

August 13, 2025

Panel Discussion

Policy, Partners, & Pathways: Expanding Apprenticeships in North Carolina

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WELCOME

Introductions & Overview



Sherry Carpenter

Moderator

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Apprenticeship Experts

Wendy Walker-Fox

Tammy Simmons

Dr. Chris Harrington

Andrew Berger-Gross

Workforce Development Boards and Apprenticeship



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WHAT LOCAL WORKFORCE DEVELOPMENT BOARDS DO

AN OVERVIEW OF ROLES, IMPACT, AND COMMUNITY VALUE

The background of the slide is a map of North Carolina, showing its geographical features like rivers and terrain. A large, semi-transparent green rectangular box is overlaid on the map, containing the main text. The word "Broadly..." is written in a large, bold, dark green font at the top of the slide.

Broadly...

Workforce Boards

- Strengthen local economies by connecting people to opportunity
- Serve as a hub for talent development and economic growth
- Adapt and innovate to meet regional needs in real time

The background of the slide is a topographic map of North Carolina, showing the state's outline and internal geographical features like rivers and terrain. The map is rendered in shades of green and brown, with a semi-transparent effect.

Strategic Planning & Leadership

- Set regional vision for workforce development
- Align workforce efforts with economic priorities
- Convene cross-sector stakeholders to address talent needs

Measuring Success & Driving Innovation

Track outcomes
like employment,
earnings, and
credential
attainment

Use data to improve
services and
investments

Pilot new
approaches to meet
evolving labor
market demands

The background of the slide is a topographic map of Tennessee, showing its geographical features like rivers and terrain. A large, semi-transparent dark green rectangle is overlaid on the map, serving as a background for the text.

WIOA

WORKFORCE INNOVATION AND OPPORTUNITY ACT

Designed to help **JOB SEEKERS** access **EMPLOYMENT**, **EDUCATION**, **TRAINING**, and **SUPPORT SERVICES** to succeed in the labor market and to match **EMPLOYERS** with the **SKILLED WORKERS** they need to compete in the global economy.

Business Engagement

- Partner with employers to identify workforce needs
- Support job postings, recruitment, and customized training
- Foster apprenticeships and sector-based initiatives and strategies

Employers and Apprenticeship



Tammy Simmons

Vice President of Marketing & Culture,
Machine Specialties Inc.

NCWorks Commission Member

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The Role of ApprenticeshipNC and Its Value to Stakeholders



Dr. Chris Harrington
State Director, ApprenticeshipNC

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APPRENTICESHIP **NC**

North Carolina's State Apprenticeship Agency

Registration | Technical Assistance | Quality Assurance

Increasing Use of Registered Apprenticeship

What is State Apprenticeship Agency?

- Us DOL Office of Apprenticeship is the governing body for Registered Apprenticeship in the U.S.
- By statute and US DOL recognition, ApprenticeshipNC is the recognized agency for North Carolina.
- Major areas of support:
 - Registration of Apprenticeship Programs
 - Monitoring and Oversight
 - Support for Employers and Apprentices
 - Promotion and Expansion of Registered Apprenticeship
 - Compliance with Legal Requirements
 - Credentialing and Certification
 - Collaboration with Stakeholders
- Constituents include the entire state – all employers/apprentices regardless of relationship with NCCCS.

What is Registered Apprenticeship?

Career Exploration

Skill Development

Field Trips &
Site Visits

Job
Shadow

Internships
Externships

Pre-Apprenticeship

On the job
training

Apprenticeship Like

Registered
Apprenticeship

It's a Strategic Approach to Workforce Development!

Five Core Components of Registered Apprenticeship



BUSINESS INVOLVEMENT

Programs are employer led and customized to their business.



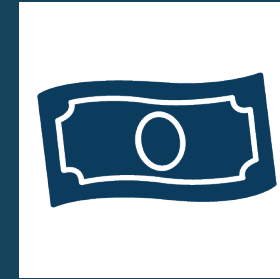
STRUCTURED ON-THE-JOB TRAINING

Apprentices receive on-the-job training from an experienced mentor.



RELATED INSTRUCTION (RI)

This is classroom, theory, or other supplemental training that works with the on-the-job training.



REWARDS FOR SKILL GAINS

Apprentices are employees and receive increased wages as their skills increase.



OCCUPATIONAL CREDENTIAL

Completers receive a U.S. DOL and State certificate documenting their occupational competence.

Registered Apprenticeship Works Across Demographics



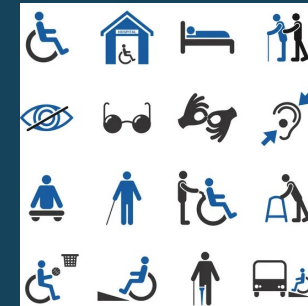
Women – Non-Traditional Roles



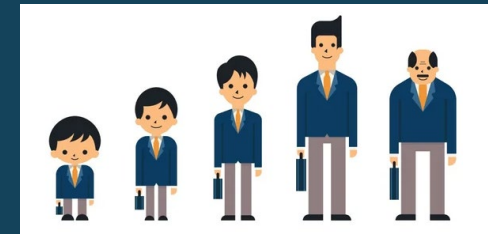
Exiting Military & Veterans



Justice Served



Persons with Unique Abilities



Youth, Young Adult, & Adult – New or Incumbent

Apprenticeship Approaches

Time

- Program is developed so that after a prescribed period the participants will have mastered necessary skills.

Competence

- Program is developed with a skill competency checklist that a participant must master to become certified.

Hybrid

- Program is a combination of time and competency.
- Both must be achieved to become certified.

Apprenticeship Program Models

Traditional

- Employer registers program.
- Employer recruits participant(s).
- Employer administers program.
- Apprentice completes program.
- Apprentice receives occupation certificate and may earn other credentials.

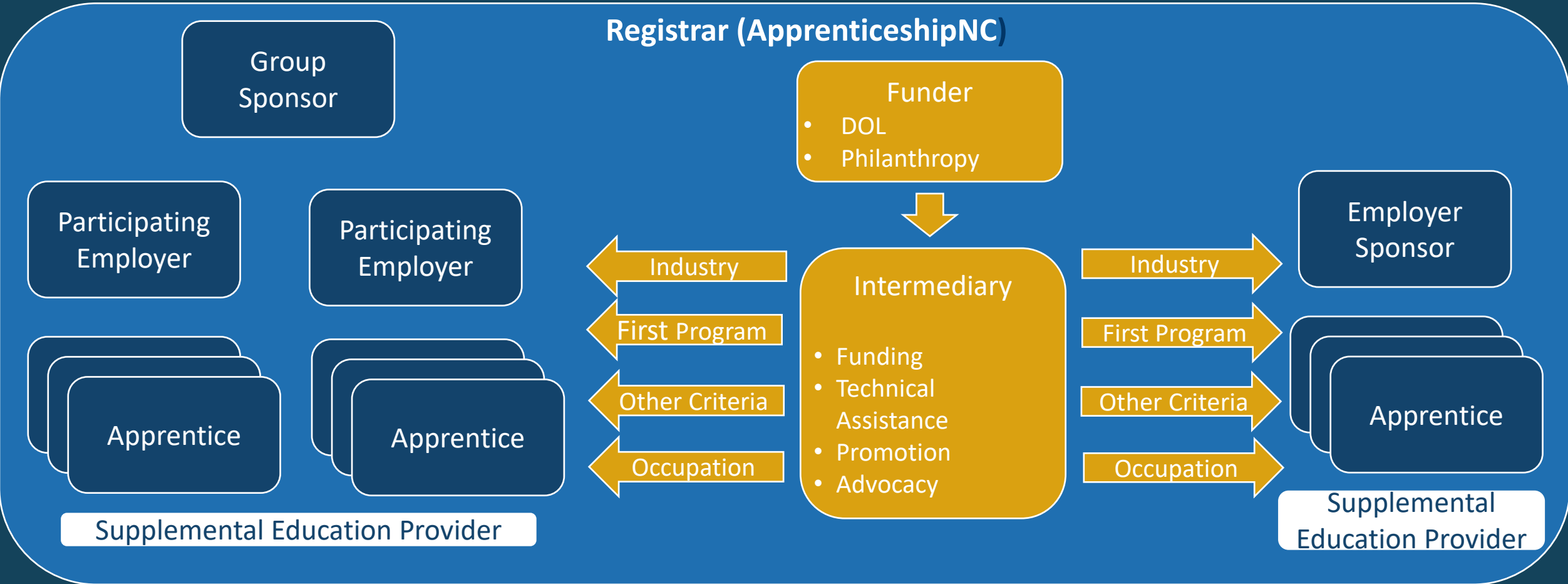
Group Program

- Sponsor registers program
- Sponsor recruits employers
- Employer agrees to program terms
- Both recruit participant(s).
- Sponsor administers program.
- Apprentice completes program.
- Apprentice receives occupation certificate and may earn other credentials.

Youth Consortium

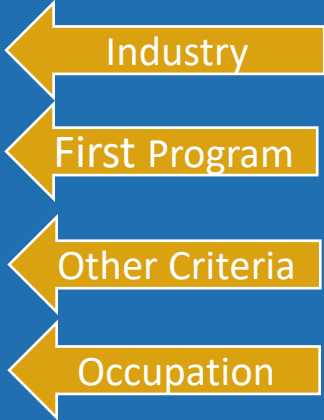
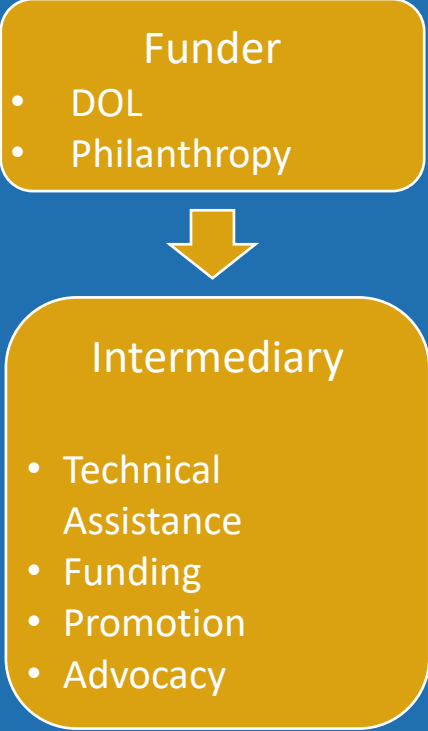
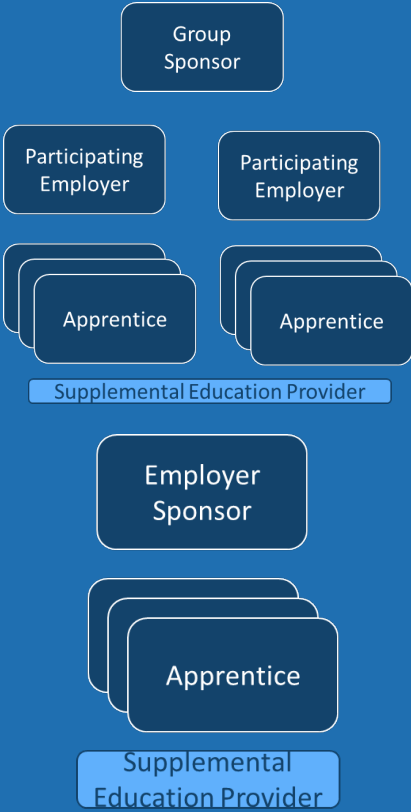
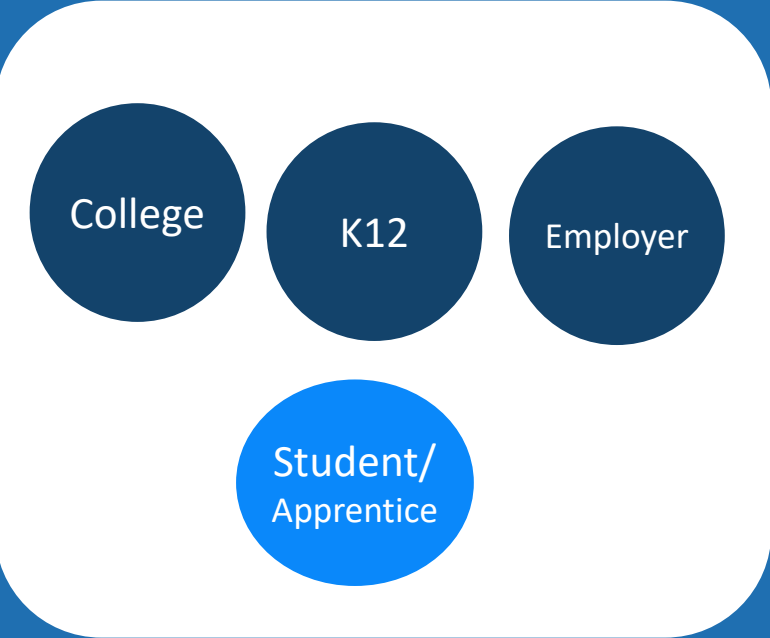
- Consortium organizes – K12, College, Employer(s).
- Consortium recruits employers.
- Employer registers program.
- Consortium recruits participants (typically includes orientation, selection, and pre-apprenticeship)
- Employer administer program.
- Apprentice completes program.
- Apprentice receives occupation certificate and may earn other credentials.

Apprenticeship Environment



Consortium

Registrar (ApprenticeshipNC)



Pre-Apprenticeship

Registrar (ApprenticeshipNC)

Program Type

High School / Youth

Consortium

Youth / Adult Skill Building

Adult Rehabilitative

Use Case

In high school career exploration, skill building, and work ready.

Used as a further validation of selection between orientation and start of RAP.

Tuition waiver eligibility.

Typically used at college for short duration program (line-worker)

Work ready, skill building, and demonstrated ability to be present/engaged.

Registered Apprenticeship Program

Group Sponsor

Participating Employer

Participating Employer

Apprentice

Apprentice

Supplemental Education Provider

Employer Sponsor

Apprentice

Supplemental Education Provider

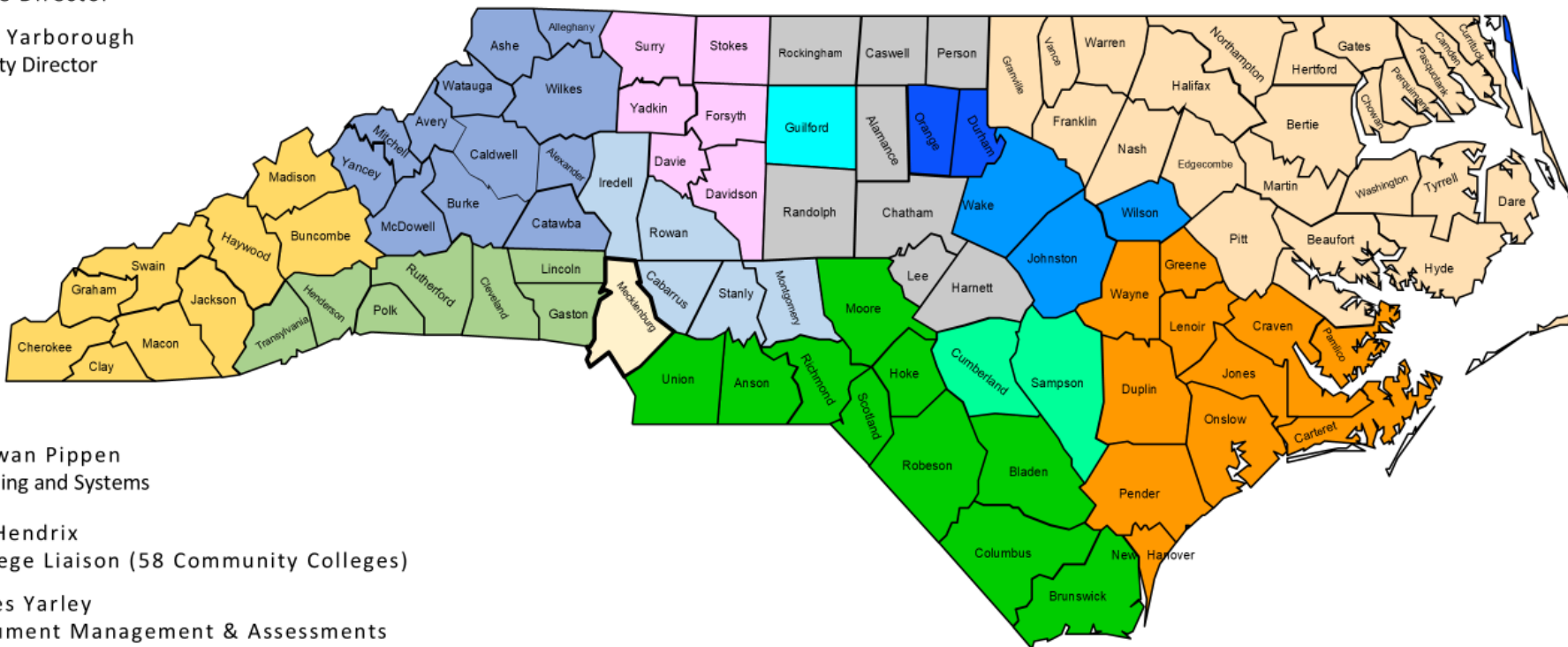
Must connect to one or more RAPs

ApprenticeshipNC

Staff as of July 17, 2025

Dr. Chris Harrington
State Director

Dale Yarborough
Deputy Director



Antwan Pippin
Training and Systems

Jill Hendrix
College Liaison (58 Community Colleges)

James Yarley
Document Management & Assessments

Office Admin & Support

- Cyndy Hummel
- Jen Vogelsberg
- Natasha McCullers

Part Time / Temp

















- Julie Carpenter
- Debi McKeown

Grants

- Elizabeth Orion
- Mark Roberts
- Patty Moyer

Marketing

- Amy Davis-Moore
- Margaret Spainhour

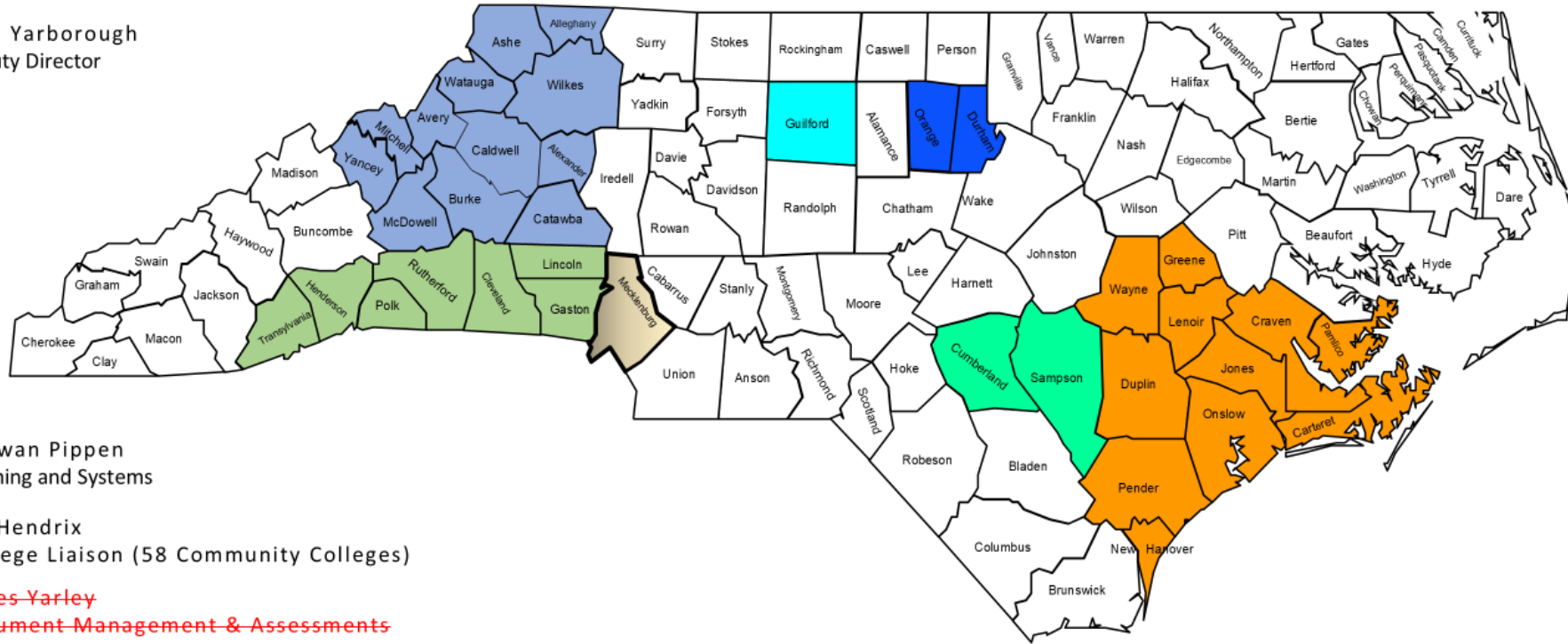
 Cindy Messer Workforce – 210,729 (4.4%)	 Scott Panagrosso Workforce – 248,983 (5.2%)	 Robert Bunn (3/3/25) Workforce – 217,586 (4.6%)	 Tony McKnight Workforce – 312,217 (6.5%)
 Charlie Milling Workforce – 241,361 (5.1%)	 Sylvia Jones Workforce – 390,550 (8.2%)	 Paige Schneider (3/17/25) Workforce – 259,034 (5.4%)	 Ashley Dyson Workforce – 366,661 (7.7%)
 Shelby McClain Workforce – 217,565 (4.6%)	 Jeremy Moore Workforce – 390,550 (8.2%)	 Cassandra Royal Workforce – 296,445 (6.2%) incl Ft. Bragg	 Open Workforce – 366,661 (7.7%)
 Linda Robinson, Workforce – 298,498 (6.3%)	 Wanda Ramos- McPherson Workforce – 287,115 (6.0%)	 Reginal Baker Workforce – 301,806 (6.3%)	 Danny Boykin Workforce – 362,038 (7.6%)

ApprenticeshipNC

Without Any Grant Funded People

Dr. Chris Harrington
State Director

Dale Yarborough
Deputy Director



Antwan Pippin
Training and Systems

Jill Hendrix
College Liaison (58 Community Colleges)

~~James Yarley~~
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 ~~Cindy Messer~~
Workforce — 210,729 (4.4%)


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 Danny Boykin
Workforce — 362,038 (7.6%)

Apprenticeship is Not *THE* Solution

~25% Professional Bachelors Degree or Several Years Experience
~25% High Skilled 24 Months or More to Gain Proficiency
~ 30% Middle Skill 3 to 24 Months to Gain Proficiency
~20% Low Skill 3 Months or Less to Gain Proficiency



At the top of the skill hierarchy are leaders and professionals. While many leaders started as apprentices, this is less common.

Positions that take more than 9 months to master, that are routinely in demand, are ideal targets for apprenticeship programs.

If an employer can hire and train someone in three to nine months, they probably don't need apprenticeship

Employers are making an investment for a future forecasted need.
They are looking for the cream of the crop!

What's in it for Me?

Apprentice

- Employee Day One
- Earning While Learning
- More than \$10,000 per year in earnings (\$300K - \$400K lifetime)
- Transferable certificate of occupational mastery.
- Mentored by an expert.
- Often no training cost.
- Often other certificates, diplomas, and degrees.
- Investment by a company that genuinely cares.

Employer

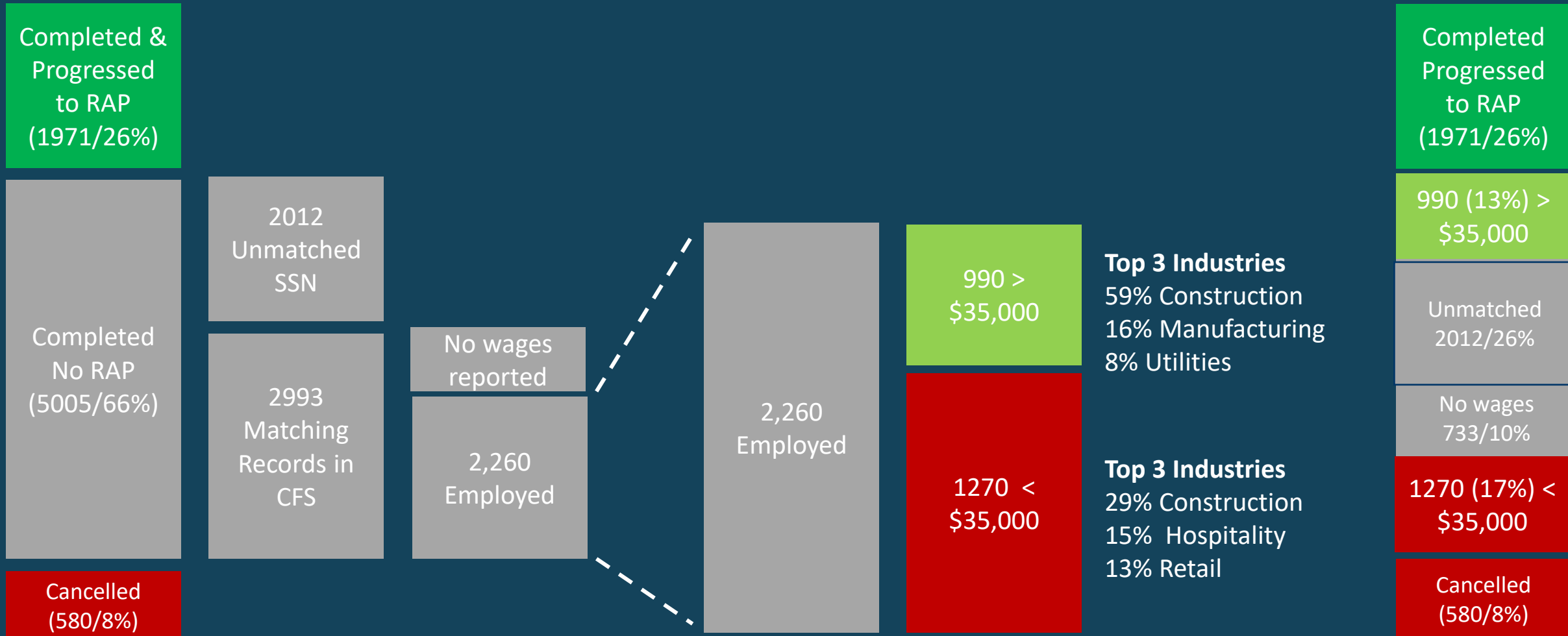
- ROI of 50% or more.
- 70% - 80% completion rate
- 90% retention of completers five years post completion.
- Create a talent pipeline
- Ability to match candidates with unique business needs.
- Ability to mold future employees to own culture and values.
- Ability to upskill incumbent workers.
- Ability to transfer knowledge
- Collaboration with other members of the ecosystem.

Public

- Skilled workforce is the top driver in company location decisions.
- Preparing workers for jobs open in the community.
- Skills growth is an economic lever:
 - Individuals & Families
 - Businesses
 - City, County, and State
- Higher tax revenue
- High ROI for public funds
- More than half of apprentices receive SE at colleges driving up participation.

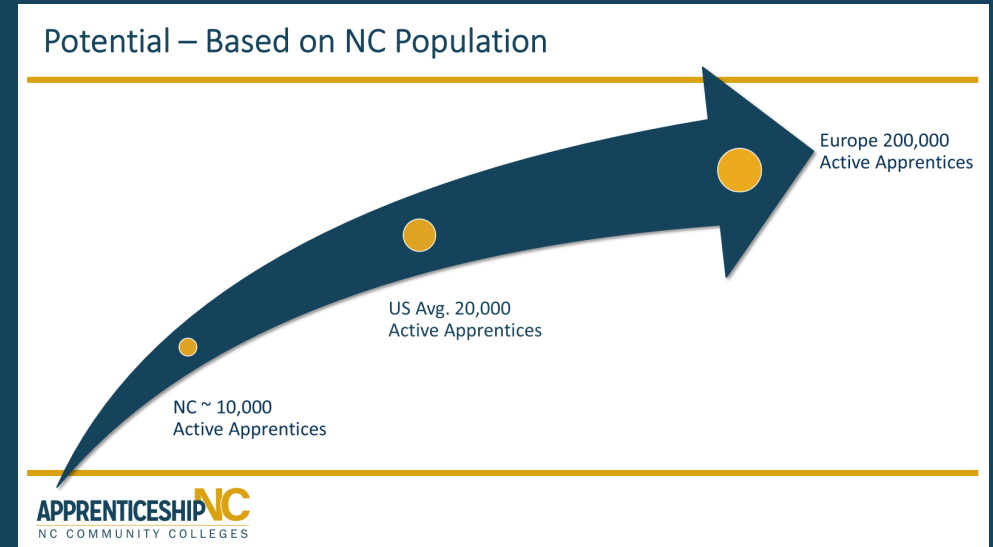
North Carolina Pre-Apprenticeship Research

Goal of pre-apprenticeship is to prepare individuals for selection and success in a Registered Apprenticeship Program.



Strategy – Key Elements & Goals

1. County workforce ecosystem alignment
2. Optimized and well-known value proposition.
3. Communities of Practice.
4. Funding, structure, and prioritization of work-based learning.
5. Grow active Registered Apprenticeship and Pre-Apprenticeship.



2029 – 26,300

5/1000 worker or .5% of workforce

2034 – 52,600

10/1000 worker or 1% of workforce

New Website –
ApprenticeshipNC.com

Questions?

Registered Apprenticeship and the North Carolina Economy



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Registered Apprenticeship and the North Carolina Economy

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Labor & Economic Analysis Division (LEAD)

August 13, 2025



NC DEPARTMENT
of COMMERCE
LABOR & ECONOMIC
ANALYSIS

LEAD

Research on Registered Apprenticeship During the Great Recession

The Long-Term Impact of Apprenticeship on the Employment Outcomes of Displaced Workers

27 Pages • Posted: 6 Dec 2021 • Last revised: 13 Apr 2022

[Andrew Berger-Gross](#)

NC Department of Commerce

Date Written: April 5, 2021

Abstract

This study evaluates the long-term impact of registered apprenticeship on workers displaced during the Great Recession in North Carolina. Unemployment insurance claimants who enrolled in an apprenticeship program after losing their job experienced improved employment and wage-earning outcomes that lasted at least nine years. Program enrollees earned an average of \$9,691 more (in 2019 dollars) than a matched comparison group of non-participants in the ninth year following job displacement. This work contributes to the evaluation literature on registered apprenticeship in the United States and provides evidence on the effectiveness of apprenticeship as a workforce intervention during economic downturns.

Keywords: apprenticeship, layoffs, reemployment, program evaluation, public policy

JEL Classification: I26, I28, J24, J63, J65, J68

Research on registered apprenticeship

Context (2020-2021)

COVID-19: record-high job displacement; emerging long-term unemployment

Need interventions that improve the long-term employment outcomes of **displaced (unemployed) workers**

Recent research found **training programs** for displaced workers were **ineffective**

- Heinrich et al. (2013), Andersson et al. (2016), Fortson et al. (2017)

Promising evidence on the long-term effectiveness of **registered apprenticeship**

- Reed et al. (2012), Hollenbeck and Huang (2017)

Data and methods

North Carolina Common Follow-up System (“CFS”)

- Comprehensive individual-level data on program participation and employment outcomes

Sample

- 530,000 workers laid off during/after **Great Recession** (2008-2010)
 - 219 enrolled in an apprenticeship program within one year after displacement

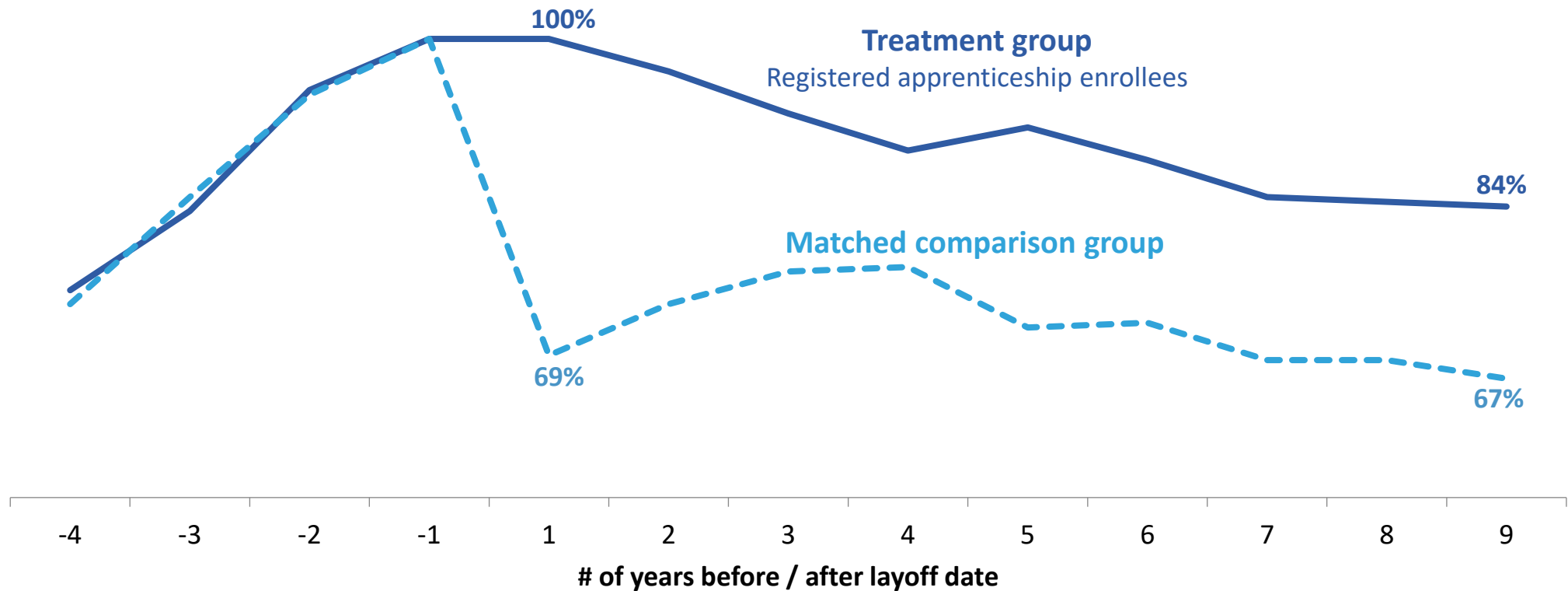
Outcomes through 9th year following job loss

- % **employed**
- Average annual **wage earnings** (in 2019 dollars)

Research method: propensity-score matched comparison group

- “Apples-to-apples” comparison

Impact of apprenticeship: Higher employment rate in long run



Impact of apprenticeship: Employment and wage impacts

In 9th year following displacement, apprenticeship program enrollees had:

- An **employment rate 17 percentage points higher** than comparison group
- Those who **found work** earned **\$7,000 more** than comparison group (in 2019 dollars)
- **Overall**, enrollees earned **\$10,000 more** than comparison group (in 2019 dollars)
 - Higher employment rate + higher wages conditional on employment

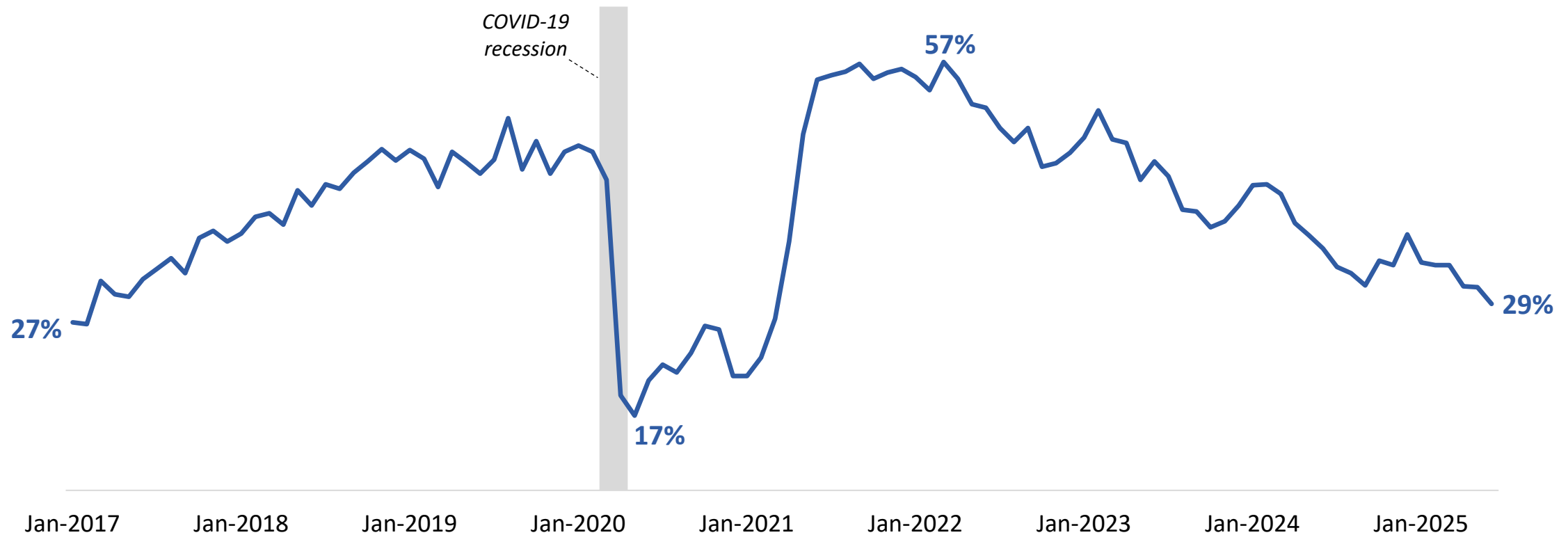
The Current Situation in North Carolina's Labor Market

Labor market slowdown

Nationwide decline in job availability

% of individuals nationwide reporting "jobs are plentiful"

Jan 2017 – Jun 2025

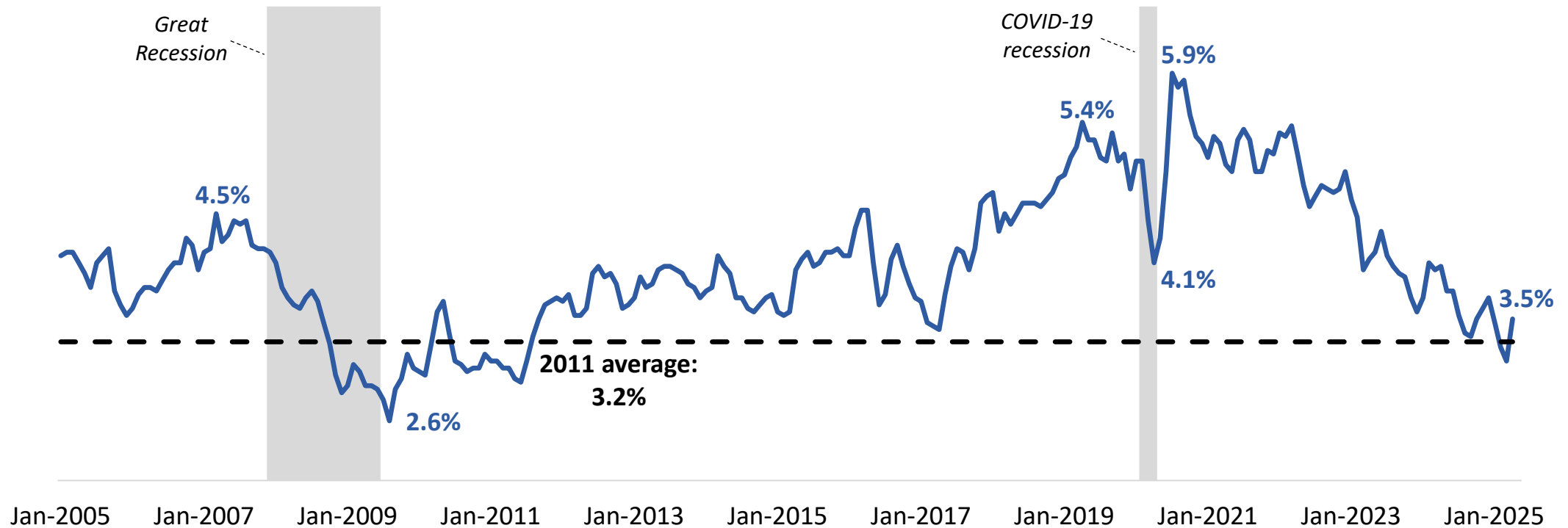


Labor market slowdown

Hiring in NC hasn't been this low since 2011

Hires as % of total employment North Carolina

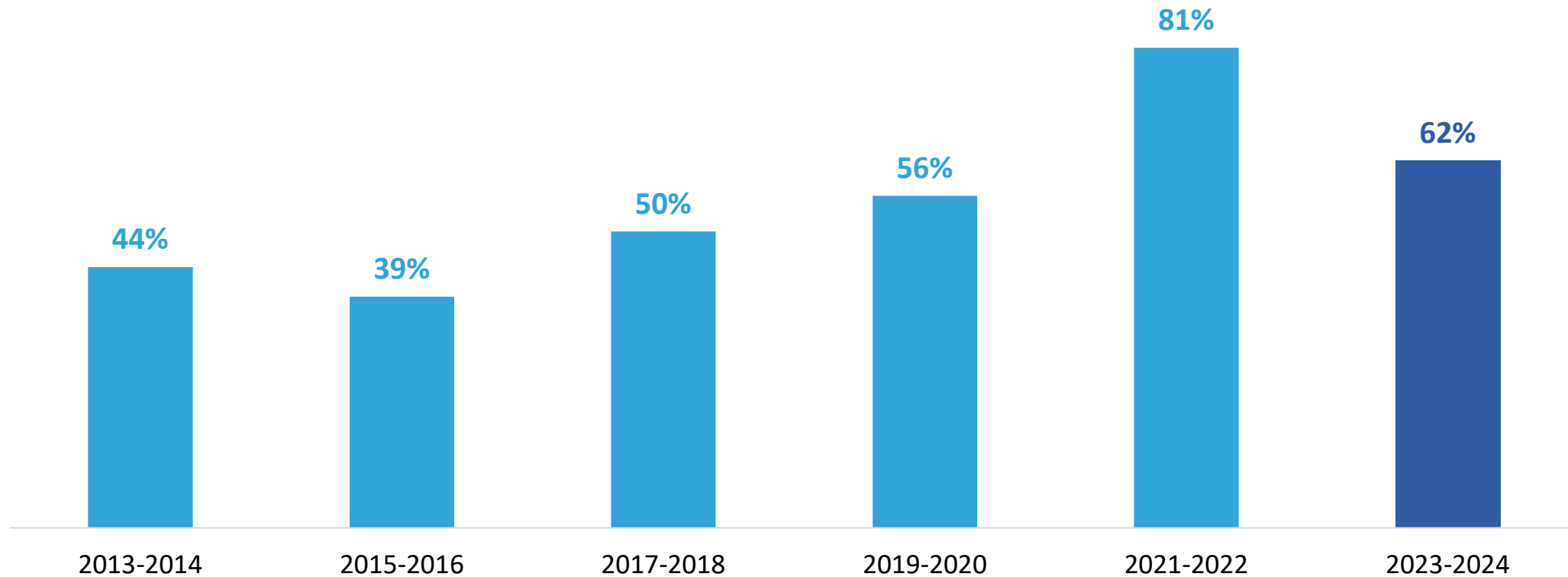
Three-month average (Jan 2005 - May 2025)



Hiring challenges

Despite slowdown, hiring difficulties persist

% of hiring employers in North Carolina reporting hiring difficulty
2013 - 2024

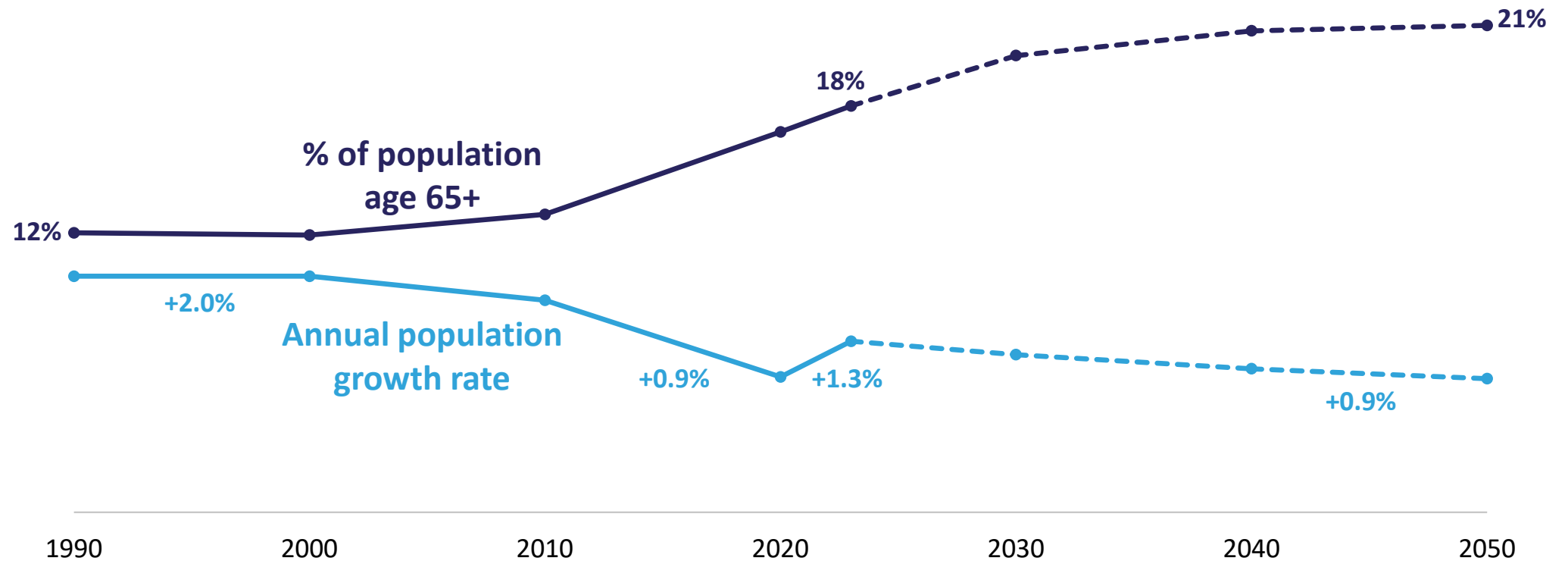


Hiring challenges

Aging + slow population growth

Slowing population growth and aging in North Carolina

Actual (1990-2023) and projected (2023-2050)

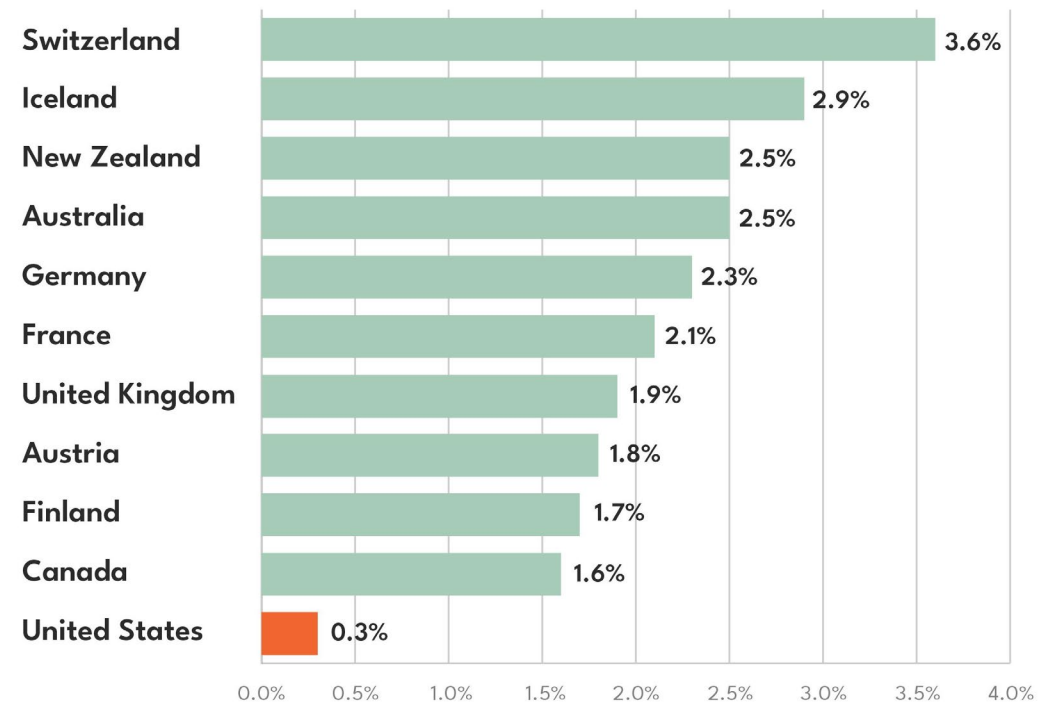


The Future of Apprenticeship (?)

The Future of Apprenticeship (?)

United States lags other developed nations

Number of Apprentices As Share of Working-Age Population

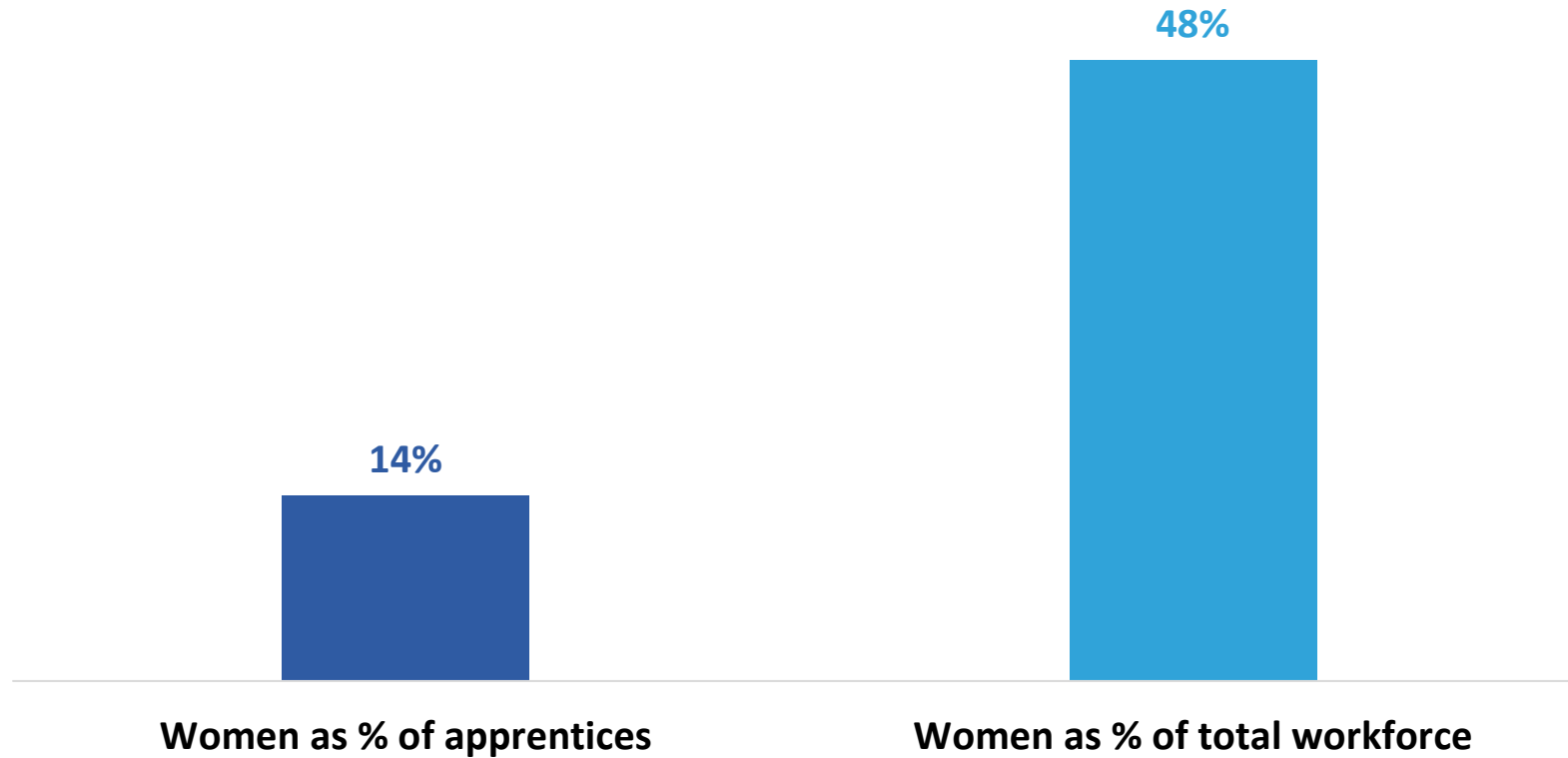


Source: Author's calculations based on the share of apprentices divided by the working age (15 to 64) population of OECD countries where data is available. Apprentice numbers are sourced either directly from a country's government website or "How Many Apprentices Are there in the EU." CEDEFOP, Office of the European Union, 2021, https://www.cedefop.europa.eu/files/4196_en.pdf. Accessed 8 Feb. 2024. Working age populations are sourced from Federal Reserve Economic Data, FRED, Federal Reserve Bank of St. Louis, 2024, <https://fred.stlouisfed.org/>. Accessed 8 Feb. 2024.

The Future of Apprenticeship (?)

Women are under-represented

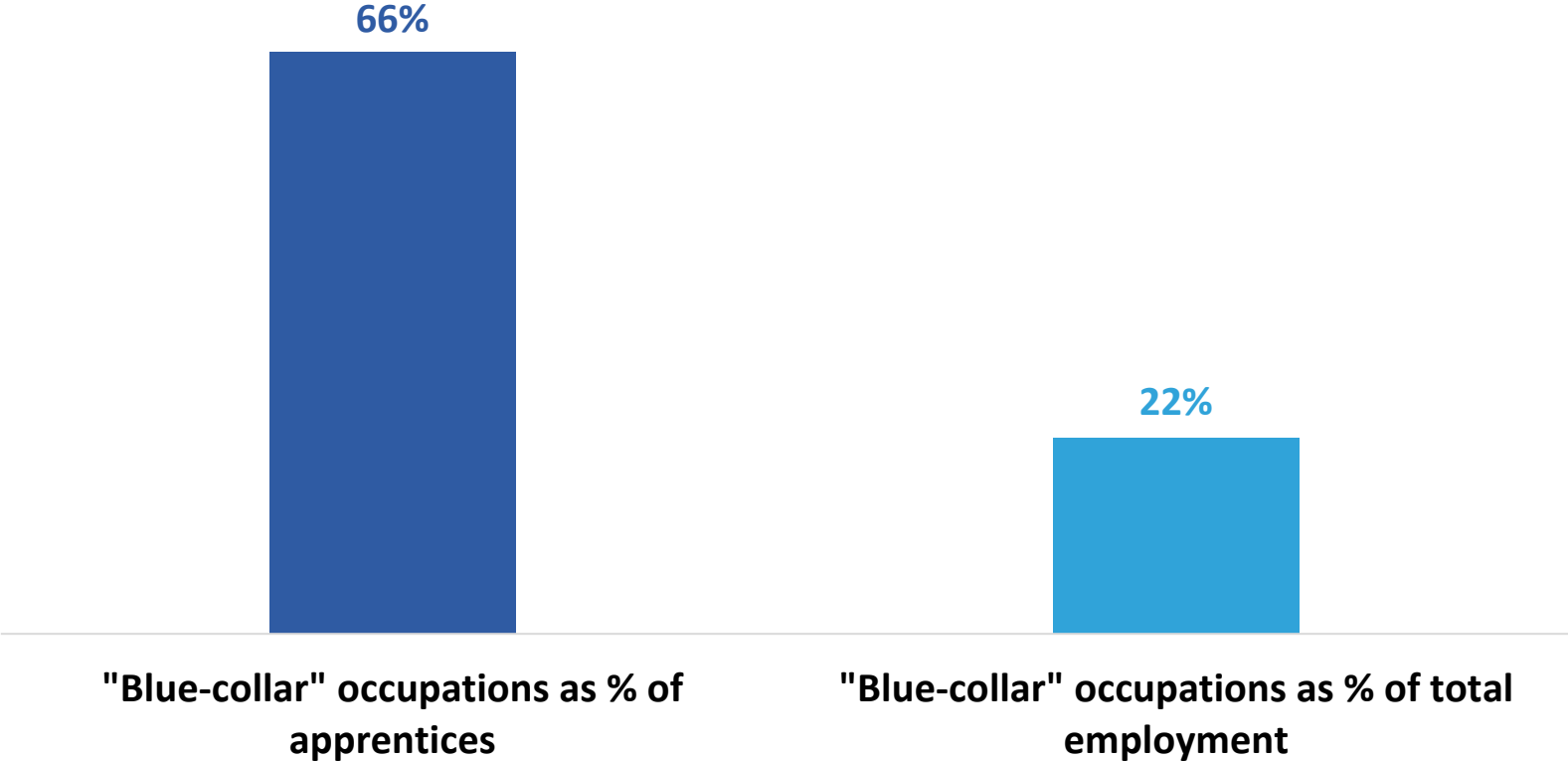
Gender composition in North Carolina
2024



The Future of Apprenticeship (?)

"Blue-collar" jobs are over-represented

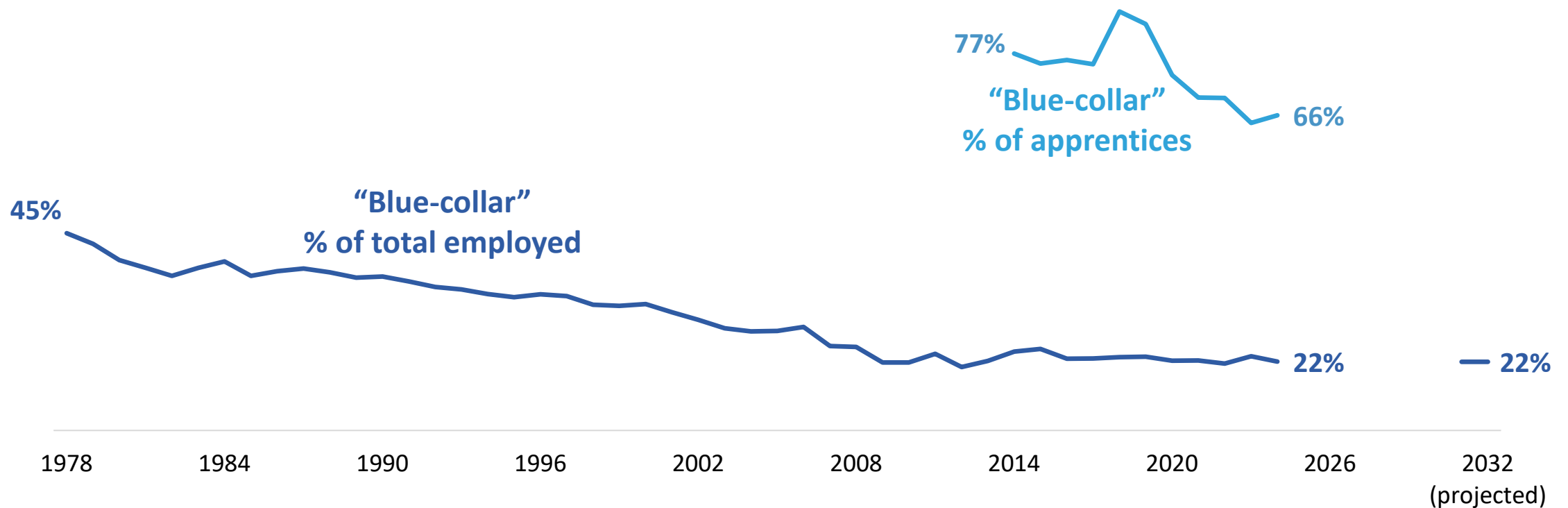
Occupational composition in North Carolina
2024



The Future of Apprenticeship (?)

Economy has transitioned away from "blue-collar" jobs

Occupational composition in North Carolina
1978 – 2024 and 2032 (projected)



Key takeaways

Registered apprenticeships are **remarkably effective** workforce programs

Right now, **jobseekers** are having a **hard time** finding work

- Apprenticeship can help workers gain a career foothold

In the long-term, **demographic trends** may lead to increased **hiring difficulties**

- Apprenticeship can help companies attract and retain qualified employees

What will **the future** hold for apprenticeship programs?

- Can apprenticeship scale up to meet the challenges of tomorrow's economy?

Resources of interest

North Carolina apprenticeship research:

[The Long-Term Impact of Apprenticeship on the Employment Outcomes of Displaced Workers](#)

Labor market dashboards and data tools:

[LEAD Analytics](#)

Career information system:

[NC Careers](#)

“Thank you!”

Andrew Berger-Gross

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LEAD Feed **blog**: commerce.nc.gov/news/the-lead-feed



Follow us on **LinkedIn**: linkedin.com/showcase/labor-economic-analysis-division-lead/



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References

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https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2018-04_1-WIA-30mo-main-rpt.pdf

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Reed, D., Liu, A. Y. H., Kleinman, R., Mastri, A., Reed, D., Sattar, S., & Ziegler, J. (2012). *An effectiveness assessment and cost-benefit analysis of registered apprenticeship in 10 states*. Mathematica Policy Research. https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf

Panel Discussion

Audience Questions and Answers

Concluding Remarks



NC DEPARTMENT
of COMMERCE
WORKFORCE SOLUTIONS

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