

North Central West Virginia Aerotech Industry



FirstEnergy
Juniper CRE Solutions
W.E. Upjohn Institute for Employment Research

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Introduction

- FirstEnergy engagement: Began December of 2018
- Objectives: to assess the state of economic development within the I-79 Corridor with a focus on the aerospace industry
- Process: Discovery, Field Research, Assessment, Recommendations
- Next steps: TBD

Summary statistics

Variable	Combined Area	Harrison Co.	Marion Co.	Monongalia Co.	Taylor Co.
Population	246,933	67,554	56,097	106,420	16,862
Total in Labor Force	130,400	34,132	35,169	53,305	7,794
Total Not in Labor Force	75,168	20,658	10,953	37,511	6,046
Households with Fewer Cars than Workers	5.6%	5.7%	4.6%	6.4%	3.8%
Work Commute- Drive Alone or Carpool	88.8%	91.2%	92.1%	84.8%	94.6%
Work Commute- Public Transport	1.5%	0.7%	0.6%	2.6%	0.0%
Work Commute- Walk or Other Means	5.6%	5.1%	3.3%	7.5%	2.9%

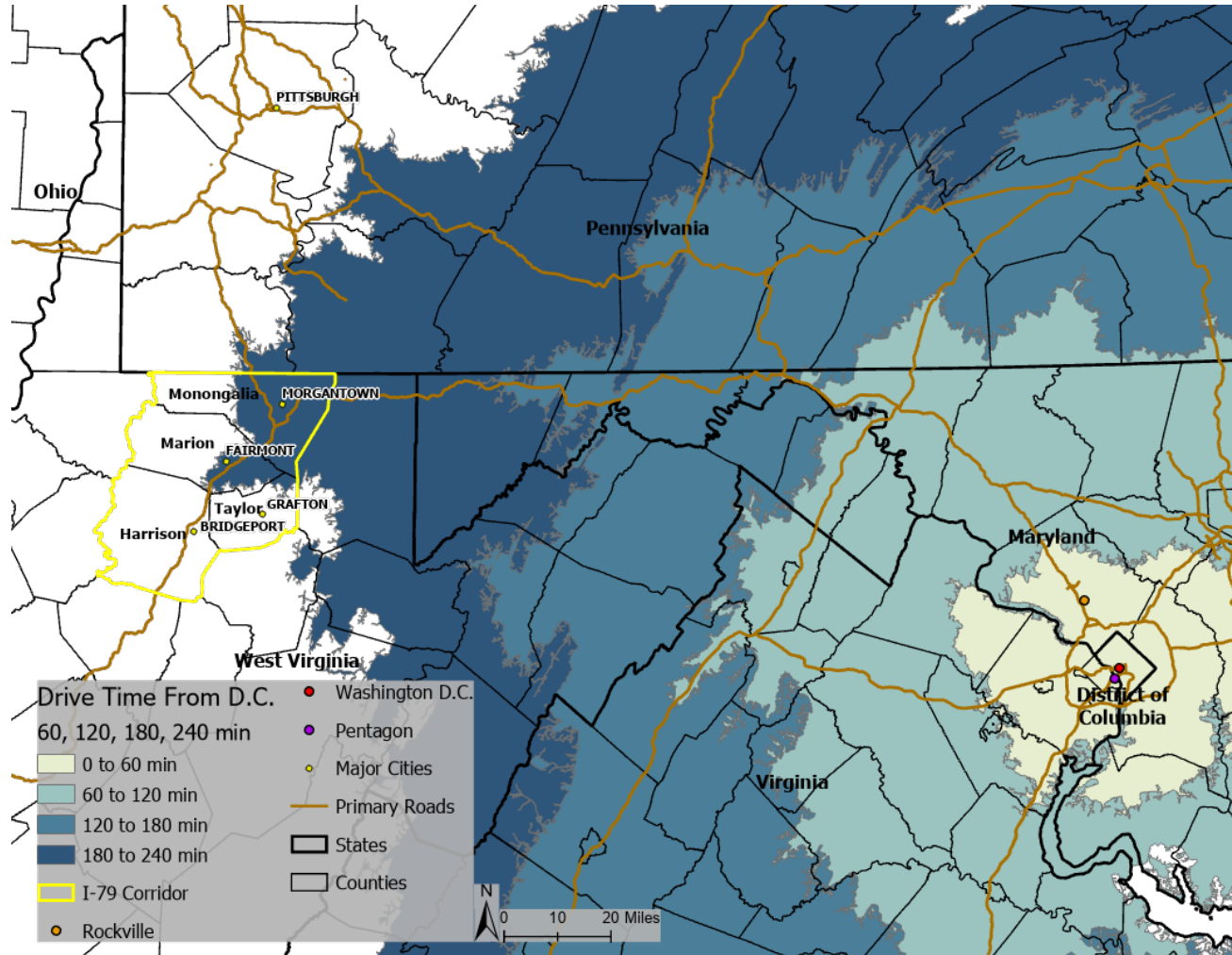
Summary statistics - continued

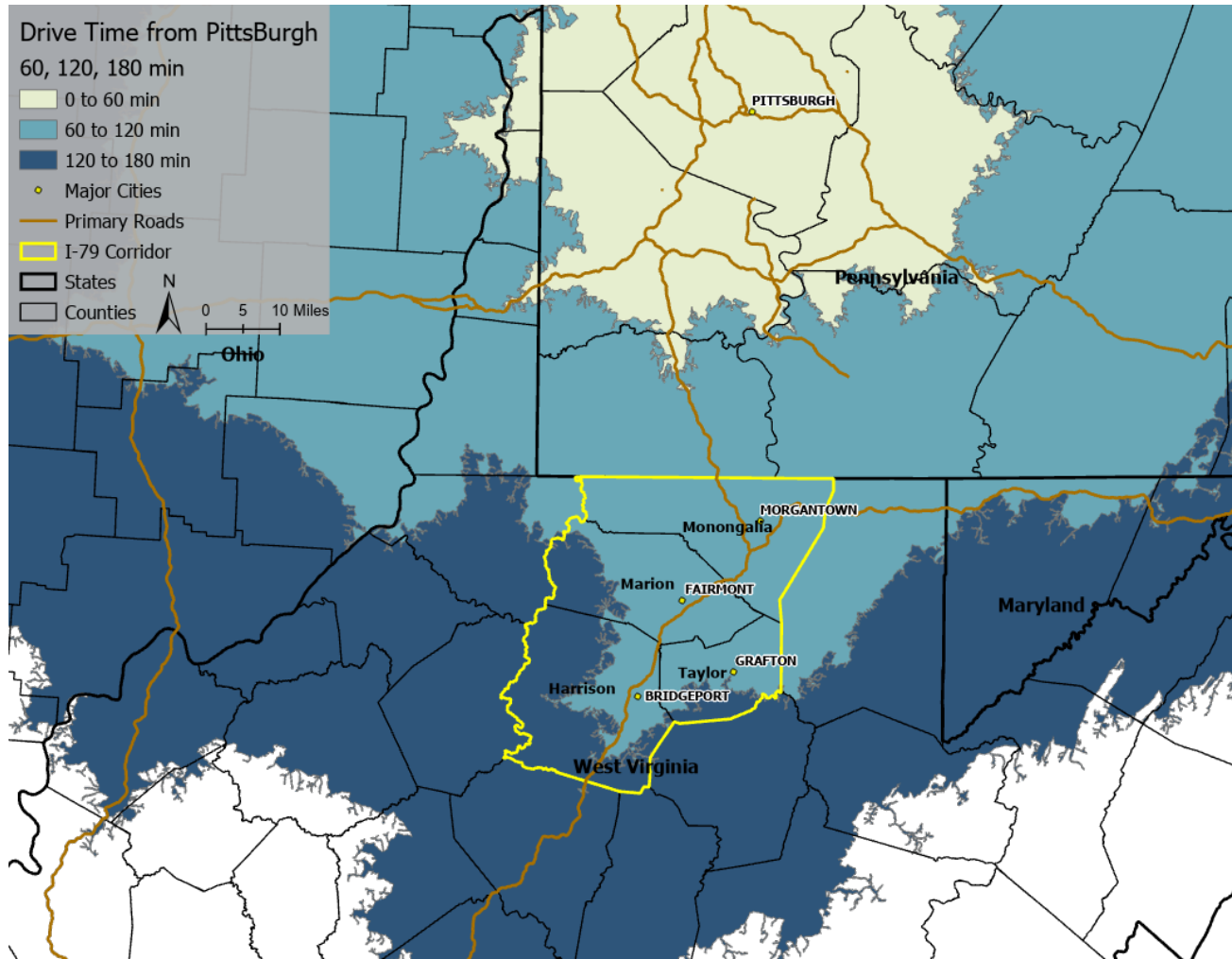
Variable	Combined Area	Harrison Co.	Marion Co.	Monongalia Co.	Taylor Co.
Median Household Income	N/A	\$48,315	\$48,158	\$49,624	\$45,916
Poverty Rate	17.9%	15.0%	16.1%	21.3%	15.7%
Percent with Bachelor's or Higher	28.9%	22.6%	22.0%	39.8%	18.6%
Percent with only High School Diploma	35.6%	37.7%	40.5%	29.2%	44.9%

Drive times from downtown DC

Morgantown and Fairmont are within a four hour drive time.

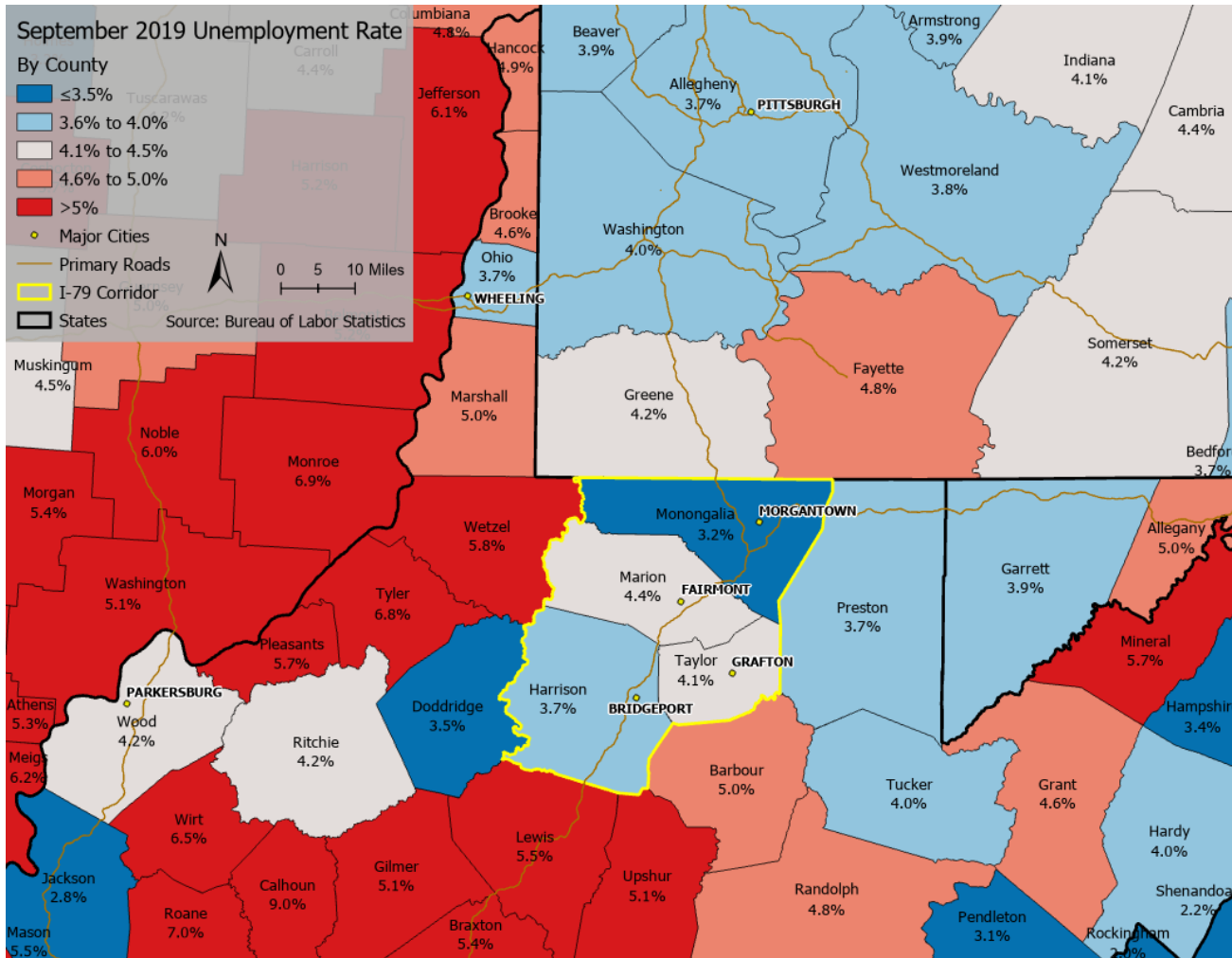
Federal agencies are increasingly sensitive to resiliency issues and recovery from all forms of disasters.





Pittsburgh

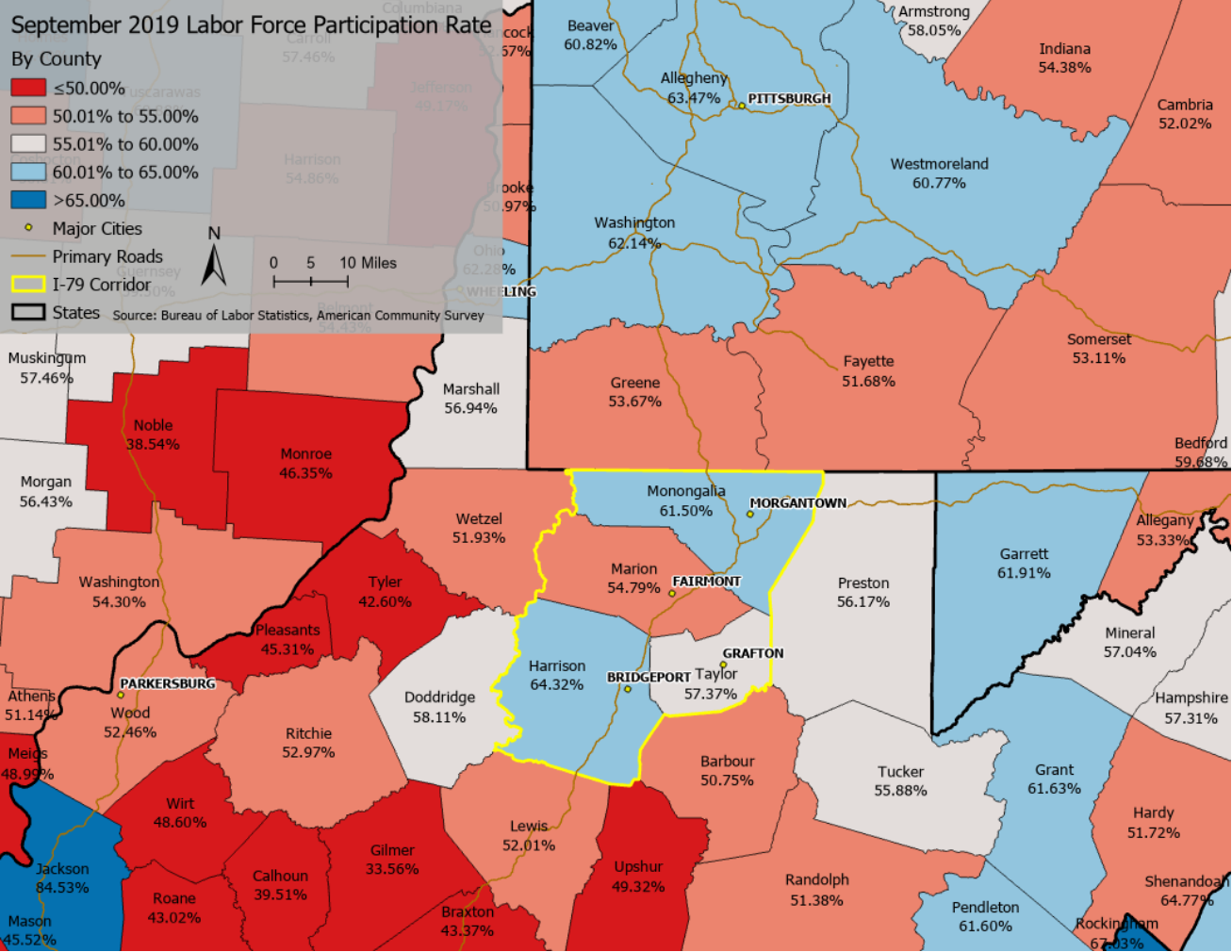
- Nearly all of the I-79 Corridor are within a 120 minute drive of downtown Pittsburgh
- Link via
 - I-79
 - Broadband/pipe
- Higher education
 - Pitt
 - CMU
- National Energy Technology Lab



County rates of unemployment in the Corridor range from 3.2% to 4.4% in September of 2019.

West Virginia's rate for the month was 4.2%.

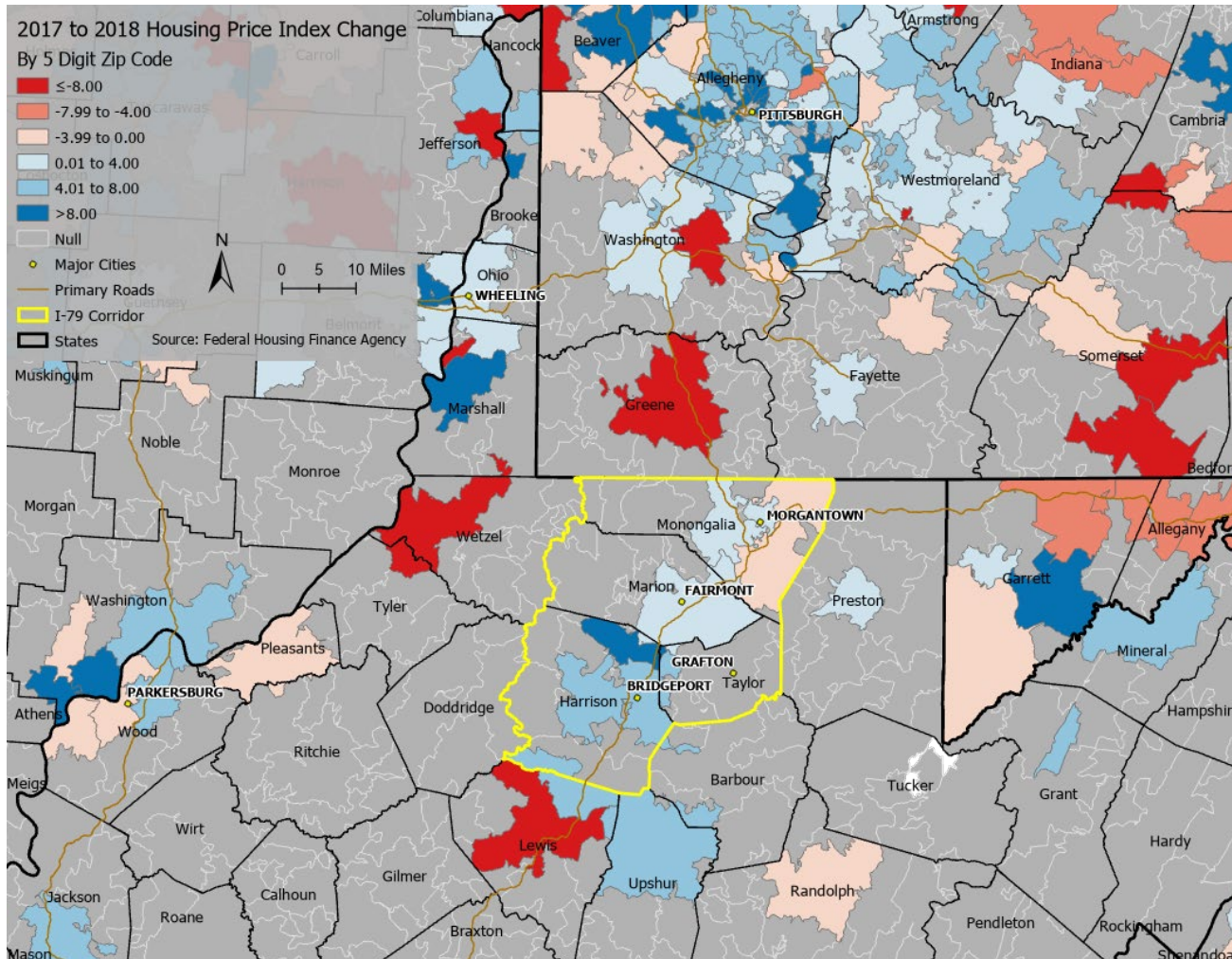
The national rate for the same time was 3.7% and the Natural Rate of Unemployment was about 4.4%.



Labor Force Participation Rate (share of residents age 16 and older who are working or looking for work) ranges from 64.3% to 54.8% in the Corridor in September.

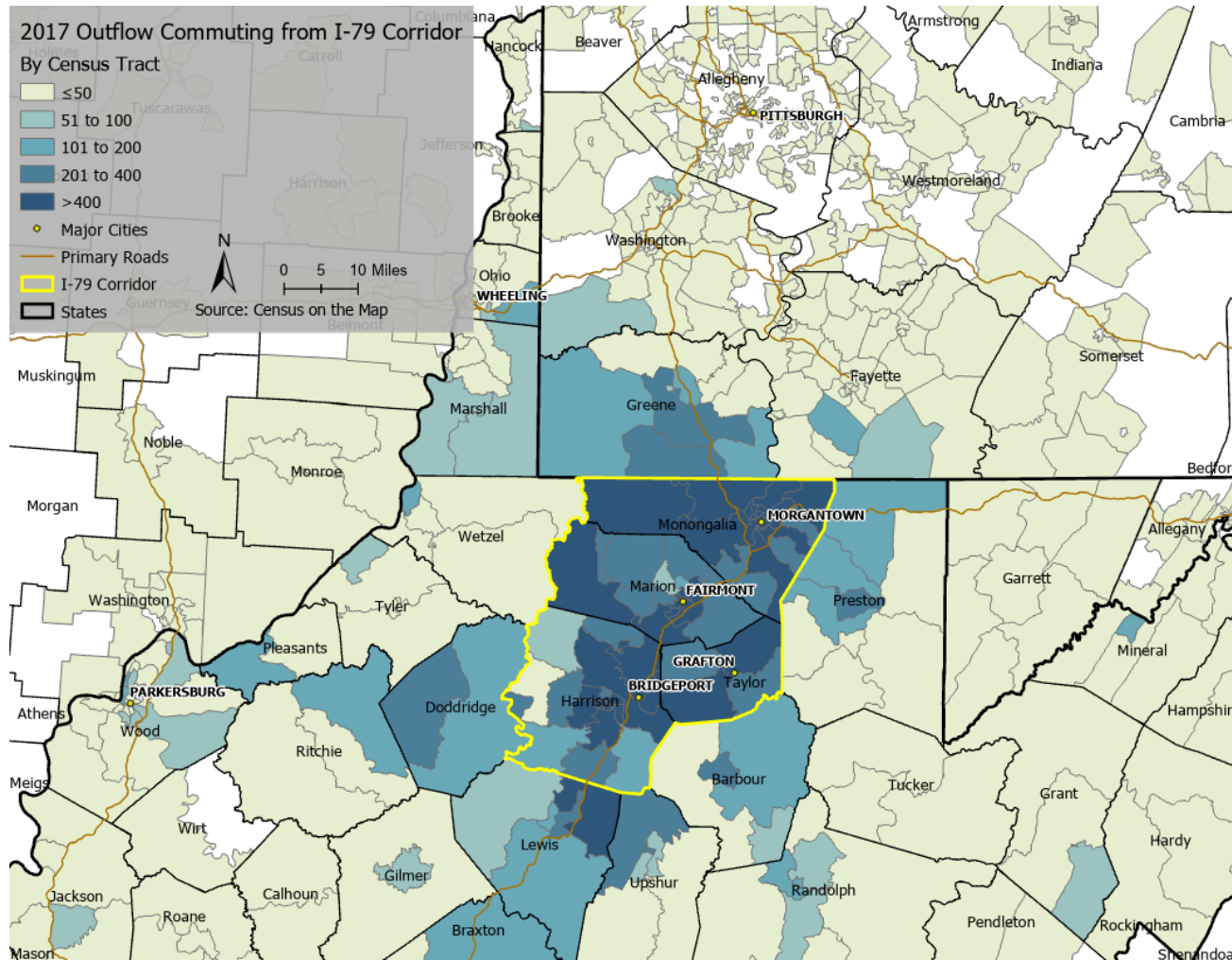
West Virginia’s rate was 54.9% in September.

The rate for the United States is 63.2%.



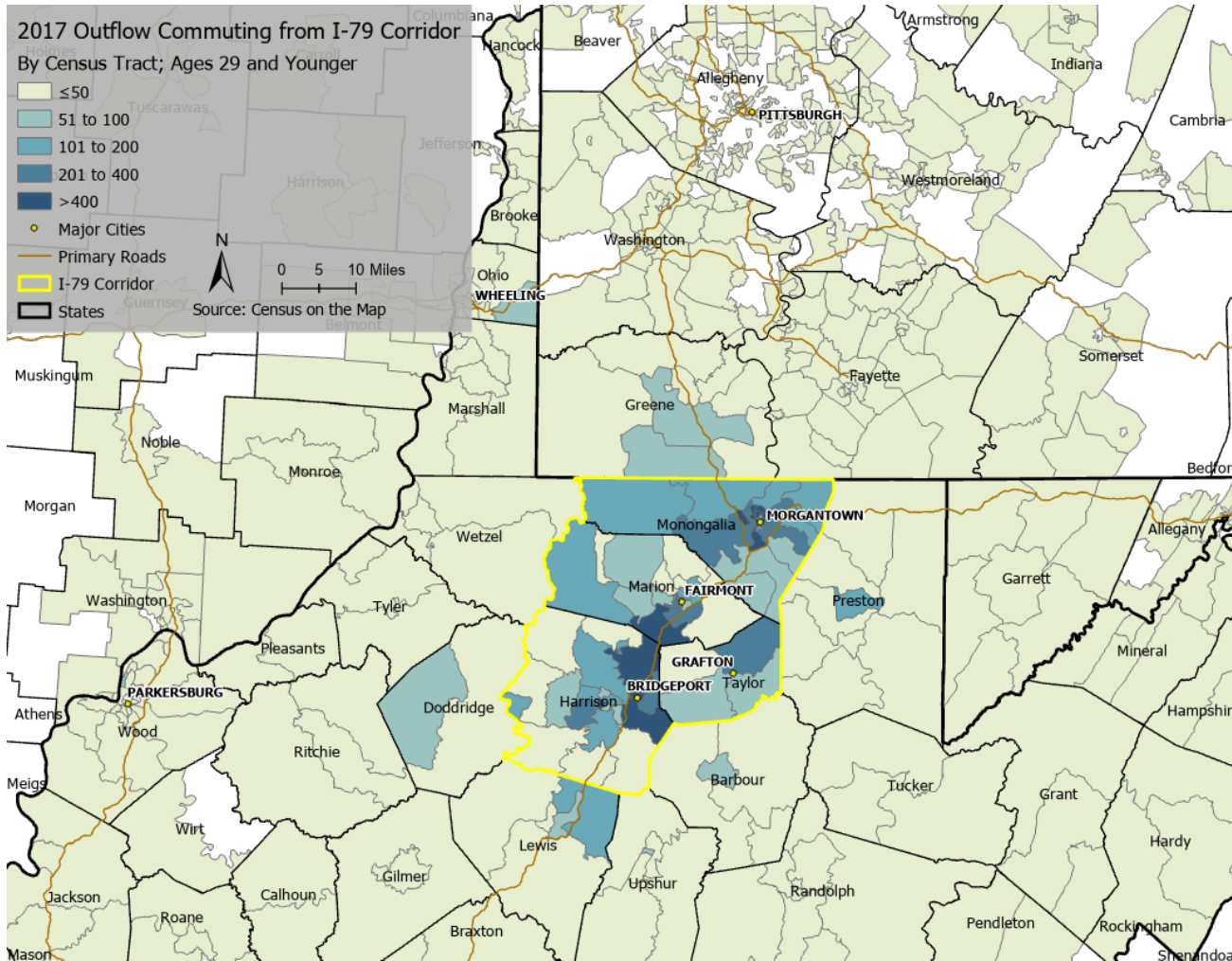
Within the I-79 Corridor and for zip codes where data are available, housing prices between 2017 and 2018 were generally rising.

During the same period, year-over-year price appreciation nationally was between 5% and 6%. The current year-over-year rate of change has slowed to about 2%.



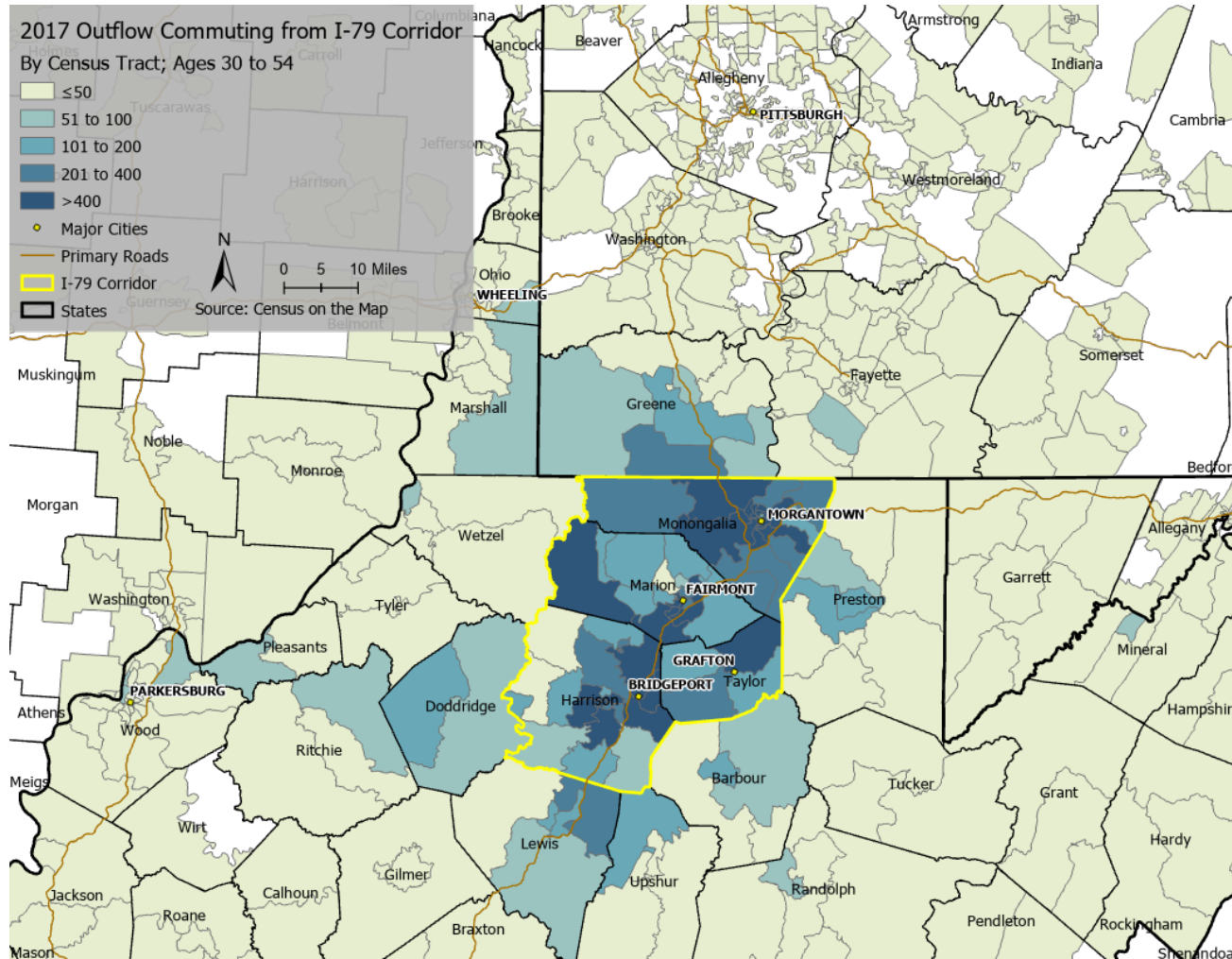
Where I-79 Corridor Residents Commute for Work

71,265 people (of 92,608 or about 77%) live and work within the I-79 corridor.



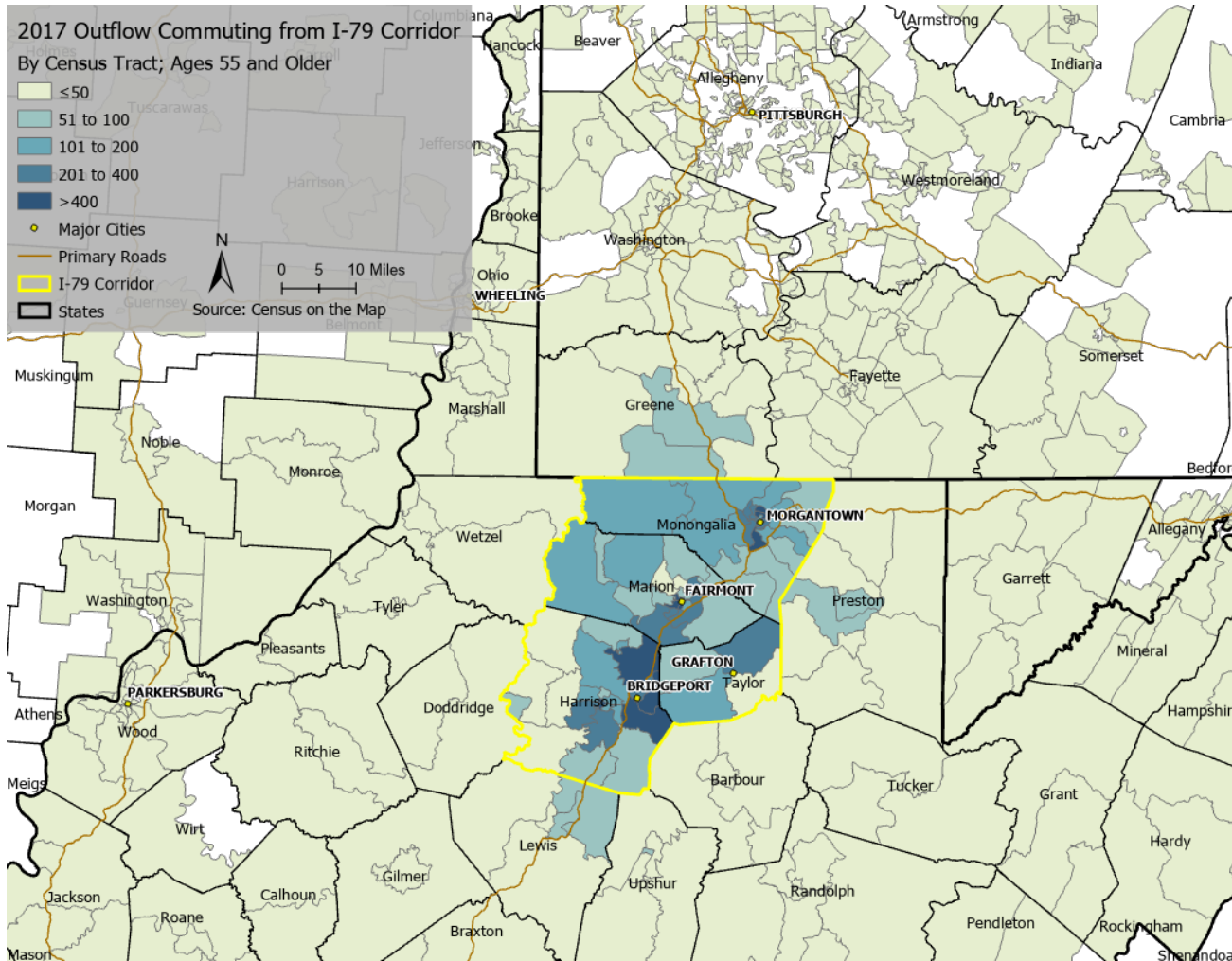
Where I-79 Corridor Residents Commute for Work; Ages 29 and Younger

16,809 people (of 22,265 or about 75%), ages 29 and younger, live and work within the I-79 corridor.



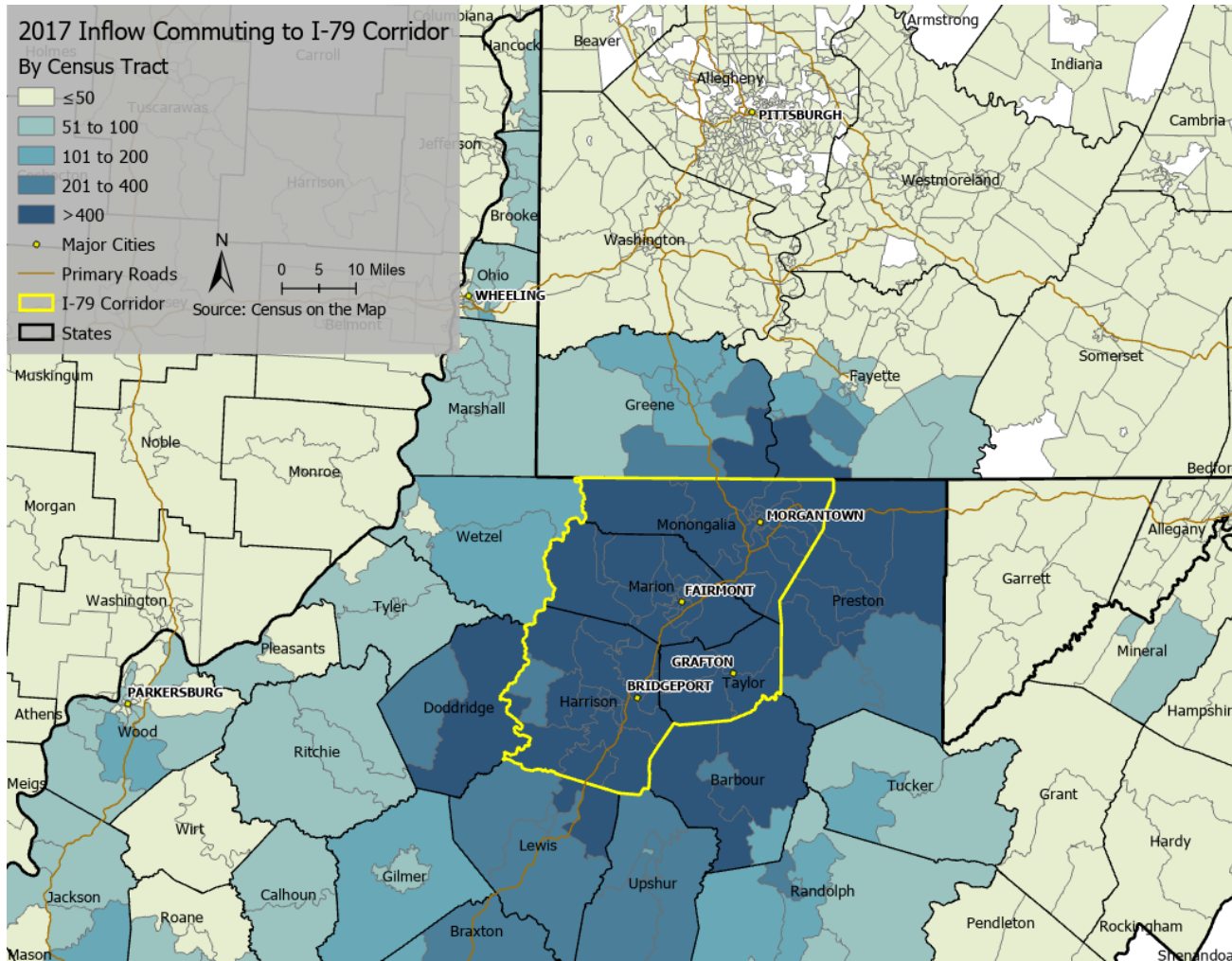
Where I-79 Corridor Residents Commute for Work; Ages 30 to 54

38,361 people (of 49,815 or about 77%), ages 30 to 54, live and work within the I-79 corridor.



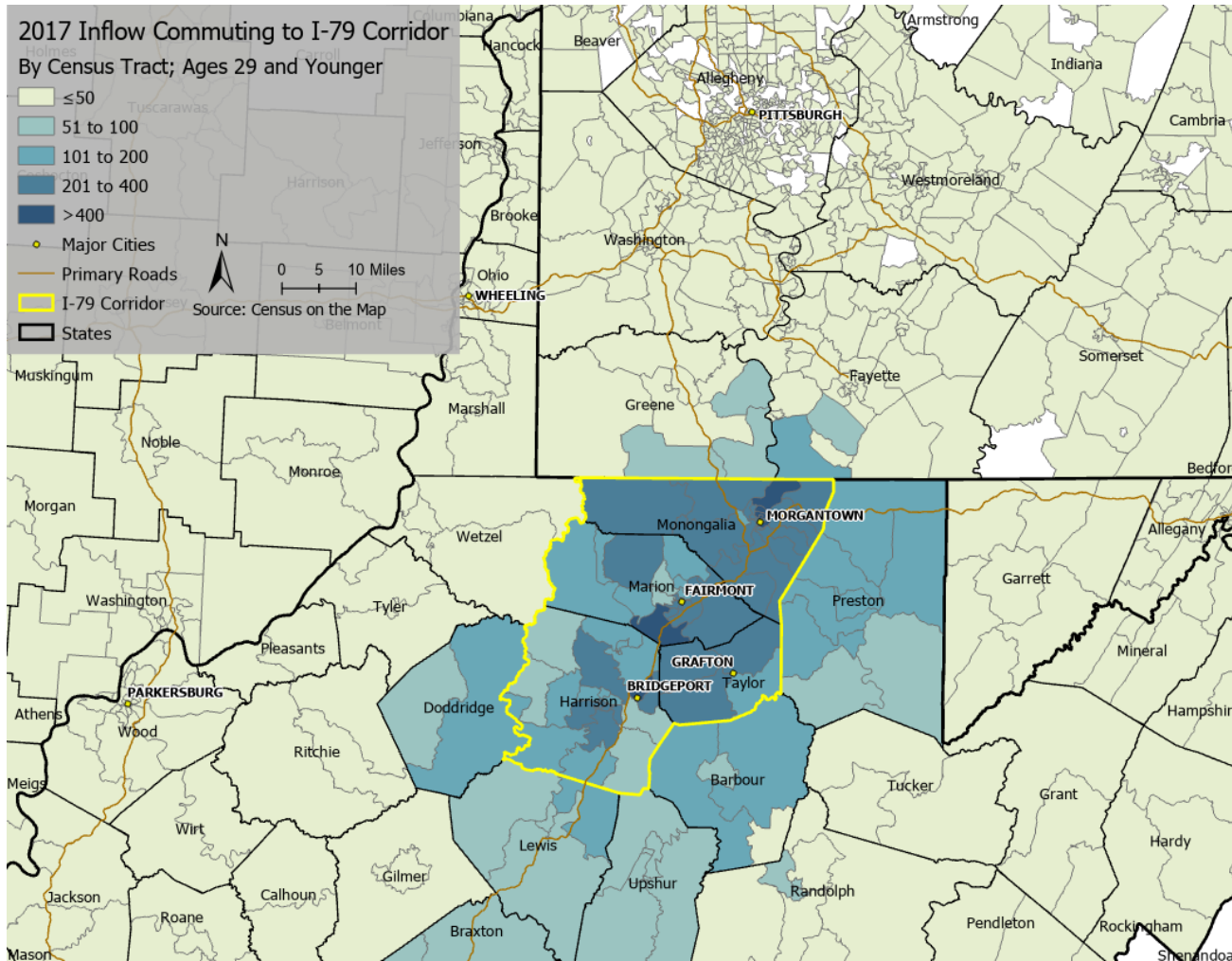
Where I-79 Corridor Residents Commute for Work; Ages 55 and Older

16,095 people (of 20,528 or about 78%), ages 55 and older, live and work within the I-79 corridor.



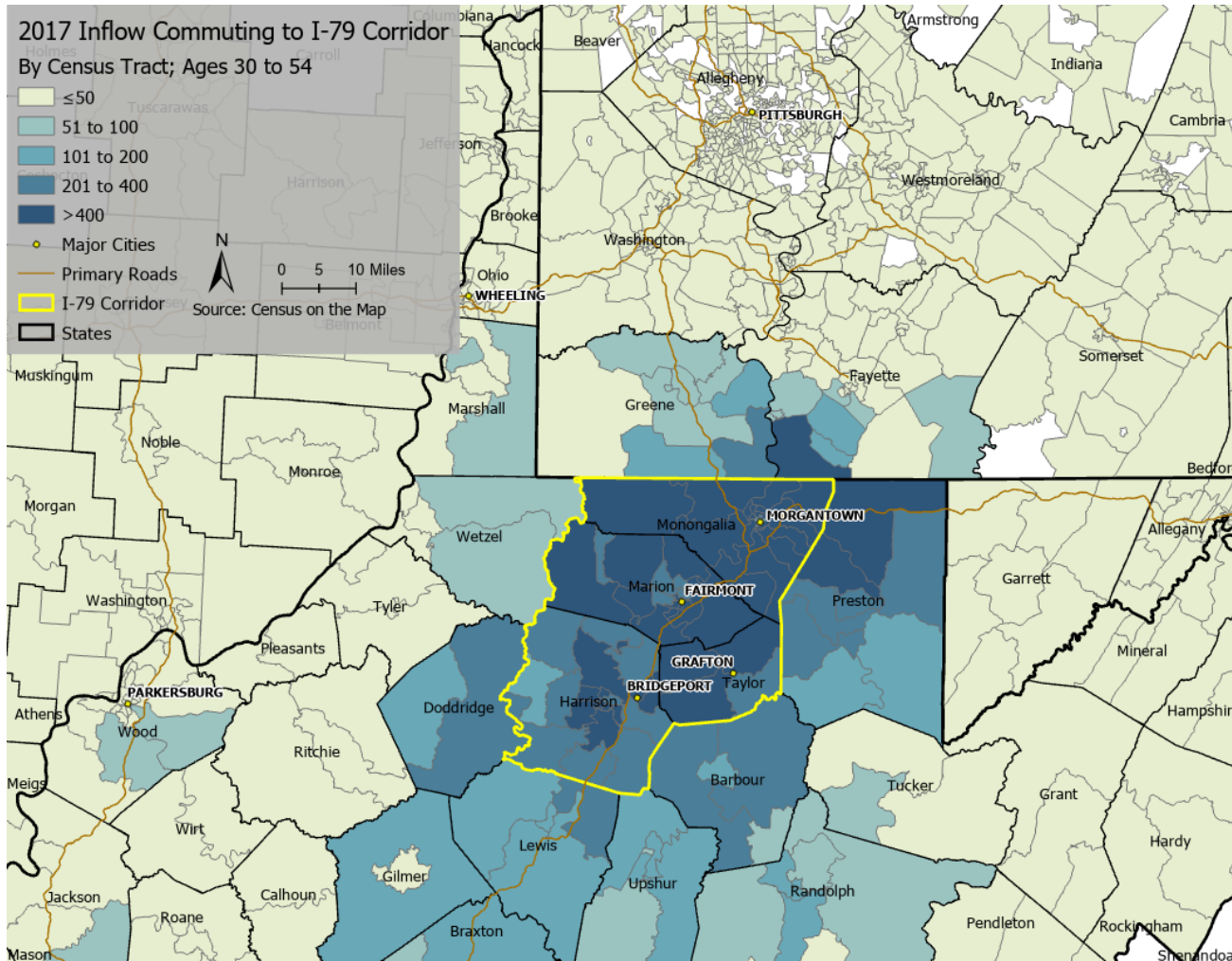
From Where I-79 Corridor Workers Commute From

71,265 people (of 107,512 or about 66%) live and work within the I-79 corridor.



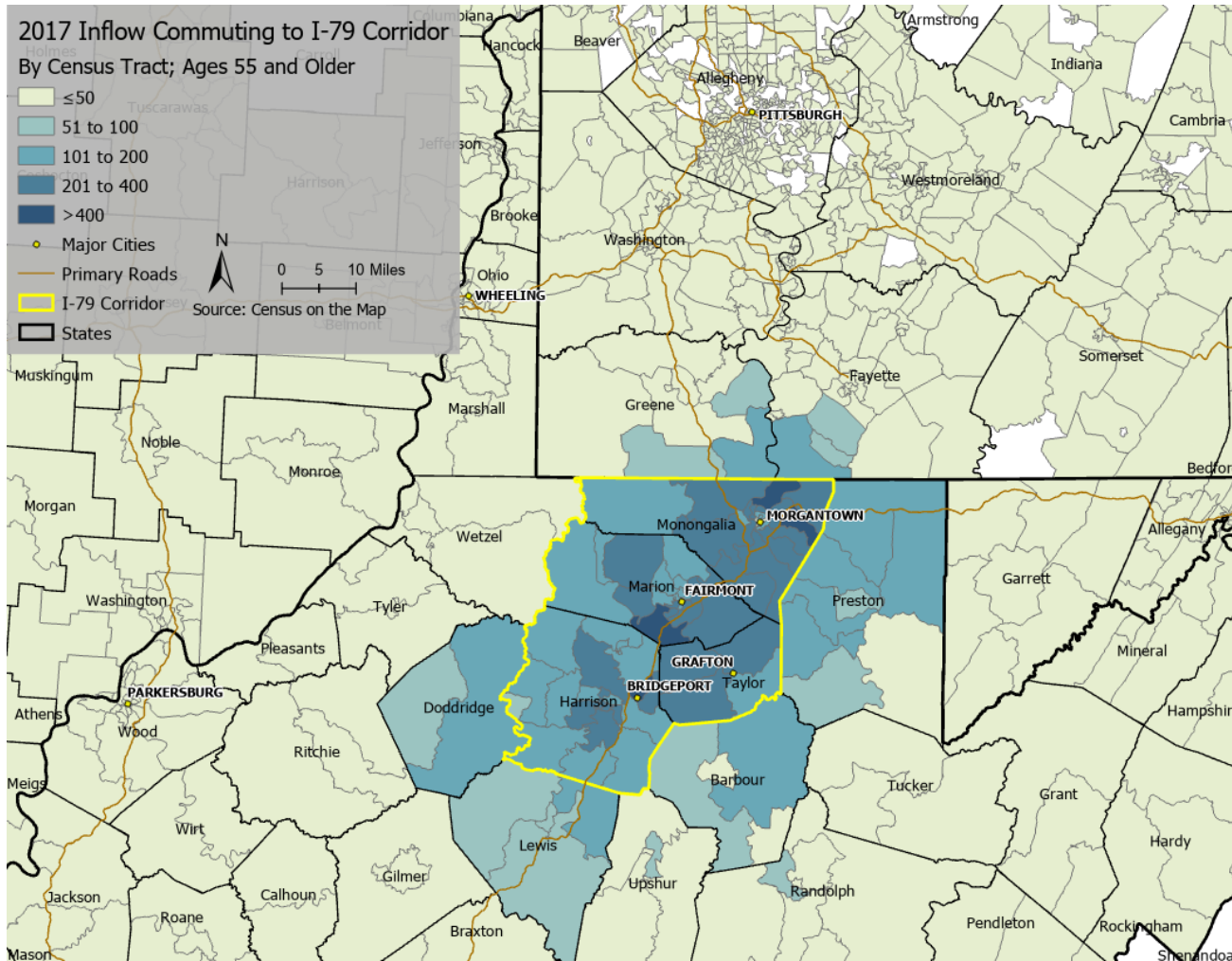
From Where I-79 Corridor Workers Commute From; Ages 29 and Younger

16,809 people (of 27,215 or about 62%) live and work within the I-79 corridor.



From Where I-79 Corridor Workers Commute From; Ages 30 to 54

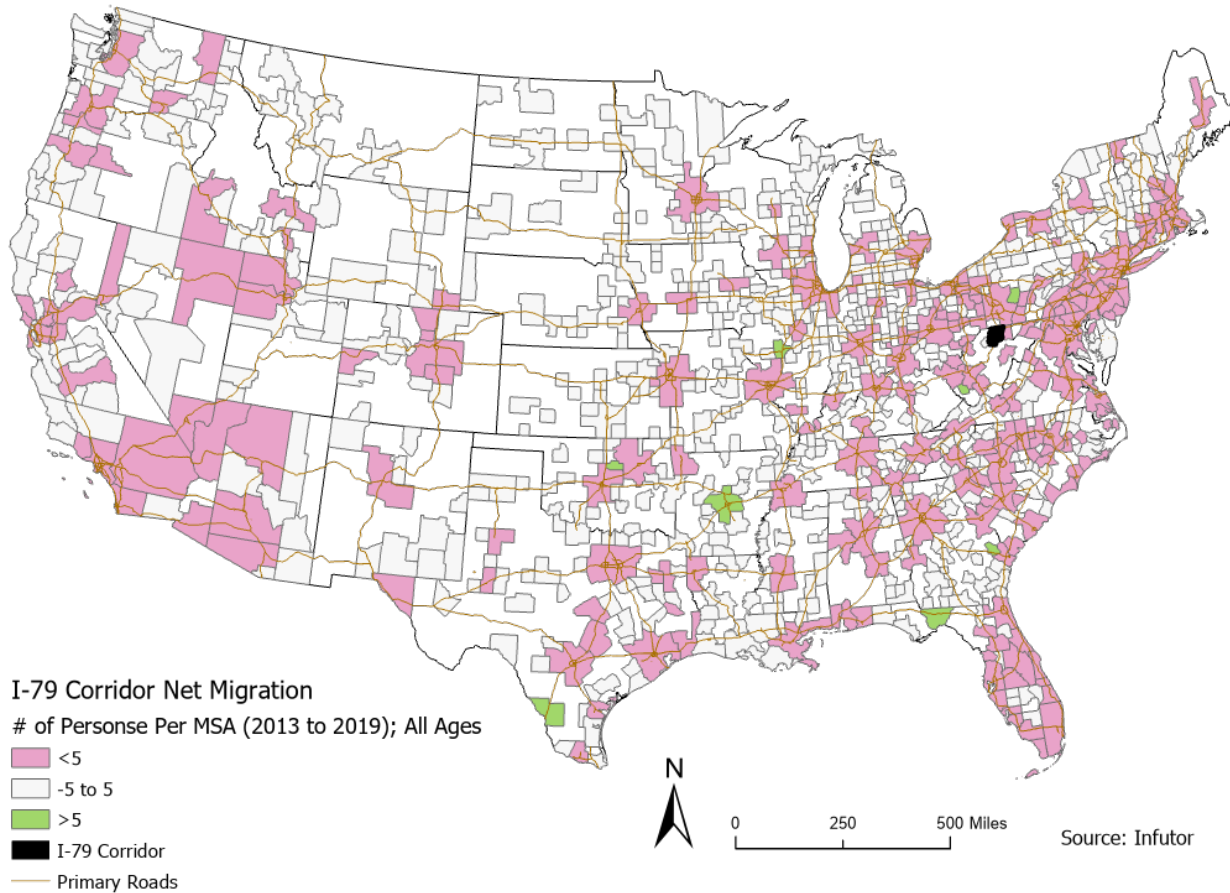
38,361 people (of 56,944 or about 67%) live and work within the I-79 corridor.

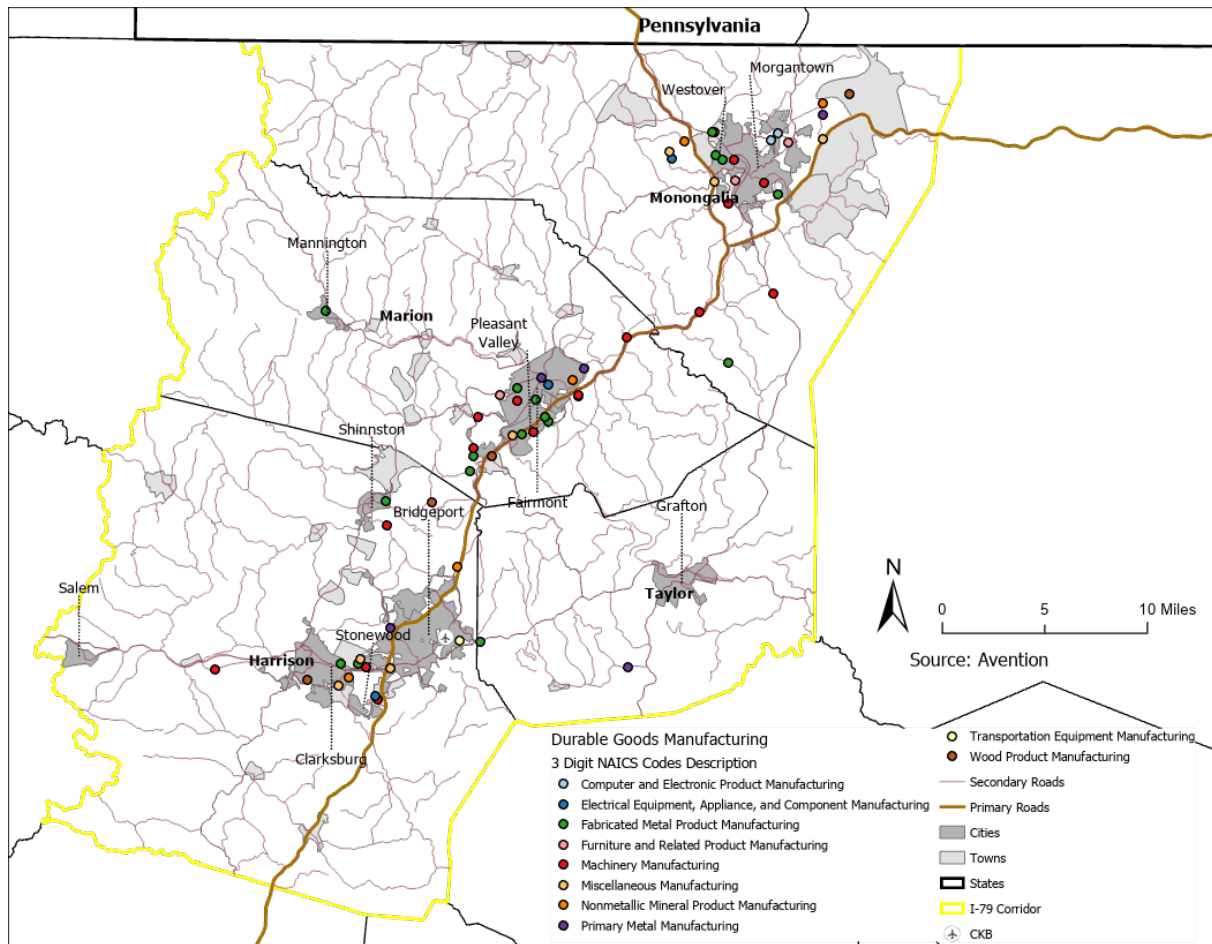


From Where I-79 Corridor Workers Commute; Ages 55 and Older

16,095 people (of 23,353 or about 68%) live and work within the I-79 corridor.

Net Migration to I-79 Corridor, All Ages

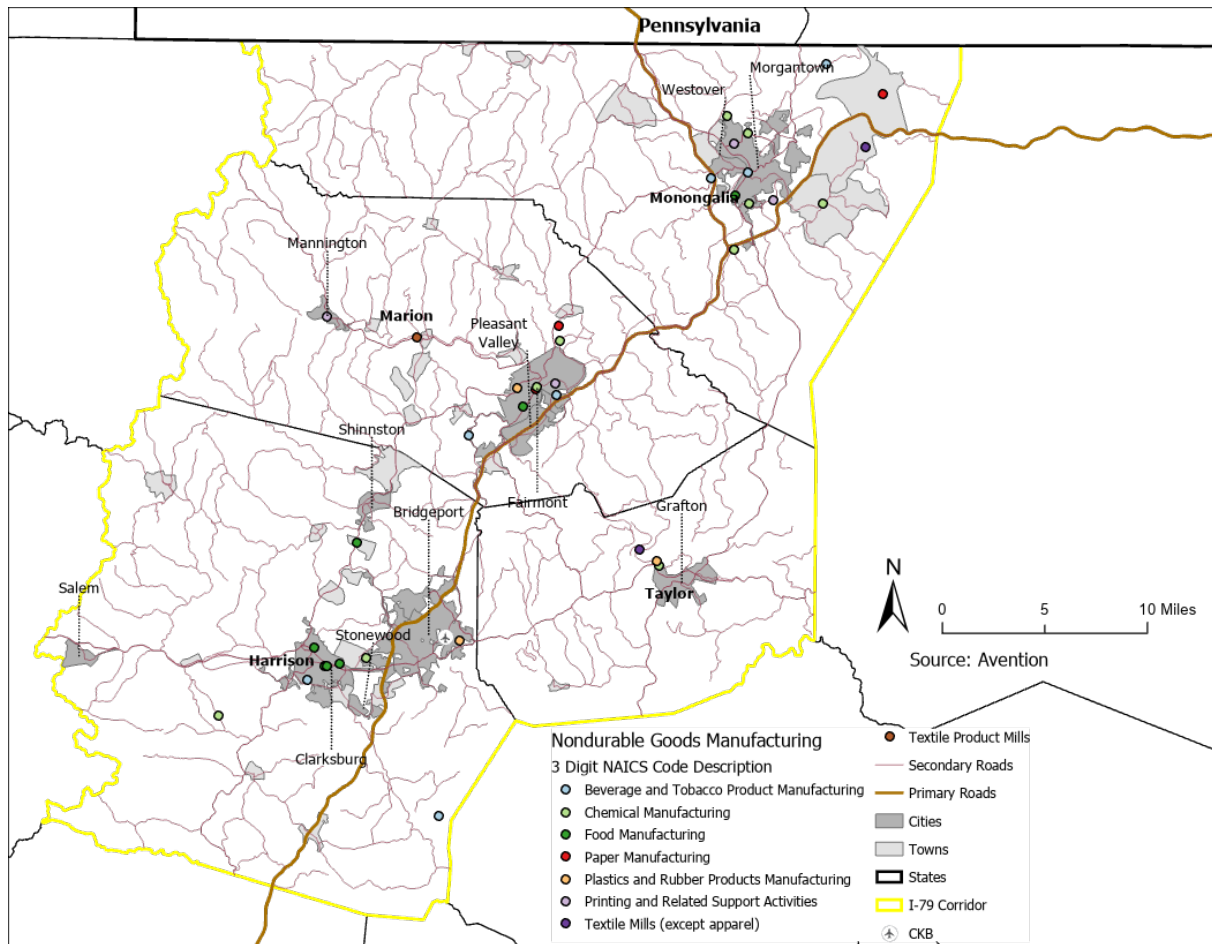




Durable Goods

Total Durable Goods Manufacturing Firms: 73

- Computer & Electronic Products: 3
- Electrical Equipment, Appliance, & Components: 4
- Fabricated Metal Products: 21
- Furniture & Related Products: 3
- Machinery: 17
- Miscellaneous Manufacturing: 7
- Nonmetallic Mineral Products: 6
- Primary Metals: 6
- Transportation Equipment: 2
- Wood Products: 5



Nondurable Goods

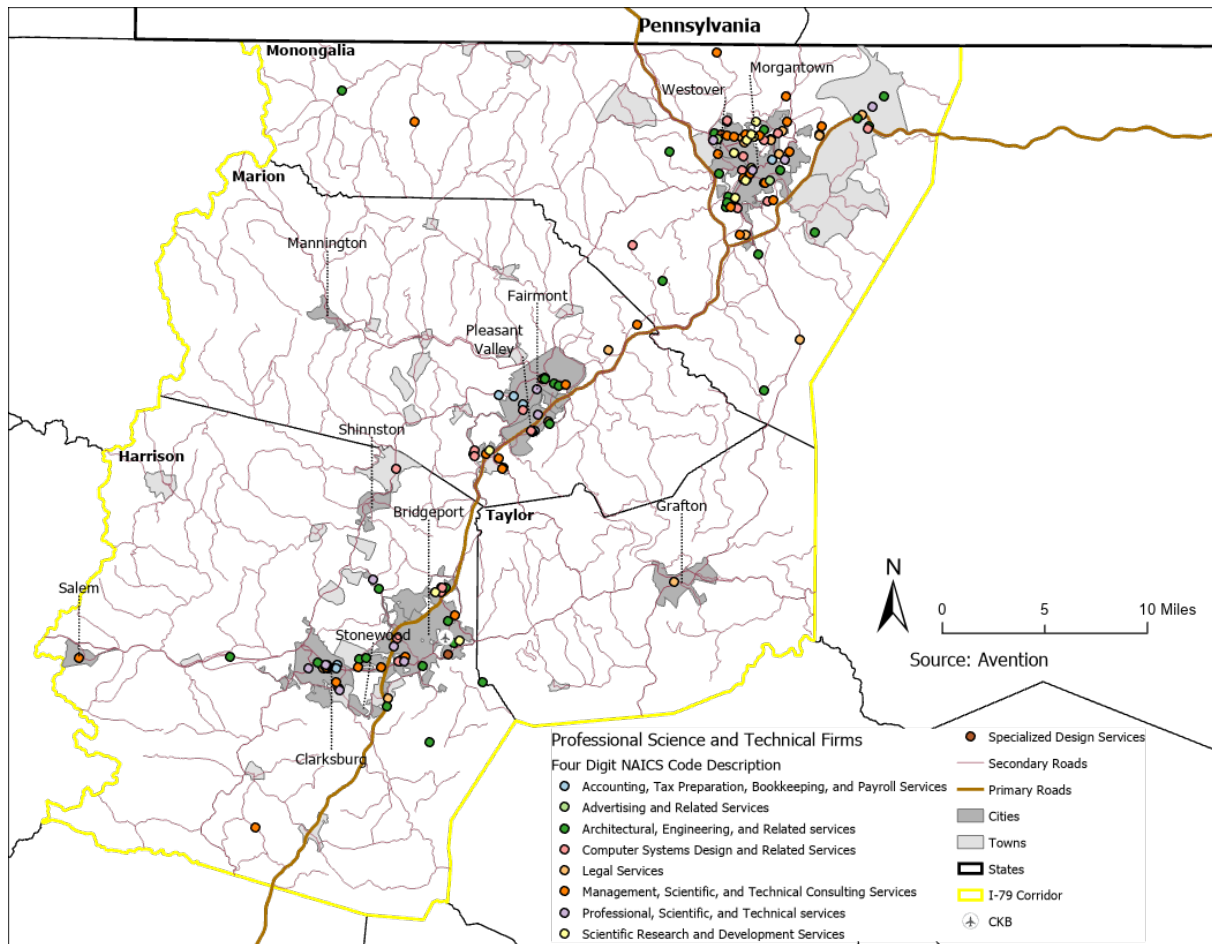
Total Nondurable Goods Manufacturing Firms: 43

- Beverage and Tobacco Products: 7
- Chemical: 13
- Food: 8
- Paper: 5
- Plastics and Rubber Products: 3
- Printing and Related Support Activities: 4
- Textile Mills (except apparel): 2
- Textile Product Mills: 1

Professional, Scientific and Technical Services

Total Professional Scientific and Technical Services Firms: 201

- Accounting, Tax Preparation, Bookkeeping, & Payroll Services: 11
- Advertising & Related Services: 3
- Architectural, Engineering, & Related services: 48
- Computer Systems Design & Related Services: 33
- Legal Services: 43
- Management, Scientific, & Technical Consulting Services: 35
- Professional, Scientific, & Technical services: 13
- Scientific Research & Development Services: 12
- Specialized Design Services: 3



Summary findings: Dichotomies in the market

- CKB: Some companies use it and some don't
 - Asset for on-site entities
 - Not for freight: largest share moves by truck
- Industry 4.0: Some companies will use it and some won't
 - Some will necessarily embrace automation, digitalization, artificial intelligence (AI), and the Internet of Things (IoT)
 - Others are more “hands on”; based on either time studies or type of work and products
 - But our sample was small—how prepared are SMEs for Industry 3.0 and 4.0?
- Workers: some need “trainables” and some need certification and those with training

Workforce: What we heard

- Able to get and retain workers
 - Mostly recruited locally—at least in production areas
- Affordable housing continues to be an issue
 - Workers
 - Students
- While jobs are available, do they lead to a career?
- Issues of passing drug tests in hiring and retention
- Health issues including obesity

Workforce: More of what we heard

- Talent is scarce
 - Oil and Gas is taking control of the market
 - Charleston is focused on oil and gas
- Challenges in hiring “knowledge” jobs
 - Engineering
 - Software
- Cohesive social ecosystem

K-12 education: What we heard

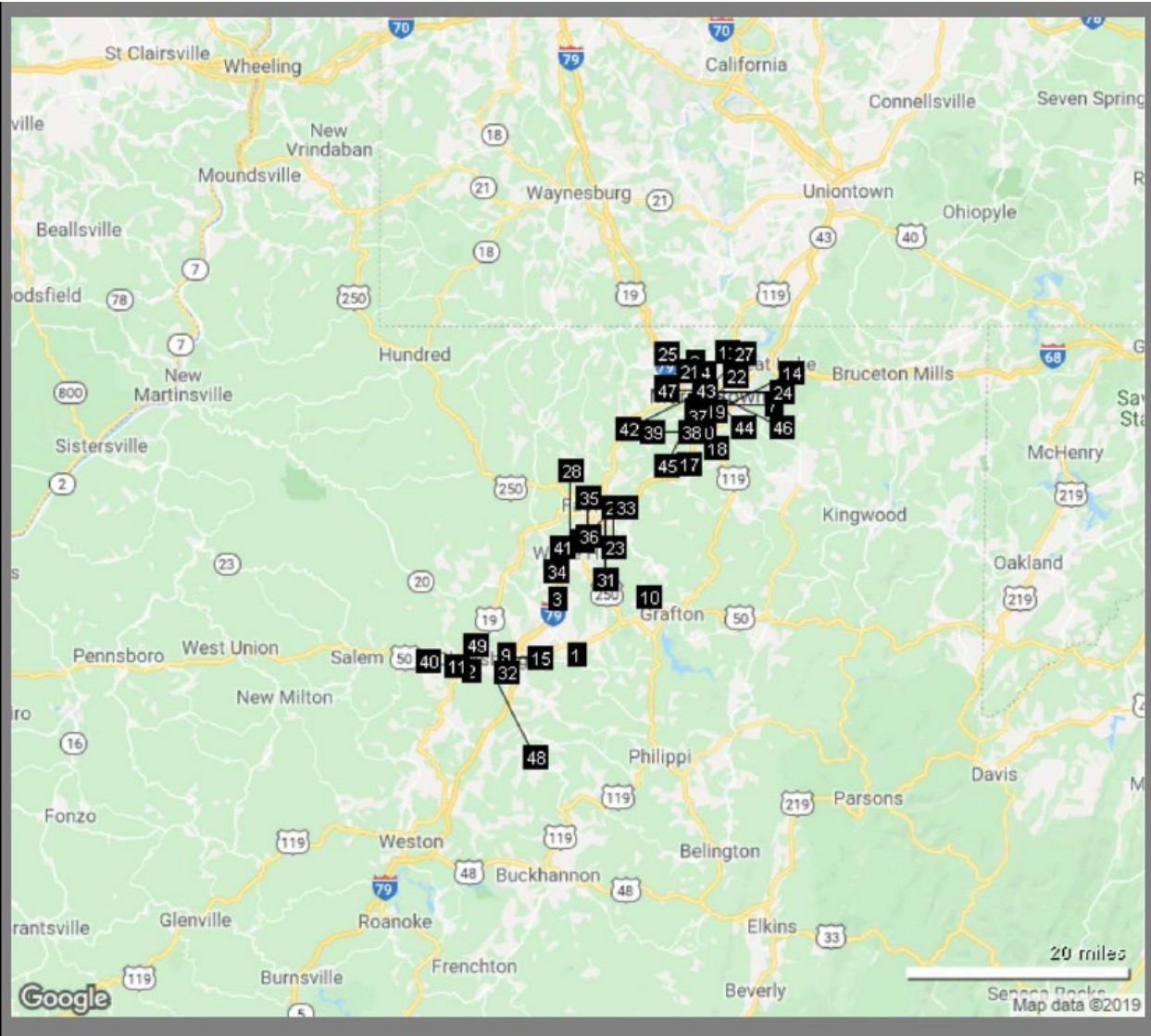
- Career Technical Education (CTE)
 - Providing pre-reqs for Airframe & Power
 - Career Technical Education (CTE) around aerospace
 - Busing students in
 - Job shadowing
- Focus on middle skills
- Companies think it is a pretty good school system
- Pathway for parents
- Project Lead The Way—expose 6th to 8th graders to area industries, medical, energy, aerospace

Higher education: What we heard

- Pierpont
 - Airframe & Power certifications
 - Well tied to high schools
 - Need to create more apprenticeships
- Fairmont
 - Good technology
 - Flight school
- WVU
 - Good engineering
 - But where are they?
- Role of internships: critical path for recruiting

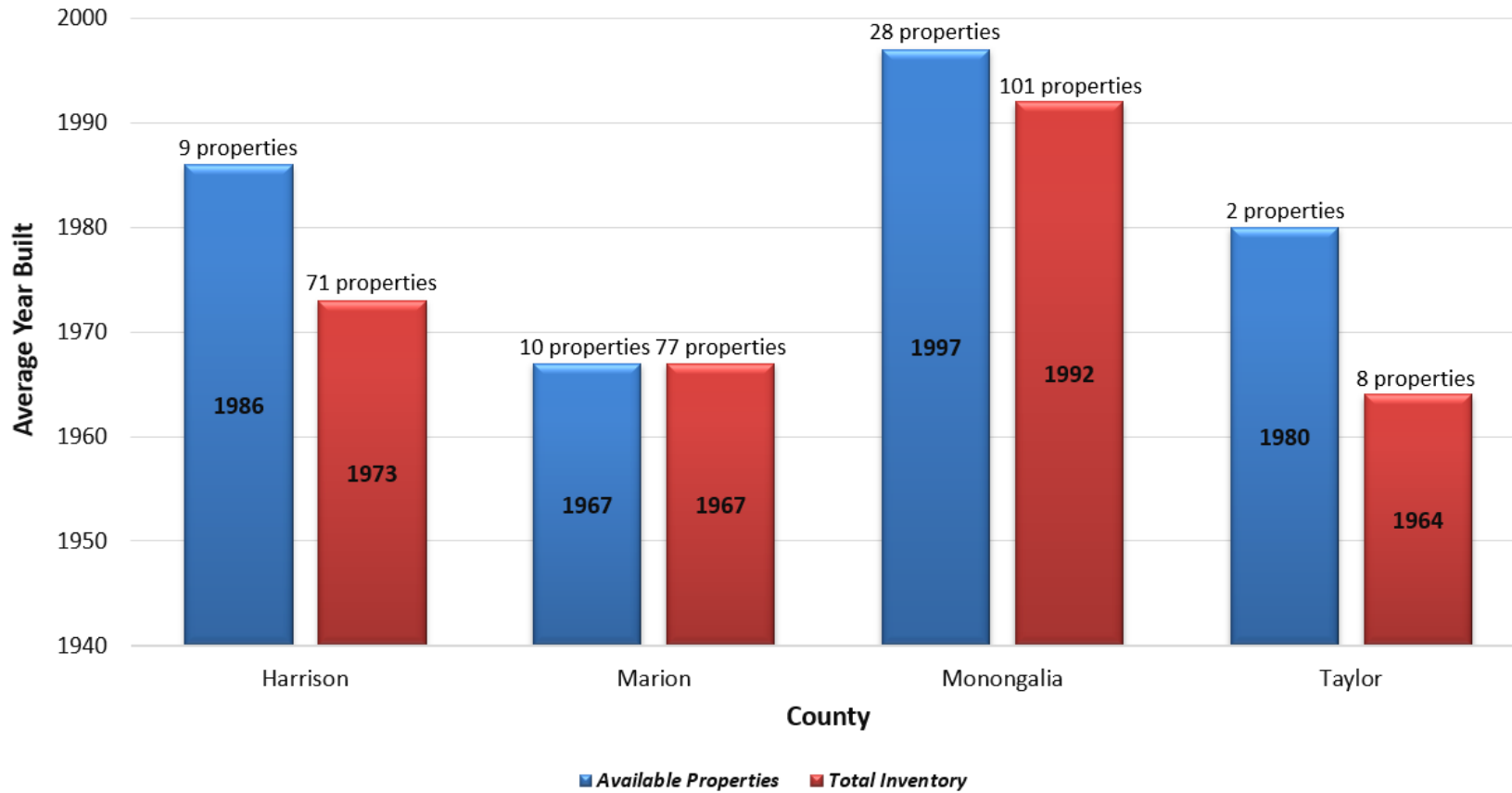
Site Selector Perspective: What we heard

- Workforce challenges (see above)
- Need for modern industrial and R/D type facilities
- Speculative development is challenge
- “Shovel Ready” sites are rare
- Housing is challenge (all income levels)
- Fragmented approach to economic development
- Overall tone of enthusiasm and optimism



I-79 Corridor Available Industrial Buildings

Industrial Inventory Average Year Built Comparison



I-79 Corridor Average Age of Industrial Building Stock

Search Analytics

INVENTORY SF 1.6 M +0.6% Prior Period 1.6 M	UNDER CONSTRUCTION SF 0 -100% Prior Period 4.5 K	12 MO NET ABSORPTION SF (134 K) -246.5% Prior Period (38.8 K)	VACANCY RATE 66.1% +8.5% Prior Period 57.6%	MARKET RENT/SF \$5.98 -13.0% Prior Period \$6.87	MARKET SALE PRICE/SF \$44 +1.6% Prior Period \$44	MARKET CAP RATE 8.4% +0.2% Prior Period 8.2%
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Key Metrics

Availability		Inventory	
Vacant SF	1.1 M ↑	Existing Buildings	49 ↑
Sublet SF	0 ↓	Under Construction Avg SF	-
Availability Rate	74.1% ↑	12 Mo Demolished SF	0 ↓
Available SF	1.2 M ↑	12 Mo Occupancy % at Delivery	0% ↓
Available Asking Rent/SF	\$4.53 ↓	12 Mo Construction Starts SF	5.4 K ↓
Occupancy Rate	33.9% ↓	12 Mo Delivered SF	10 K ↑
Percent Leased Rate	33.9% ↓	12 Mo Avg Delivered SF	10 K ↑

Sales Past Year		Demand	
Asking Price Per SF	-	12 Mo Net Absorp % of Inventory	-8.3% ↓
Sale to Asking Price Differential	-	12 Mo Leased SF	1.3 K ↓
Sales Volume	\$0 ↓	Months on Market	18.4 ↑
Properties Sold	0 ↓	Months to Lease	-
Months to Sale	-	Months Vacant	-
For Sale Listings	17 ↑	24 Mo Lease Renewal Rate	11.8%
Total For Sale SF	241 K ↑	Population Growth 5 Yrs	2.1%

I-79 Corridor Industrial Market Overview

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17 Site Selection Influencers


















- Availability of Skilled Labor
- Talent Acquisition/Creation
- Quality of Place
- Occupancy OR Construction Costs
- Available Buildings
- Labor Costs
- Corporate Tax Rate/Business-Friendly
- Proximity to Major Markets
- Housing Stock
- State and Local Incentives
- Energy Availability and Costs
- Corporate Business Strategy
- Highway Accessibility
- Information Communication Technology (ICT)
- Image Matters
- Supply Chain
- Stability of Community Infrastructure

17 Site Selection Influencers

 = Yep

 = Nope

 = Kinda

-  Availability of Skilled Labor
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-  Proximity to Major Markets
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-  Energy Availability and Costs
-  Corporate Business Strategy
-  Highway Accessibility
-  Information Communication Technology (ICT)
-  Image Matters
-  Supply Chain
-  Stability of Community Infrastructure

Recommendations and opportunities

- Articulate BRAND !! Who and What You Are
 - Regional vision
 - One voice as a region
 - Long-run strategy
- Regional marketing
 - Naming and identity is a challenge
 - Engage I-79 Corridor?
- Market study
 - Housing—notably affordable for emerging workers and students
 - Services
 - Commercial/Industrial/Flex

Recommendations - continued

- Marketing campaign:
 - Raise campaign funding
 - Industry conferences
 - Road show to targets
 - Raise campaign funding
 - Who are the leaders?
 - Site selector reach out
 - Location Quotient exercise
- Commit to a 5–10 year strategy campaign/hire experts to guide you
- Leverage state resources
- Engage “higher ed” as partners
- Spec building strategy

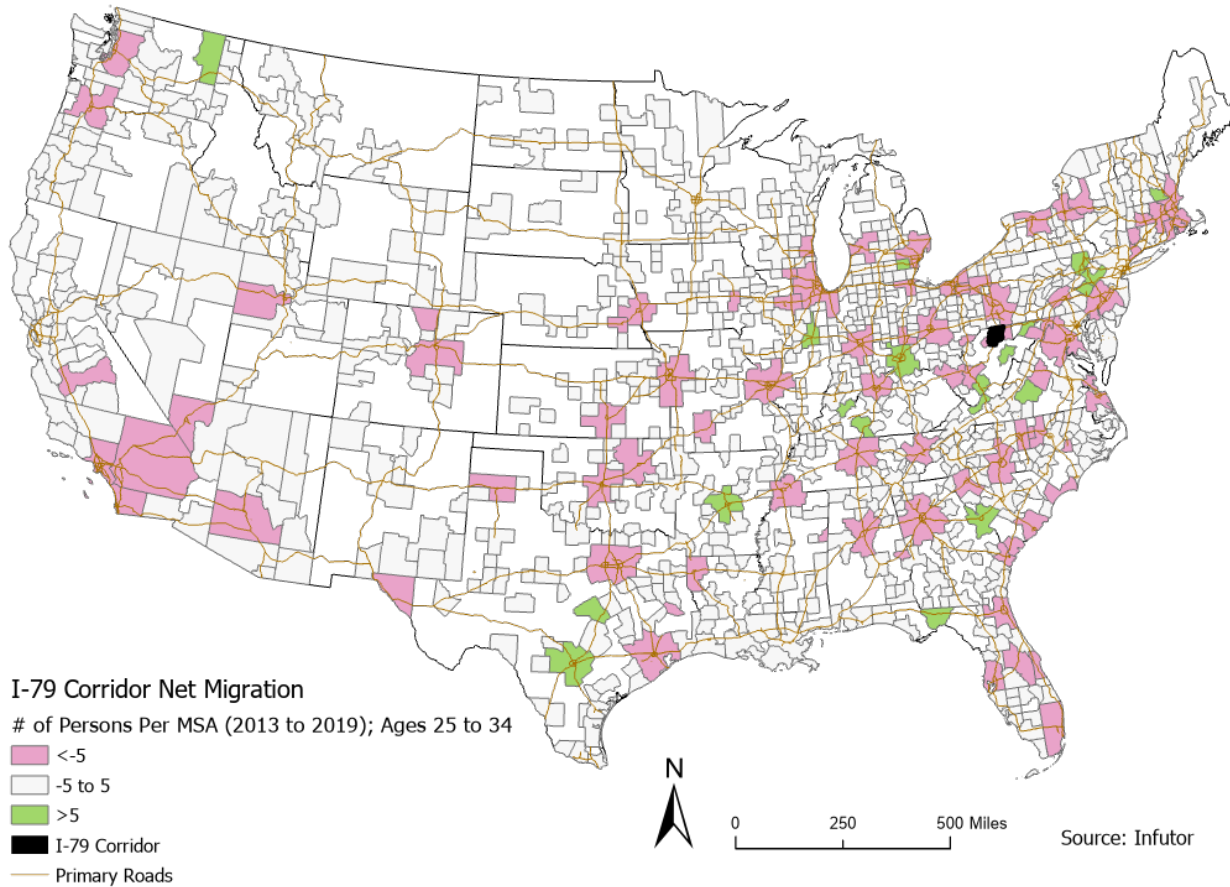
Recommendations - continued

- Develop an ED Strategy (CED)
 - Target supply chain:
 - Goods suppliers
 - Services (contractors)
 - Collaborate
 - Develop KPI's
 - “Stay the course”
- Champion: this may be the most important

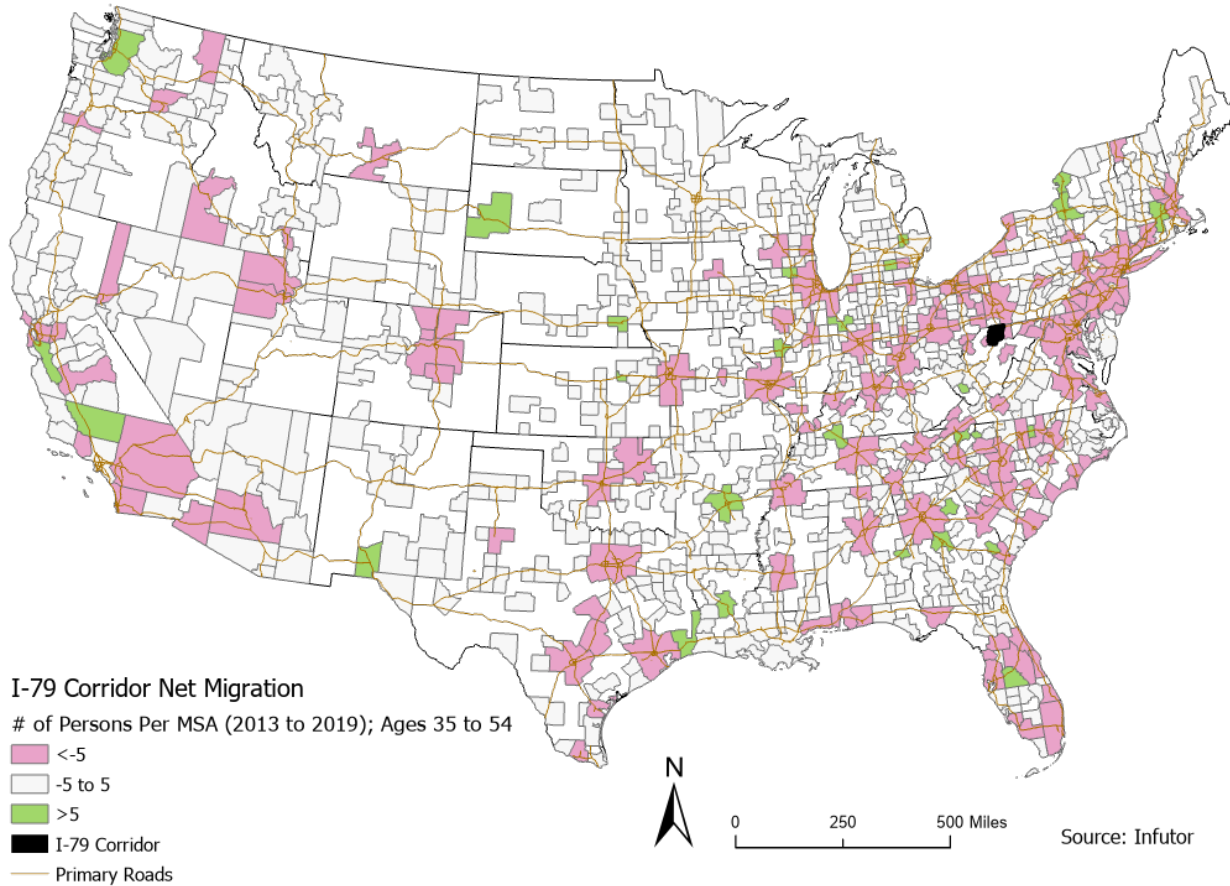
Questions and comments?

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Net Migration to I-79 Corridor, Ages 25 to 34



Net Migration to I-79 Corridor, Ages 35 to 54



Net Migration to I-79 Corridor, Ages 55 and Older

