

# 2025 OUTLOOK FOR TECH



11<sup>th</sup> Year

# About Economic Leadership

- Founded in 2013
- Working in 27 states for 60 Clients
- Statewide & Regional Competitiveness Strategies
- Locational Analysis
- Leadership + Communications
- Trendspotting & Strategy





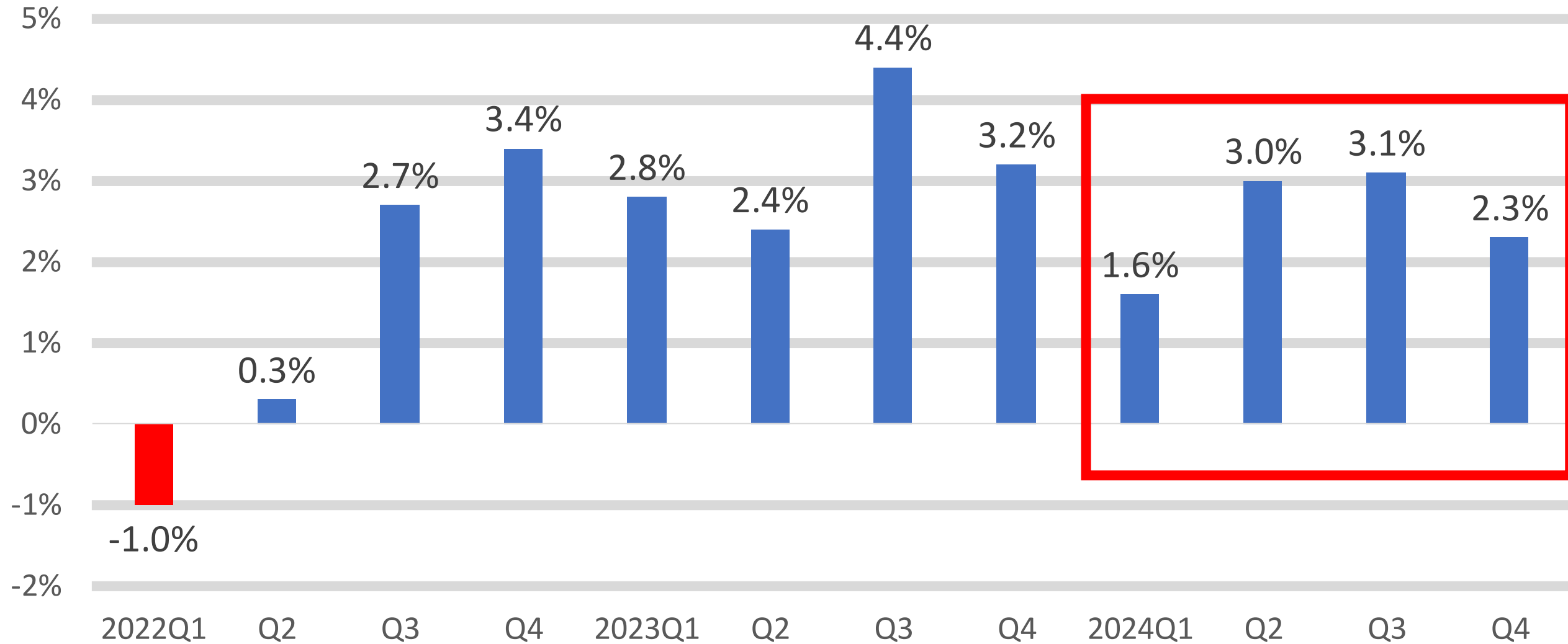
# Competing in Context

## The US Economy



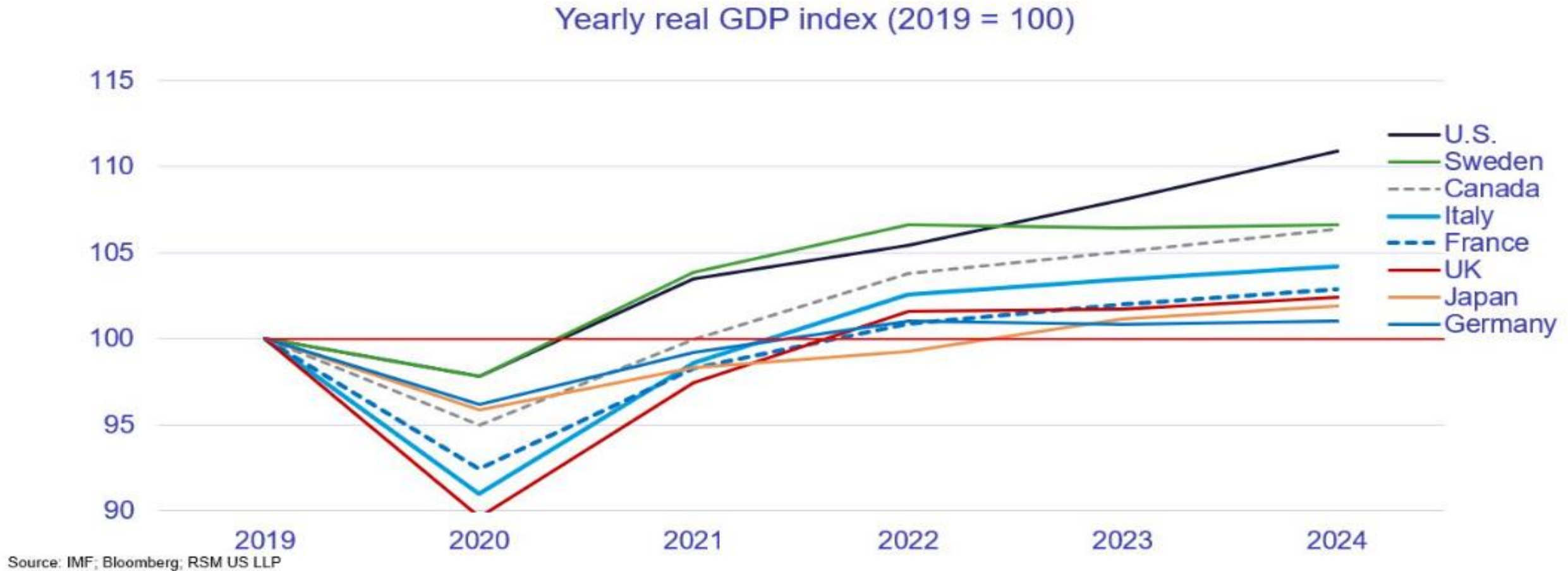


# U.S. GDP Growth

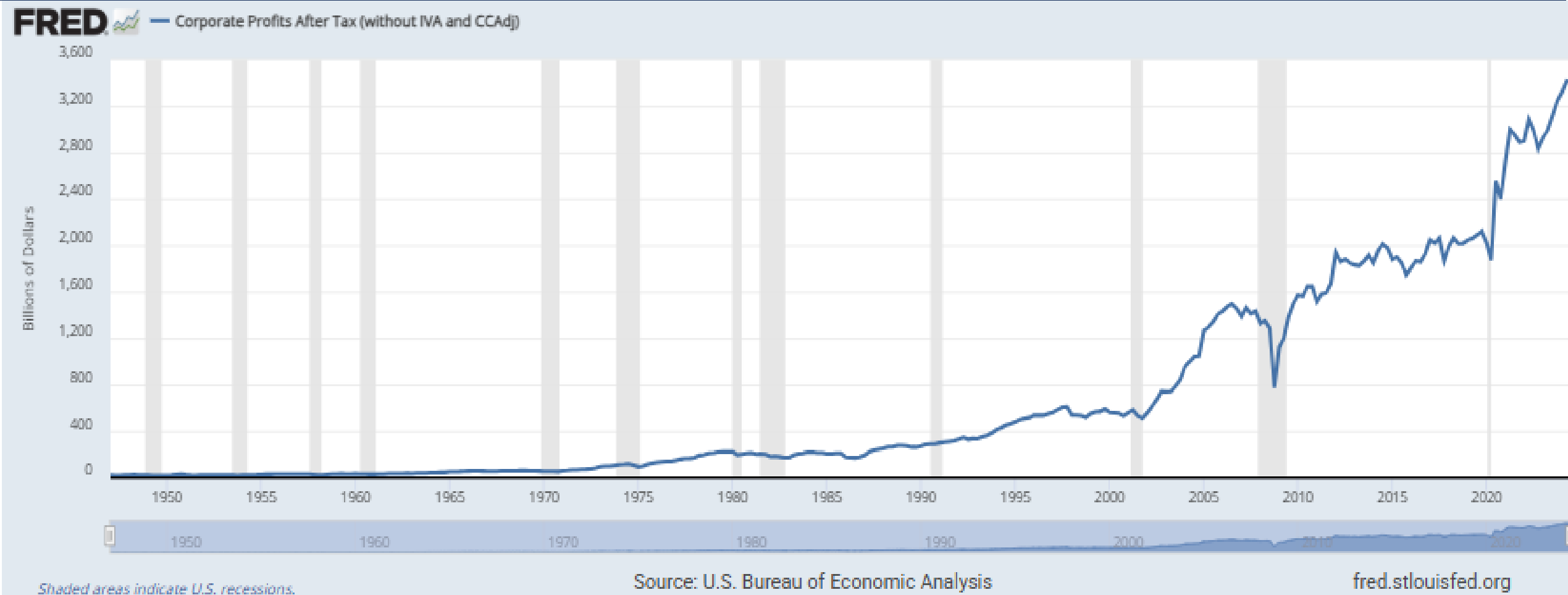


Data: Bureau of Economic Analysis

# Post-Pandemic Economic Recovery and Growth

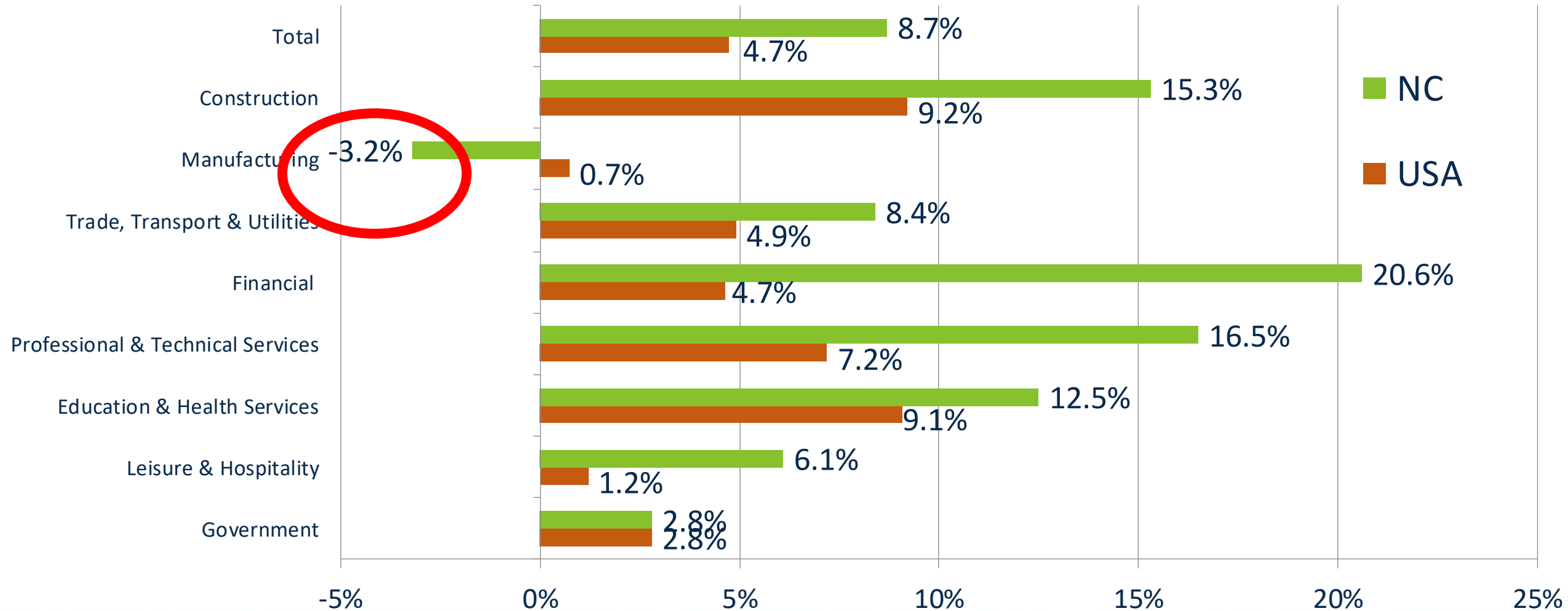


# After Tax Corporate Profits



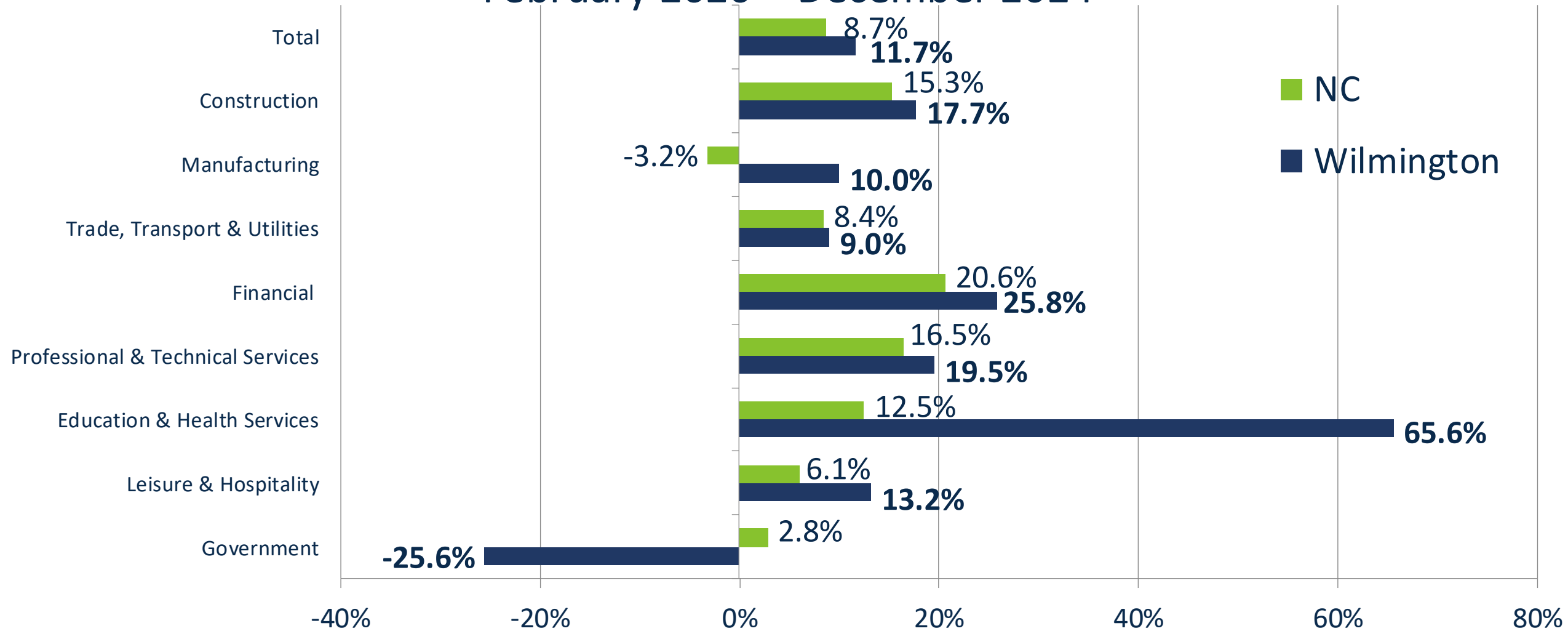
# Employment Change by Sector for the US & NC

## February 2020 – December 2024



# Employment Change by Sector for Wilmington MSA

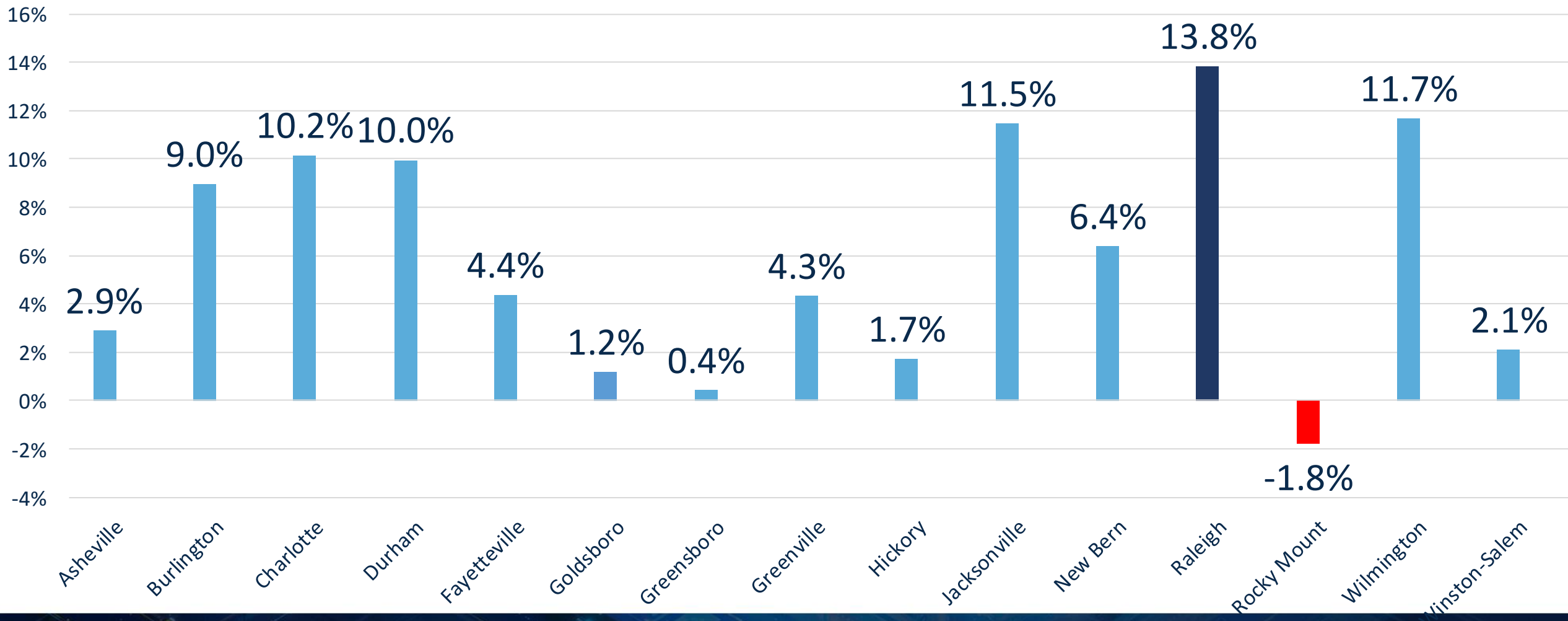
February 2020 – December 2024





# NC Metro % Non-Farm Employment Change

Since Start of Covid February 2020 - December 2024



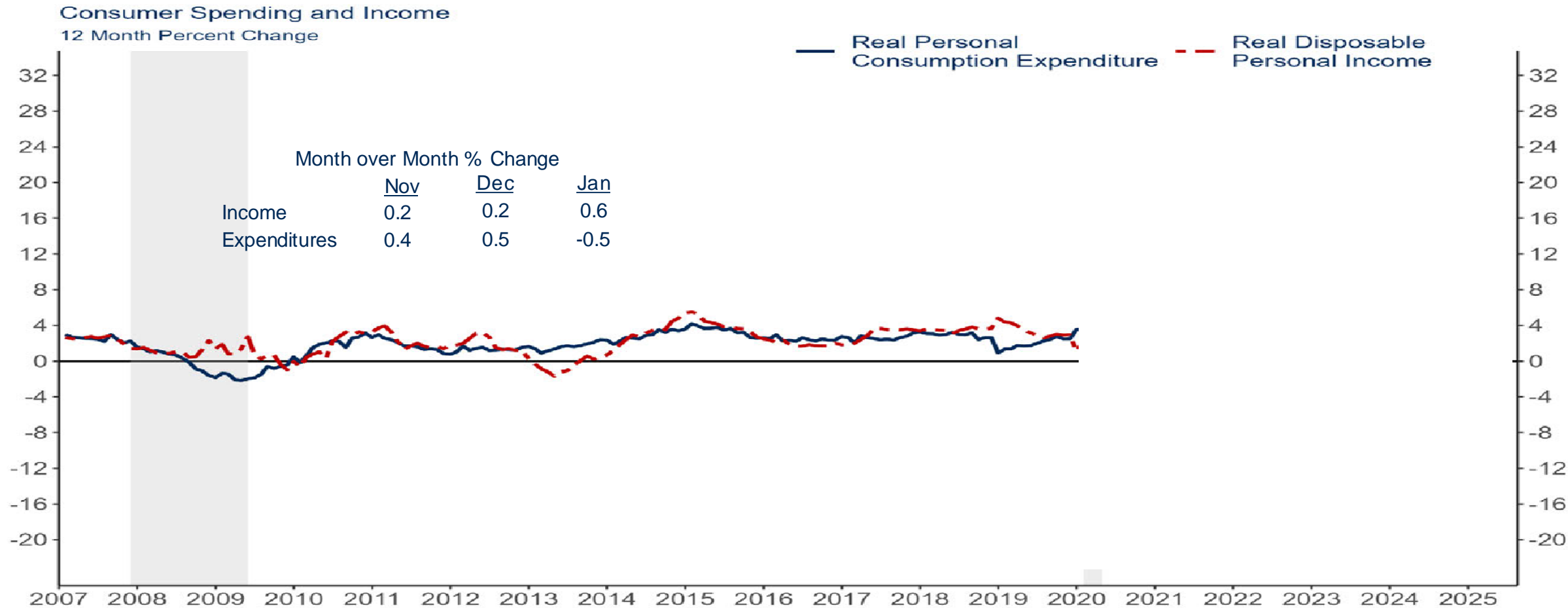
Source: US Bureau of Labor Statistics

# Adjusting to the



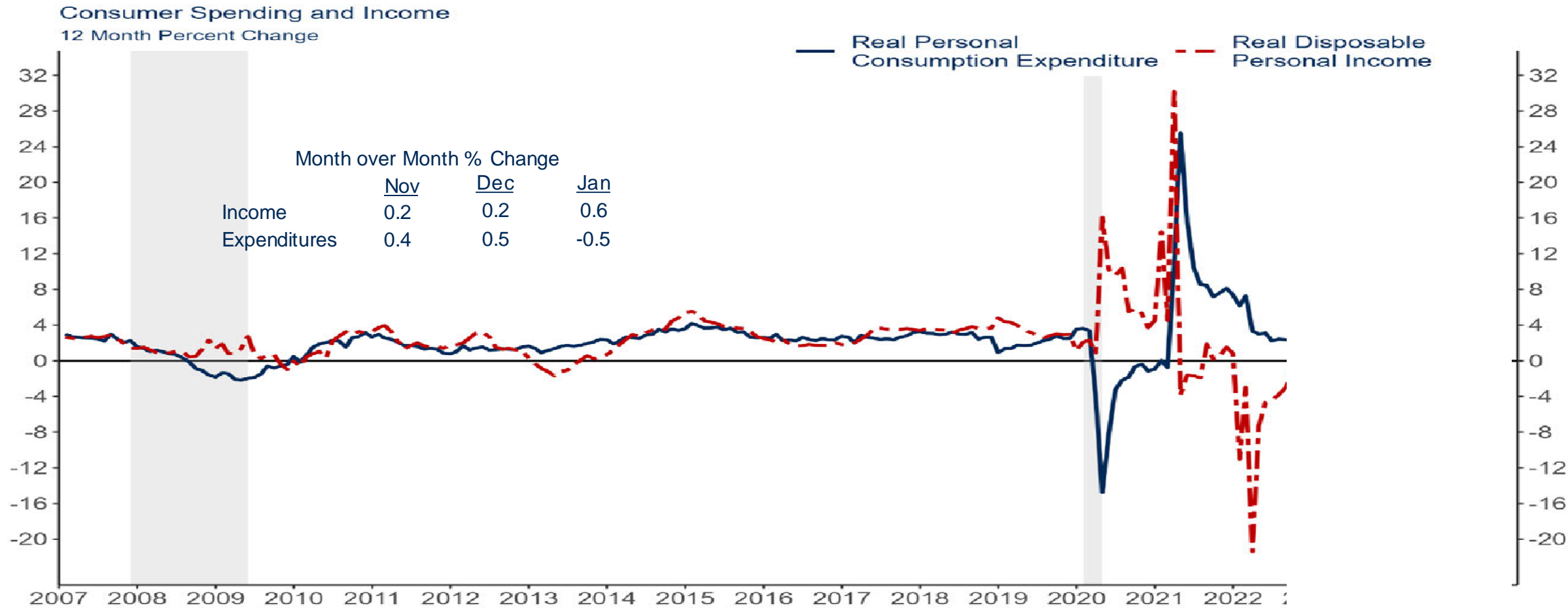


# Consumer Spending and Income



Source: Bureau of Economic Analysis via Haver Analytics  
Note: Income has been adjusted to account for temporary fiscal actions in 2008 and 2012-2013.

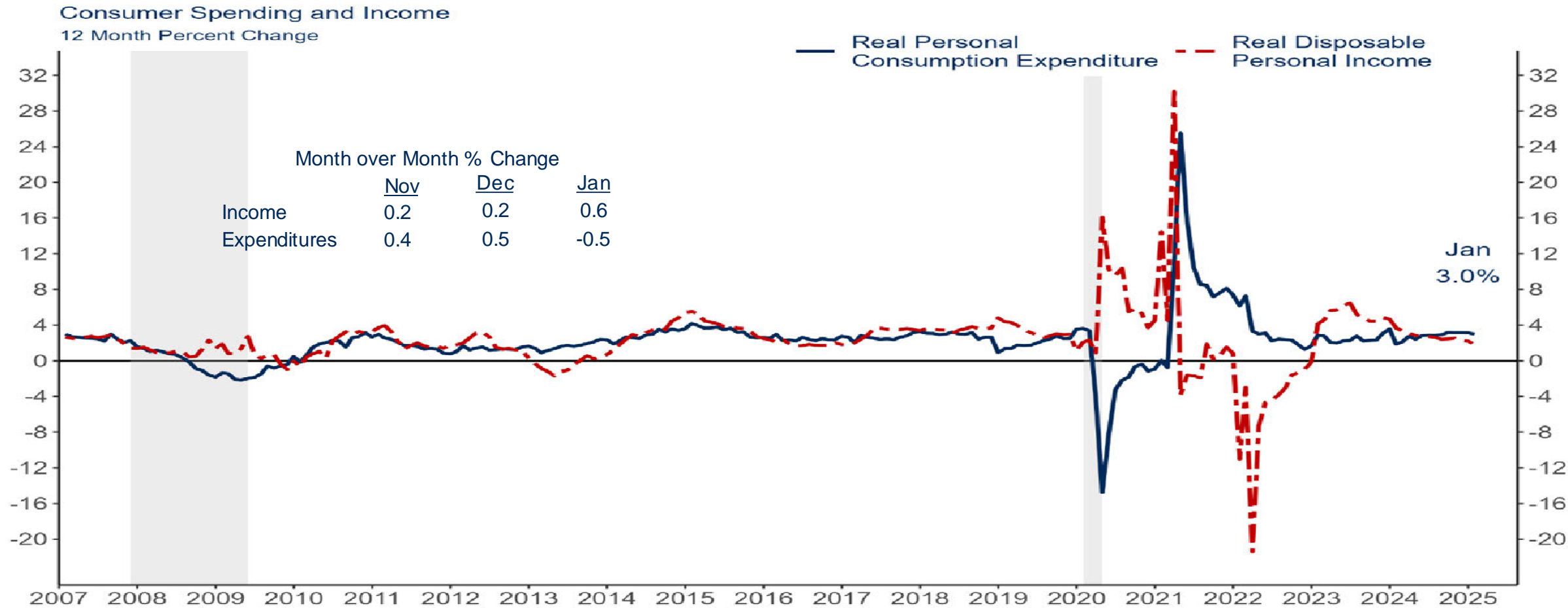
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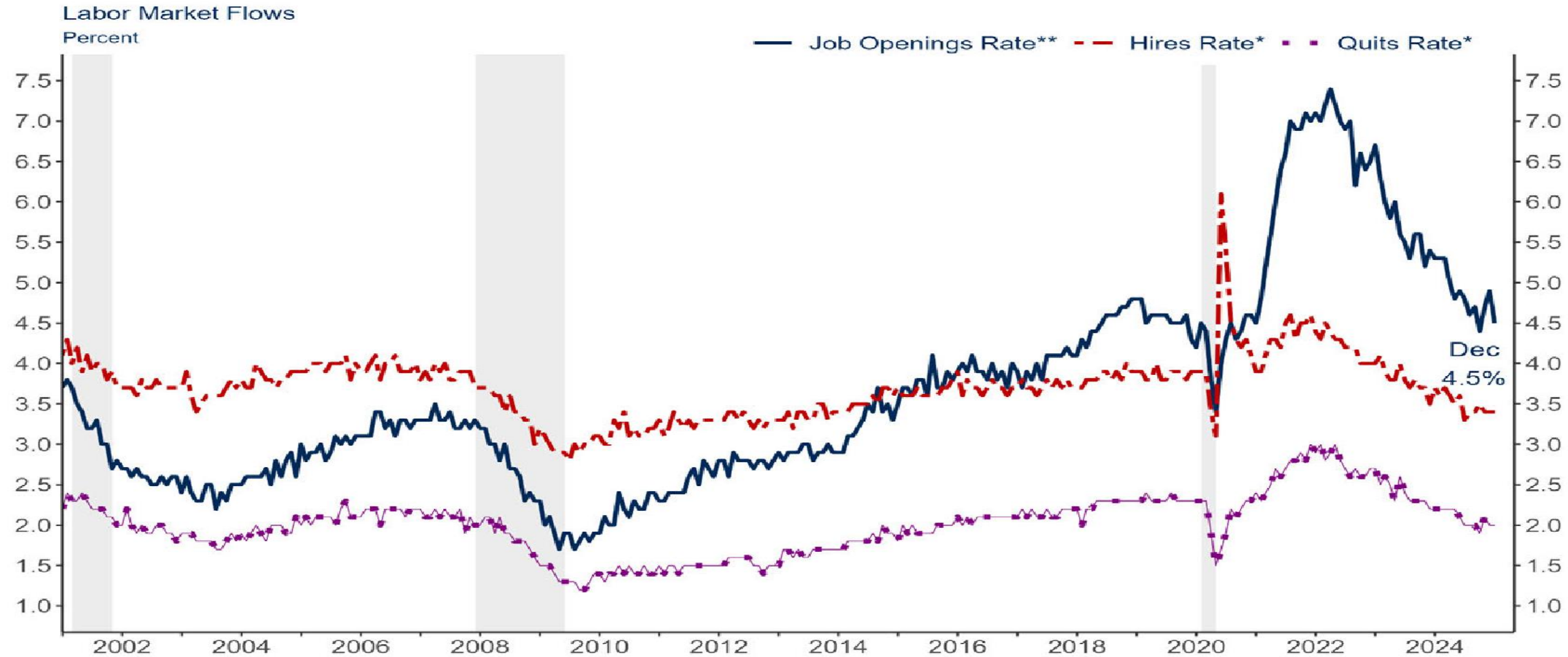


# Consumer Spending and Income



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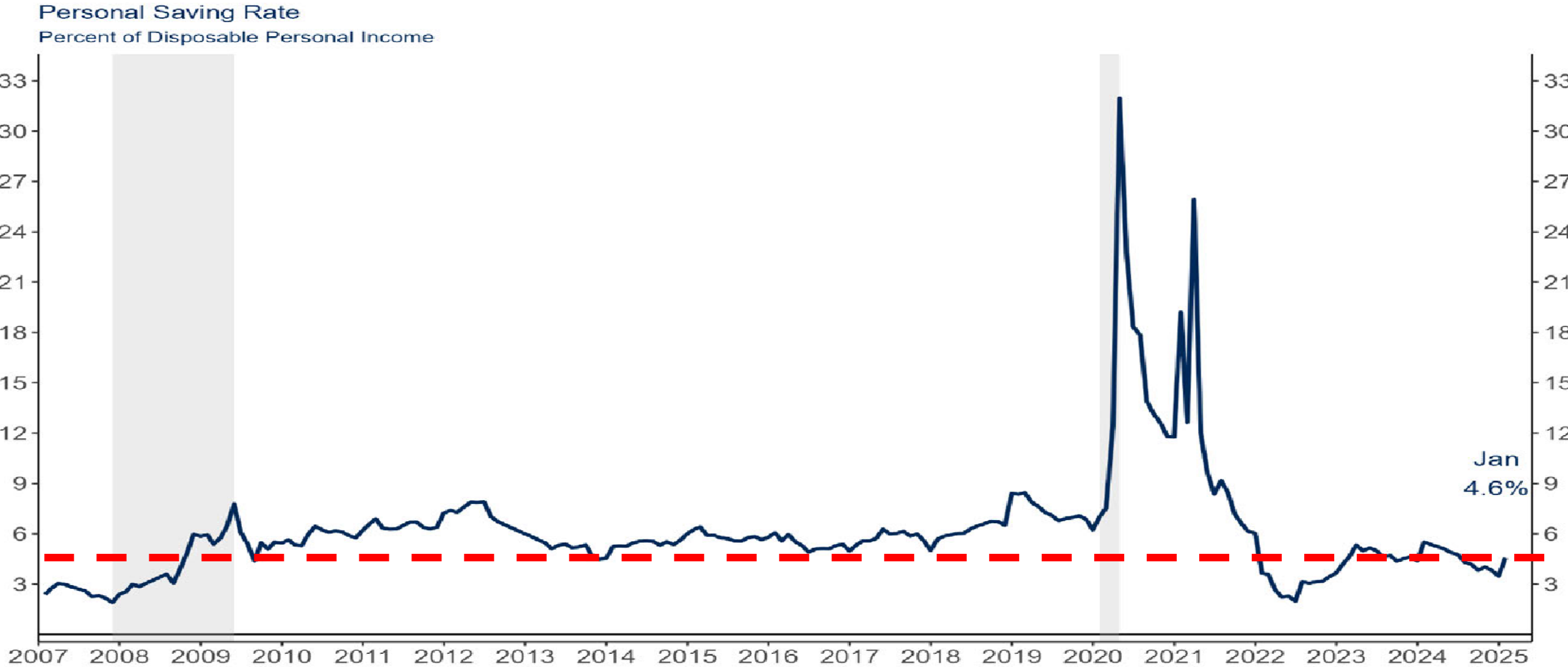
# Labor Market Flows



Source: JOLTS via Haver Analytics



# Personal Saving Rate



Source: Bureau of Economic Analysis via Haver Analytics  
Note: Income has been adjusted to account for temporary fiscal actions in 2008 and 2012-2013.





# New business applications for firms with high propensity for becoming employers

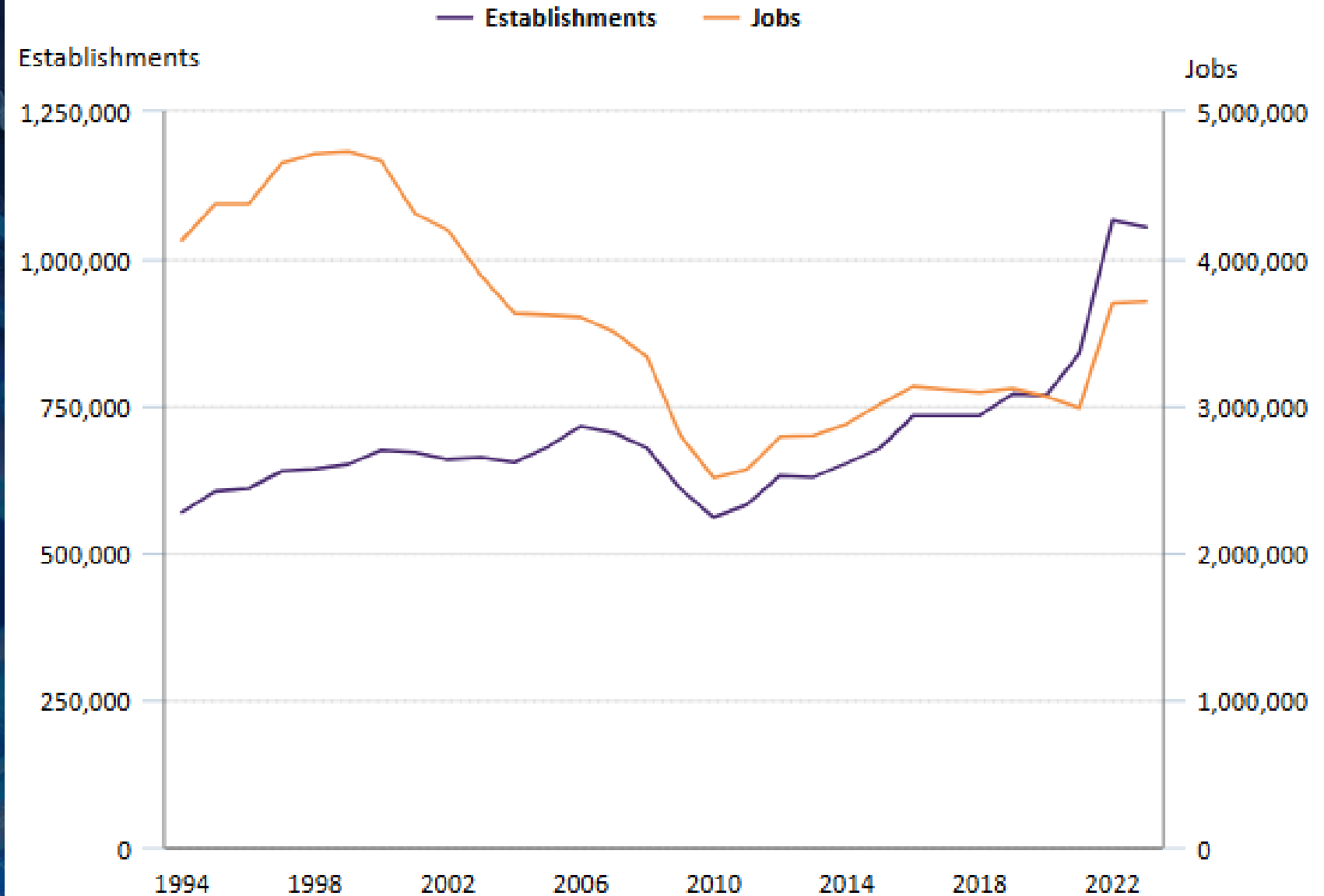
Monthly; October 2014 to October 2024



Data: Census Bureau;  
Chart: Axios Visuals



## Number of establishments and jobs created annually by start-ups, 1994–2023

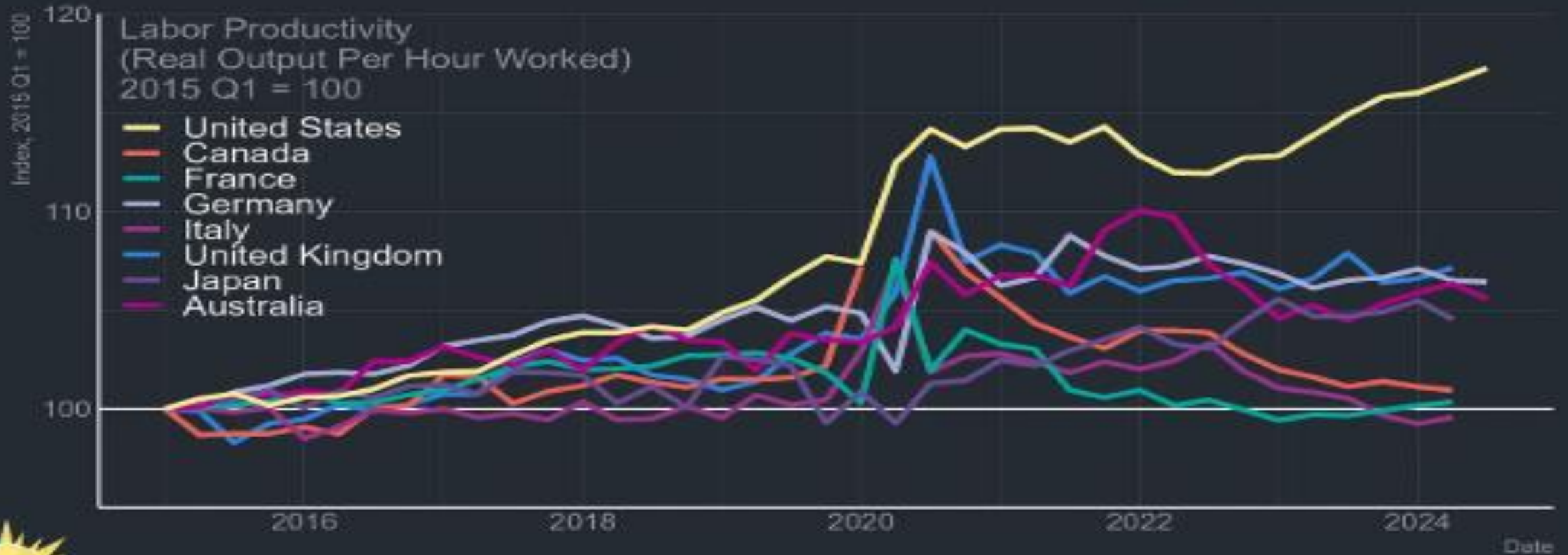


Click legend items to change data display. Hover over chart to view data.

Source: U.S. Bureau of Labor Statistics

# Comparing Labor Productivity Growth

America Has Radically Outshined Its Peers In Terms of Productivity Growth



Graph created by @JosephPolitano using National Accounts data from FRED & National Databases



JOSEPH POLITANO

NOV 25, 2024

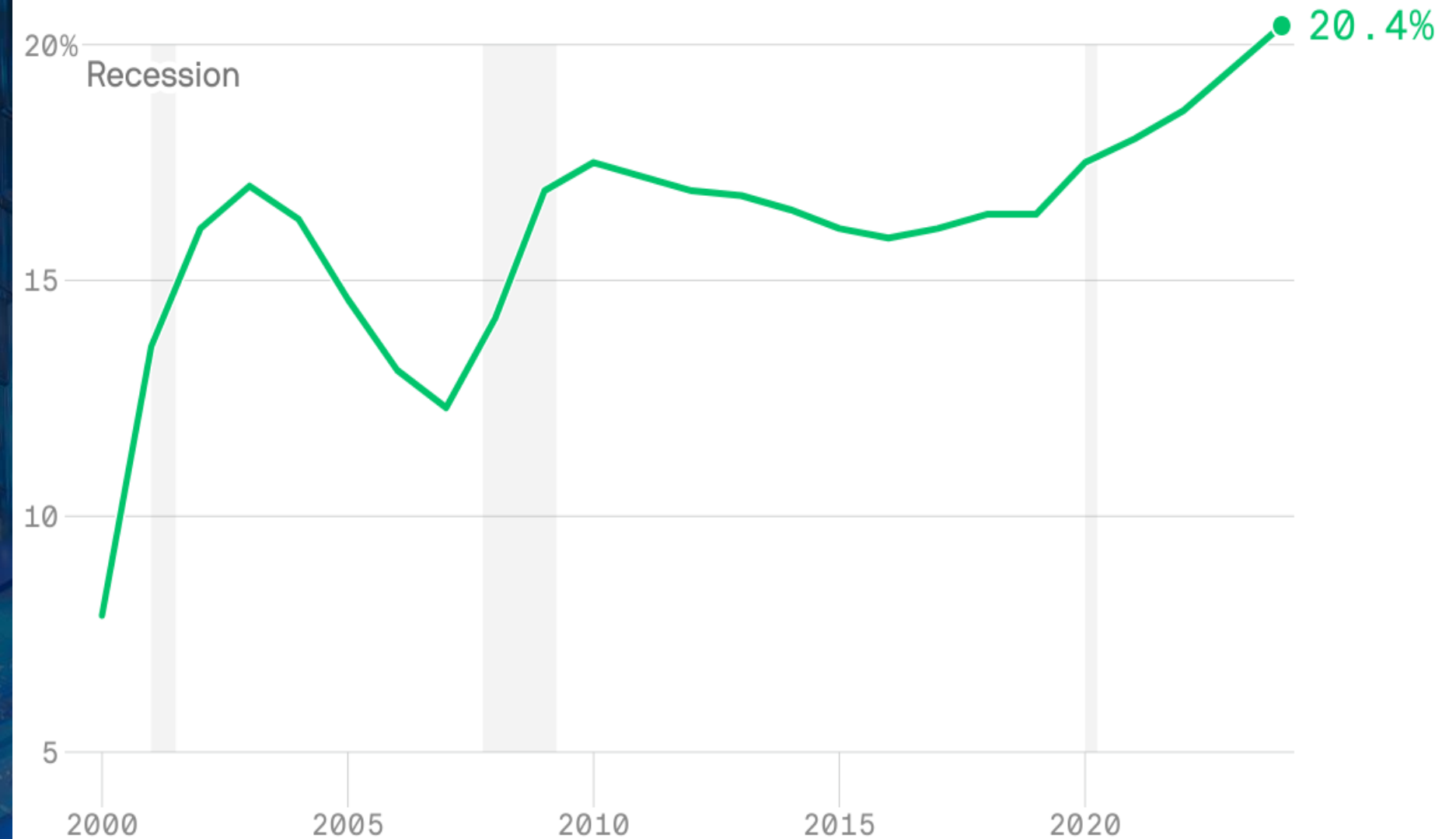
Apricitas Economics



ECONOMIC  
LEADERSHIP

# U.S. office vacancy rate

Annual average across top 50 U.S. metro areas; 2000–2024



Data: Moody's. Chart:  
Axios Visuals

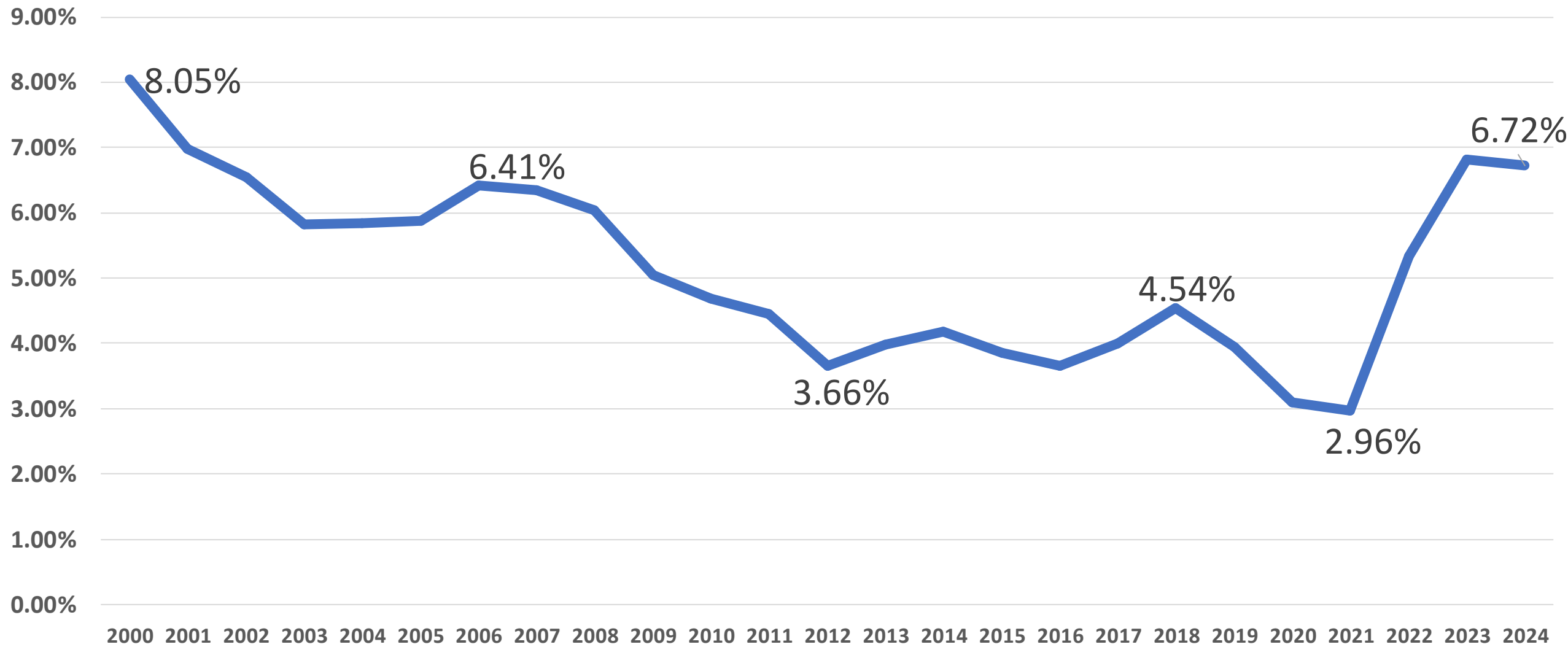


# National average office occupancy level

Weekly average of 10 select metro areas with highest occupancy rates; Feb. 12, 2020, to Jan. 29, 2025



# Average 30-Year Fixed Mortgage Rate



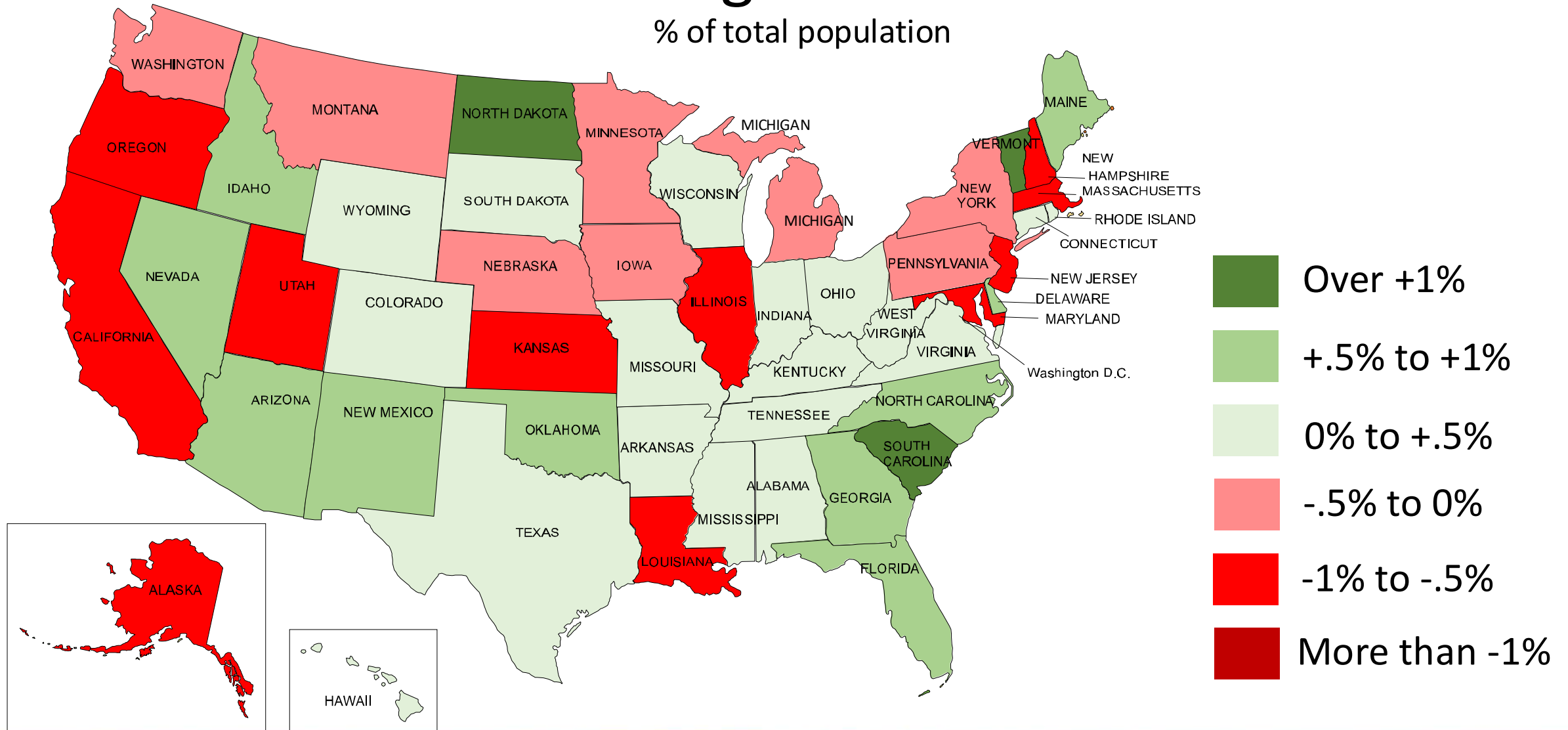
# Housing Price Increase 2020Q1 to 2024Q3





# Net Migration 2023

% of total population



Source: US Census Bureau ACS 1 YR 2023 *State-to-State Migration Flows*

# Losers | Winners



# Place-Based Competitiveness



## Business Climate

Taxes

**Regulatory Climate**

Legal Climate

## Workforce

**In-migration**

Education

Productivity

Costs

Skills

**QOL**

## Risk

Weather

Crime

Fiscal Stability

Political Stability

Out-migration

**Geo-economics**

Water

Transportation

Broadband

**Power**

**Housing**

**Childcare**

## Infrastructure

R&D

**Automation**

Patents

**Advanced Industries**

Start-up Ecosystem

## Innovation



# Most Favorable Business Climate Site Selection Consultants (Top 5)

2023	2020	2017	2014	2011	2008	2005	2002	1999	1996
Texas 54%	Texas 48%	Texas 42%	Texas 50%	Texas 49%	Texas 41%	Texas 33%	Texas 25%	Texas 30%	North Carolina 33%
Florida 33%	Georgia 25%	Florida 22%	Florida 18%	North Carolina 27%	North Carolina 30%	North Carolina 26%	North Carolina 20%	California 22%	Texas 28%
Georgia 30%	North Carolina 22%	Georgia 20%	Georgia/ North Carolina 17% (tie)	South Carolina 14%	Georgia 20%	South Carolina 20%	South Carolina 18%	North Carolina 20%	Georgia 27%
North Carolina 29%	Florida 18%	South Carolina 16%	South Carolina 12%	Tennessee 14%	Florida/ Tennessee 15% (tie)	Georgia 18%	Florida 18%	Georgia 17%	South Carolina 21%
South Carolina 20%	Tennessee 13%	North Carolina 15%	Tennessee 11%	Florida 14%	Nevada 14%	Nevada 16%	Georgia 15%	Florida 14%	Tennessee 20%

## Top 5 (10)

Texas (10)

North Carolina (10)

Georgia (9)

Florida (7)

South Carolina (7)

Tennessee (4)

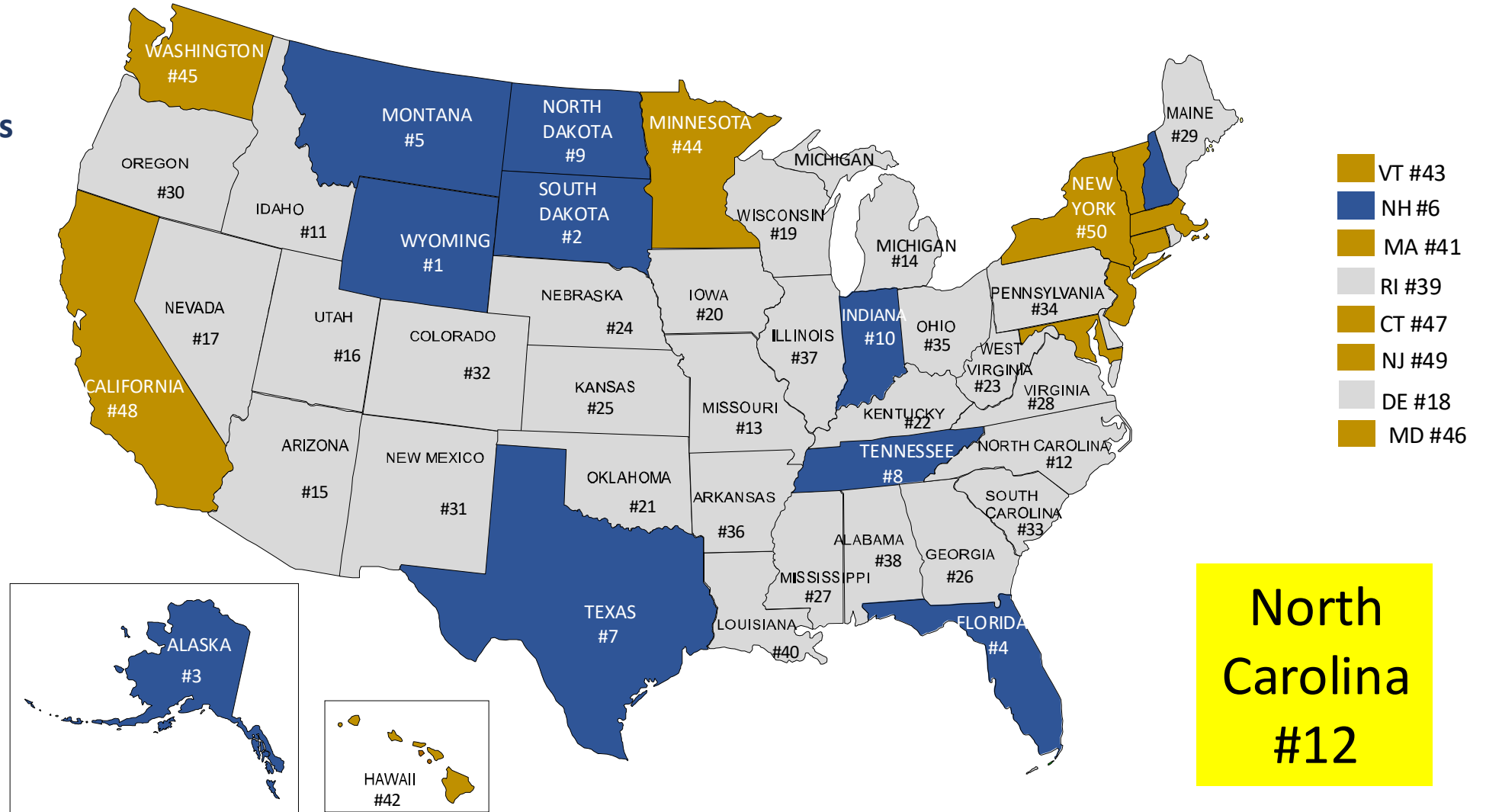
# Latest Best States for Business Rankings

	CNBC	CEO Magazine	Business Facilities
1	Virginia	Texas	Texas
2	North Carolina	Florida	North Carolina
3	Texas	Tennessee	Virginia
4	Georgia	Arizona	Florida
5	Florida	North Carolina	Tennessee
6	Minnesota	Indiana	Georgia
7	Ohio	Georgia	Indiana
8	Tennessee	Nevada	Colorado
9	Michigan	Utah	Arizona
10	Washington	South Carolina	South Carolina

# 2025 State Business Tax Climate Index

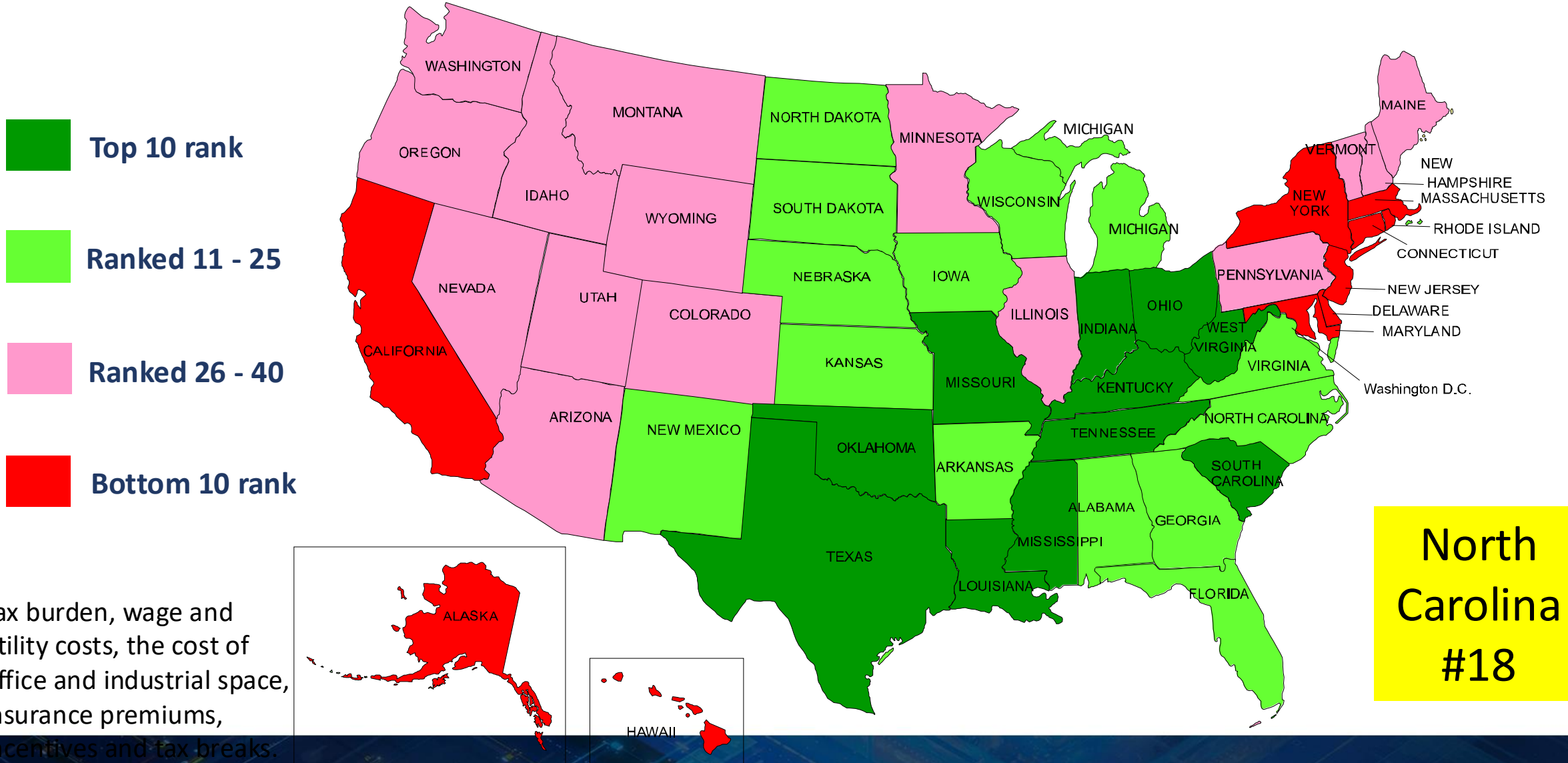
 10 Best Business Tax Climates

 10 Worst Business Tax Climates



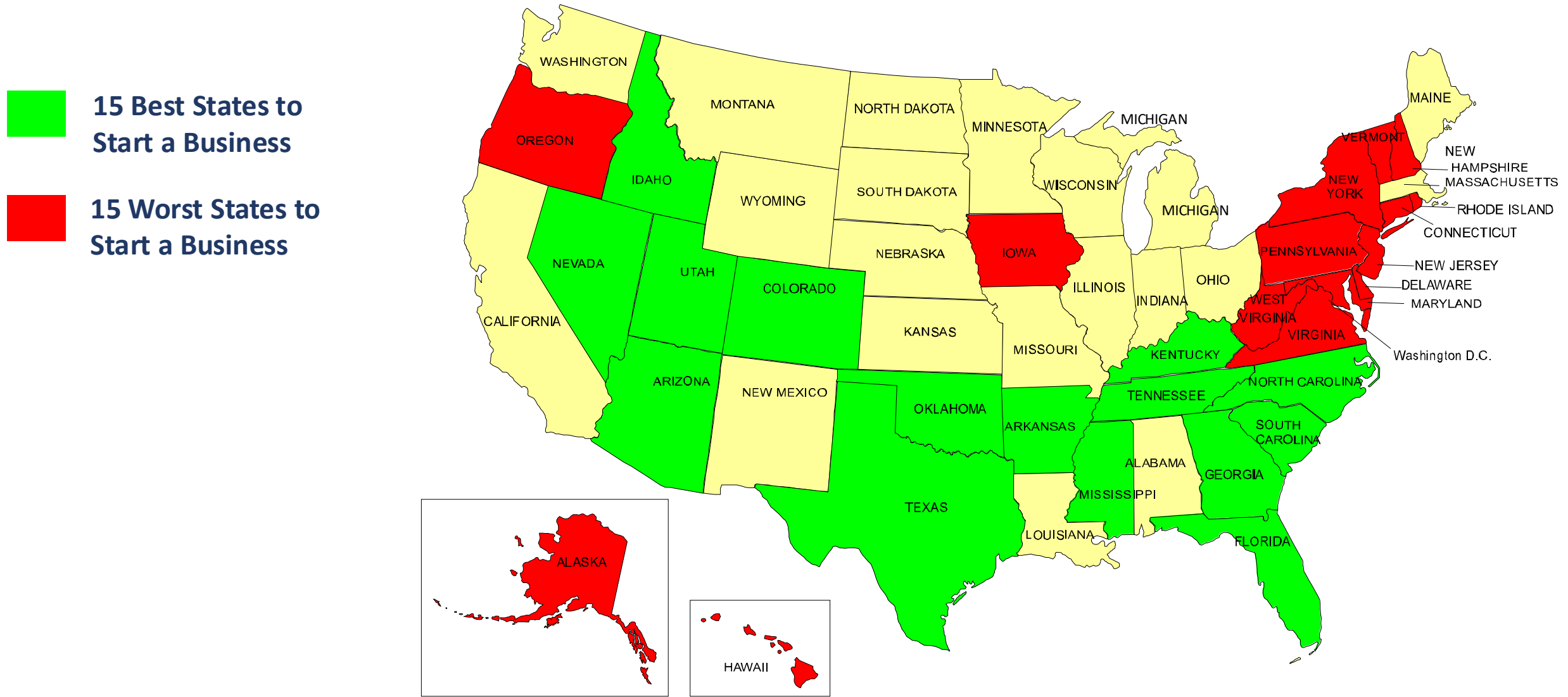


# Cost of Business Ranking 2024



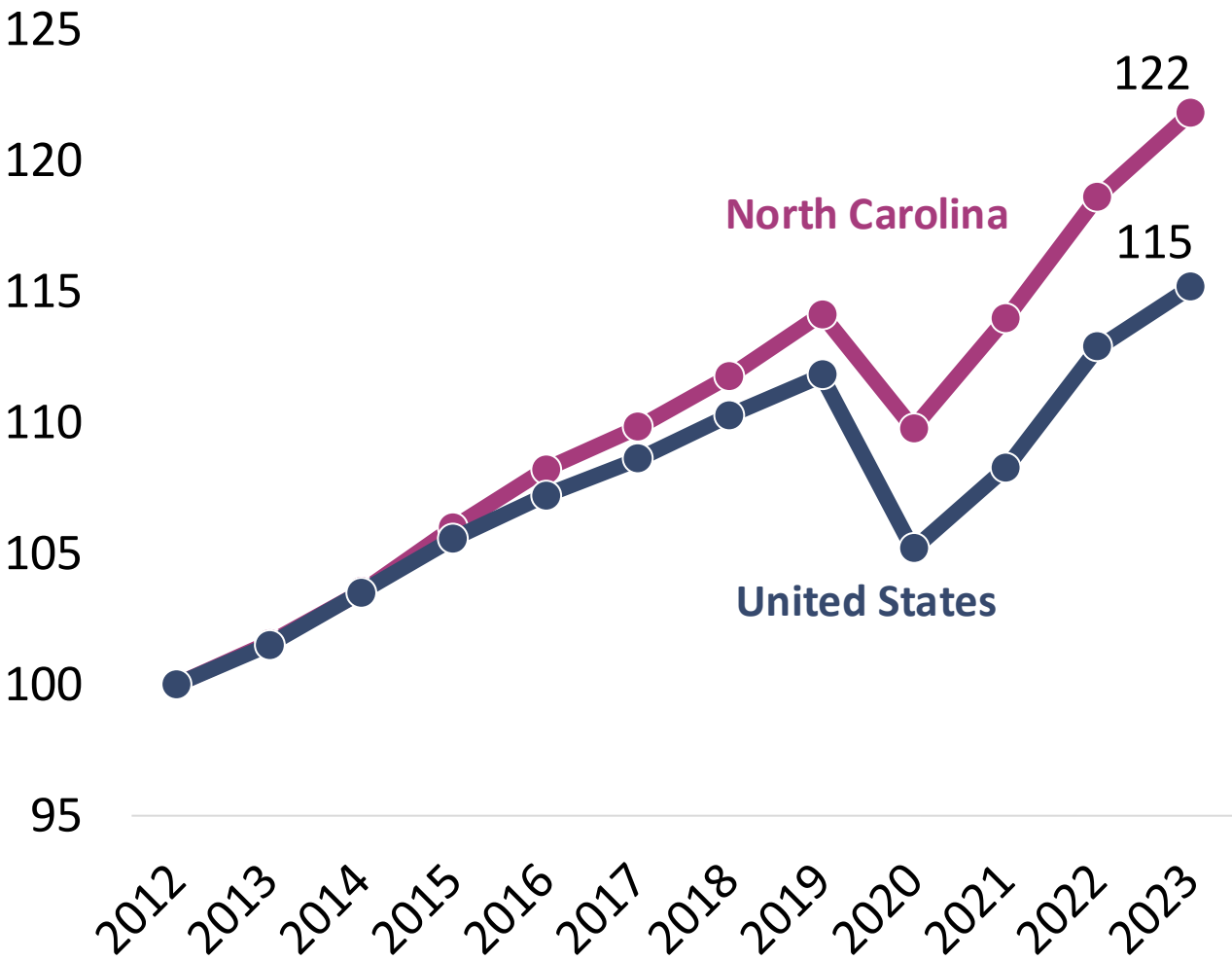
Tax burden, wage and utility costs, the cost of office and industrial space, insurance premiums, incentives and tax breaks.

# 2025 Best & Worst States to Start a Business

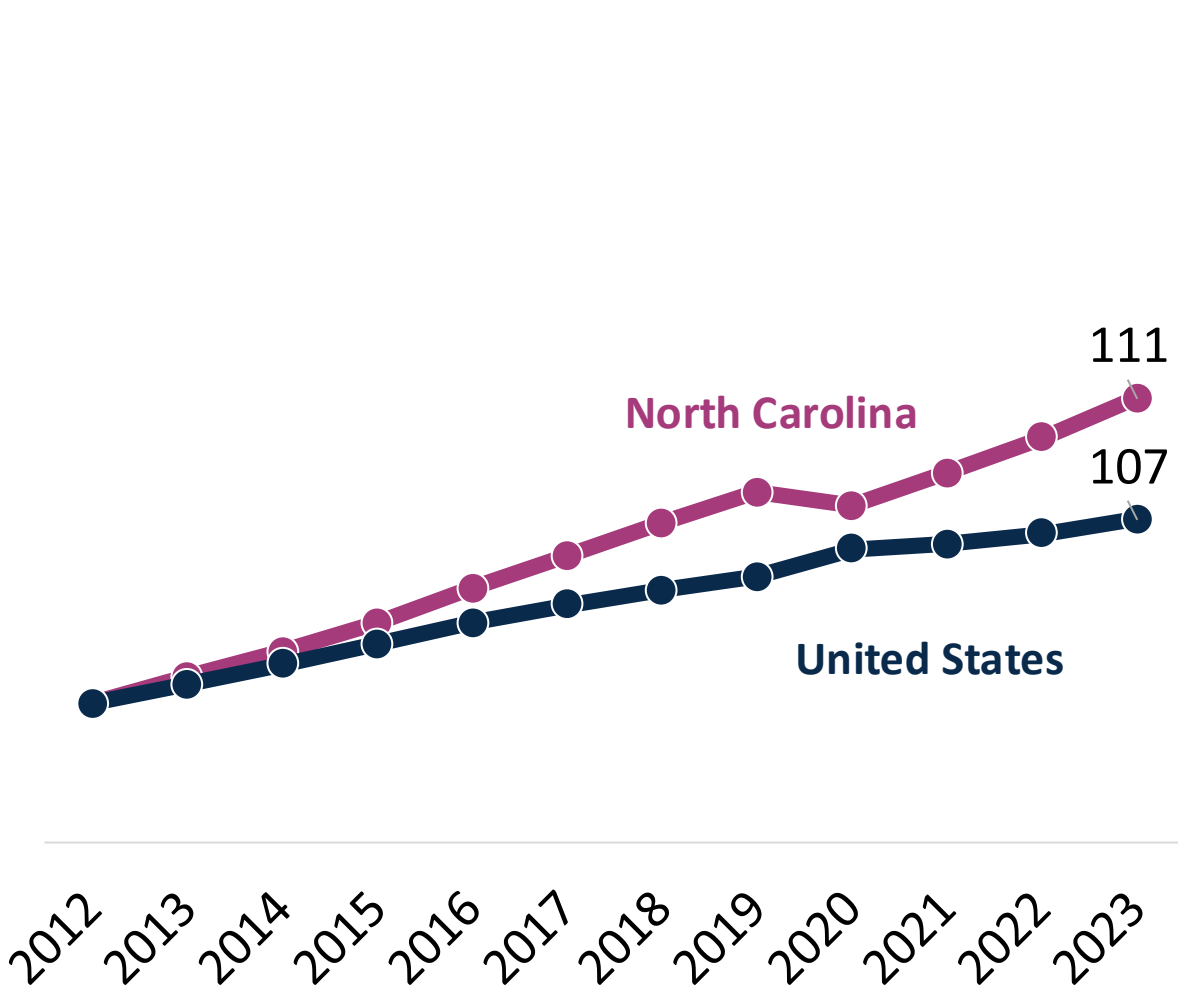


# North Carolina is growing faster than the nation...

Total Employment Change



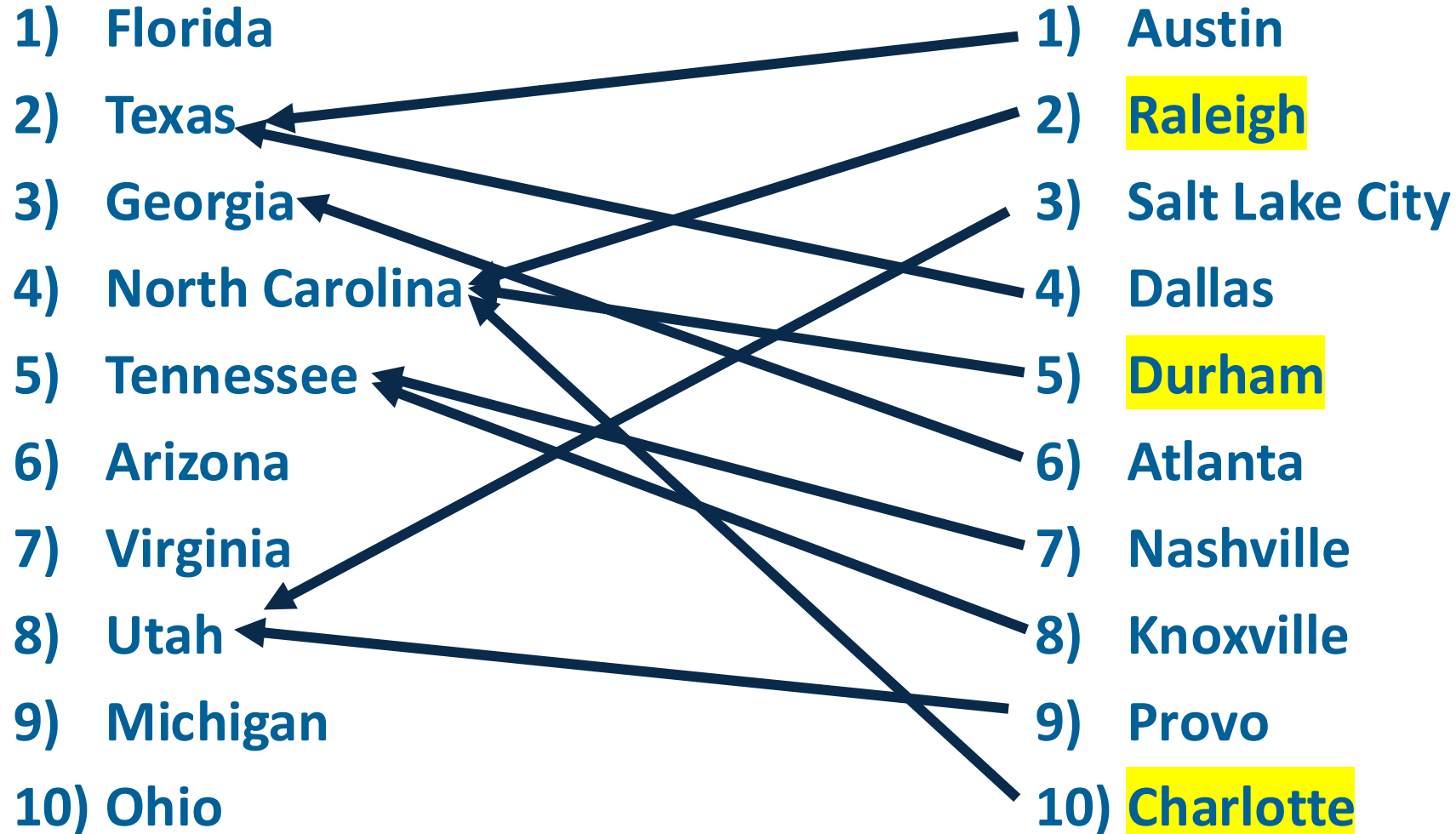
Population Change



Source: EL calculations based on Lightcast 2024.4

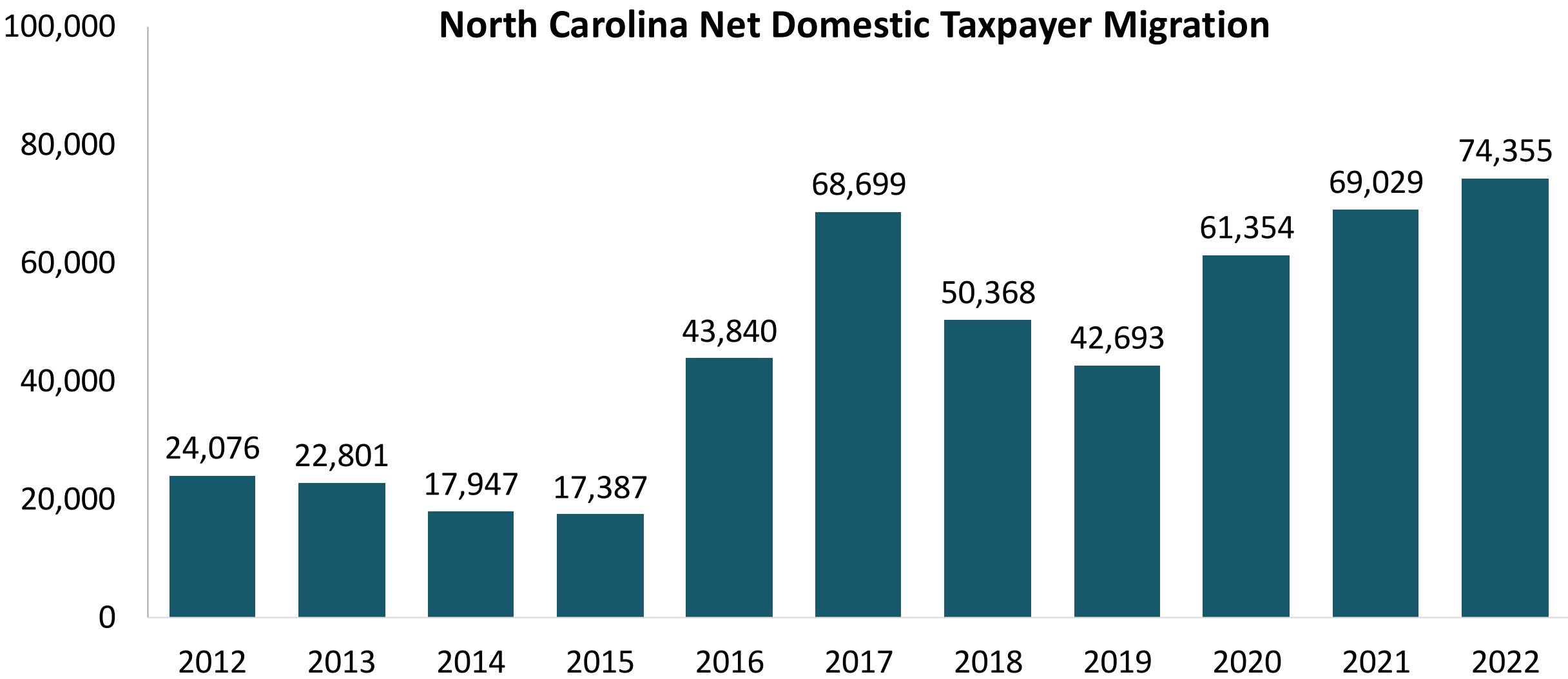


# The Best Ranked States for Business and Best Metro Performance

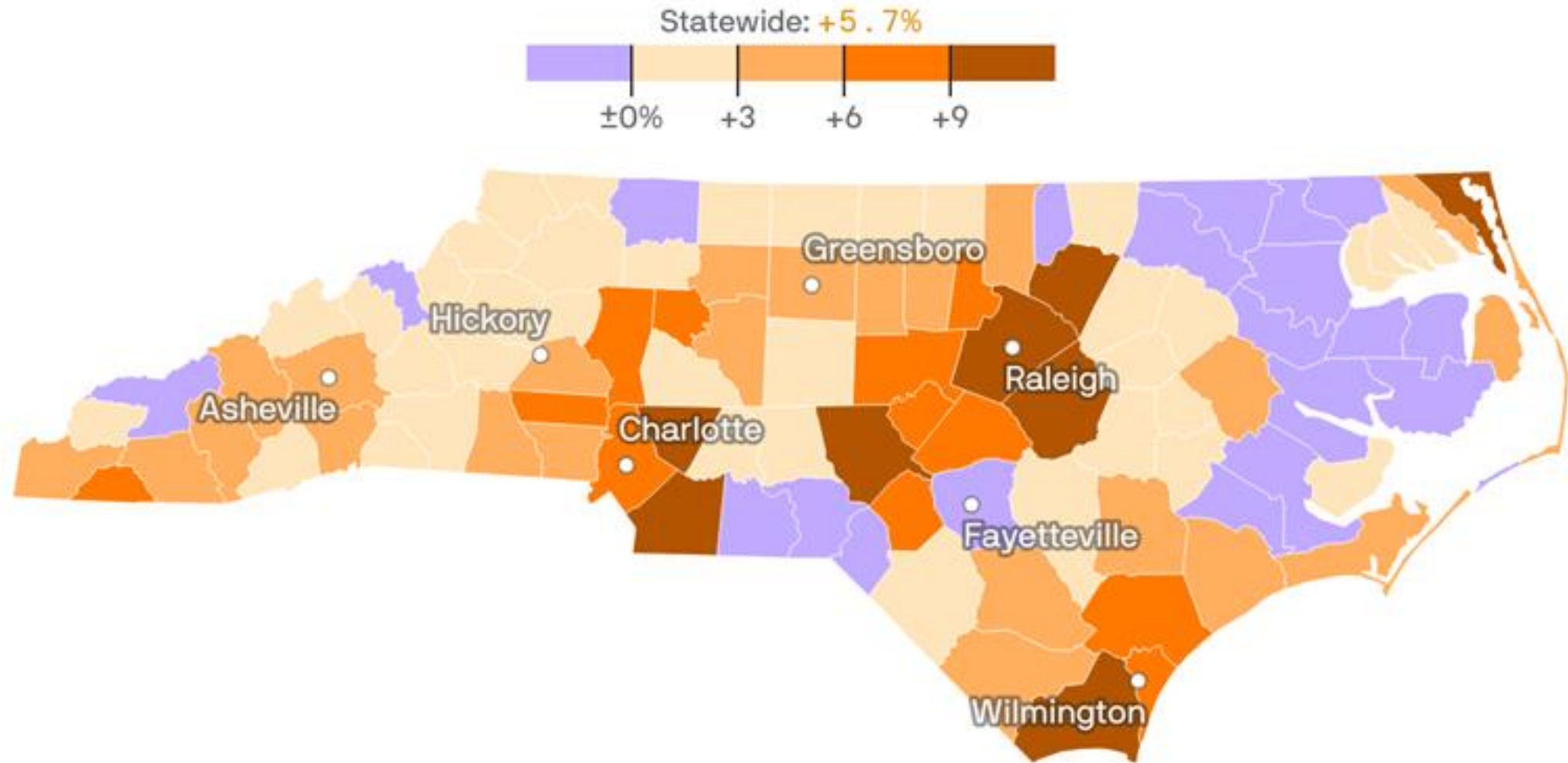


**The most competitive metros are in the most competitive states**

# North Carolina continues to gain from state-to-state migration...



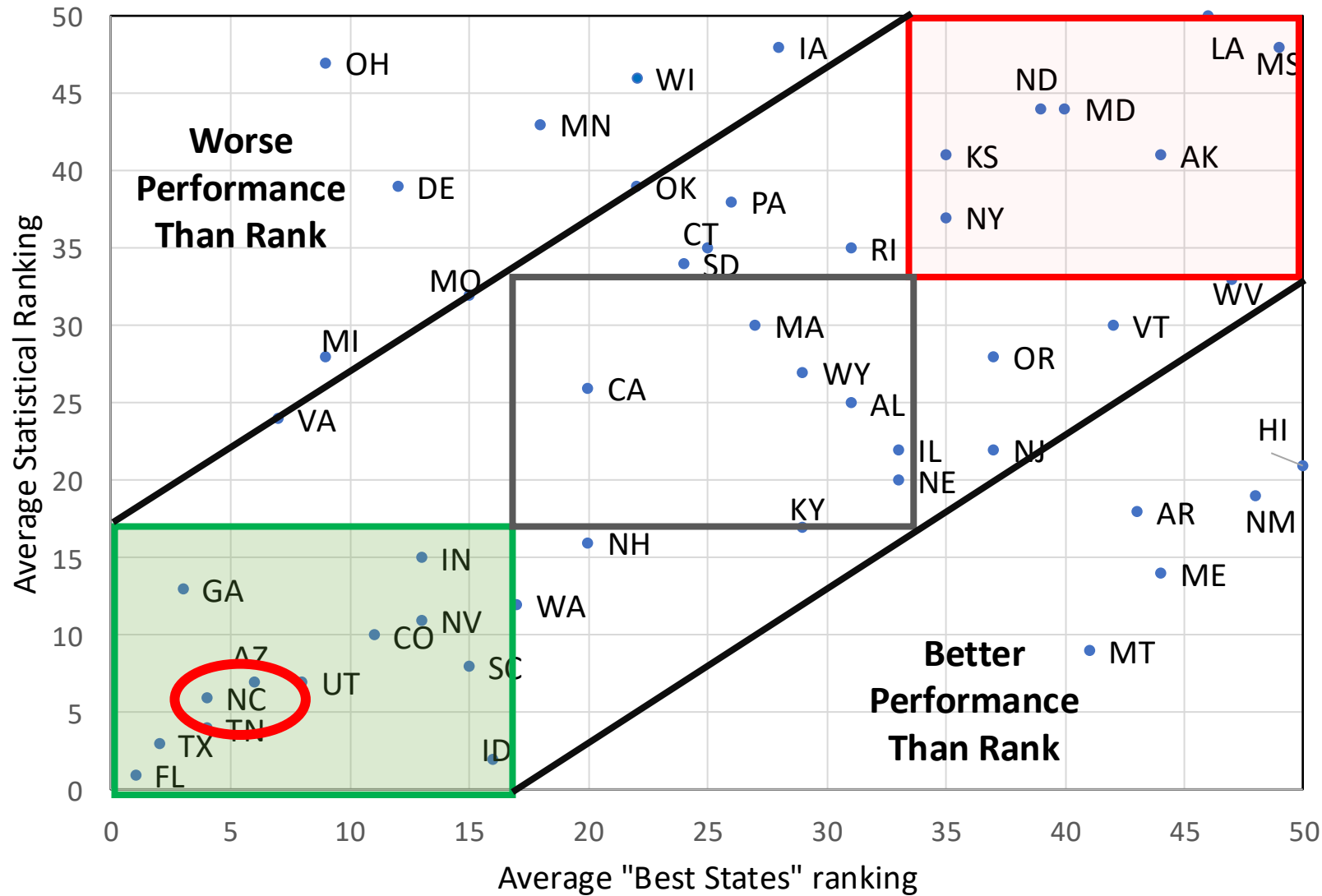
# Projected population growth, 2025 to 2030



Data: [N.C. State Demographer](#); Map: Axios Visuals



# Rankings and Performance



## States By Average Ranks by US News, CNBC, and Chief Executive

US News Business Environment released 5/15/24; CNBC released 7/11/24; Chief Executive released 4/24/24

Plotted Against

## Actual Performance for Job Growth, Wage Growth and Growth in GDP

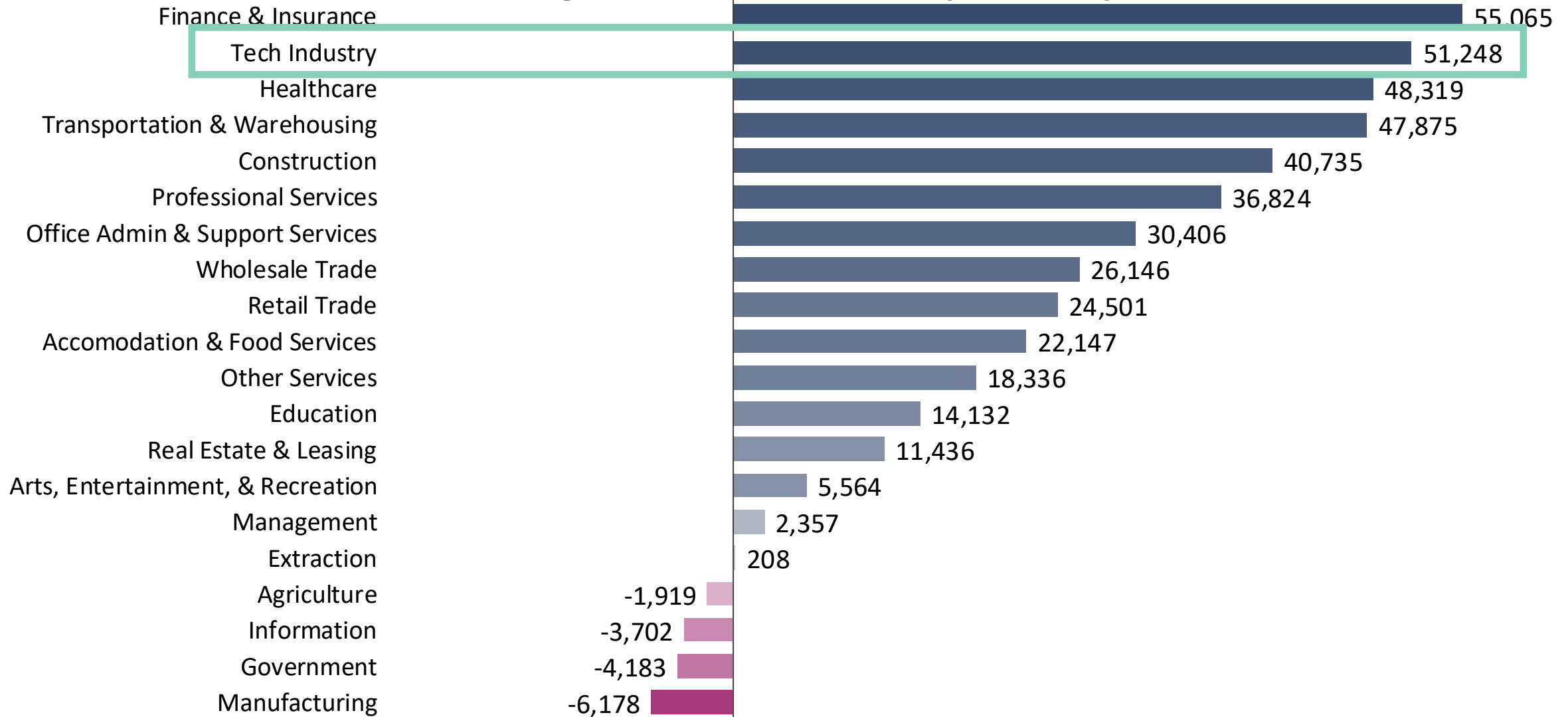
3 years 2020-2023 Jobs & Wages: BLS QCEW annual; GDP: BEA



[WWW.NCSTIR.COM](http://WWW.NCSTIR.COM)

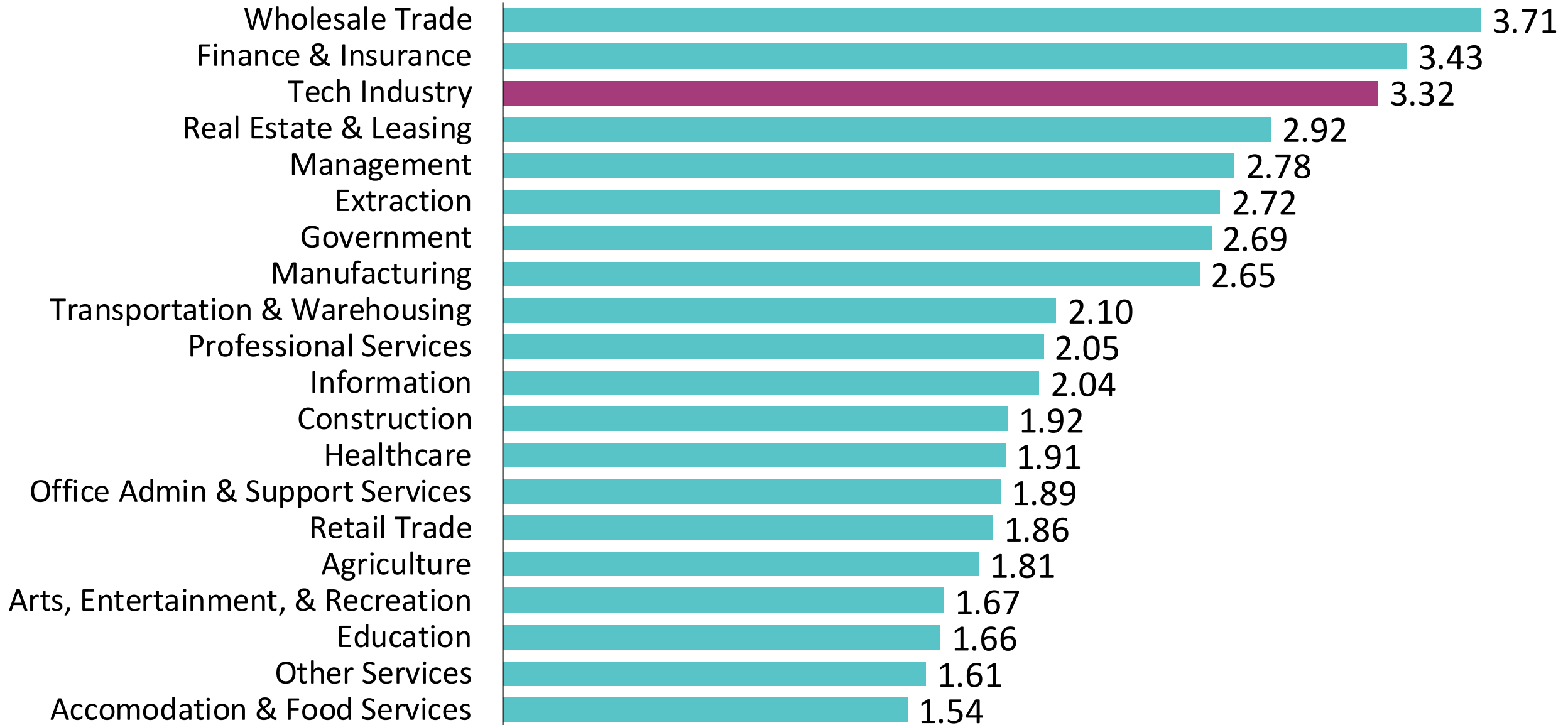
# Tech industry has played important role in the state economy...

## Net Job Change in North Carolina by Industry, 2018-2023





# North Carolina Job Multiplier by Industry, 2023

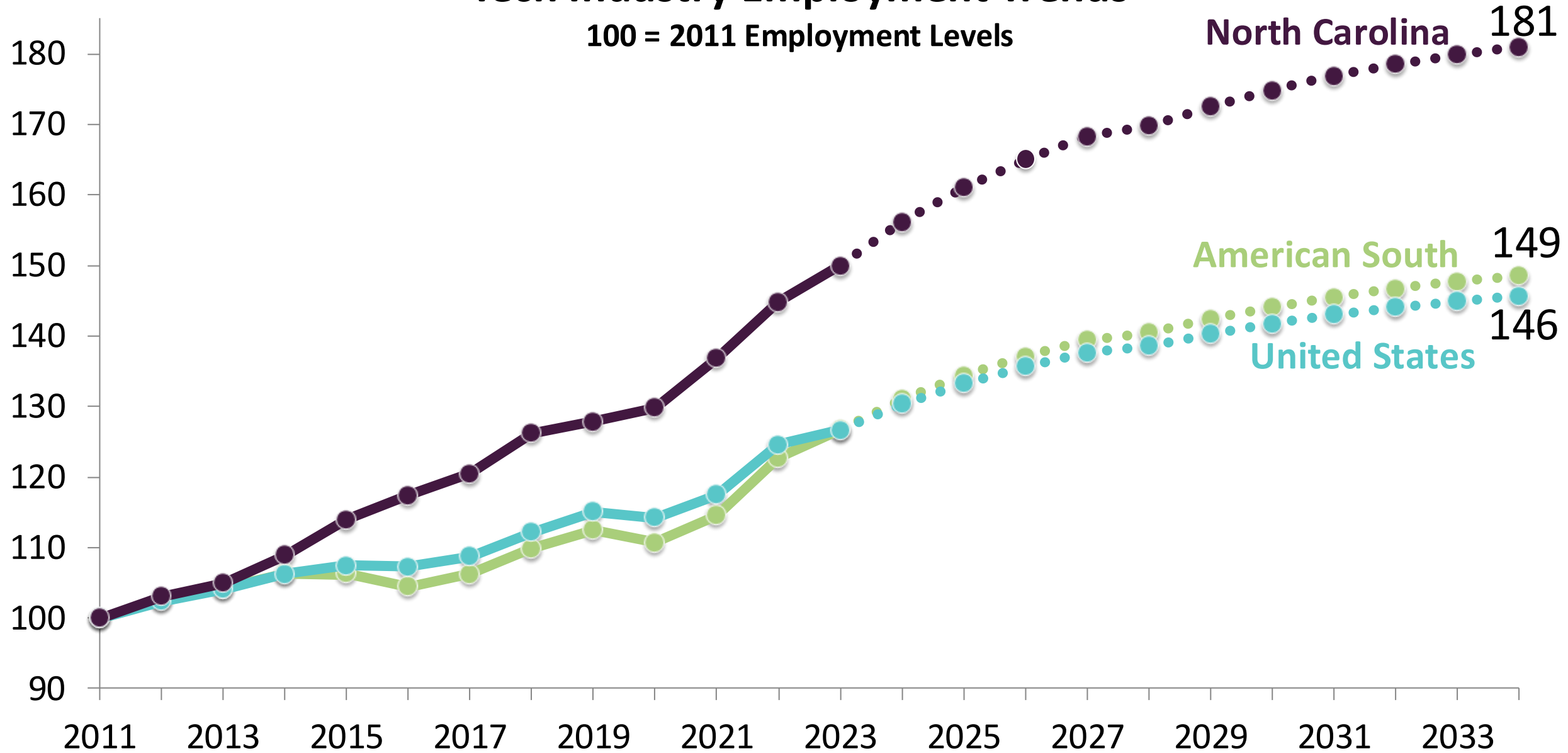


# Measuring the Tech Sector Methodology

- Data from Lightcast, based on Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages
- **86 separate 6-digit NAICS** code sectors to characterize the Total Technology Sector
- Total Technology Sector further broken down into four sub-categories:
  - Energy Technology
  - Environmental Technology
  - Life Sciences
  - IT, Telecomms, Hardware, and Software (Tech Core)
- **85 distinct 5-digit SOC** codes grouped to form Tech Occupations

# Tech Industry Employment Trends

100 = 2011 Employment Levels





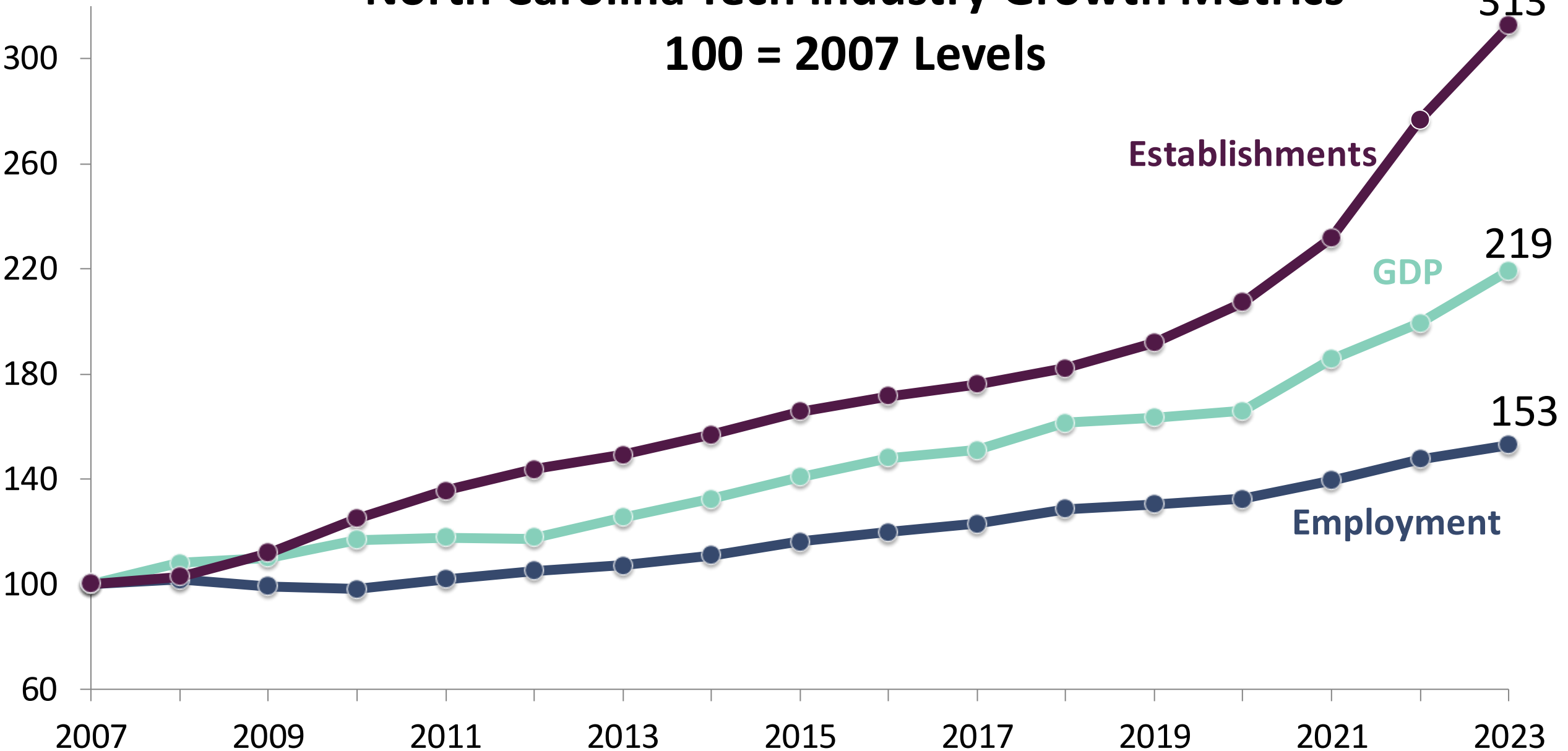
# North Carolina Tech Industry Summary Statistics

Indicator	Technology Industry	State Total	State Total Percentage
Employees	323,199	4,830,118	6.7%
Establishments	34,342	374,302	9.2%
Wages (millions)	\$41,981	\$350,146	12.0%

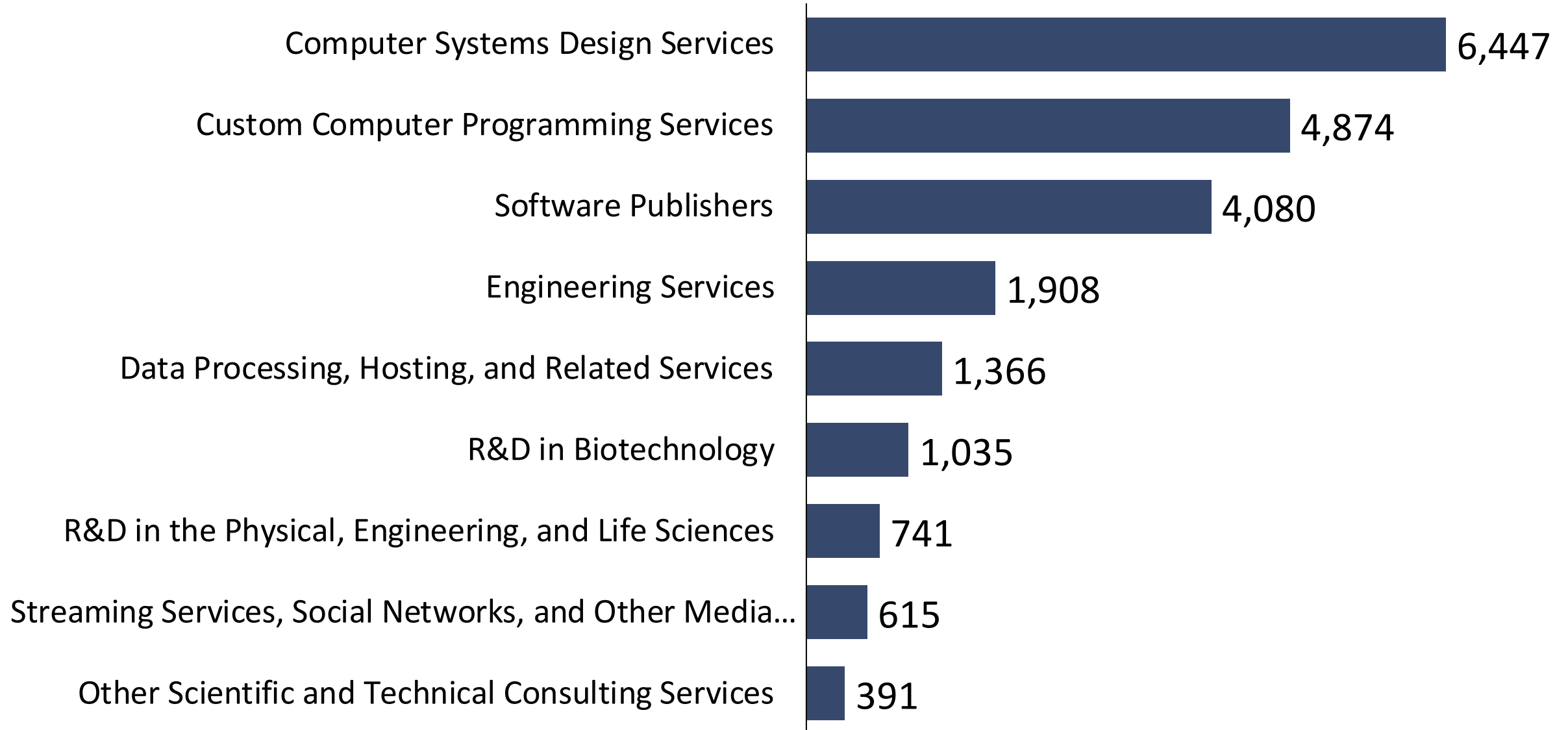
11 Years Ago, There were 220,698 Tech Industry Workers

# North Carolina Tech Industry Growth Metrics

100 = 2007 Levels



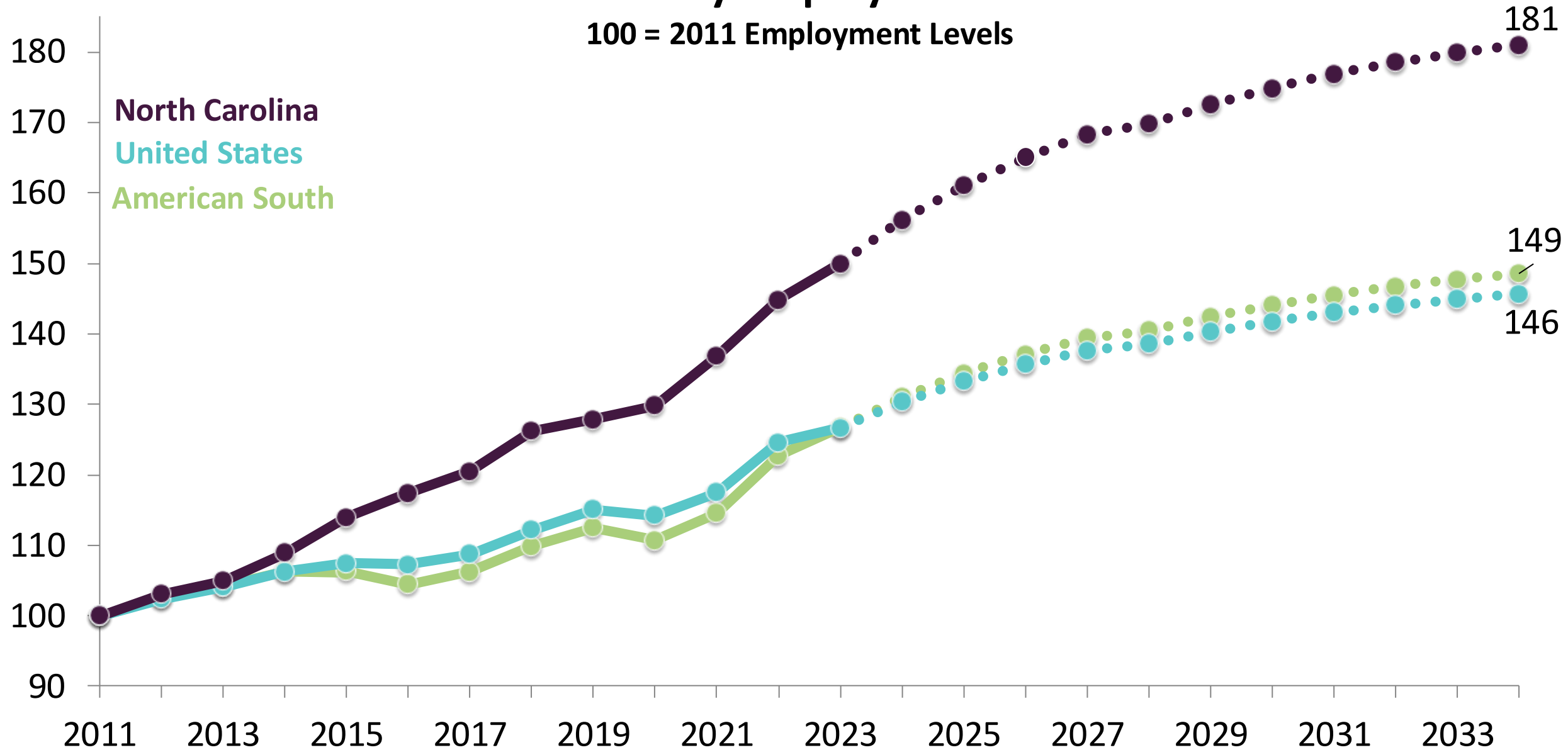
# North Carolina Tech Industry Top Establishment Change, 2007-2023



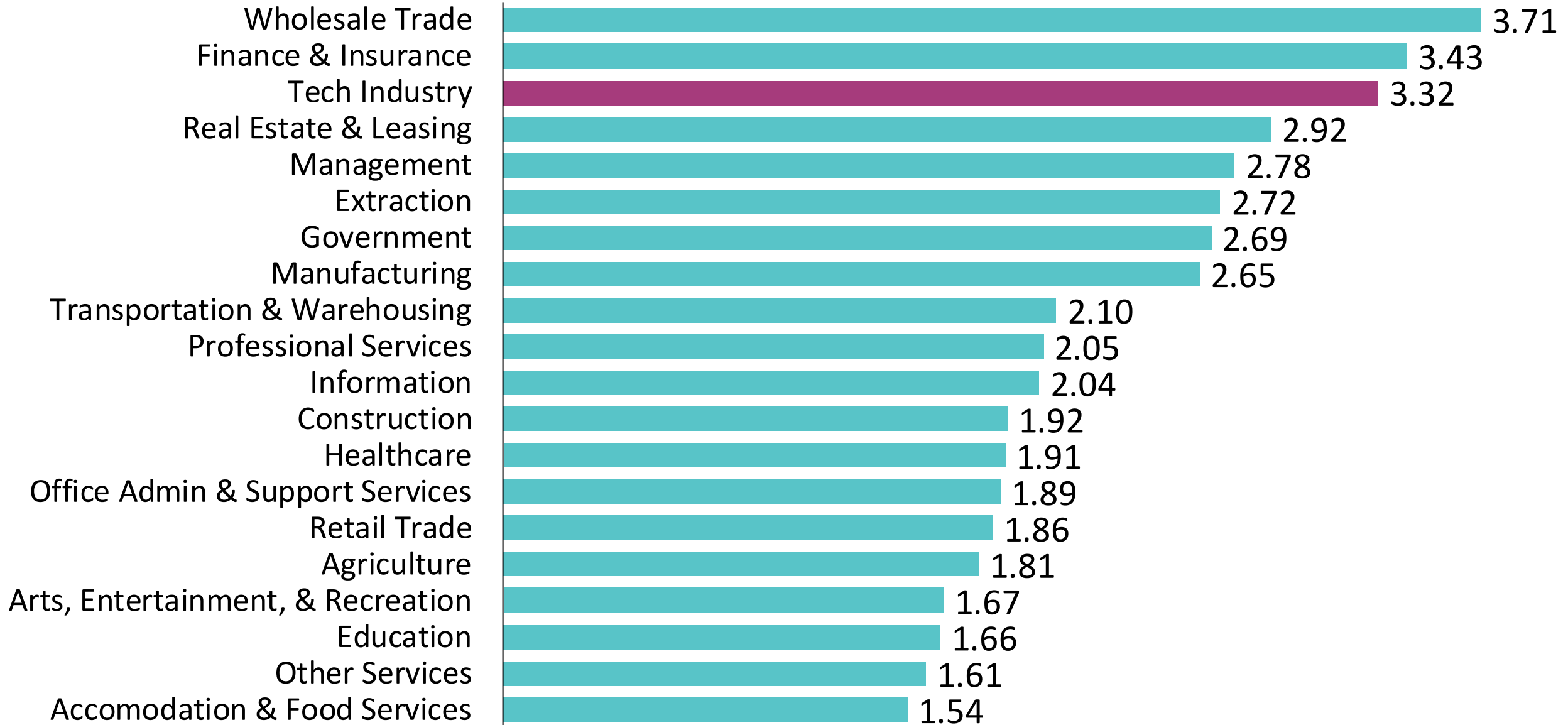


# Tech Industry Employment Trends

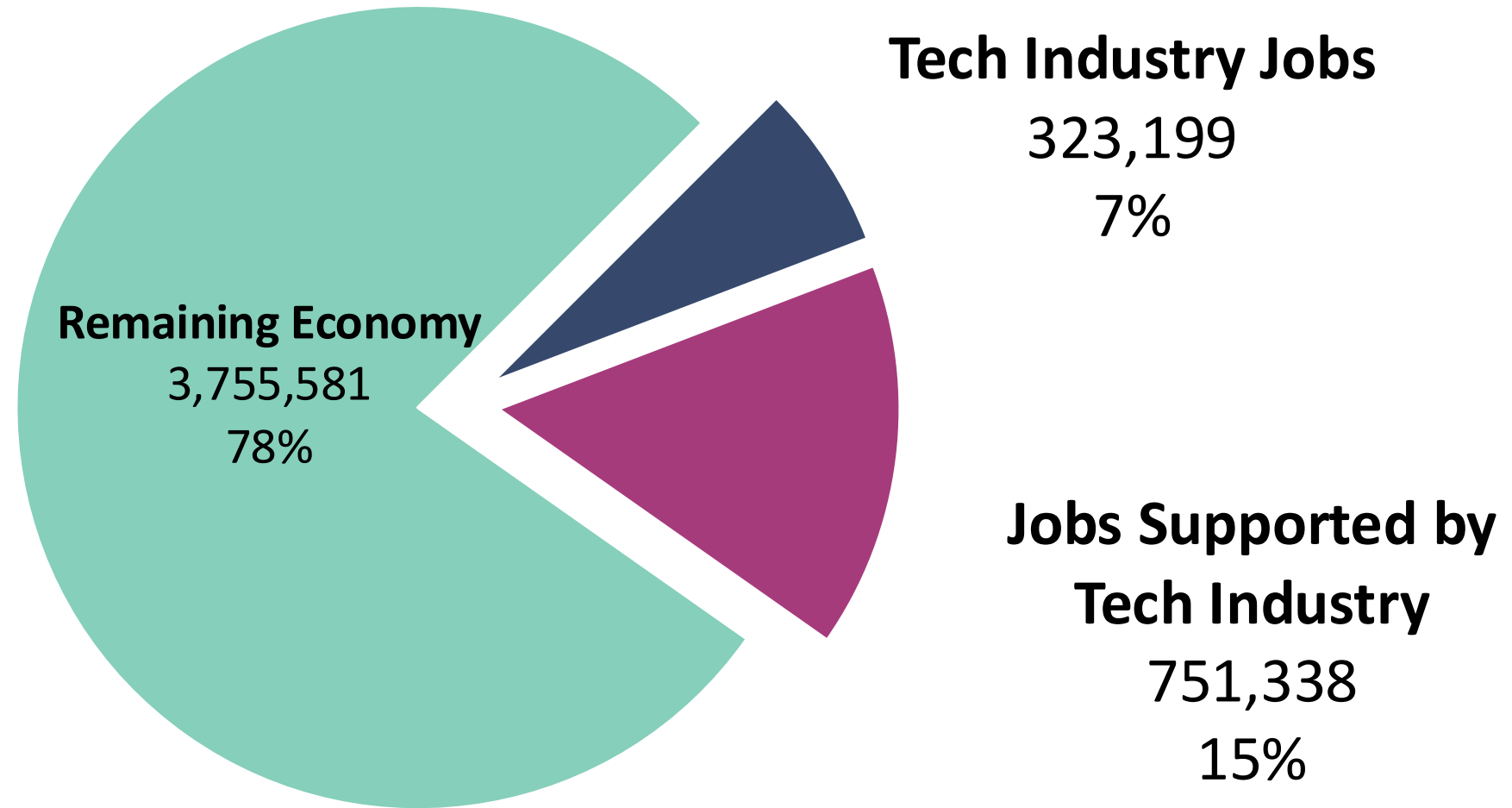
100 = 2011 Employment Levels



# North Carolina Job Multiplier by Industry, 2023



# Tech's Contribution to North Carolina's Economy - 22%



11 Years Ago, Tech was 18%



# North Carolina Tech Industry by Sub-Categories

Technology Categories	Employment, 2023	Employment Change, 2022-2023	Employment Change, 2018-2023
Energy Tech	14,705	3.8%	7.3%
Enviro Tech	23,254	6.2%	-5.8%
Life Sciences	110,356	3.4%	27.0%
IT	174,884	3.3%	19.2%
<b>TOTAL TECH</b>	<b>323,199</b>	<b>3.6%</b>	<b>18.8%</b>

# North Carolina Tech Industry by Output Groups

Output Group	Employment, 2023	Employment Change, 2022- 2023	Employment Change, 2018- 2023
Tech Services	257,021	4.1%	24.4%
Tech Manufacturing	66,178	1.6%	1.2%
<b>TOTAL TECH</b>	<b>323,199</b>	<b>3.6%</b>	<b>18.8%</b>

11 Years Ago, There were 64,585 Tech Manufacturing Workers

# North Carolina Tech Industry by Output Groups

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11 Years Ago, There were 64,585 Tech Manufacturing Workers



# North Carolina Average Annual Earnings by Subgroups

Sub-Categories	North Carolina	North Carolina (Purchasing Power)	National Average
Energy Tech	\$148,900	\$158,100	\$175,600
Environmental Tech	\$84,900	\$90,100	\$96,600
Life Sciences	\$138,200	\$146,700	\$153,500
IT	\$149,000	\$158,200	\$187,600
Output Group	North Carolina	North Carolina (Purchasing Power)	National Average
Tech Services	\$140,300	\$149,000	\$169,800
Tech Manufacturing	\$142,100	\$150,900	\$165,900
<b>TOTAL TECH INDUSTRY</b>	<b>\$140,700</b>	<b>\$149,300</b>	<b>\$169,200</b>

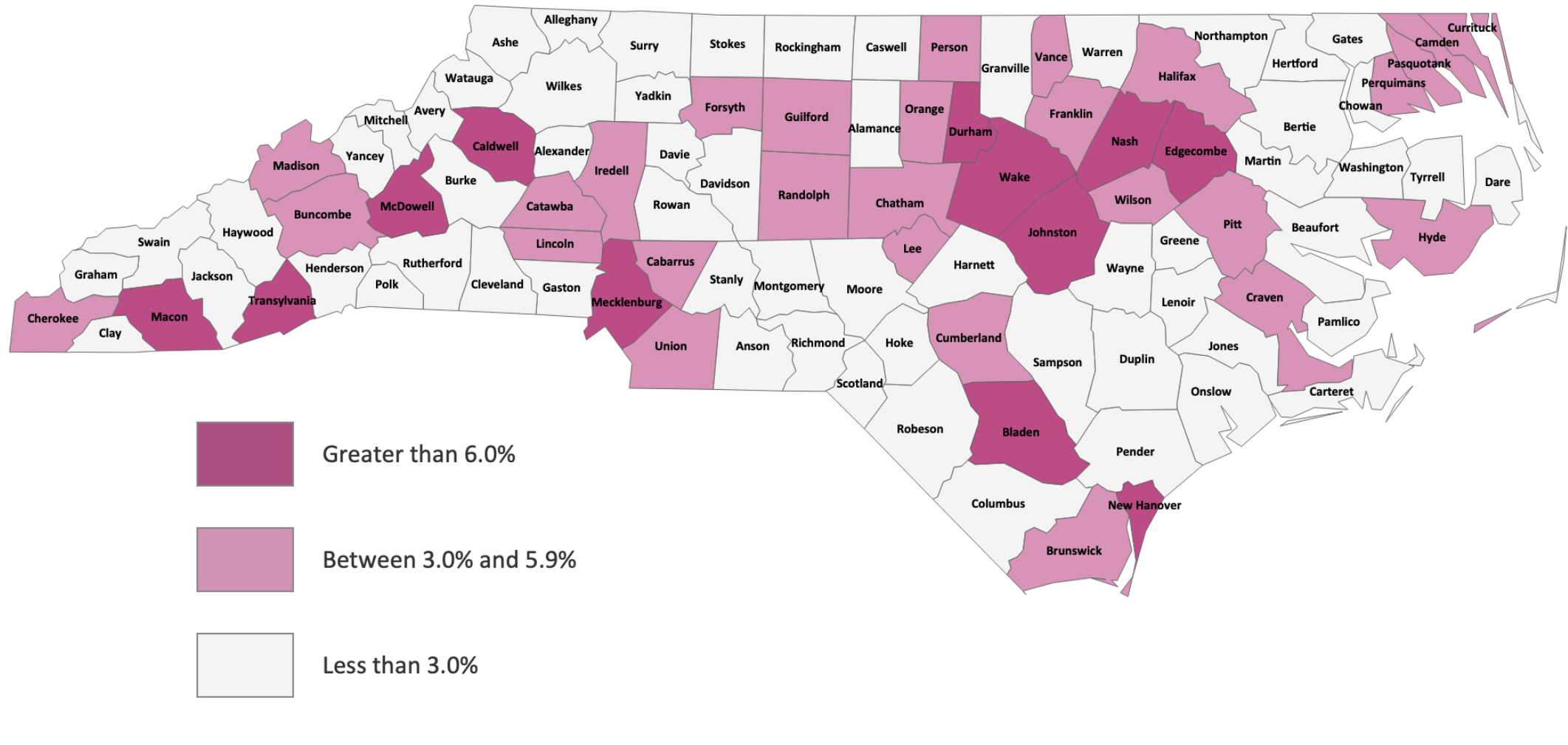
Source: EL calculations based on Lightcast 2024.4 and BEA (2024)

# Tech Industry Super Sub-Industries

Sub-Industries	2023 Employment	Employment Change (2018-2023)	Concentration
Software	103,778	42%	1.06
Internet, Social Media, & Telecom	44,015	-8%	0.92
Engineering, Environmental, & Clean Tech	43,643	13%	0.95
R&D and Testing	42,068	35%	1.07
Life Sciences Manufacturing	34,230	13%	1.46
Electronics Hardware	27,091	5%	0.95
Other Energy and Power Generation	13,825	5%	0.45
Remediation and Waste Management	13,669	18%	0.86
Renewable Energy	880	78%	0.88
<b>TOTAL TECH SECTOR</b>	<b>323,199</b>	<b>19%</b>	<b>0.98</b>

Source: EL calculations based on Lightcast 2024.4

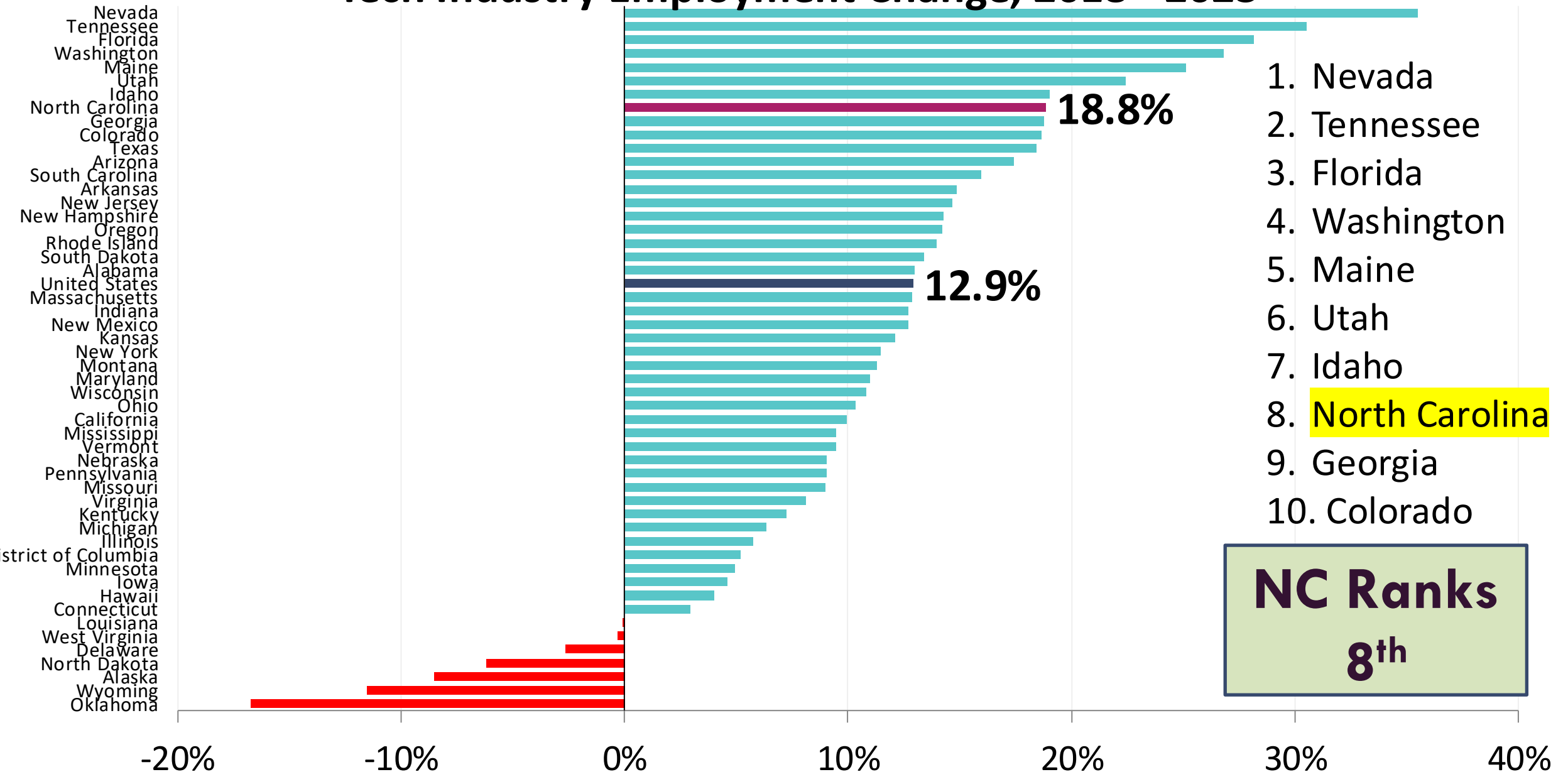
### Tech Industry Jobs as a Percentage of Total Jobs, 2023



Source: EL calculations based on Lightcast 2024.4

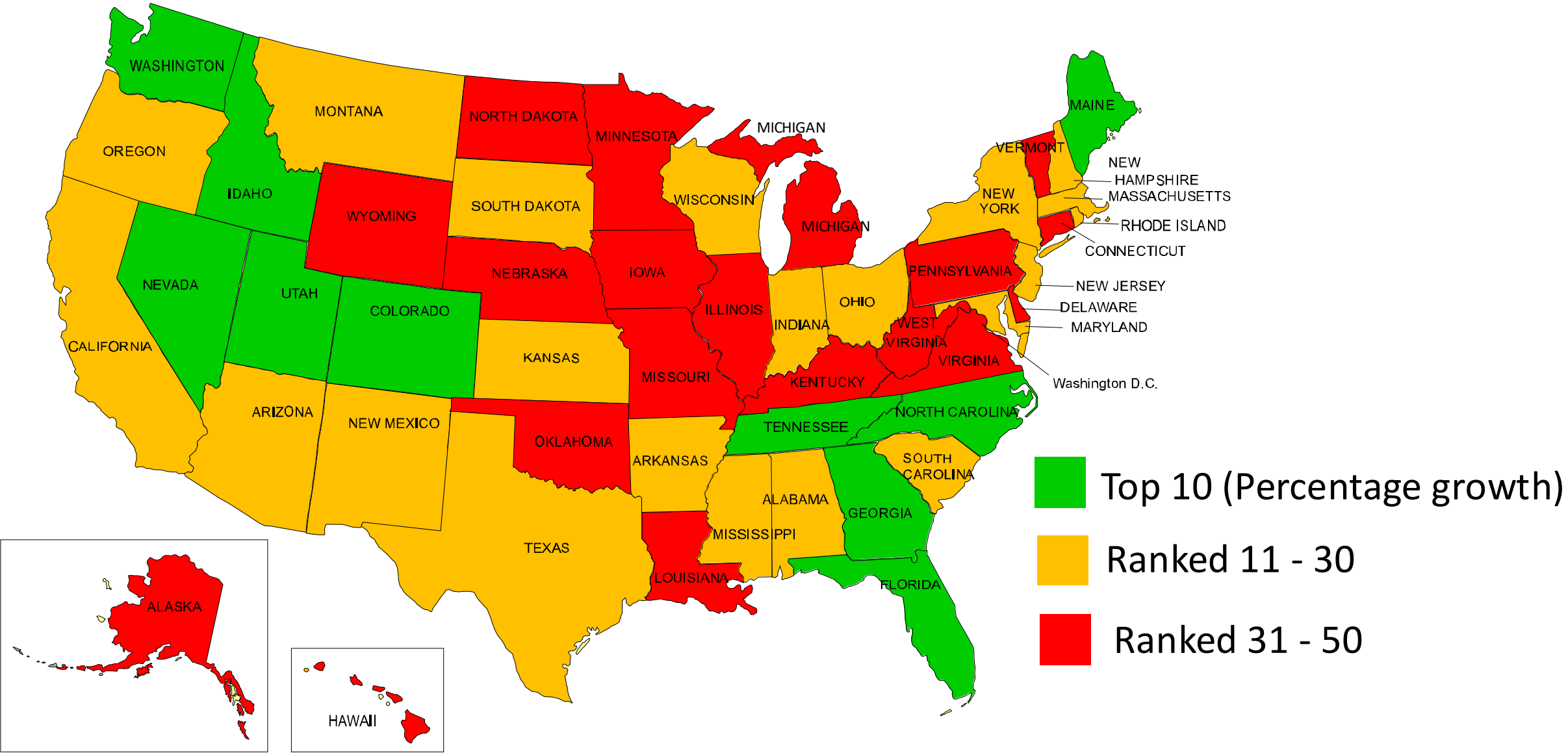


# Tech Industry Employment Change, 2018 - 2023



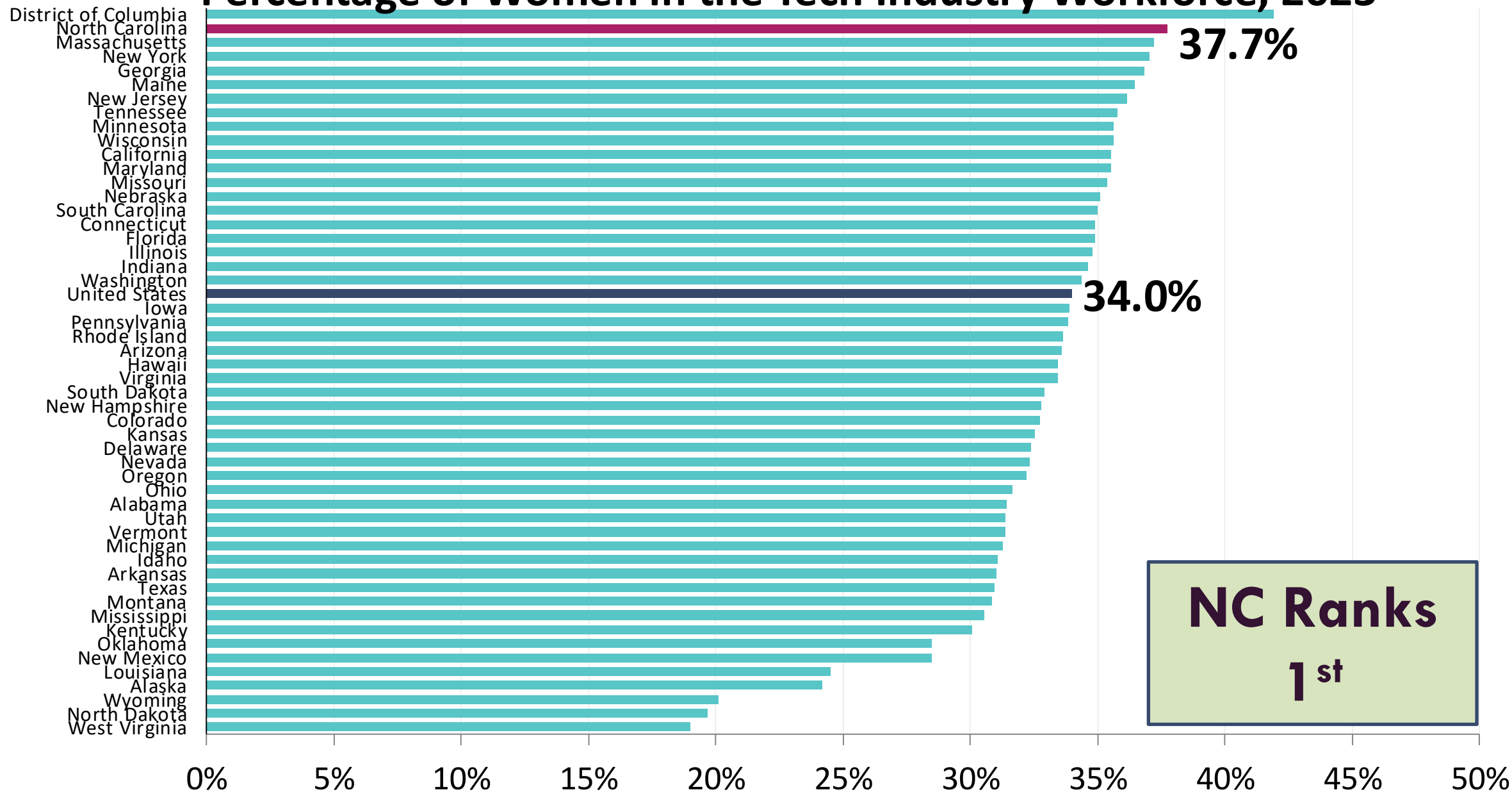
**NC Ranks**  
**8<sup>th</sup>**

# Tech Industry Employment Change, 2018 - 2023



Source: EL calculations based on Lightcast 2024.4

# Percentage of Women in the Tech Industry Workforce, 2023



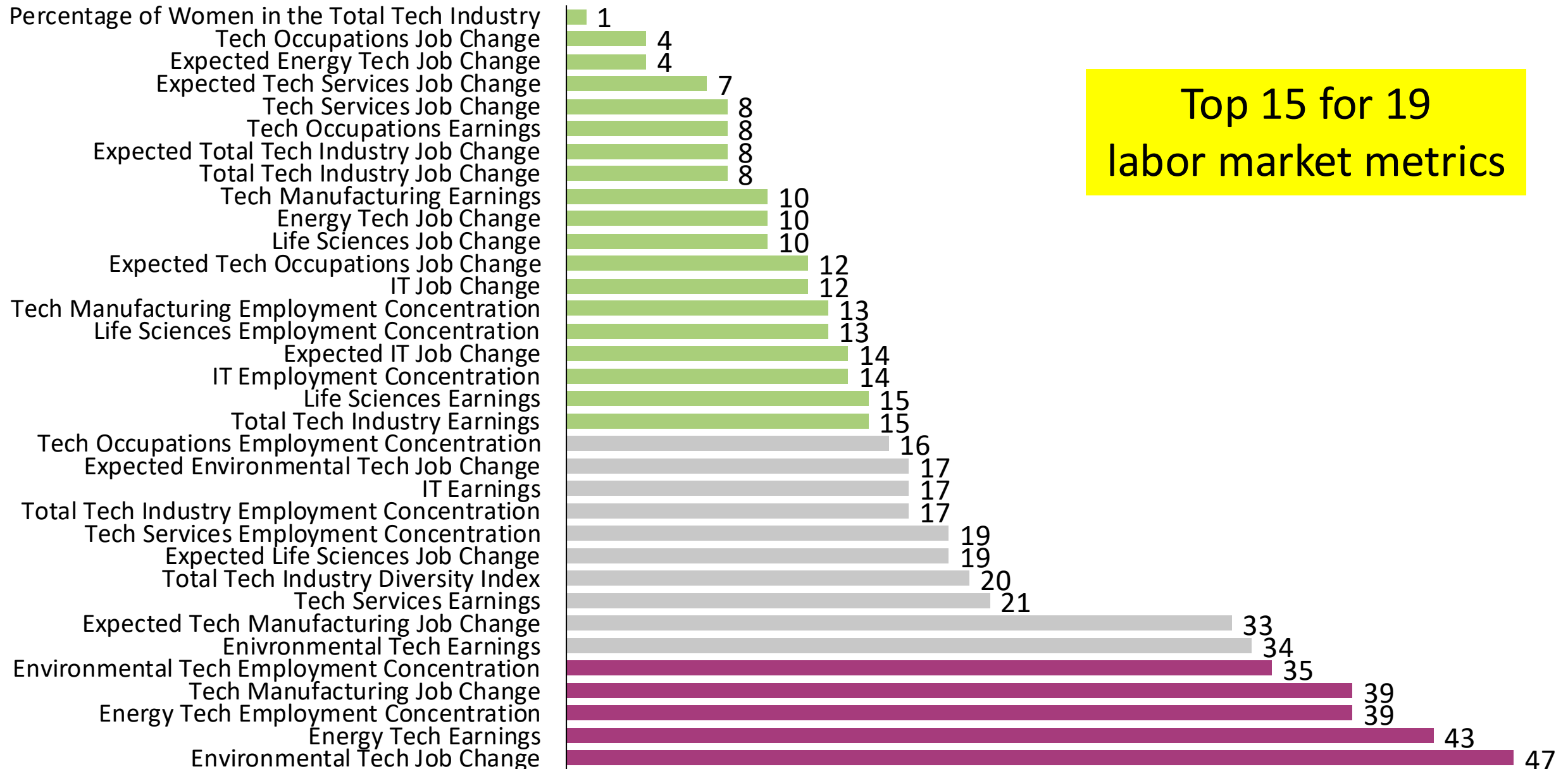
# North Carolina Tech Industry State Rankings

Metric	Value	Rank
Total Tech Industry Employment Concentration (2023)	0.98	17
Total Tech Industry Job Change (2018-2023)	18.8%	8
Expected Total Tech Industry Job Change (2024-2029)	10.5%	8
Avg Earnings for Total Tech Industry with Purchasing Power (2023)	\$149,346	15
Percentage of Women in the Total Tech Industry Workforce (2023)	37.7%	1
Total Tech Industry Diversity Index (2023)	80.4	20

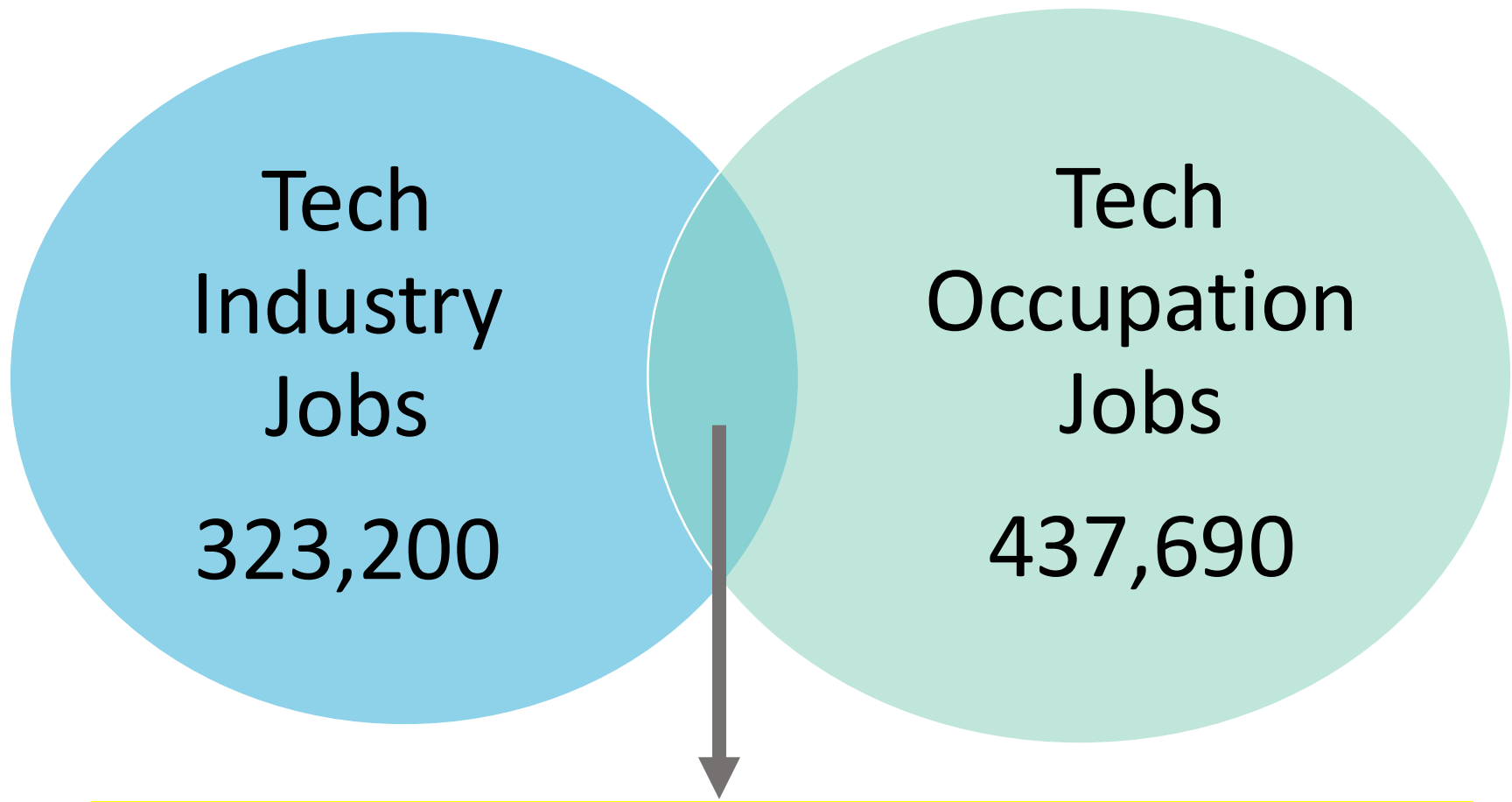


# North Carolina State Rankings for Tech Industries and Occupations

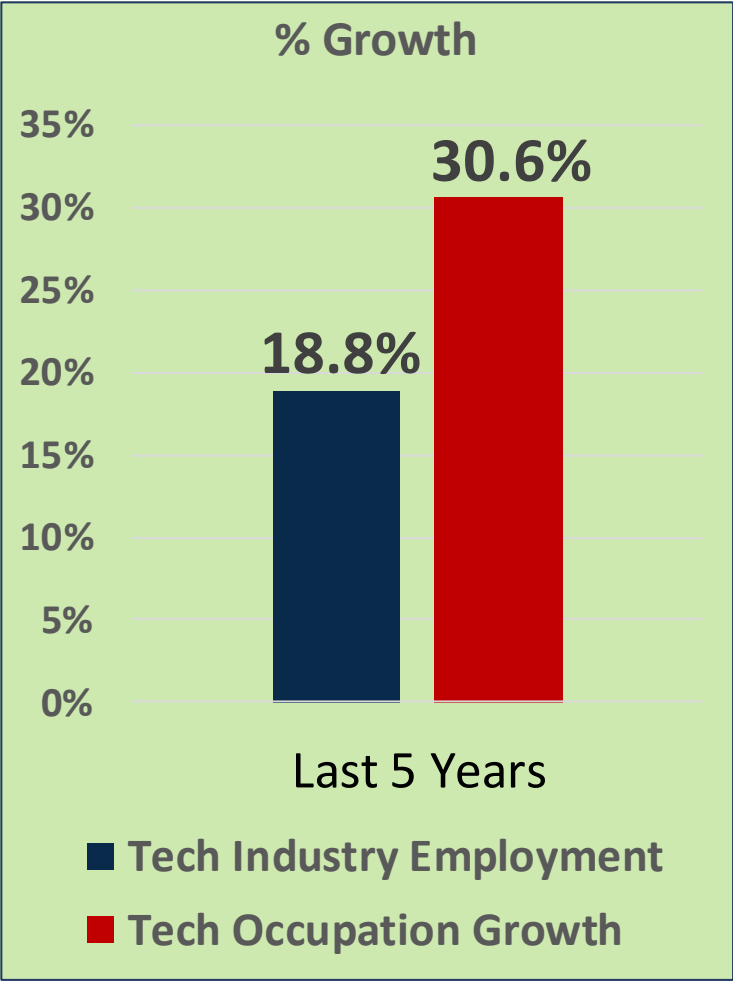
Top 15 for 19  
labor market metrics



# Staffing Patterns of Tech Industries and Tech Occupations

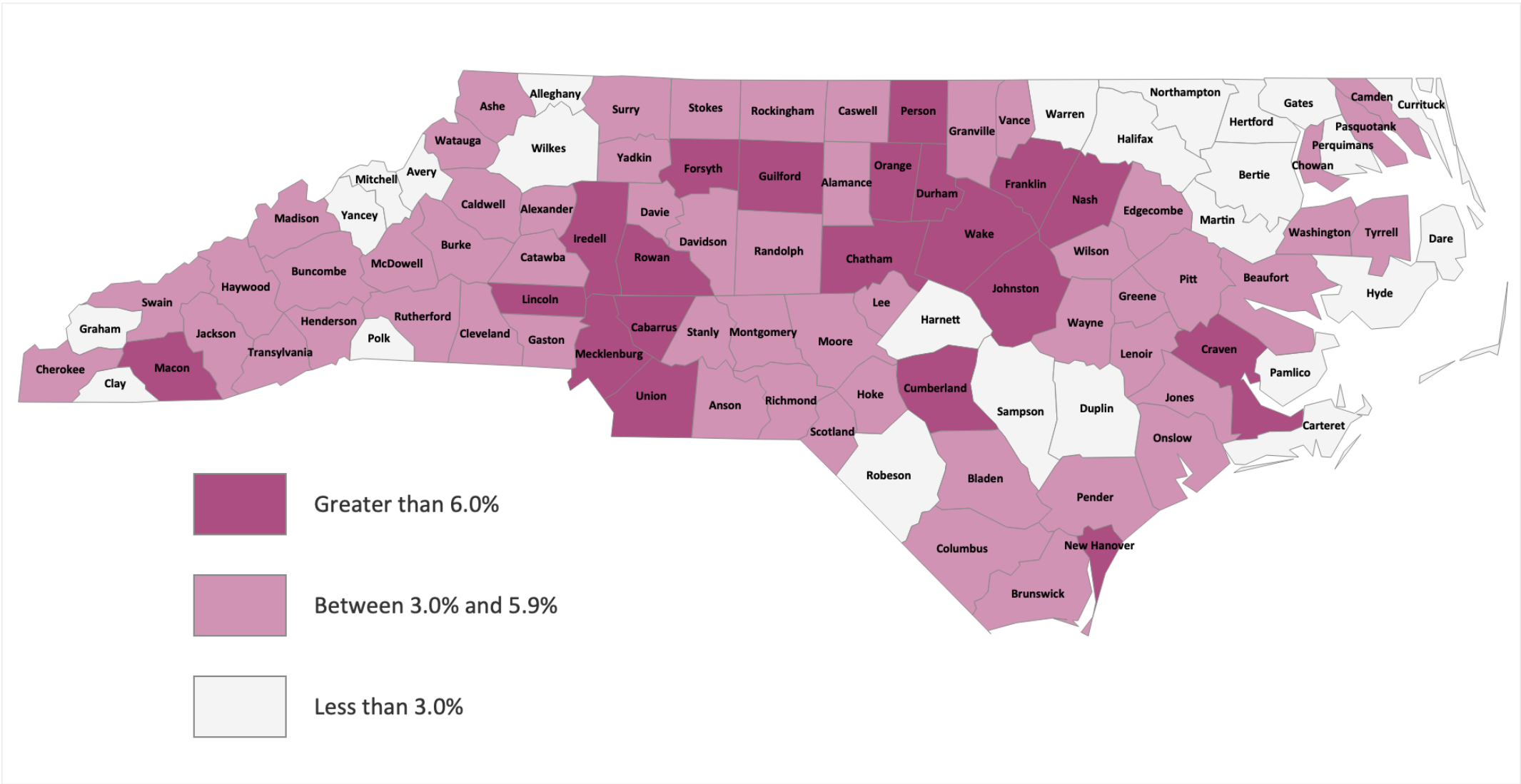


35% of tech occupation jobs are employed in tech industries.



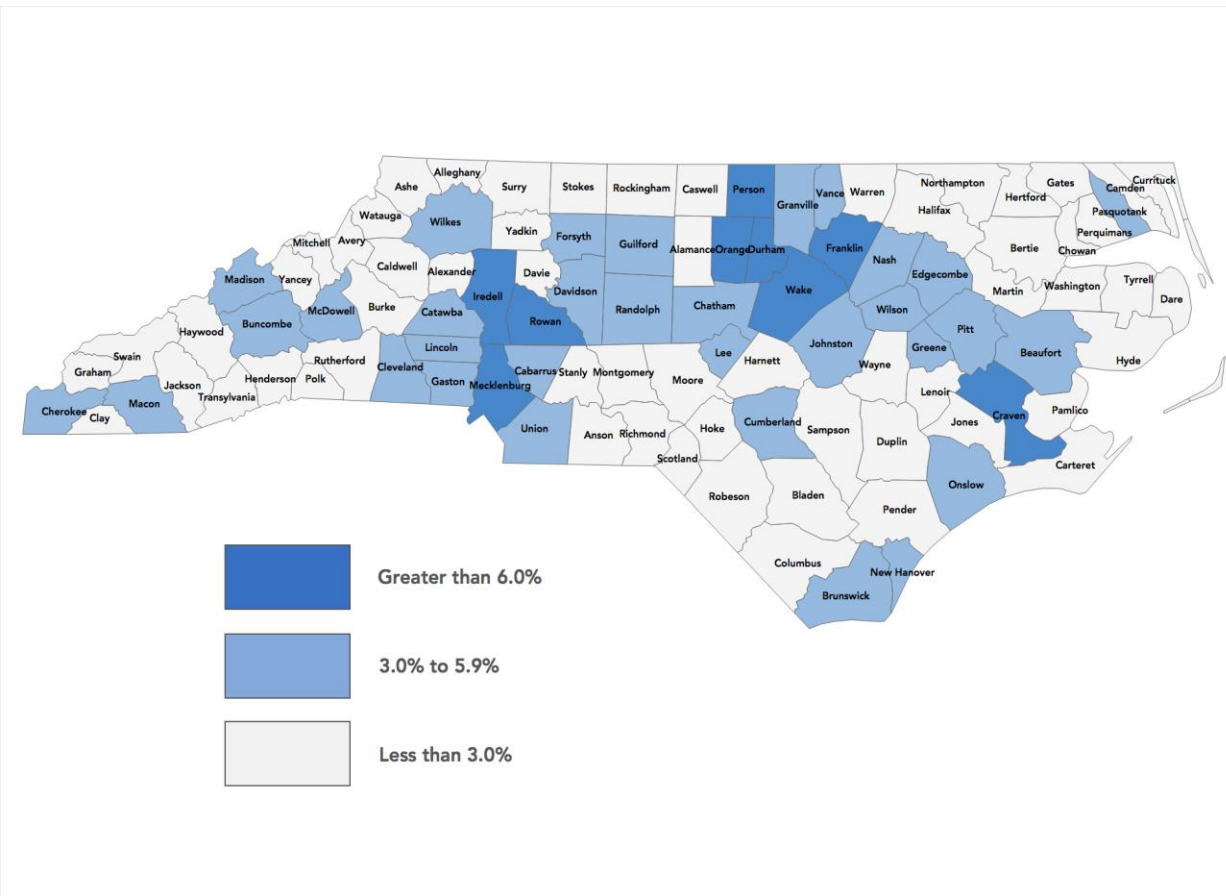
Source: EL calculations based on Lightcast 2024.4

# Tech Occupations as a Percentage of Total Jobs, 2023



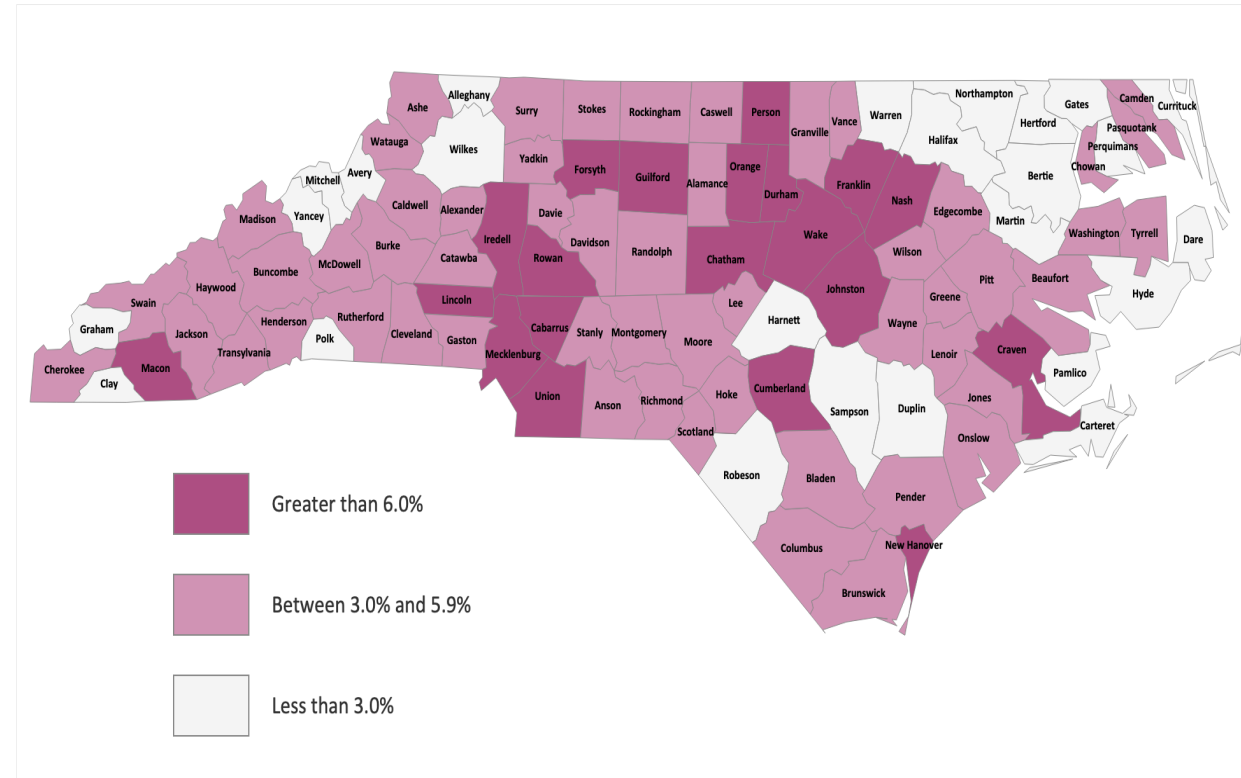
Source: EL calculations based on Lightcast 2024.4

# 2016



# 2023

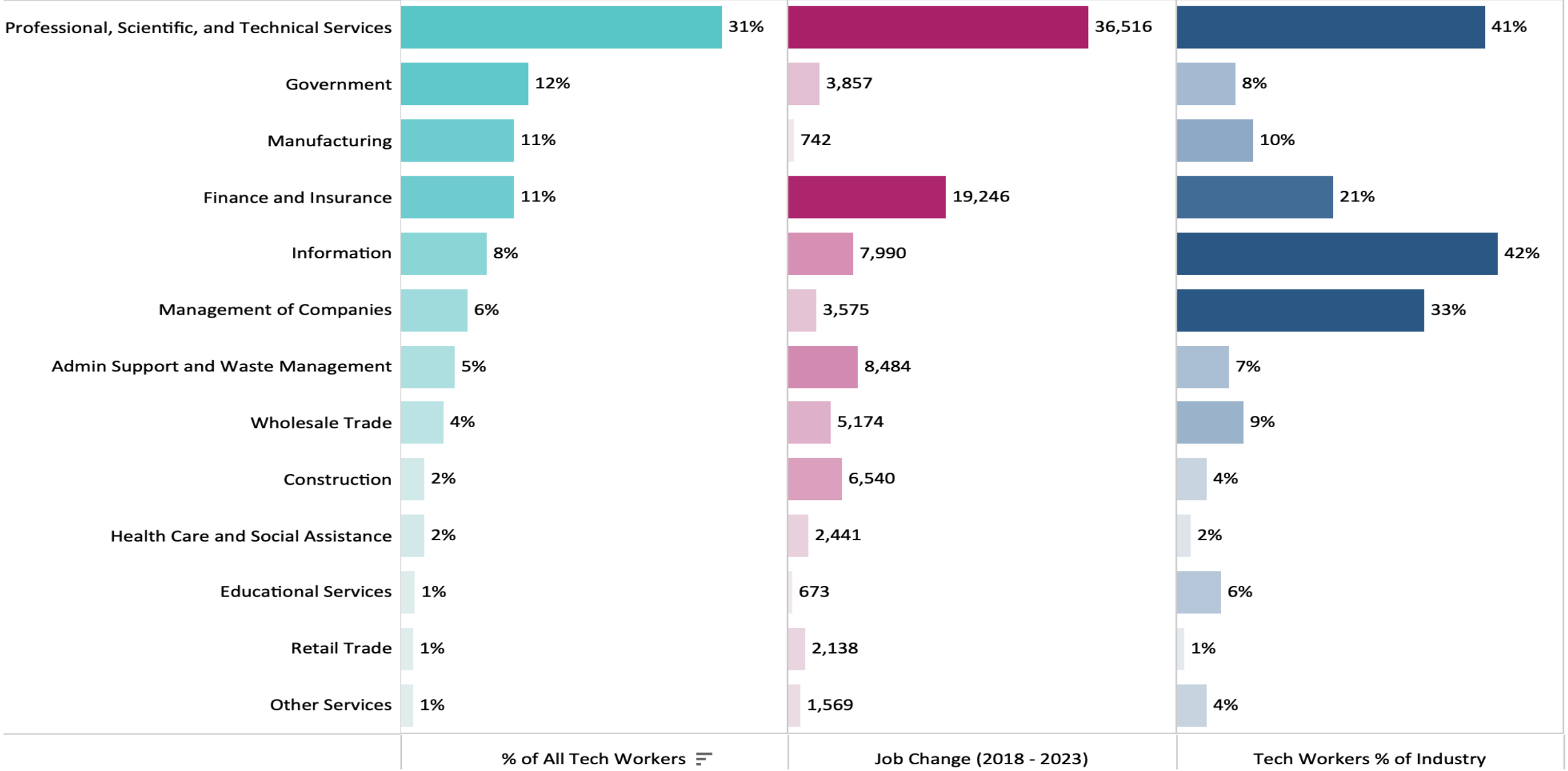
Tech Occupations as a Percentage of Total Jobs, 2023



Source: EL calculations based on Lightcast 2024.4



# North Carolina's Top Industries Employing Tech Occupations, 2023



Source: EL calculations based on Lightcast 2024.4

# Top Tech Occupations

Occupation	2023 Employment	Employment Change (2018-2023)	Median Annual Wage
Software Developers	58,210	+70%	\$130,620
Market Research Analysts	27,920	+57%	\$74,900
Computer Systems Analysts	25,700	+1%	\$105,770
Computer User Support Specialists	22,280	+2%	\$56,990
Management Analysts	21,680	+18%	\$100,570
Computer and Information Systems Managers	21,455	+79%	\$164,220
Financial and Investment Analysts	10,530	+31%	\$99,990
Industrial Engineers	10,130	+12%	\$94,040
Network and Computer Systems Administrators	9,960	-11%	\$94,120
Computer Network Architects	8,170	+66%	\$120,660

# Top Top Occupations by Growth

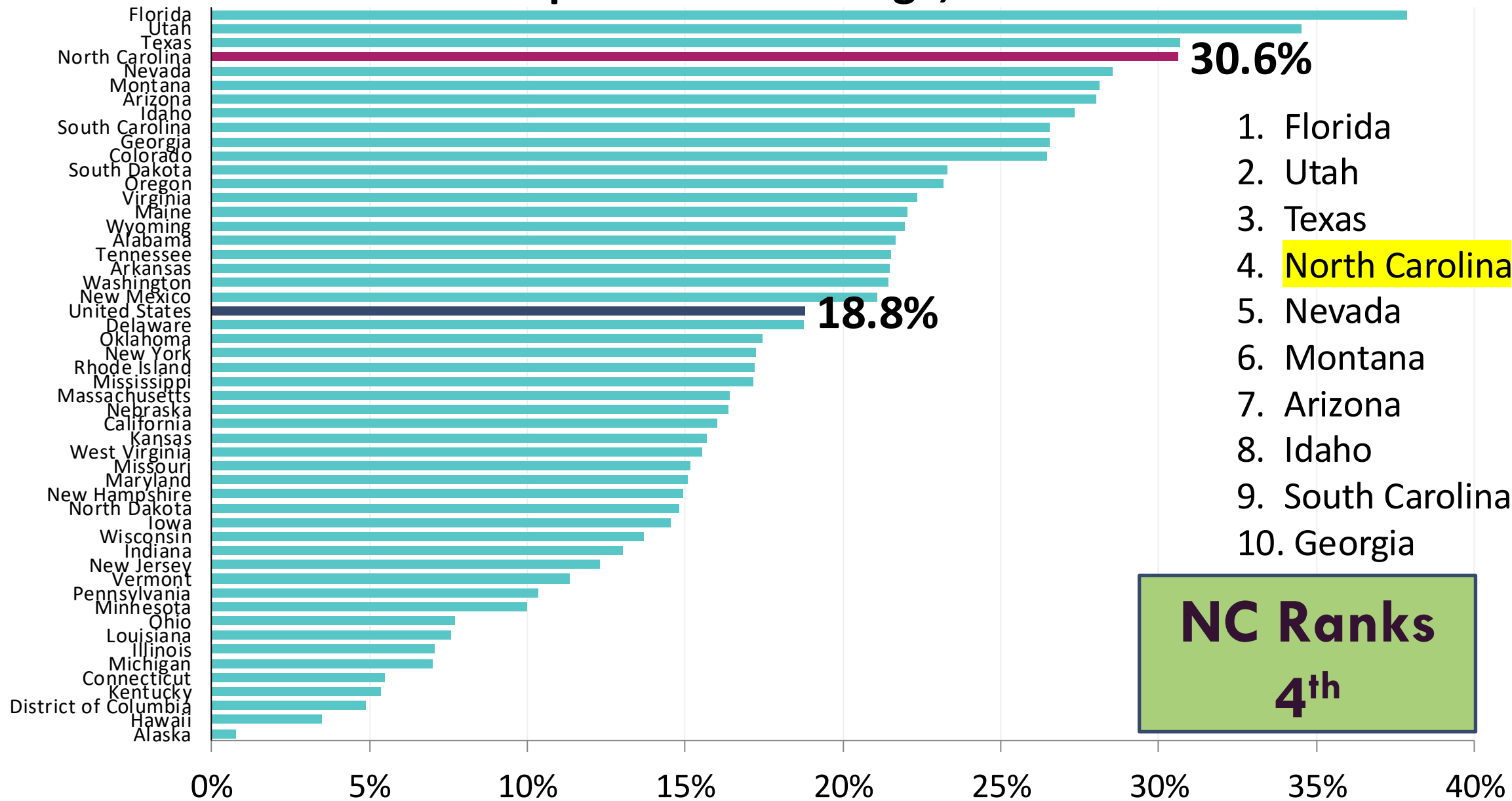
Top Five in Net Job Growth		Top Five in Growth Percentage	
Software Developers	+23,910	Electro-Mechanical Technicians	+215%
Market Research Analysts	+10,110	Life Scientists	+184%
Computer and Information Systems Managers	+9,460	Database Architects	+151%
Data Scientists	+3,845	Data Scientists	+142%
Management Analysts	+3,290	Food Science Technicians	+107%

# Demographic Representation in Tech Occupations

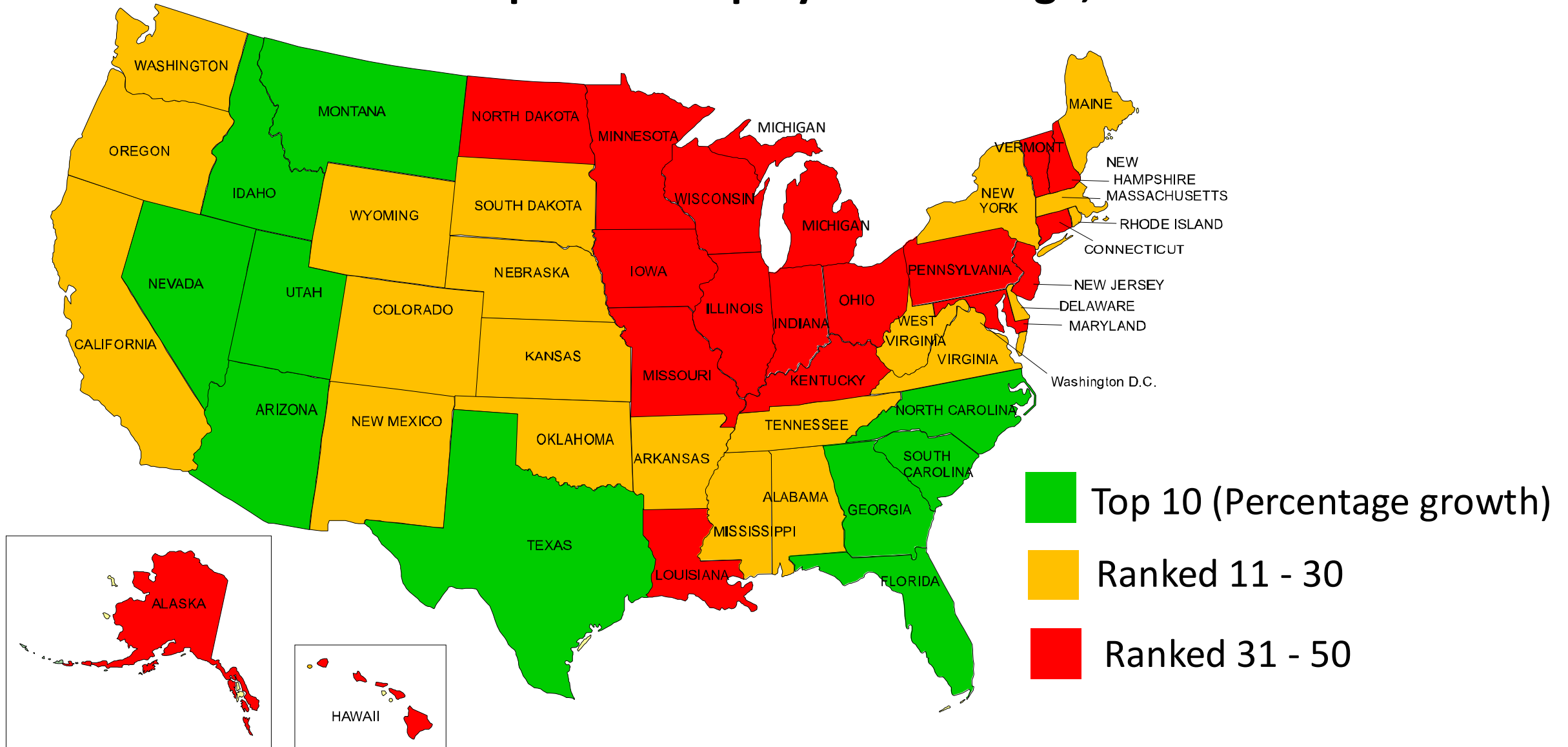
Demographic	Tech Occupations	NC Population	Index
Women	37%	51%	72.6
Men	63%	49%	128.7
Demographic	Tech Occupations	NC Population	Index
White	67%	61%	110.2
Black or African American	15%	21%	73.3
Asian	11%	4%	299.9
Hispanic or Latino	5%	11%	39.7
Two or More Races	2%	2%	93.7
American Indian or Alaska Native	0.3%	1.0%	33.7
Native Hawaiian or Other Pacific Islander	0.1%	0.1%	88.4



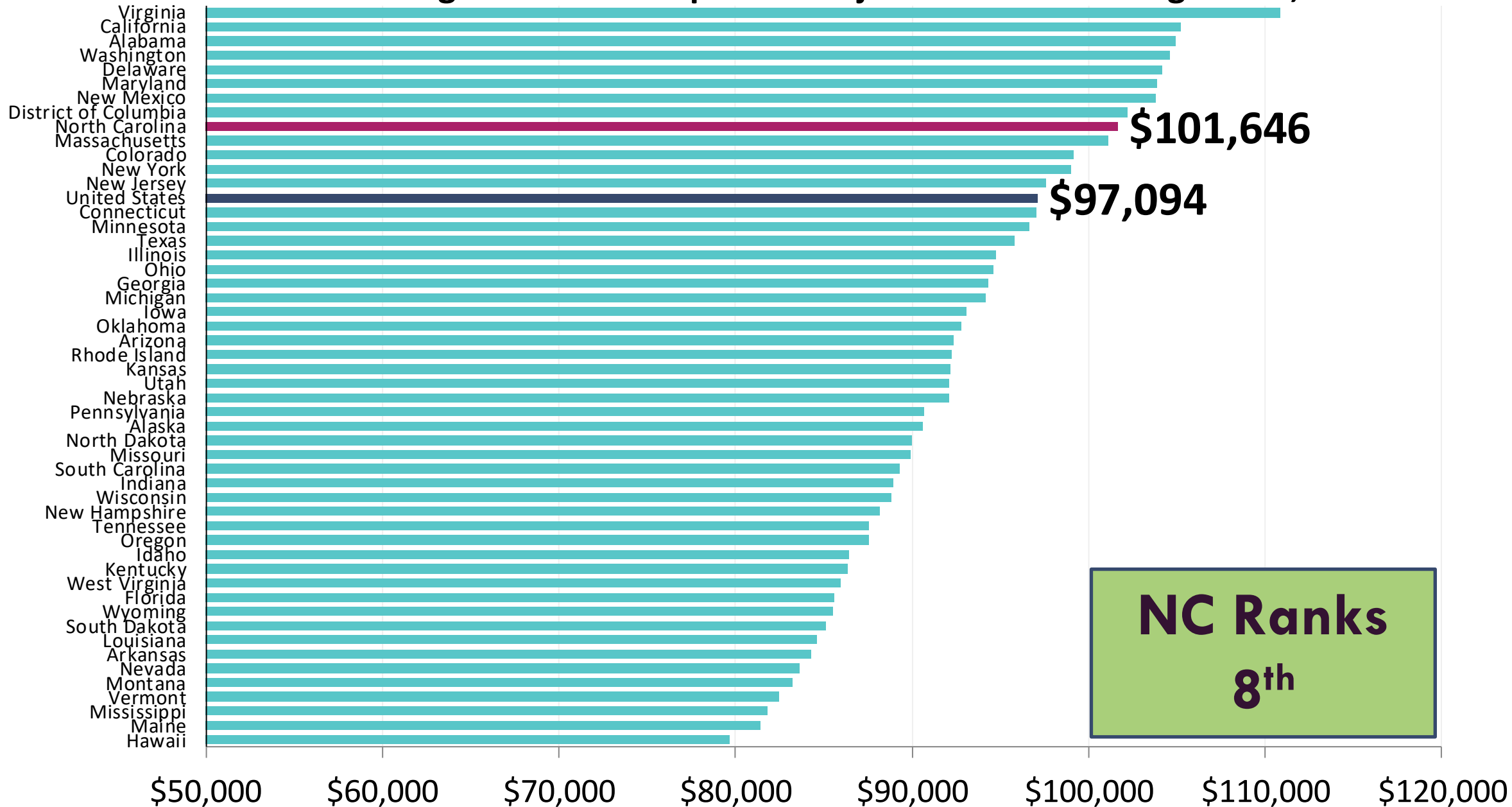
# Tech Occupations Job Change, 2018-2023



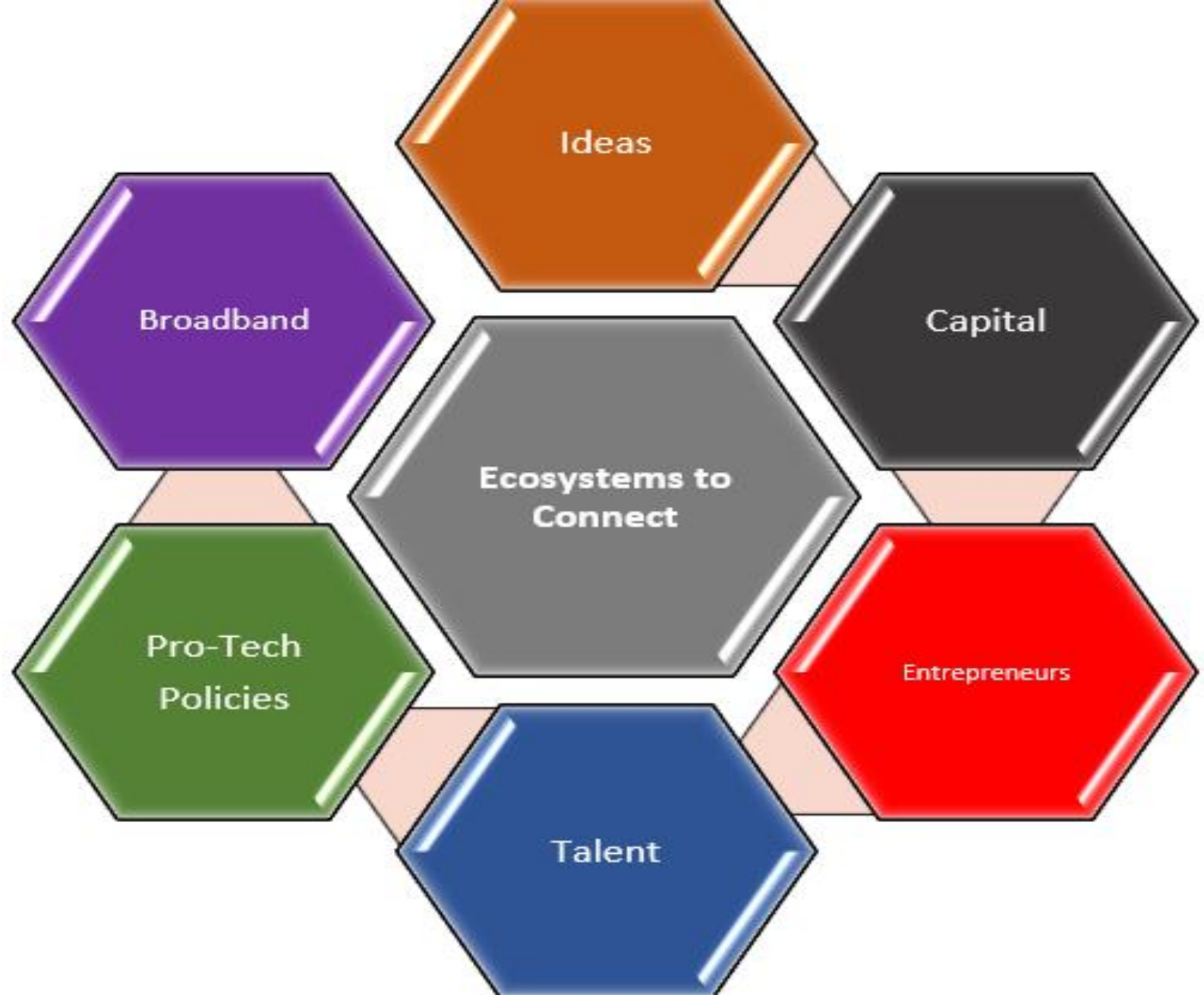
# Tech Occupations Employment Change, 2018 - 2023



# Median Annual Earnings for Tech Occupations Adjusted for Purchasing Power, 2023

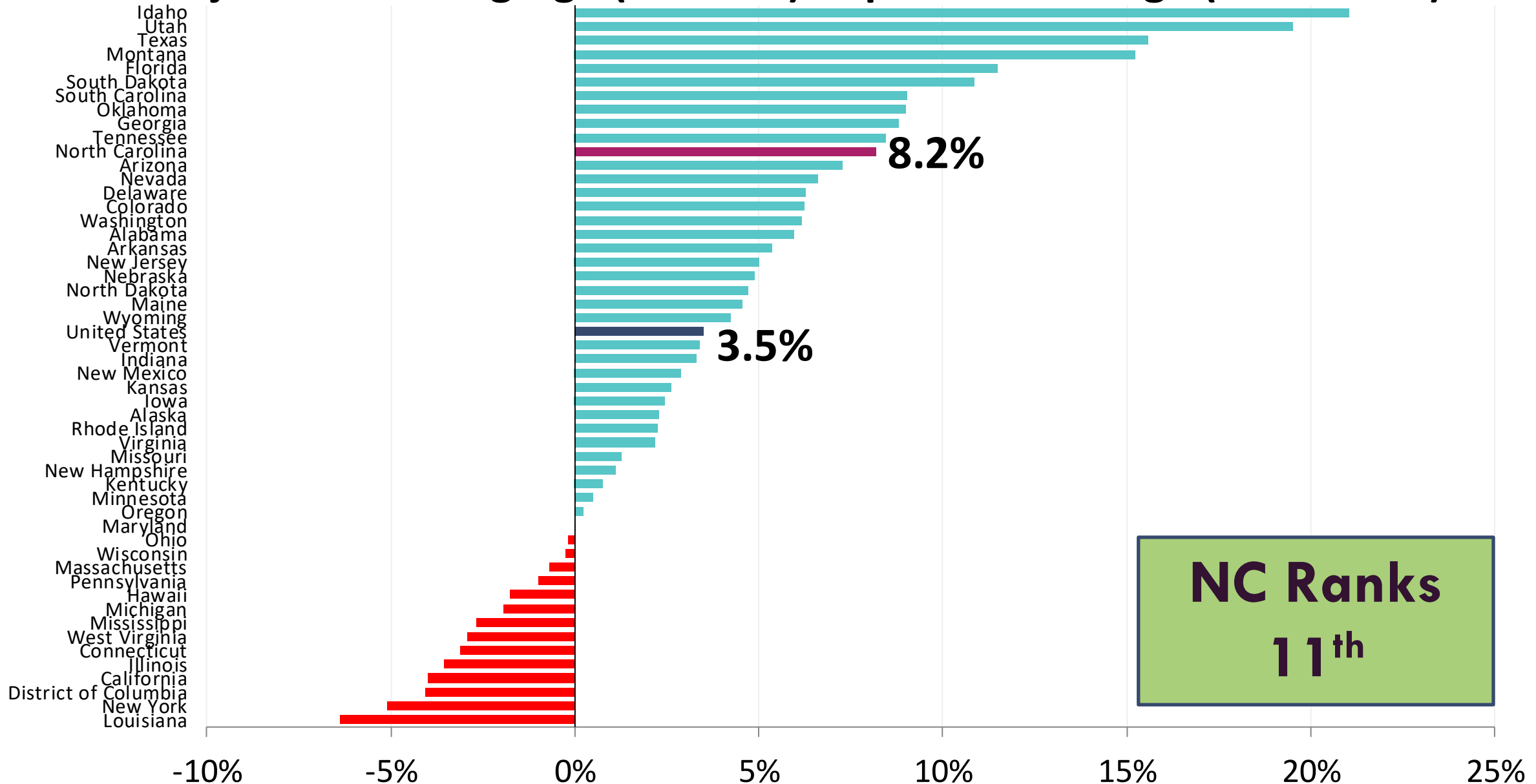


# Tech Infrastructure Metrics





# Projected Working Age (25 to 64) Population Change (2024-2034)

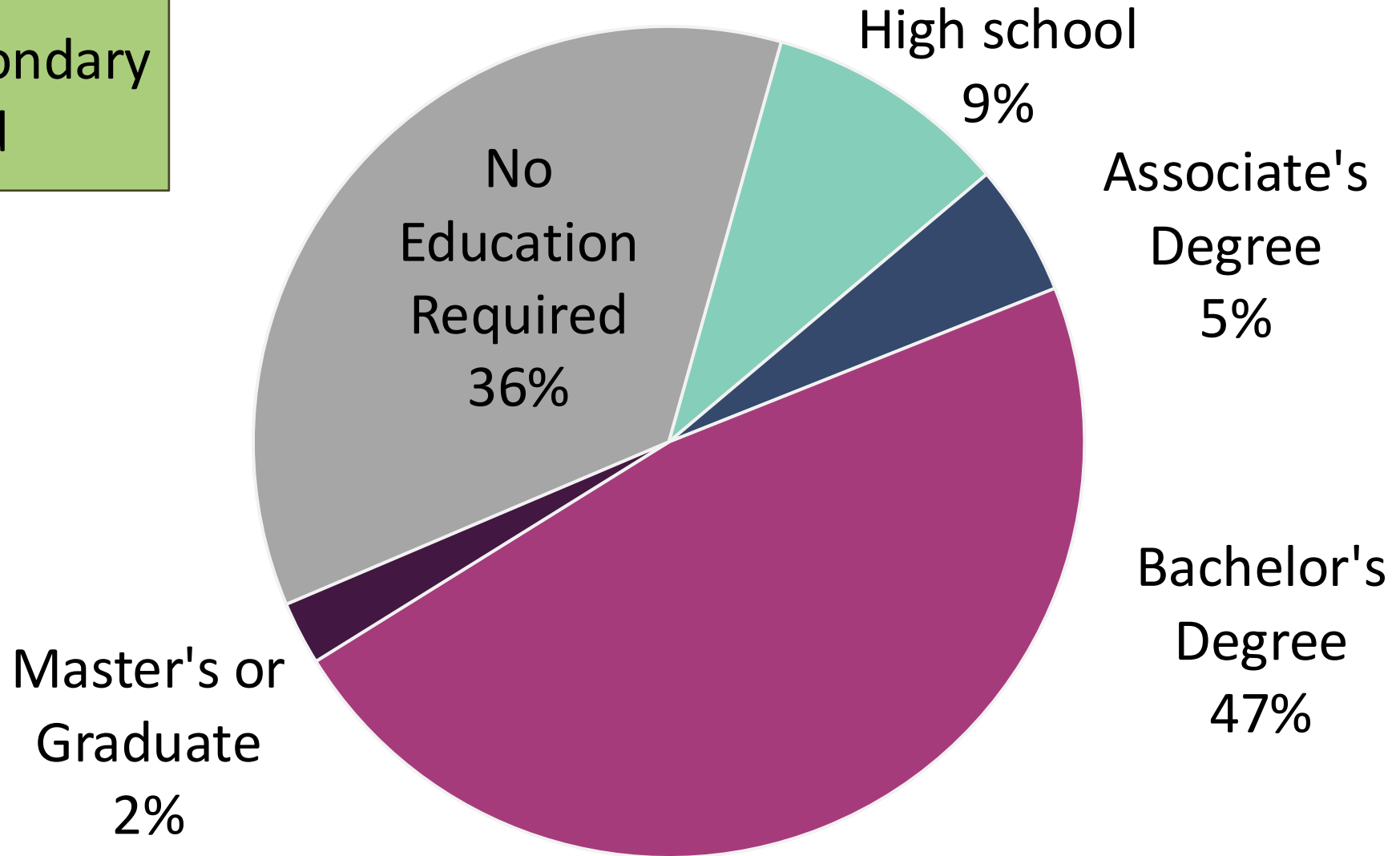


# Minimum Education Level Required in NC for Tech Job Postings

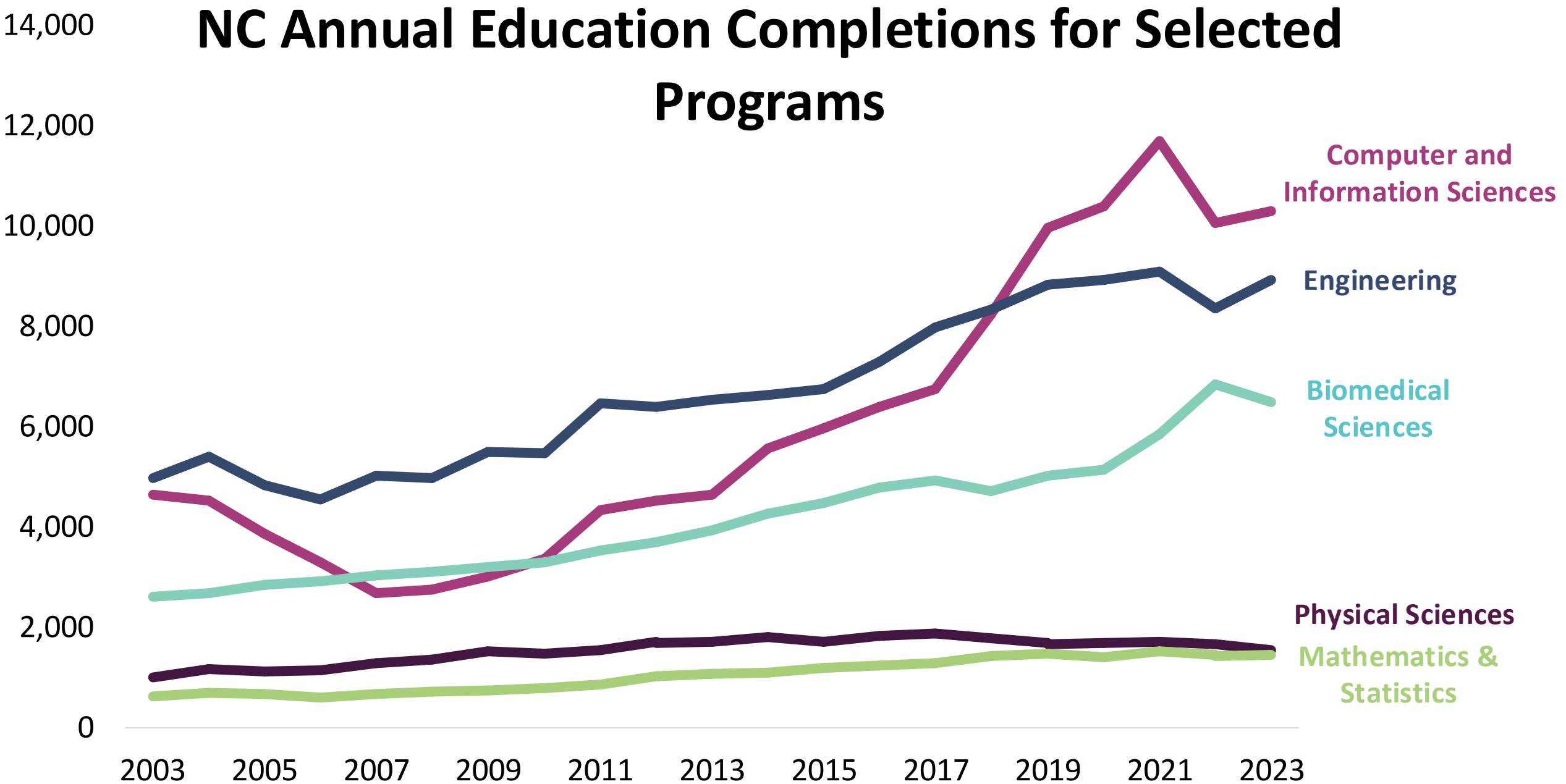
Oct 2022-Oct 2024

**55%**

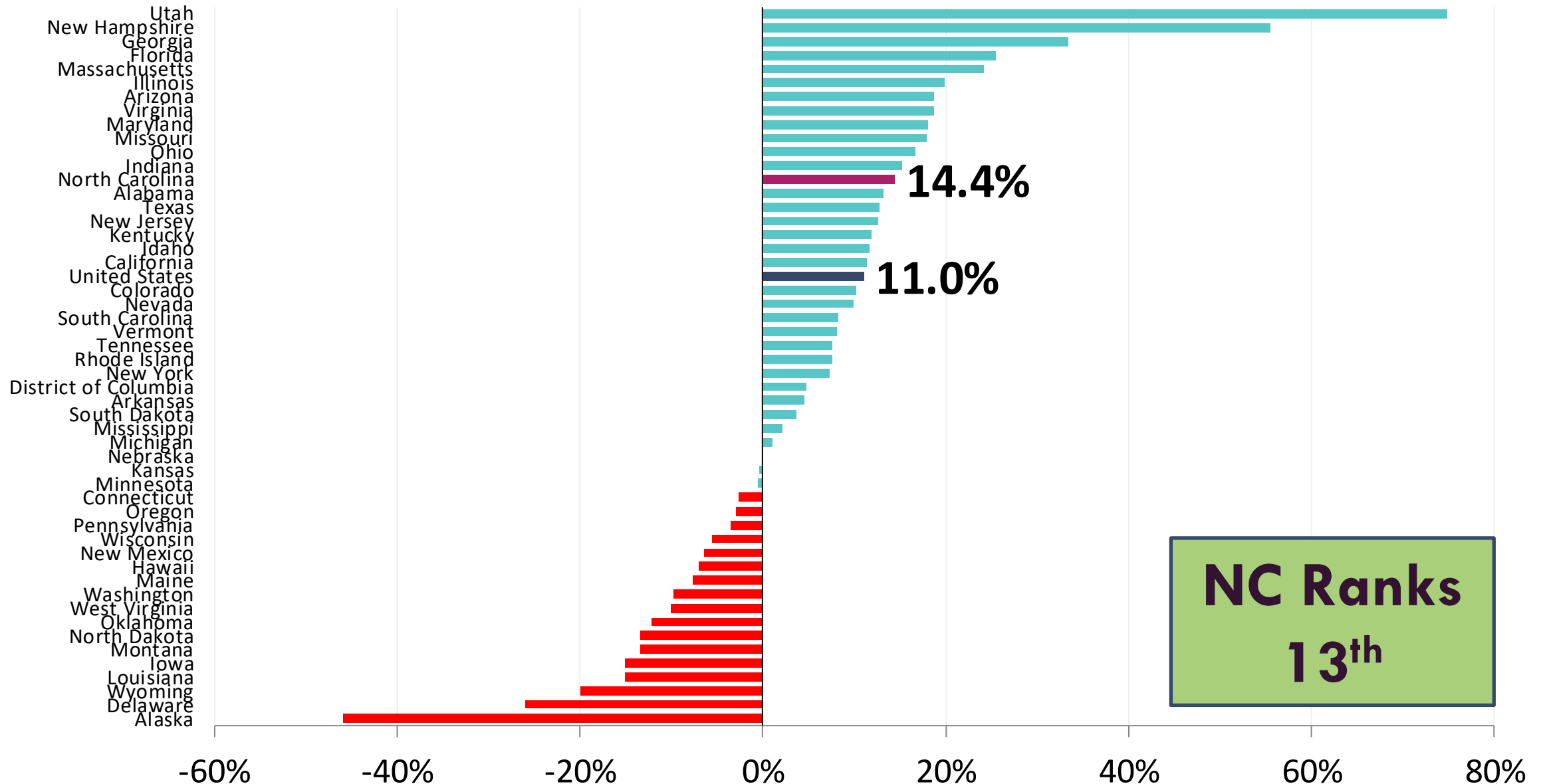
Some Postsecondary  
Required



# NC Annual Education Completions for Selected Programs

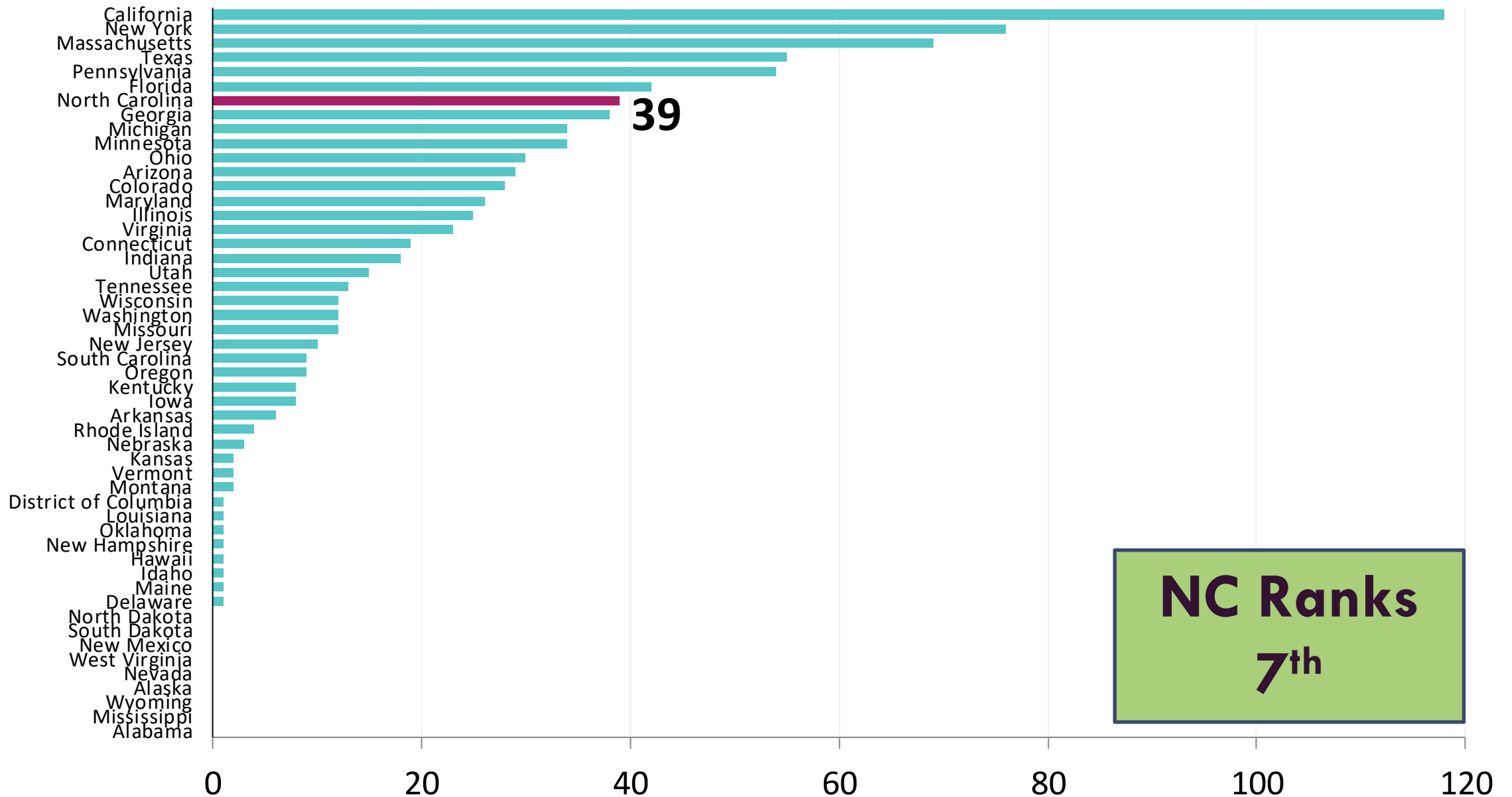


# Percent Change in STEM Education Program Completions (2018-2023)

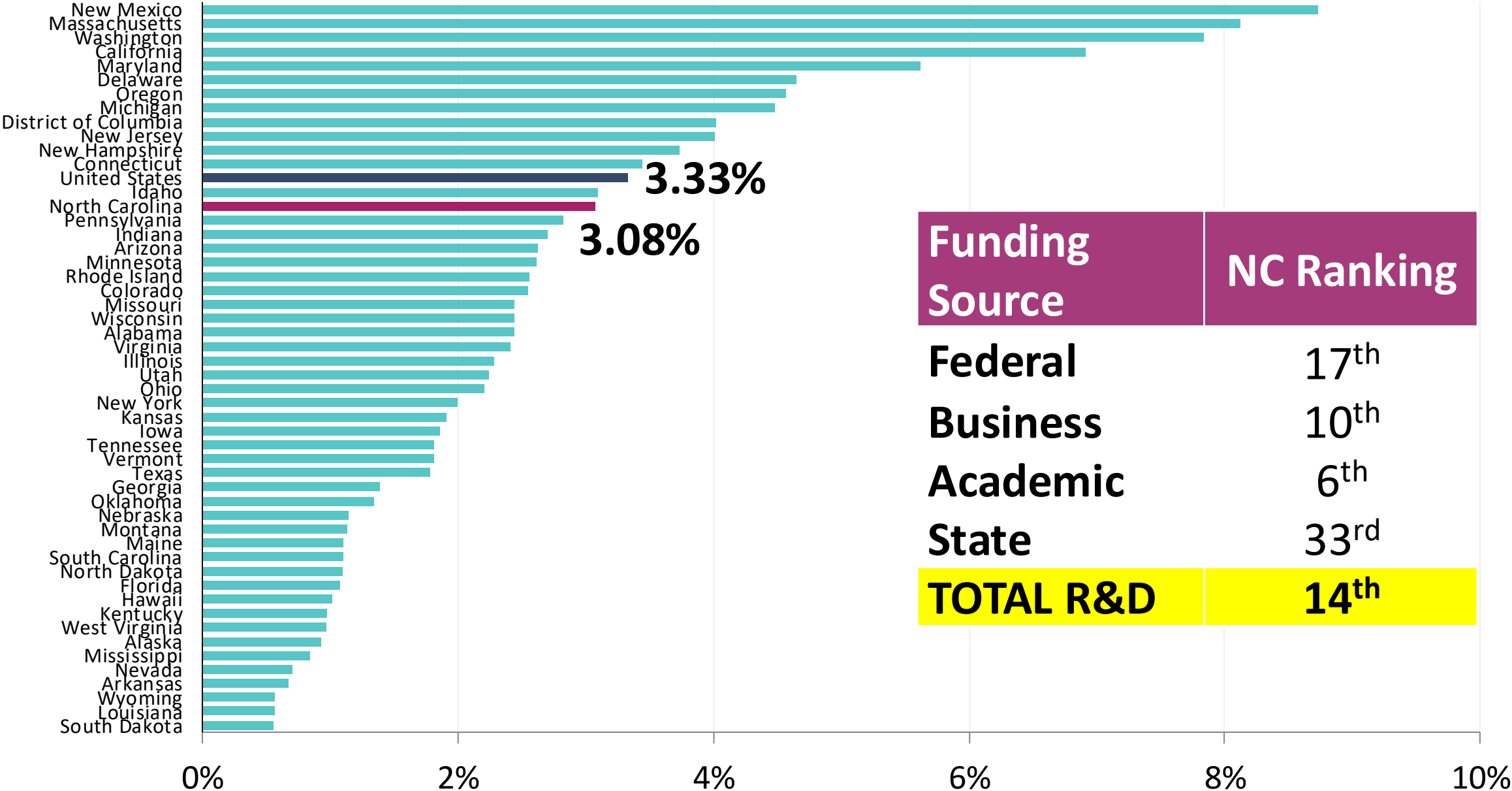




# Start-Ups from Universities (2023)

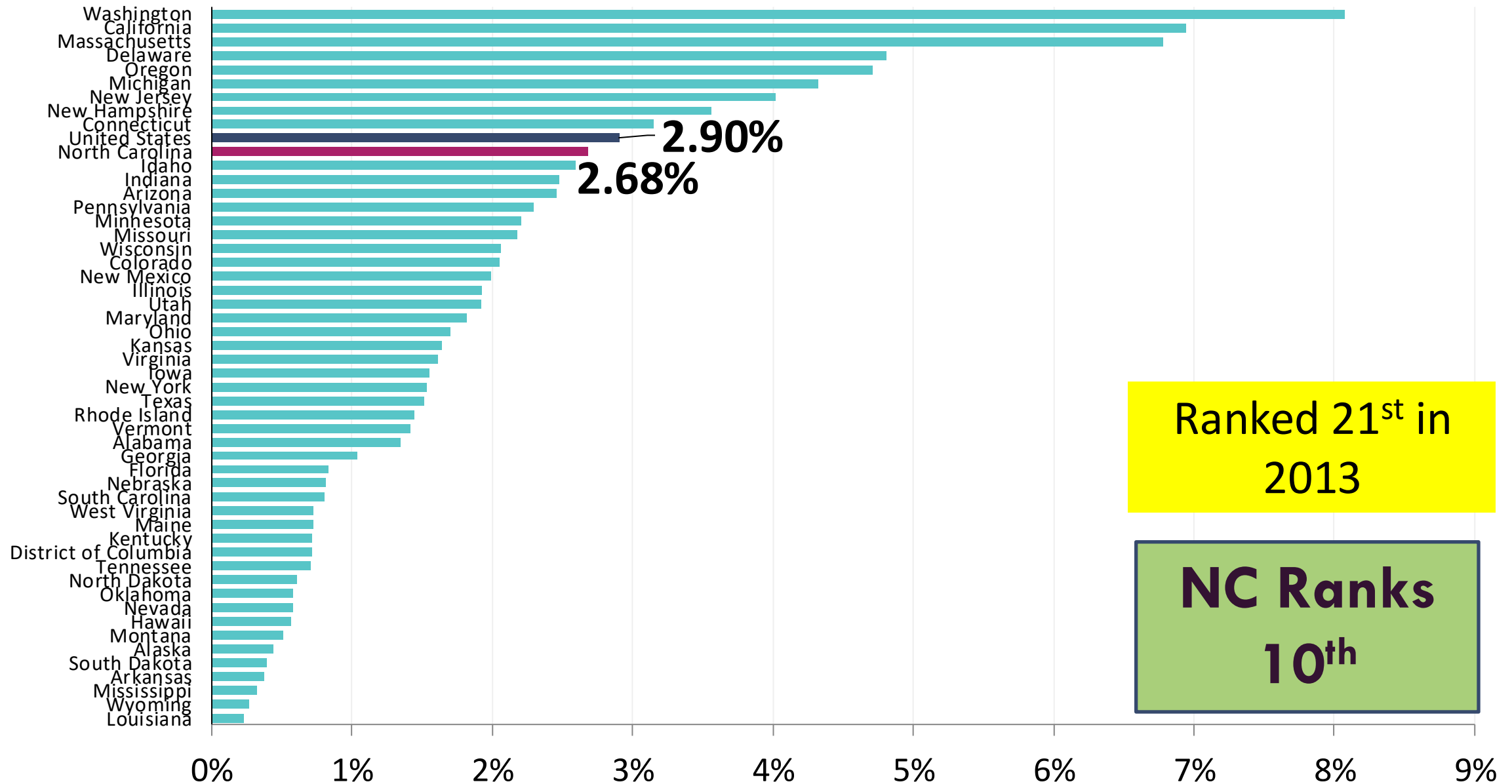


# Total R&D as a Percentage of GDP (2021)



Source: EL calculations based on NSF (2024)

# Business Performed R&D as a Percentage of Private Industry Output (2021)

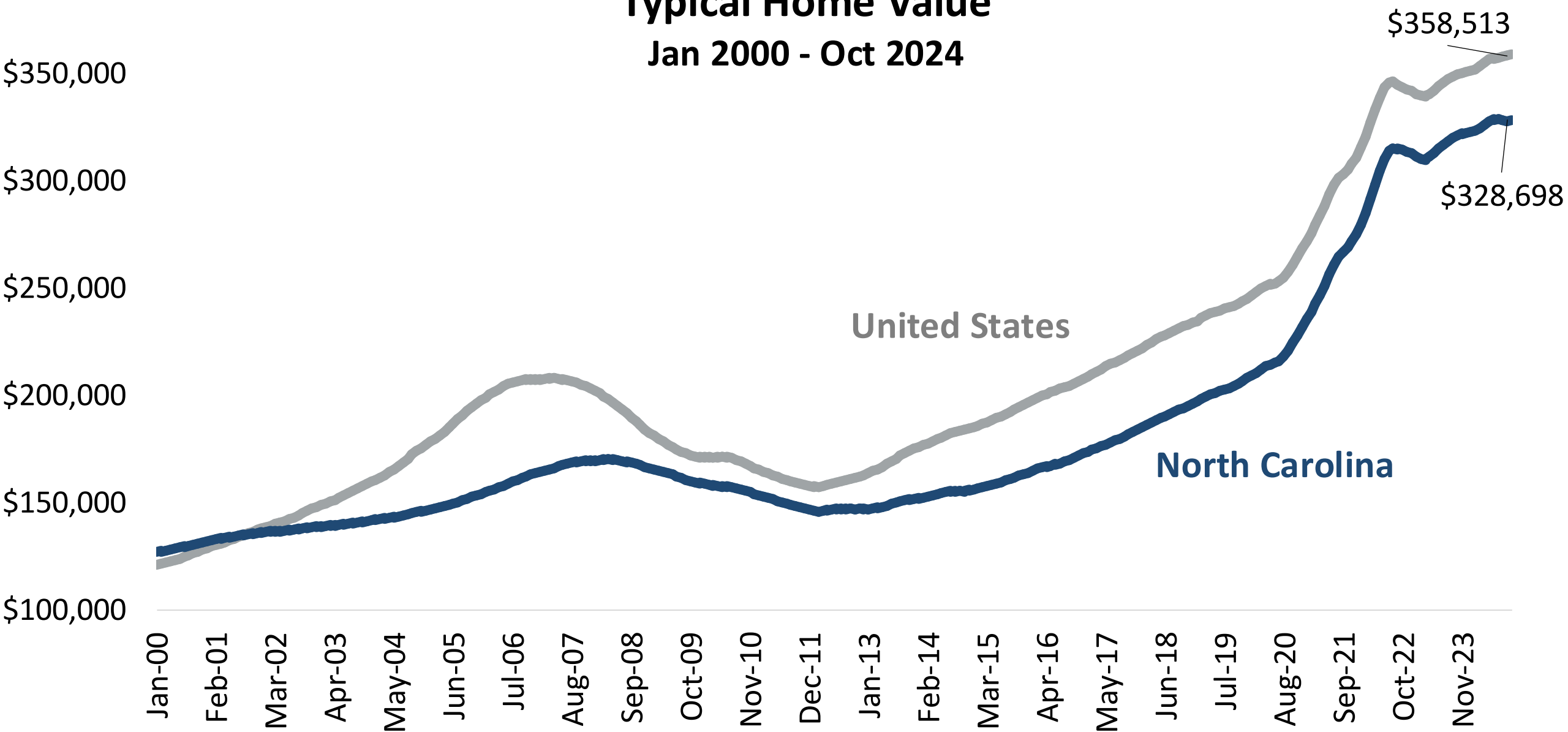


Ranked 21<sup>st</sup> in  
2013

**NC Ranks  
10<sup>th</sup>**

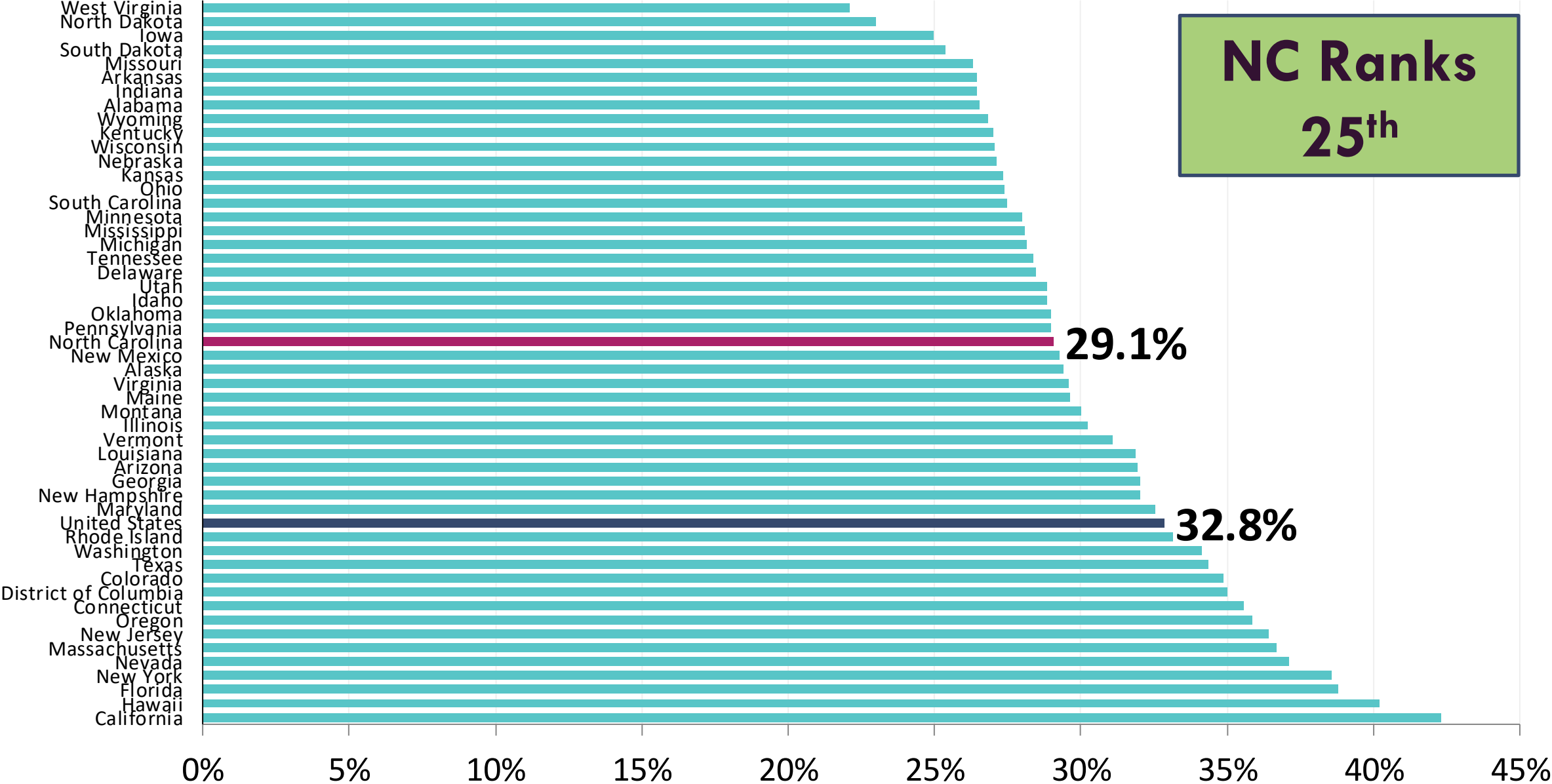
# Typical Home Value

## Jan 2000 - Oct 2024



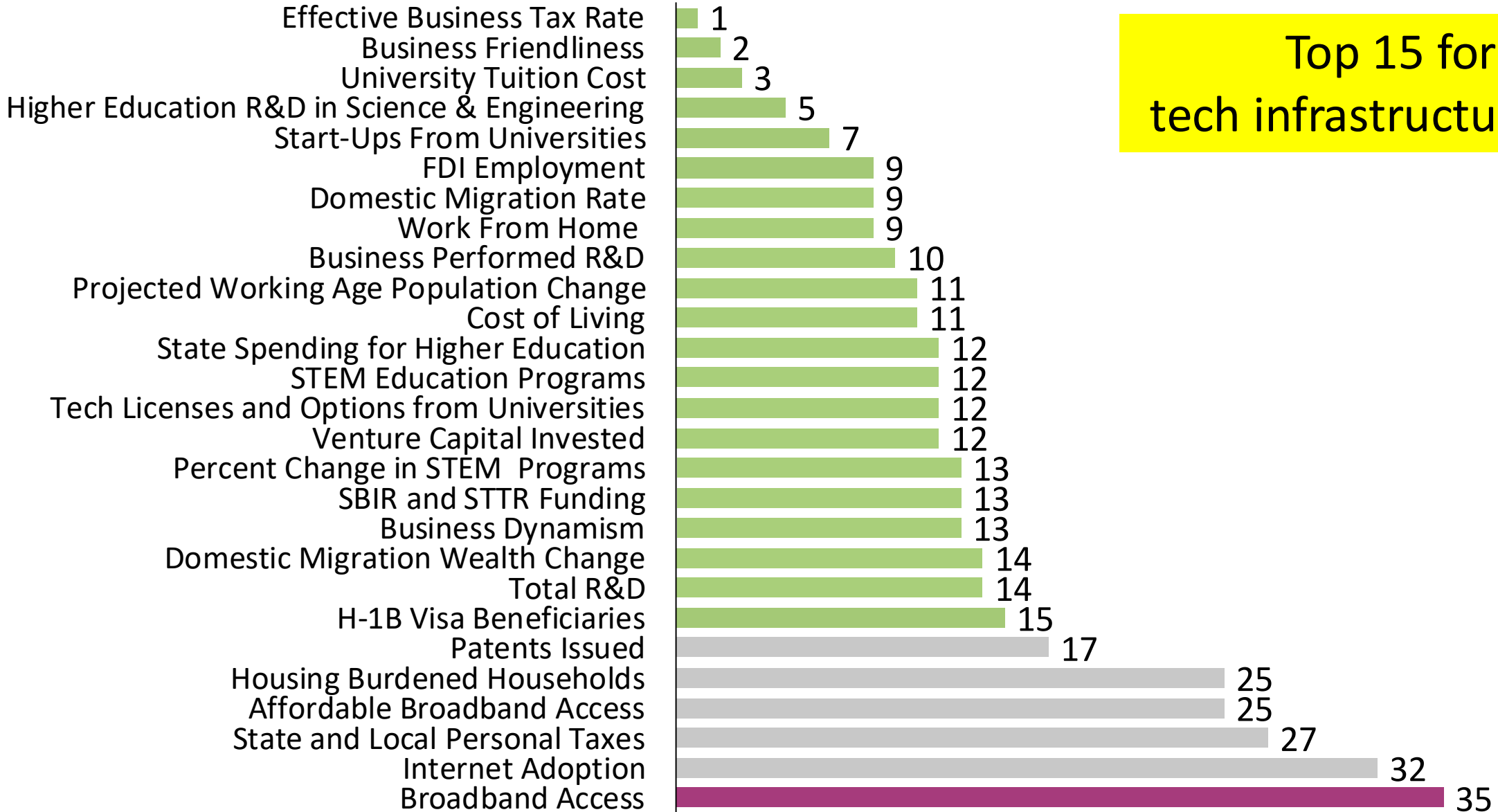


# Share of Housing Burdened Households (2023)



Source: US Census Bureau (2024)

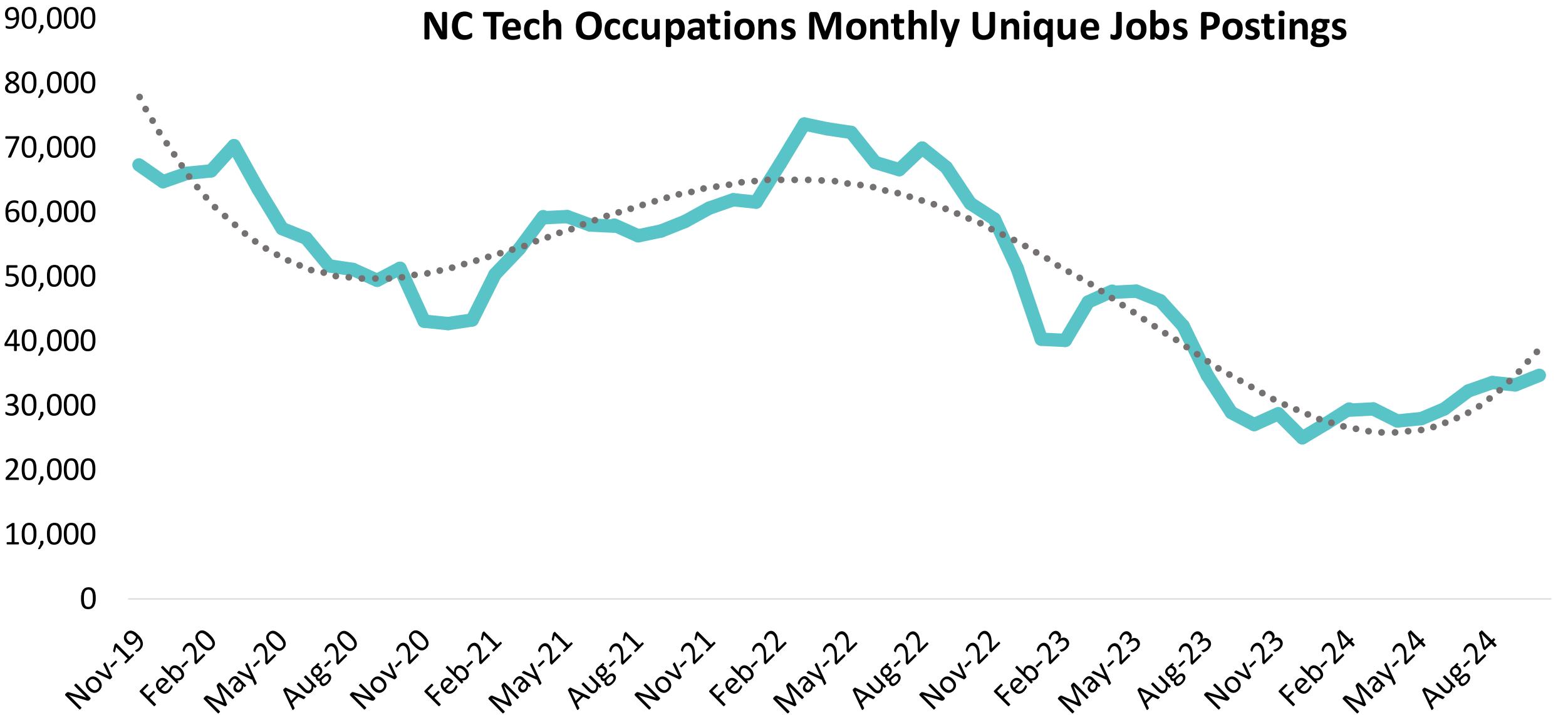
# North Carolina State Rankings for Tech Infrastructure Indicators



Top 15 for 21  
tech infrastructure metrics

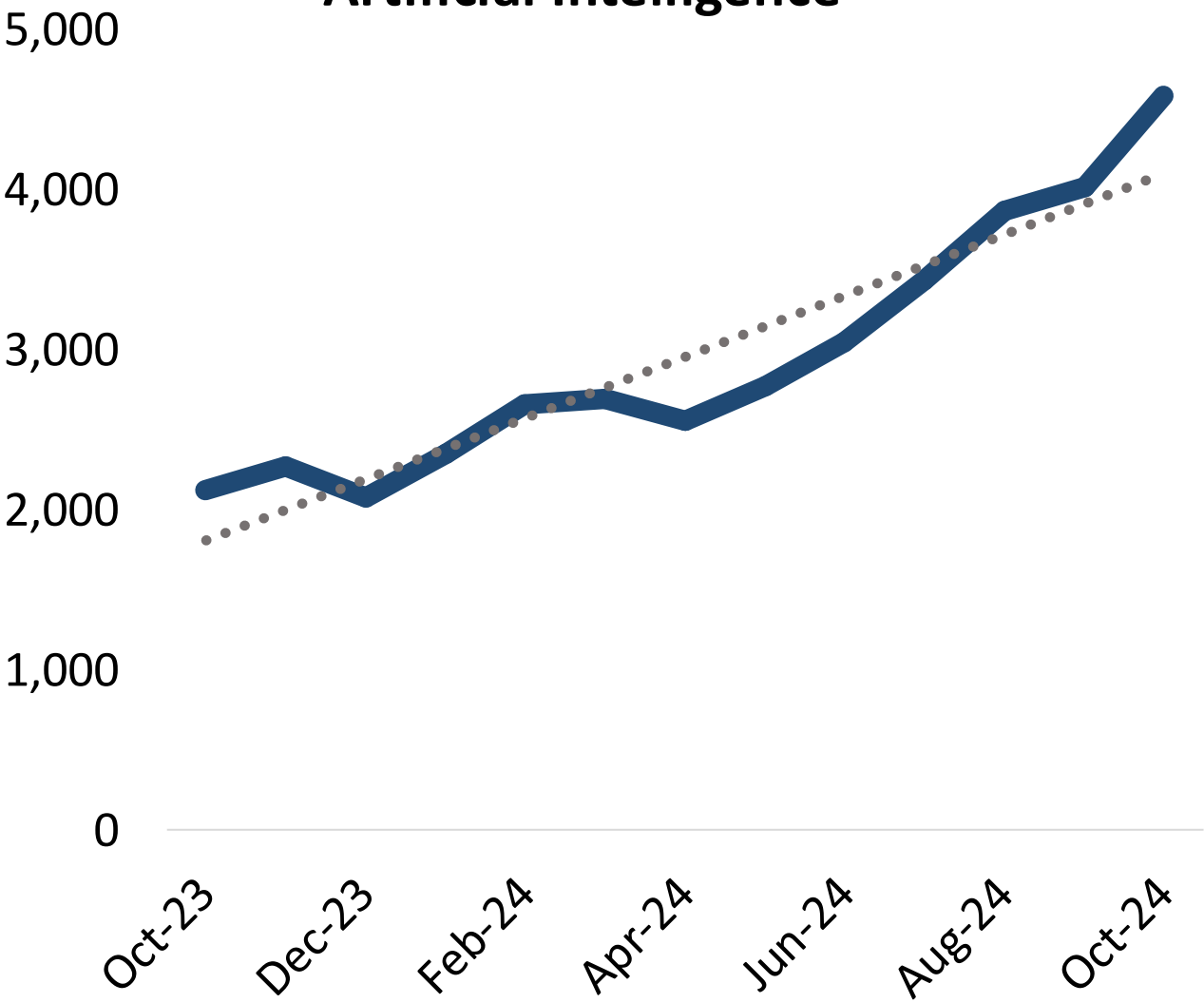
# The future...

## NC Tech Occupations Monthly Unique Jobs Postings

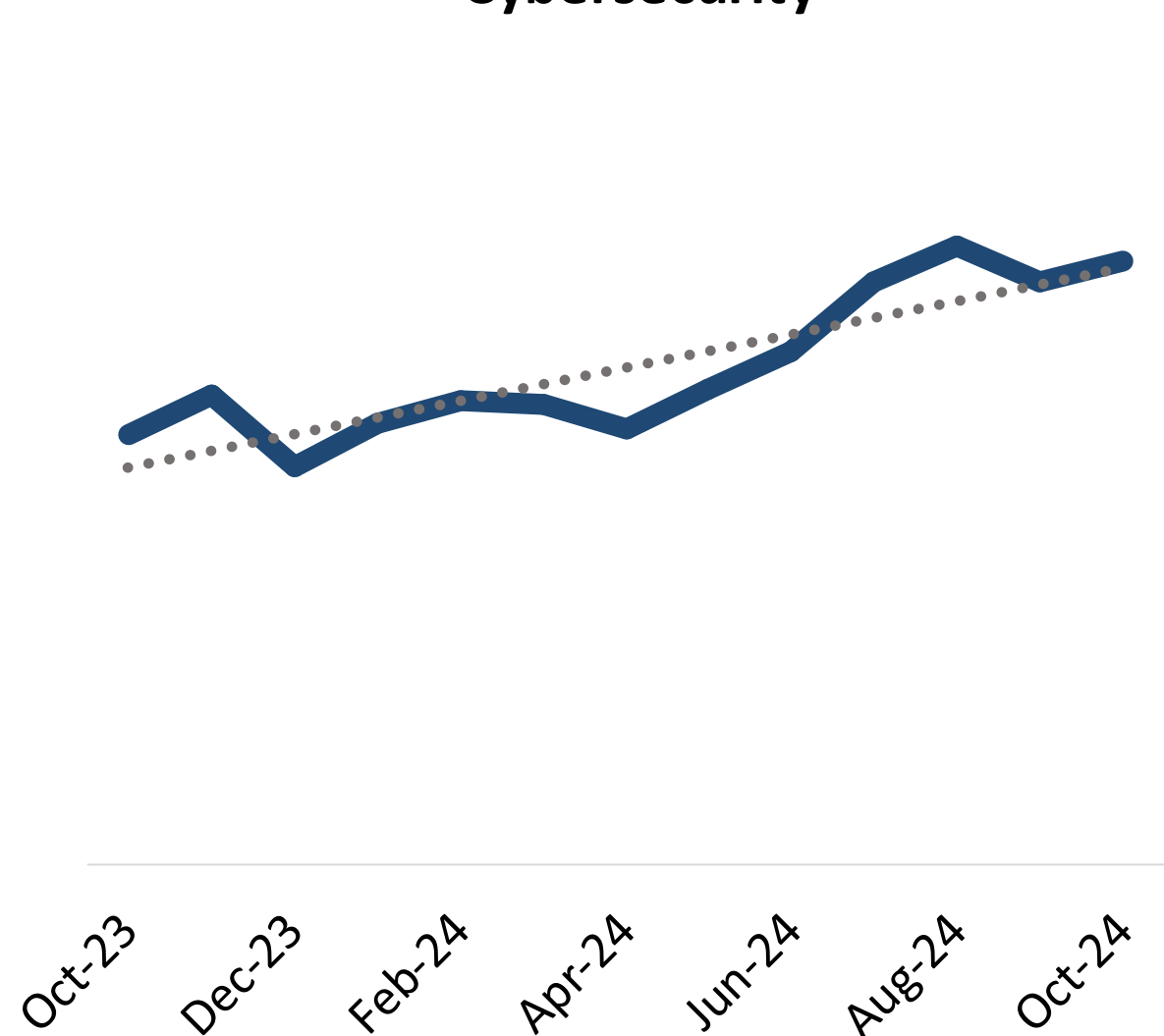


# NC Job Postings in Emerging Tech Markets

## Artificial Intelligence



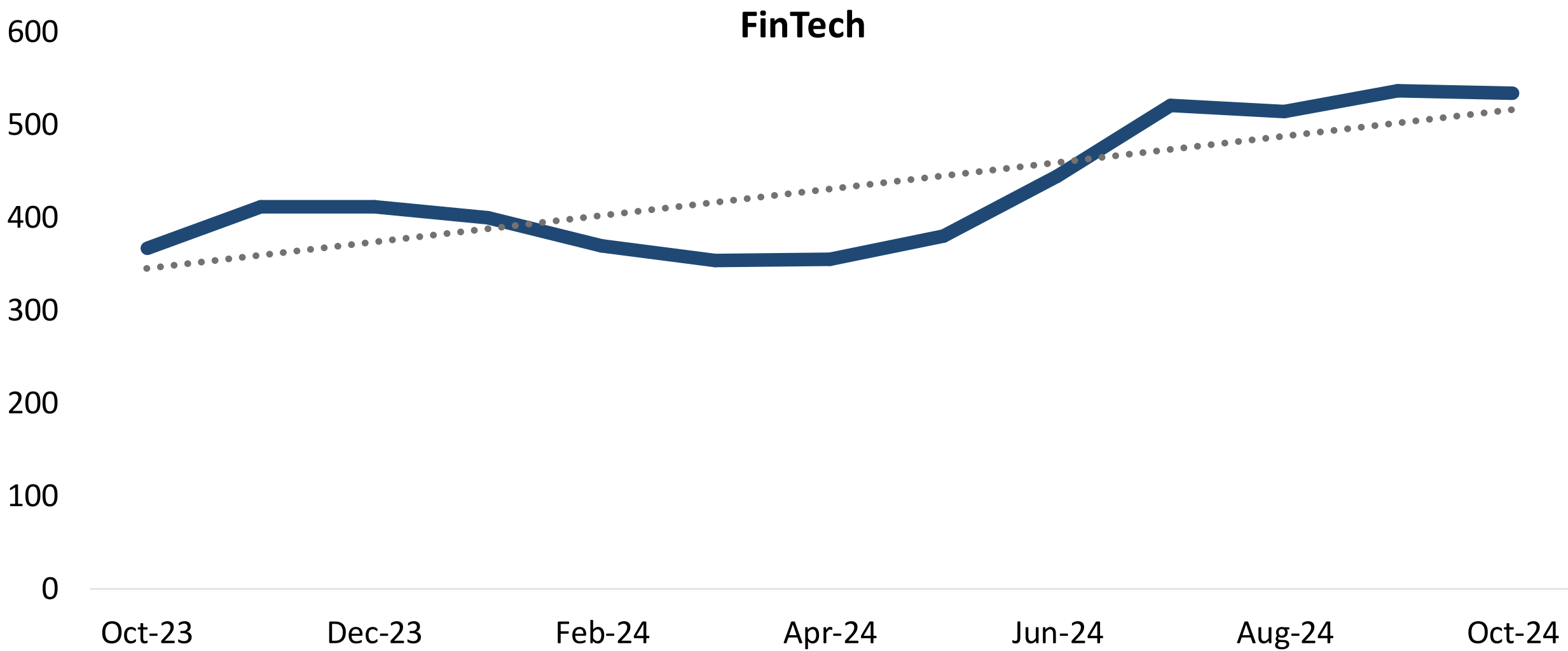
## Cybersecurity



Source: EL calculations based on Lightcast 2024.4



# NC Job Postings in Emerging Tech Markets





# 2024 Election Impacts

- Taxes
- Tariffs-Trade Wars
- Immigrants
- Crypto
- Stock Markets
- Deficits





# Uncertainty

Federal Funding/Role

Geopolitics

Industrial Policy

Federal Reserve

Power Generation Choices

Migration Patterns

Military

Consumer Response

Business Investment

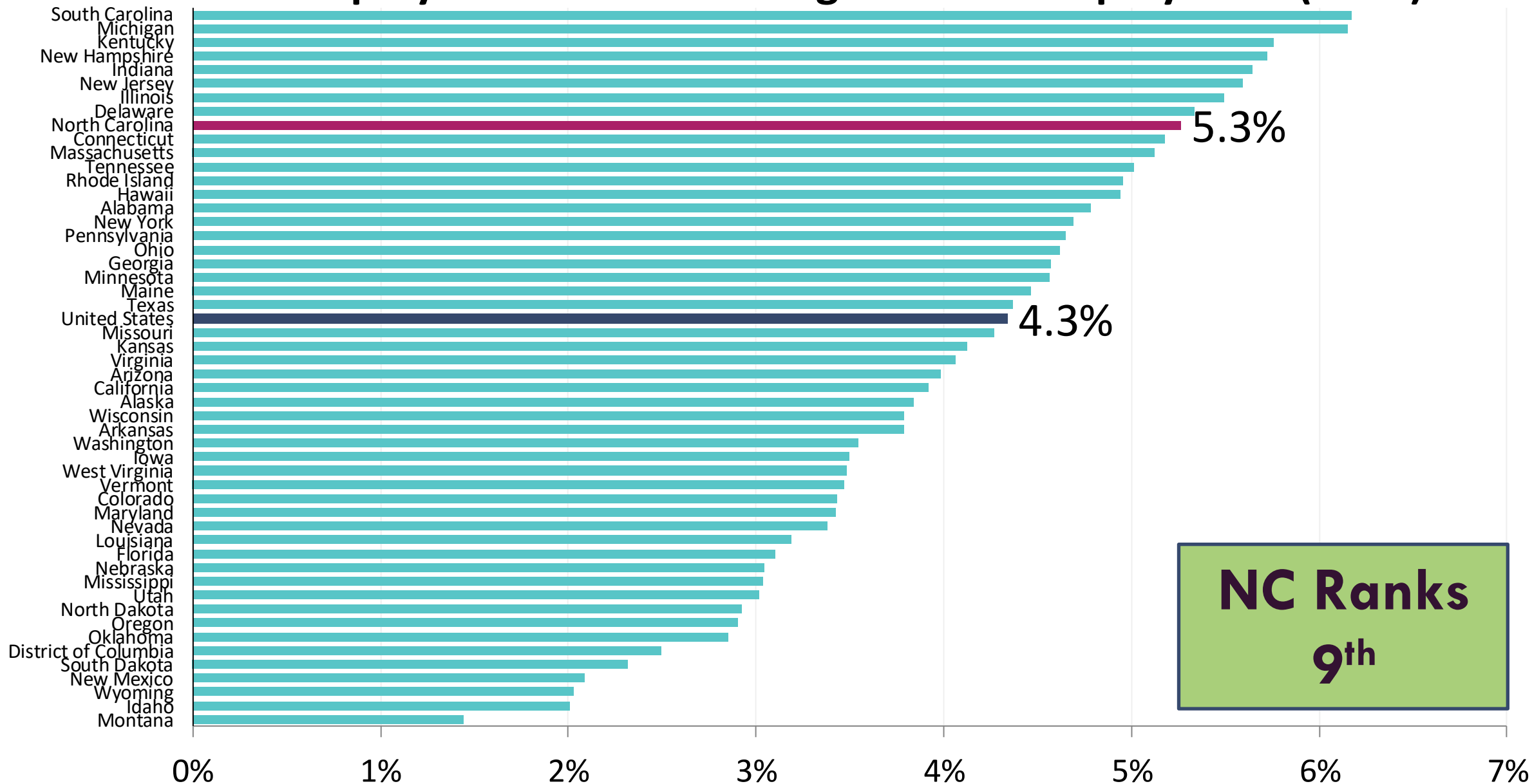




# Research and Development Impact on NC

FUNDING SOURCE	NC RANKING
Federal	17th
Business	10th
Academic	6th
State	33rd
TOTAL R&D	14th

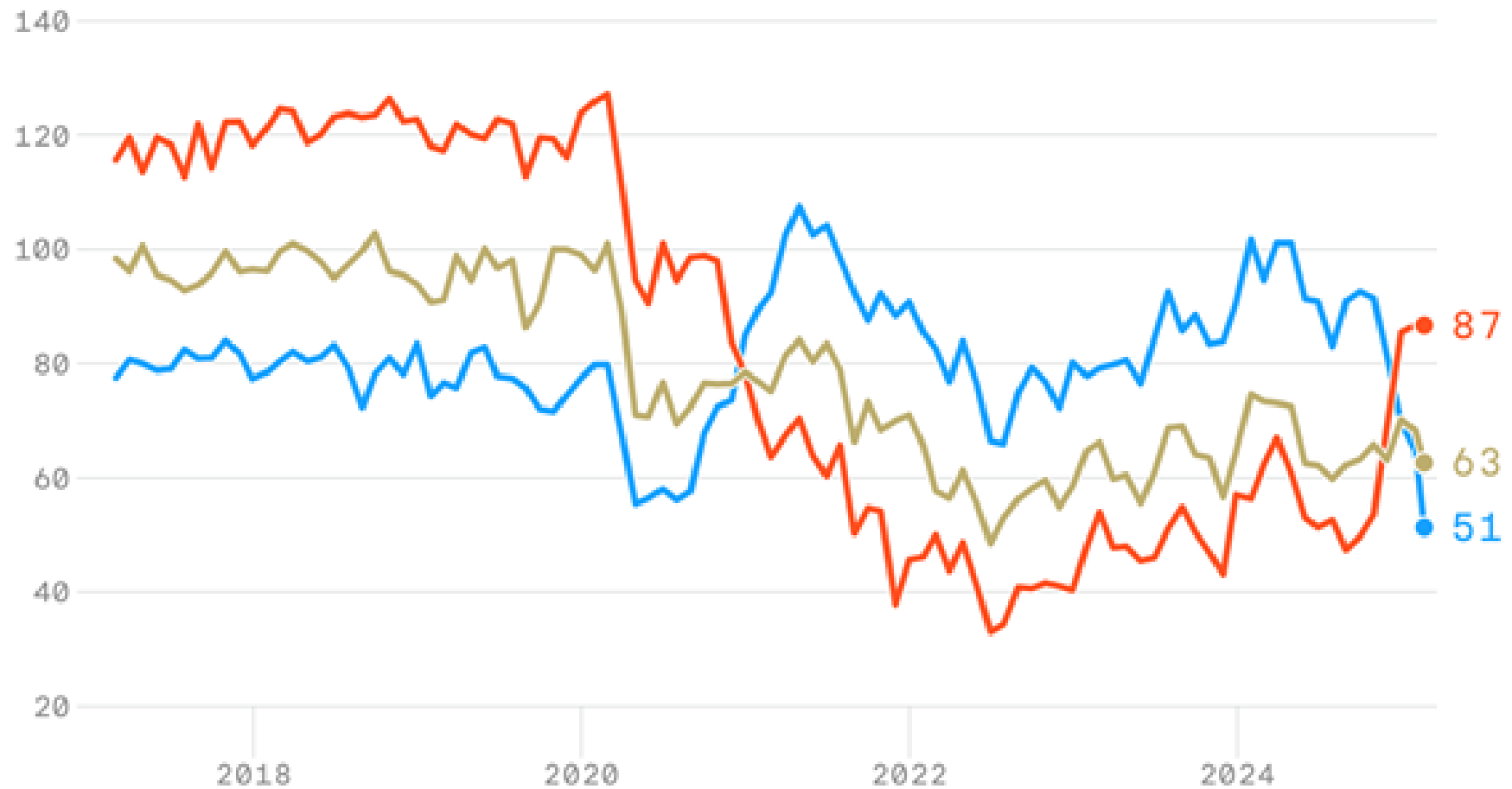
# FDI Employment as a Percentage of Total Employment (2021)



# University of Michigan consumer sentiment index by political party

Monthly; February 2017 to February 2025

— Republicans — Independents — Democrats



Data: University of Michigan: FactSet: Chart: Axios Visuals

# Q&A

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**Ted Abernathy**

