

NCTECH
Association

PRESENTING SPONSOR



OUTLOOK FOR TECH

10th Year

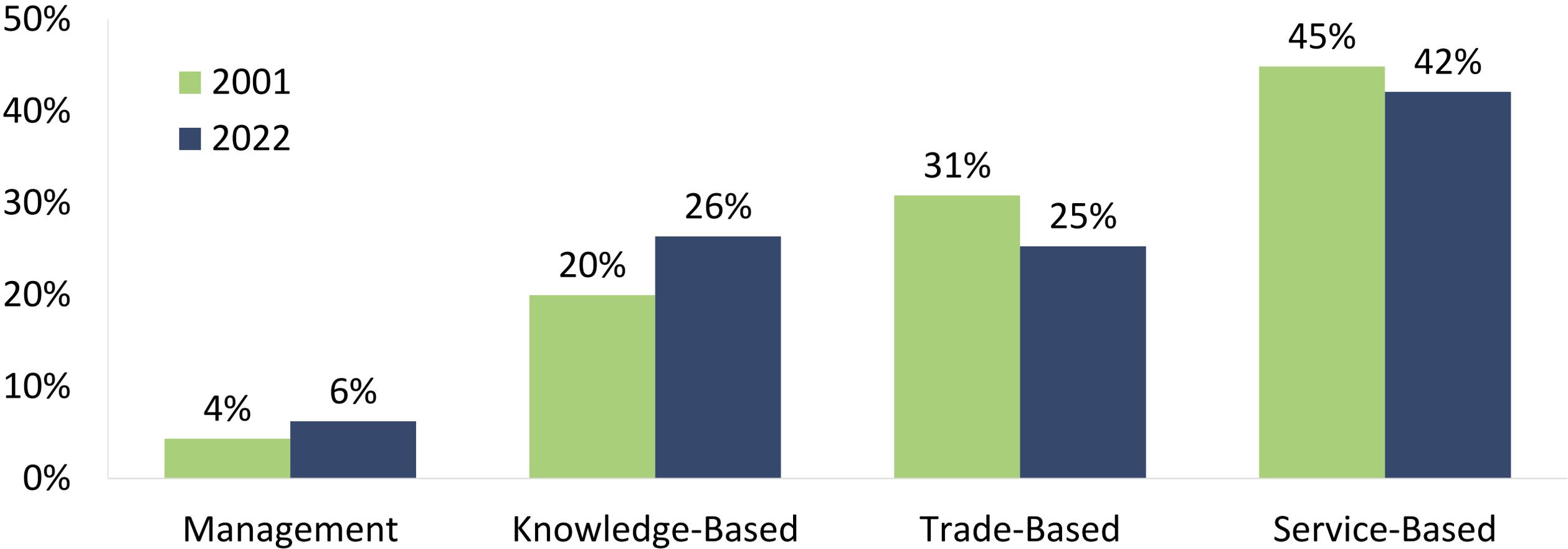
2024 PREDICTIONS STATE OF THE INDUSTRY TECH TRENDS

2|2|2024 UNC CHARLOTTE MARRIOTT
HOTEL & CONVENTION CENTER



North Carolina's economy continues to evolve...

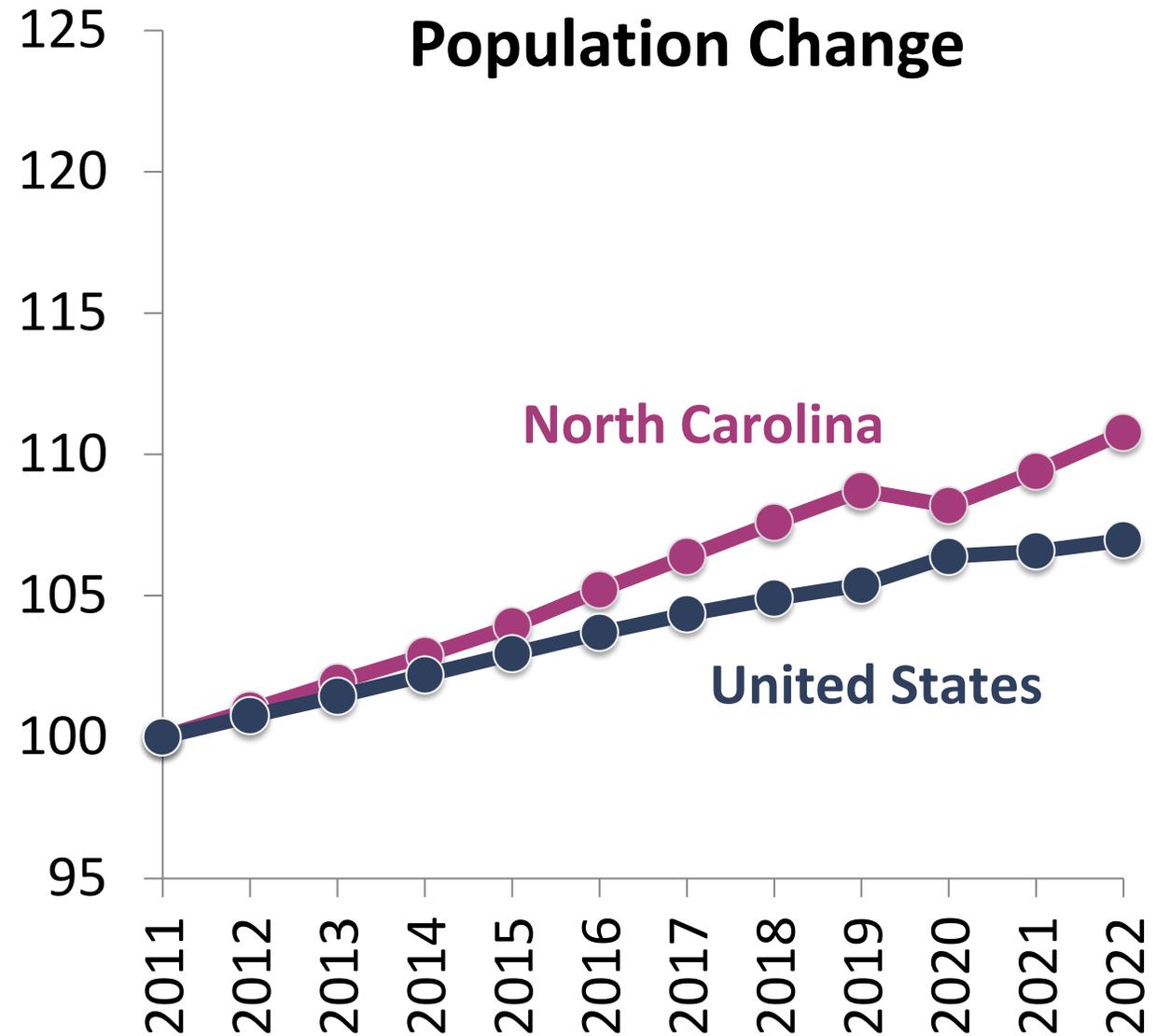
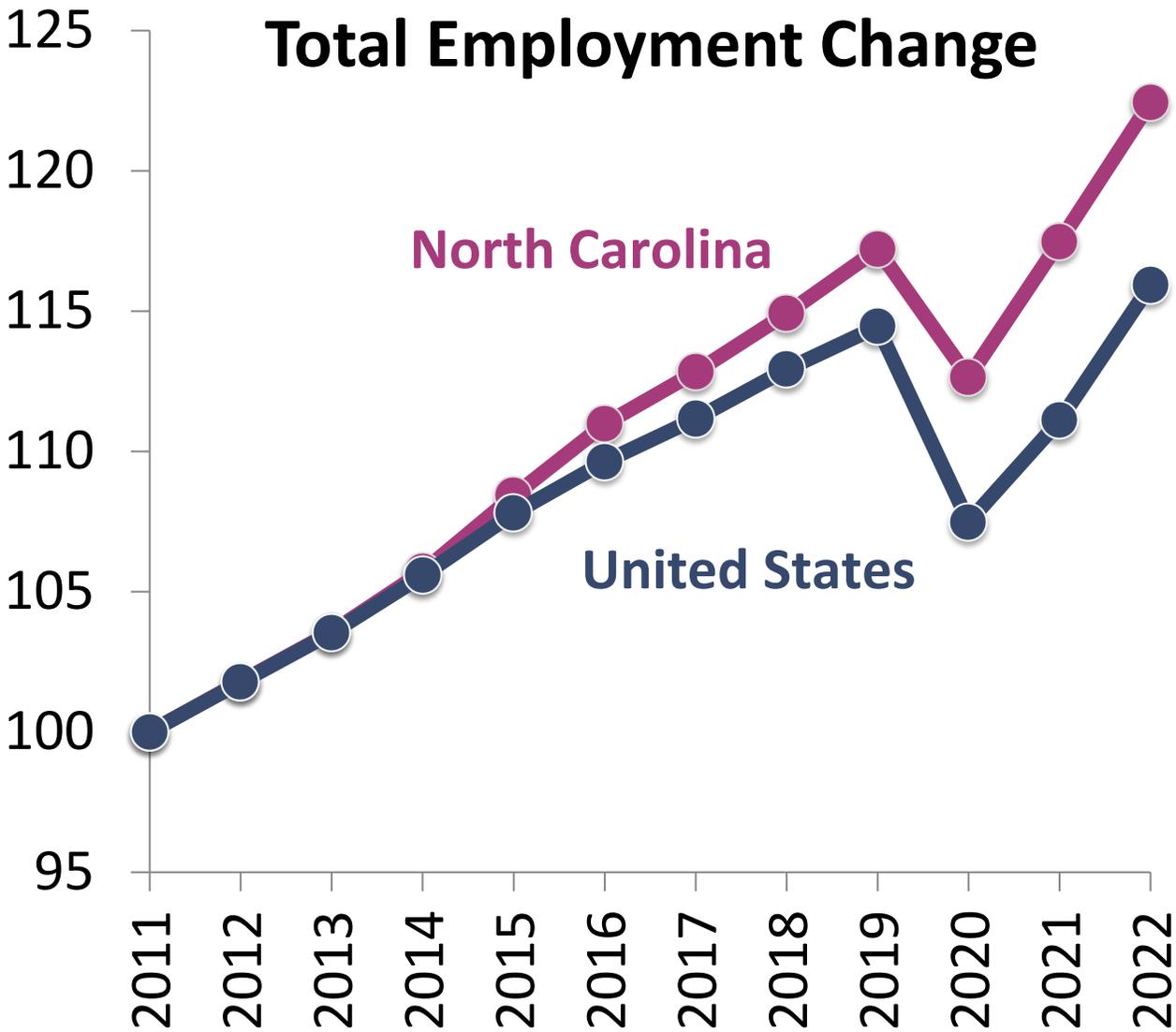
Occupational Share of North Carolina's Economy



Source: EL calculations based on Lightcast 2023.4

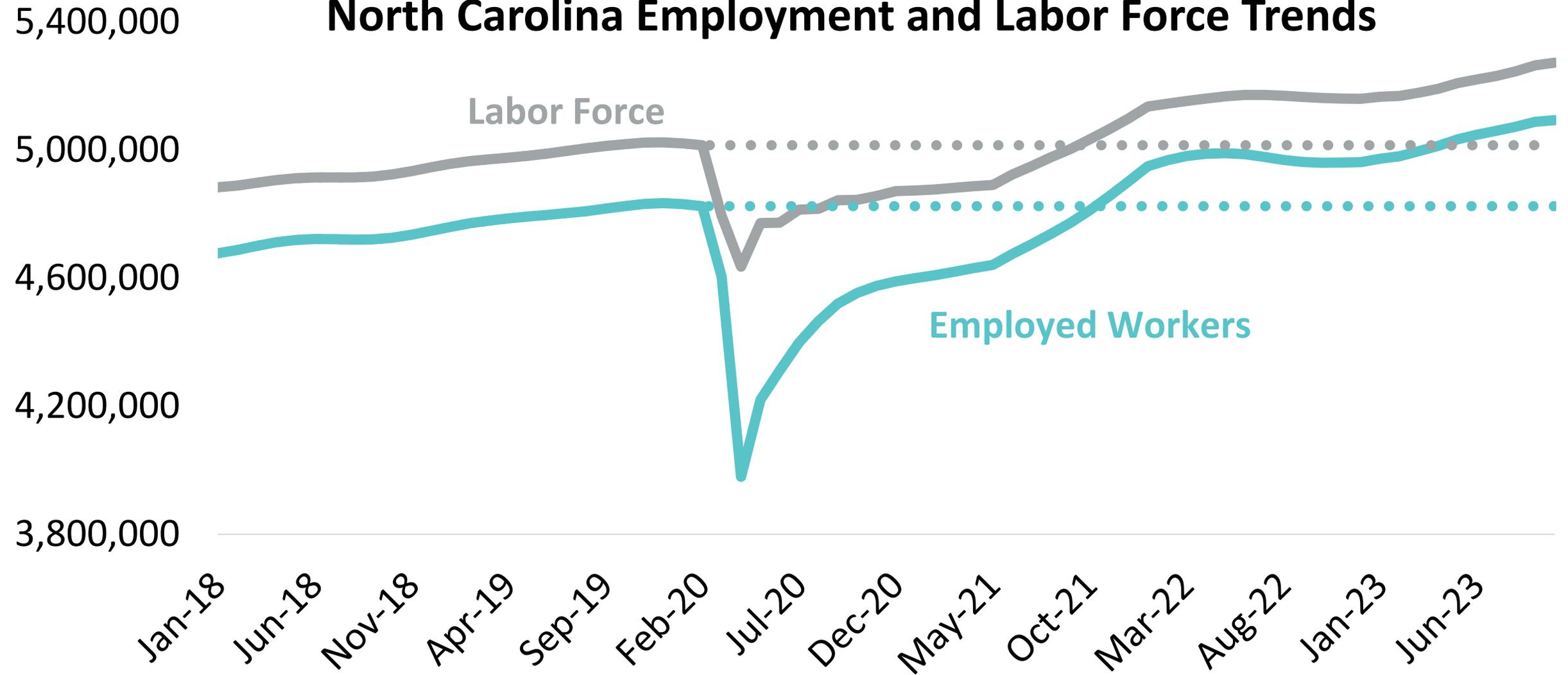


North Carolina is growing faster than the nation...



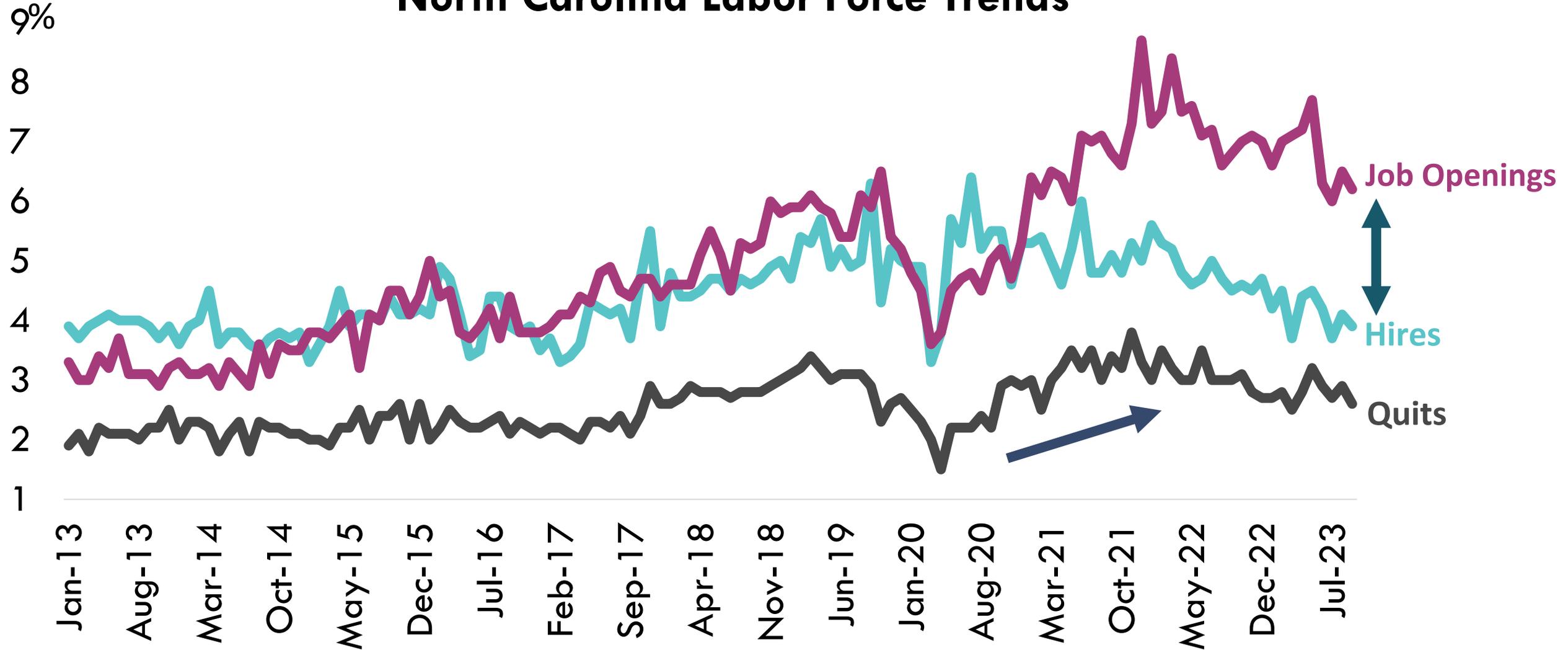
North Carolina's economy quickly renormalized post-pandemic...

North Carolina Employment and Labor Force Trends



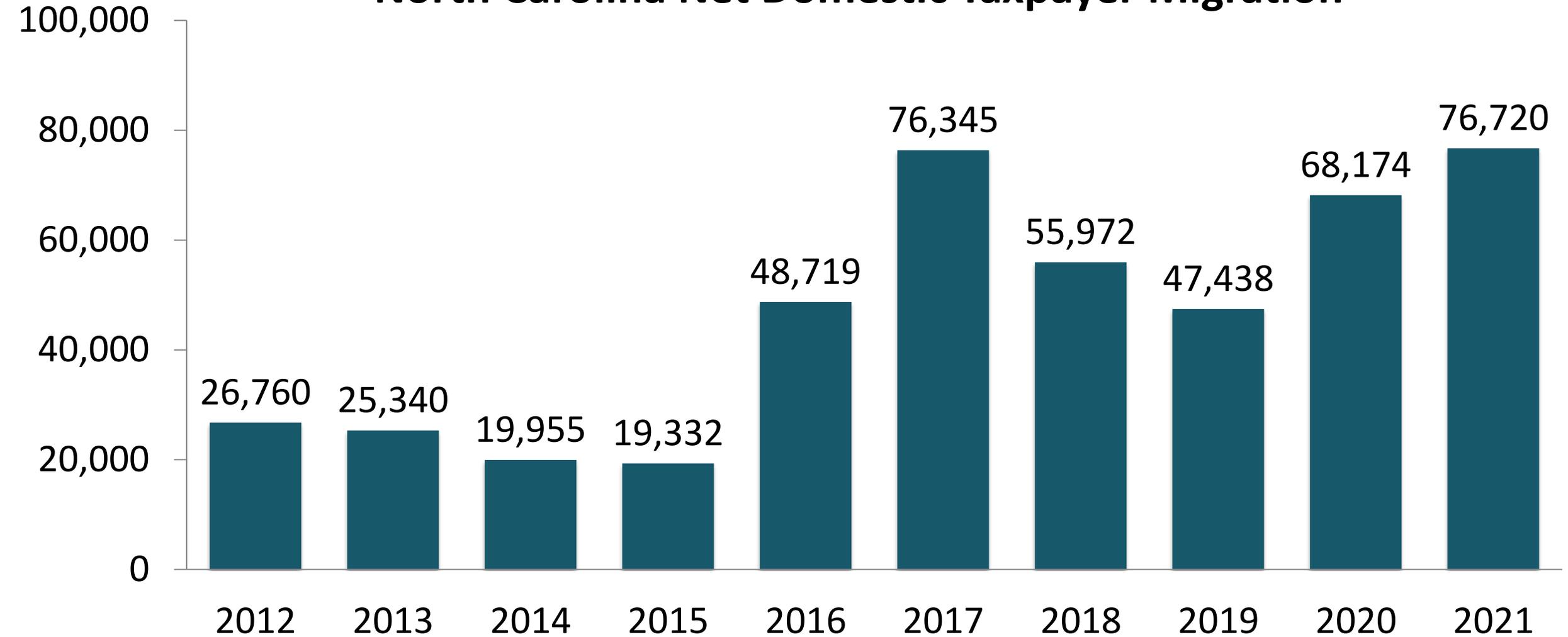
The economy could be larger with more talent...

North Carolina Labor Force Trends



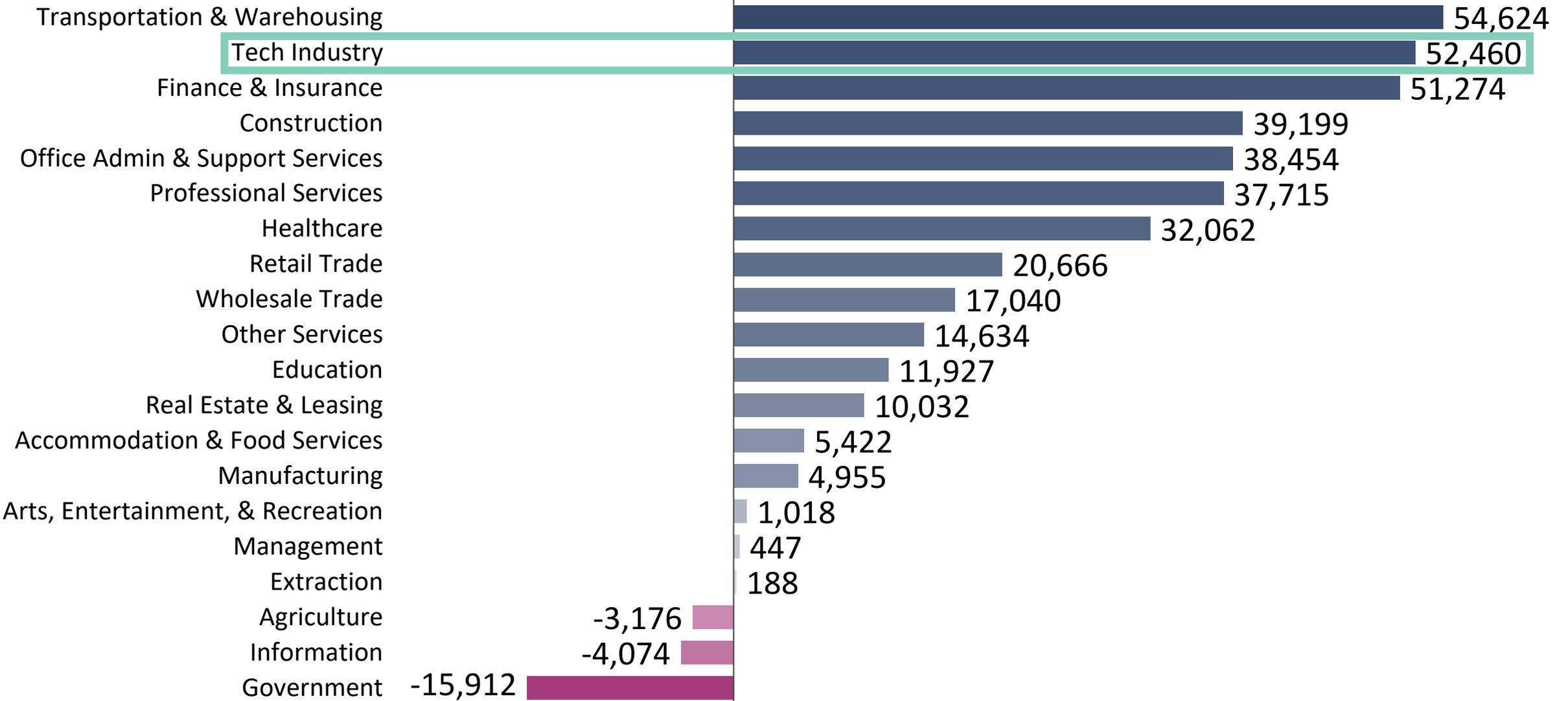
North Carolina continues to gain from state-to-state migration...

North Carolina Net Domestic Taxpayer Migration



Tech industry has played important role in the recovery...

Net Job Change in North Carolina by Industry, 2017-2022





**10TH ANNUAL
NCSTIR**

North Carolina

**STATE OF
TECHNOLOGY**

2024 Industry Report + State Rankings



Measuring the Tech Sector Methodology

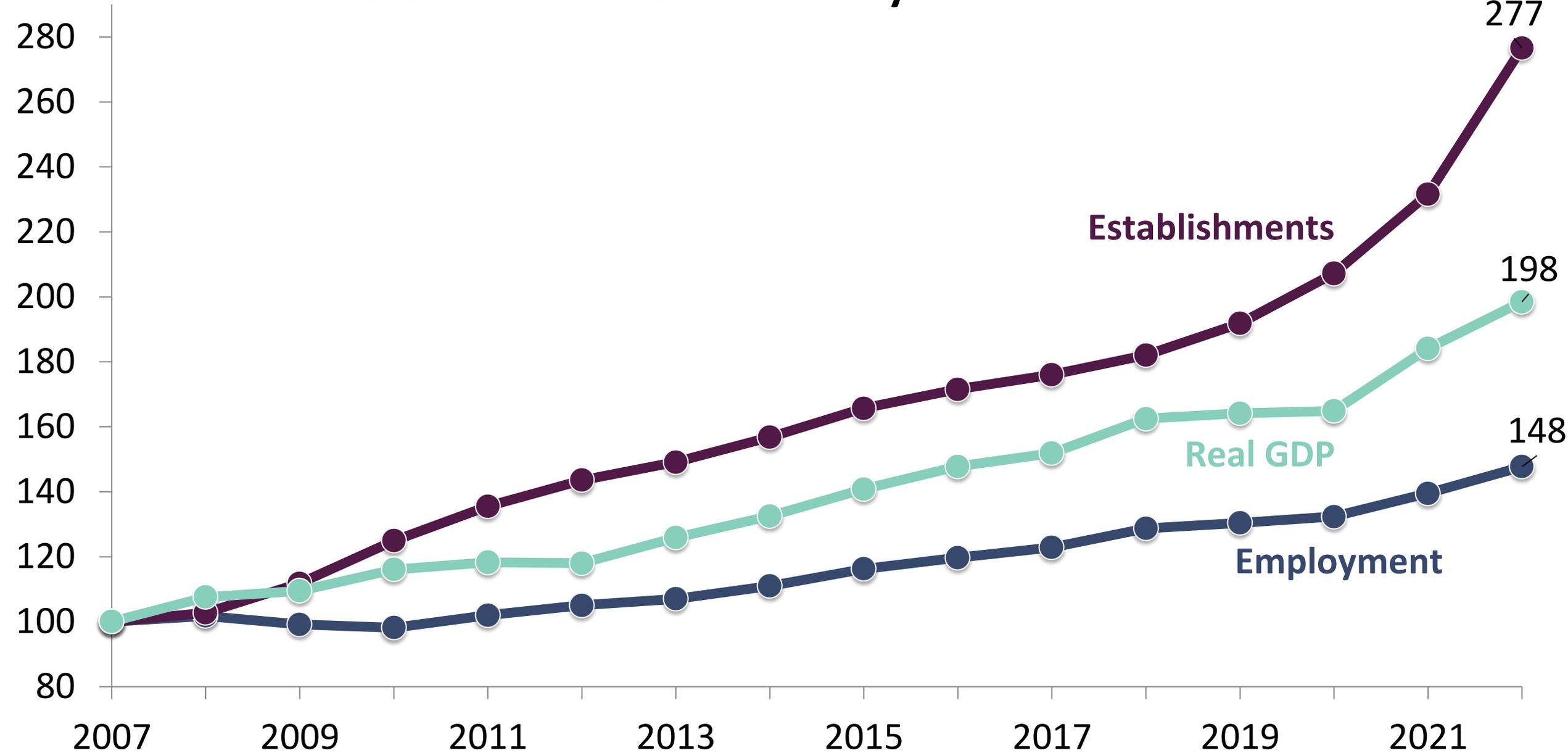
- **Data from Lightcast, based on Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages**
- **86 separate 6-digit NAICS code sectors to characterize the Total Technology Sector**
- **Total Technology Sector further broken down into four sub-categories:**
 - Energy Technology
 - Environmental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

North Carolina Tech Industry Summary Statistics

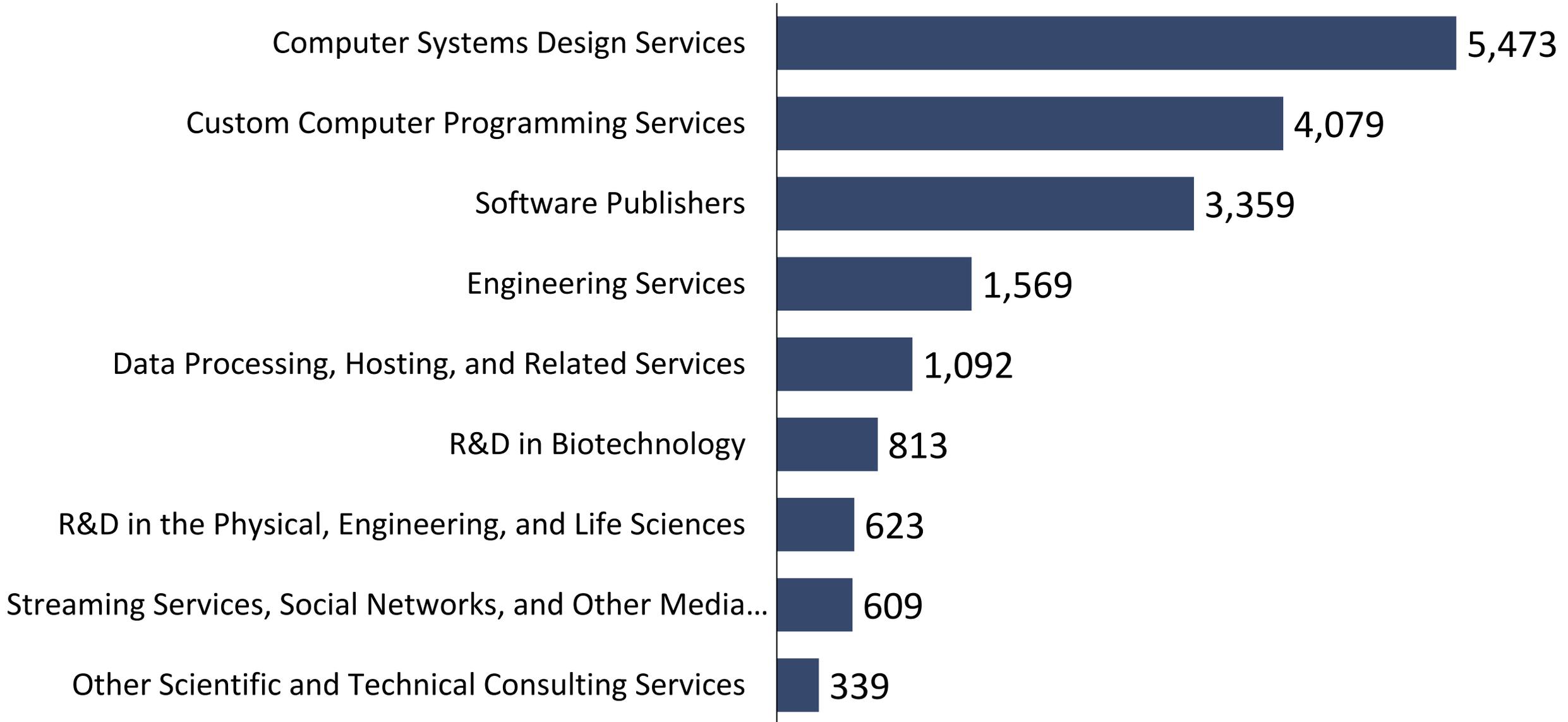
Indicator	Technology Industry	State Total	State Total Percentage
Employees	312,070	4,699,550	6.6%
Establishments	30,386	346,830	8.8%
Wages (millions)	\$39,770	\$332,490	12.0%

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

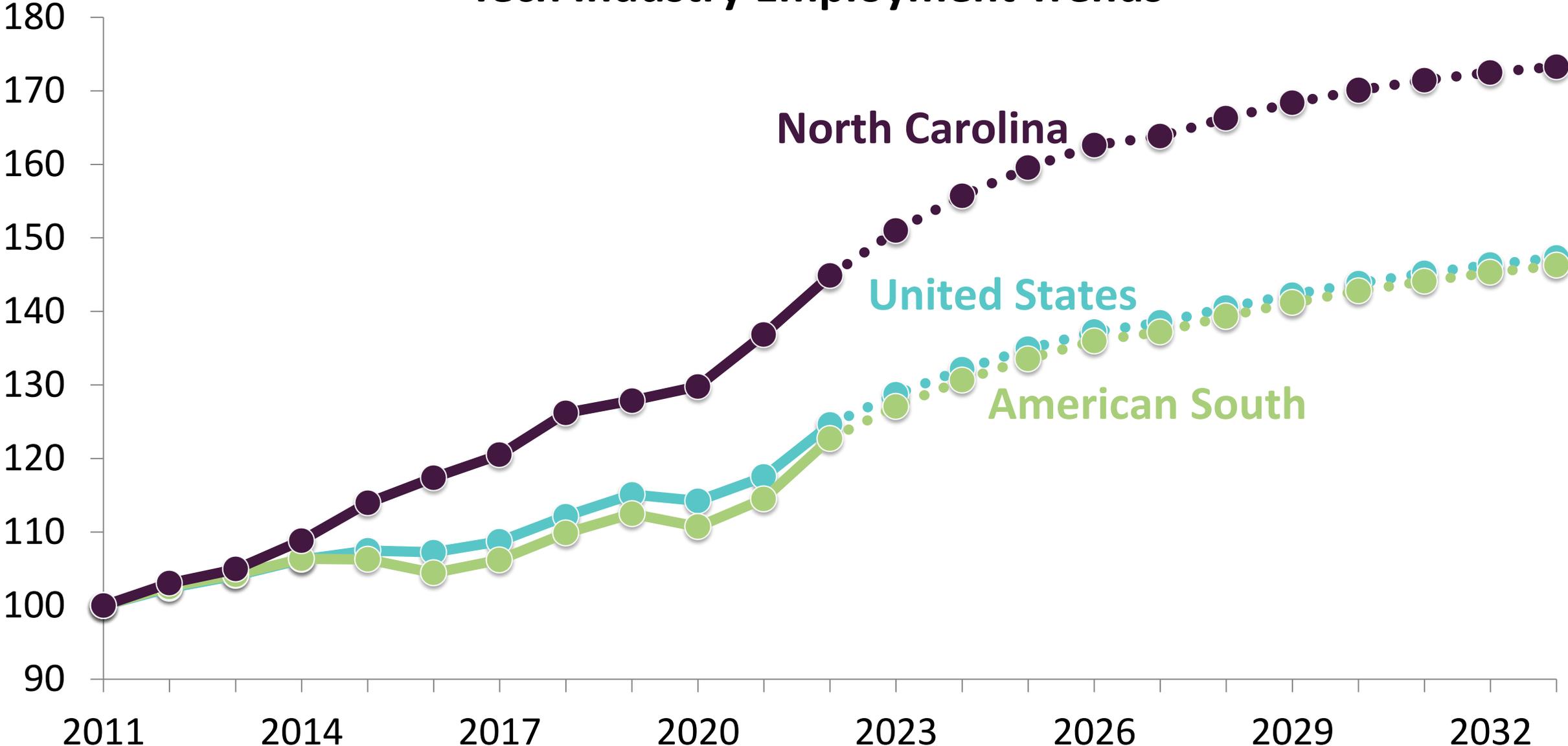
North Carolina Tech Industry Growth Metrics



North Carolina Tech Industry Top Establishment Change, 2007-2022

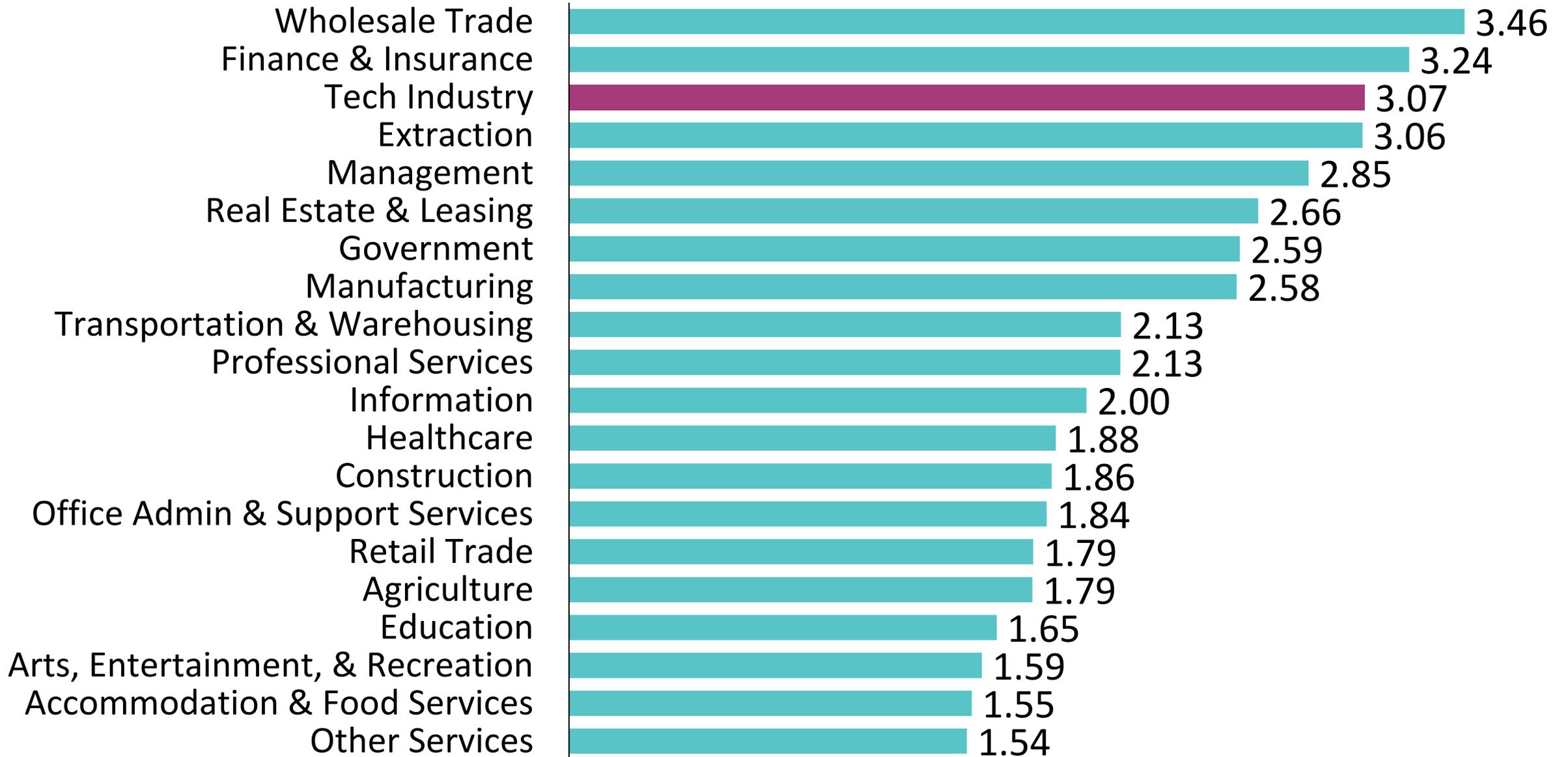


Tech Industry Employment Trends

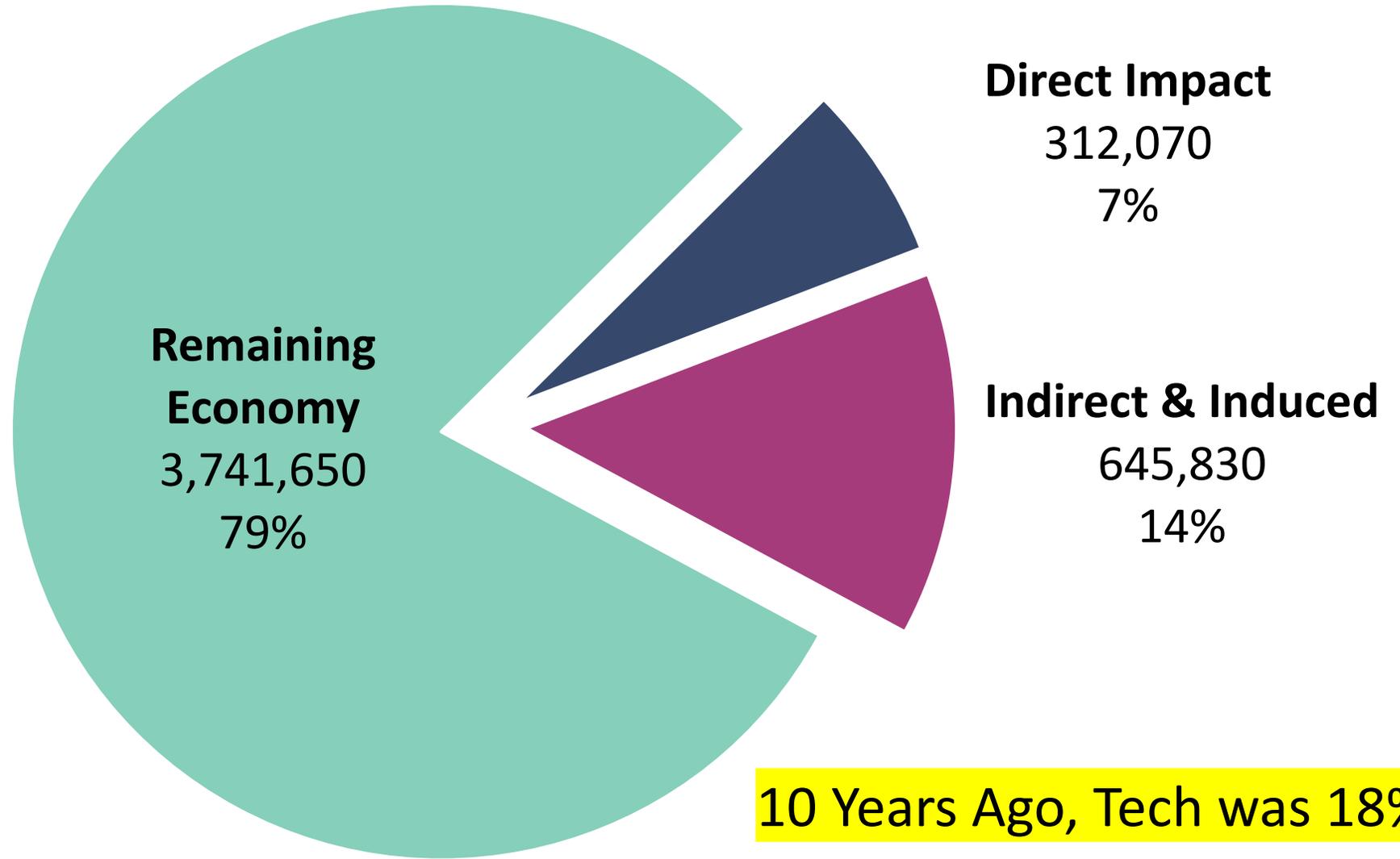


Source: EL calculations based on Lightcast 2023.4

North Carolina Job Multiplier by Industry, 2022



Tech's Contribution to North Carolina's Economy- 21%



North Carolina Tech Industry by Sub-Categories

Technology Categories	Employment, 2022	Employment Change, 2021-2022	Employment Change, 2017-2022
Energy Tech	14,222	5.8%	7.2%
Enviro Tech	21,836	-18.0%	-8.4%
Life Sciences	106,752	8.8%	32.7%
IT	169,260	8.0%	19.1%
TOTAL TECH	312,070	5.8%	20.2%

North Carolina Tech Industry by Output Groups

Output Group	Employment, 2022	Employment Change, 2021-2022	Employment Change, 2017-2022
Tech Services	246,964	8.6%	26.3%
Tech Manufacturing	65,106	-3.6%	1.5%
TOTAL TECH	312,070	5.8%	20.2%

10 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	\$154,800	\$165,000	\$172,700
Environmental Tech	\$82,900	\$88,400	\$92,900
Life Sciences	\$130,500	\$139,200	\$147,800
IT	\$144,900	\$154,400	\$178,200
Output Group	North Carolina	North Carolina (Purchasing Power)	National Average
Tech Services	\$135,500	\$144,400	\$162,400
Tech Manufacturing	\$138,400	\$147,500	\$161,500
TOTAL TECH INDUSTRY	\$136,100	\$145,100	\$162,200

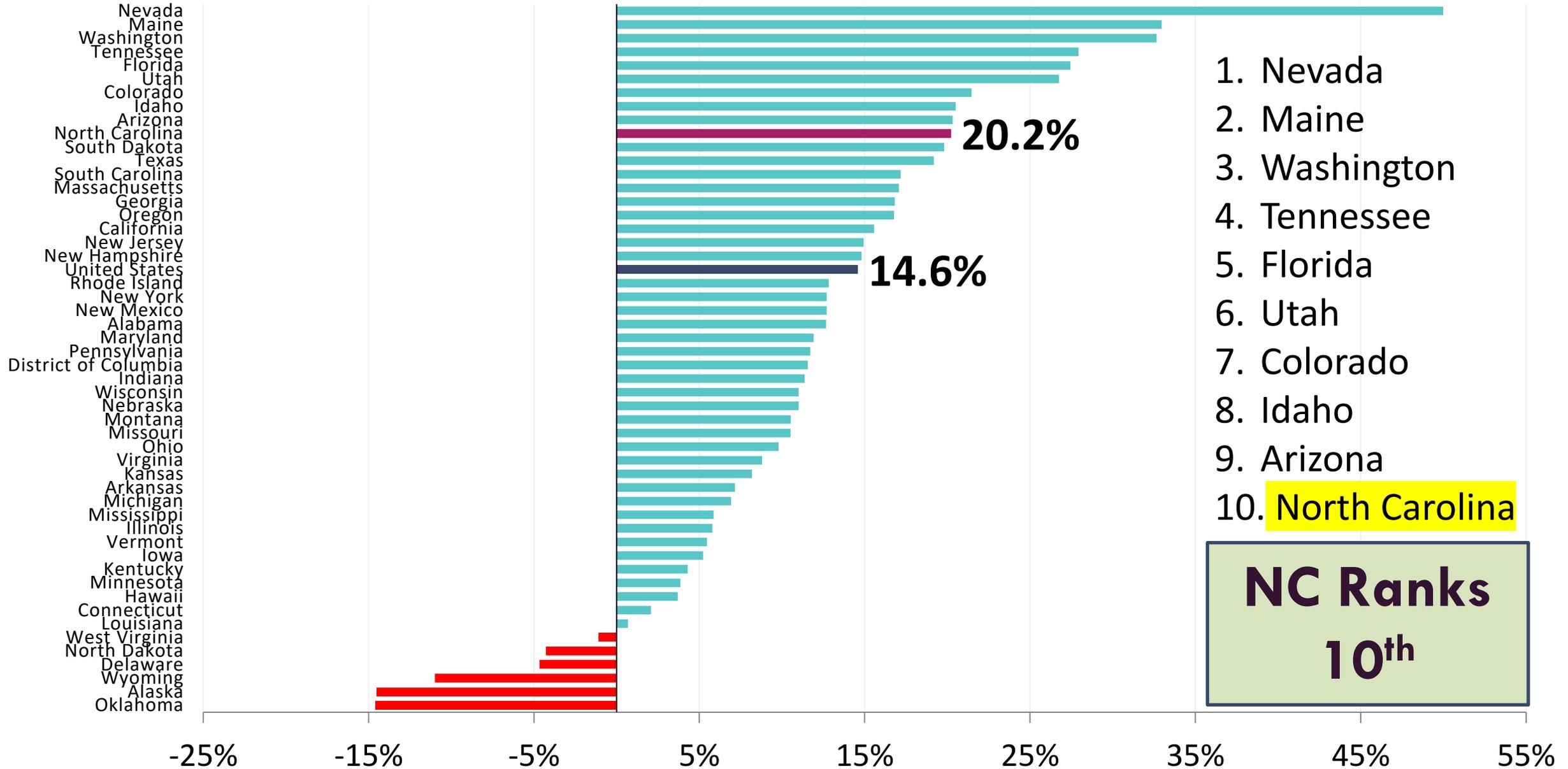
Source: EL calculations based on Lightcast 2023.4 and BEA (2023)



Tech Industry Super Sub-Industries

Sub-Industries	2022 Employment	Employment Change (2017-2022)	Concentration
Software	99,406	43%	1.02
Internet, Social Media, & Telecom	42,676	-9%	0.89
R&D and Testing	41,453	48%	1.09
Engineering, Environmental, & Clean Tech	40,665	12%	0.93
Life Sciences Manufacturing	33,475	14%	1.43
Electronics Hardware	27,177	7%	0.97
Other Energy and Power Generation	13,450	3%	0.46
Remediation and Waste Management	12,994	21%	0.86
Renewable Energy	772	199%	1.00
TOTAL TECH SECTOR	312,070	20%	0.97

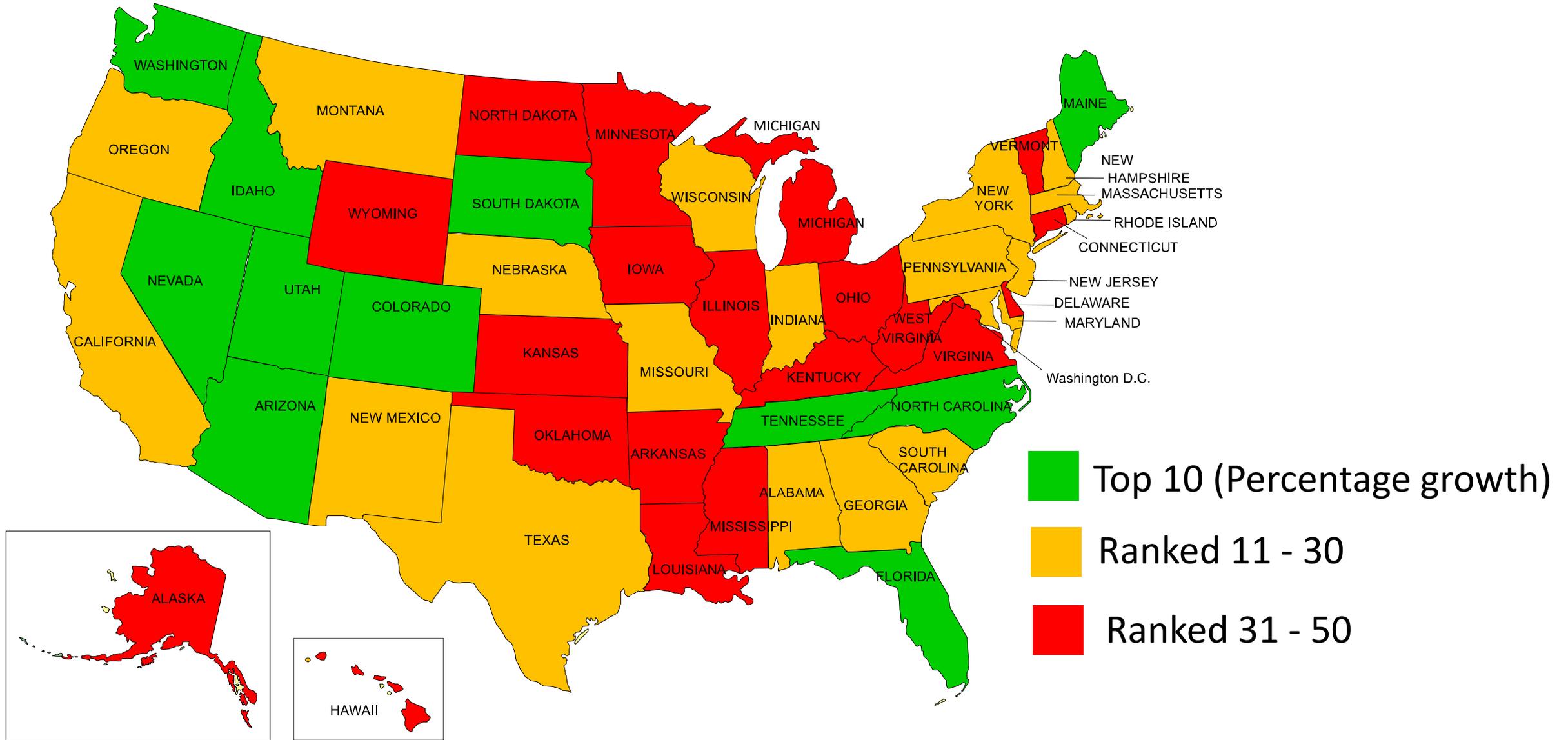
Tech Industry Employment Change, 2017 - 2022



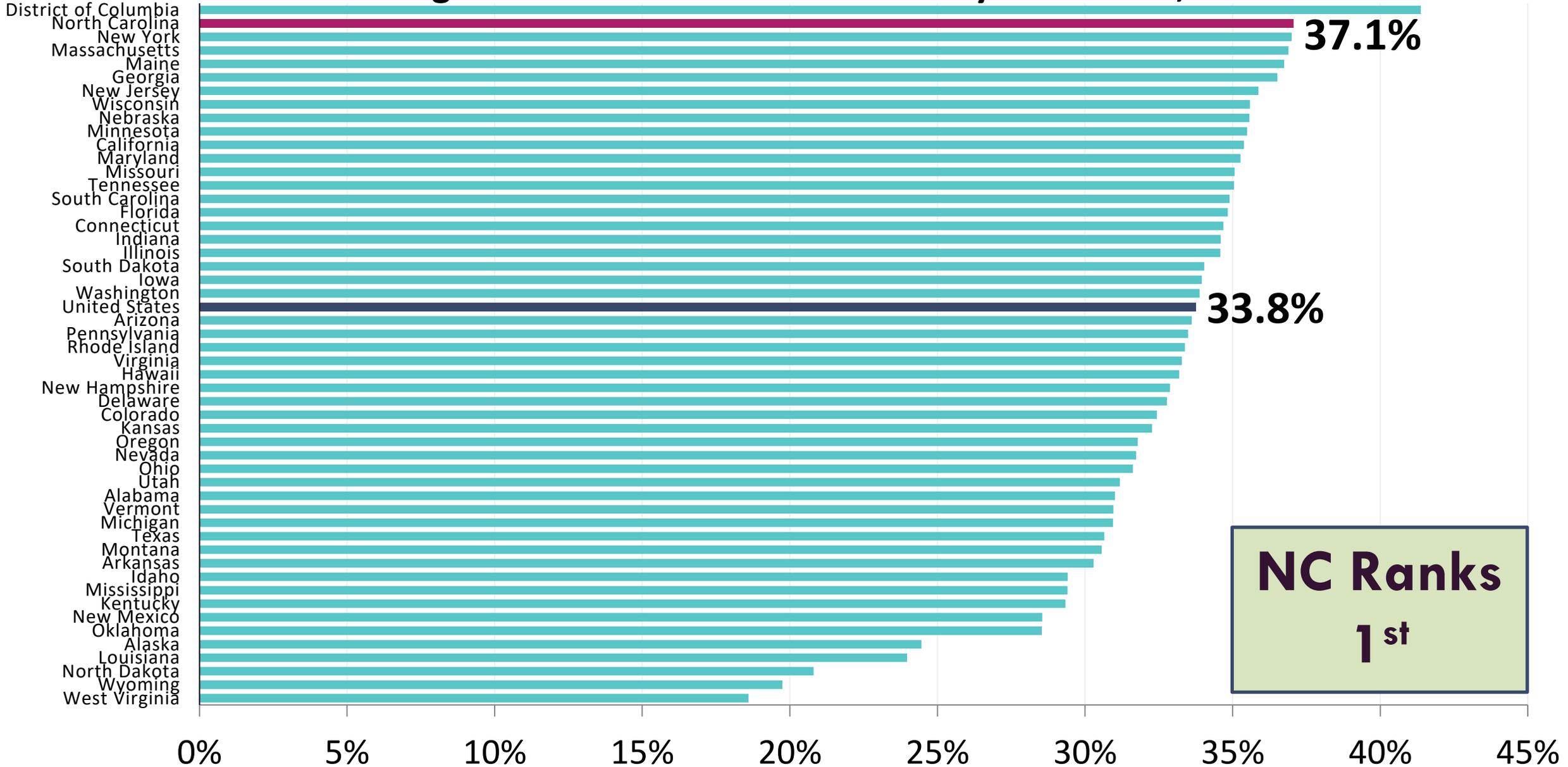
1. Nevada
2. Maine
3. Washington
4. Tennessee
5. Florida
6. Utah
7. Colorado
8. Idaho
9. Arizona
10. North Carolina

NC Ranks
10th

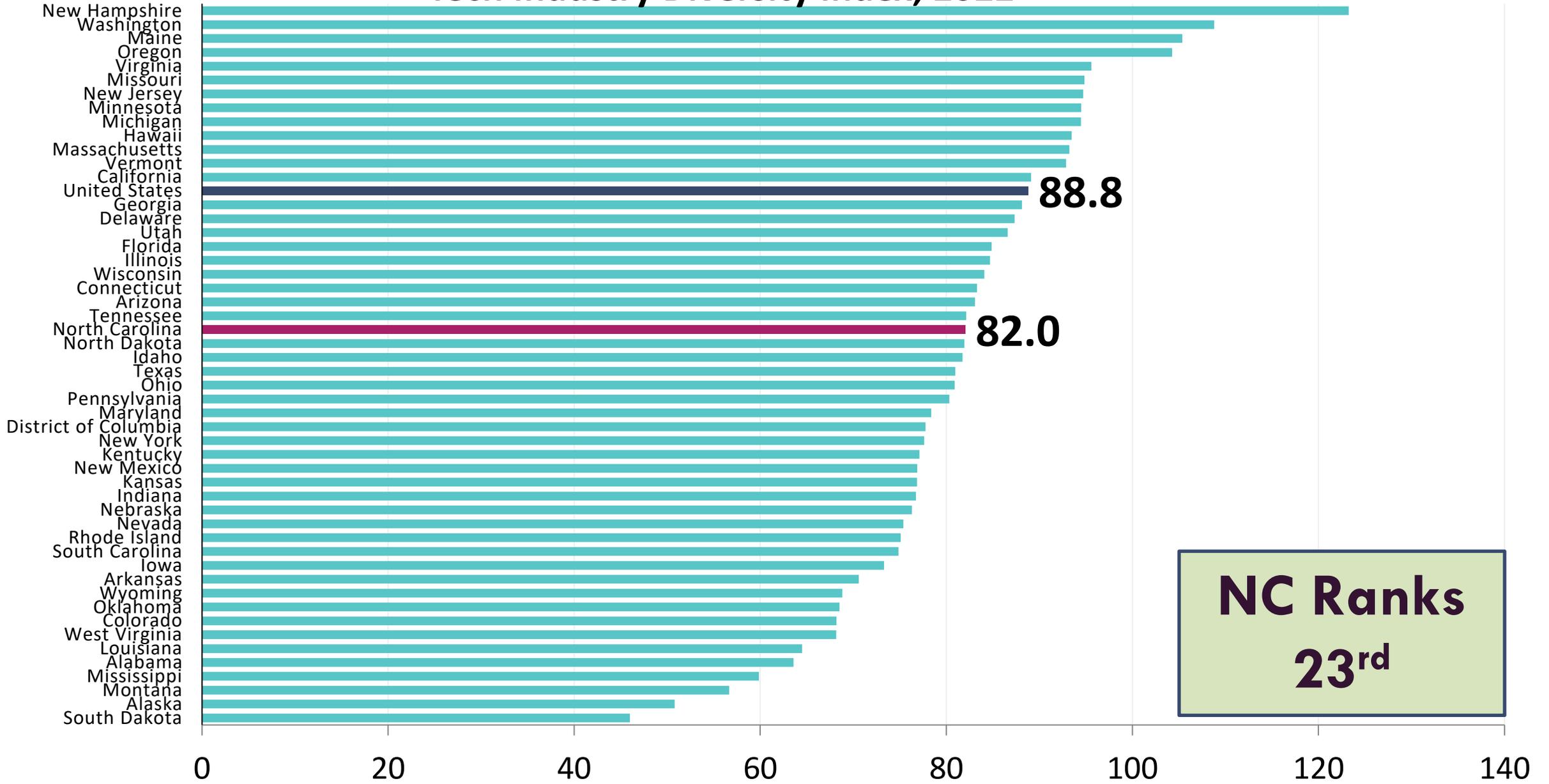
Tech Industry Employment Change, 2017 - 2022



Percentage of Women in the Tech Industry Workforce, 2022



Tech Industry Diversity Index, 2022

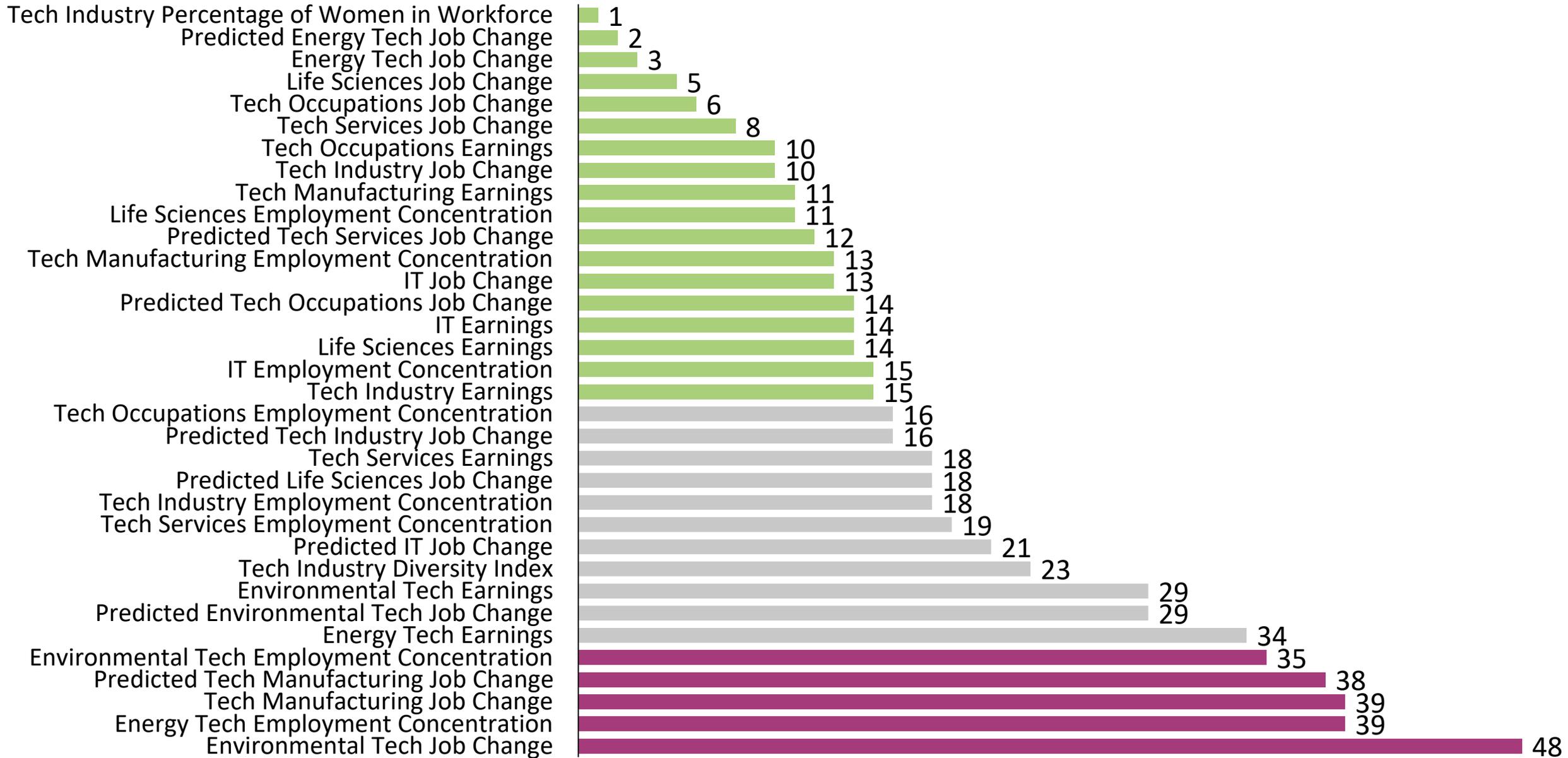


Source: EL calculations based on Lightcast 2023.4

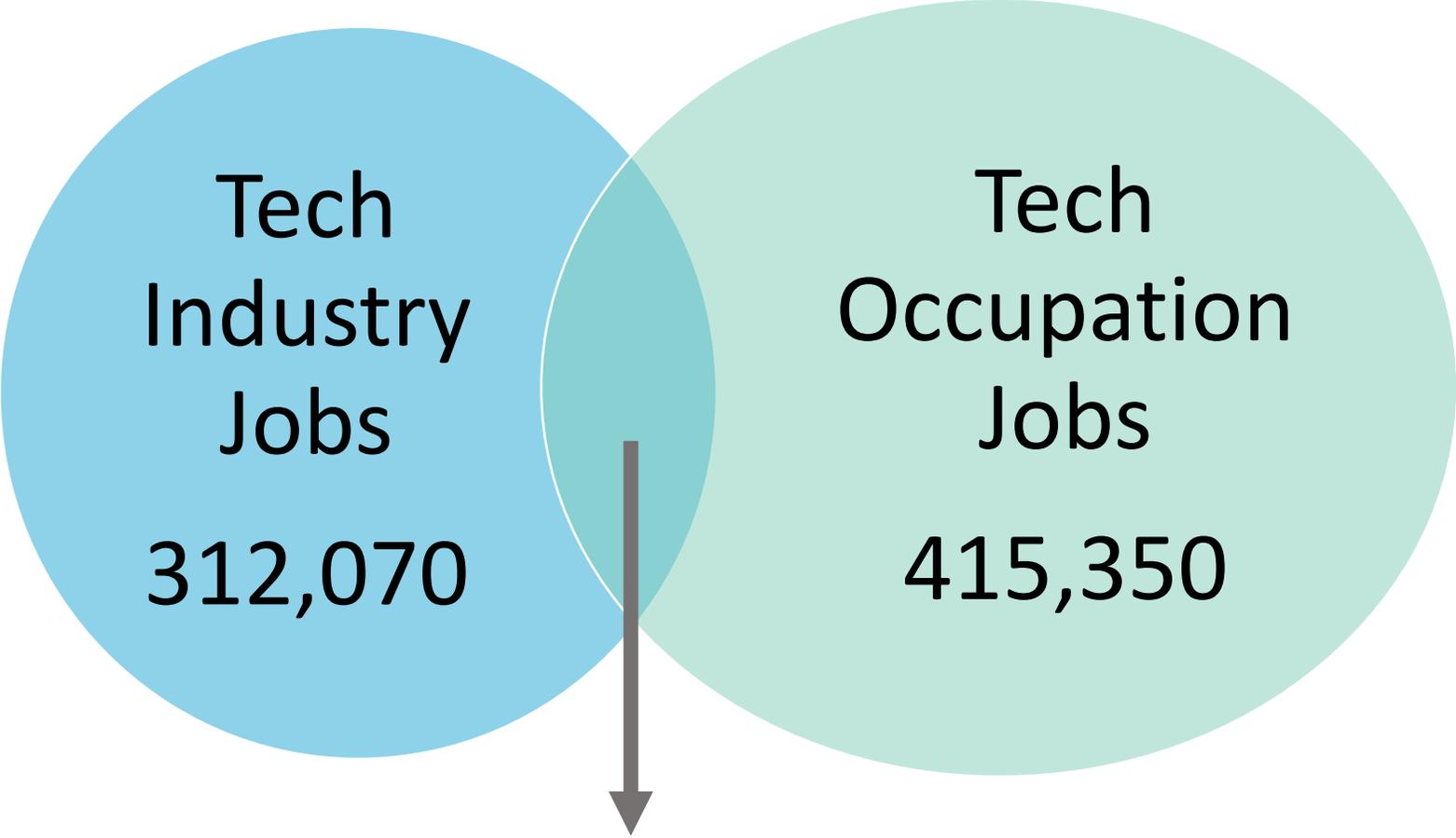
North Carolina Tech Industry State Rankings

Metric	Value	Rank
Total Tech Industry Employment Concentration (2022)	0.97	18
Total Tech Industry Job Change (2017-2022)	20.2%	10
Expected Total Tech Industry Job Change (2023-2028)	10.1%	16
Avg Earnings for Total Tech Industry with Purchasing Power (2022)	\$145,063	15
Percentage of Women in the Total Tech Industry Workforce (2022)	37.1%	1
Total Tech Industry Diversity Index (2022)	82.0	23

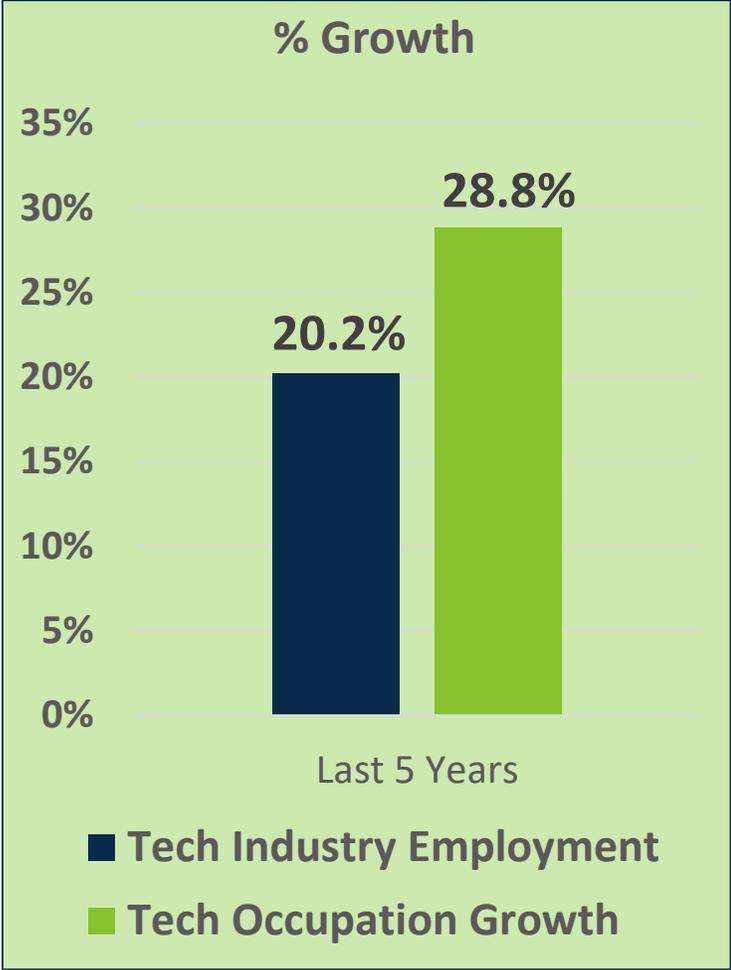
North Carolina State Rankings for Tech Industries and Occupations



Staffing Patterns of Tech Industries and Tech Occupations



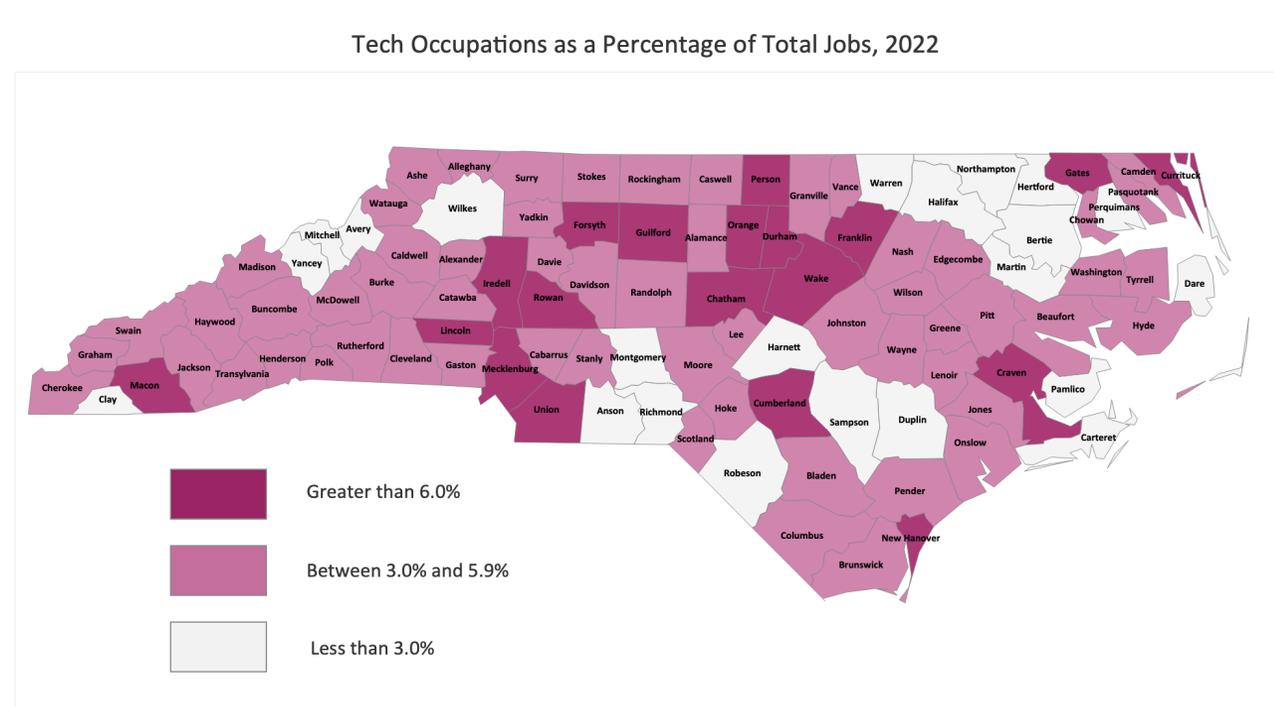
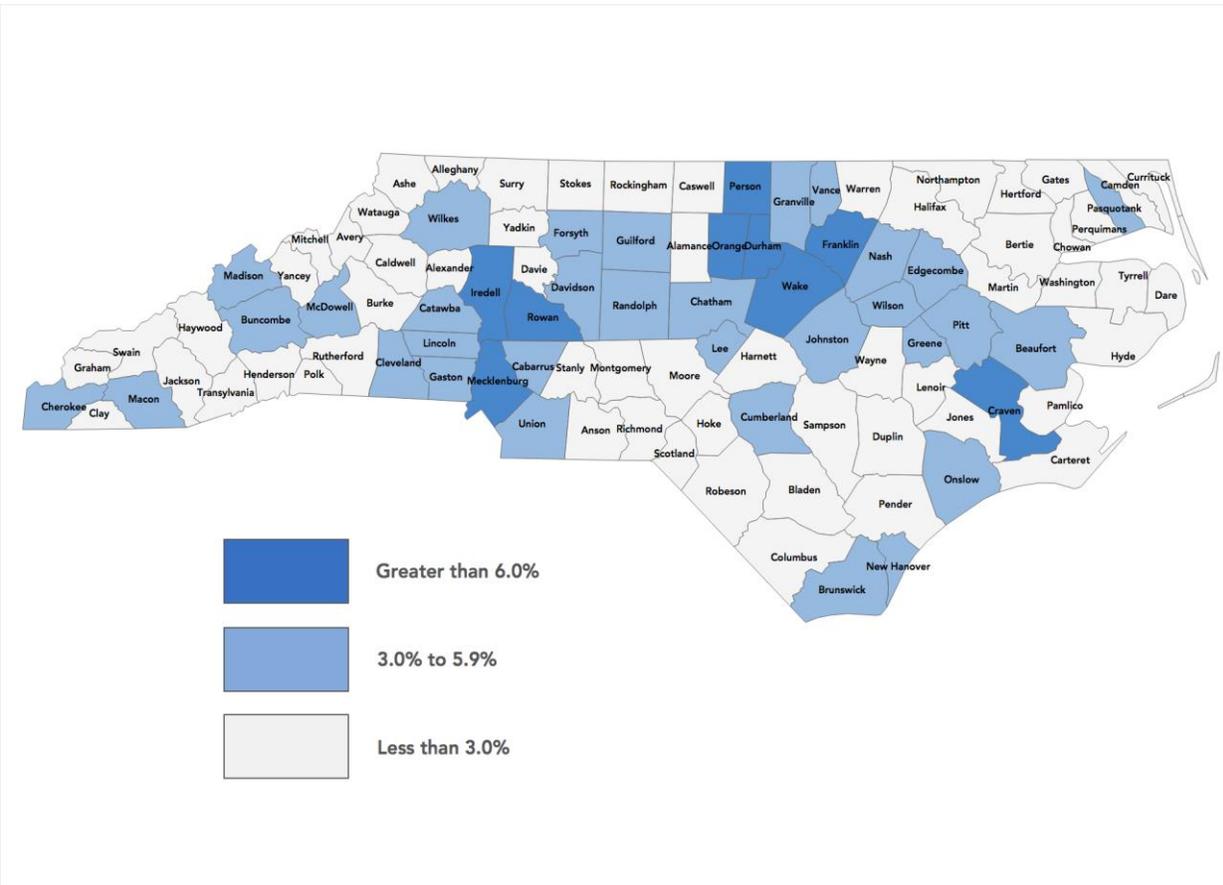
36% of tech occupation jobs are employed in tech industries.



Source: EL calculations based on Lightcast 2023.4

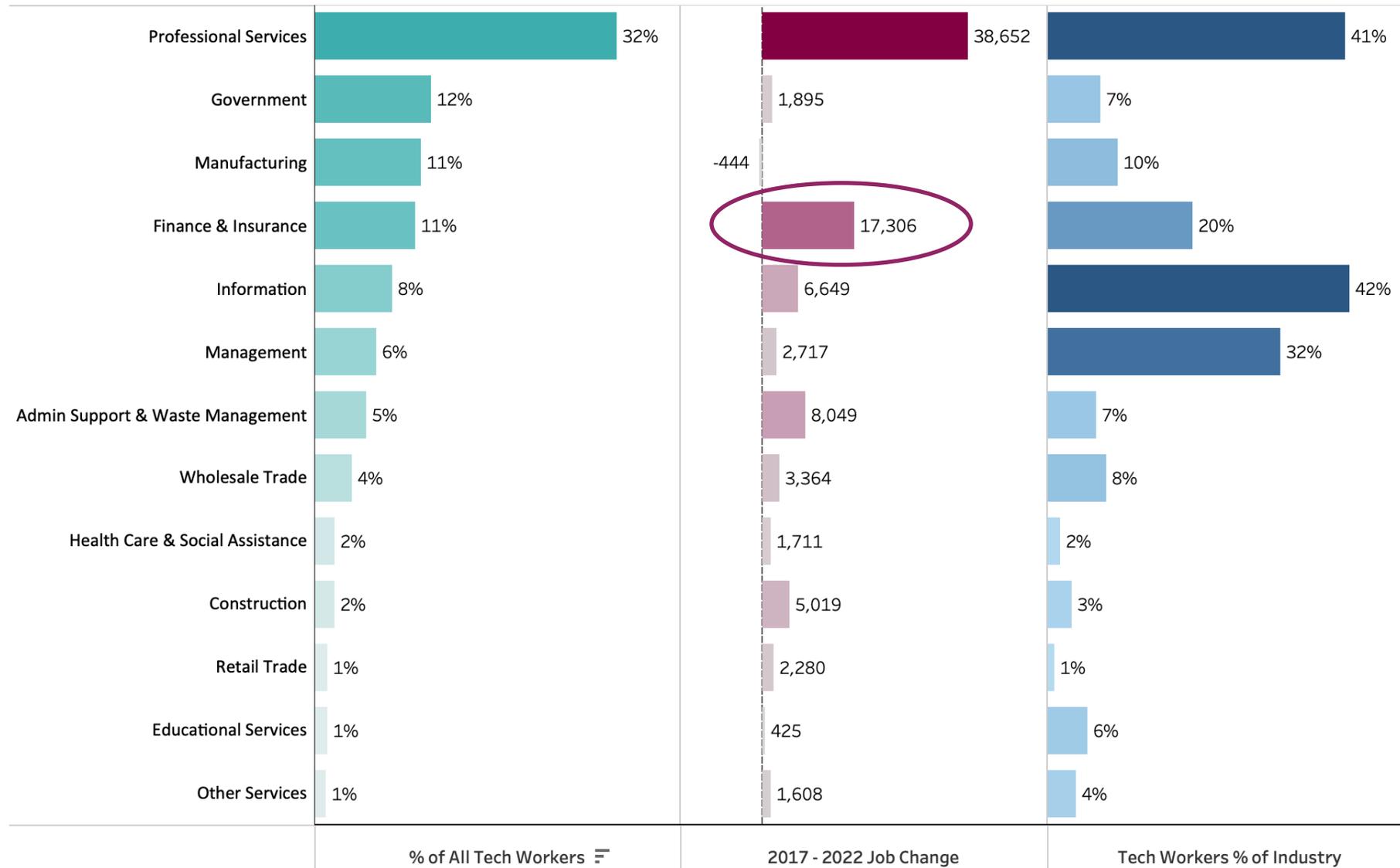
2016

2022



Source: EL calculations based on Lightcast 2023.4

North Carolina's Top Industries Employing Tech Occupations, 2022



Source: EL calculations based on Lightcast 2023.4

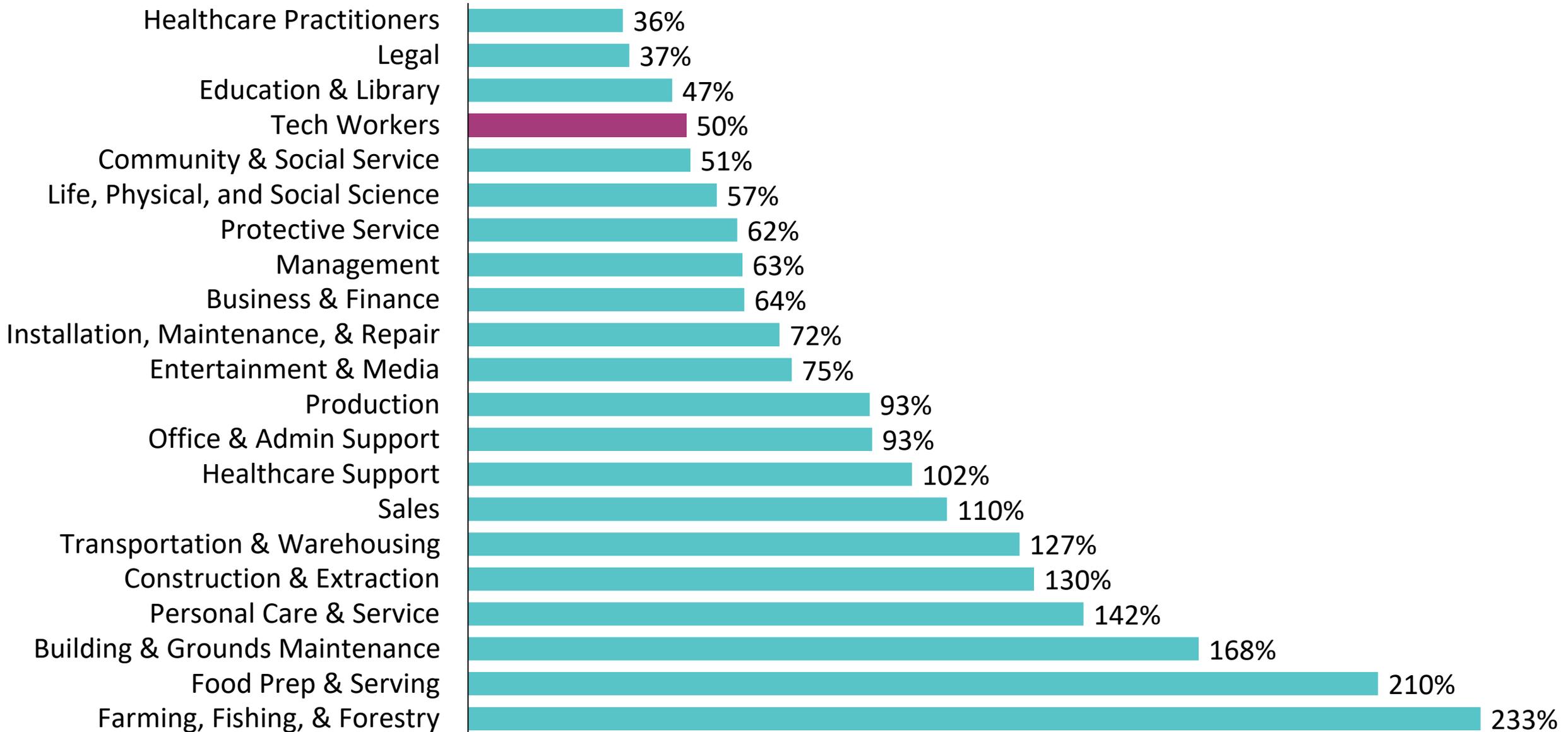
Top Tech Occupations

Occupation	2022 Employment	Employment Change (2017-2022)	Median Annual Wage
Software Developers	58,148	+87%	\$126,500
Market Research Analysts	26,950	+64%	\$65,700
Computer Systems Analysts	23,553	-5%	\$99,300
Computer User Support Specialists	22,376	+1%	\$54,200
Management Analysts	19,789	+8%	\$98,300
Computer and Information Systems Managers	19,197	+61%	\$152,400
Financial and Investment Analysts	10,384	+40%	\$90,000
Industrial Engineers	9,832	+13%	\$86,400
Network and Computer Systems Administrators	9,695	-13%	\$83,600
Software Quality Assurance Analysts and Testers	8,097	+59%	\$97,700
Mechanical Engineers	7,622	-10%	\$84,300
Computer Network Architects	7,203	+44%	\$112,900

Top Top Occupations by Growth

Top Five in Net Job Growth		Top Five in Growth Percentage	
Software Developers	+27,090	Aerospace Engineering Technologists	+330%
Market Research Analysts	+10,510	Food Science Technicians	+225%
Computer and Information Systems Managers	+7,290	Electro-Mechanical Technicians	+176%
Data Scientists	+3,070	Calibration Technologists	+156%
Software Quality Assurance Analysts and Testers	+3,010	Data Scientists	+133%

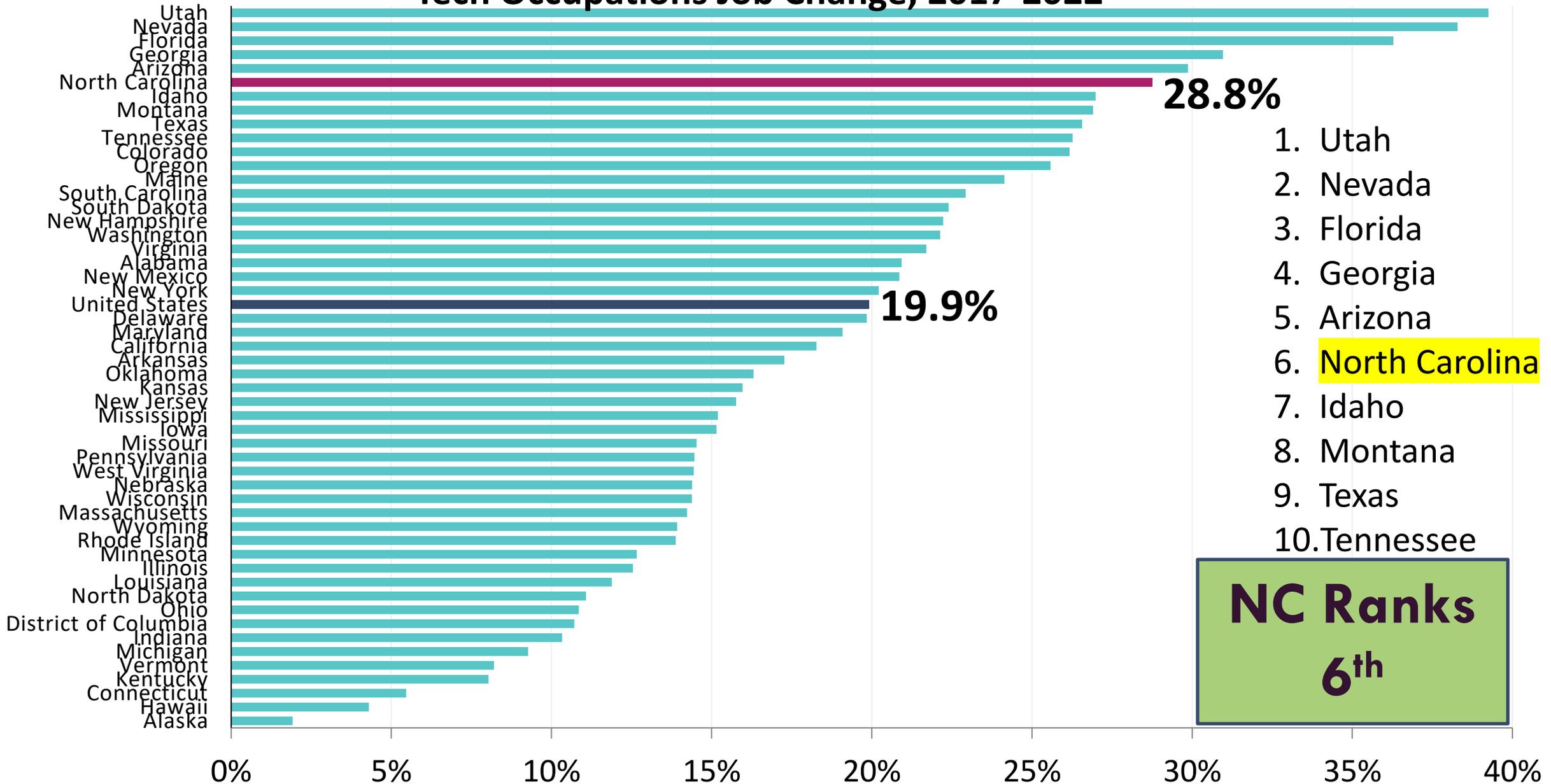
North Carolina Turnover Rate by Occupation Type, 2022



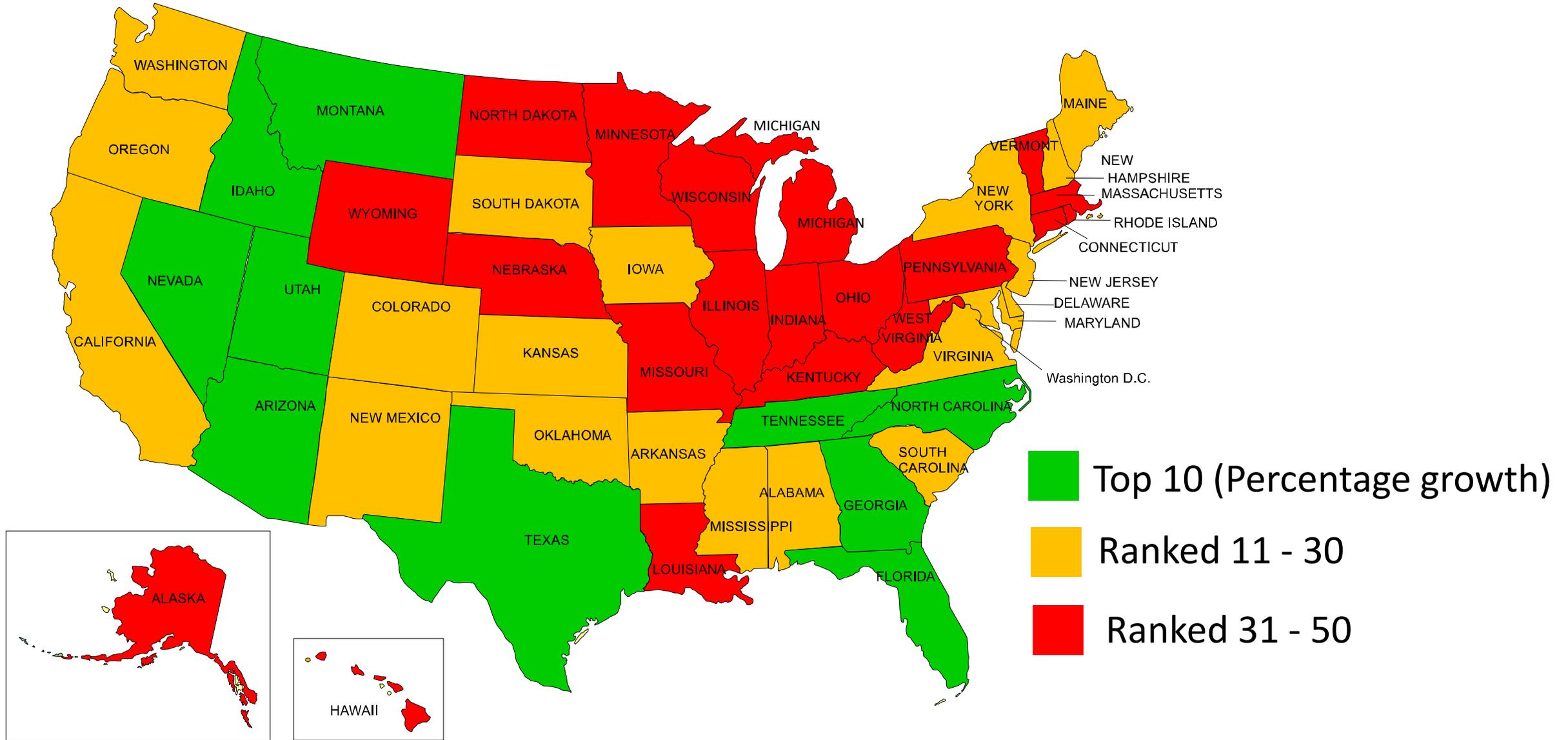
Demographic Representation in Tech Occupations

Demographic	Tech Occupations	NC Population	Index
Women	37%	51%	71.9
Men	63%	49%	129.3
Demographic	Tech Occupations	NC Population	Index
White	68%	62%	109.9
Black or African American	15%	21%	70.7
Asian	11%	3%	307.7
Hispanic or Latino	4%	10%	40.4
Two or More Races	2%	2%	94.1
American Indian or Alaska Native	0.3%	1.0%	33.0
Native Hawaiian or Other Pacific Islander	0.1%	0.1%	76.5

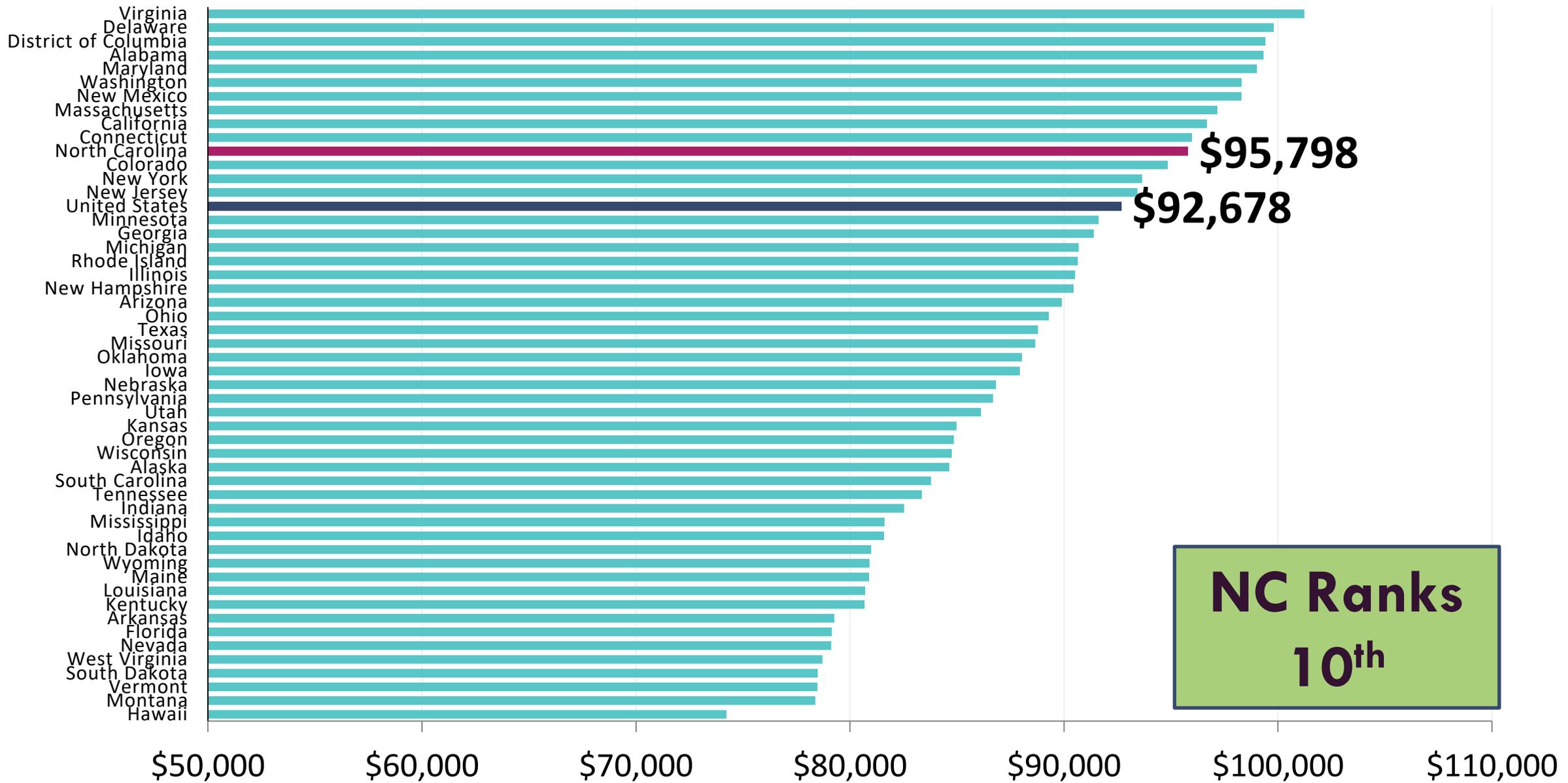
Tech Occupations Job Change, 2017-2022



Tech Occupations Employment Change, 2017 - 2022



Median Annual Earnings for Tech Occupations Adjusted for Purchasing Power, 2022



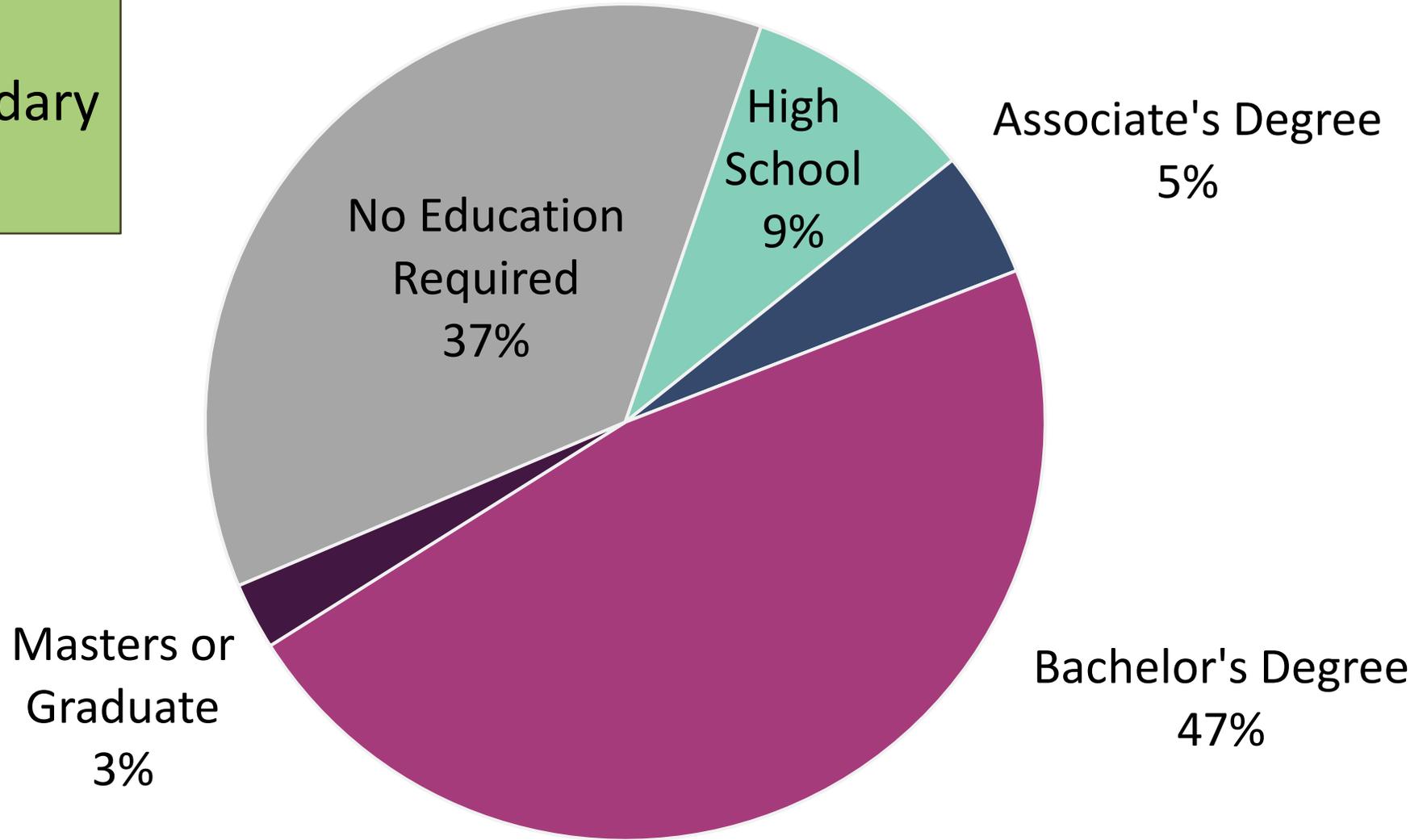
Workforce Challenges

- **About 6 in 10 prospective workers believe there is a major barrier to pursuing a career in tech.**
- **Top confidence gap barriers include:**
 - Concern over perceived lack of math/science skills
 - Concern over not having 4-year degree
 - Belief that it is too late to start a career in tech
 - Belief that training is cost prohibitive
 - Belief that jobs are limited to “Big Tech”/Silicon Valley firms
 - Belief that there are not significant tech jobs in their region

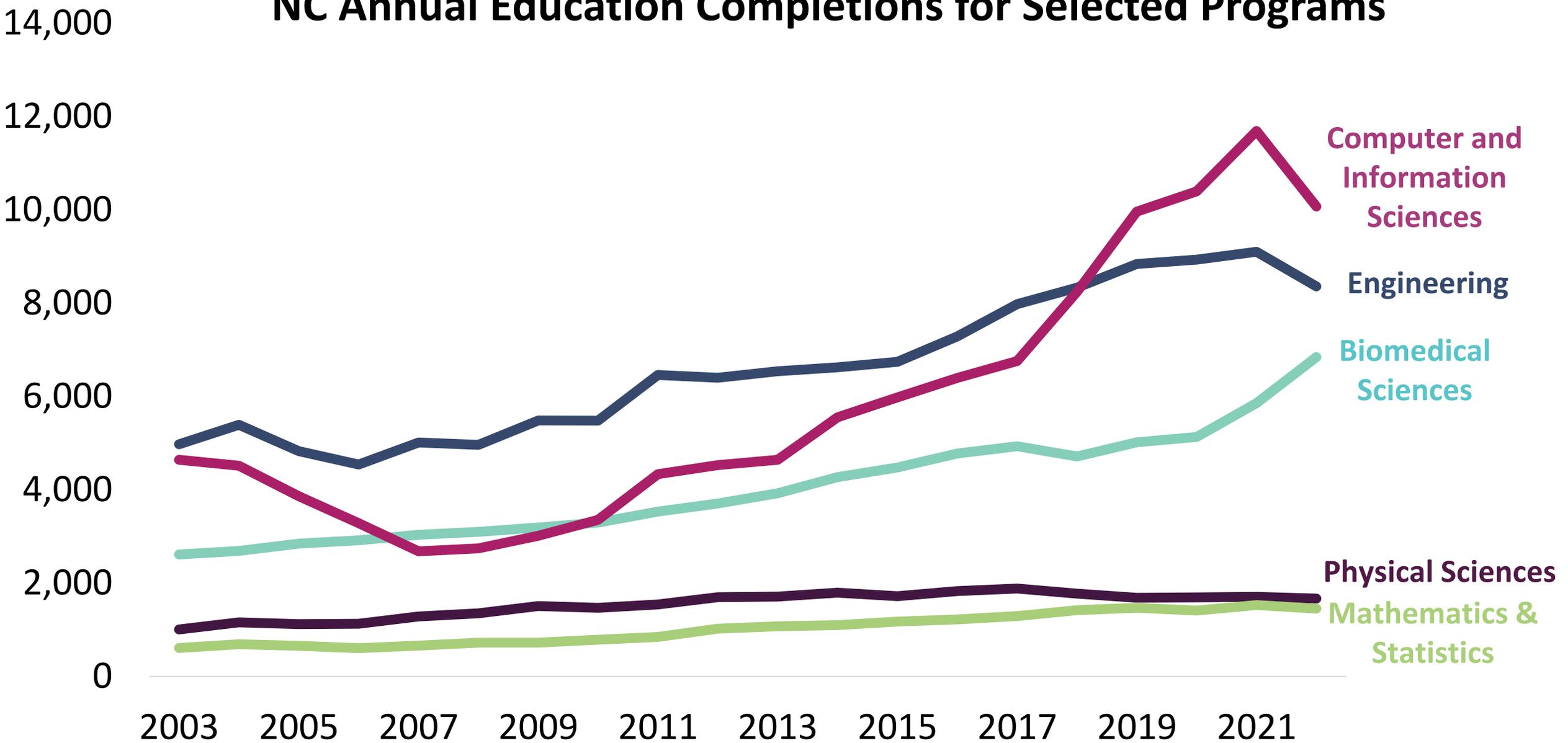
Minimum Education Level Required in NC for Tech Job Postings

55%

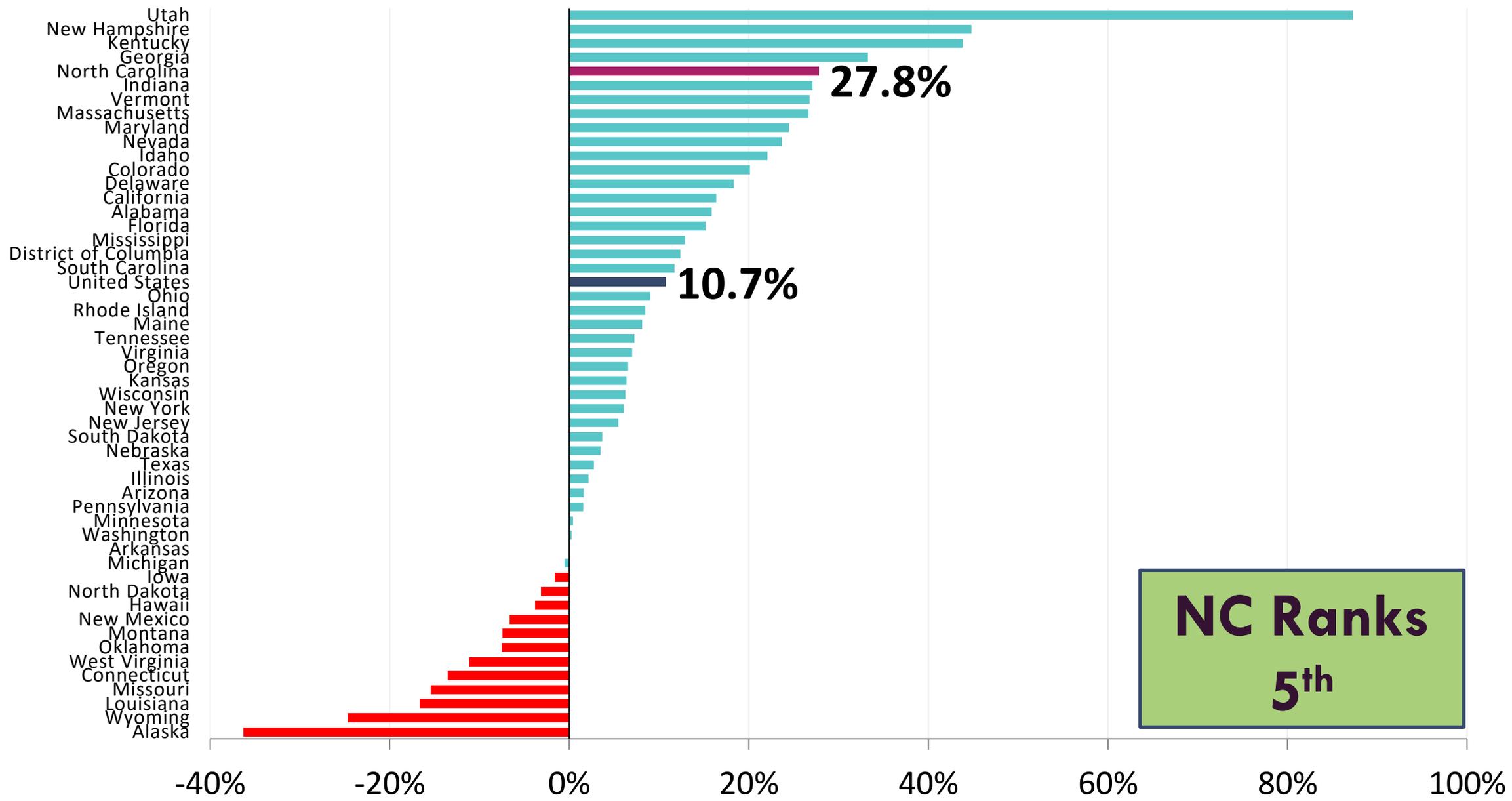
Some Postsecondary
Required



NC Annual Education Completions for Selected Programs

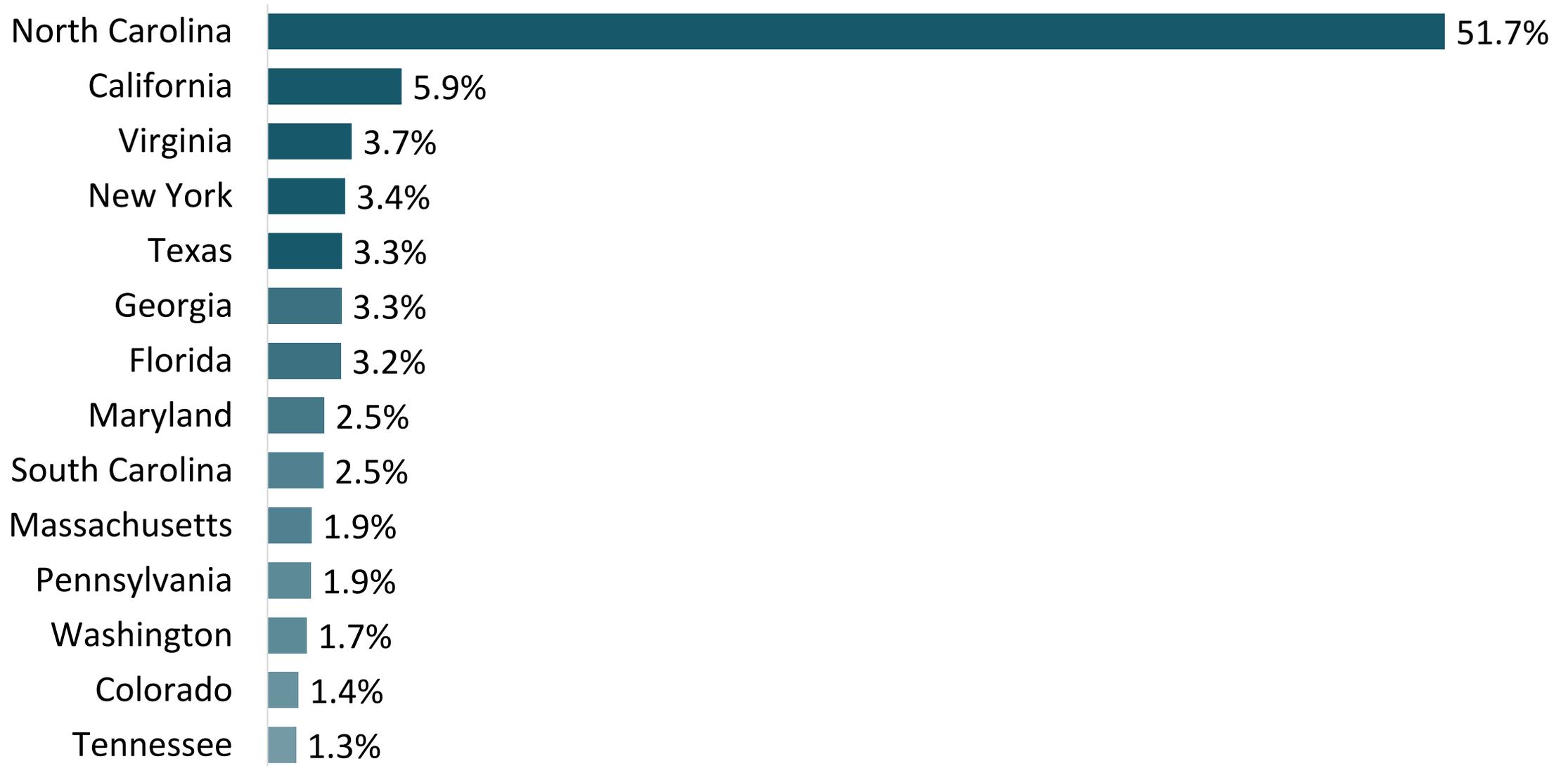


Percent Change in STEM Education Program Completions, 2017-2022

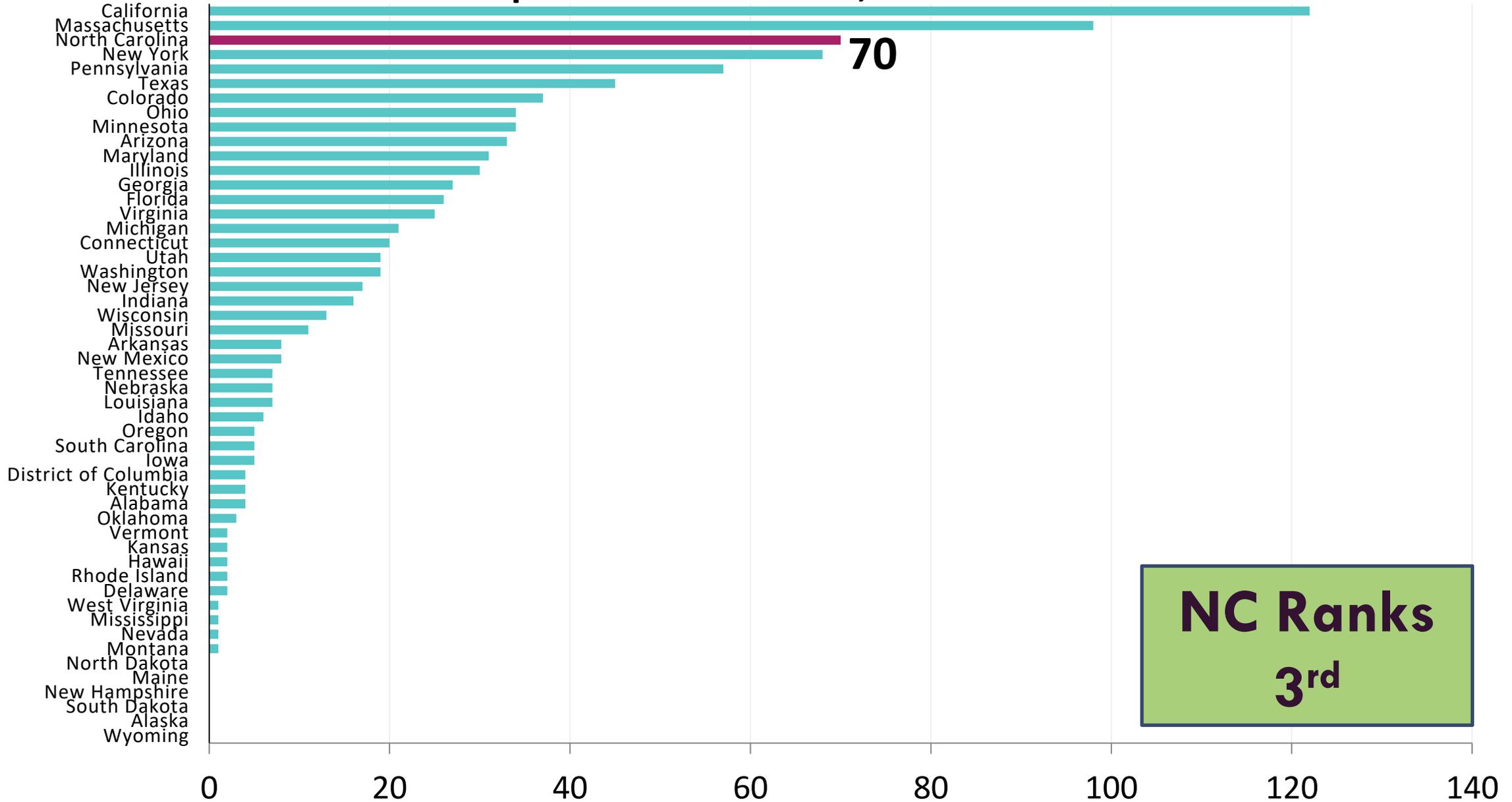


Source: EL calculations based on Lightcast 2023.4

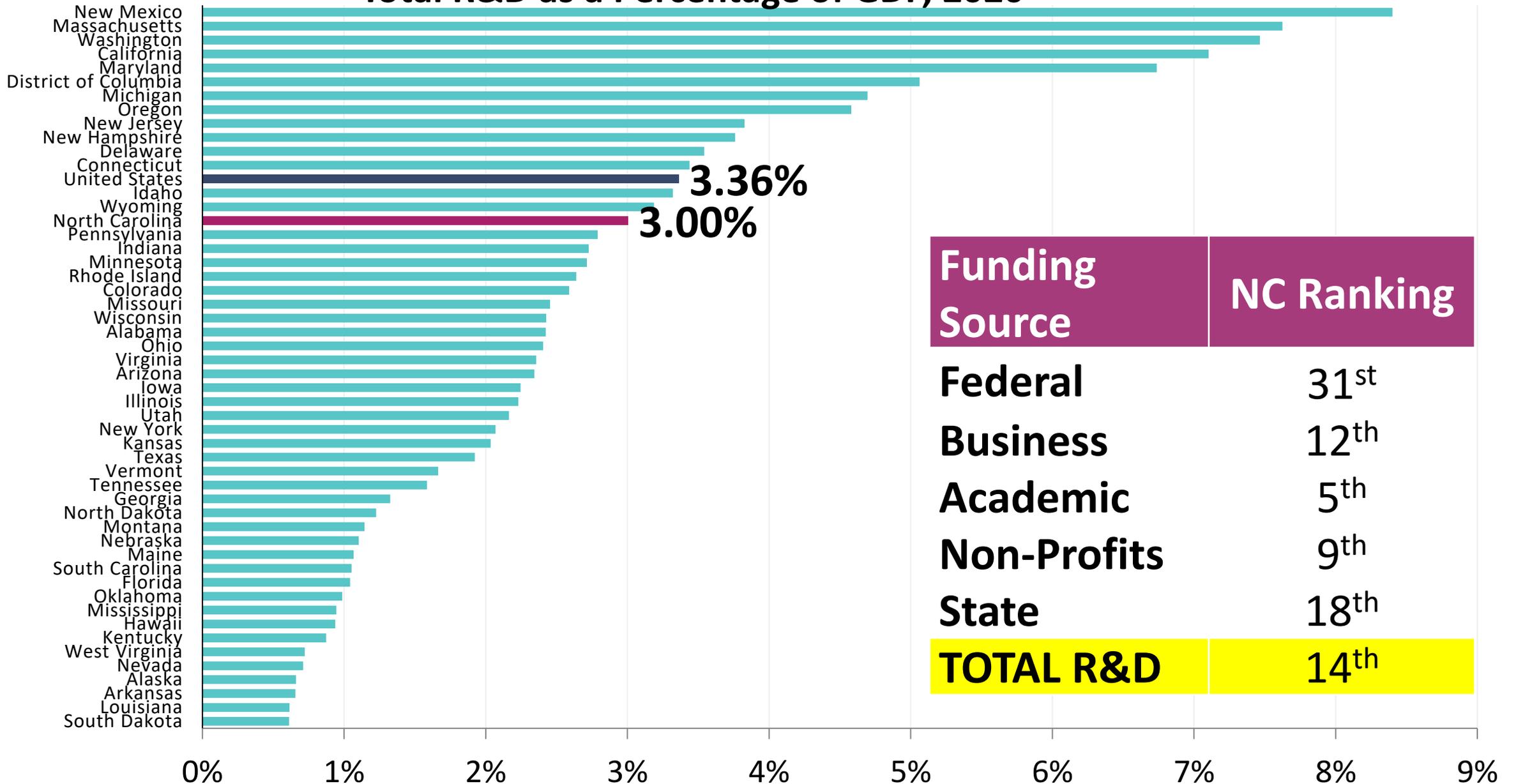
Current Location of STEM Program Completers From NC Schools



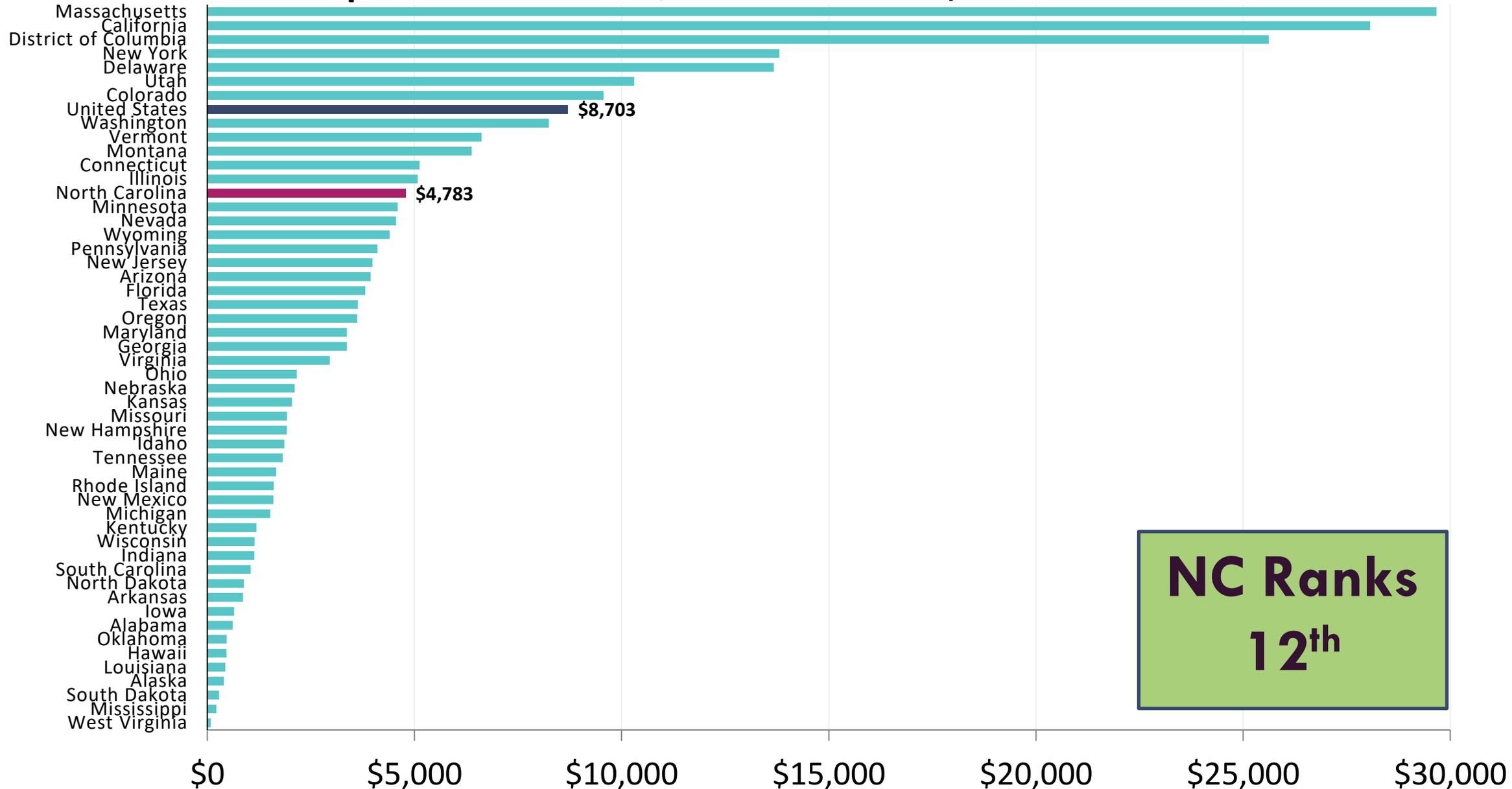
Start-Ups from Universities, 2022



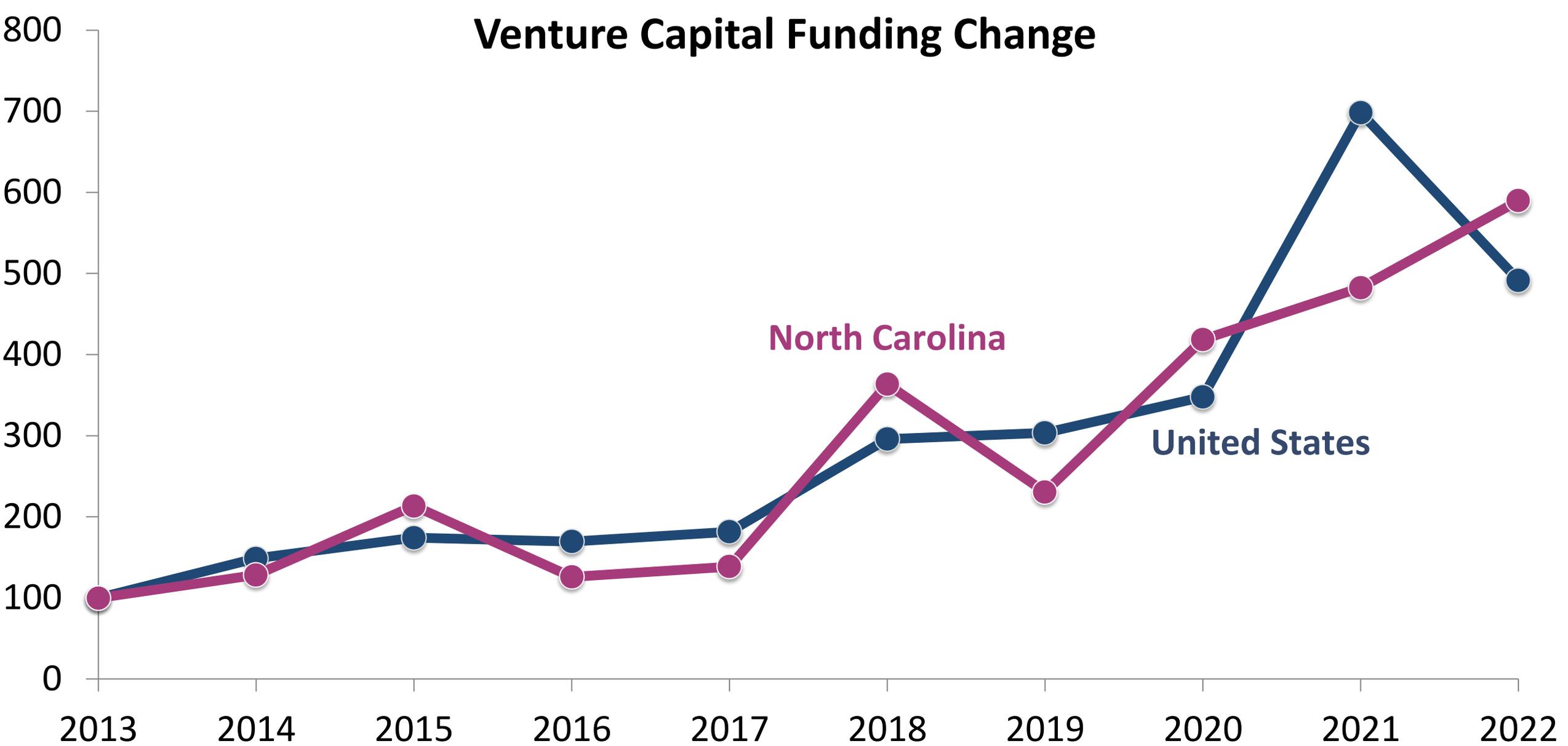
Total R&D as a Percentage of GDP, 2020



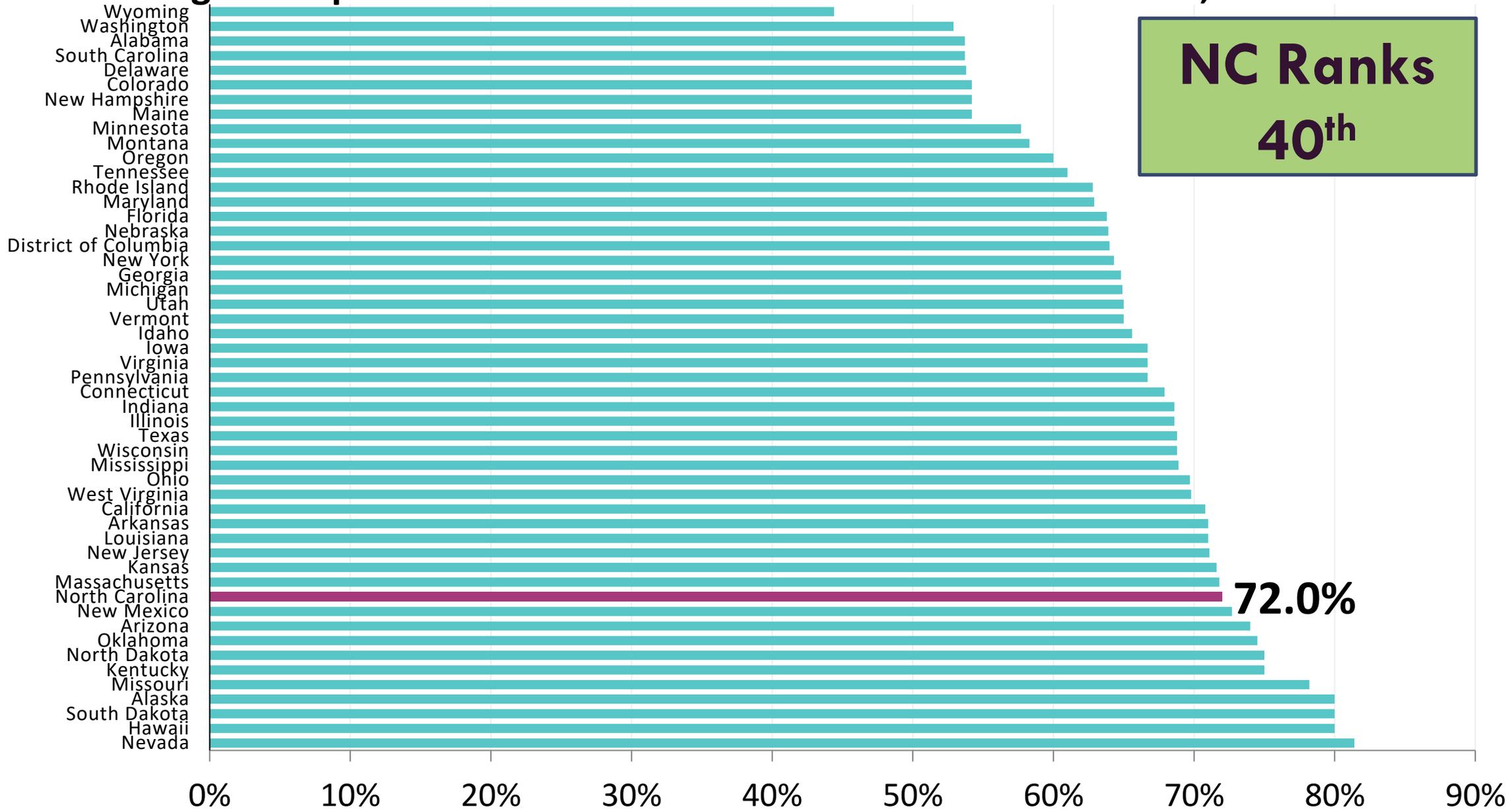
Venture Capital Invested Per \$1 Million of GDP, 2017-2022



Venture Capital Funding Change

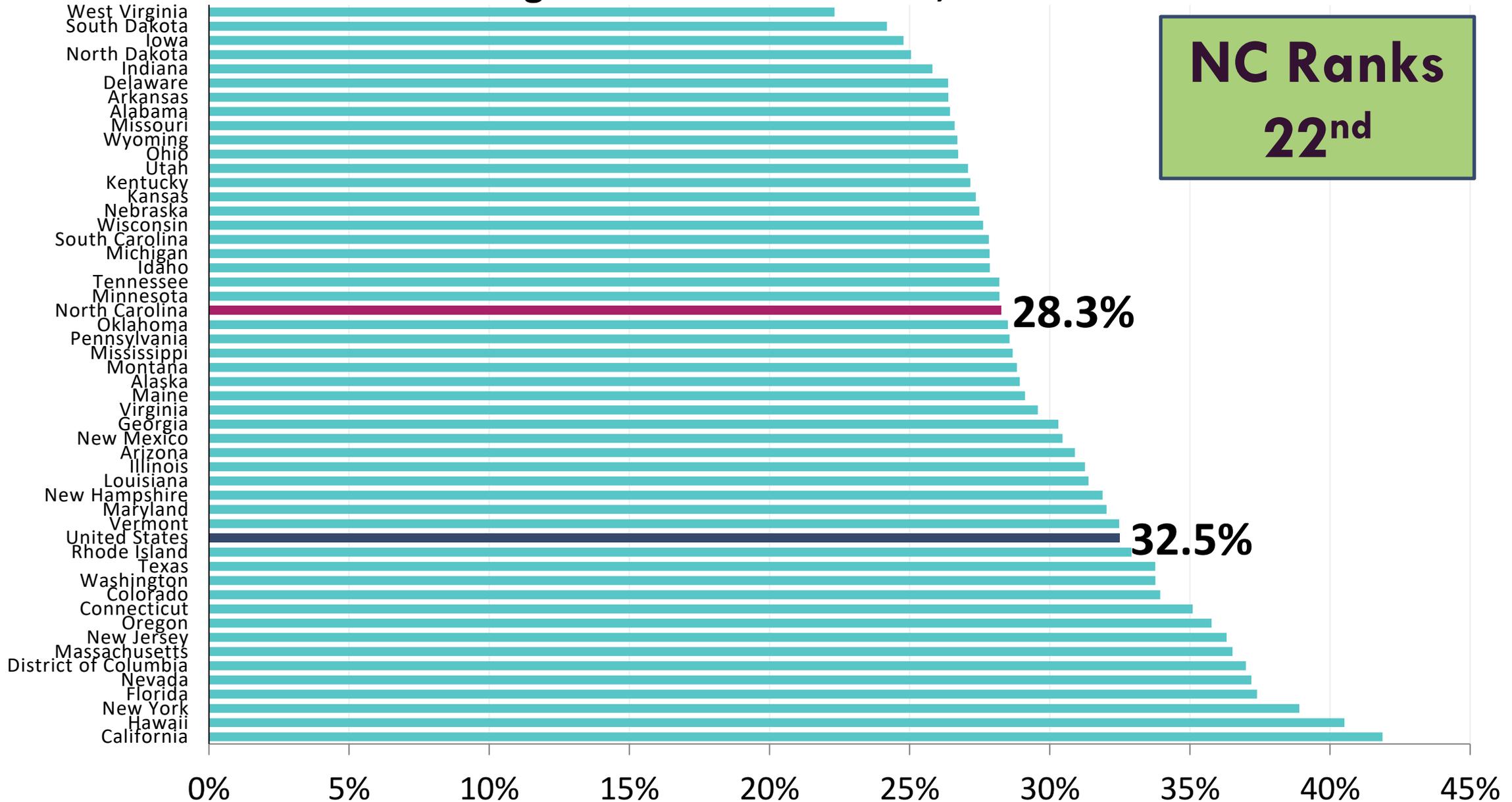


Percentage of Population Without Access to Affordable Broadband, 2023

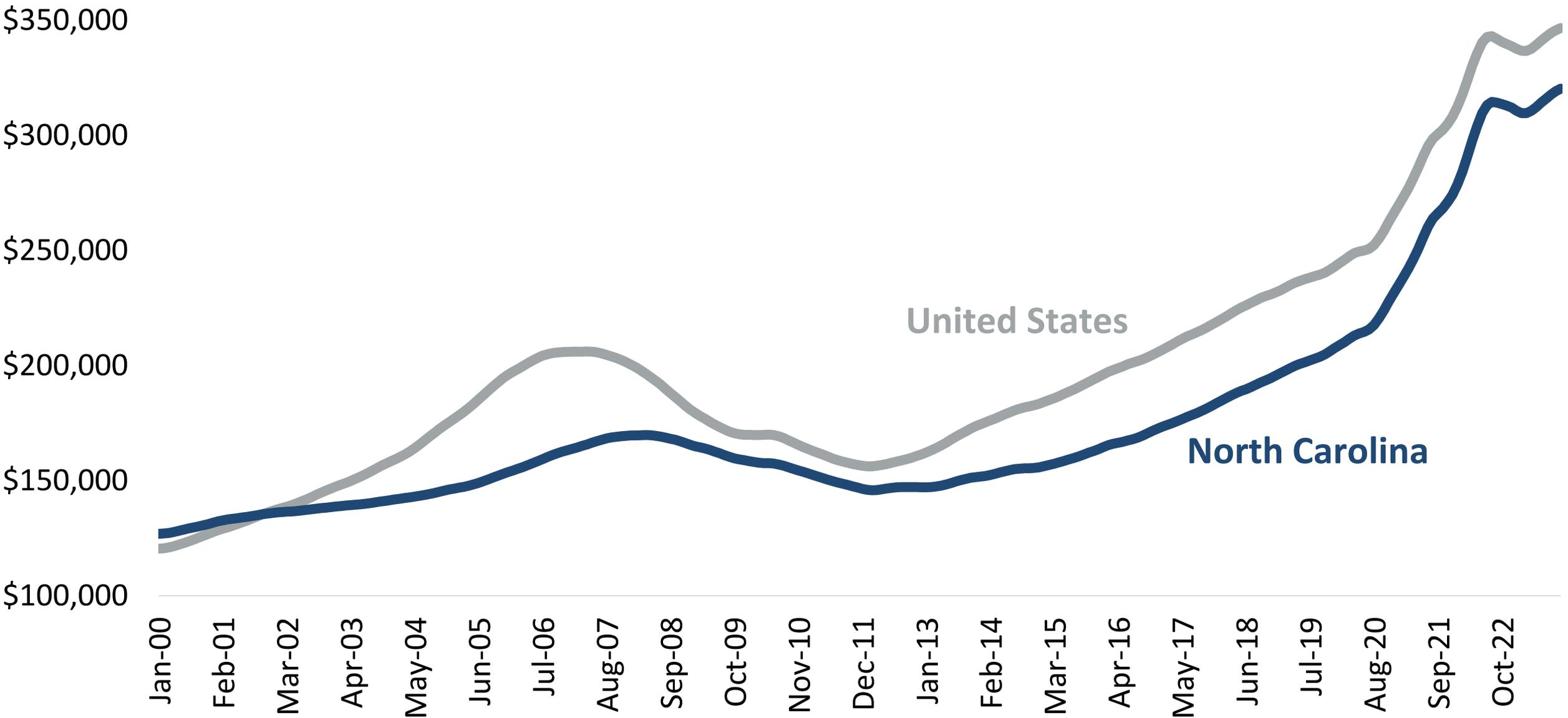


Source: BroadbandNOW Research (2023)

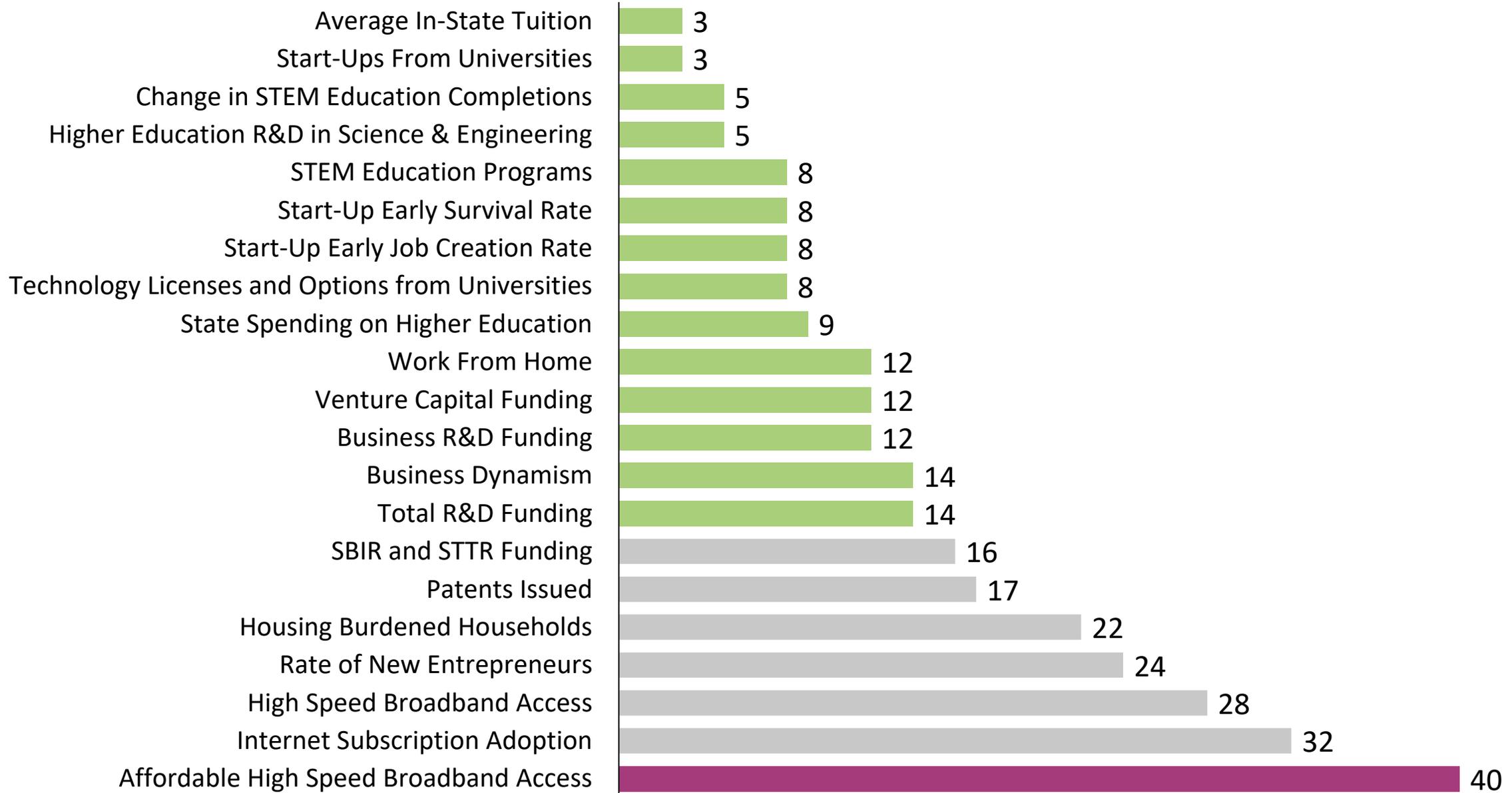
Share of Housing Burdened Households, 2022



Typical Home Value, Jan 2000 - Oct 2023

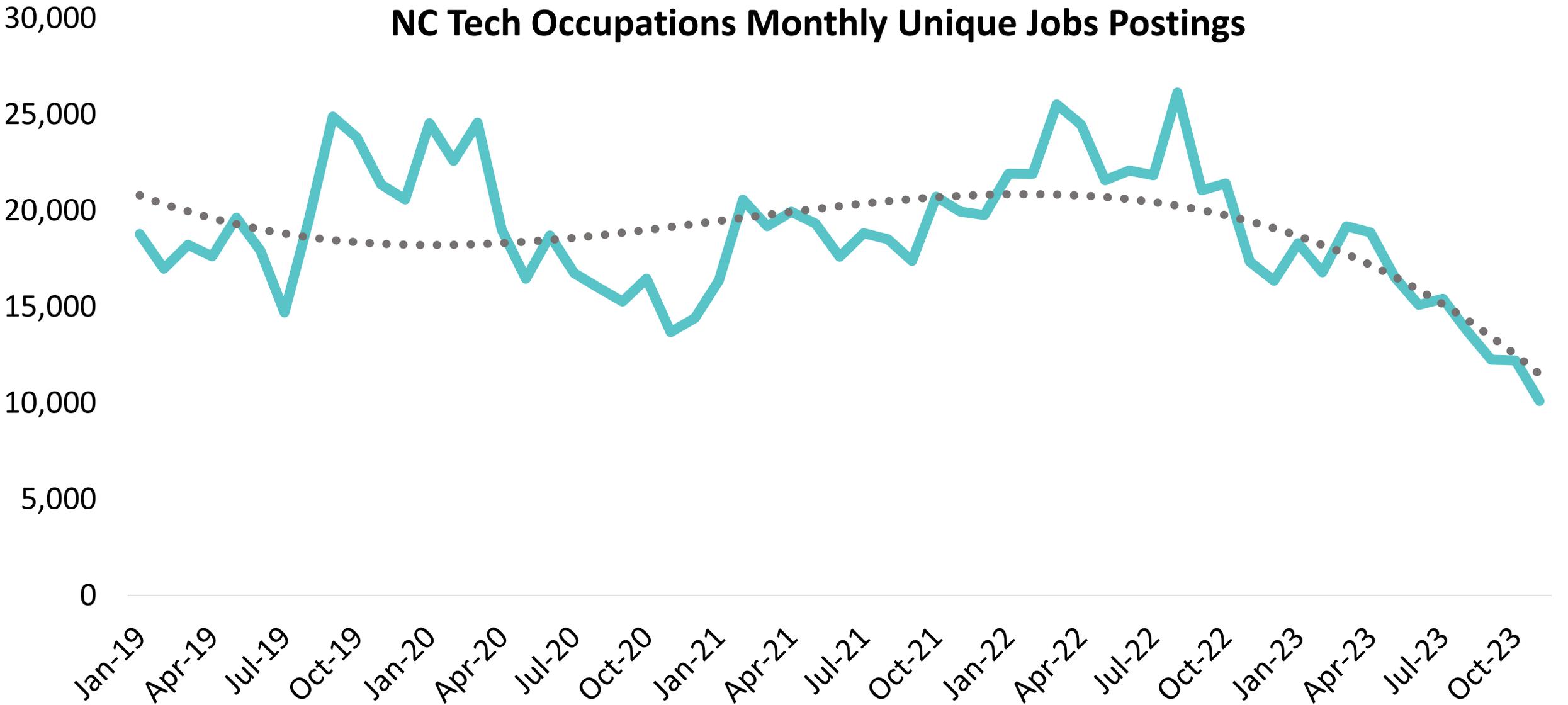


North Carolina State Rankings for Tech Infrastructure Indicators



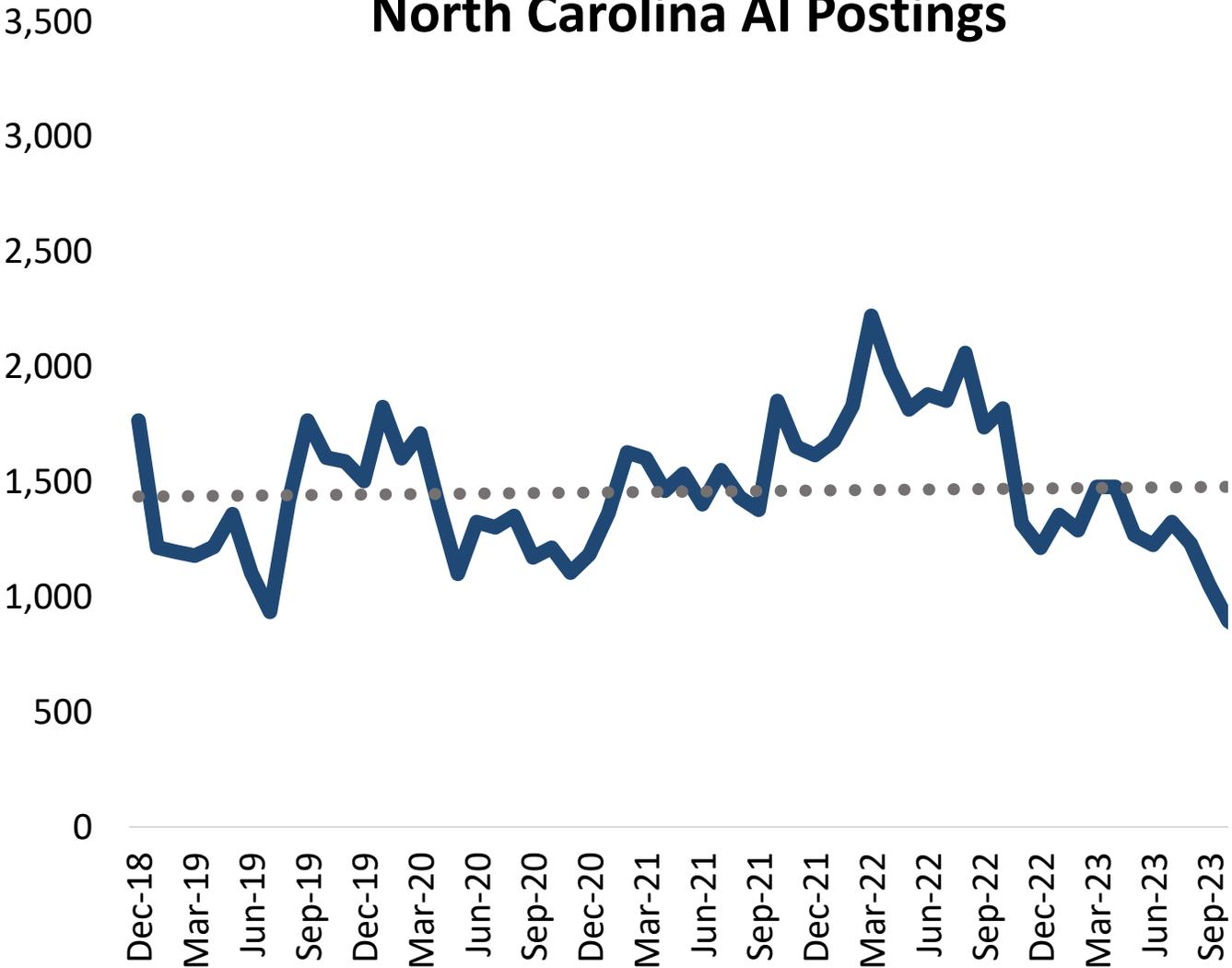
The future...

NC Tech Occupations Monthly Unique Jobs Postings

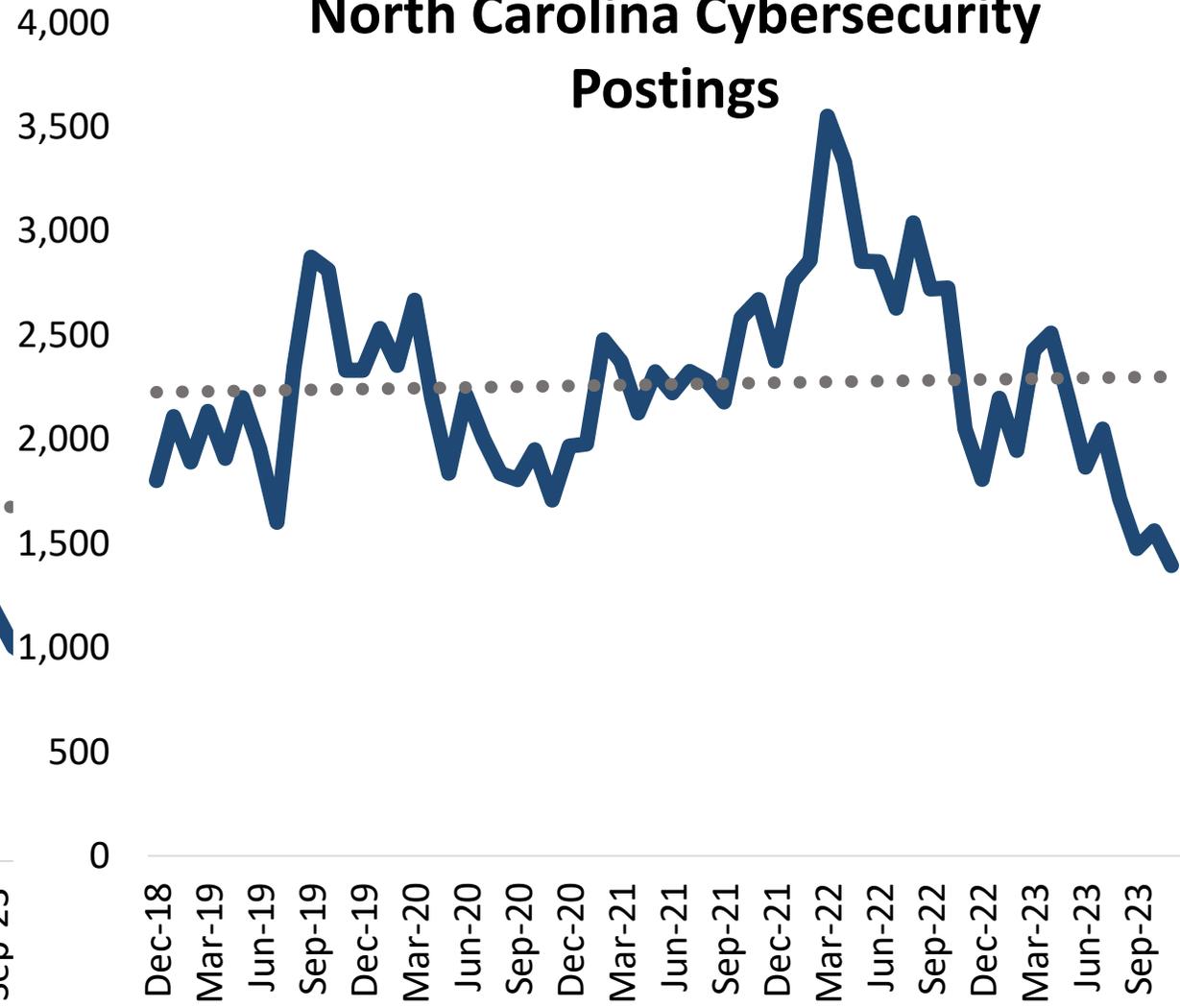


Emerging Markets

North Carolina AI Postings



North Carolina Cybersecurity Postings





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