

# Getting There

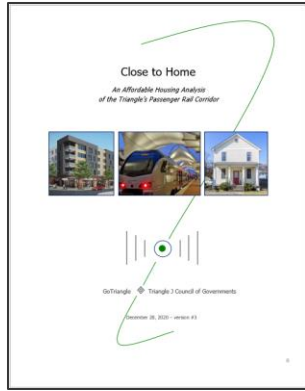
A Travel Market Analysis  
of the Greater Triangle Commuter Rail Corridor



Triangle J Council of Governments  
September 2021

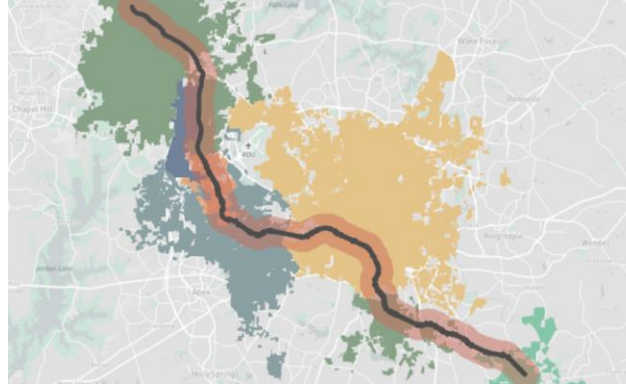
# Passenger Rail Corridor Analysis: Region-Corridor-Station Study Areas

## Affordable Housing Analysis



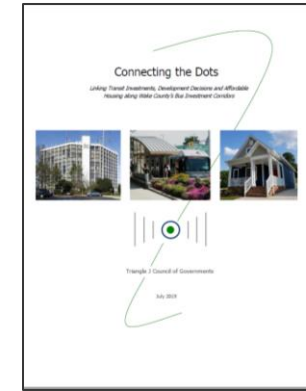
- Key Metrics
- Existing types and locations: legally-binding/affordability-restricted & naturally occurring affordable housing
- Planned additional affordable housing
- FTA CIG scoring calculation
- Opportunity sites & segments

## Travel Market Analysis



- Where workers live
- Where residents work
- Connecting Workers to Jobs
- Emphasized areas:
  - Travel to Key Hubs
  - Travel from Key Neighborhoods
    - Race/Ethnicity
    - Income
    - Vehicle availability
    - Affordable Housing

## Land Use Analysis



- Place types & development status
- Existing population & jobs
- Capacity for added jobs and residents
- Emphasized topics:
  - Anchor Institutions
  - HR&A Market Analysis Results
  - Community ROW setbacks
  - FTA Joint Development

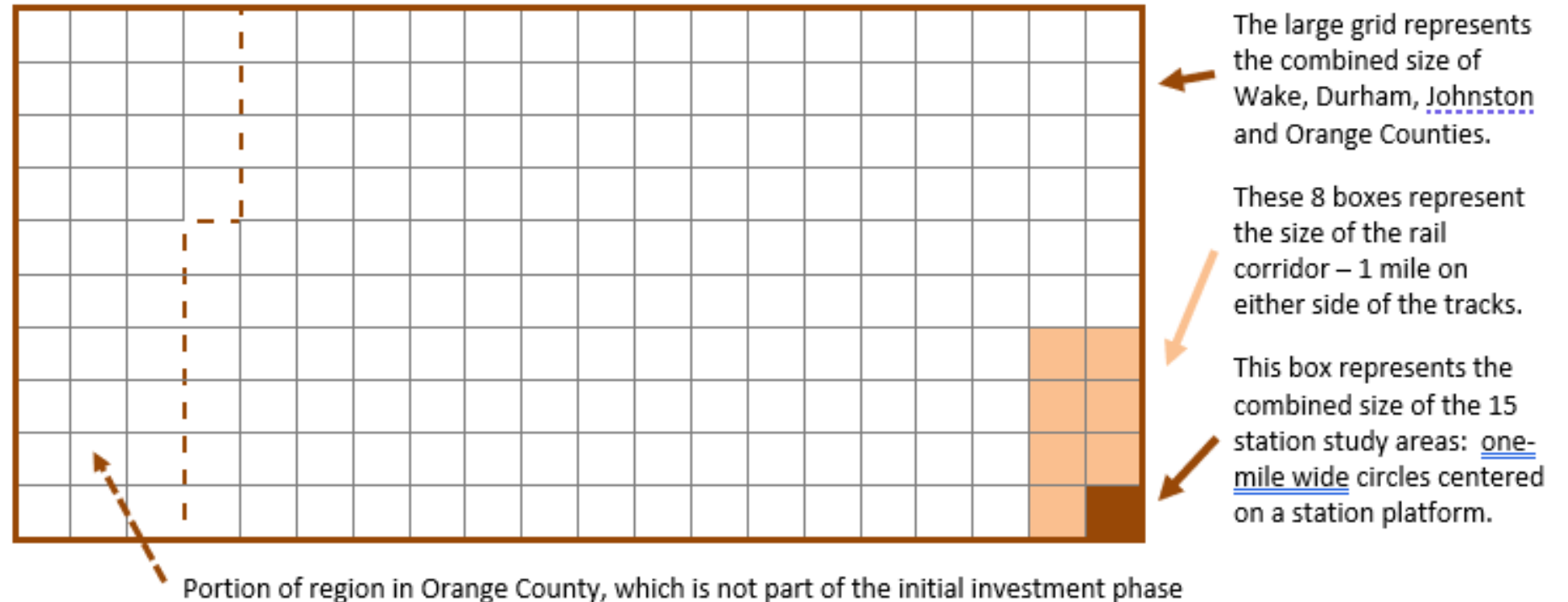


# Opportunity Analysis Framework: Region-Corridor-Station Study Areas

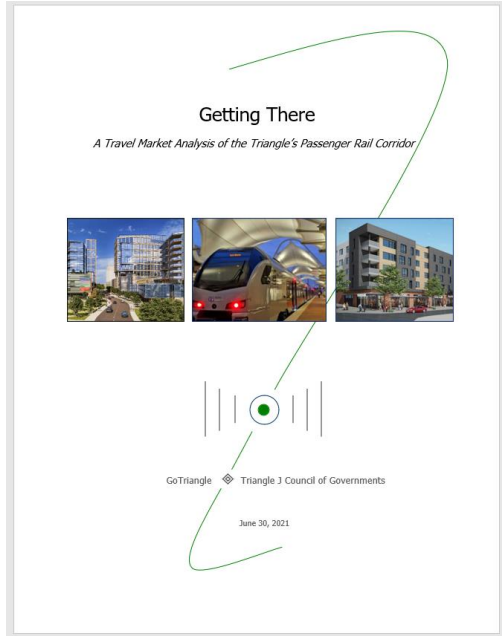
❖ The analysis focuses on three areas:

- ❑ A four-county region through which the rail corridor passes (Johnston, Wake, Durham, Orange)
- ❑ The “rail corridor:” an area within one-mile of the railroad tracks for the planned initial investment
- ❑ “Station study areas:” ½-mile radius circles at 15 locations initially looked at for station feasibility

*Relative Size of The 4-County Region, The 2-Mile Wide Rail Corridor, and the 15 Station Study Areas*



# Passenger Rail Corridor Analysis: Key Terms for Travel Market Analysis

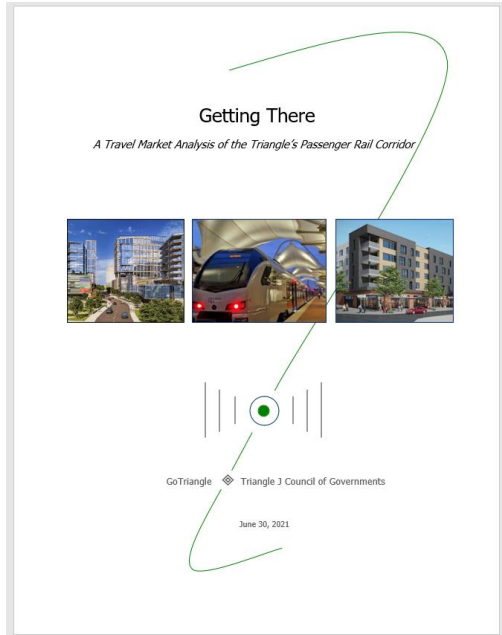


- **Key Terms**

- **Total Jobs & Primary Jobs:** Total jobs are all jobs. Primary jobs are those with the highest earnings for people with more than one job. Both total and primary jobs can be analyzed for low, moderate and high earnings levels.
- **Key Hubs:** Places where the combination of the number and concentration of jobs indicate they would be of great importance for commuting.
- **Communities of Concern:** Places that achieve thresholds based on the race, ethnicity, income, age, vehicle ownership and linguistic isolation of residents.
- **REINVEST Neighborhoods:** Places that score the highest for both the number and concentration of households with Black/Indigenous/People of Color (BIPOC) residents, with lower income residents, without cars and residing in legally binding, affordability restricted (LBAR) housing units.
- **Travel Market:** Travel to particular places for specific purposes. This analysis focuses on employment trips to locations along the rail corridor.



# Passenger Rail Corridor Analysis: Travel Market Analysis

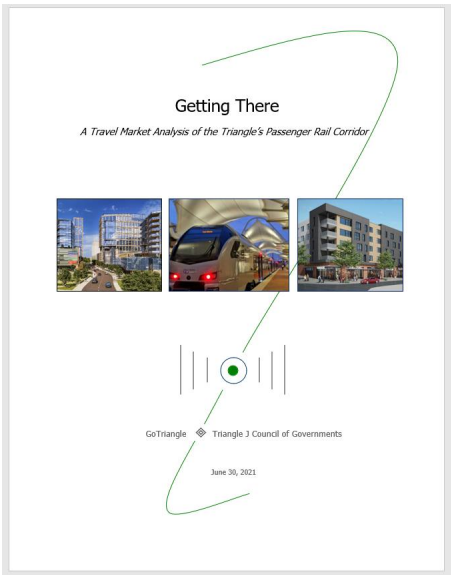


- **The importance of starting with a focus on travel markets**

- **Author of *Trains, Buses, People*:** "A good transit corridor is one with high density where multiple centers line up, perhaps resulting in a bottleneck....A good corridor must be reasonably straight: people do not want to move in "U"s or circles or zig-zags. It is critical when identifying corridors to think about land use, not existing transportation infrastructure. A congested freeway might be a sign that transit is needed, but that doesn't mean that freeway is a strong transit corridor. We need to think about where people are going, not what path they are currently taking."
- **Author of *Better Buses, Better Cities*:** "I don't think that buses are superior to trains. We need a lot of investment in trains. We need new subway extensions, commuter rail improvements and more light rail. We also need a lot more bus service to complement that. ***We need a strong spine of high-capacity transit***, and then we have great arteries and bus lines running to many more neighborhoods that have good service today. It's all connected."



# Passenger Rail Corridor Analysis: Travel Market Analysis



- **Key Metrics**

Total and Primary Jobs

- From 2018 LEHD/LODES
- Revised to address “headquartering” issue
- “Job” is at the work location; “Worker” is at the home location

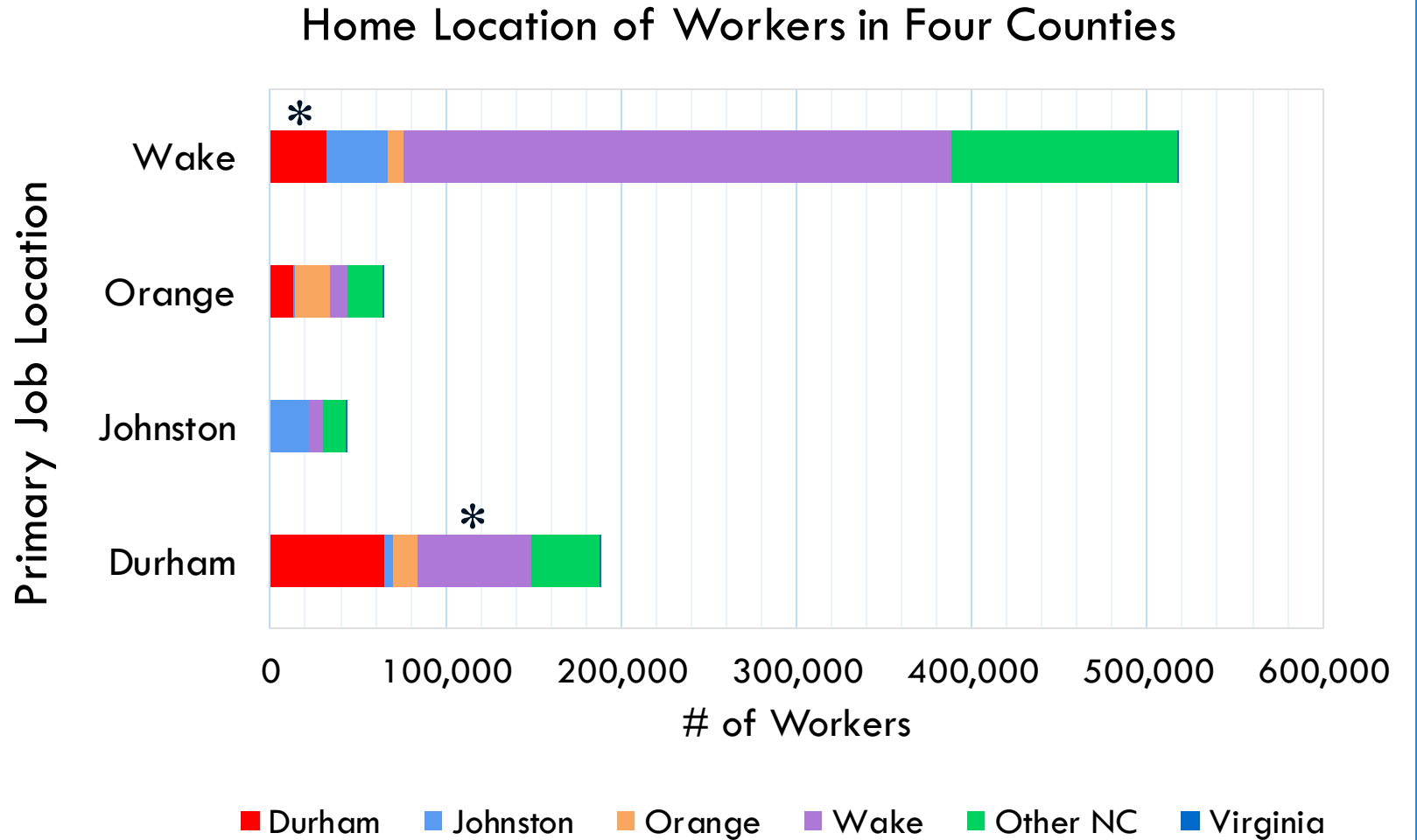
County	Jobs in 2018 (LEHD revised)
Durham	218,000
Johnston	51,000
Orange	73,000
Wake	589,000
Total Jobs	930,000
Primary Jobs	813,000



# Passenger Rail Corridor Analysis: Regional Travel – primary jobs

## • County-to-County Flows

- 45% of workers who live in Wake, Durham, Orange & Johnston Counties have employers in another county
- The Wake-Durham flows are prominent: 96,000 workers have employers in the other county \*
- About an equal number of Johnston and Durham workers have primary job employers in Wake County
  - 32,000 in Durham
  - 35,000 in Johnston



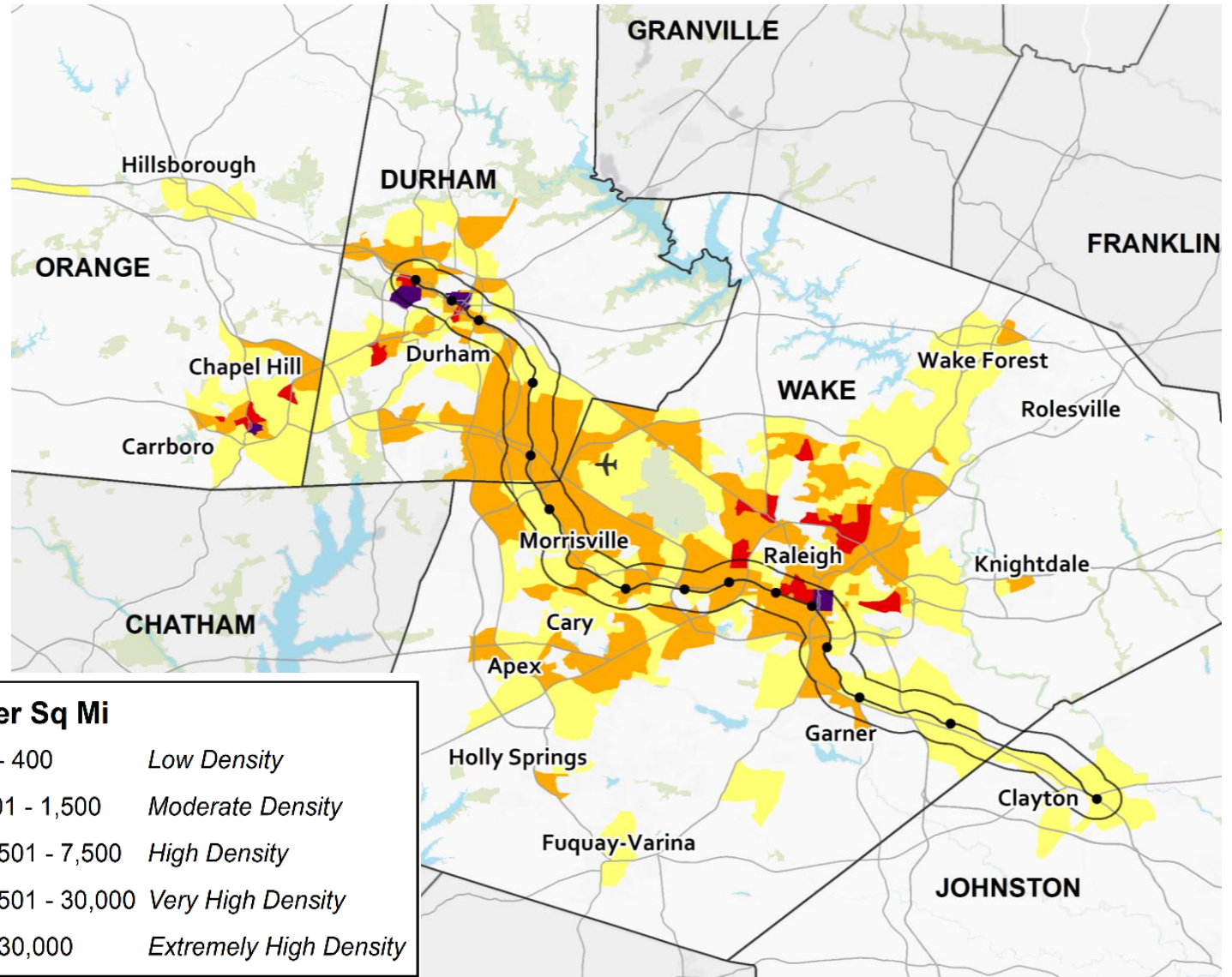
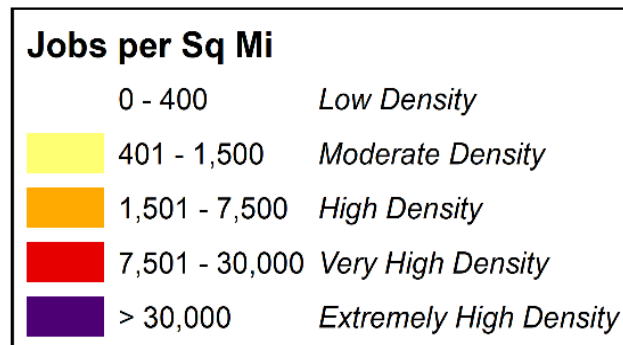


# Passenger Rail Corridor Analysis

## • Job Density

- 30% of the region's total jobs are in the corridor
- 23% of the region's low & moderate earnings jobs are in the corridor
- 56,000 workers both live and work in the corridor
- 41% of the corridor is high or better job density

*Corridor is 4% of the region's area*

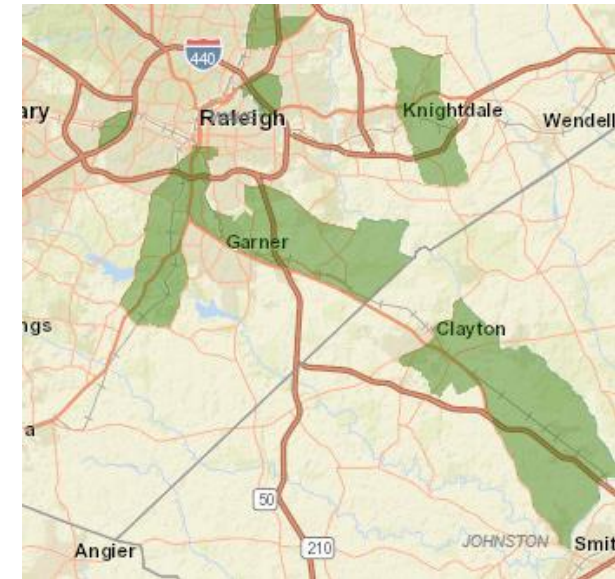
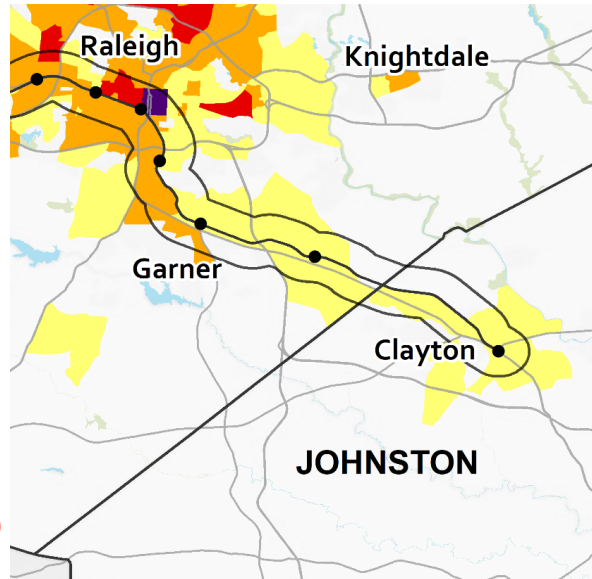




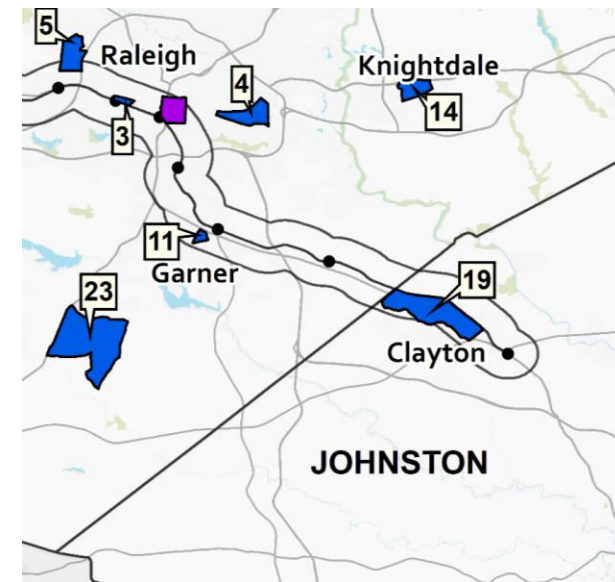
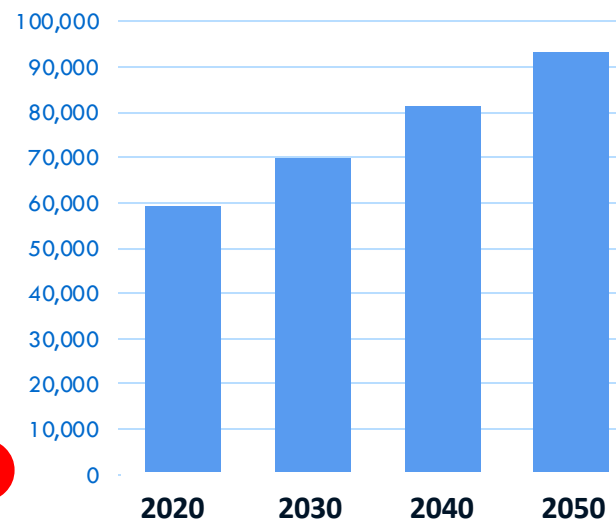
# Passenger Rail Corridor Analysis

## • Job Hub Art & Science (Johnston County example)

- Straightforward, research-based look at recent past
  - but data sometimes have anomalies on closer inspection\*
- Example of ingredients that might signify future key hubs
  1. Moderate density today
  2. Opportunity Zone Status
  3. Projected job growth
  4. Locally significant job cluster
- Land use opportunity analysis can delve deeper into potential future hubs and not be limited by Census geography



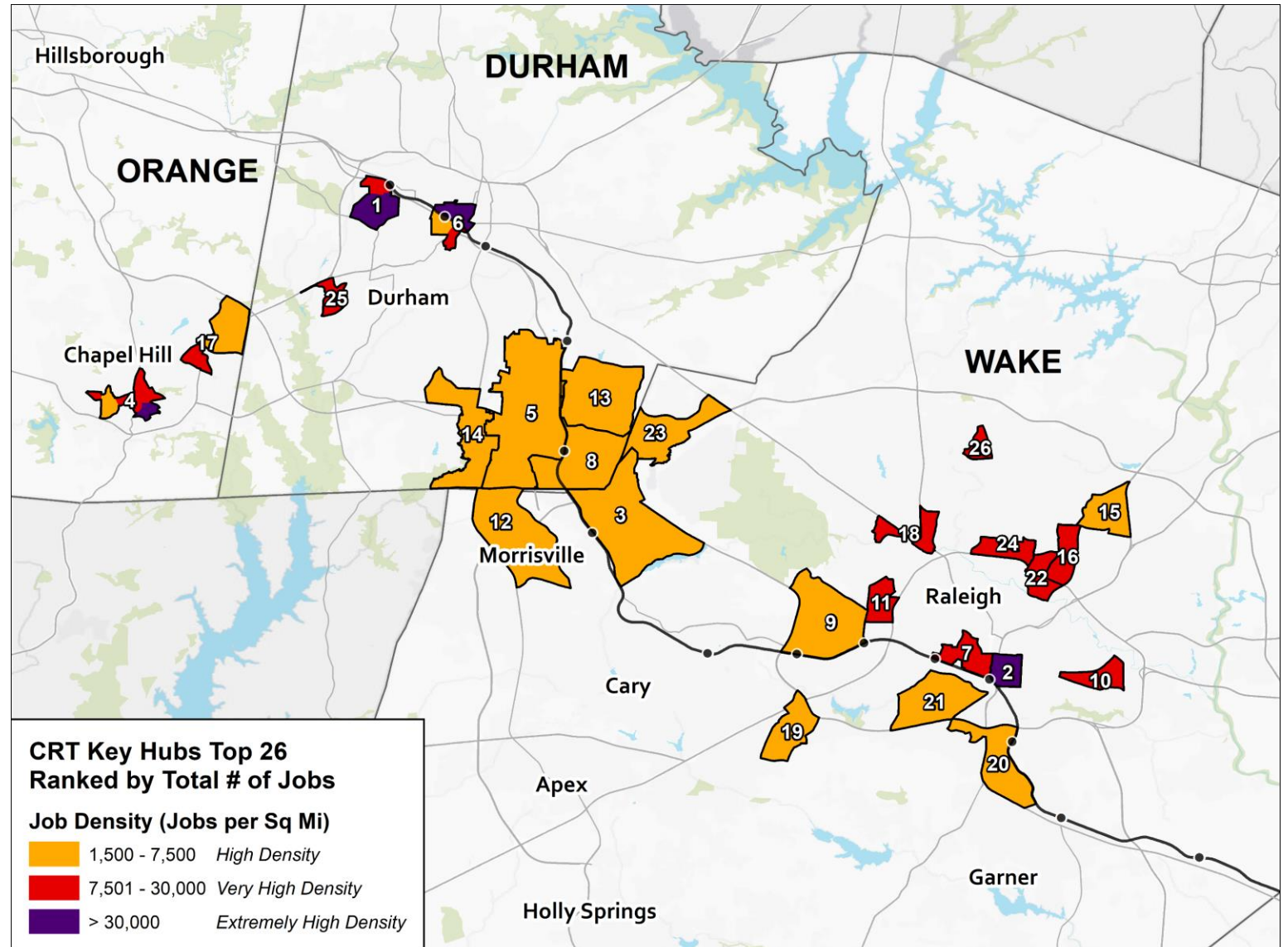
Johnston County Employment



# Passenger Rail Corridor Analysis: All Jobs

## • Key Job Hubs

- Top hubs have 40% of the region's jobs on <3% of the region's land
- The rail line runs through 8 of the largest 10 job hubs
- These 8 hubs have 200,000 jobs

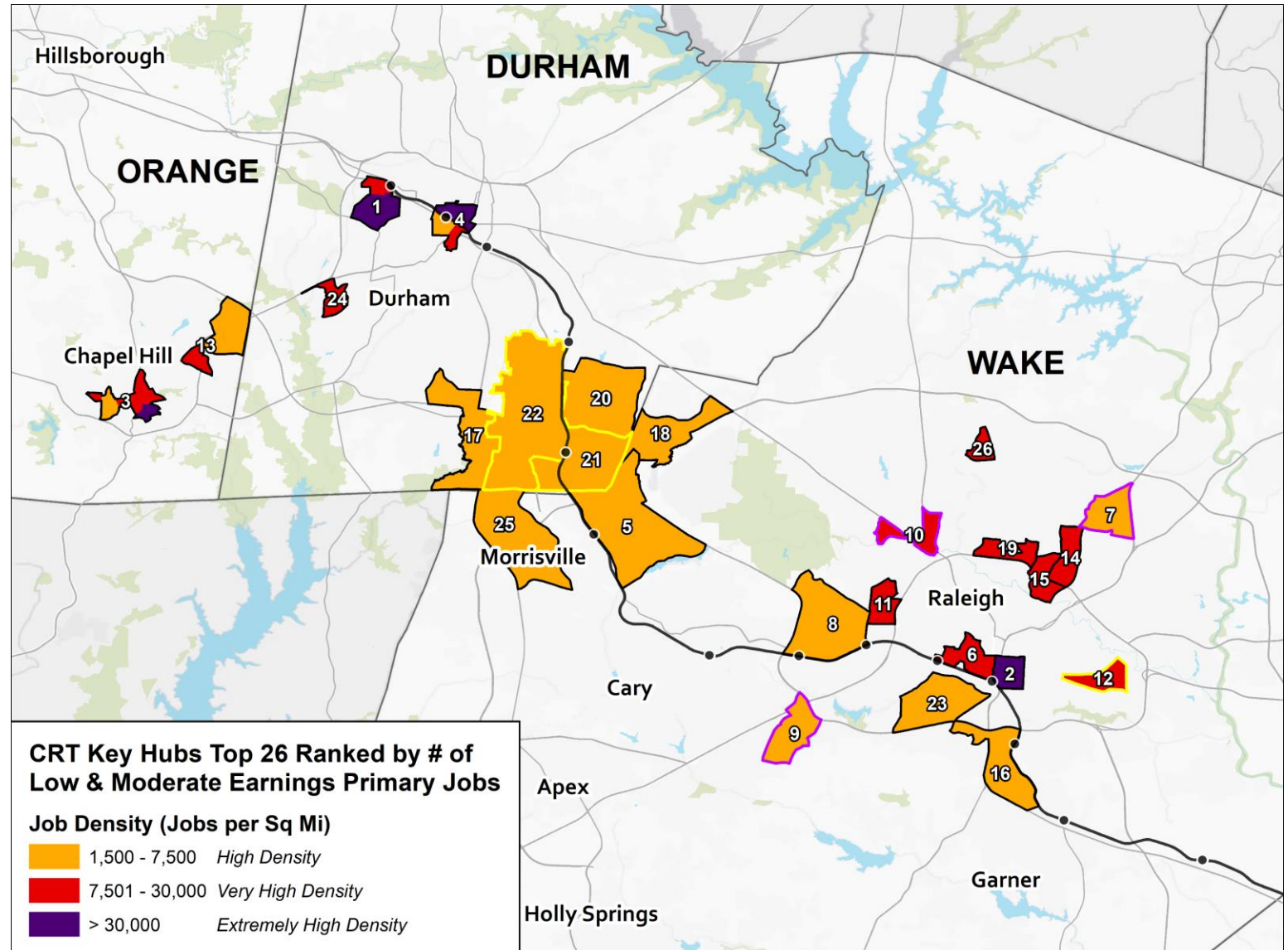




# Passenger Rail Corridor Analysis: Low & Moderate Earnings Jobs

## • Key Job Hubs

- Top hubs have 40% of the region's jobs on <3% of the region's land
- The rail line runs through 8 of the largest 10 job hubs
- These 8 hubs have 200,000 jobs
- 7 of the top 10 job hubs for total jobs are also in the top 10 for low & moderate earnings jobs
  - ↓ 2 hubs around RTP and ...
  - ↓ ... 1 hub at WakeMed fall out of the top 10 for low & moderate earning jobs
  - ↑ 3 Wake County hubs move into the top 10: Crossroads, Crabtree and NE Raleigh



# Passenger Rail Corridor Analysis

## • Transit Propensity

- Equity concerns align well with transit service effectiveness concerns, since BIPOC, lower income and zero-car households are all more likely to use transit than the population overall
- Vehicle availability is most influential
- Income is second most influential
- Race and ethnicity is 3<sup>rd</sup> most influential

Demographic Group	Transit Propensity
Race/Ethnicity	
White, non-Hispanic	0.5
Hispanic or Latino (any race)	1.4
Black	2.1
Native American	3.0
Asian	1.4
Native/Foreign Born	
Native-Born	0.9
Foreign-Born	1.5
Poverty Level	
< 100% of Poverty Line	4.2
100-149% of Poverty Line	3.4
> 150% of Poverty Line	0.7
Household Vehicle Availability	
No Vehicles	15.8
1 Vehicle	3.4
2 or More Vehicles	0.7

Source: Wake County Transit Plan



# Passenger Rail Corridor Analysis

## • **REINVEST Neighborhoods**

- Places that merge equity concerns with propensity to use transit
- Promote focus on most important residential areas like the job hubs focuses on most important employment areas
- includes affordable housing from the Rail Corridor affordable housing opportunity analysis
- Provide a straightforward metric while retaining detailed data for “deeper dive” analyses

<b>RE</b>	Race/Ethnicity – the degree to which a neighborhood is home to people who are Black, Indigenous or People of Color (BIPOC).
<b>IN</b>	Income – the degree to which households in the neighborhood have annual incomes below 150% of the Poverty Line.
<b>VE</b>	Vehicles – the degree to which households in the neighborhood report having no vehicles available
<b>ST</b>	Status – whether or not a neighborhood has a specific designation that makes it of particular interest for transportation investment. In this analysis, two neighborhood status characteristics are included: i) # of legally-binding, affordability-restricted (LBAR) housing units, and ii) designation as a federal Opportunity Zone



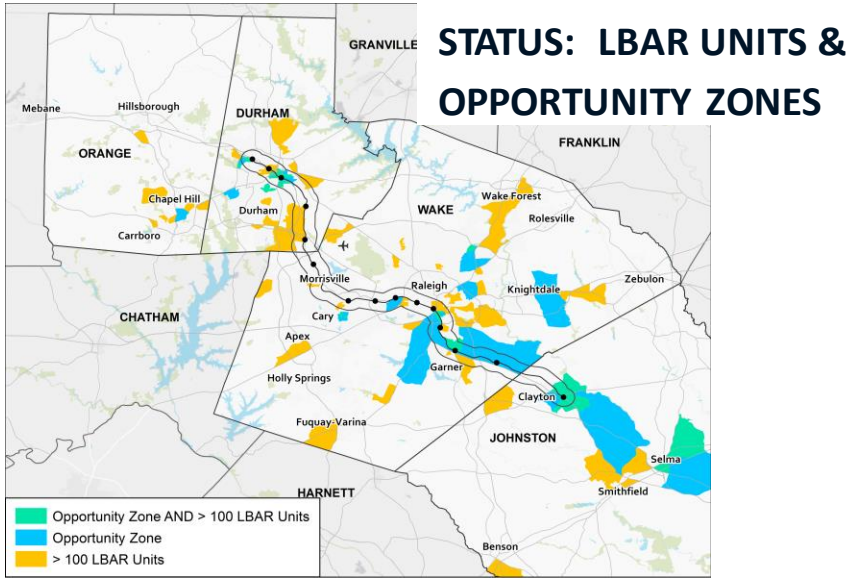
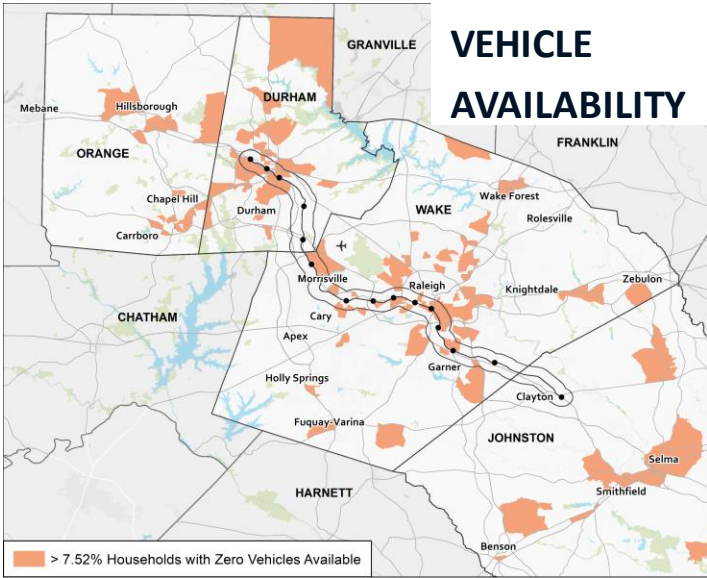
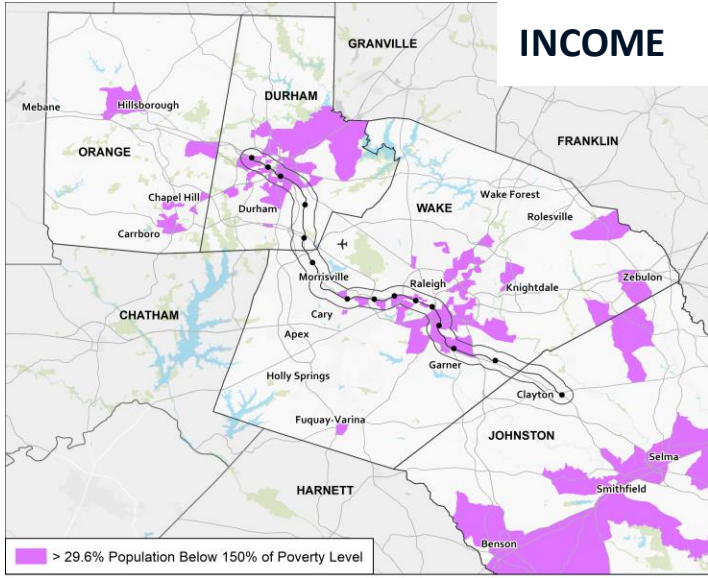
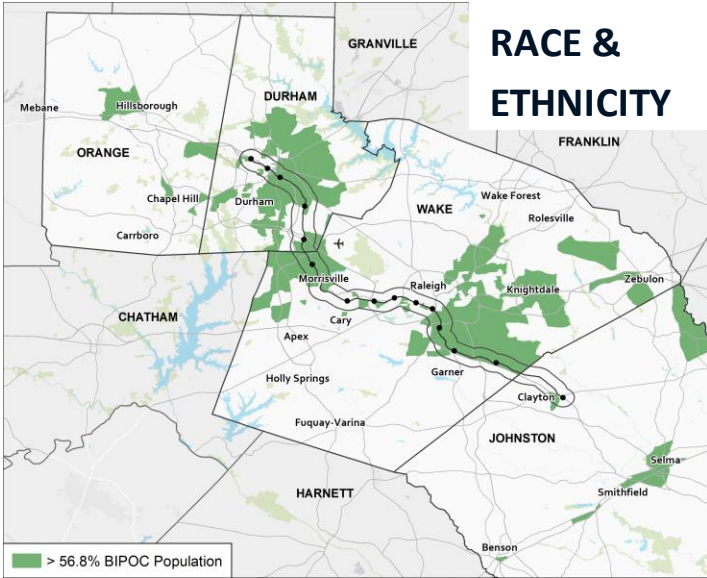


# Passenger Rail Corridor Analysis

- **REINVEST Neighborhoods**

- Start with individual RE-IN-VE-ST components
- Each component determined by top 25% of Census Block Groups for the trait that is measured

Trait ➔	BIPOC residents	People <150% poverty line	0-car households	LBAR units
% of land:	12%	18%	12%	11%
% of trait:	48%	46%	66%	74%

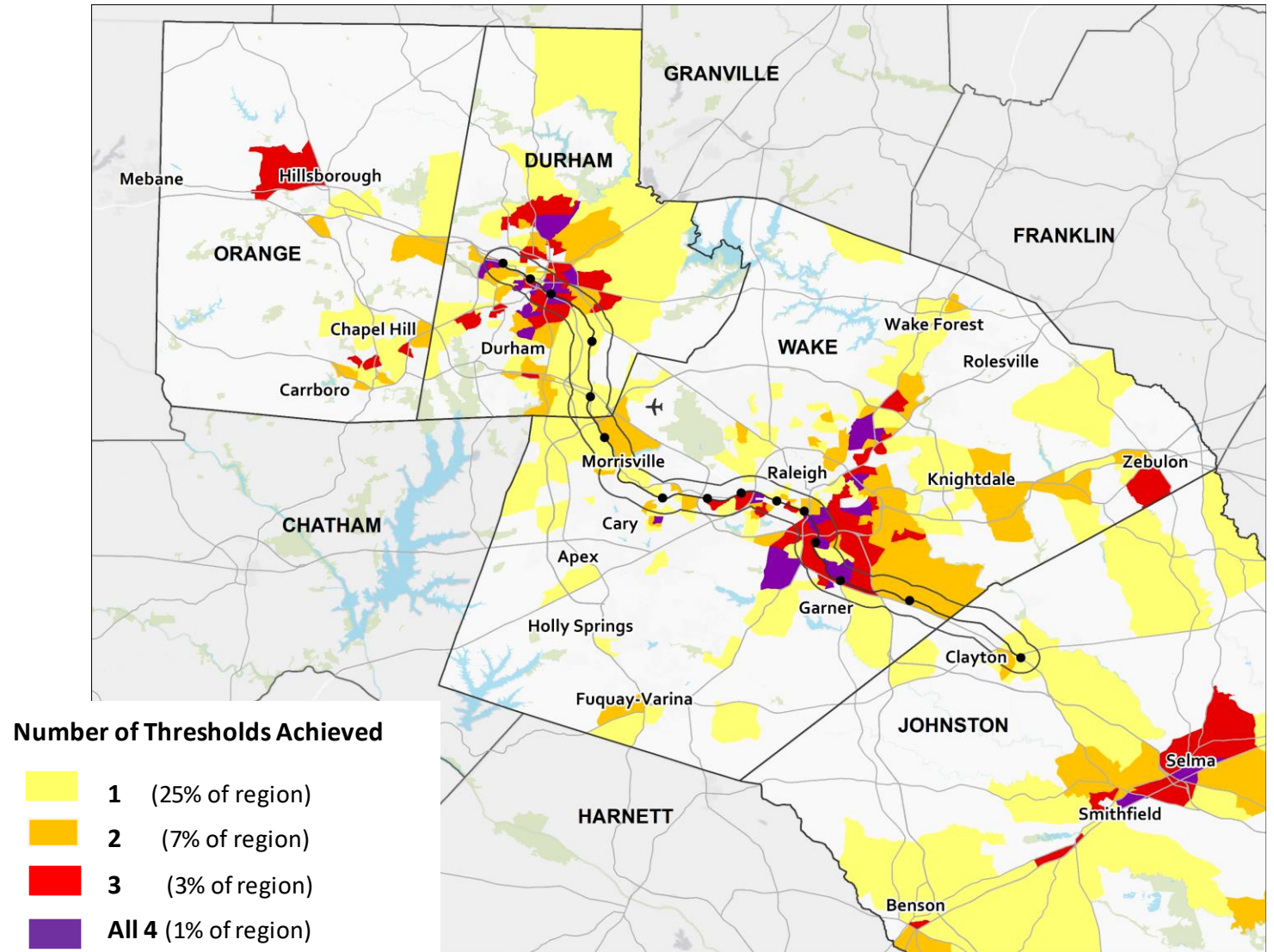




# Passenger Rail Corridor Analysis

## • REINVEST Neighborhoods

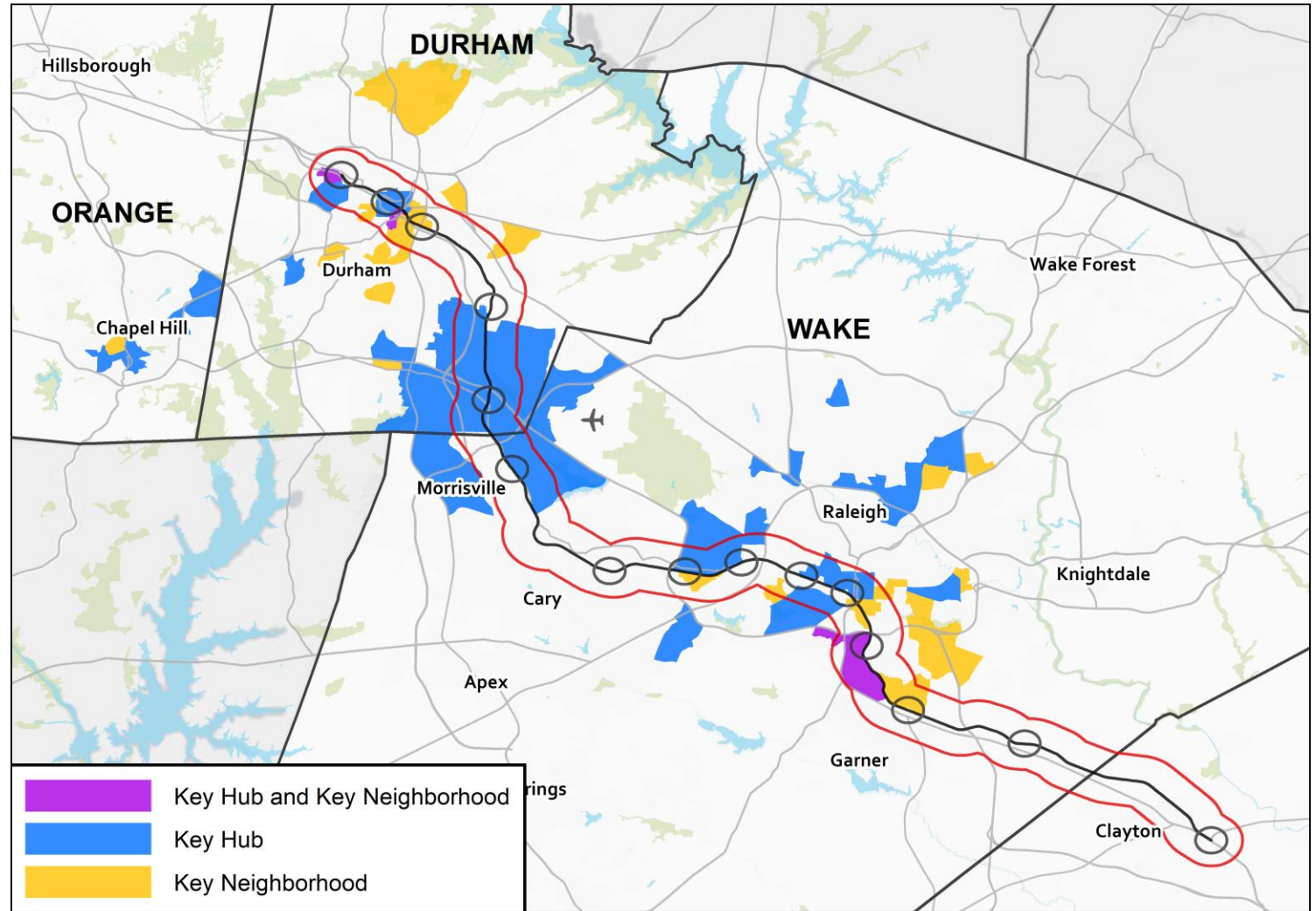
- ❖ 767 total block groups in region; 103 (13%) score high on multiple characteristics – these 103 form the REINVEST Neighborhoods
- ❖ REINVEST Neighborhoods are 4% of the region's land and contain:
  - 11% of the total population
  - 21% of the BIPOC population
  - 27% of people <150% of poverty line
  - 37% of zero-car households
  - 41% of LBAR housing units



# Passenger Rail Corridor Analysis: Rail Corridor “Top-Tier” Key Hubs & Neighborhoods

- **Composite Map**

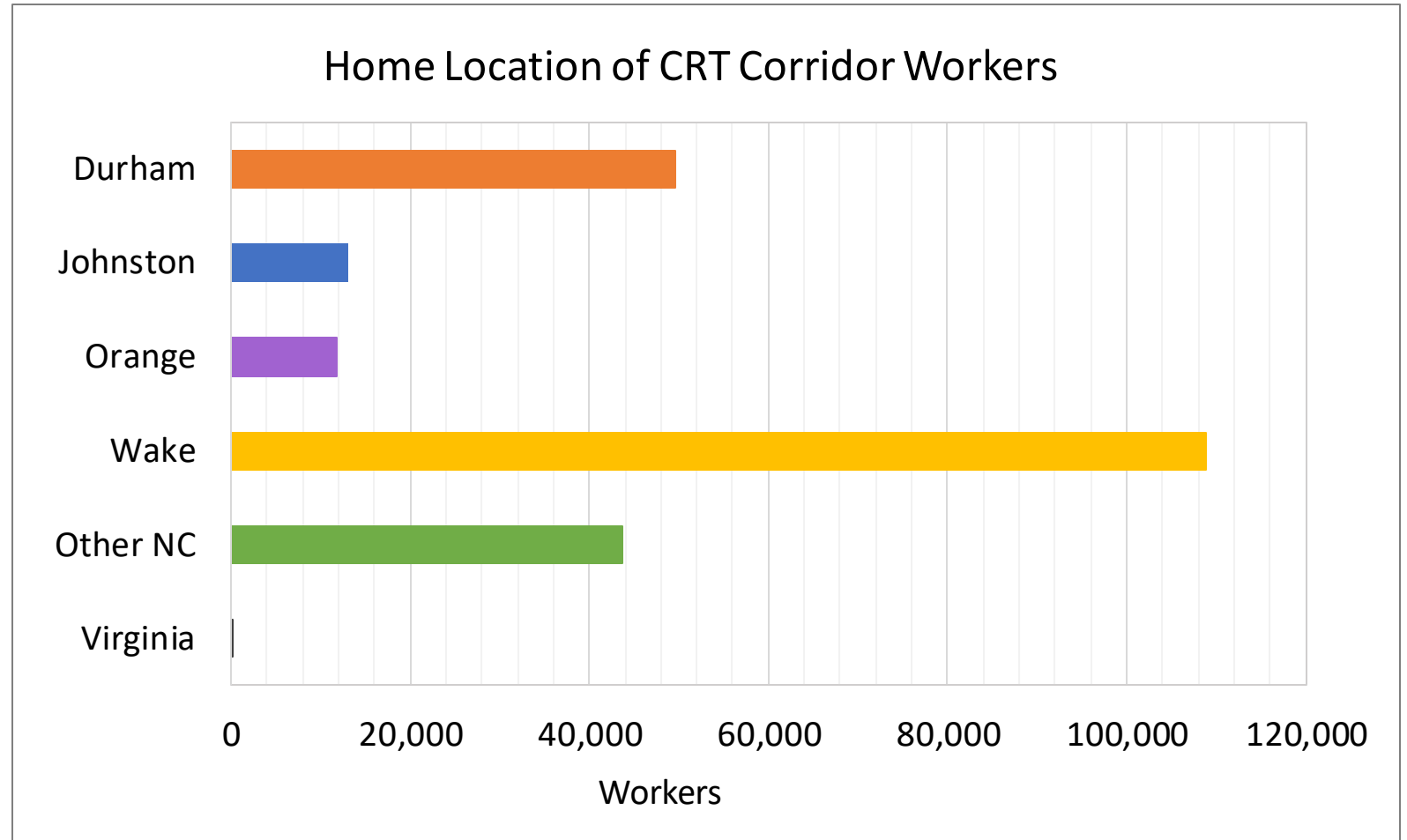
- 12 of the 15 initial station study areas overlap a key hub, a top-tier REINVEST Neighborhood, or both



# Passenger Rail Corridor Analysis: Rail Corridor Travel Markets

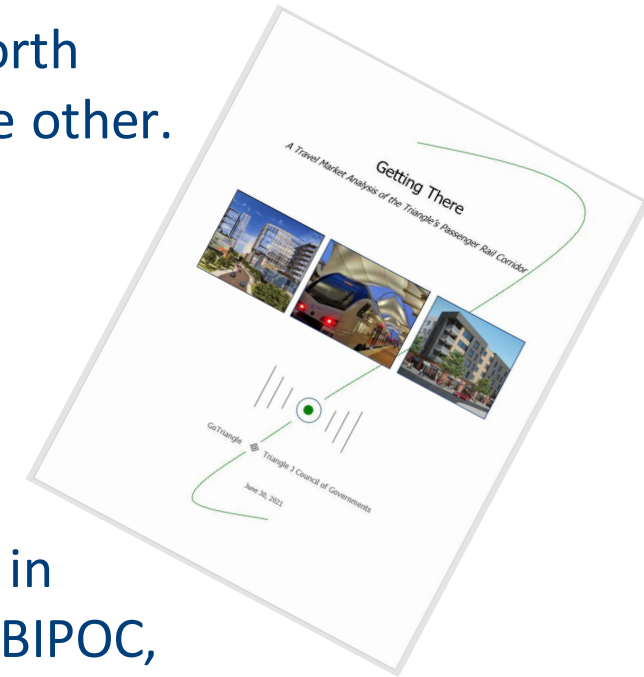
- **Where People With Primary Jobs in the Corridor Live**

- 180,000 people live in Wake, Durham, Johnston and Orange County and have their primary job in the rail corridor
- 70,000 of these people live in one county and have their workplace in the corridor in another county
- 56,000 people both live and work in the corridor



# Travel Market Analysis Key Take-Aways

1. The rail corridor is only 4% of the area of Orange, Durham, Wake and Johnston Counties, but has ~30% of the region's jobs: 280,000 jobs.
2. 23% of the region's jobs with earnings below \$40,000 per year are located in the rail corridor.
3. The Wake County-Durham County regional connection is the largest in North Carolina, with over 96,000 workers living in one county and working in the other.
4. 8 of the top 10 job hubs in the region are along the rail corridor, including the city centers of Raleigh and Durham, Duke University and Medical Center, North Carolina State University and the Research Triangle Park.
5. 56,000 workers both live and work in block groups along the rail corridor.
6. Almost 70,000 people live in neighborhoods that are completely or partly in the corridor and achieve thresholds for the amount and concentration of BIPOC, lower income and zero-car households, and legally-binding, affordability-restricted housing units.
7. Safe and seamless "first-mile/last-mile" connections are essential to serve these neighborhoods.





# Issues to Consider

The travel market analysis was ***descriptive***, not ***prescriptive***, but the evidence suggests that the following issues might warrant active attention:

- ❖ Involving institutional landowners, including GoTriangle, Cities, Counties, Universities, Housing Authorities, and the State in maximizing housing options along the corridor.
- ❖ Ensuring seamless bus connections are integral, not an after-thought, so that bus routes can have both independent utility and serve as rail station “last mile” feeders.
- ❖ Understanding how current facilities and further investments in sidewalks, bike facilities and other “micro-mobility” efforts would link affordable housing and jobs to passenger rail service.
- ❖ Showing how both local land use and pricing policies (parking, transit fares) can be significant influencers of ridership and value.



## Available Resources

- ❖ A detailed *Travel Market Opportunity Report*
- ❖ A four-page *Executive Summary* (both print and web versions)
- ❖ PowerPoint Presentation
- ❖ More detailed job and neighborhood mapping, by corridor segment

-- all materials will be available at [ReadyForRailNC.com](http://ReadyForRailNC.com) --

