

# Using LED Tools for Special Research Projects to Inform Customers

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**NC DEPARTMENT**  
**of COMMERCE**  
**LABOR & ECONOMIC**  
**ANALYSIS**

# What Labor & Economic Analysis Division Does



# Topics for today's session

- Research on NC Interconnected Markets
- Information for Economic & Workforce Developers
- Special Research Topics
- How do we share?



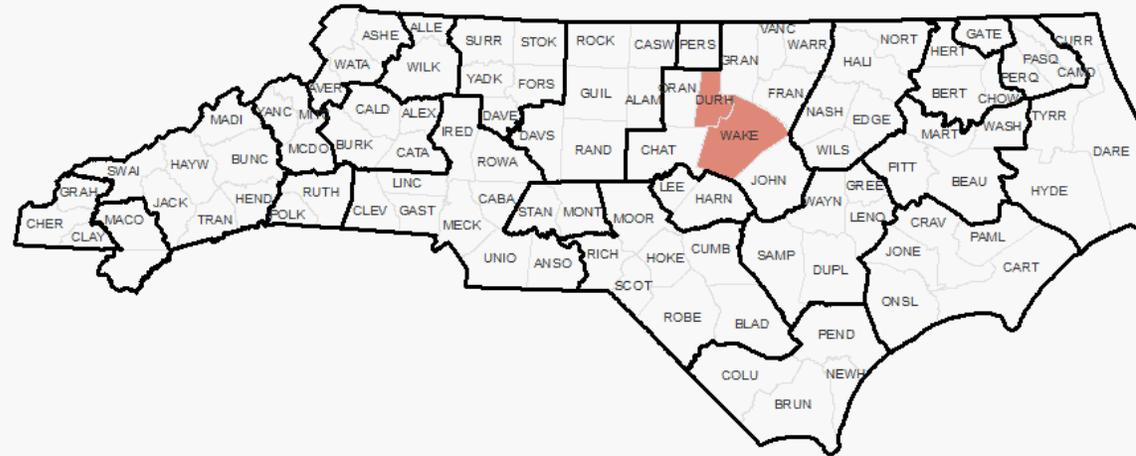
How can we improve  
projections using  
commuting data?

# Interconnected Labor Market: Background

- What is an interconnected labor market?
  - Methodology
- Why study/use interconnected markets?

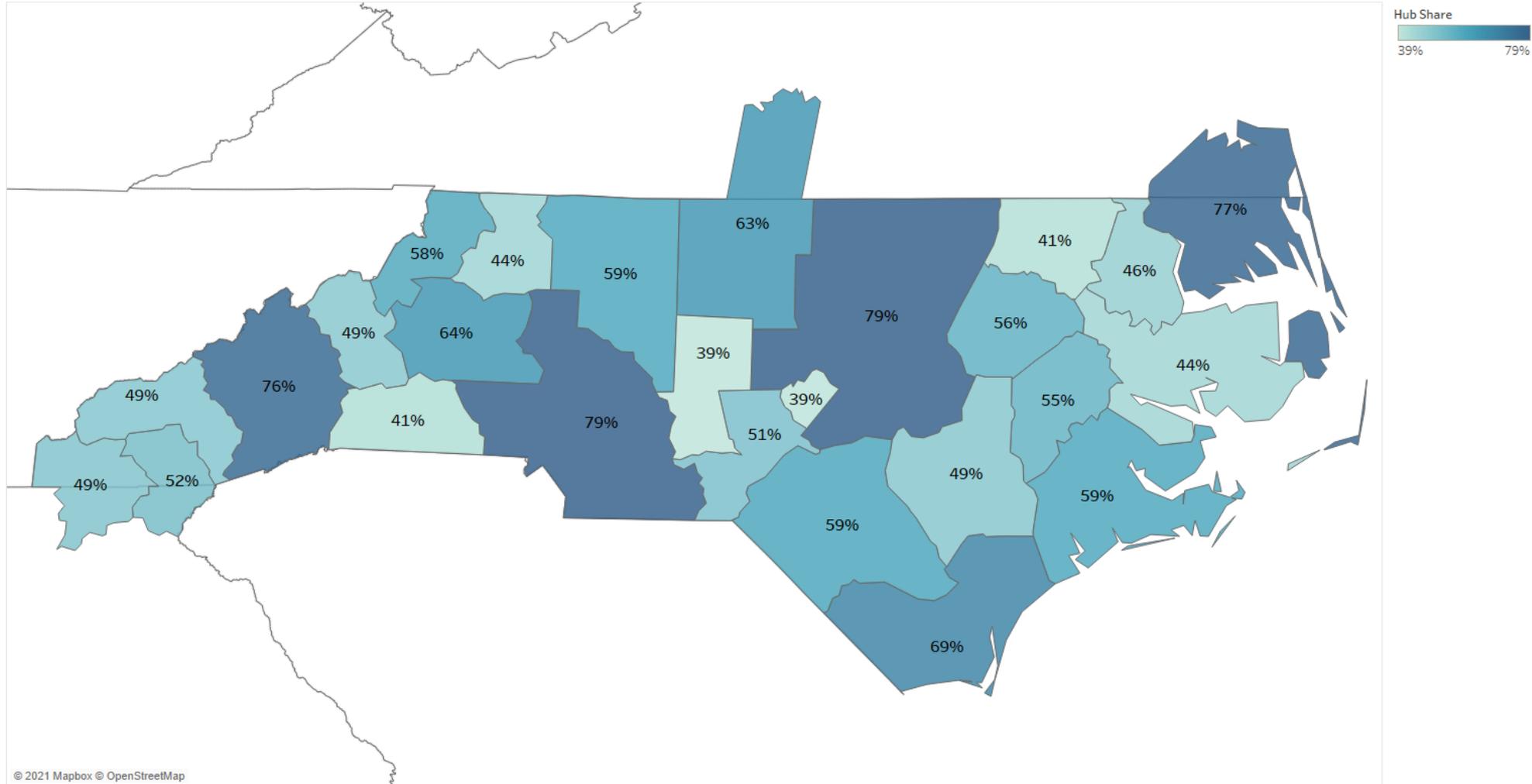
# Algorithm in Action

North Carolina Counties Clustering Process Animation



# 2018 Snapshot (Hub share)

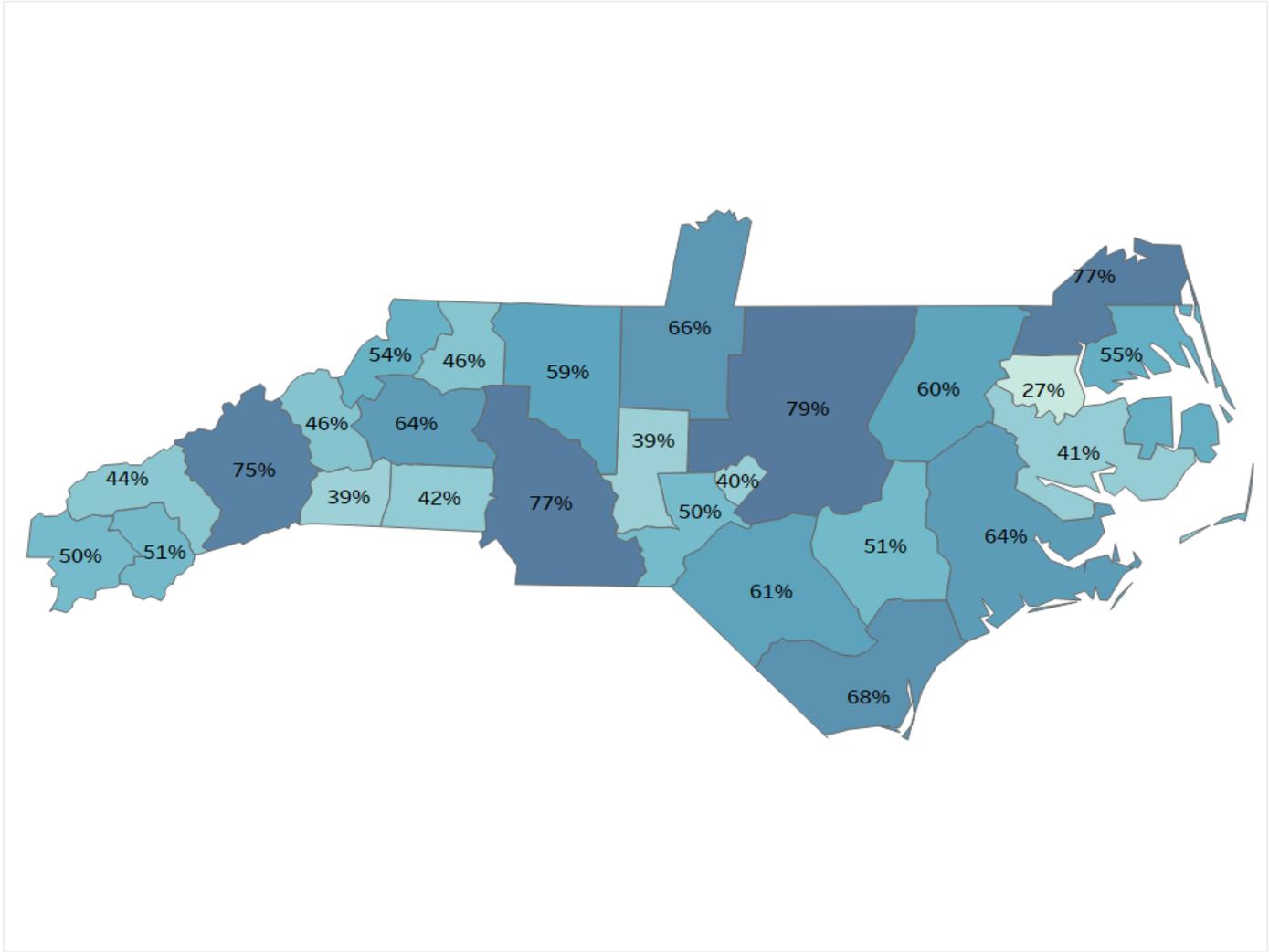
2018 Hub Share Map



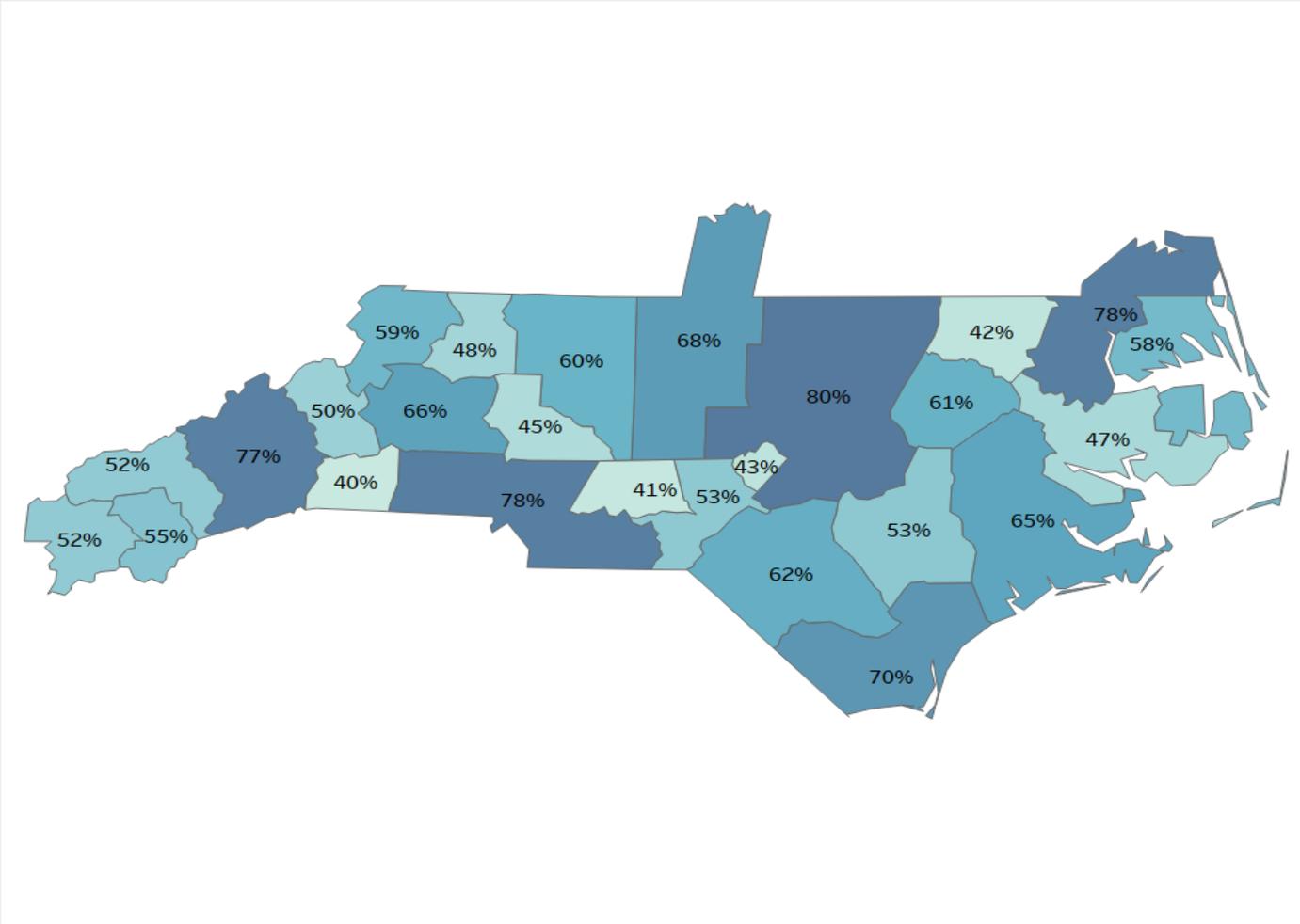
© 2021 Mapbox © OpenStreetMap

Map based on Longitude (generated) and Latitude (generated). Color shows details about Hub Share. The marks are labeled by Hub Share. Details are shown for Clustyr. The data is filtered on Year Year, which keeps 2018.

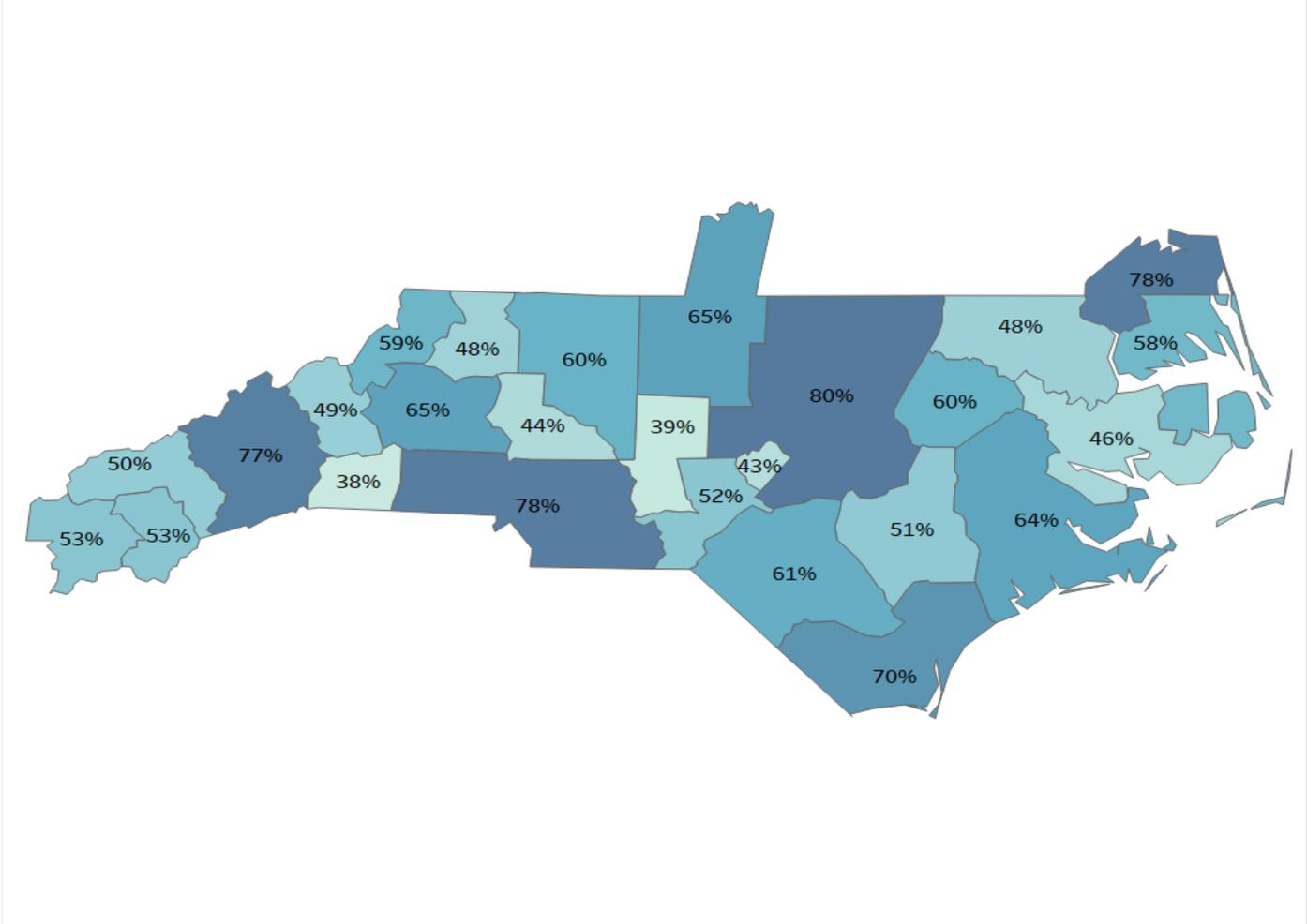
# 2014 Map



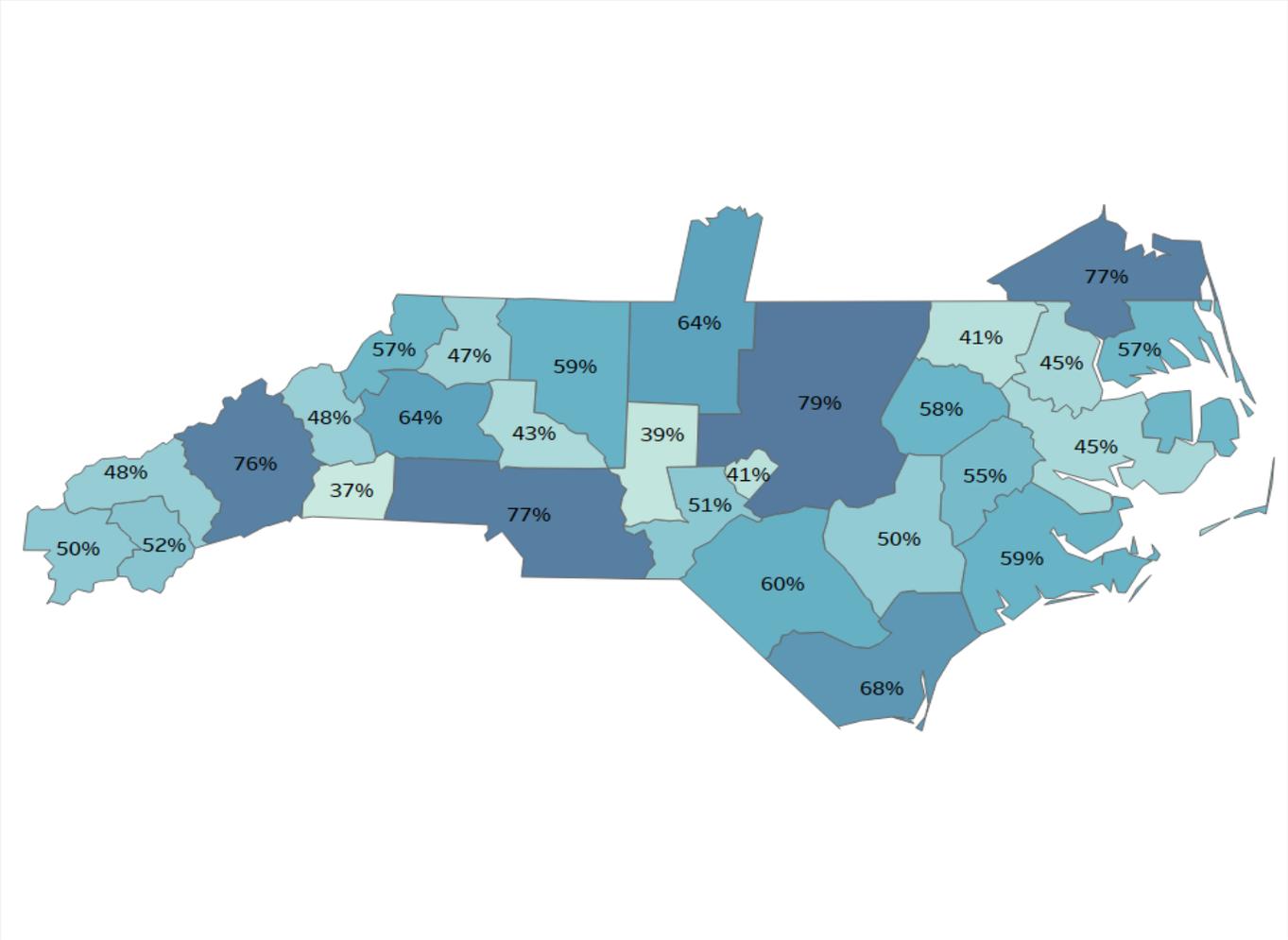
# 2015 Map



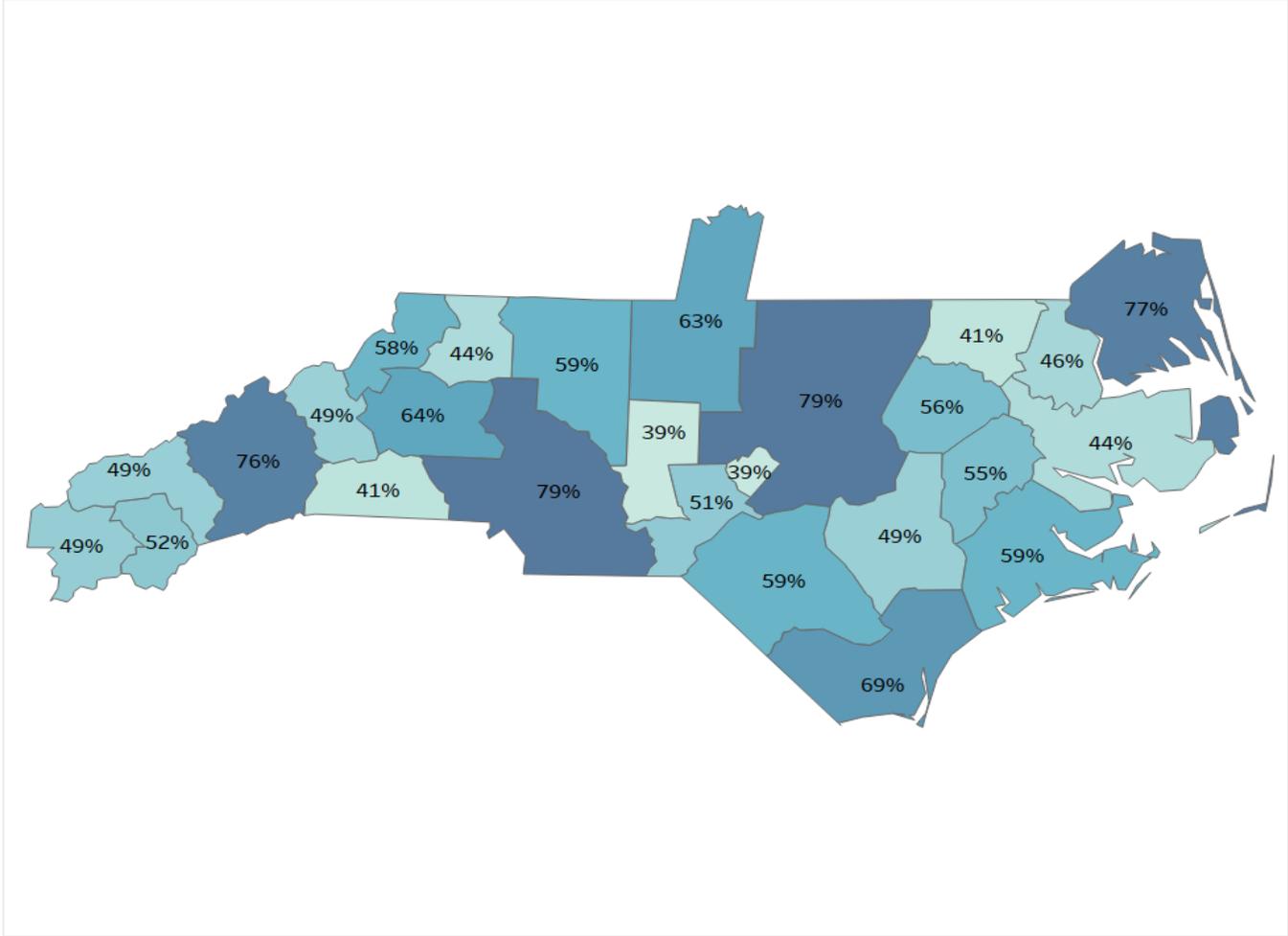
# 2016 Map



# 2017 Map



# 2018 Map



# Implications of Time Lapse

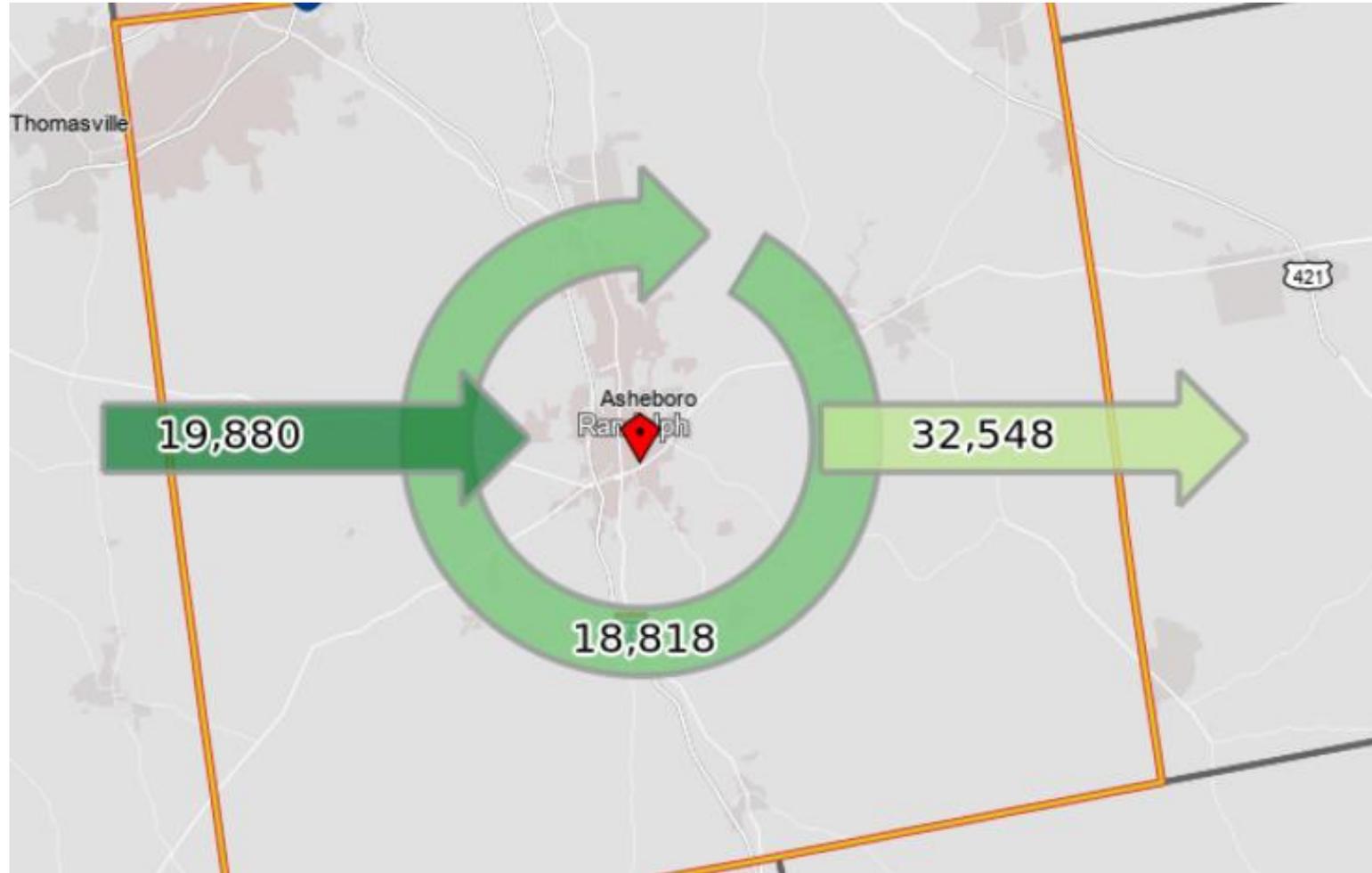
- **Interstate commuting**
  - Virginia and NC
- **Consistent markets**
- **Inconsistent markets**

What questions can you answer to inform economic and workforce development activities?

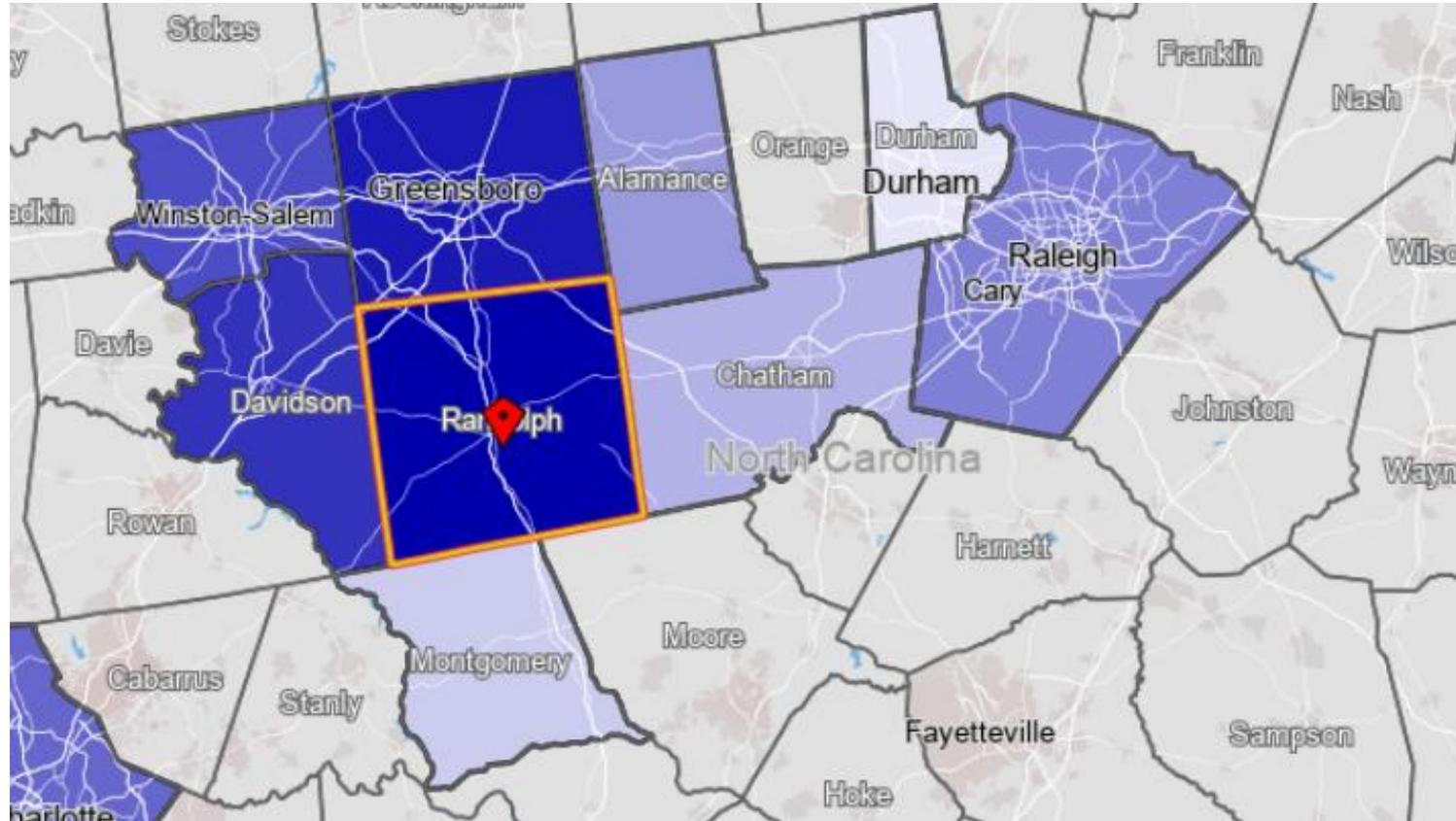
# OntheMap



# Does my county retain or lose workers?



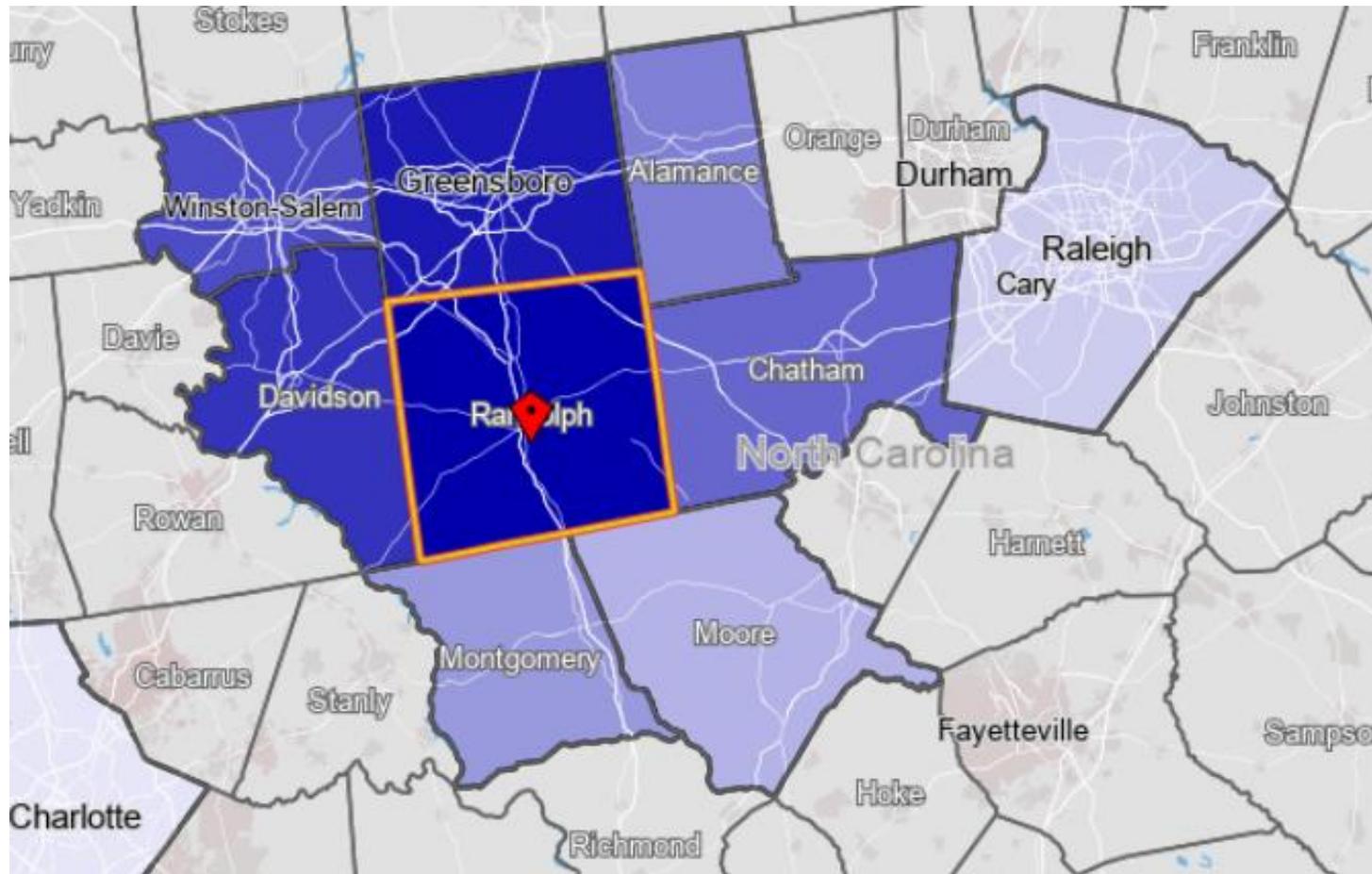
# Where do my county's residents work?



Jobs Counts by Counties Where Workers are Employed - Private Primary Jobs

	2019	
	Count	Share
<a href="#">All Counties</a>	51,366	100.0%
<a href="#">Randolph County, NC</a>	18,818	36.6%
<a href="#">Guilford County, NC</a>	13,595	26.5%
<a href="#">Davidson County, NC</a>	2,671	5.2%
<a href="#">Forsyth County, NC</a>	2,399	4.7%
<a href="#">Mecklenburg County, NC</a>	2,222	4.3%
<a href="#">Wake County, NC</a>	1,901	3.7%
<a href="#">Alamance County, NC</a>	980	1.9%
<a href="#">Chatham County, NC</a>	711	1.4%
<a href="#">Montgomery County, NC</a>	555	1.1%
<a href="#">Durham County, NC</a>	484	0.9%
<a href="#">All Other Locations</a>	7,030	13.7%

# Where do my county's workers live?



## Jobs Counts by Counties Where Workers Live - Private Primary Jobs

	2019	
	Count	Share
<a href="#">All Counties</a>	38,698	100.0%
<a href="#">Randolph County, NC</a>	18,818	48.6%
<a href="#">Guilford County, NC</a>	5,050	13.0%
<a href="#">Davidson County, NC</a>	3,114	8.0%
<a href="#">Forsyth County, NC</a>	1,245	3.2%
<a href="#">Chatham County, NC</a>	870	2.2%
<a href="#">Alamance County, NC</a>	681	1.8%
<a href="#">Montgomery County, NC</a>	618	1.6%
<a href="#">Moore County, NC</a>	584	1.5%
<a href="#">Wake County, NC</a>	573	1.5%
<a href="#">Mecklenburg County, NC</a>	397	1.0%
<b>All Other Locations</b>	<b>6,748</b>	<b>17.4%</b>

# J2J Explorer

## 1. Start Here

Frame your question by selecting from the three dropdowns below; then click one of the blue links on the right to go to your customized results.

 Hires to

 North Carolina

 All NAICS Sectors

## 2. Then Choose an Analysis

### Analysis of Job-to-Job Flows

**From** (Origin Job)

 [Which States?](#)

 [Which Metro Areas?](#)

 [Which Industries?](#)



**To** (Destination Job)

North Carolina

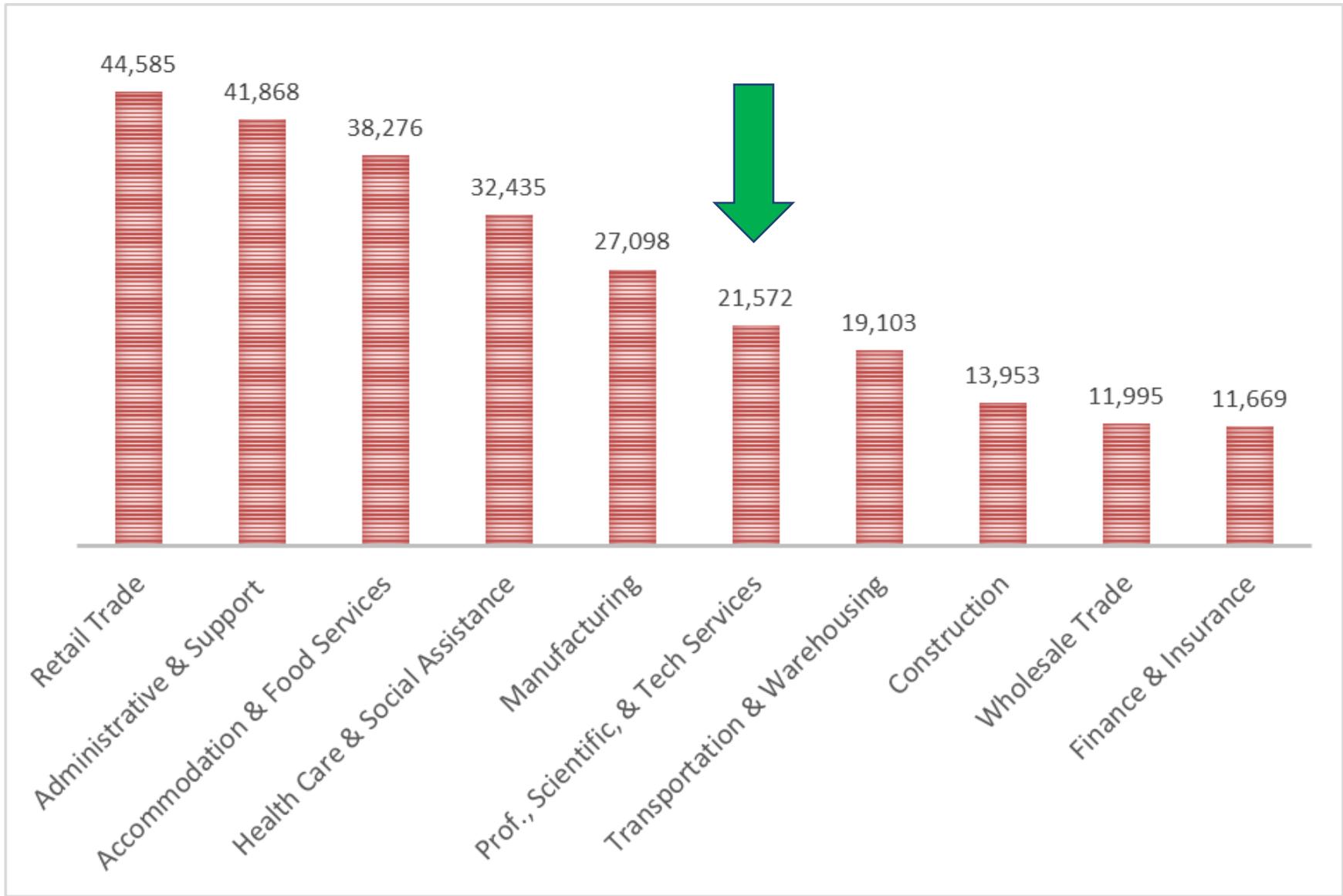
 [Which Industries?](#)

### Analysis of Hires Over Time

 [Are hires to jobs in North Carolina coming from nonemployment or another job?](#)

 [How do earnings for hires to jobs in North Carolina compare to earnings for job stayers?](#)

For what jobs are people moving to North Carolina?

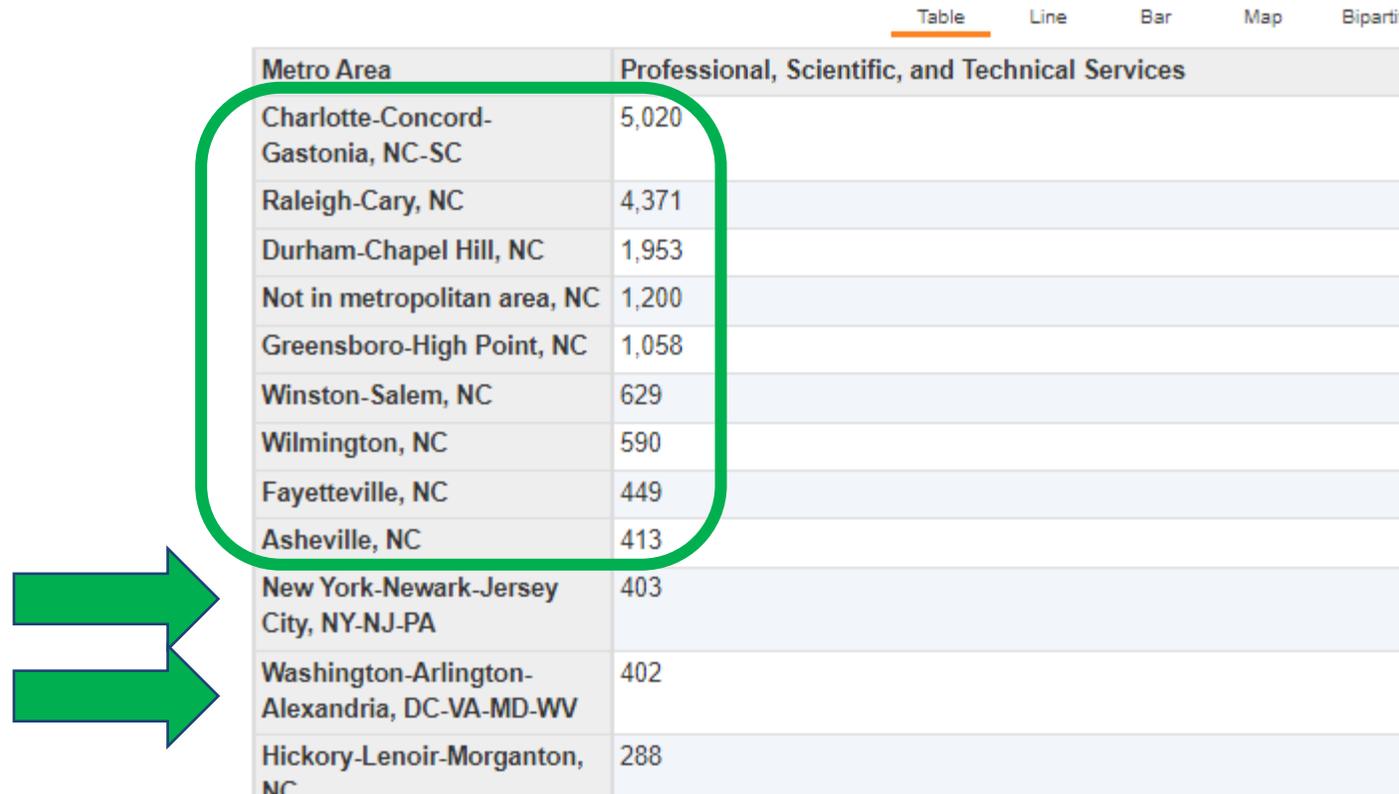


Where are people who move to NC and work in Professional, Scientific and Technical Services coming from?

# Where are people moving from to work in Professional, Scientific, and Technical Services?

Table Line Bar Map Biparti

Metro Area	Professional, Scientific, and Technical Services
Charlotte-Concord-Gastonia, NC-SC	5,020
Raleigh-Cary, NC	4,371
Durham-Chapel Hill, NC	1,953
Not in metropolitan area, NC	1,200
Greensboro-High Point, NC	1,058
Winston-Salem, NC	629
Wilmington, NC	590
Fayetteville, NC	449
Asheville, NC	413
New York-Newark-Jersey City, NY-NJ-PA	403
Washington-Arlington-Alexandria, DC-VA-MD-WV	402
Hickory-Lenoir-Morganton, NC	288



# QWI Explorer

Adv. Settings LEHD Home

## Geography Level

North Carolina

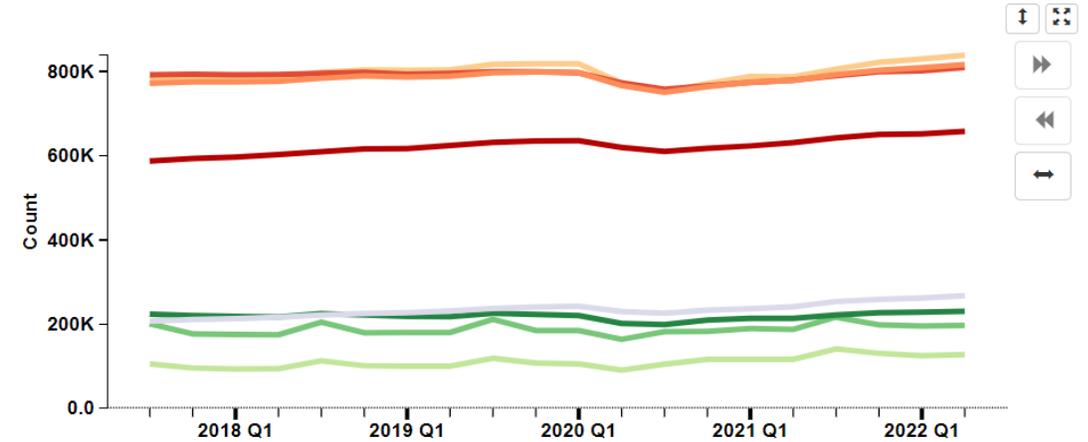
## Indicator

Emp - Beginning of Quarter Employment: Count

Get Data Share Get Report

## Filters/Aggregations

Time: X-Axis  
 Geography: [None](#)  
 Industries: [None](#)  
 Firm Ownership: [All Private Ownership](#)  
 Firm Age/Size: [None](#)  
 Worker Characteristics: [None](#)



Line Bar Map

## X-Axis

Quarters

20 Quarters Selected

Normalize on X-Axis

## Group

Age

Eight Age Groups Selected

Normalize on Group

# QWI Explorer

	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65-99
2017 Q3	105,650	201,004	223,994	780,000	771,843	791,908	587,466	207,073
2017 Q4	95,956	176,900	220,469	784,641	775,648	793,680	593,635	210,961
2018 Q1	93,394	175,441	218,260	785,273	775,344	791,937	596,462	212,955

In what industries is the wage gap closing for Black workers?

# In what industries is the wage gap closing for Black workers?

Industry Title	Projected Employment Growth Rate, 2021-2030	Average Wage in 2022 Dollars, 2017-2021	Difference in Avg Black Wage Growth vs. Avg White Wage Growth Since 2006, 2017-2021
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	1.77%	\$3,387	14.2%
Management of Companies and Enterprises	1.05%	\$2,511	5.5%
Publishing Industries (except Internet)	1.20%	\$2,340	22.0%
Chemical Manufacturing	1.01%	\$1,968	12.7%
Professional, Scientific, and Technical Services	1.90%	\$1,899	4.0%
Broadcasting (except Internet)	1.00%	\$1,618	2.6%
Ambulatory Health Care Services	1.51%	\$1,369	22.3%
Hospitals	1.03%	\$1,348	4.8%
Total, All Industries	0.97%	\$1,167	0.8%

How do we share this  
information?

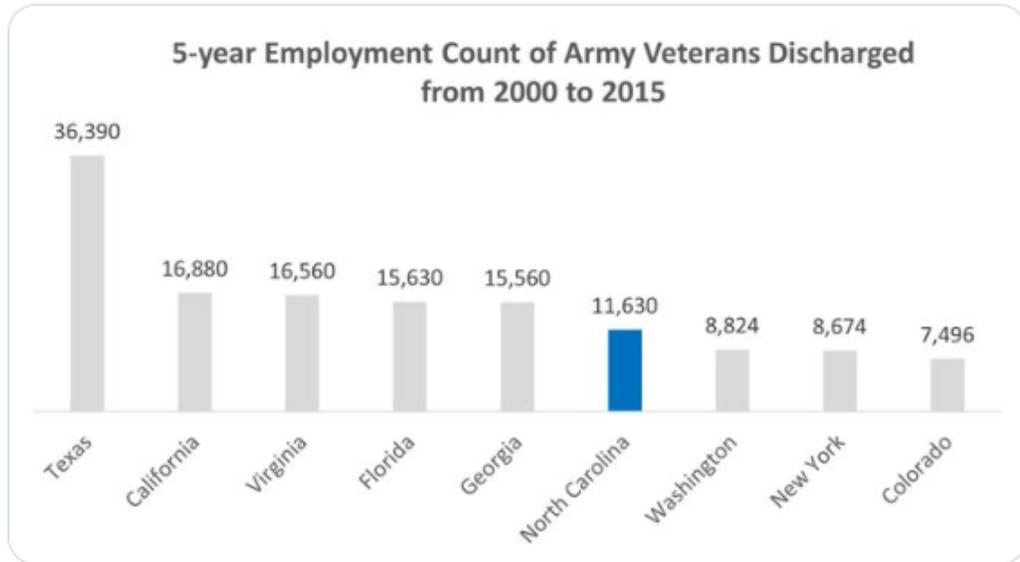
# Social Media Posts



LEAD, NC Dept of Commerce  
@LeadNC

...

Veterans are critical to NC's labor force. Per [@uscensusbureau](#) more than 11,600 [@USArmy](#) veterans discharged from 2000 - '15 were employed in NC after 5 years. This is the 6th largest number in the US. [#LEHD](#) [#militaryappreciationmonth](#)  
[lehd.ces.census.gov/applications/v...](http://lehd.ces.census.gov/applications/v...)



12:02 PM · May 27, 2022

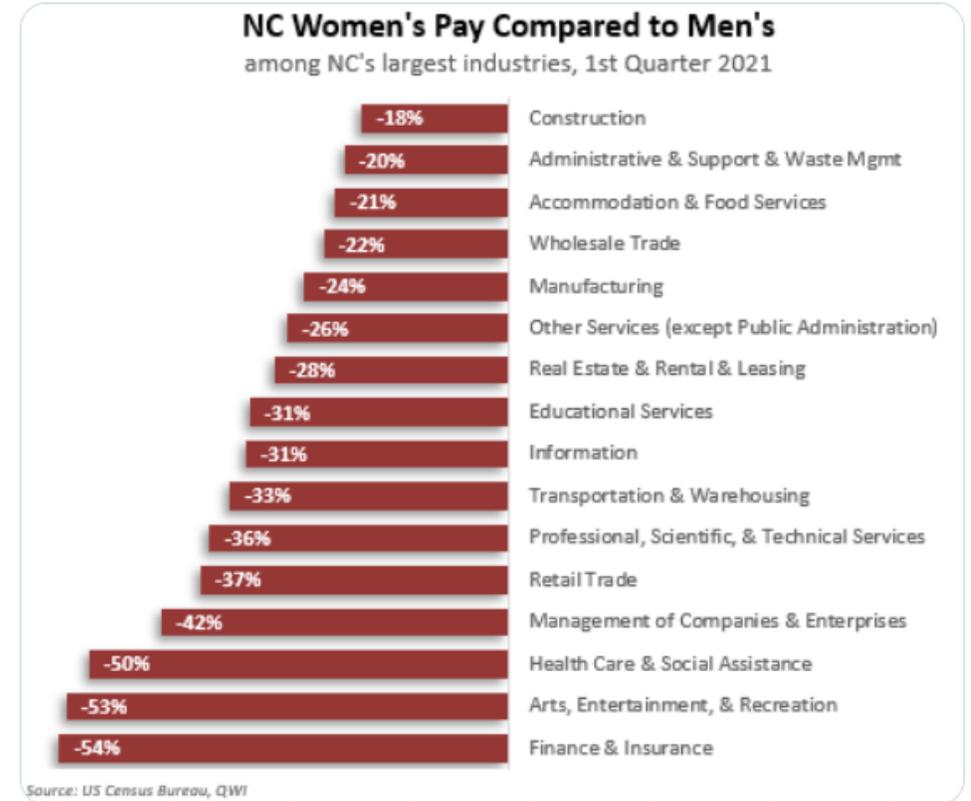


LEAD, NC Dept of Commerce  
@LeadNC

...

Which major industry in NC had the greatest parity of incomes between men and women acc to US Census's QWI? Would you believe Construction?

Finance and Insurance on the other hand? [#WorkToDo](#) [#EqualPayDay](#)



1:33 PM · Mar 15, 2022

# LEADFeed (Blog) Articles

- [Making Progress: An industry analysis of Black employment in North Carolina](#)
- [If You Pay, Will They Stay? Using J2J to Investigate Earnings and Separations Rates](#)
- [Which Industry Workers Change Jobs the Most and Where do they go? A Review of J2J Explorer Data to Understand Job Mobility in NC Industries](#)
- [A review of QWI Data: How Have Women's Opportunities in the Workplace in North Carolina been affected by the COVID Pandemic?](#)
- [How has the pandemic affected Black / African American employment and earnings?](#)
- [Recent Cross County Commuting Patterns](#)

# LMI Tuesdays

- 1st and 3rd Tuesday of each month
- 30 minute Teams Session with ability for audience to ask questions
- No registration required

Use the links below to access the sessions each month:



Scan for the FIRST Tuesday of  
the month's session or visit:  
<https://bit.ly/2QhL83S>



Scan for the THIRD Tuesday of  
the month's session or visit:  
<https://bit.ly/2OK1ZMh>