Nothing Compares
NORTH CAROLINA

Keeping on Trends: Five Key Economic Trends Impacting NC's Workforce

October 6, 2016

About LEAD

Labor & Economic Analysis is a division of the NC Department of Commerce.

Our primary responsibilities include:

- **Data collection (BLS)**
- **Data tools & publications**
- **Workforce / economic development research & analysis**
- **Performance evaluation of education and workforce programs**
- **MIS support for the Commerce Department**

The Economy and You

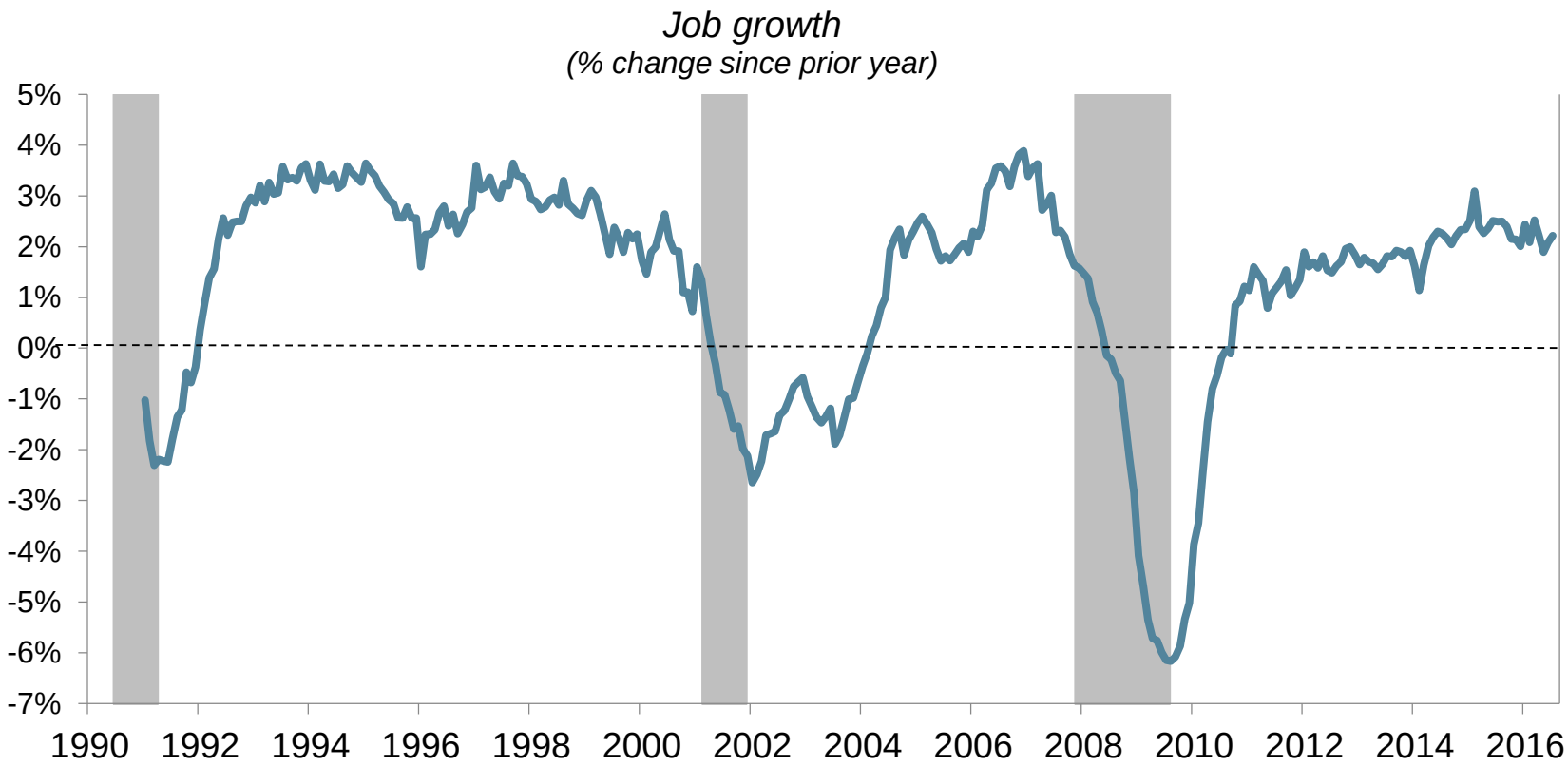
- Economic trends impact our day-to-day work
- Especially true for workforce professionals

Five Key Economic Trends

- Ups and downs:
  - The economy expands and contracts in cycles
  - Right now our economy is growing
- Where the jobs are:
  - Types of jobs have changed over time
- Returns to education/skill:
  - Education and credentials remain important
- The mismatch mystery:
  - Labor market is tight, but hiring is slower than usual
- Where’s my raise?:
  - Some workers are seeing their earnings increase; most are not

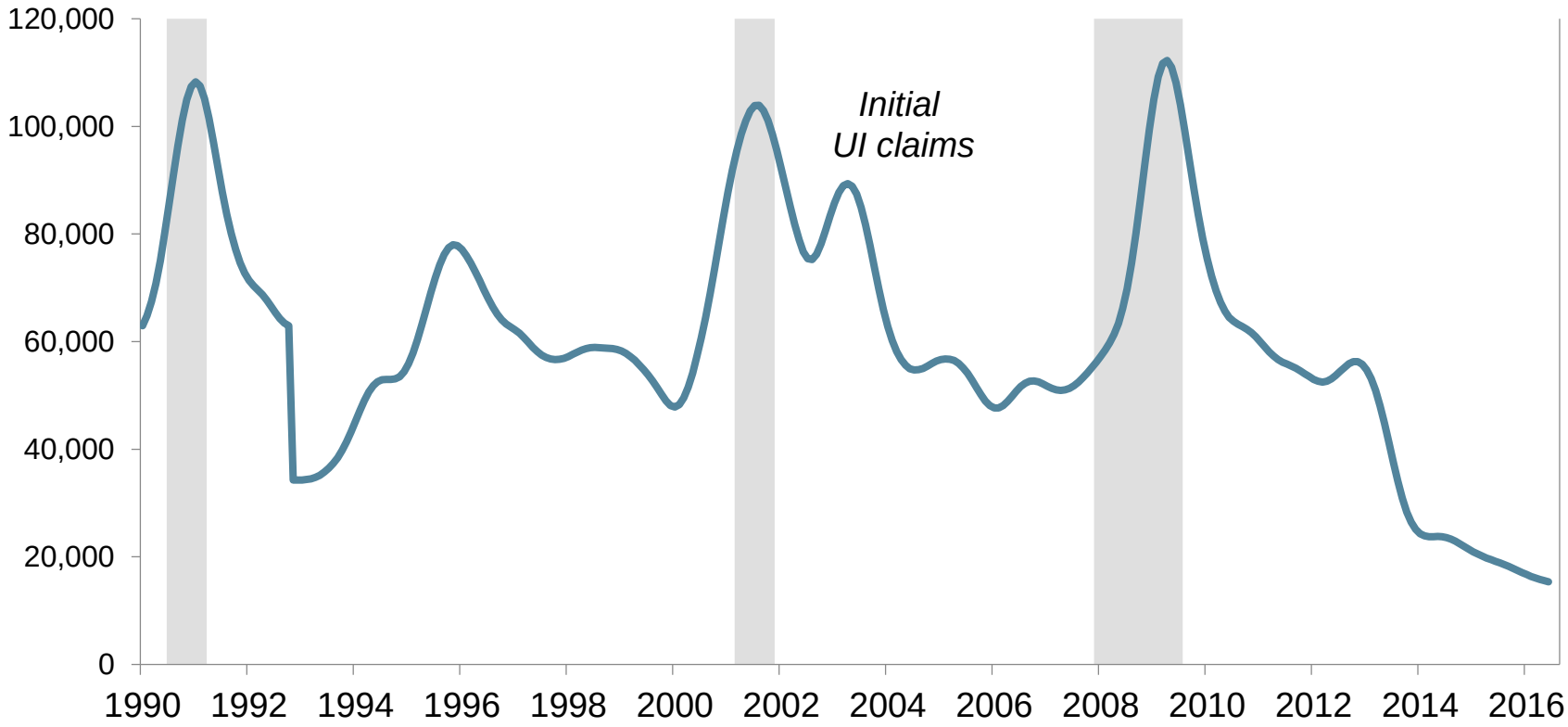
Ups and downs:
the business cycle

The number of jobs plummets during recession…



Total nonfarm employment NC (annual change) with bars indicating recession periods
Source: Current Employment Statistics (U.S. Bureau of Labor Statistics).
Recession periods are as defined by the National Bureau of Economic Research.

…causing unemployment insurance claims to surge…



Initial claims for unemployment insurance in NC, with bars indicating recession periods
Source: Employment and Training Administration. Seasonally adjusted and smoothed using X-12-ARIMA.

…and making the unemployment rate increase.

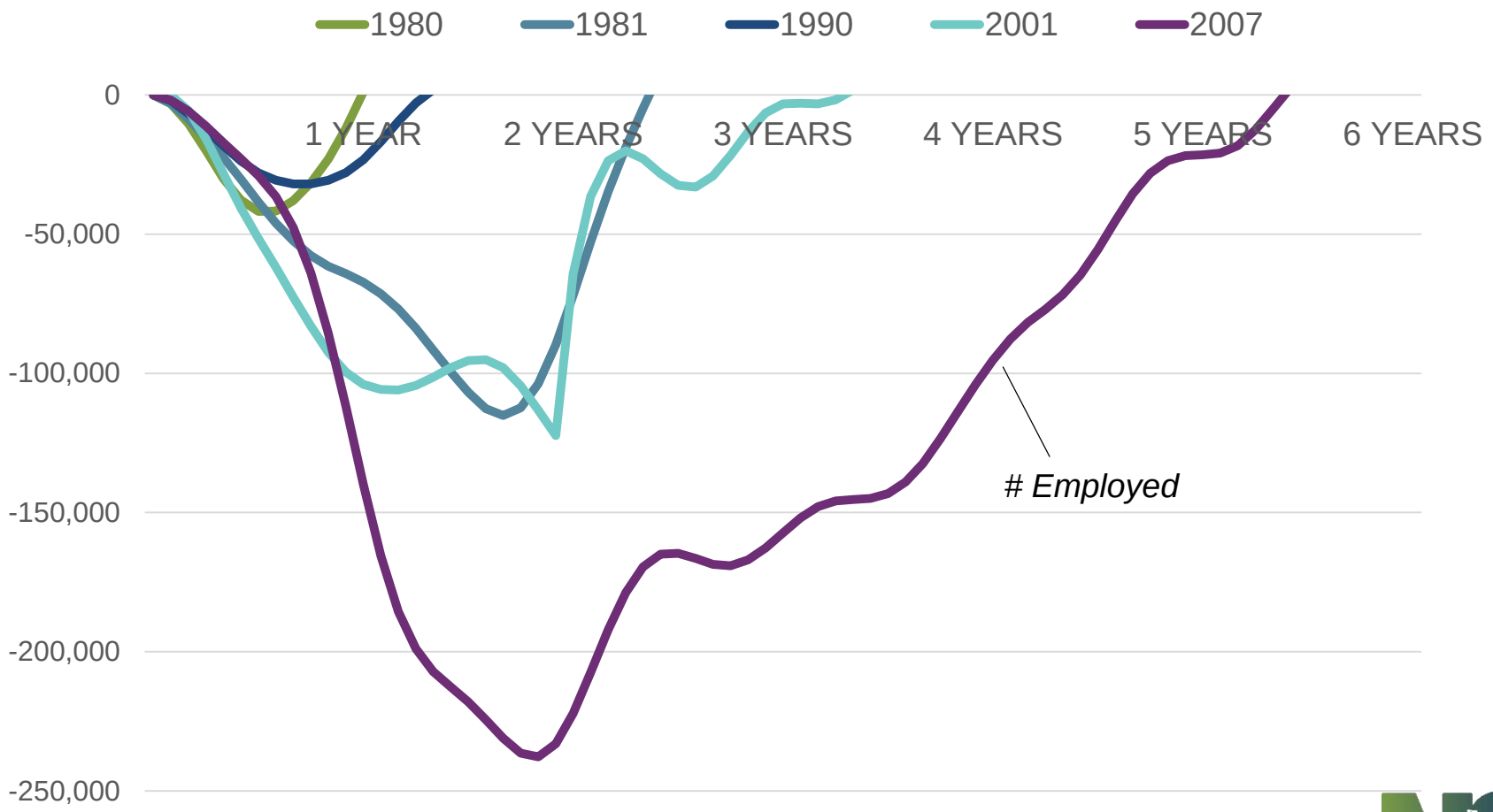
Unemployment rate in NC, with bars indicating recession periods
Source: Local Area Unemployment Statistics.

Where are we now?

Economy is expanding

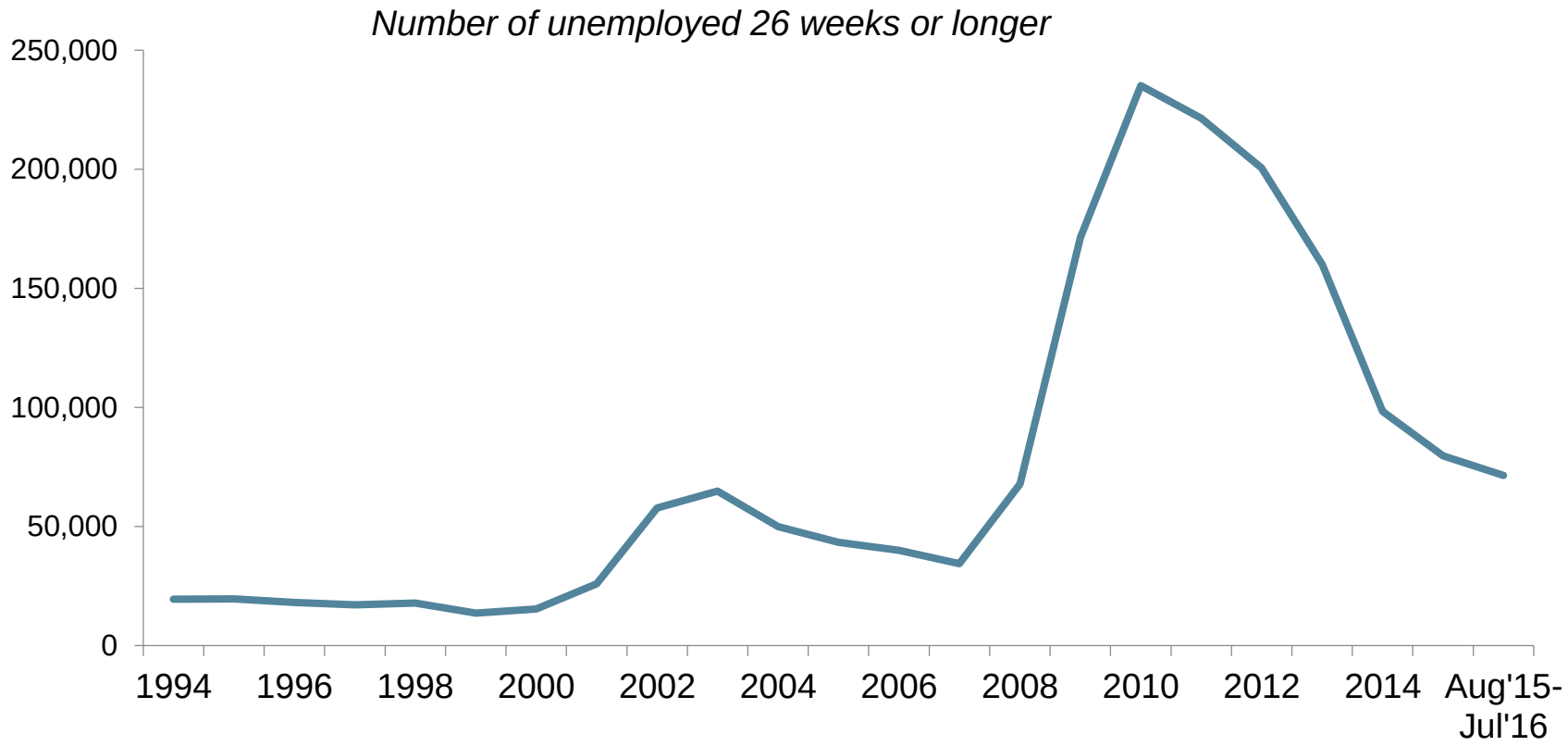
- Recession “officially” ended June 2009
- However, recovery has taken longer than during previous cycles

Recent recession was severe, and recovery took a long time



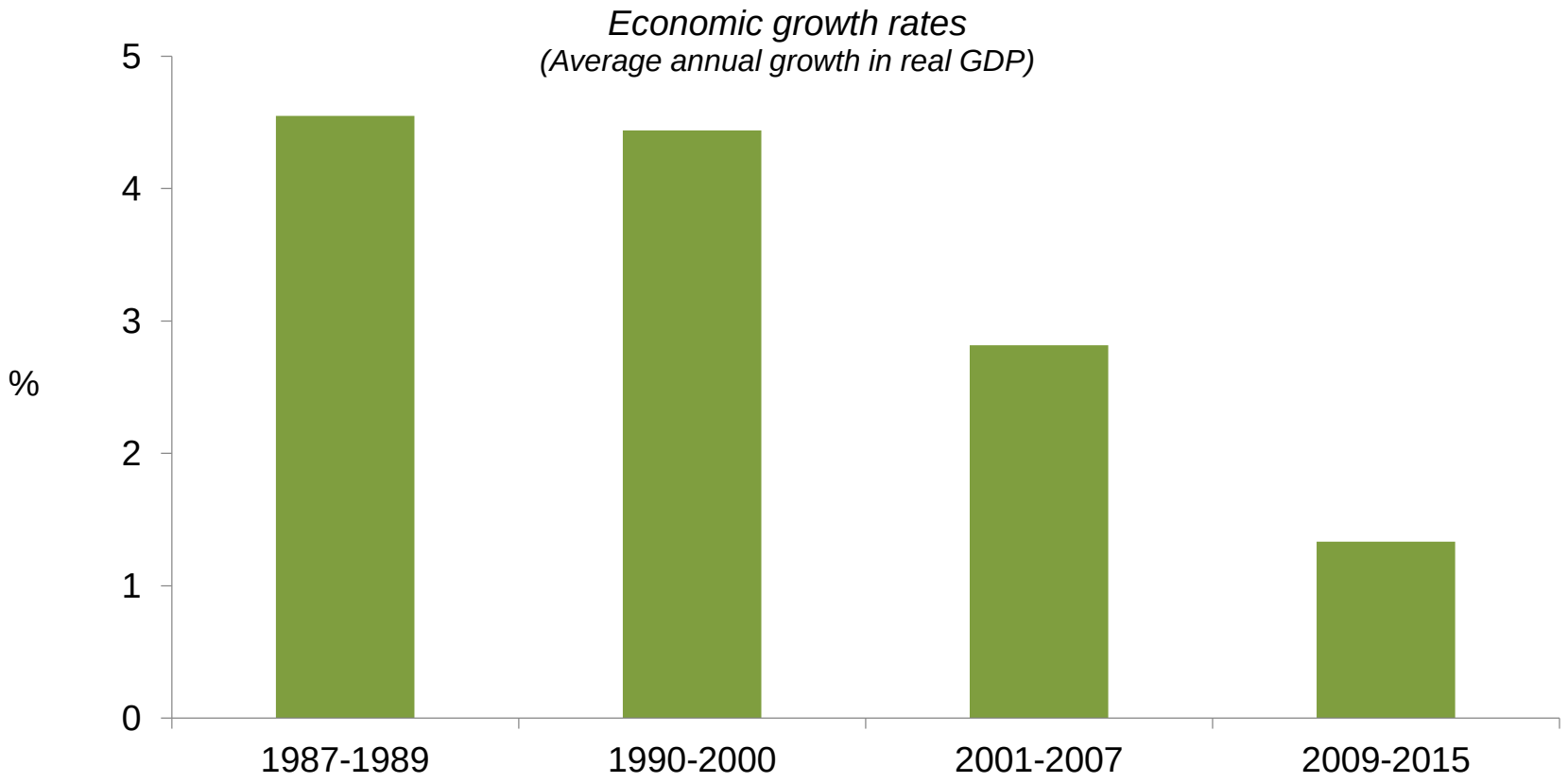
Number of employed persons: loss and growth in NC during / after recessions
Source: Local Area Unemployment Statistics.

Drawn-out recovery led to long-term joblessness



Number of unemployed >26 weeks in NC
Source: Current Population Survey

Post-recession economic growth has been relatively slow



Average annual growth in real GDP in NC, past four expansion periods 1987-2015
Source: Bureau of Economic Analysis

Are these trends unique to NC?

No! NC's trends largely mirror national trends:

- The business cycle (growth and recession)
- Gradual recovery from the 2007-2009 recession
- Historically high long-term unemployment
- Historically slow economic growth rates

When will next recession arrive?

- It's coming eventually
  - Since WWII, ~5 years between recessions on average
  - Great Recession ended 7 years ago
- Economy is continuing to grow
- No recession until at least 2018?
  - According to recent survey of economists*

*Source: NABE Outlook Survey, March 2016
http://nabe.com/nabe/NABE/Surveys/Outlook_Surveys/March_2016_Outlook_Survey_Summary.aspx

Where the jobs are:

changes by industry, occupation, and skill requirement

They Don't Work Here Anymore

Manufacturing Has Lost Its Employment Might

297,000 Lost Manufacturing Jobs 2000-2015

How big is 297,000? Bigger than…

- **Total Labor Force** of Northwest Prosperity Zone *(285,000)*
- **All employed people** in both the Western Piedmont *(160,000)* & Triangle South *(134,000)* WDB Regions
- **Entire population** of the NC's 20 smallest counties, combined (or Durham County)

Source: NC Department of Commerce, LEAD: Quarterly Census of Employment and Wages (QCEW)

Where did the Jobs Go?

Structure of NC's Economy Has Changed, 2000-2015

- Health Care & Social Services
  - **186,000** new jobs (46% increase)
- Accommodation & Food Services
  - **118,000** new jobs (43% increase)
- Professional & Technical Services
  - **74,000** new jobs (50% increase)
- Education
  - **69,000** new jobs (23% increase)

Source: NC Department of Commerce, LEAD: Quarterly Census of Employment and Wages (QCEW)

Post-Recession Story: 2010-2015

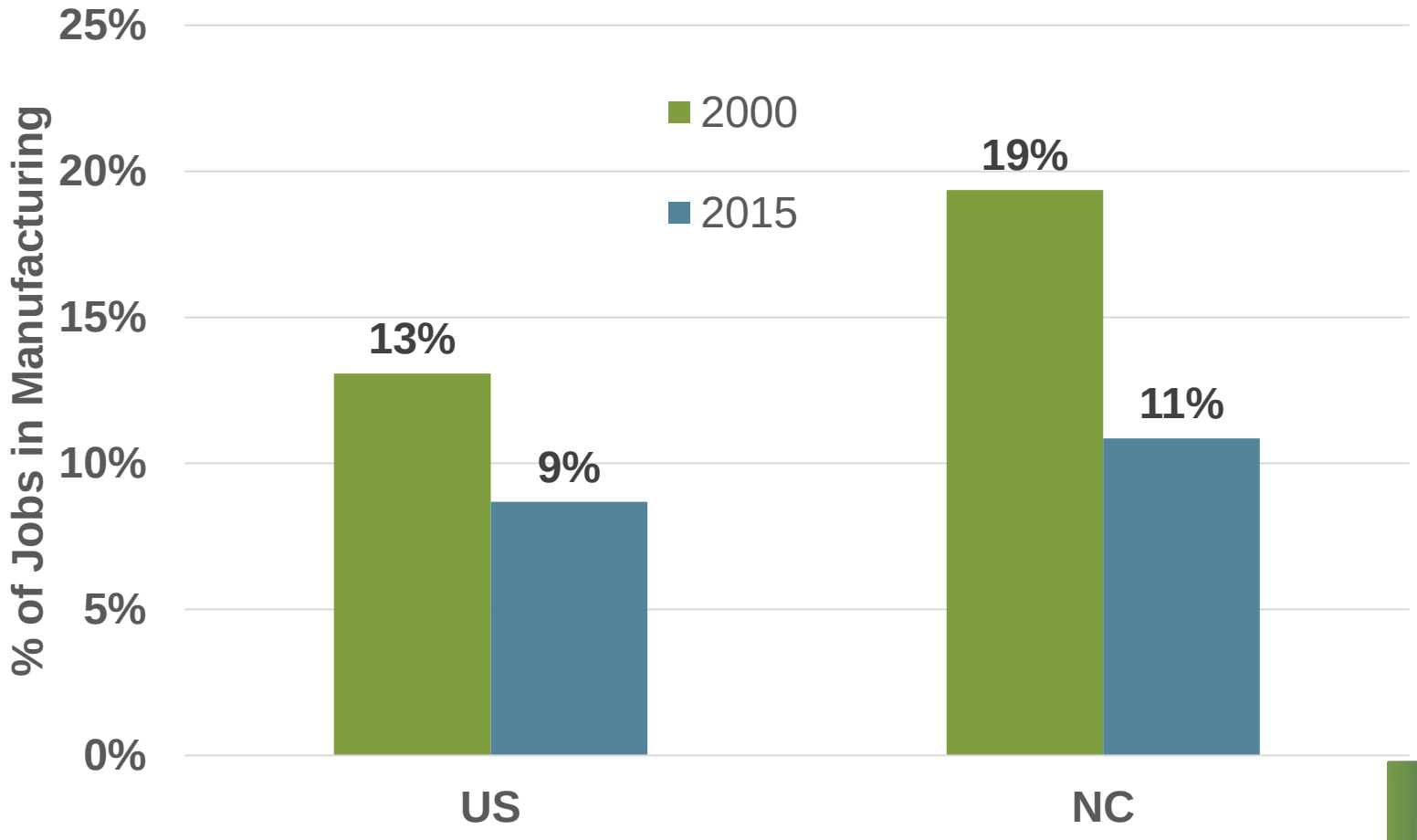
Growing Industries

- Accommodation and Food Services (+60,000 jobs)
- Administrative and Support (+58,000; 25%)
- Retail Trade (+50,000)
- Manufacturing (+29,000; 7%)
  - Transportation Equipment (9,000)
  - Machinery (5,000)
  - Fabricated Metal Product (5,000)
  - Plastics and Rubber (4,000)
  - Furniture and Related (3,000)

Source: NC Department of Commerce, LEAD: Quarterly Census of Employment and Wages (QCEW)

What is causing the shift?

Large Historical Changes



Source: Bureau of Labor Statistics and NC Department of Commerce, LEAD: Quarterly Census of Employment and Wages (QCEW)

What is causing the shift?

Change in Manufacturing Itself

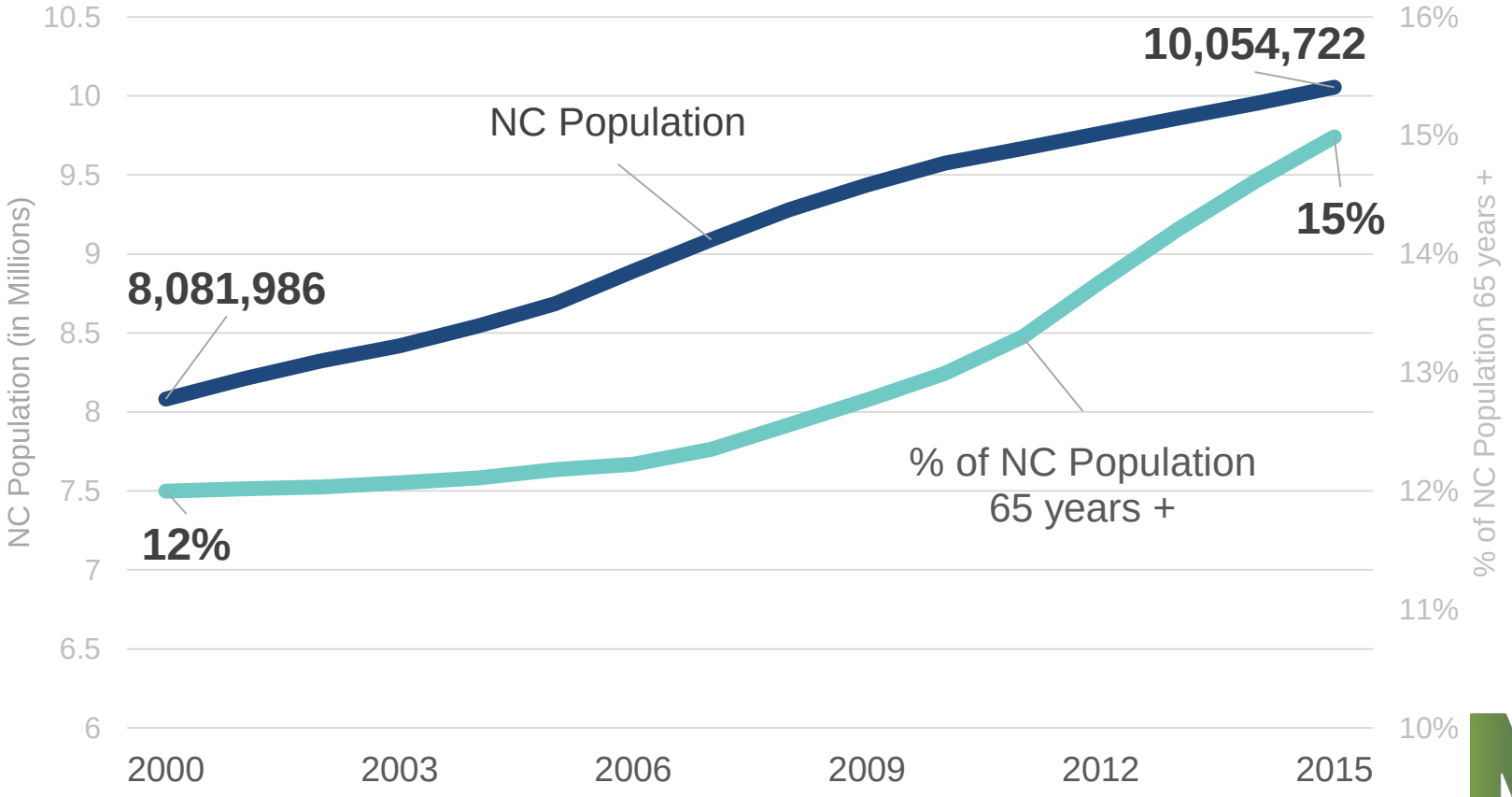
- Becoming less labor intensive/higher-skill
- Drops in non-durables even more drastic

Source: NC Department of Commerce, LEAD: Current Employment Statistics (CES)

What is causing the shift?

Demographic Characteristics

- We are growing and growing older…



Source: NC Office of State Budget and Management: County/State Population Projections

Why should we care?

This impacts our future and attempts to understand the future

Services

Industry	2014	2024	Net Change	Percent Change
Food Services and Drinking Places	341,336	402,886	61,550	18.0%
Ambulatory Health Care Services	188,378	248,046	59,668	31.7%
Administrative and Support Services	272,977	315,150	42,173	15.4%
Professional, Scientific, and Technical Services	207,838	247,708	39,870	19.2%

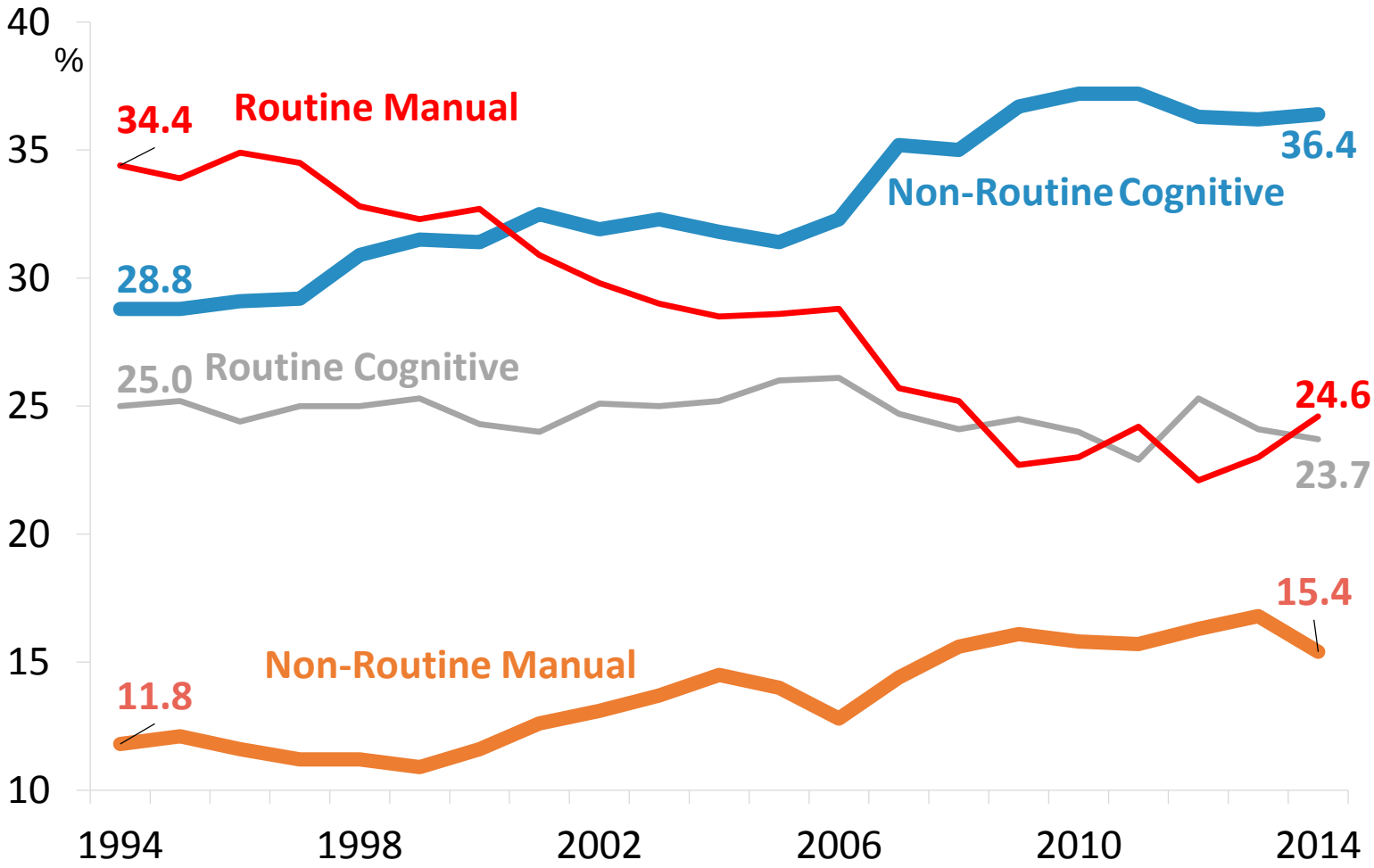
Source: NC Department of Commerce, LEAD: 2014-2024 Industry Projections

Industry Impacts Occupation: Health Care

- Increase in Health Care leads to gain in health care-related occupations
  - From 2000-2015, gain of:
    - over 90,000 jobs in Healthcare Practitioners and Technical Occupations.
    - over 66,000 jobs in Healthcare Support Occupations.

Source: NC Department of Commerce, LEAD: Occupational Employment Statistics (OES)

More Non-Routine Jobs, Fewer Routine Jobs



Source: Bureau of Labor Statistics: Current Population Survey

What is causing the occupational shift?

- Impact of Technology
- Industrial Shifts
- Increasing Education

Skills that Pay the Bills: Returns to Education

How do we measure education?

Educational Requirements vs.
Educational Attainment

Jobs

Workers

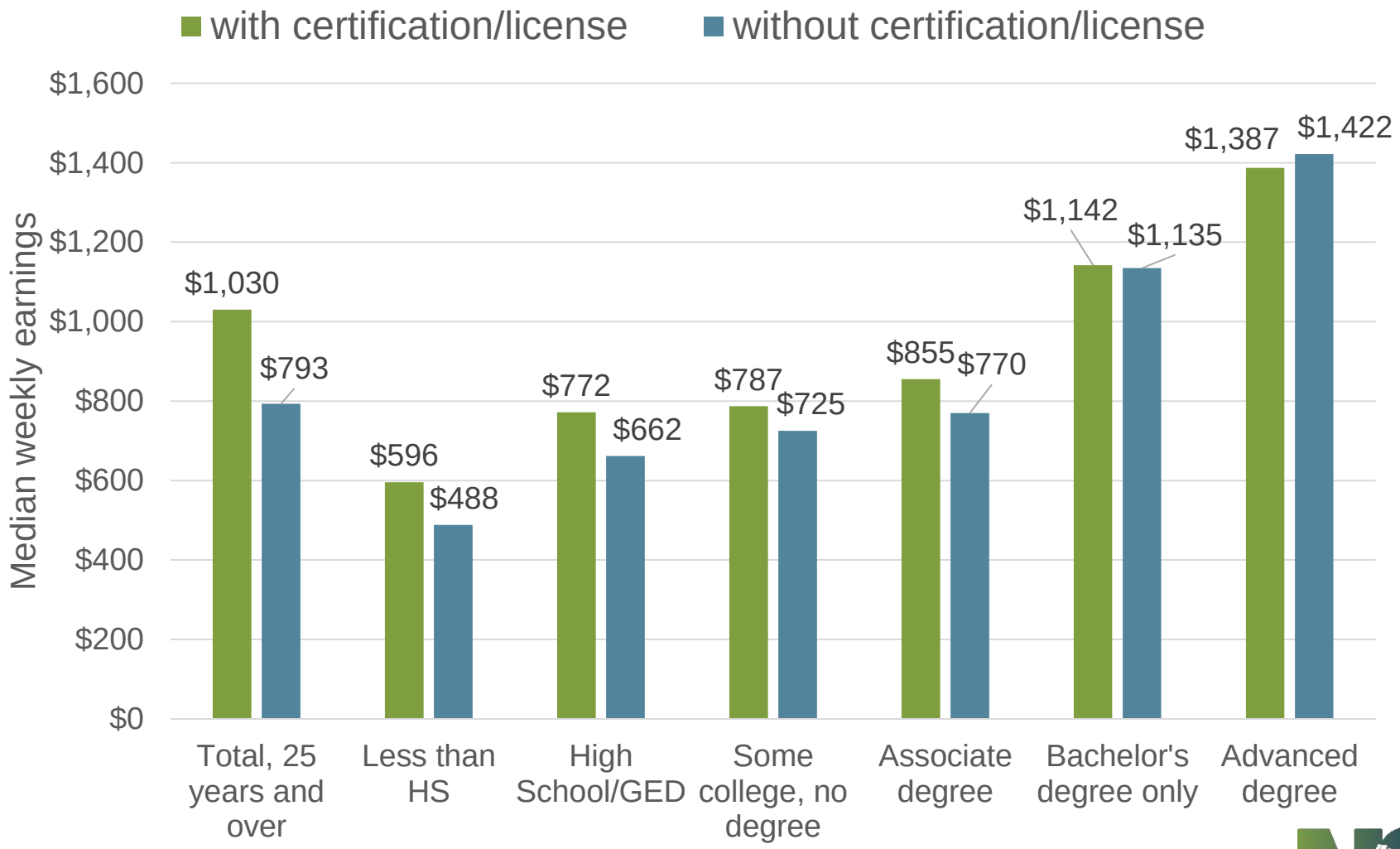
Returns to Education

- More education associated with positive outcomes
- About 2/3 of rise in earnings inequality between 1980 and 2005 accounted for by premium to postsecondary education.
- The college wage premium has been flat since 2010.

Returns to Credentials

- 2015 Current Population Survey (CPS)
  - 18% of population had currently active certification or license.
  - Healthcare Occupations had more credentials than others
  - Relationship between education and certification
  - Median wages higher; unemployment rate lower

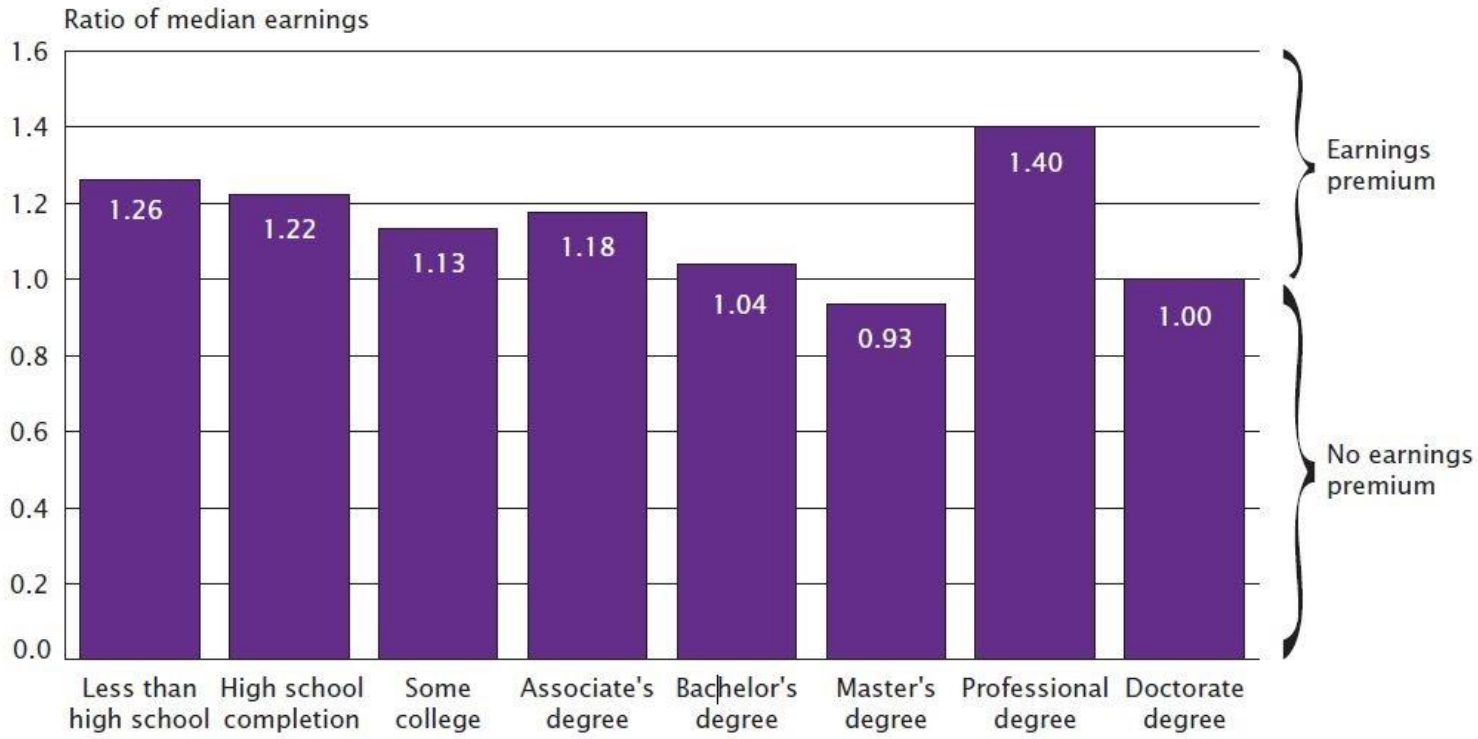
Returns to Credentials for Workers



Source: Bureau of Labor Statistics: Current Population Survey (2015): Workers aged 25+ years

Returns to Credentials for Workers

Median Monthly Earnings for Professional Certification or License Relative to No Alternative Credential by Education Level: 2012



Note: Nonrespondents are not included in estimates of alternative credentials. Only people employed full-time for the 4 months before the survey with positive earnings are included in these analyses.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Source: US Census Bureau: Ewert & Kominski Measuring Alternative Educational Credentials: 2012; P70-138.

Returns to Skills

Skills associated with higher pay:

- General (e.g. Speaking, Active Listening, Reading Comprehension, Writing)
- STEM (e.g. Mathematics, Programming, Operations Analysis)
- Management (e.g. Coordination, Management of Personnel Resources, Management of Material Resources

Skills account for almost half of the impact of education on wages.

*Source: US Department of Labor: Occupational Information Network (O*NET) Online*

Importance of Skills

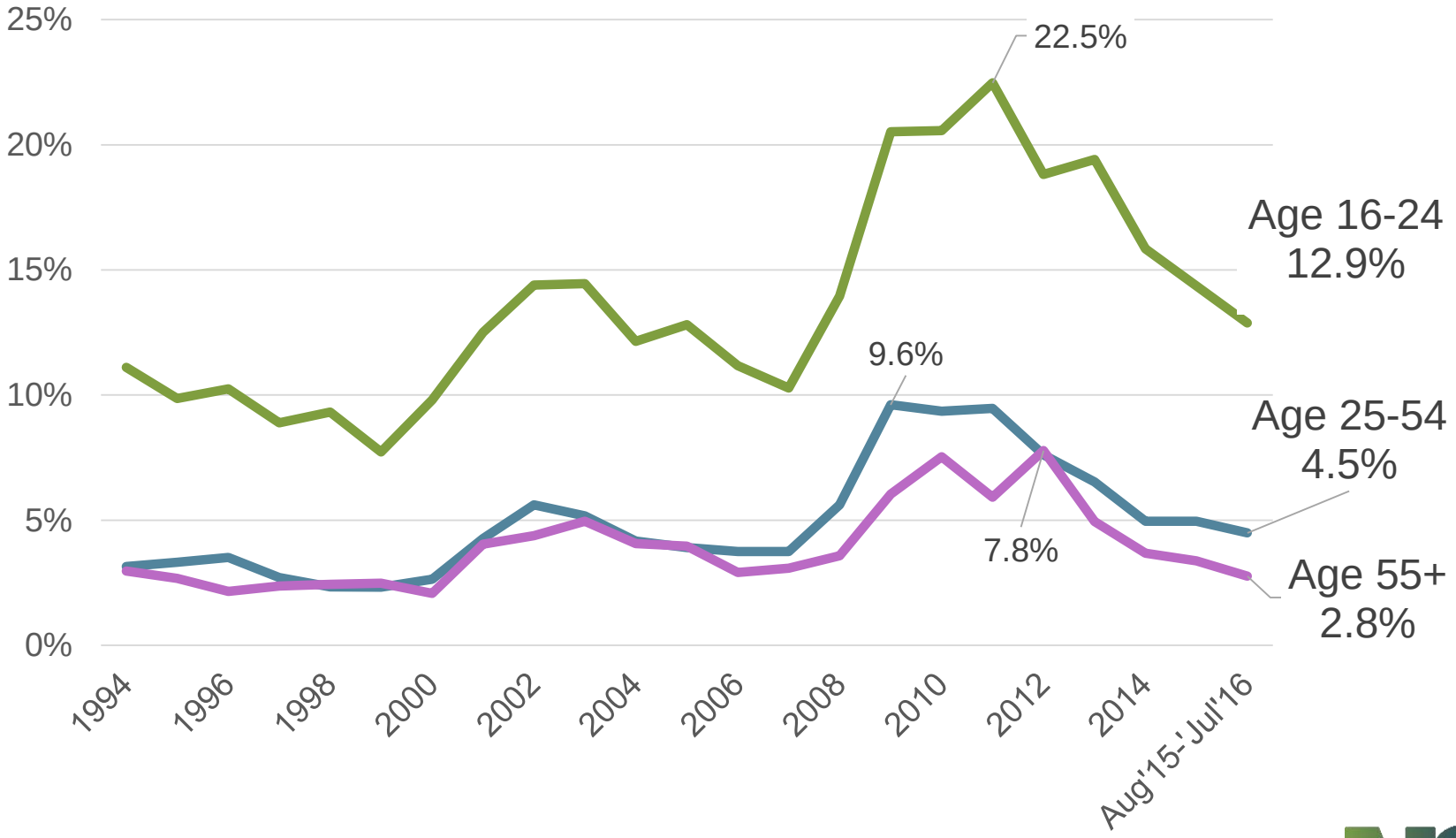
Employer Needs Survey (2016)

Employers had difficulty hiring due to:

- Lack of work experience
- Lack of education/credentials
- **Lack of technical skills**
- **Lack of soft skills**

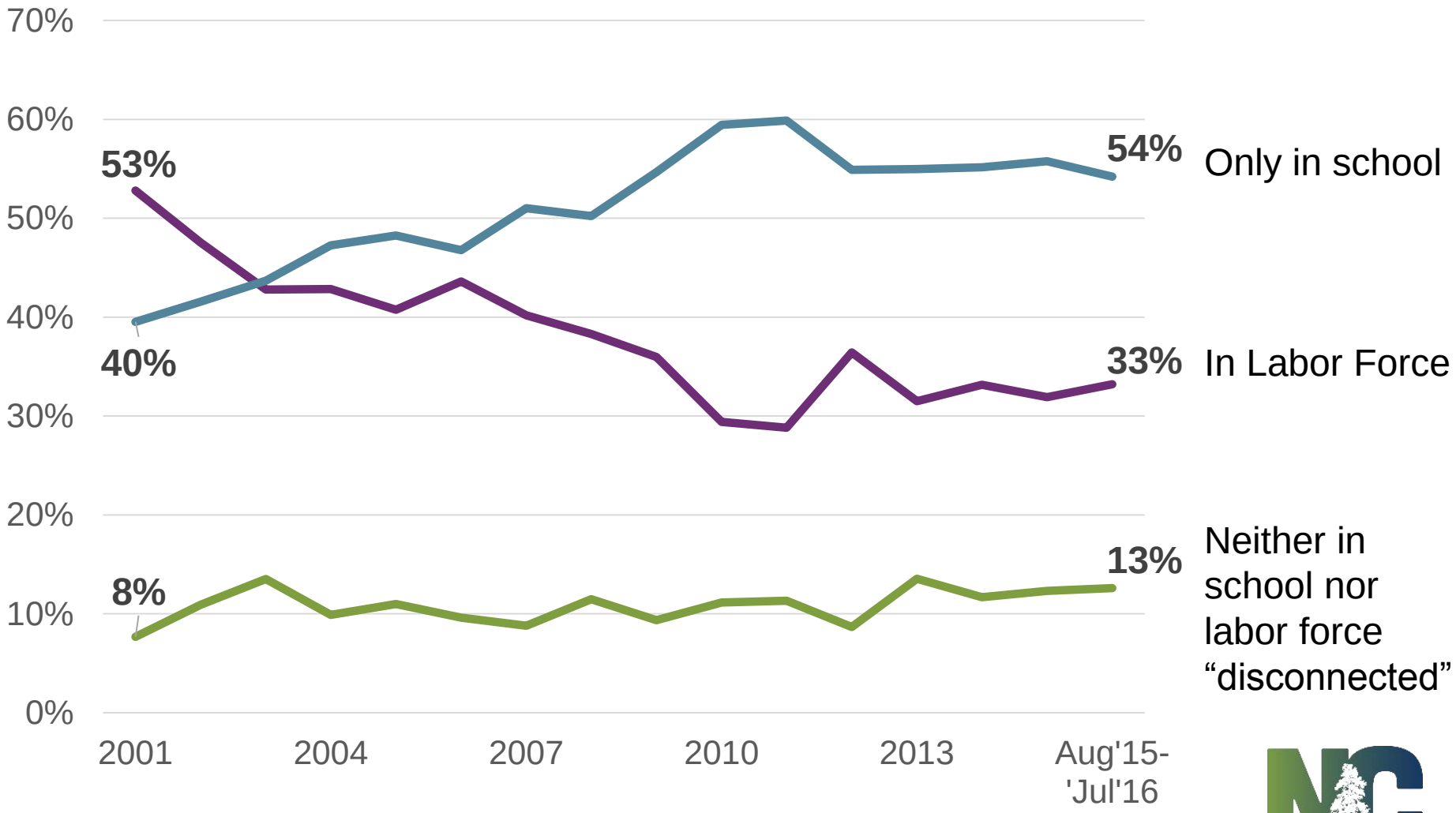
*Source: US Department of Labor: Occupational Information Network (O*NET) Online*

NC Unemployment Trends



Source: Bureau of Labor Statistics: Current Population Survey

NC Youth (16-19) Labor Force Status



Source: Bureau of Labor Statistics: Current Population Survey

Why should we care?

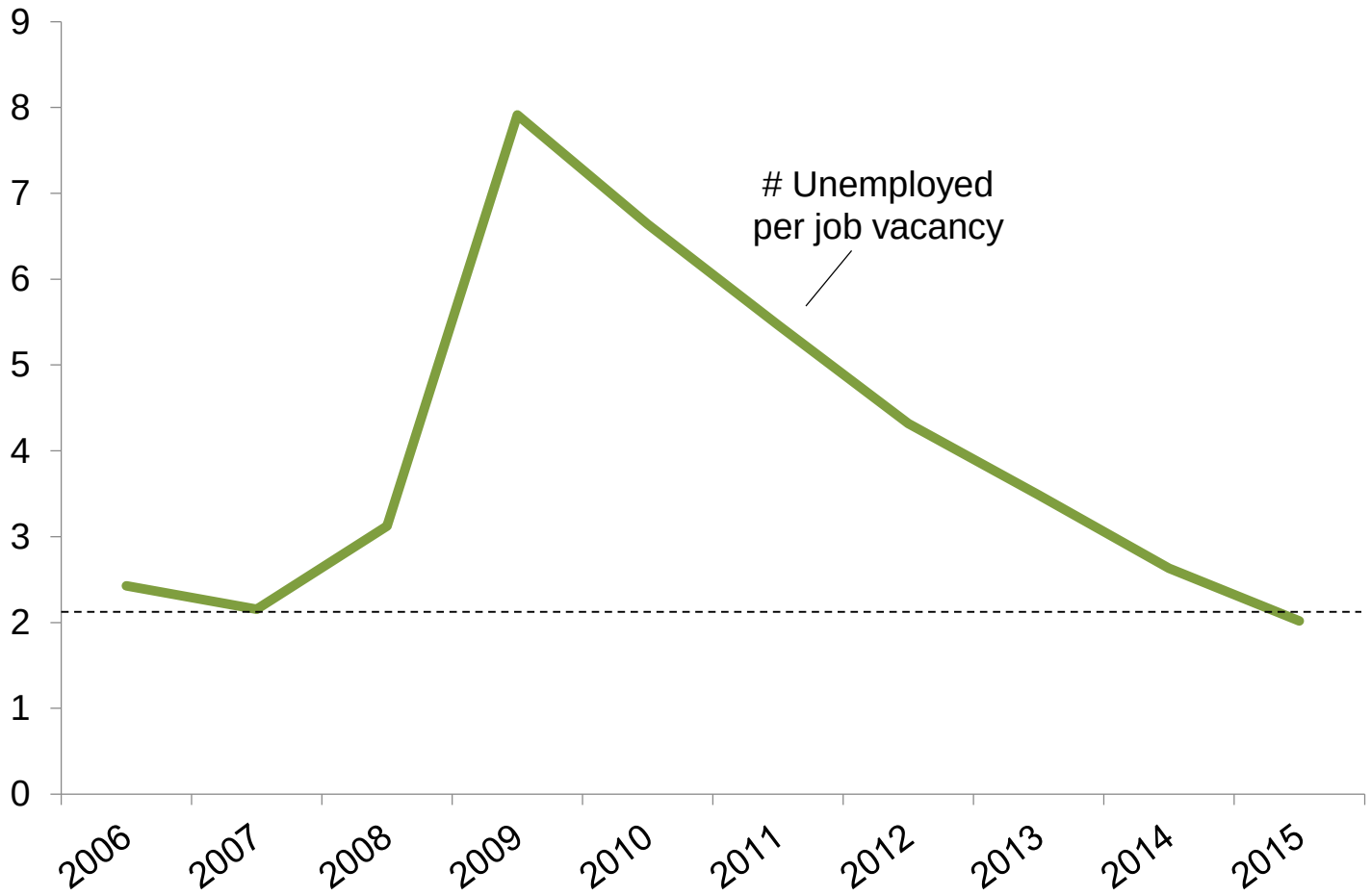
- Initiative for more education or skills upgrade (Drive for 67)
- Workforce system can recognize need for right skills and training for economy

The mismatch mystery:
supply and demand for labor in North Carolina

What is labor "supply" and "demand"?

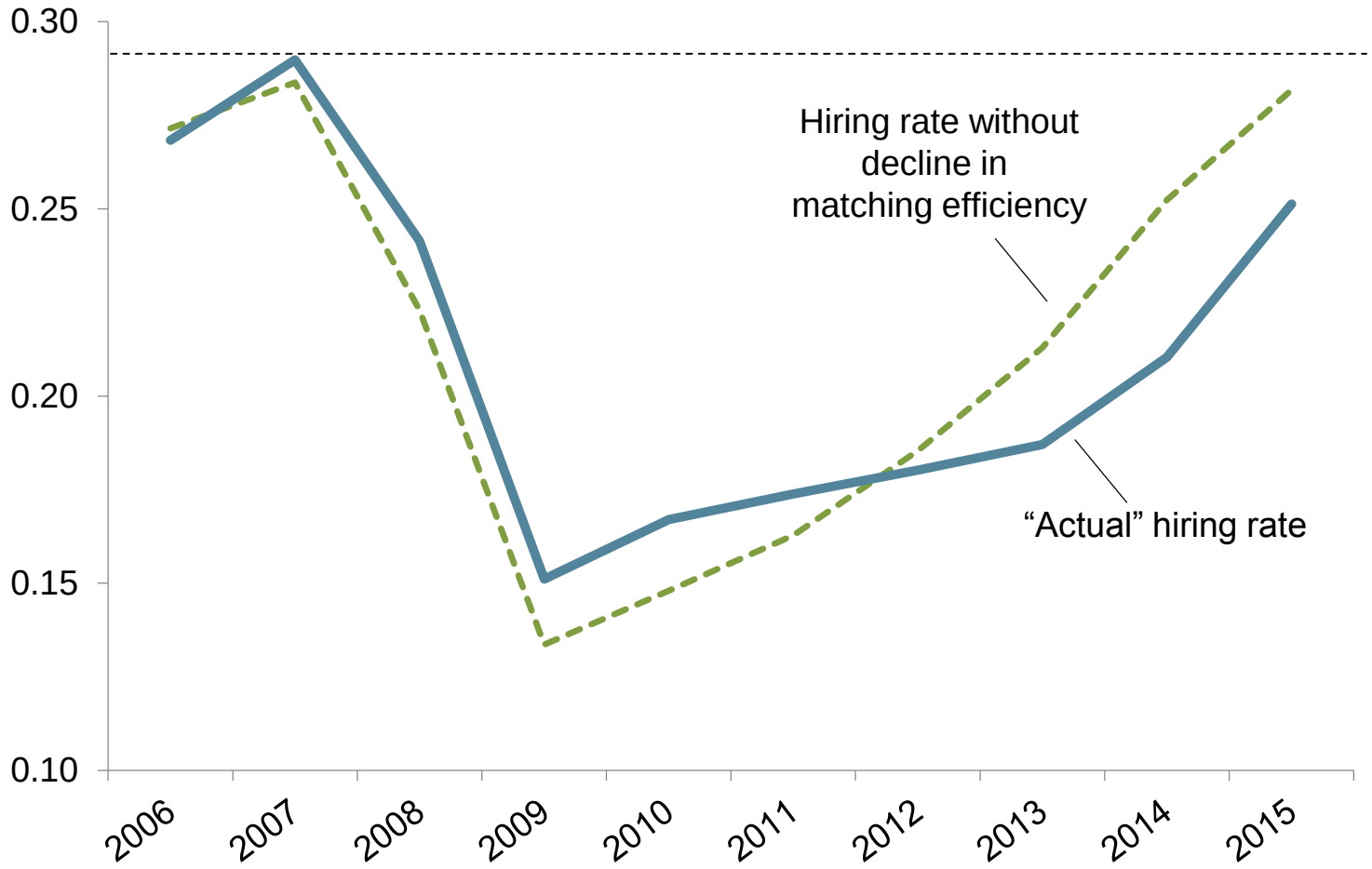
- Labor supply = # **unemployed**
  - Individuals without work who are able, available, and actively seeking work
- Labor demand = # **job openings**
  - Positions for which work is available and the employer is actively recruiting

The labor market is tight:
"A jobseeker's market"



Number of unemployed per job vacancy in NC. Job openings are benchmarked to the occupational distribution of the JOLTS survey.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

Inefficient labor market:
Hiring is down, despite strong demand



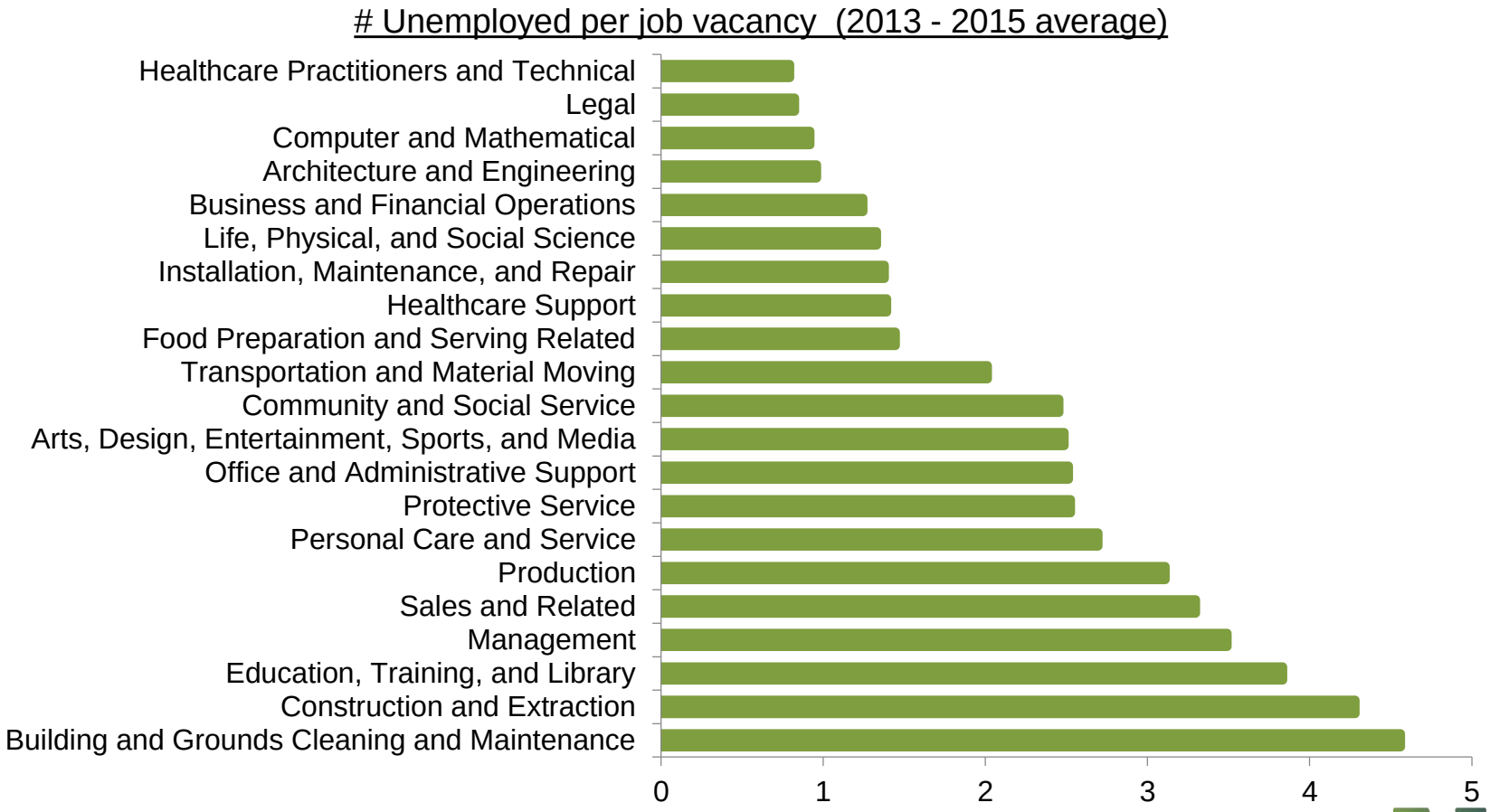
Predicted hires-per-unemployed in NC. Job openings are benchmarked to the occupational distribution of the JOLTS survey.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

What might be causing slow hires?

Is there a growing mismatch between employers and jobseekers?

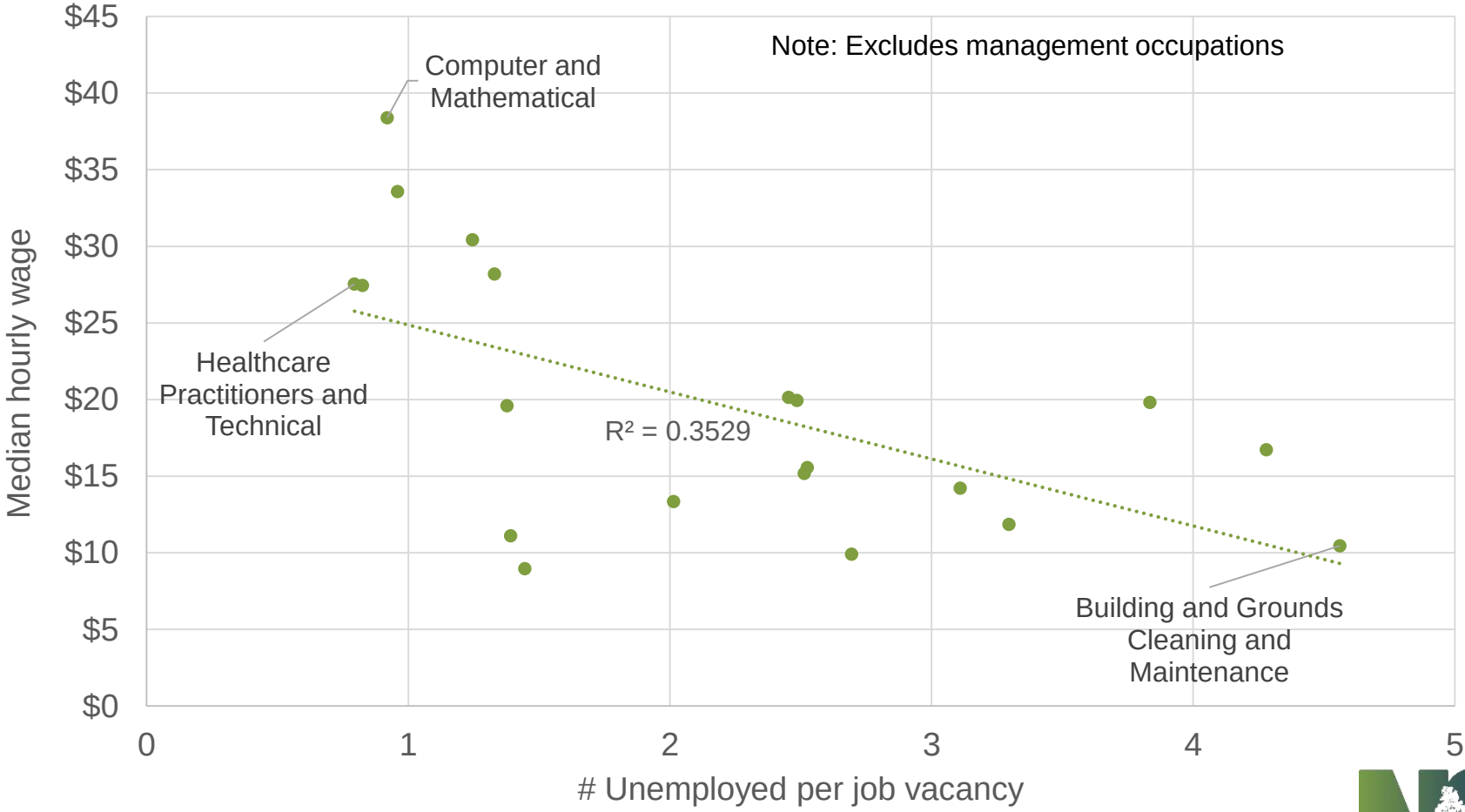
- Occupational (type of job experience)
- Geographic (where workers live)

Some occupations are more "in-demand" than others



Number of unemployed per job vacancy in NC, by occupation. Job openings are benchmarked to the occupational distribution of the JOLTS survey and adjusted for heterogeneous matching efficiency.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

"In-demand" occupations typically pay higher wages



Number of unemployed per job vacancy in NC, by occupation, and median hourly wage in NC, by occupation.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

Geographic regions also seeing disparate conditions

Number of unemployed per job vacancy in NC, by Metropolitan Statistical Area. Job openings are benchmarked to the occupational distribution of the JOLTS survey and adjusted for heterogeneous matching efficiency.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

Is it mismatch?

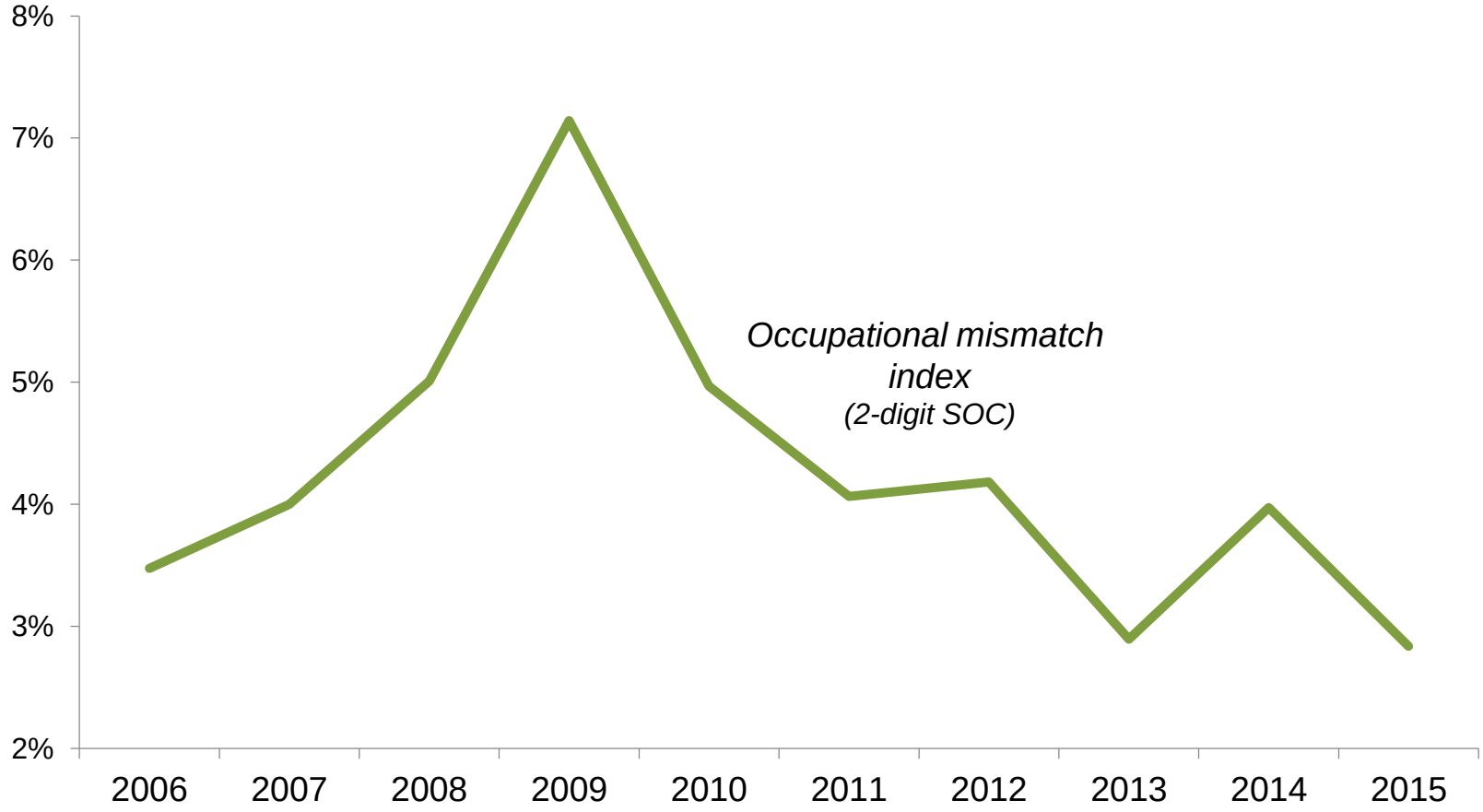
Mismatch does exist in our labor market

- "In-demand" occupations
- "In-demand" metro areas

Question: has mismatch gotten worse?

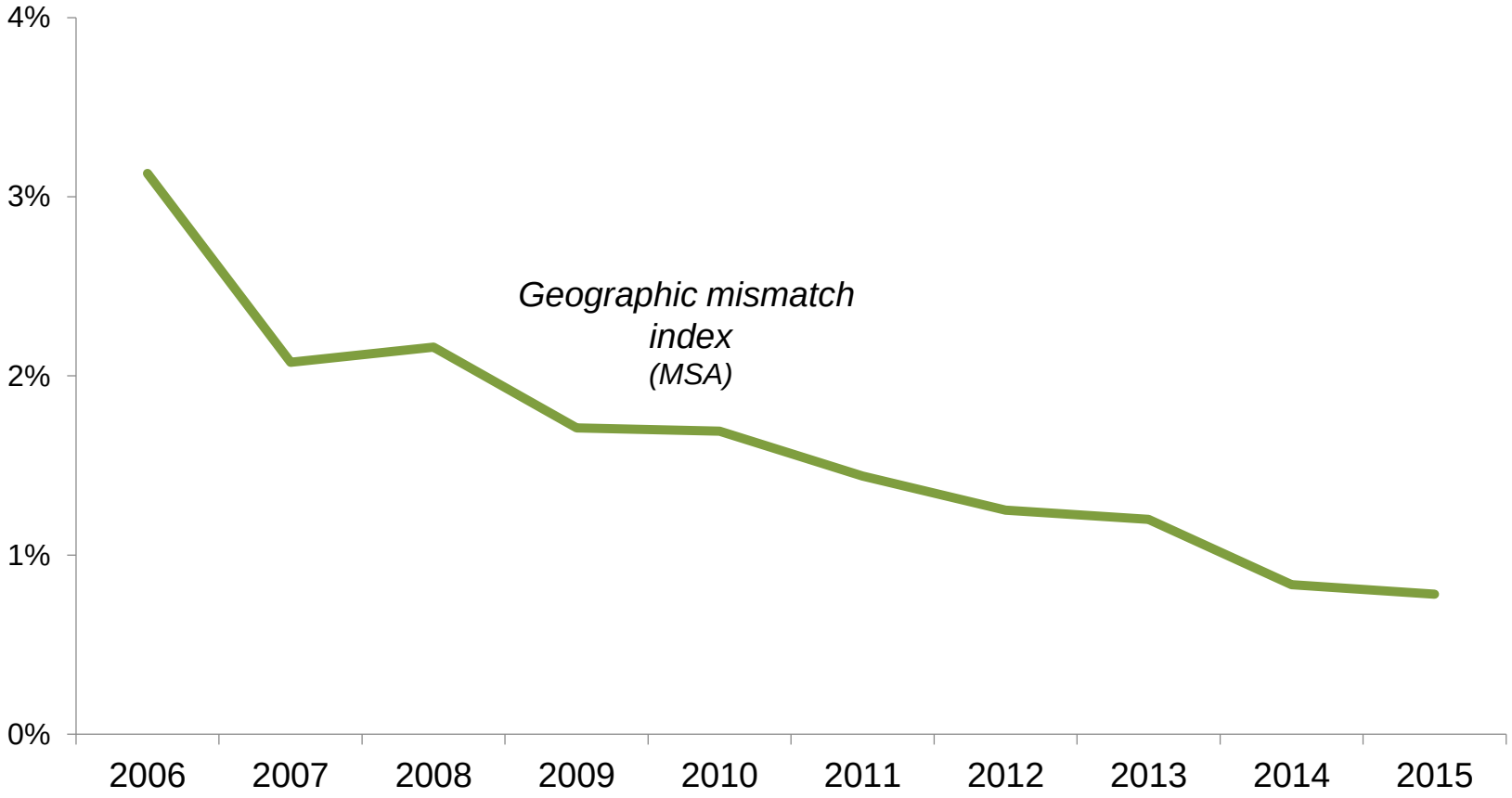
- Can we attribute the hiring slowdown to mismatch?

Overall, occupational mismatch has declined over time



Occupational mismatch index (% of hires prevented due to mismatch), with adjustments for occupational coverage and heterogeneous matching efficiency.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

Geographic mismatch has also declined



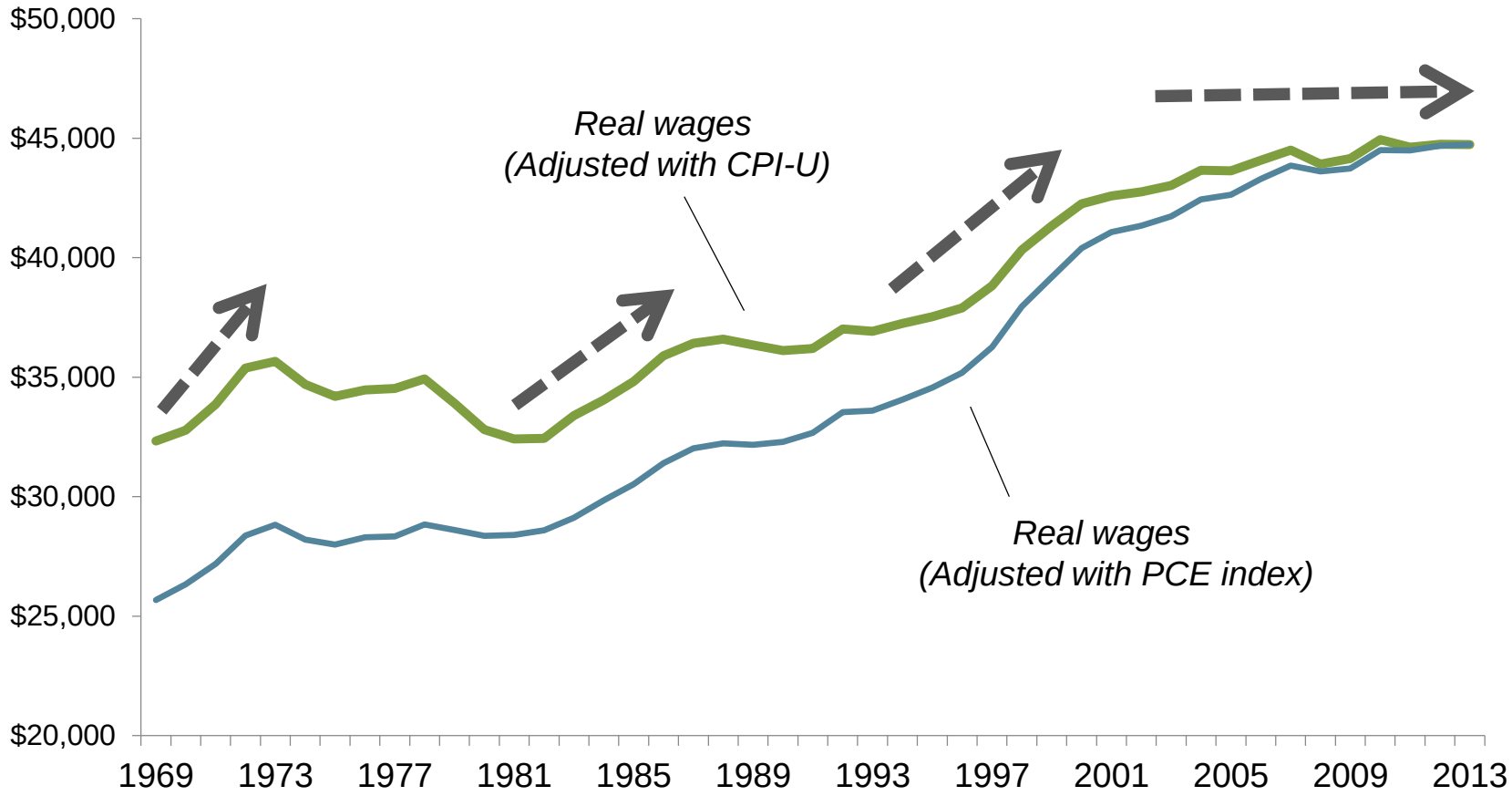
Geographic mismatch index (% of hires prevented due to mismatch), with adjustments for occupational coverage and heterogeneous matching efficiency.
Source: Author's analysis of data from the U.S. Bureau of Labor Statistics and the Conference Board

What else might cause slow hiring? What can we do?

- Deficiency in <u>specific</u> skills or attributes
  - Develop training to meet specific needs
- Hesitance to hire due to uncertainty
  - Play “matchmaker”
- Disadvantaged applicants overlooked
  - Help jobseekers “get their foot in the door”
  - E.g. long-term unemployed and ex-offenders

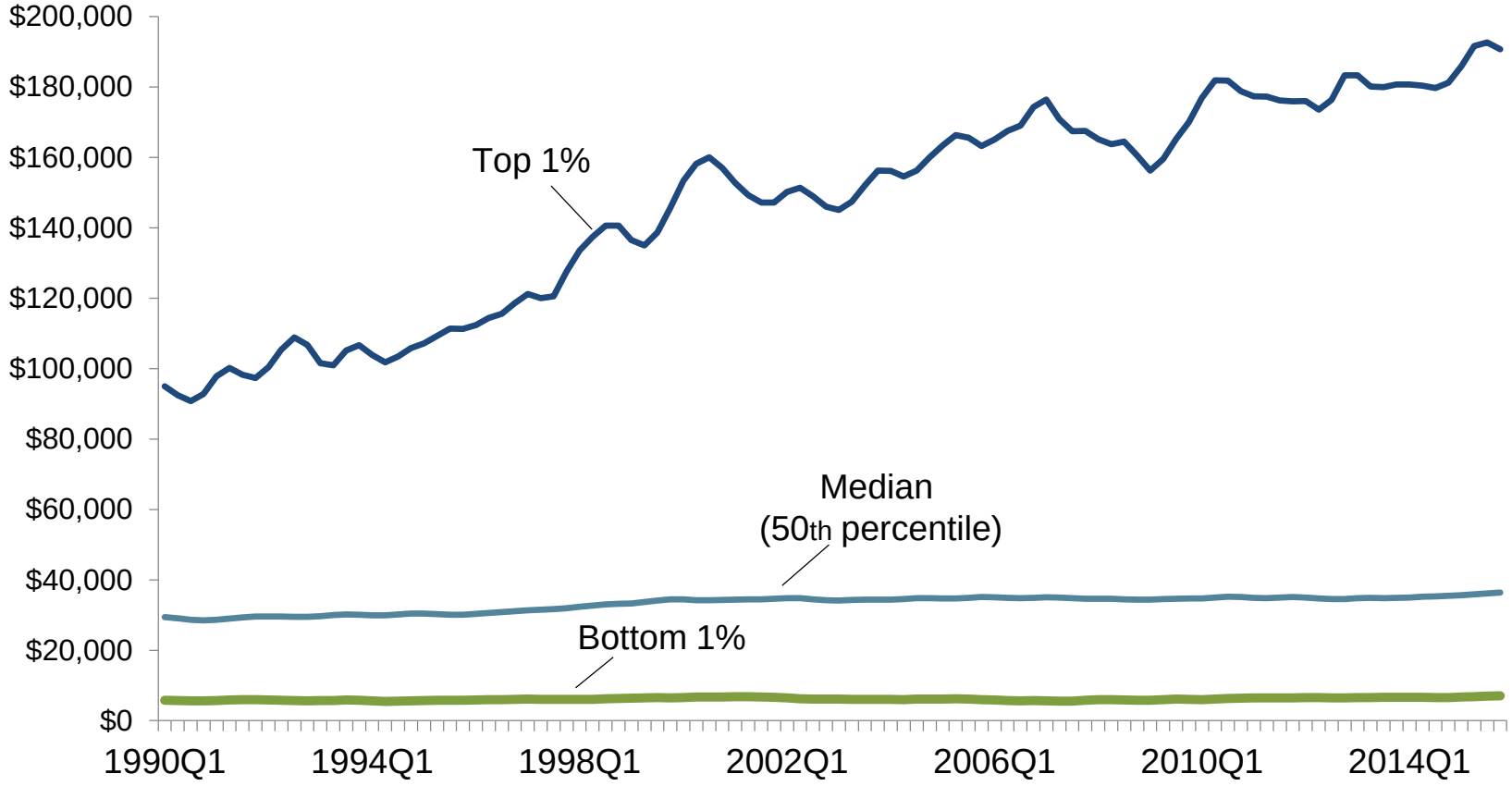
Where's my raise?:
wage stagnation and inequality

Real wages have seen meager gains since 2000



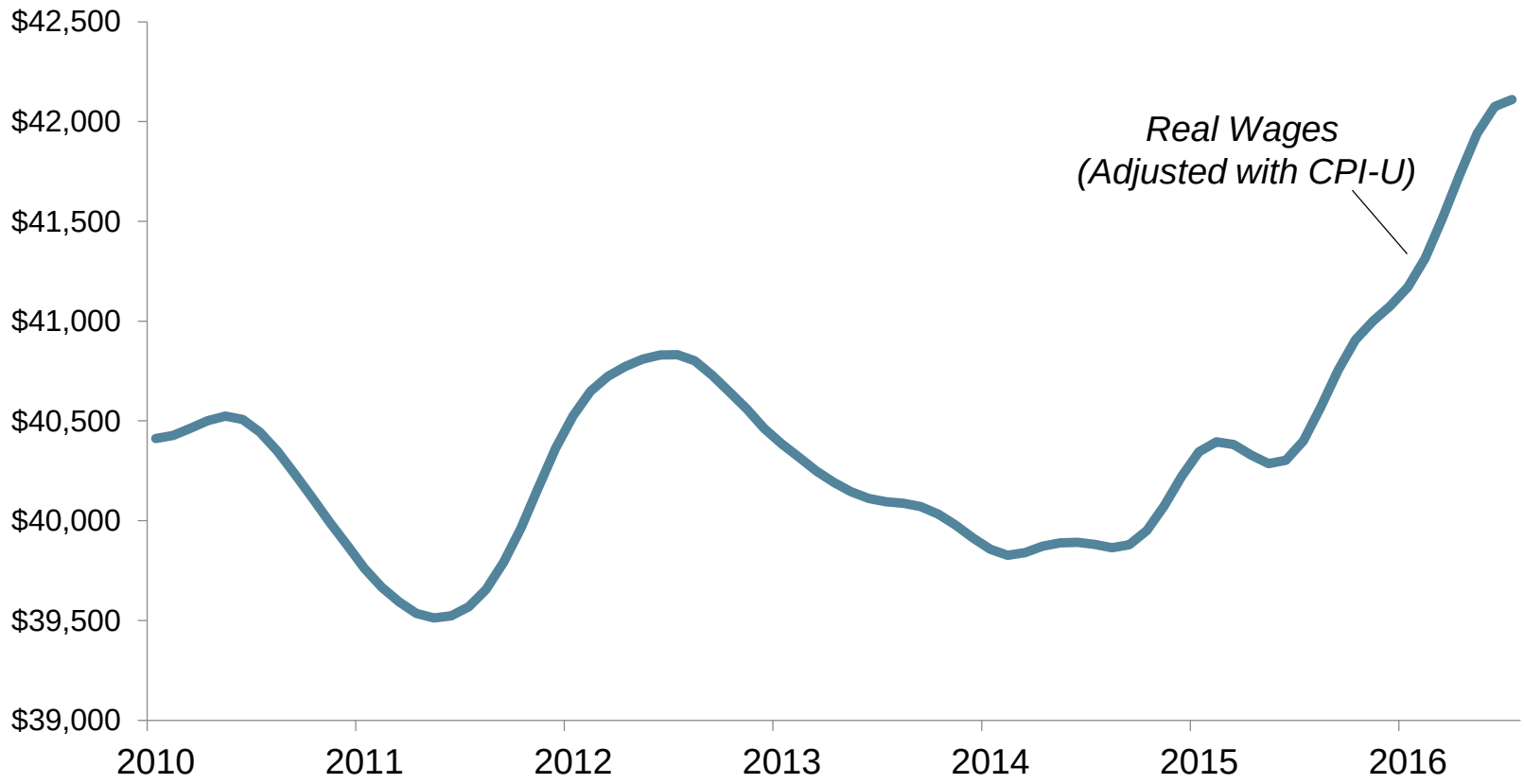
Annual wage and salary earnings per job in NC, adjusted for inflation
Source: Bureau of Economic Analysis; Consumer Price Index: Urban consumers; Personal Consumption Expenditures: Chain-type price index

Rise of the Top 1%:
Wage inequality between companies



Real average annualized wage at individual firms, by firm wage percentile, in NC (1990Q1 - 2014Q3)
Source: Quarterly Census of Employment and Wages. Firm wage data are adjusted for inflation using the PCE price index and weighted by firm size. Seasonally adjusted using X-12-ARIMA.

Recent signs of wage growth: Will it last?



Average real weekly earnings (private nonfarm sector), annualized
Source: Current Employment Statistics (Bureau of Labor Statistics). Adjusted for inflation using CPI-U.
Seasonally adjusted using X-12-ARIMA.

What can we do?

- Prepare trainees for the “in-demand” jobs
  - Most high-paying jobs require postsecondary education / training
- Help workers build a career ladder
  - Fewer employees are leaving their jobs to seek better work

Conclusion

Takeaways

- NC rides the business cycle's Ups and Downs
  - Recessions cause widespread unemployment
  - Recession unlikely at this time, but may occur within next several years

- Industry changes causing changes in occupation and skill demands
  - Industrial trends shift from Manufacturing toward Health Care
  - Industry trends impact Occupational trends
  - Occupations trend toward non-routine cognitive jobs

Takeaways

- Education & Credentials pay
  - Education and credentials both continue to correlate with better outcomes
  - Some skills appear to pay premium beyond education
- "Mismatch" is real, but not the cause of slow hiring
  - Labor market is tight, but hiring is unusually slow
  - "Mismatch" is real, but doesn't explain hiring slowdown
  - Workforce system can help applicants "get foot in door"
- Wage stagnation and Inequality are concerning
  - Rapid wage gains at the top; slower gains for most
  - Workers need to develop career paths to higher wages

What is LEAD doing?

- Generating labor market data to measure trends in the economy
  - BLS programs
- Conducting timely analysis to help customers understand economic trends
  - Blog posts (LEAD Feed)
  - Information requests

What is LEAD doing?

- Developing printed materials, web data portals, and other products to help customers navigate changes in the labor market:
  - Career Clusters Guide
  - Star Jobs (formerly “Hot Jobs”)
  - Employer Needs Survey
  - Other research on labor market “mismatch”

Questions?

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