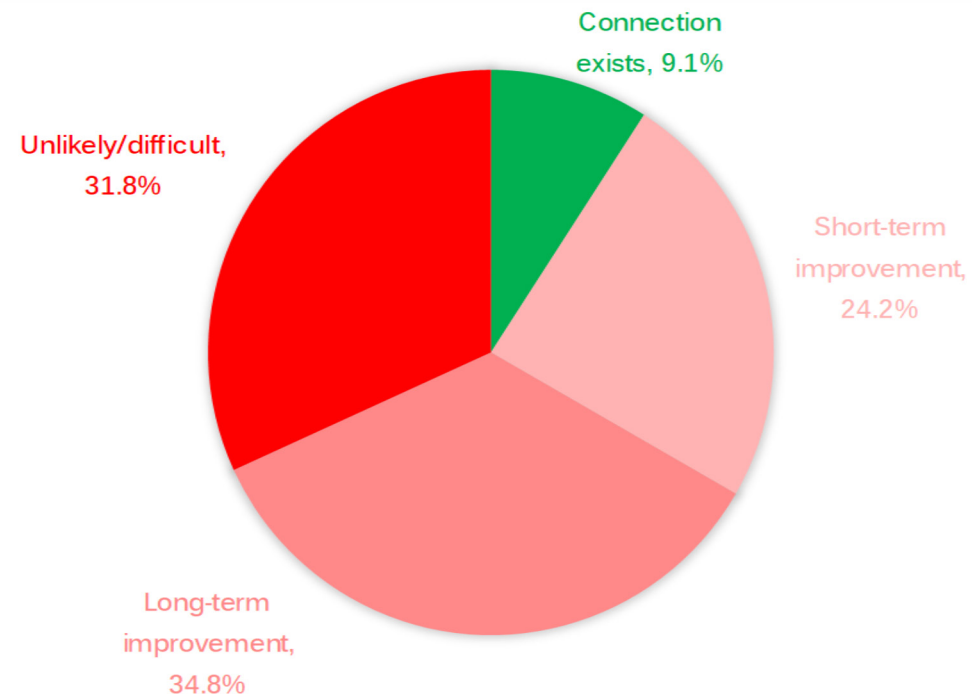


ARCCA Analysis – Pedestrian

Cecil County

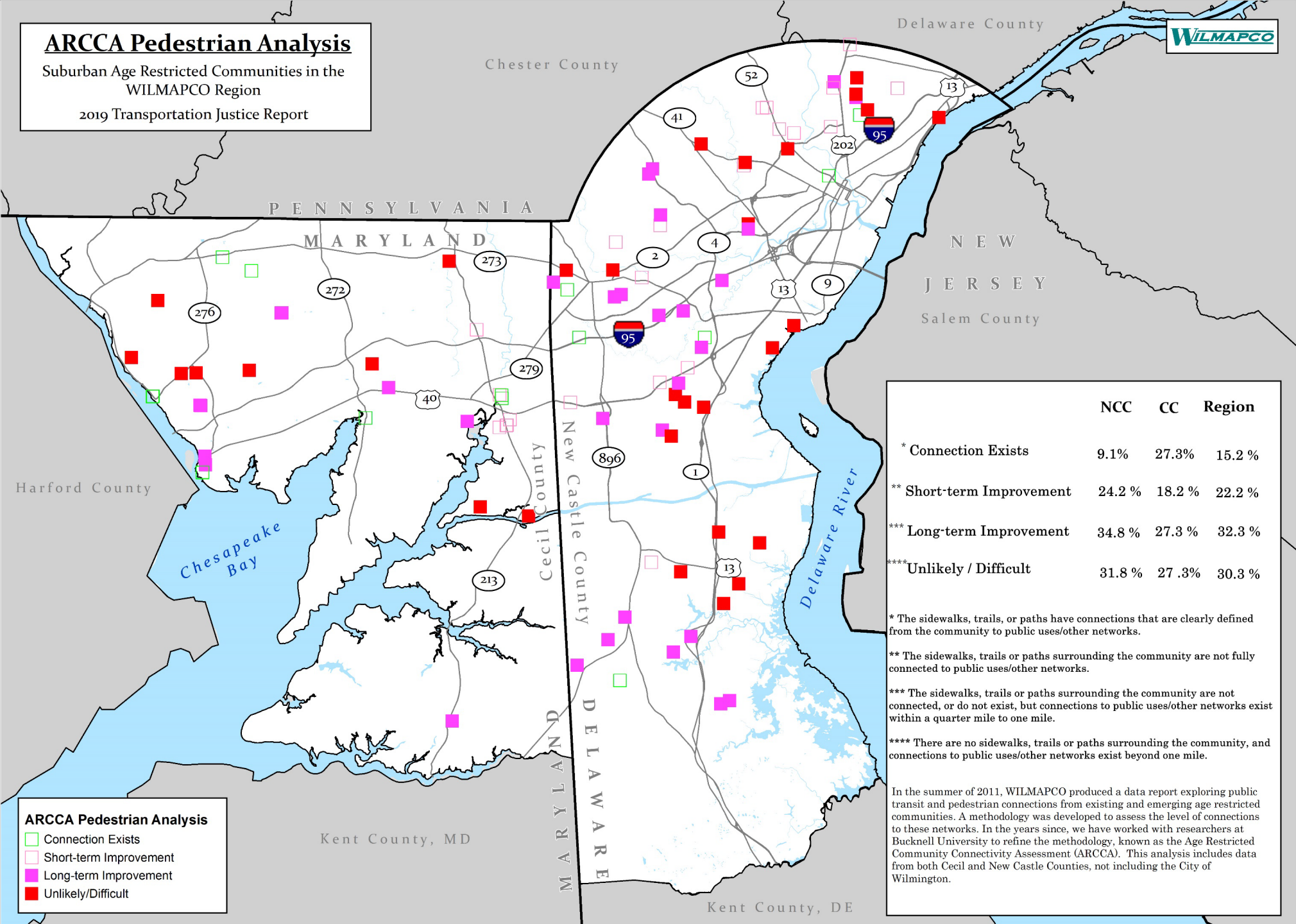


New Castle County



ARCCA Pedestrian Analysis

Suburban Age Restricted Communities in the
WILMAPCO Region
2019 Transportation Justice Report



ARCCA Pedestrian Analysis

- Connection Exists
- Short-term Improvement
- Long-term Improvement
- Unlikely/Difficult

NCC CC Region

* Connection Exists	9.1%	27.3%	15.2 %
** Short-term Improvement	24.2 %	18.2 %	22.2 %
*** Long-term Improvement	34.8 %	27.3 %	32.3 %
**** Unlikely / Difficult	31.8 %	27.3%	30.3 %

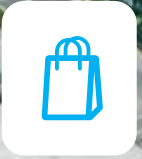
* The sidewalks, trails, or paths have connections that are clearly defined from the community to public uses/other networks.

** The sidewalks, trails or paths surrounding the community are not fully connected to public uses/other networks.

*** The sidewalks, trails or paths surrounding the community are not connected, or do not exist, but connections to public uses/other networks exist within a quarter mile to one mile.

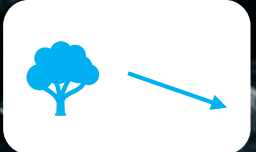
**** There are no sidewalks, trails or paths surrounding the community, and connections to public uses/other networks exist beyond one mile.

In the summer of 2011, WILMAPCO produced a data report exploring public transit and pedestrian connections from existing and emerging age restricted communities. A methodology was developed to assess the level of connections to these networks. In the years since, we have worked with researchers at Bucknell University to refine the methodology, known as the Age Restricted Community Connectivity Assessment (ARCCA). This analysis includes data from both Cecil and New Castle Counties, not including the City of Wilmington.



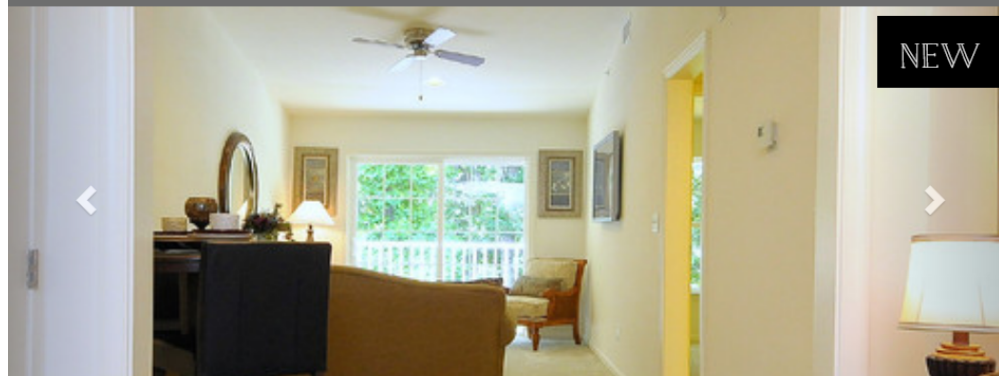
U.S. 40

Salem Church Rd.



Enclave ARC





NEW

THE ENCLAVE AT STONEYRIDGE

Newark, DE

885 Salem Church Road, Newark, DE 19702

Phone: 302-482-4339 Fax: 302-834-0600

The Enclave at Stoneyridge is a brand new distinctive 55+ rental community featuring state-of-the-art amenities. From concept to completion, this extraordinary new residential enclave has been thoughtfully designed to create the ultimate environment for comfort and carefree living.

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Community Amenities

- ◆ 24-Hour Locked Main Entrance with Intercom
- ◆ 24-Hour Emergency Maintenance
- ◆ Resident Coffee & Cookie Bar
- ◆ Business Center with Fax & Scanner
- ◆ Luxury Corporate Furnished Apartments Available
- ◆ Comcast High Speed Internet Wired
- ◆ Beautiful Stone Buildings Built on Former Orchard Farm
- ◆ Exclusive 52 unit property with Ample Lighted Parking
- ◆ Walking Distance to Becks Pond, Shopping & Bus Route

Unit Amenities

- ◆ Full size Washer & Dryer in Every Apartment
- ◆ Open Kitchen Design with Breakfast Bar
- ◆ Natural European Wood Cabinets
- ◆ Modern Kitchens with Built-in Microwaves
- ◆ 18 cu FT Refrigerator with Auto Ice Maker
- ◆ Energy Efficient Electric Heat Pump
- ◆ Central Air-conditioning
- ◆ Spacious Over-Sized Walk-In Closets
- ◆ Two Panel Doors
- ◆ Energy Efficient Thermopane Windows & Doors



ARCCA Analysis – Public Transit

Unlikely/difficult

- The community is located beyond one mile of any transit line (with no stop or hub)

Long-term improvement

- The community is located between a quarter-mile to one-mile of any transit line (with no stop or hub)

Short-term improvement

- The community is located within a quarter-mile of a good frequency transit line with no stop or hub
- The community is located within a quarter-mile of a poor frequency transit line with a stop or hub

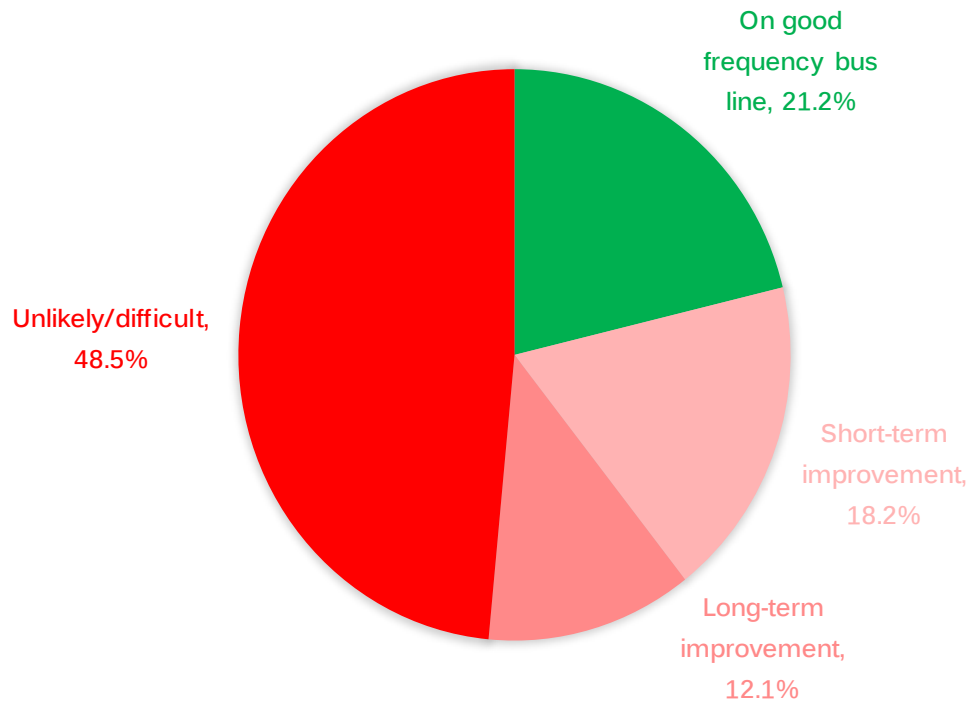
Within transit buffer

- The community is located within a quarter-mile of a good frequency transit line with a stop or hub

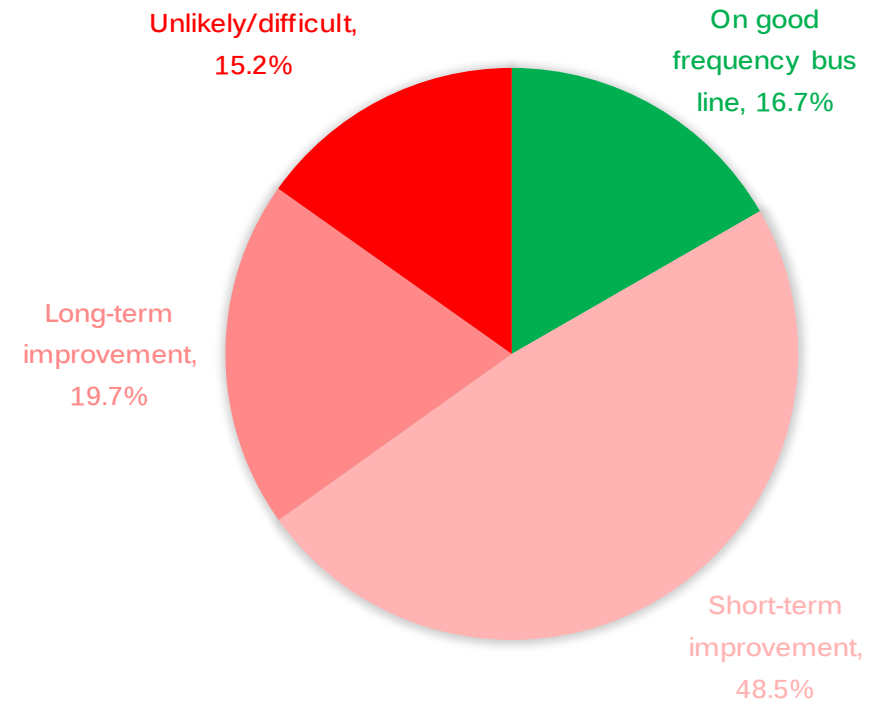


ARCCA Analysis – Public Transit

Cecil County



New Castle County



ARCCA Transit Analysis

Suburban Age Restricted Communities in the
WILMAPCO region

2019 Transportation Justice Report



ARCCA Transit Analysis

- On Good Frequency Bus Line
- Short-term Improvement
- Long-term Improvement
- Unlikely / Difficult
- Good Frequency Line
- Bus Line

Chester County

Delaware County

PENNSYLVANIA

MARYLAND

NEW JERSEY

Salem County

Harford County

Chesapeake Bay

Cecil County

New Castle County

MARYLAND

DELAWARE

Kent County, MD

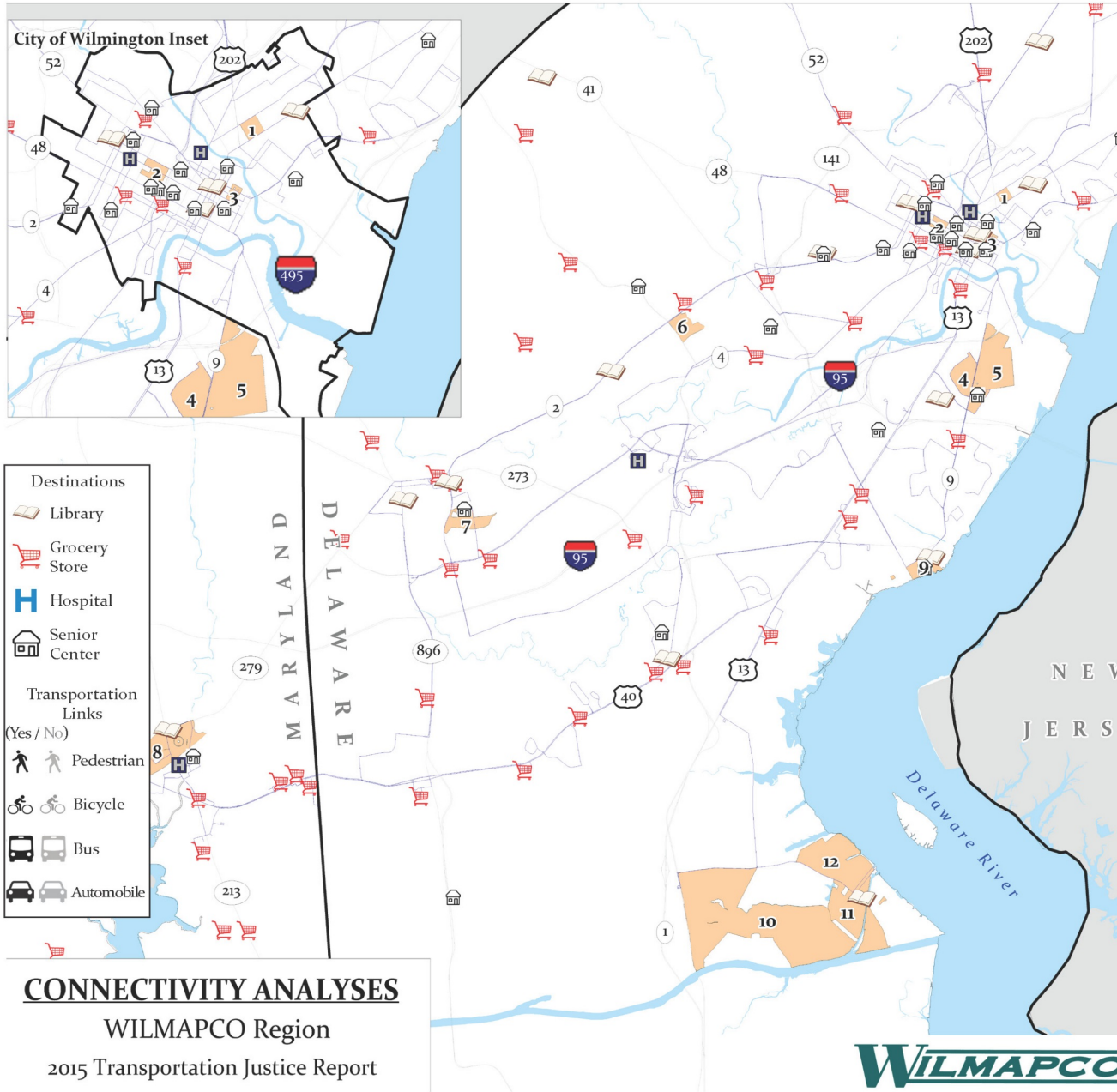
Kent County, DE

Delaware River

	NCC	CC	Region
* On Good Frequency Bus Line	16.7 %	21.2 %	18.2 %
** Short-term Improvement	48.5 %	18.2 %	38.4 %
*** Long-term Improvement	19.7 %	12.1 %	17.1 %
**** Unlikely / Difficult	15.2 %	48.5 %	26.3 %
* The community is located within a quarter-mile of a good frequency transit line with a stop or hub			
** The community is located within a quarter-mile of a good frequency transit line with no stop or hub or the community is located within a quarter-mile of any transit line with a stop or hub			
*** The community is located within a quarter-mile to a mile of any transit line with no stop or hub			
**** The community is located beyond a mile of any transit line with no stop or hub			
In New Castle County, good frequency bus route lines are those that operate every 30 minutes at midday. In Cecil County, they are those that operate every 1 hour at midday. Data sources: DART First State and Cecil Transit.			
In the summer of 2011, WILMAPCO produced a data report exploring public transit and pedestrian connections from existing and emerging age restricted communities. A methodology was developed to assess the level of connections to these networks. In the years since, we have worked with researchers at Bucknell University to refine the methodology, known as the Age Restricted Community Connectivity Assessment (ARCCA). This analysis includes data from both Cecil and New Castle Counties, not including the City of Wilmington.			



Connectivity Analysis



1 - North Wilmington 	7 - Greenbridge
2 - West Hill 	8 - Elkton Heights
3 - Upper East Side 	9 - New Castle
4 - Dunleith 	10 - St. Georges
5 - Rose Hill 	11 - Delaware City South
6 - Klair Estates 	12 - Delaware City North



TJ Analysis: Connectivity

- Extended analysis: all regional block groups to destinations (calculated at housing unit level) by mode
- Block groups with TJ and MC and other variables flagged for analysis
- Rich regional AND equity based analyses





TJ Analysis: Connectivity



Libraries



Community
centers



Urgent care



Low-wage
job centers



Senior centers



Medical
centers



Grocery stores



State Service
Centers



Pharmacies



TJ Analysis: Connectivity





TJ Analysis: Connectivity



10 minute accessible walking trip



10 minute accessible biking trip



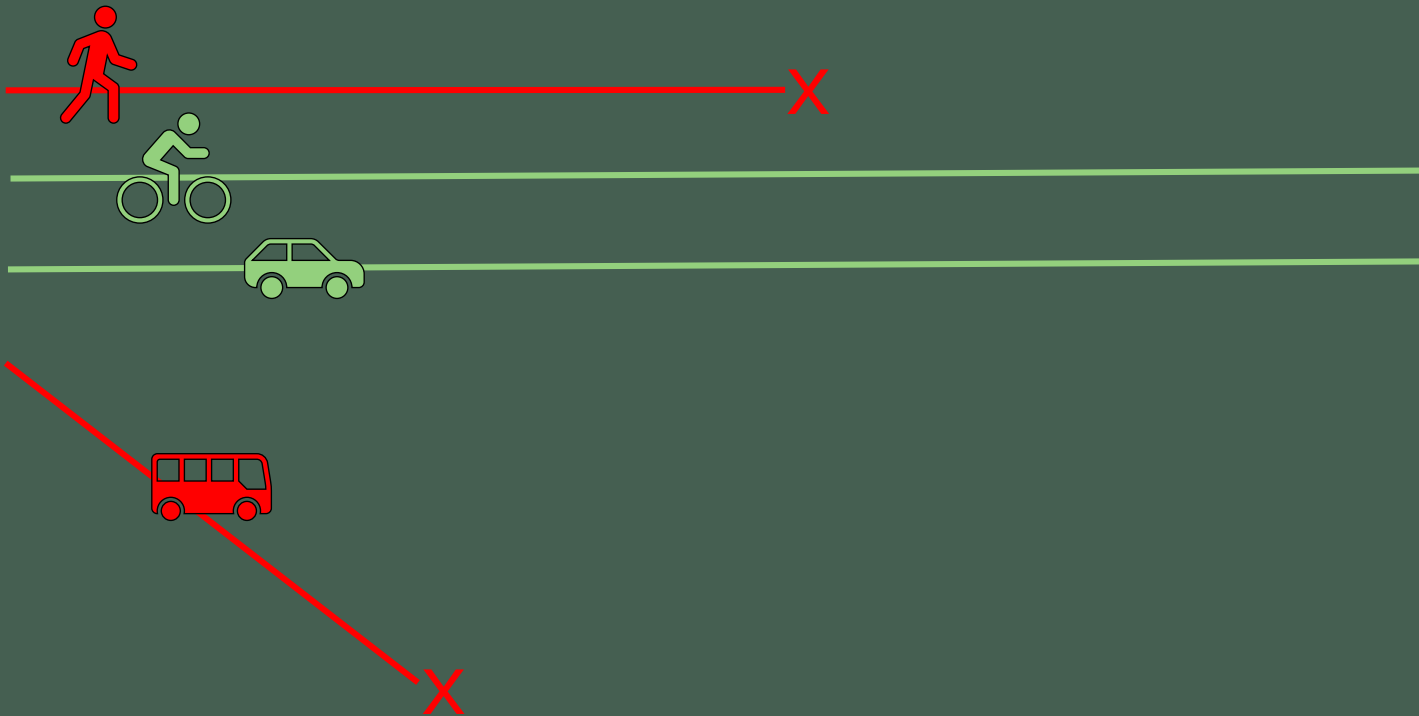
15 minute accessible car trip



30 minute accessible, one-way bus trip
(including no more than 10 mins walking, total)



TJ Analysis: Connectivity





TJ Analysis: Connectivity





TJ Analysis: Connectivity

Block Group

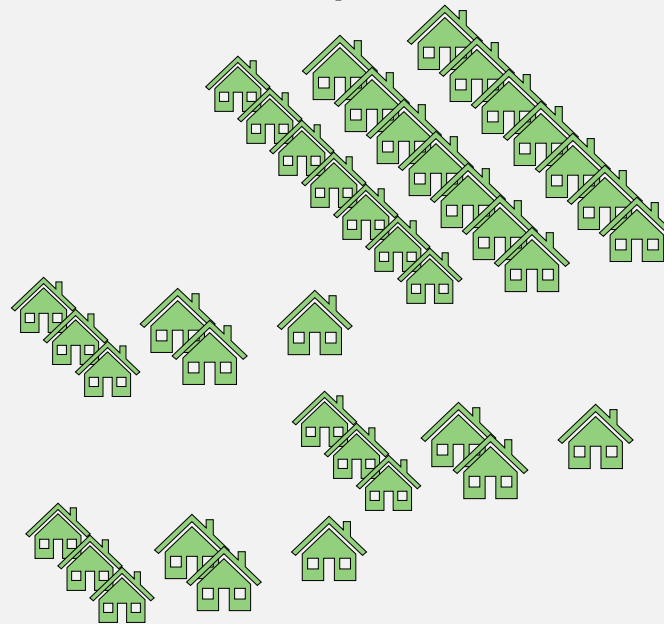


22% of houses
connected to a
library by walking



TJ Analysis: Connectivity

Block Group



100% of houses
connected to
one or more
library by walking



TJ Analysis: Connectivity

FINAL PRODUCT

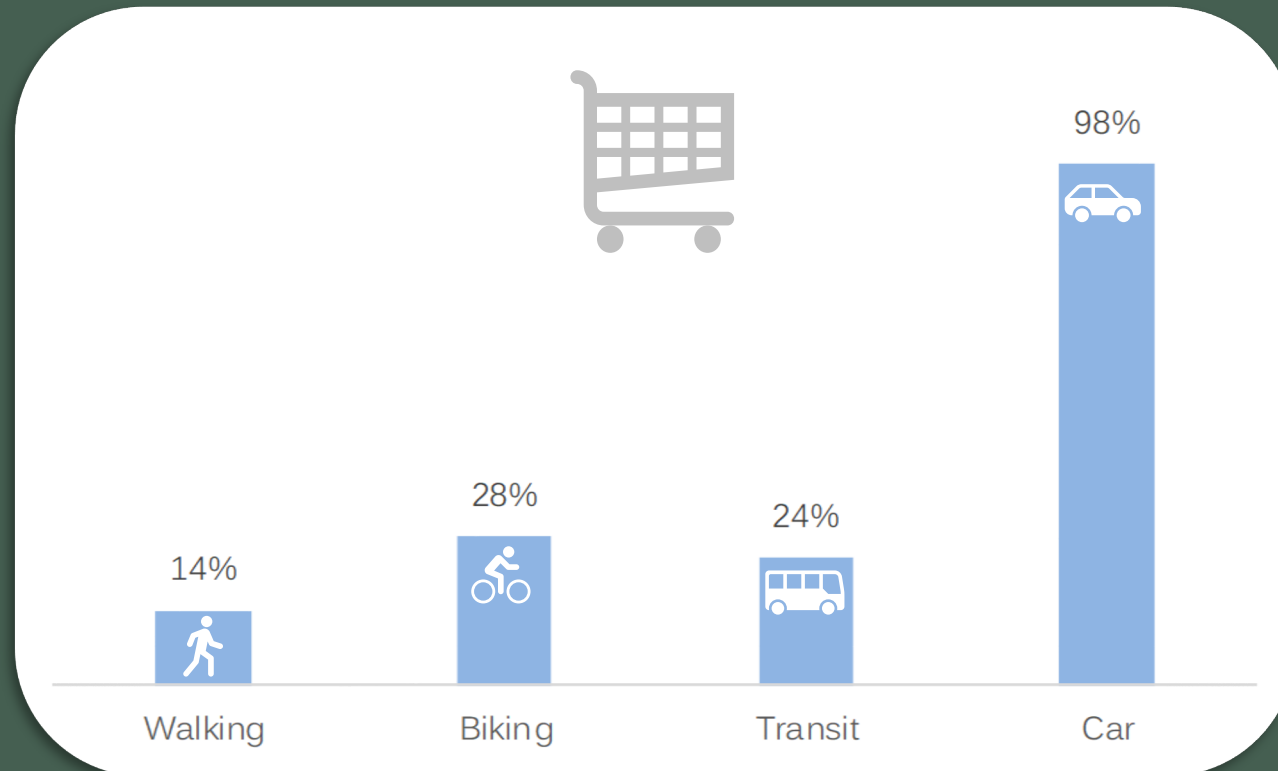
Percent of housing units accessible to one or more libraries by walking, by block group

85%	25%	0%
100%	0%	5%



TJ Analysis: Connectivity

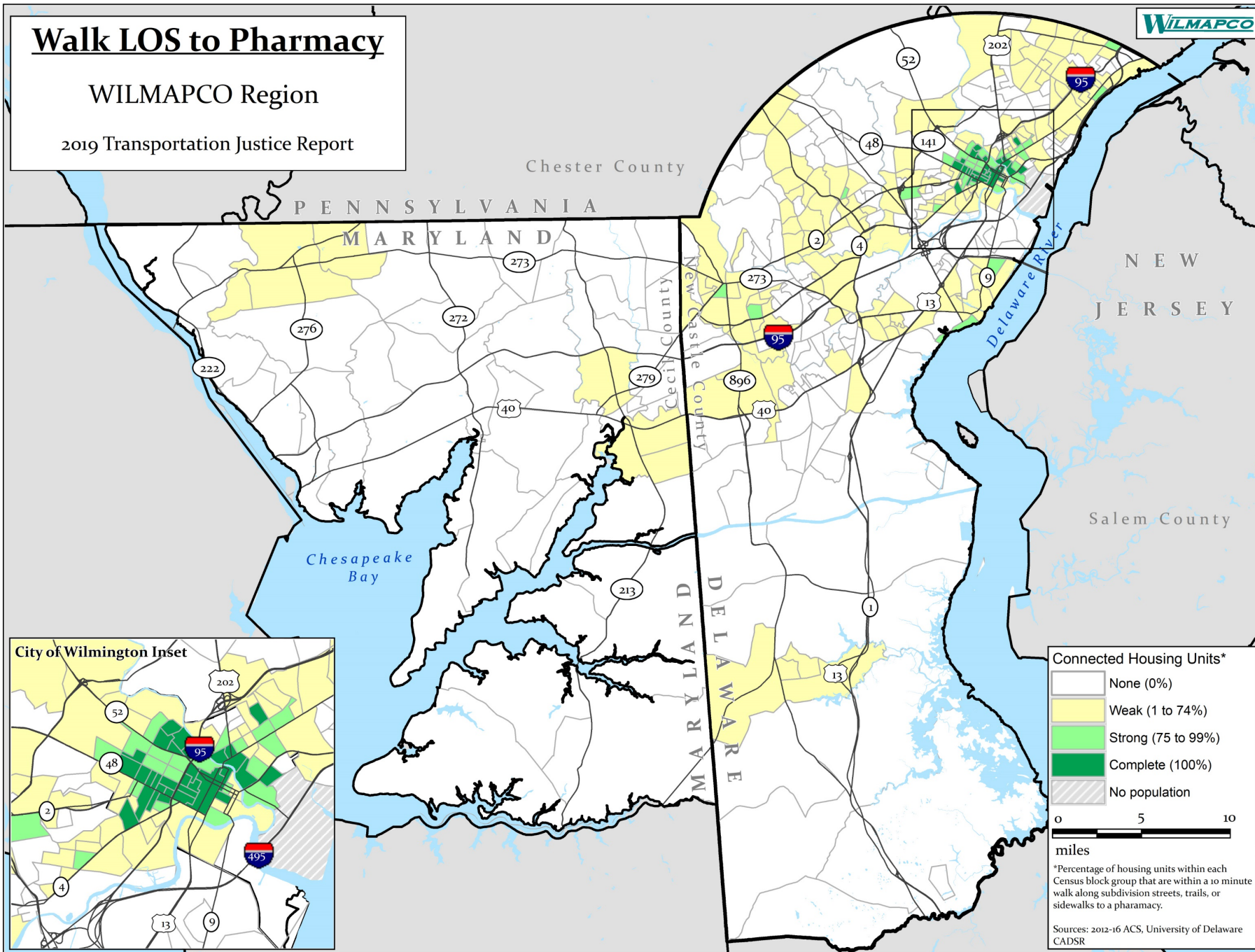
Homes with Connections to Supermarkets WILMAPCO Region



Walk LOS to Pharmacy

WILMAPCO Region

2019 Transportation Justice Report



CONNECTED
HOUSING UNITS

New Castle Co.

20%

Cecil Co.











2%

Region

17%













TJ Analysis: Connectivity Equity

	 Supermarket	 Pharmacy	 Hospital	 Library	 Low-Wage Emp. Center	 Medical Center	 Community Center	 Senior Center	 State Service Center
Regional Average	14%	17%	1%	5%	3%	6%	8%	8%	2%
NEIGHBORHOODS									
Black	40%	40%	5%	22%	5%	16%	27%	28%	11%
Hispanic	30%	28%	5%	11%	4%	12%	19%	17%	2%
Poverty	44%	43%	4%	23%	11%	19%	28%	27%	8%



TJ Analysis: Connectivity Equity

									
	Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center
Regional Average	14%	17%	1%	5%	3%	6%	8%	8%	2%

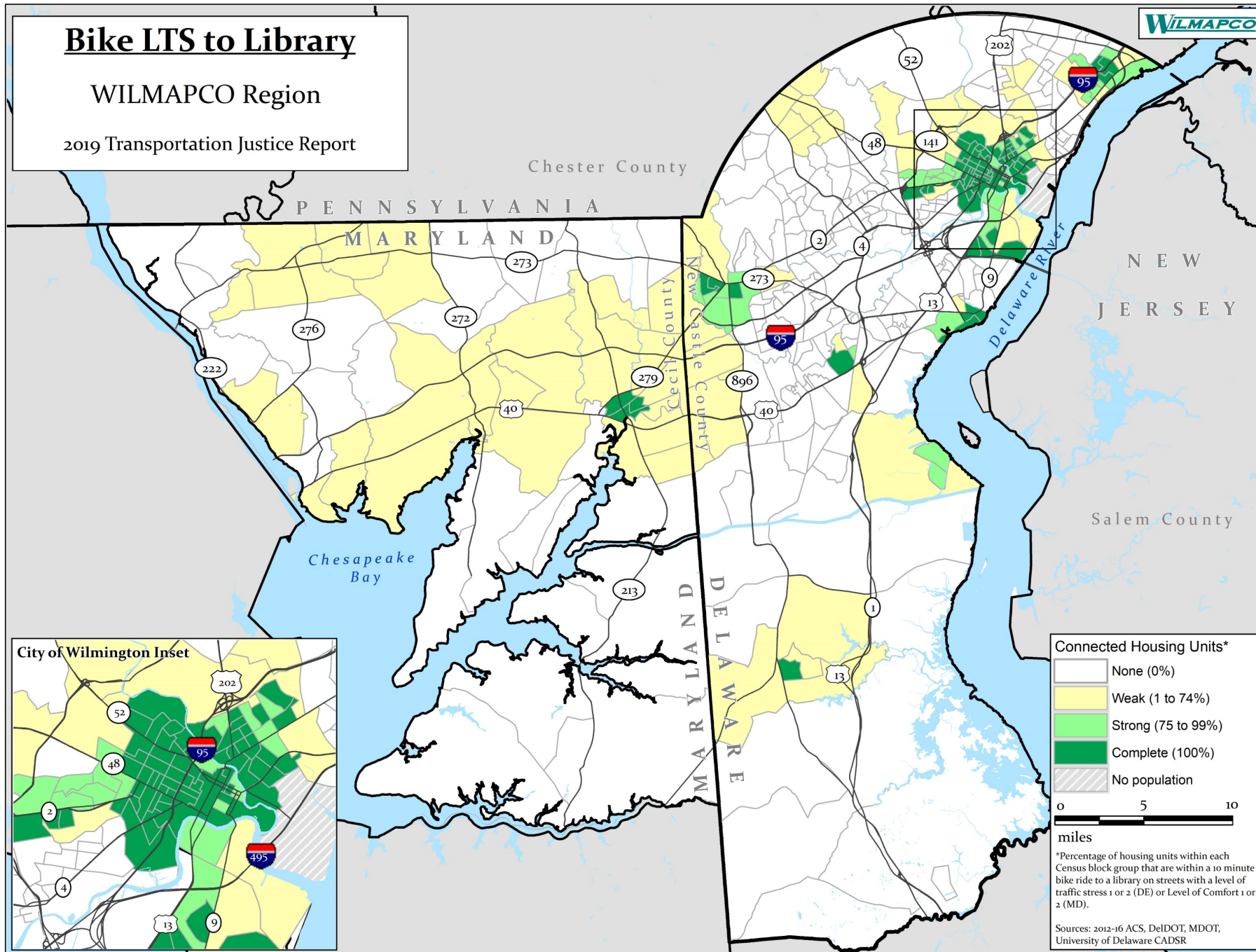
NEIGHBORHOODS

Seniors	8%	19%	3%	7%	1%	2%	3%	9%	0%
Disabled	4%	22%	0%	36%	0%	46%	63%	25%	46%
Zero-car HH	38%	47%	8%	20%	7%	18%	28%	35%	12%

Bike LTS to Library

WILMAPCO Region

2019 Transportation Justice Report



CONNECTED
HOUSING UNITS

New Castle Co.

25%

Cecil Co.











7%

Region

23%



TJ Analysis: Connectivity Equity











									
Regional Average	Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center
	28%	39%	12%	23%	17%	24%	25%	28%	15%

NEIGHBORHOODS

Black	60%	71%	42%	63%	40%	60%	57%	63%	50%
Hispanic	34%	60%	22%	35%	31%	27%	33%	41%	22%
Poverty	61%	64%	53%	57%	50%	50%	60%	65%	54%



TJ Analysis: Connectivity Equity

									
	Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center
Regional Average	28%	39%	12%	23%	17%	24%	25%	28%	15%

NEIGHBORHOODS

Seniors	31%	47%	14%	20%	20%	30%	21%	30%	14%
Disabled	2%	100%	22%	100%	0%	100%	100%	100%	100%
Zero-car HH	48%	70%	43%	56%	47%	51%	56%	64%	47%

Car to Medical Center

WILMAPCO Region

2019 Transportation Justice Report



CONNECTED
HOUSING UNITS

New Castle Co.

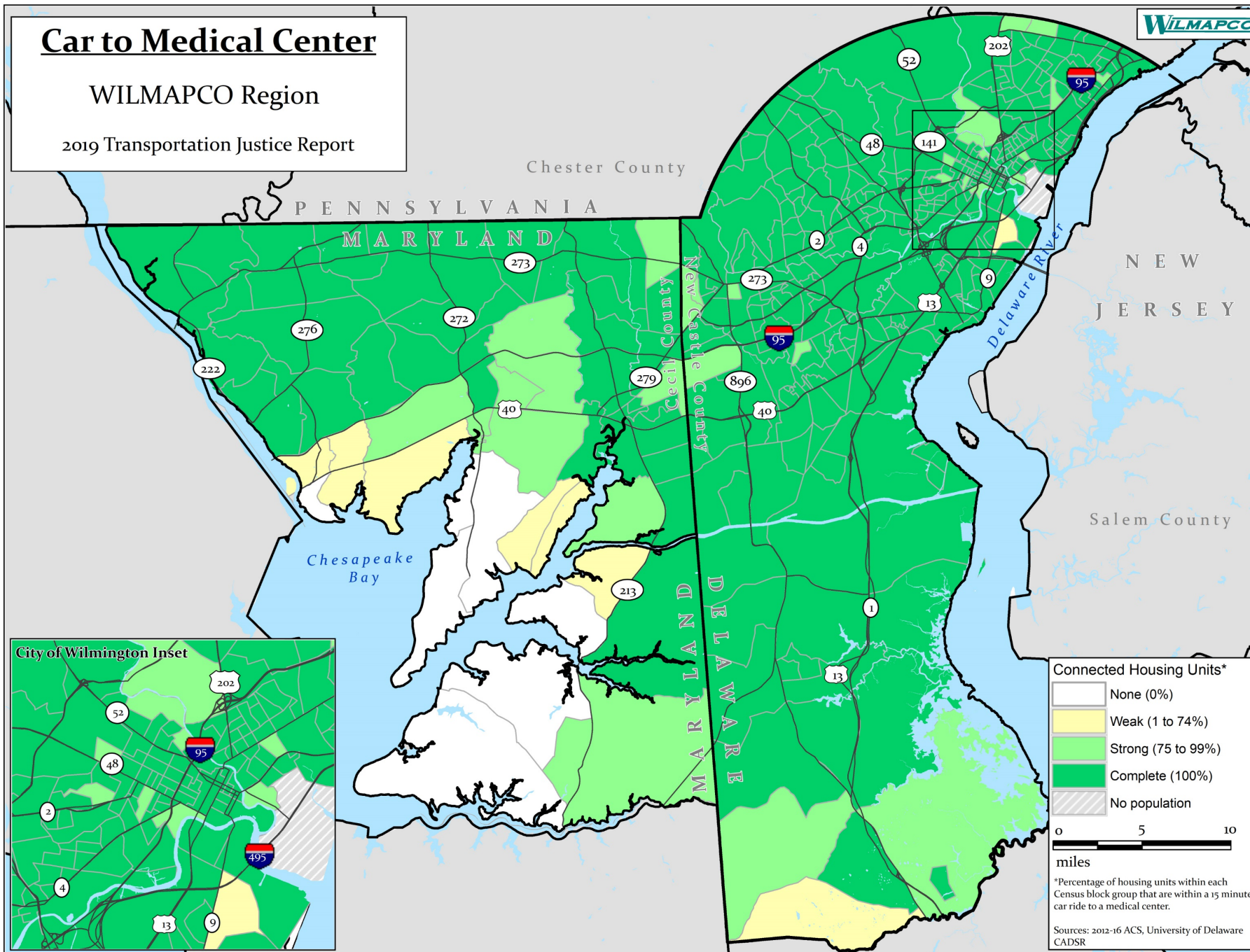
99%

Cecil Co.

68%

Region











95%







TJ Analysis: Connectivity Equity

									
	Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center
Regional Average	98%	97%	92%	99%	92%	95%	97%	94%	92%

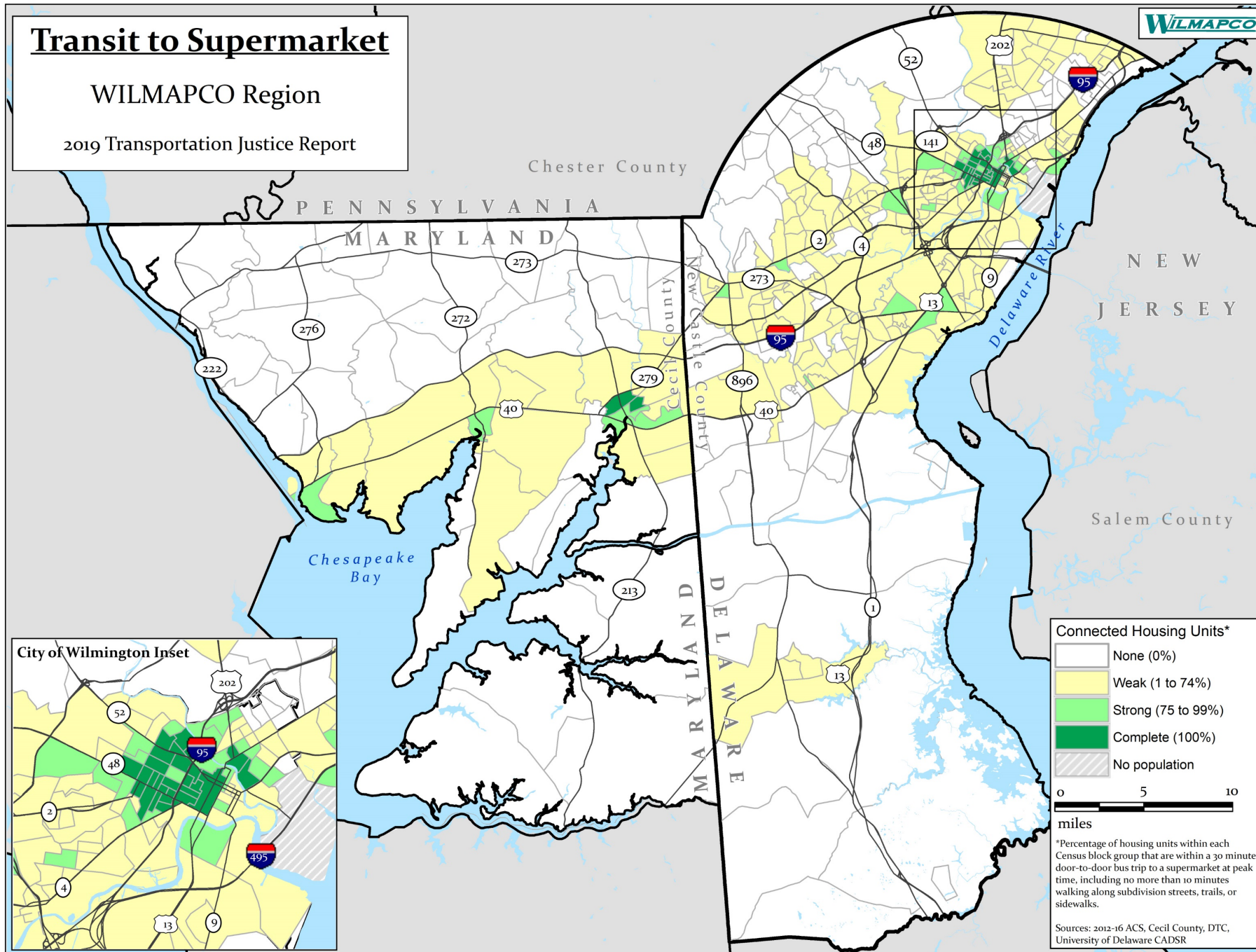
NEIGHBORHOODS

Seniors	99%	99%	97%	99%	98%	96%	99%	99%	97%
Disabled	100%	100%	100%	100%	100%	100%	100%	100%	100%
Zero-car HH	100%	100%	100%	100%	100%	99%	100%	100%	100%

Transit to Supermarket

WILMAPCO Region

2019 Transportation Justice Report



CONNECTED
HOUSING UNITS

New Castle Co.

26%

Cecil Co.











13%

Region

24%













TJ Analysis: Connectivity Equity

									
Regional Average	Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center
Regional Average	24%	35%	8%	18%	19%	20%	18%	18%	10%
NEIGHBORHOODS									
Black	47%	69%	16%	44%	39%	37%	46%	41%	25%
Hispanic	42%	54%	17%	29%	32%	30%	37%	32%	15%
Poverty	61%	71%	28%	58%	56%	52%	61%	62%	34%



TJ Analysis: Connectivity Equity

									
Supermarket	Pharmacy	Hospital	Library	Low-Wage Emp. Center	Medical Center	Community Center	Senior Center	State Service Center	
Regional Average	24%	35%	8%	18%	19%	20%	18%	18%	10%
NEIGHBORHOODS									
Seniors	20%	30%	13%	22%	16%	19%	15%	20%	11%
Disabled	0%	29%	0%	36%	0%	52%	69%	28%	45%
Zero-car HH	58%	77%	31%	53%	50%	52%	55%	54%	36%



TJ Analysis: Food Deserts

- Identify food deserts, regionally
- Enhance USDA methodology, including use of connectivity data
- Allow for more targeted policy/intervention



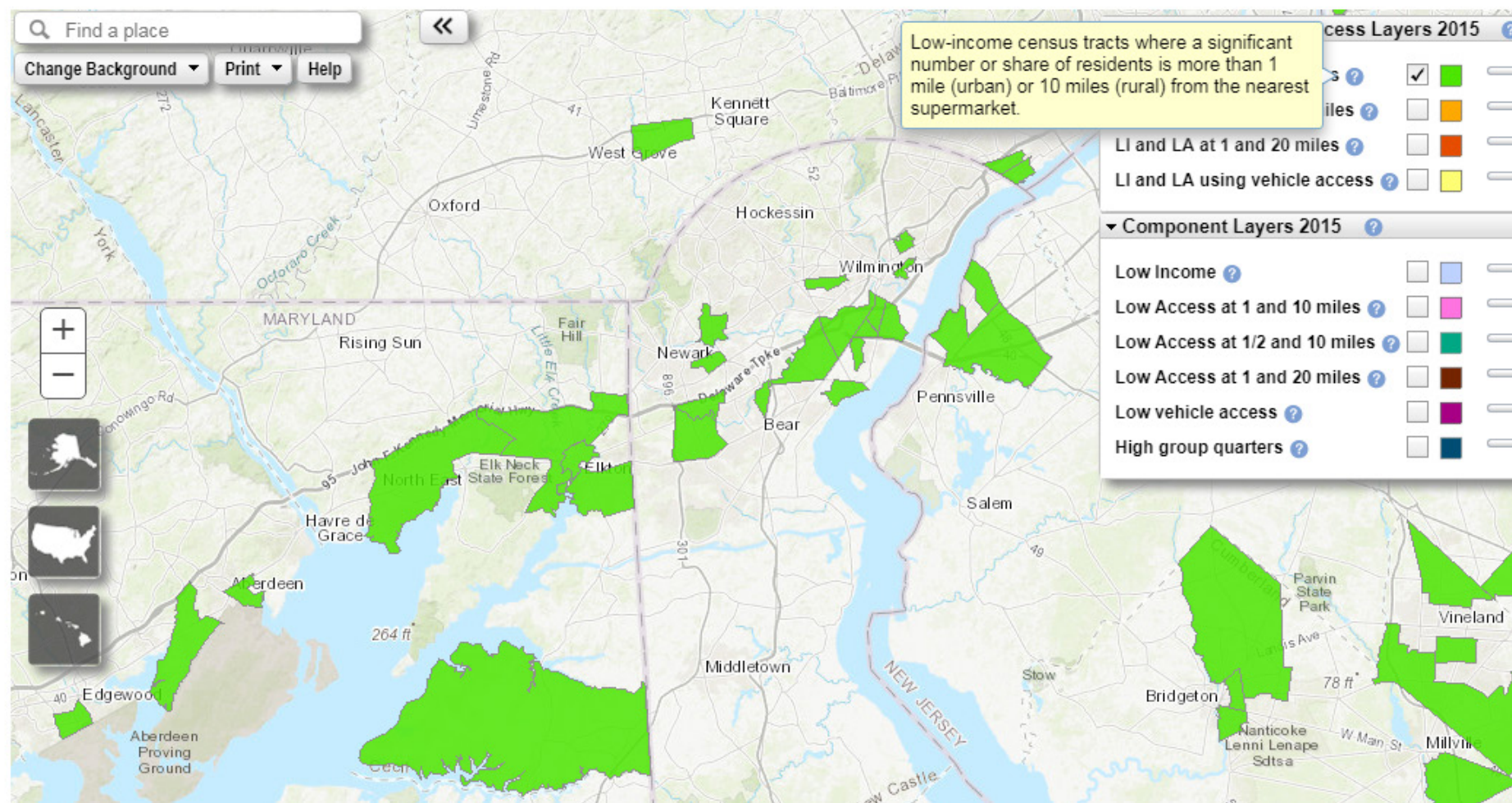


USDA Food Deserts

Method flaws

- Uses census tracts
- Includes non-residential
- No bus access considered

Go to the Atlas

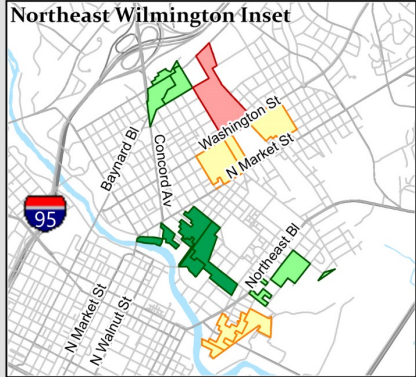


Residential Food Deserts

WILMAPCO Region

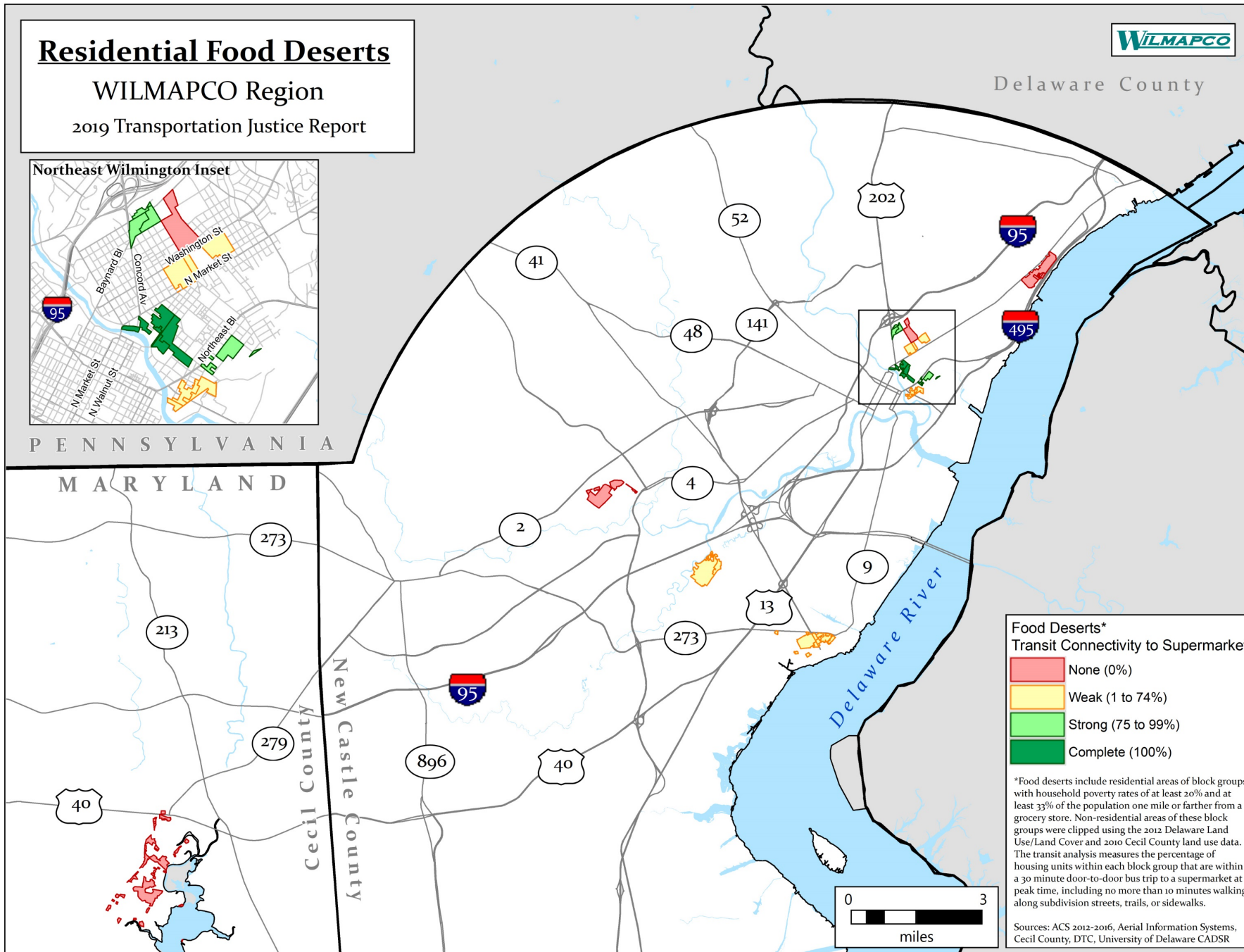
2019 Transportation Justice Report

Northeast Wilmington Inset



P E N N S Y L V A N I A

M A R Y L A N D



WILMAPCO Food Deserts

Method

Block groups with
>20% poverty where
≥33% of the population
are ≥1 mile from a
supermarket

Only residential
areas shown

Classed by housing unit
transit
connectivity to
supermarket

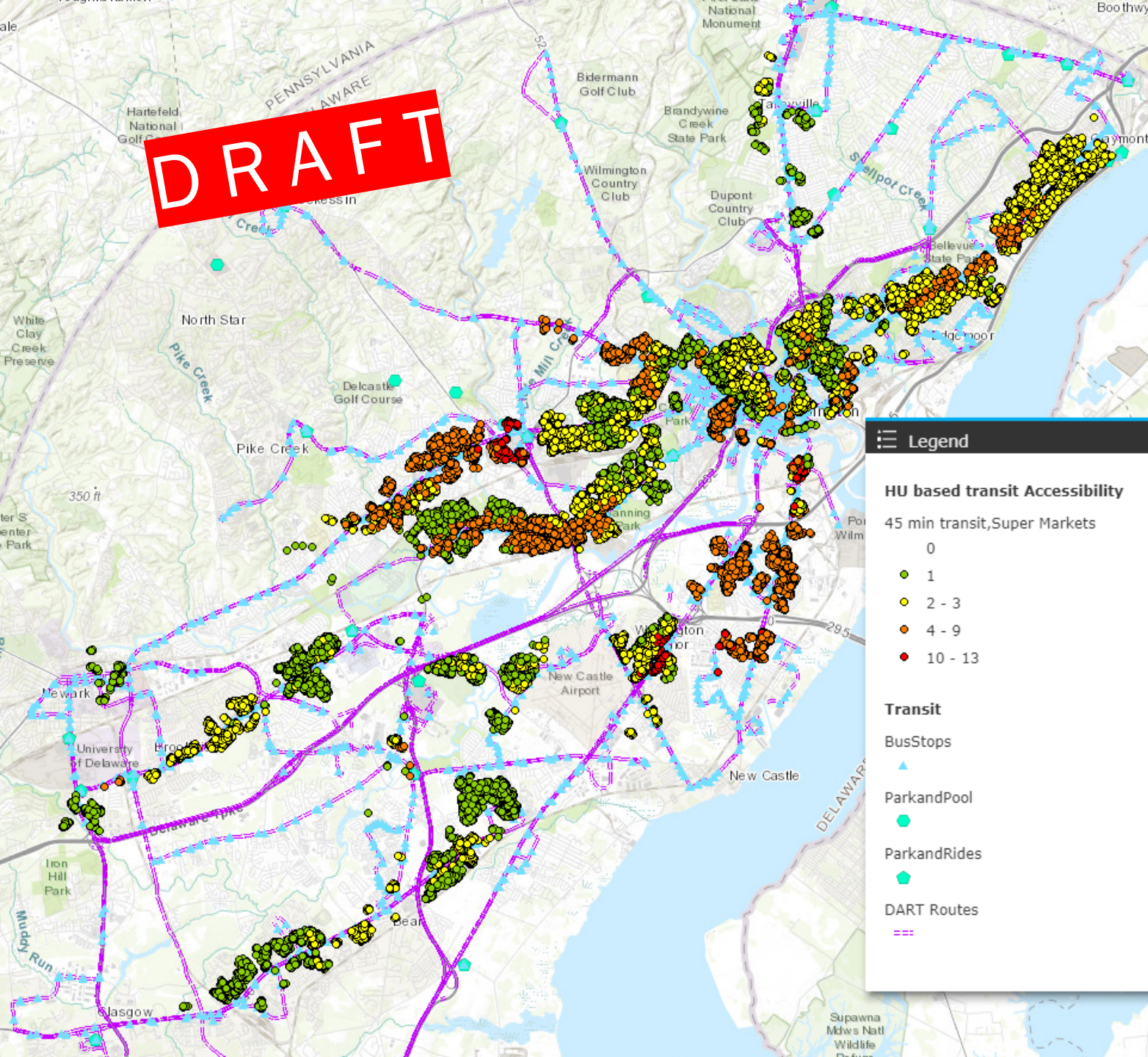


Next Steps/Timeline

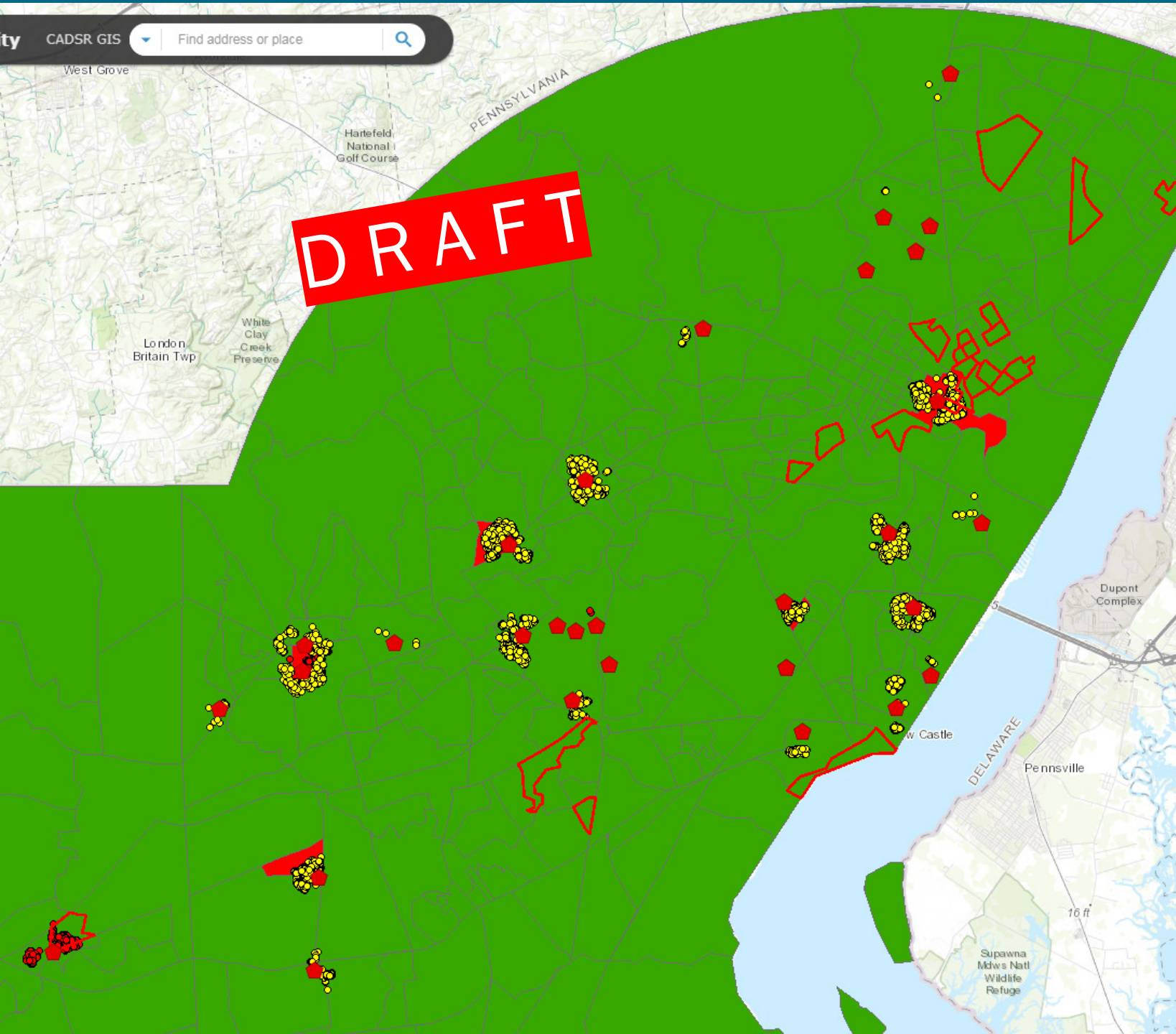
- Wrap up and insert connectivity analysis
- Finalize recommendations
- MC personal story
- Executive summary and front matter
- Projected Council endorsement in Nov. 2019







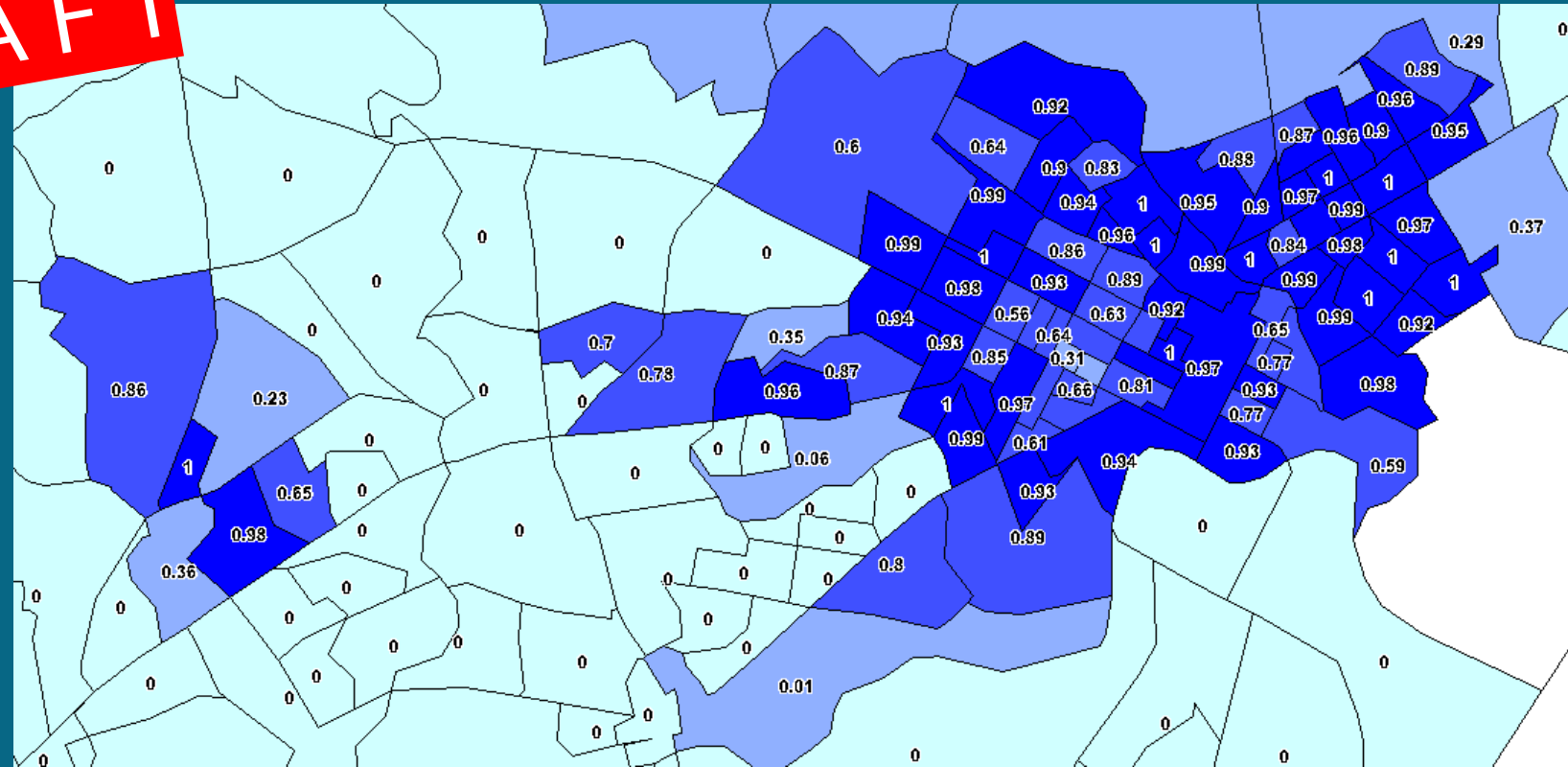
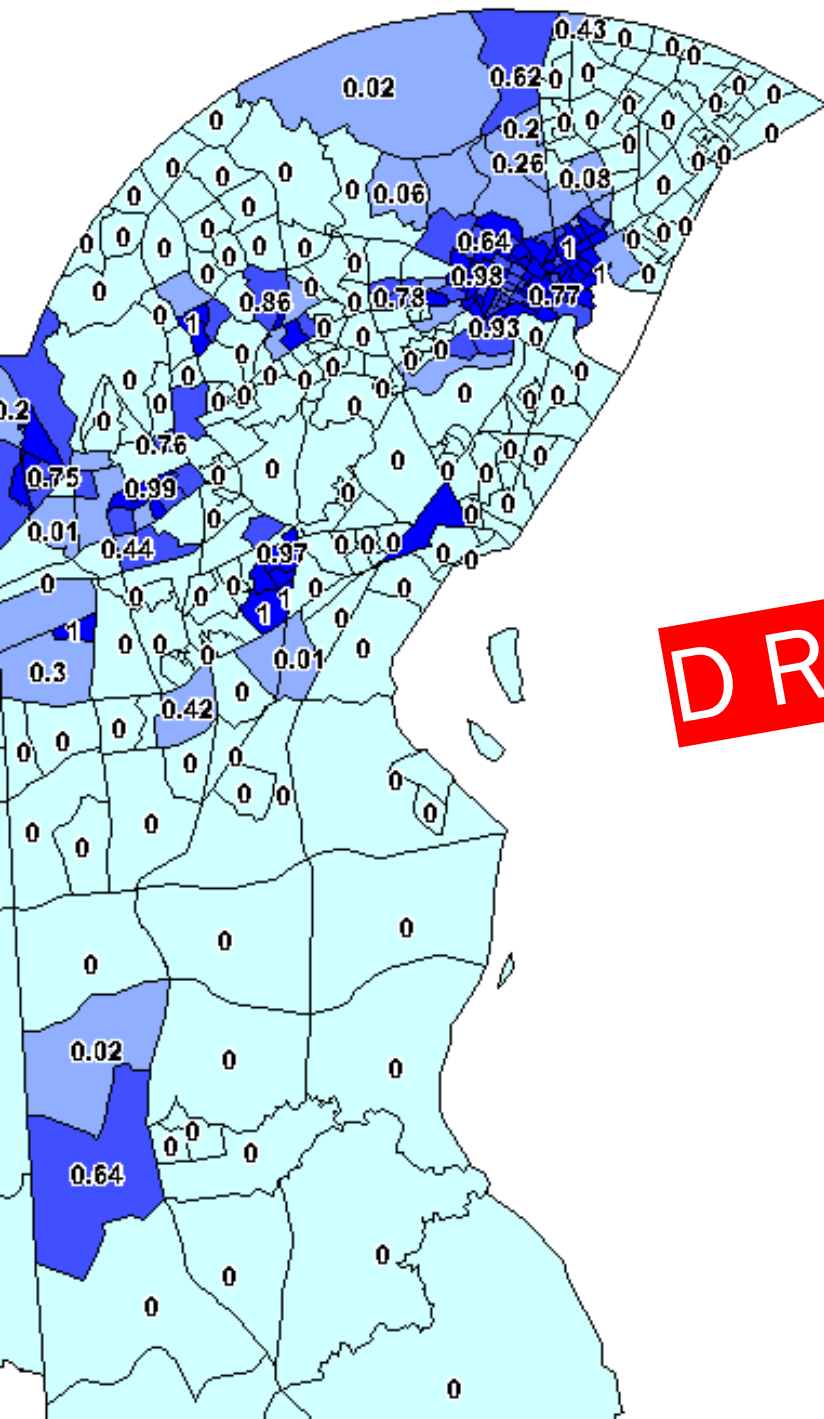
45-minute transit
trip to supermarket



10-minute walk
access to a
low-wage center

10-minute bike access to a pharmacy

DRAFT





TJ Analysis: TIP Project Equity

Project spending within TJ group concentrations
vs. total population of that concentration

- Poverty, blacks, Hispanics, Asians
- Whites added for comparison
- Concentration = $>2x$ the regional %
 - For whites, $>90\%$





TJ Analysis: TIP Project Equity

Only “community TIP projects” counted

- Excluded: Expressways, Railways
- Grouped bridge projects assumed equal funding
- Wilmington Riverfront projects not counted as “minority” or “low income”
 - Shares block groups w/distressed neighborhoods

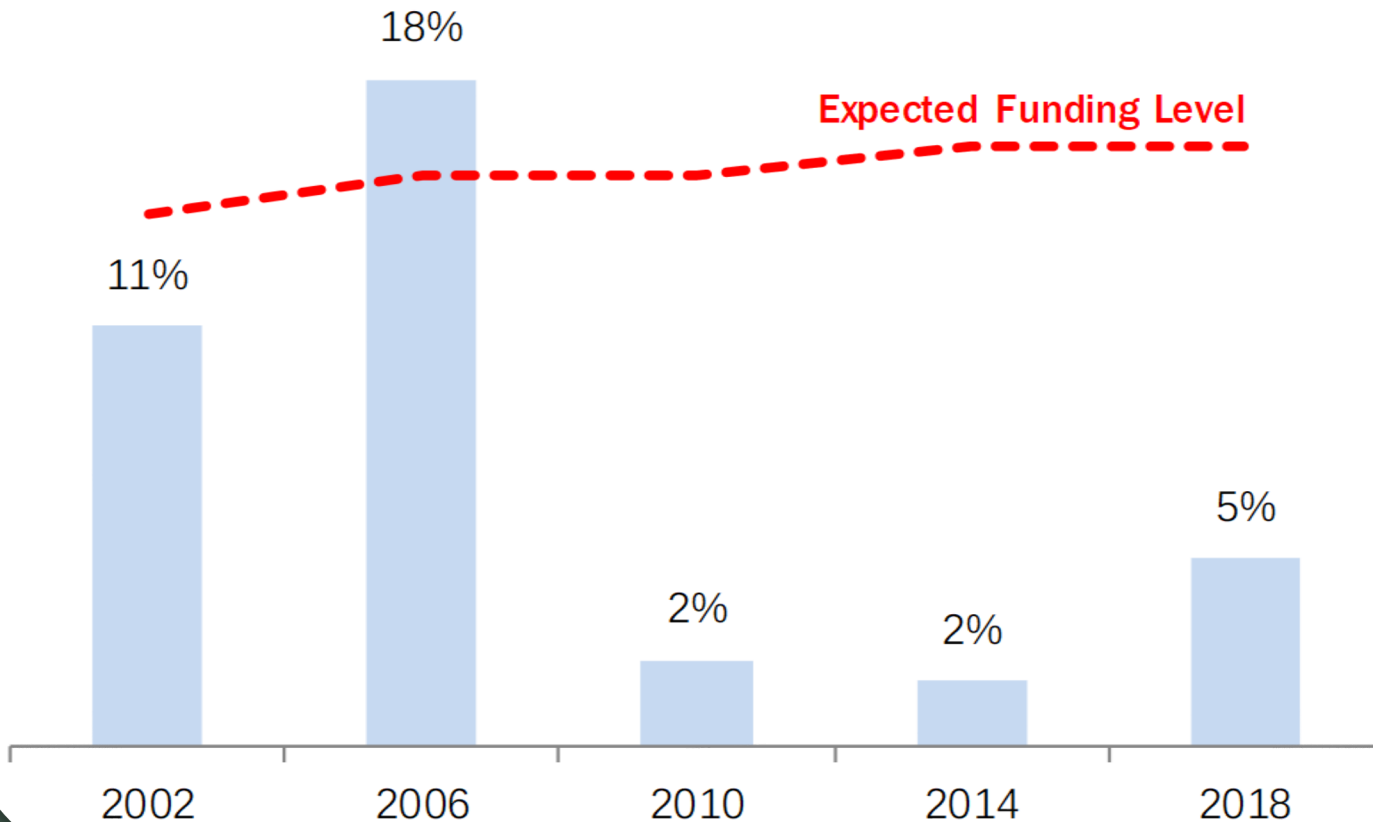
Versus total TIP funding in equity analysis



Microsoft



TJ Analysis: TIP Project Equity

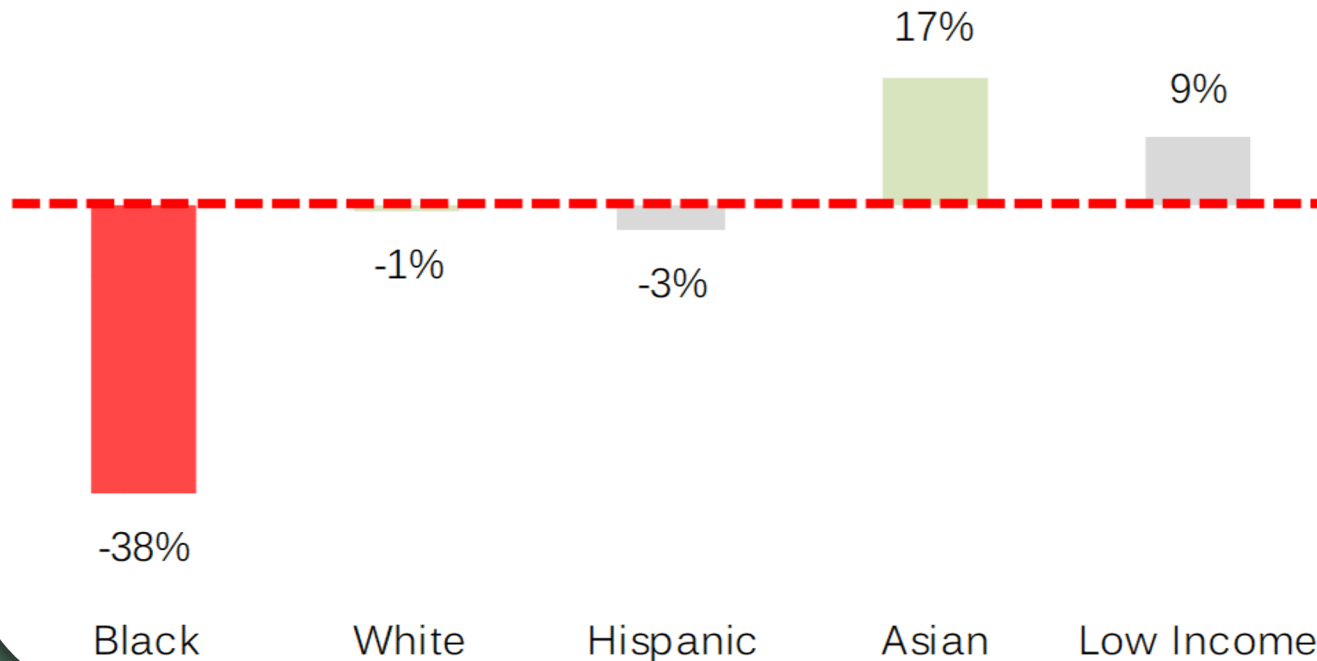


TIP Project Funding Equity within Black Concentrations

“Expected Funding Level” = total population within the black concentrations



TJ Analysis: TIP Project Equity



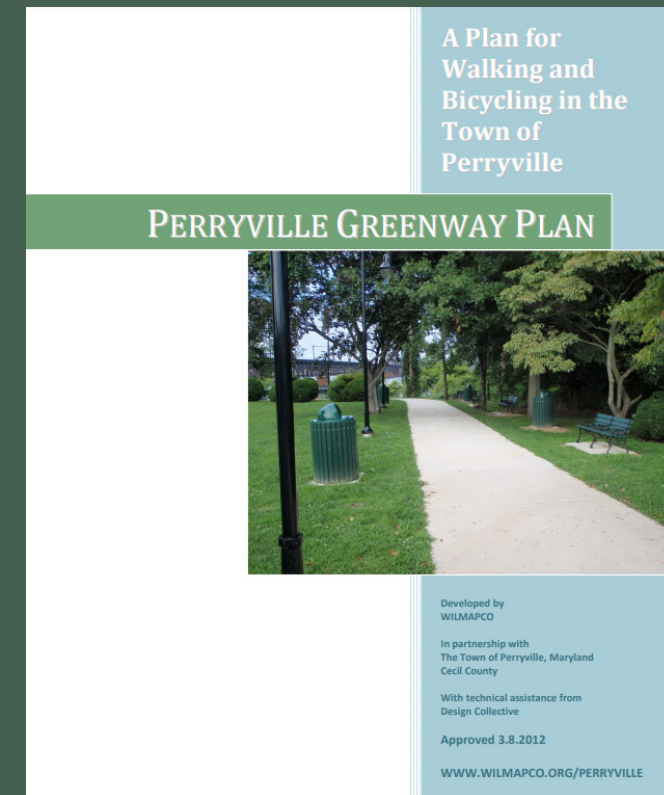
TIP Project Funding Equity within Areas of Concentration 2002 - 2018

- Deviation from “expected” funding levels. Project funding received compared to the total population with the concentrations.
- Summed TIP Spending on “community projects” from years 2002, 2006, 2010, 2014, and 2018. Compared to total mappable TIP spend.
- Considered racial and ethnic and low income concentrations to be block groups with double or more the regional average for that population, or >90% for whites
- Census data: 2000 Census, 2006 - 2010 ACS, 2012 - 2016 ACS



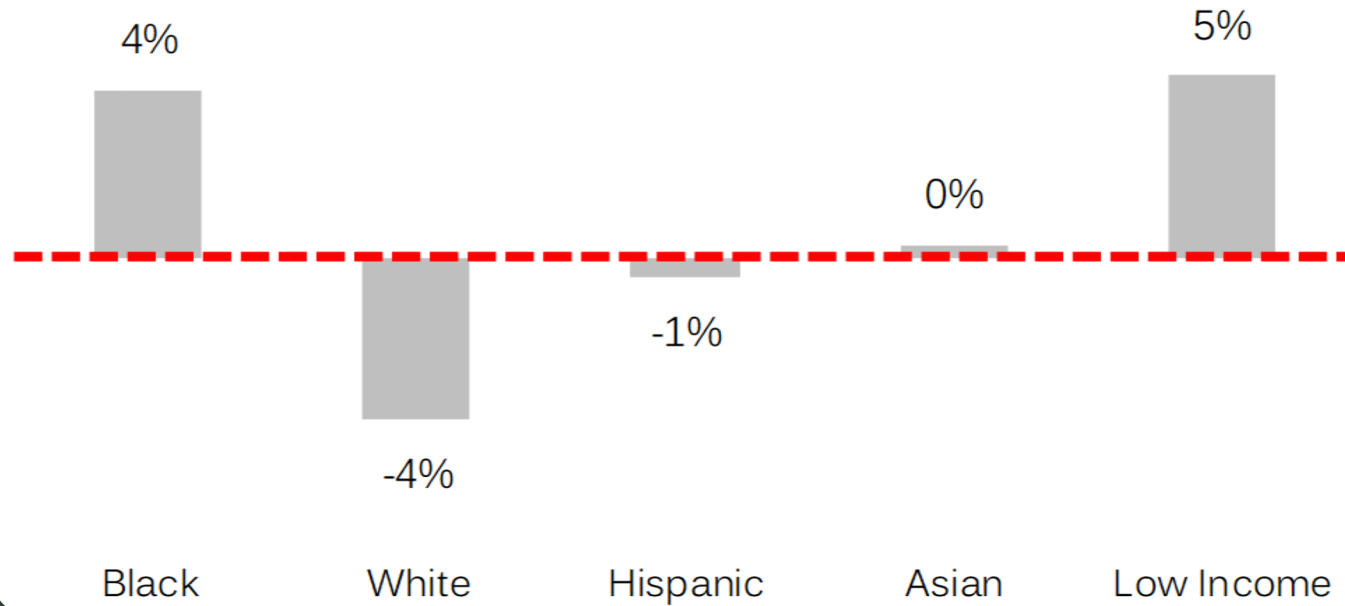
TJ Analysis: UPWP Planning Equity

- Equitable distribution of Unified Planning Work Program (UPWP) plans
 - List of plans undertaken by WILMAPCO
 - Considered years 1999 to 2019
 - Excluded regional level projects
- Tag census block groups with UPWP projects
- Calculate racial/ethnic and poverty makeup of those places vs. regional average





TJ Analysis: UPWP Plans Equity



Transportation Planning Equity 1999 - 2019

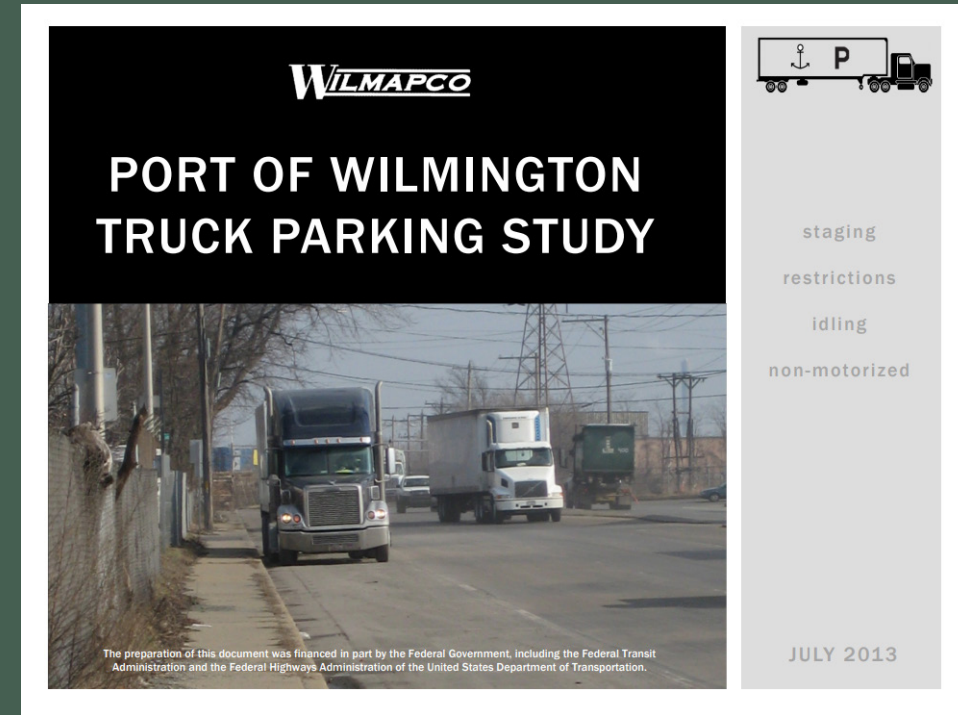
■ Deviation from “expected” planning levels. The total racial/ethnic and low income populations within block groups with UPWP projects compared to the regional averages for those populations.

■ Census data: 2000 Census, 2006 - 2010 ACS, 2012 - 2016 ACS



TJ Analysis: UPWP Plans Equity

- 15 plans within black concentrations
- 1999 – 2019
- 9 plans (60%) in 2013 or after



RTP ASPIRATION PROJECTS

within Black Concentrations

WILMAPCO Region

2019 Transportation Justice Report

DRAFT

PENNSYLVANIA

North Claymont
Area Master Plan (14)

Southbridge
Streetscape
Improvements (9)

Port of Wilm.
Truck Staging
Area (10)

Christina River
Greenway (8)

Route 9
Corridor
Master Plan
(15-16)

Salem Church Rd:
I-95 to US 40,
Sidewalks (9)

US 40:
SR 896
to SR 72 (13)

US 40, SR 72
to Salem
Church Rd (13)

Old Porter Road:
Porter Road to SR 71 (1)

SR 72: US 40
to SR 71, Sidewalks (9)

Del Laws Road,
Sidewalks (2)

US 40/ US 13
Interchange (3)

RTP 2050 Community Aspiration Projects*

- Multimodal (15)
- Bicycle/Pedestrian (3)
- Road (2)

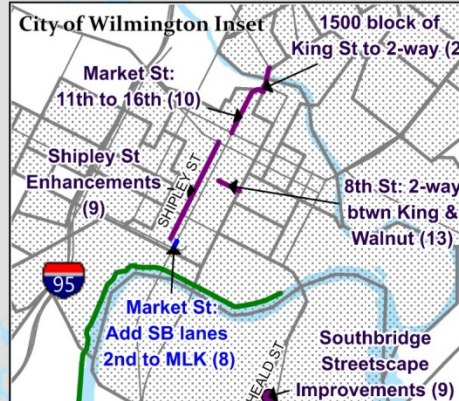
Black Concentrations**



Source: 2012-16 ACS

WILMAPCO

*Community projects are projects that benefit the local community. Expressway and mainline rail projects are excluded. Only projects within Black concentrations are shown.
**Black concentrations are block groups with double or more the regional average (21%) of Non-Hispanic Blacks. The median technical score for these unfunded aspiration projects in Black concentrations is 10. This is equal to the median technical score for all funded (or constrained) projects in the 2050 RTP. Several unfunded projects within Black concentrations had technical scores greater than 10. The technical scores are shown in parentheses next to the project's title on this map.



ASPIRATION (UNFUNDED) PROJECTS W/IN BLACK AREAS

17 total projects

10 Median tech score for
these projects & all RTP
constrained list projects

5 unfunded projects in black
concentrations score >10