

# State of the North Carolina Workforce

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**An Assessment of the State's Labor Force  
Demand and Supply  
2007 – 2017**

*John P. Metcalf  
CSW Sr. Partner  
Strategic Community Planning*

# Study Process

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- Commissioned in 2006 and reported in 2007
- Led by the Commission's Policy Research Analysis Committee (PRAC)
- Commissioned quantitative research of the state's workforce and economic conditions
  - Corporation for a Skilled Workforce
  - Center for Regional Economic Competitiveness
- Utilized multiple data sources
- Validated data across multiple stakeholders prior to writing report

# The Intent of the Study

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- Analyze labor market demand and supply trends and forecasts 2007-2017
- Determine the appropriate geographic units for study
- Assess education and workforce system gaps in meeting labor market demand
- Identify most critical policy challenges and opportunities

# Study Outcomes

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- 2007-17 labor market demand and supply projections for NC and sub-regions
- Key issues likely to arise *IF current trends continue and no major economic shifts occur*
- Provides facts to help guide policy choices

# Key Trends Found In The Report

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8 Key Trends

Some Could be Considered

*“Wicked Problems”*

# Key Trends

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1. Traditional manufacturing continues to shed jobs as part of an on-going economic transition
2. Traditional “middle jobs”—those that paid a family-sustaining wage and required minimal formal education or training—are disappearing as part of this transition
3. New job creation is concentrating in certain fast-growing metropolitan areas
4. Many areas of North Carolina are not prospering from the economic transformation

# Key Trends

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5. Future prosperity depends on achieving higher educational attainment levels for all citizens
6. Impending baby-boom retirements will exacerbate an emerging skills gap among experienced, skilled workers
7. High-skill in-migrants will help fill part, but not all, of this skills gap
8. Low-skill in-migrants present both opportunities and challenges in meeting the state's workforce needs

However,

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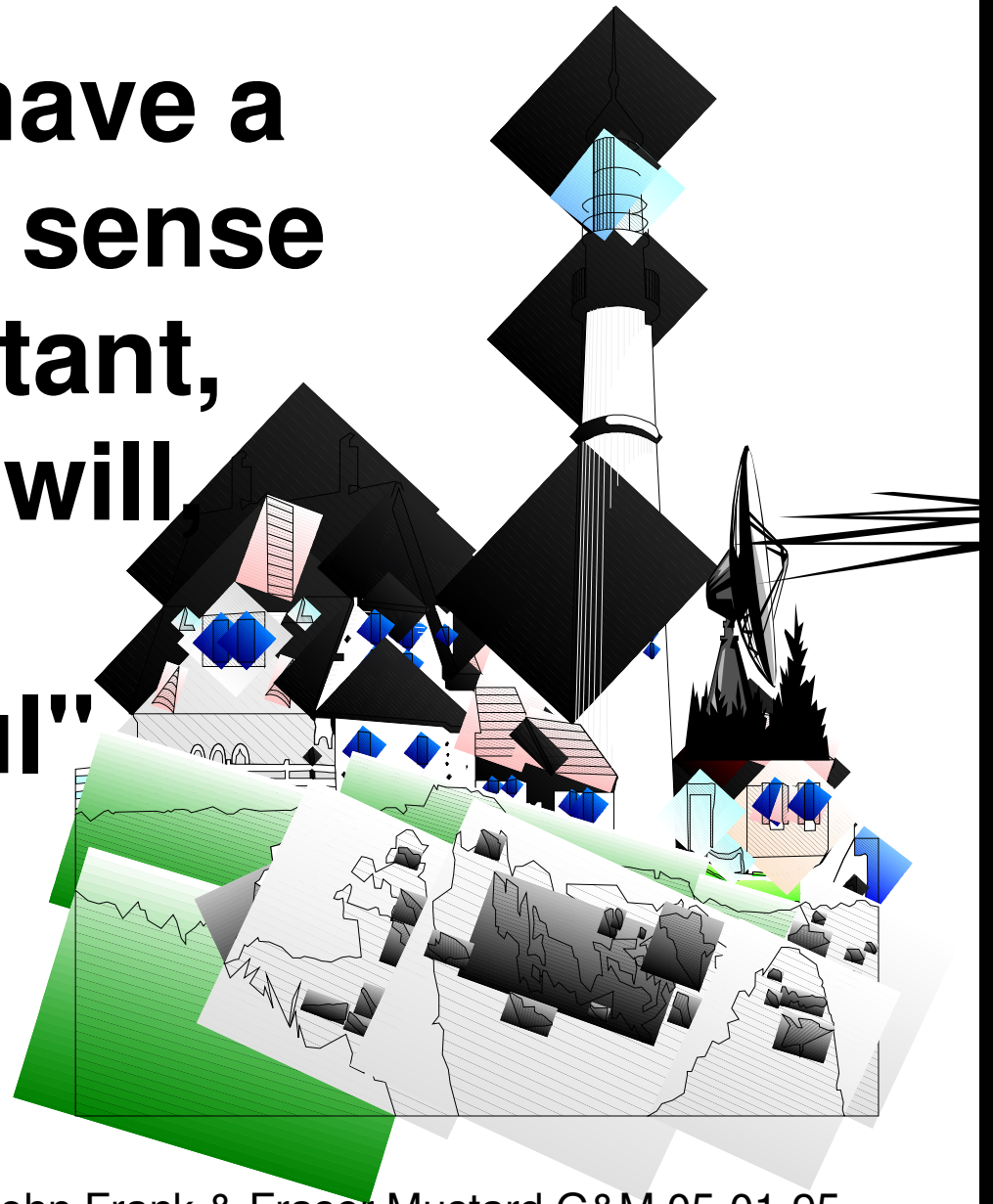
**“A Trend Is Not A Destiny”**

# The Challenge

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- The challenge is to bend the curve and create a new destiny
- If nothing is done, then the state will follow the trend

**"Societies that have a strong coherent sense of what is important, and a collective will will probably be most successful"**



John Frank & Fraser Mustard G&M 05-01-95

# Education and Workforce Development

## *Support Economic Development*

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- *A good quality of life is related to a good wage*
- *A good wage depends on a good job*
- *Good jobs are dependent on a strong, diversified economy*
- *A strong economy is dependent on a high quality education*
- *Quality education depends on healthy children and families*
- *Healthy children and families depend on vibrant communities!*

# The Data

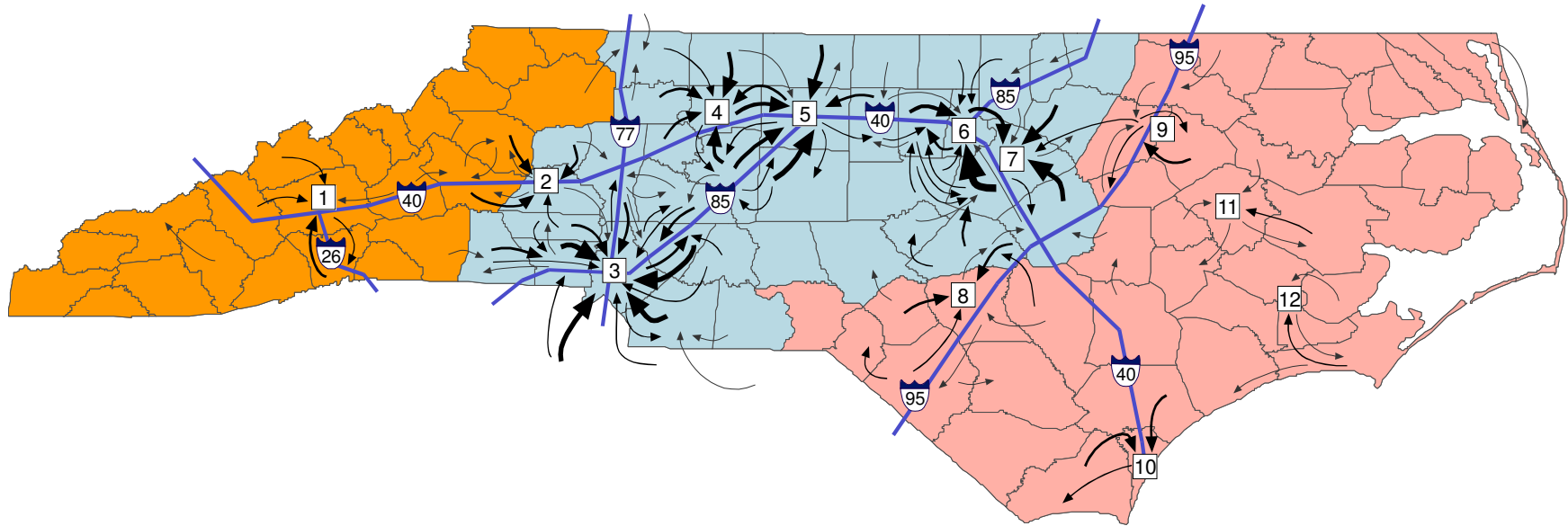
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Support for the Trends

# Geographic Designators and Population Demographics

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# North Carolina Inter-county Commuting Patterns



-  40,000+ Commuters
-  20,000 to 39,999 Commuters
-  10,000 to 19,999 Commuters
-  5,000 to 9,999 Commuters
-  2,500 to 4,999 Commuters
-  1,500 to 2,499 Commuters

0 70  
Miles

- |   |  |
|---|--|
| <span style="border: 1px solid black; padding: 2px;">1</span> Asheville     | <span style="border: 1px solid black; padding: 2px;">7</span> Raleigh      |
| <span style="border: 1px solid black; padding: 2px;">2</span> Hickory       | <span style="border: 1px solid black; padding: 2px;">8</span> Fayetteville |
| <span style="border: 1px solid black; padding: 2px;">3</span> Charlotte     | <span style="border: 1px solid black; padding: 2px;">9</span> Rocky Mount  |
| <span style="border: 1px solid black; padding: 2px;">4</span> Winston-Salem | <span style="border: 1px solid black; padding: 2px;">10</span> Wilmington  |
| <span style="border: 1px solid black; padding: 2px;">5</span> Greensboro    | <span style="border: 1px solid black; padding: 2px;">11</span> Greenville  |
| <span style="border: 1px solid black; padding: 2px;">6</span> Durham        | <span style="border: 1px solid black; padding: 2px;">12</span> New Bern    |

# North Carolina's Primary Regions

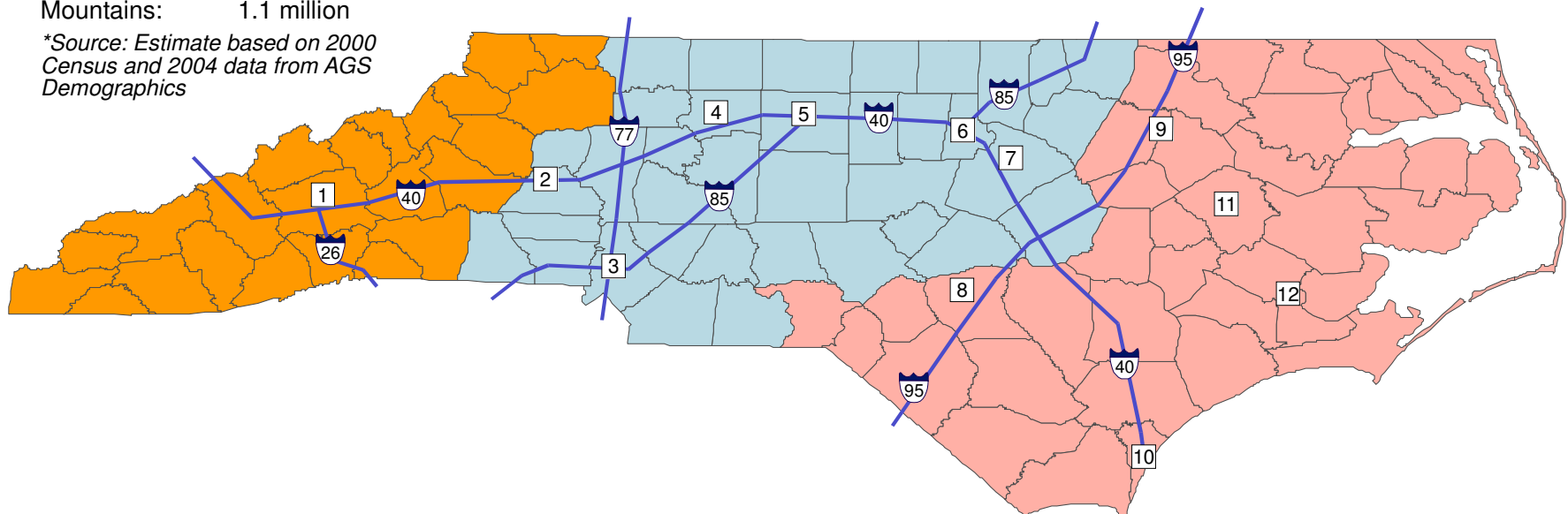
## 2005 Population Estimates

Piedmont: 5.3 million

Coast: 2.4 million

Mountains: 1.1 million

*\*Source: Estimate based on 2000 Census and 2004 data from AGS Demographics*



- |                 |                |
|-----------------|----------------|
| 1 Asheville     | 7 Raleigh      |
| 2 Hickory       | 8 Fayetteville |
| 3 Charlotte     | 9 Rocky Mount  |
| 4 Winston-Salem | 10 Wilmington  |
| 5 Greensboro    | 11 Greenville  |
| 6 Durham        | 12 New Bern    |

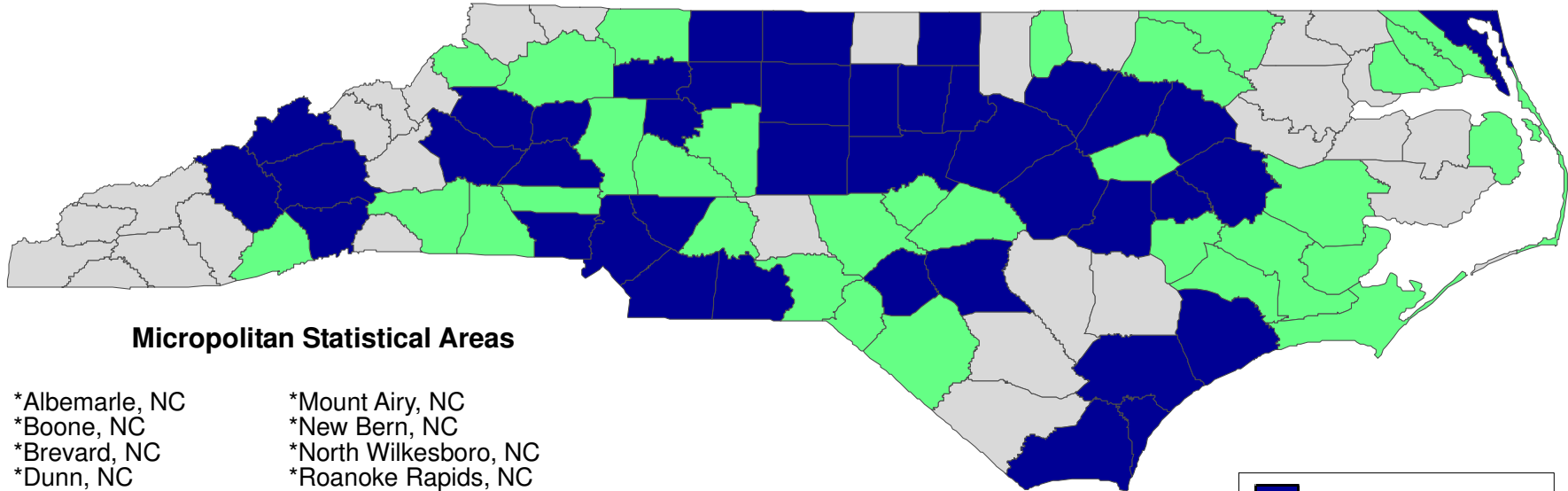
0 ————— 70  
Miles

<span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black;"></span> Mountain region
<span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; border: 1px solid black;"></span> Piedmont region
<span style="display: inline-block; width: 15px; height: 15px; background-color: lightcoral; border: 1px solid black;"></span> Coastal region

# Metropolitan and Micropolitan Areas in North Carolina

## Metropolitan Statistical Areas

- \*Asheville, NC
- \*Burlington, NC
- \*Charlotte-Gastonia-Concord, NC-SC
- \*Durham, NC
- \*Fayetteville, NC
- \*Goldsboro, NC
- \*Greensboro-High Point, NC
- \*Greenville, NC
- \*Hickory-Lenoir-Morganton, NC
- \*Jacksonville, NC
- \*Raleigh-Cary, NC
- \*Rocky Mount, NC
- \*Virginia Beach-Norfolk-Newport News, VA-NC
- \*Wilmington, NC
- \*Winston-Salem, NC



## Micropolitan Statistical Areas

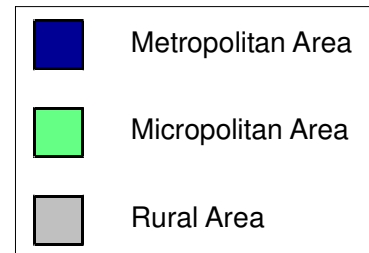
- \*Albemarle, NC
- \*Boone, NC
- \*Brevard, NC
- \*Dunn, NC
- \*Elizabeth City, NC
- \*Forest City, NC
- \*Henderson, NC
- \*Kill Devil Hills, NC
- \*Kinston, NC
- \*Laurinburg, NC
- \*Lincolnton, NC
- \*Lumberton, NC
- \*Morehead City, NC
- \*Mount Airy, NC
- \*New Bern, NC
- \*North Wilkesboro, NC
- \*Roanoke Rapids, NC
- \*Rockingham, NC
- \*Salisbury, NC
- \*Sanford, NC
- \*Shelby, NC
- \*Southern Pines-Pinehurst, NC
- \*Statesville-Mooresville, NC
- \*Thomasville-Lexington, NC
- \*Washington, NC
- \*Wilson, NC

## 2005 pop. estimates

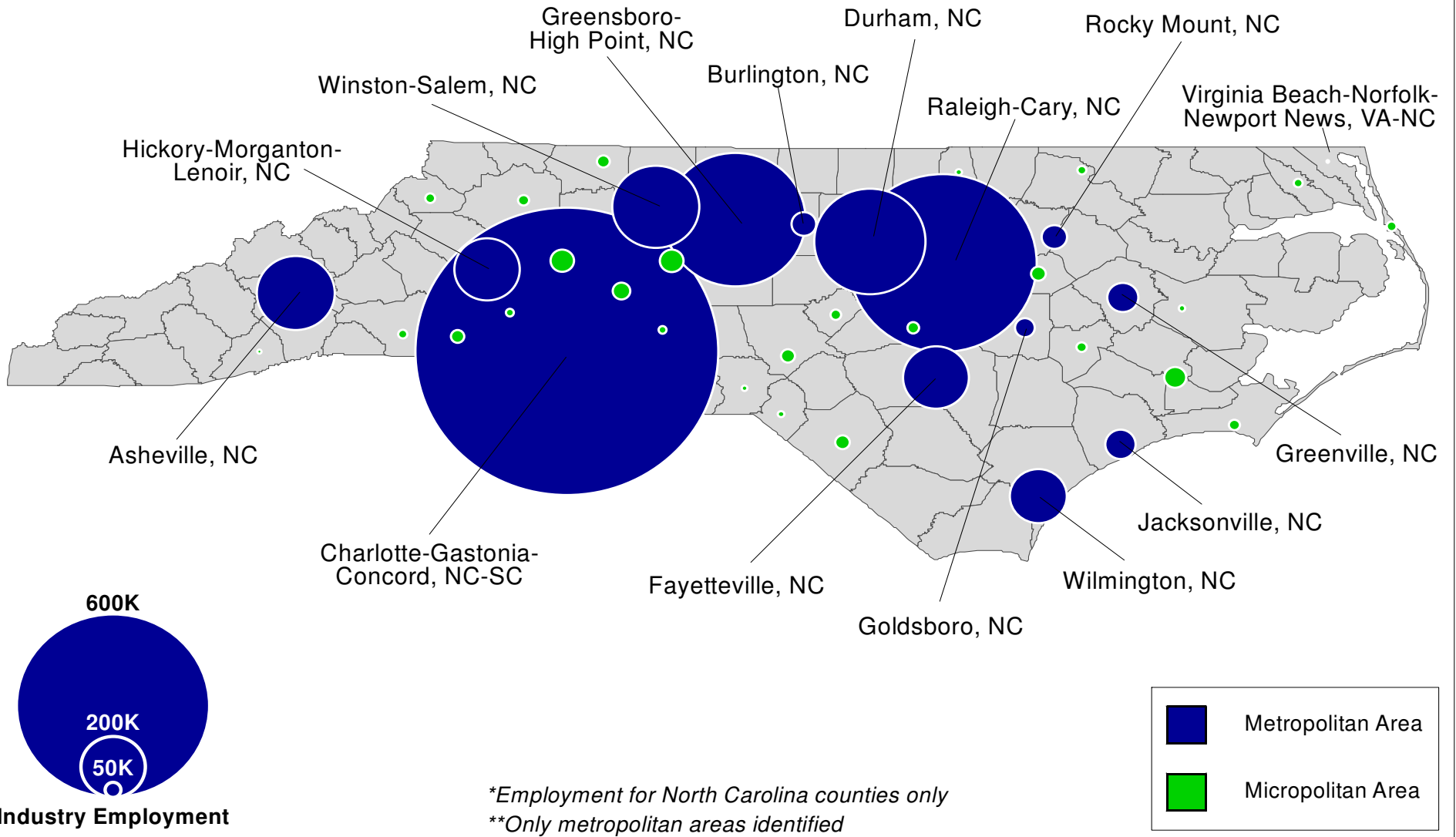
Metro = 6.2 million

Micro = 2.0 million

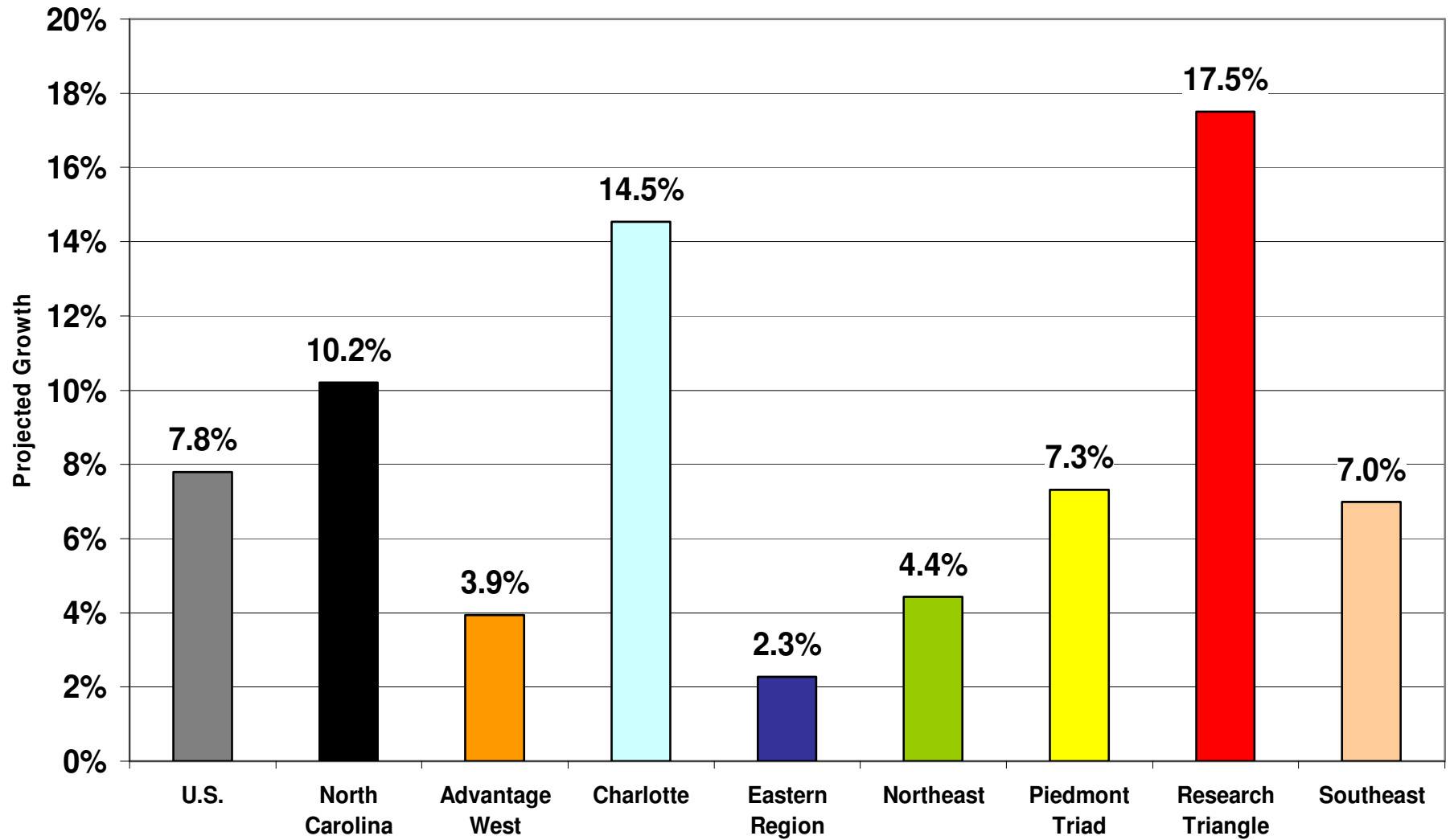
Rural = 0.6 million



# Industry Employment in North Carolina Metropolitan and Micropolitan Areas *(est. 2007)*

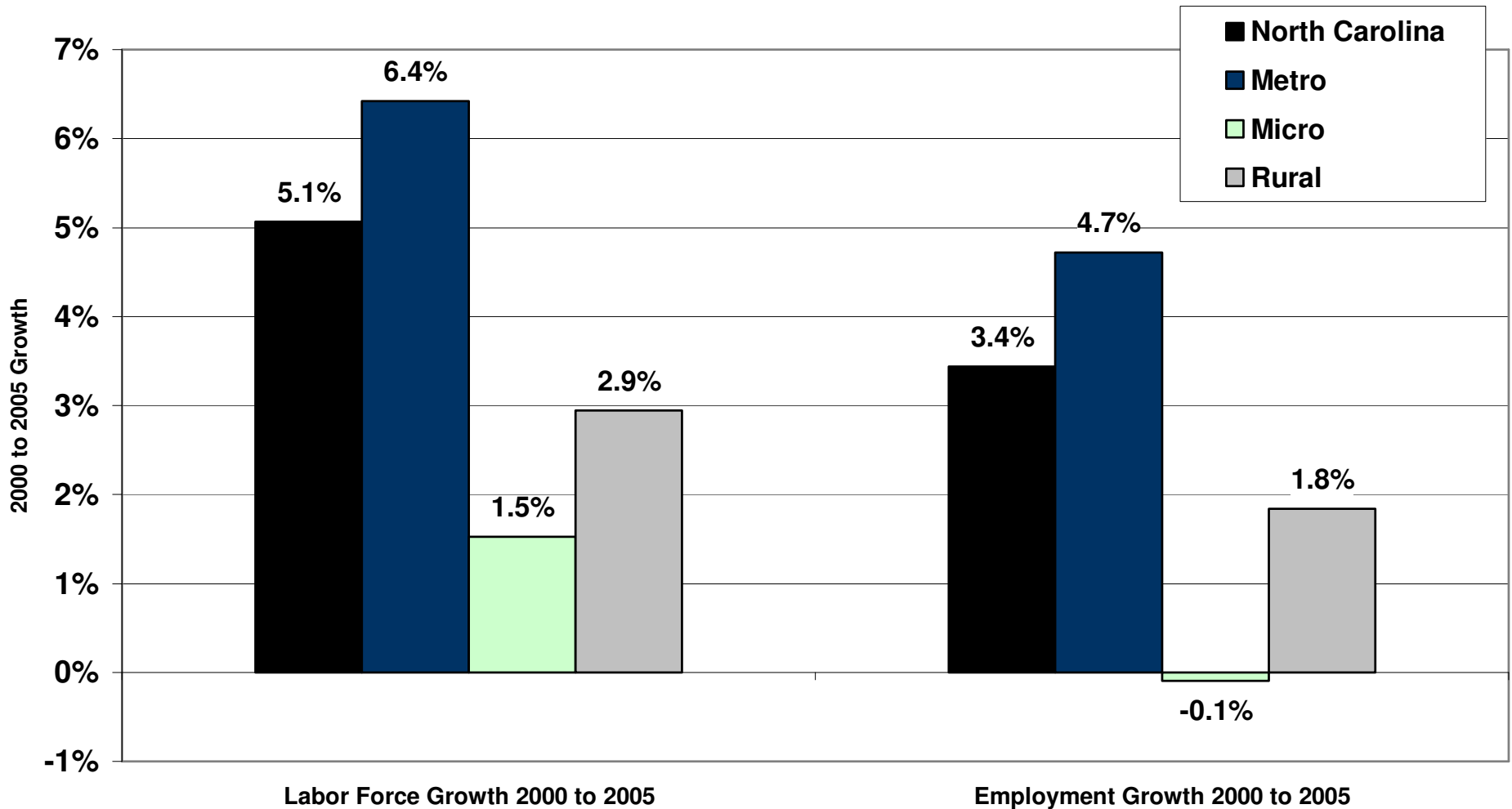


# Projected Population Growth, 2007 to 2017



Source: AGS Demographics

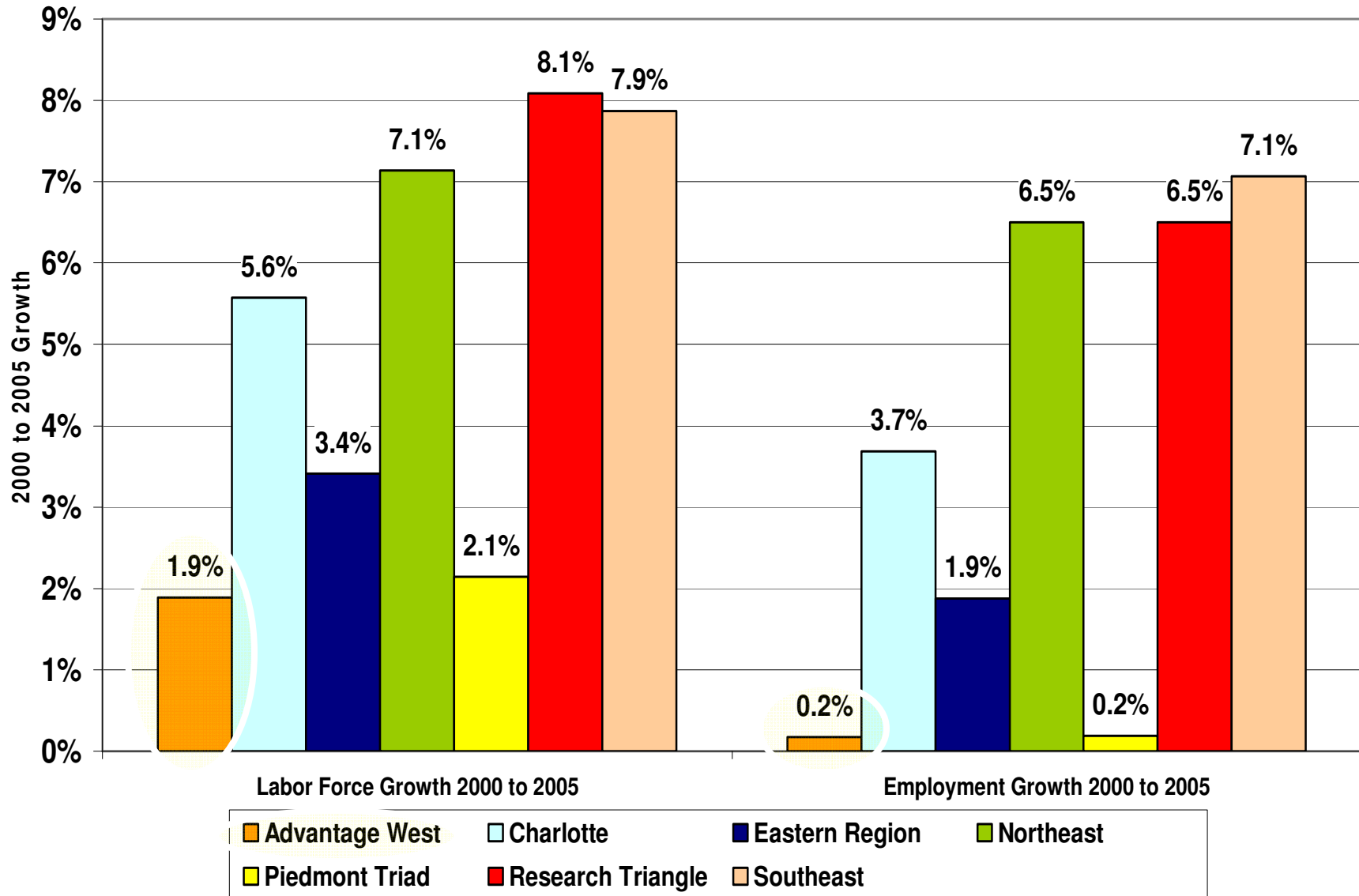
# Disadvantaged Regions Are Growing Slower Than The Rest Of The State



Source: Bureau of Labor Statistics

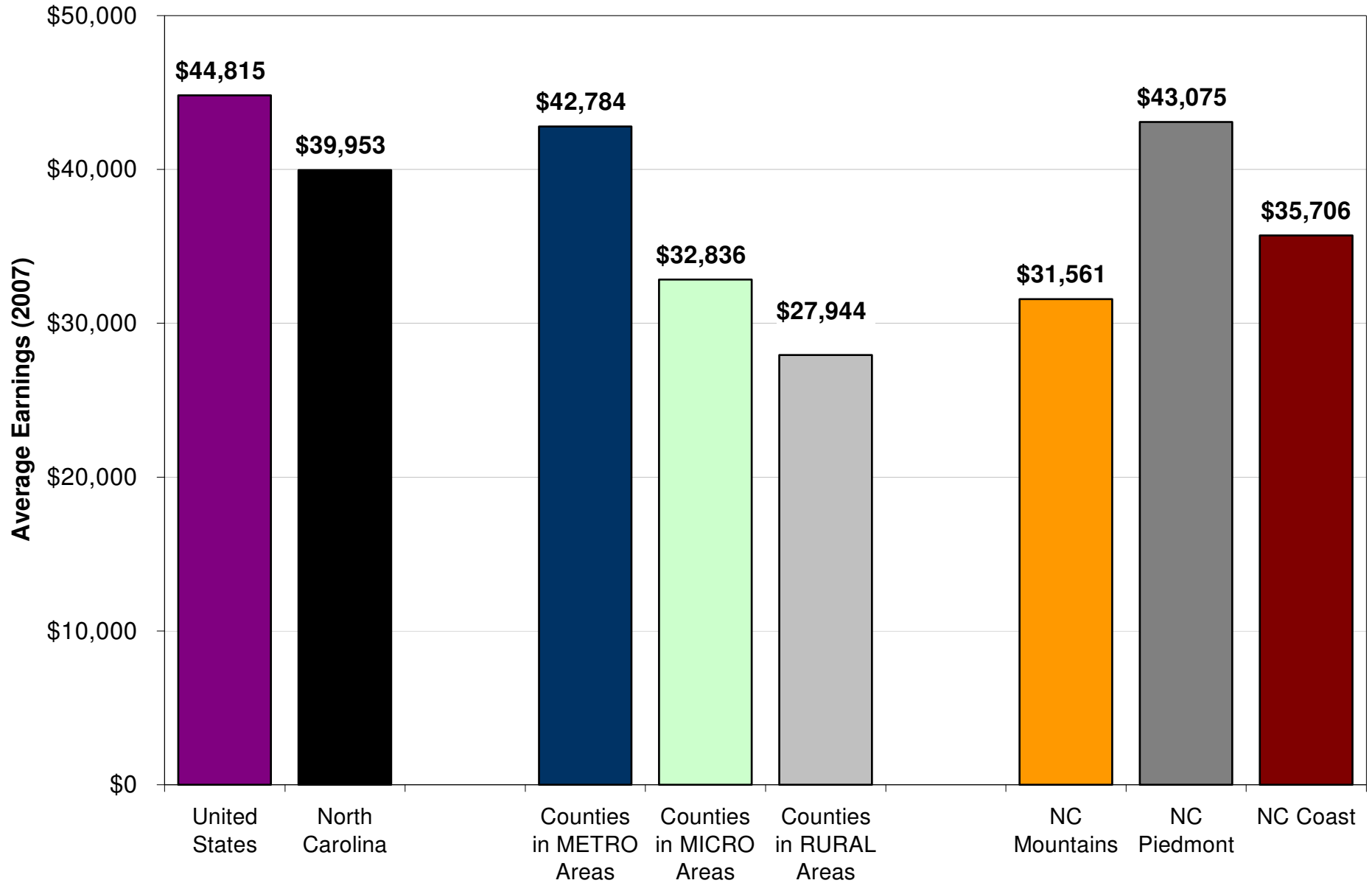
# Growth in West, Triad & East Trail

Labor Force & Employment Growth by Partnership Region, 2000-2005



Source: Bureau of Labor Statistics

# Average Earnings



## State Earnings Trail The Nation *Even In Prosperous Areas*

Region	Total Est. Employment 2007	Est. Net New Employment 2007-17	Average Earnings 2007
<b>United States</b>	179,670,548	30,284,512	\$44,815
<b>North Carolina</b>	5,152,411	698,247	\$39,953
<b>METRO Area Counties</b>	3,840,922	573,283	\$42,784
<b>MICRO Area Counties</b>	969,766	91,029	\$32,836
<b>RURAL Area Counties</b>	341,723	33,934	\$27,944
<b>NC Mountains</b>	570,821	70,917	\$31,561
<b>NC Piedmont</b>	3,290,455	474,831	\$43,075
<b>NC Coast</b>	1,291,135	152,498	\$35,706

*Source: Regional Dynamics*

# Today - Who is Suffering the Economic Downturn?

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Unemployment rate for those over 25 with a college degree was 4.3% -- half the national UI rate

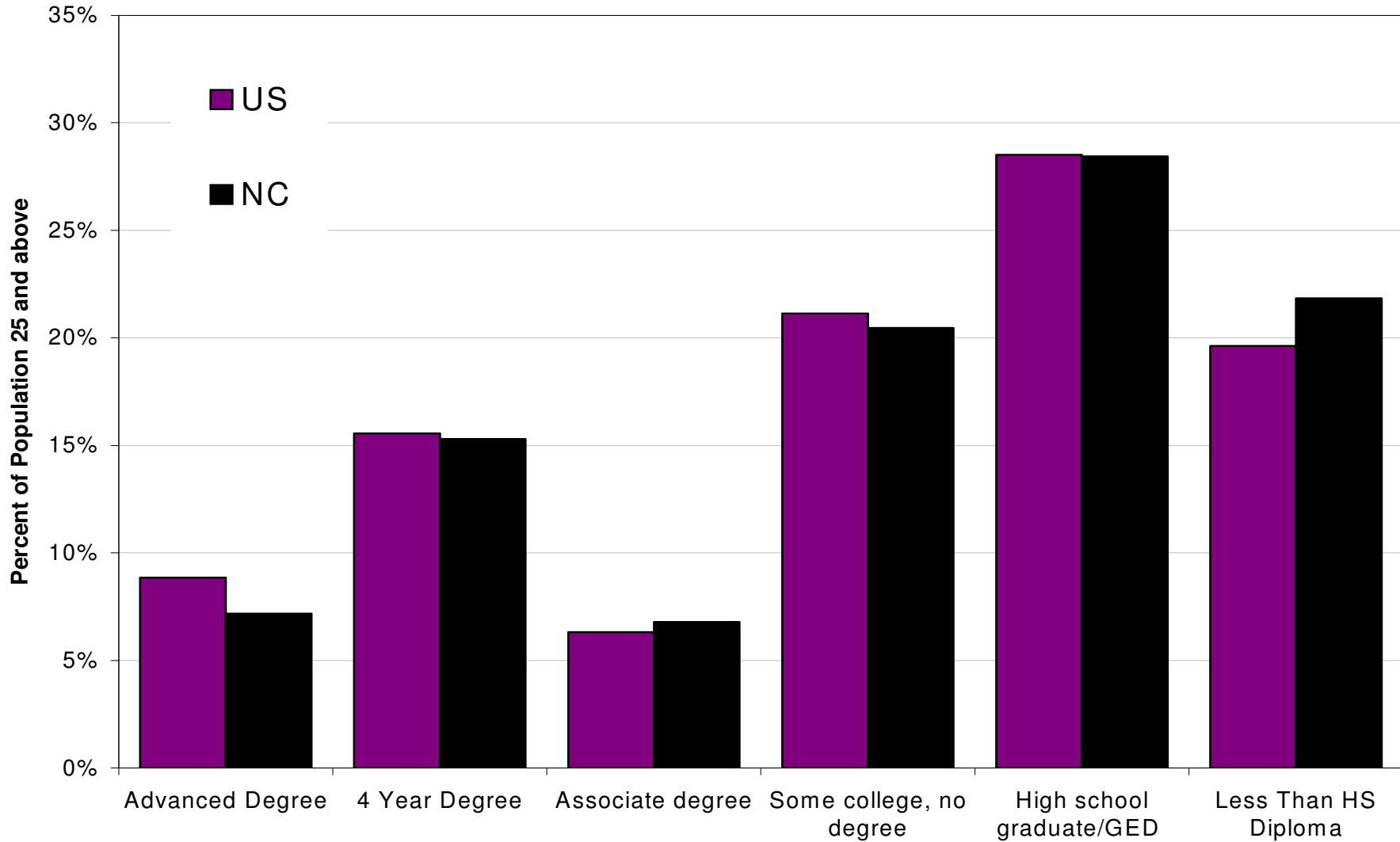
- Among those college-educated and white, the rate was 2.3%
- Anyone without a high school diploma – 13.3%
- African-Americans over 16 – 13.3%
- Hispanics – 11.4%
- Men over 20 – 8.8%; women over 20 – 7%.

In the mid 70's recession, result was opposite. This trend is expected to continue as male dominated , low skill occupations shrink based on technology and globalization changes.

*April 20, 2009 issue of Newsweek: "We are not in this together"*

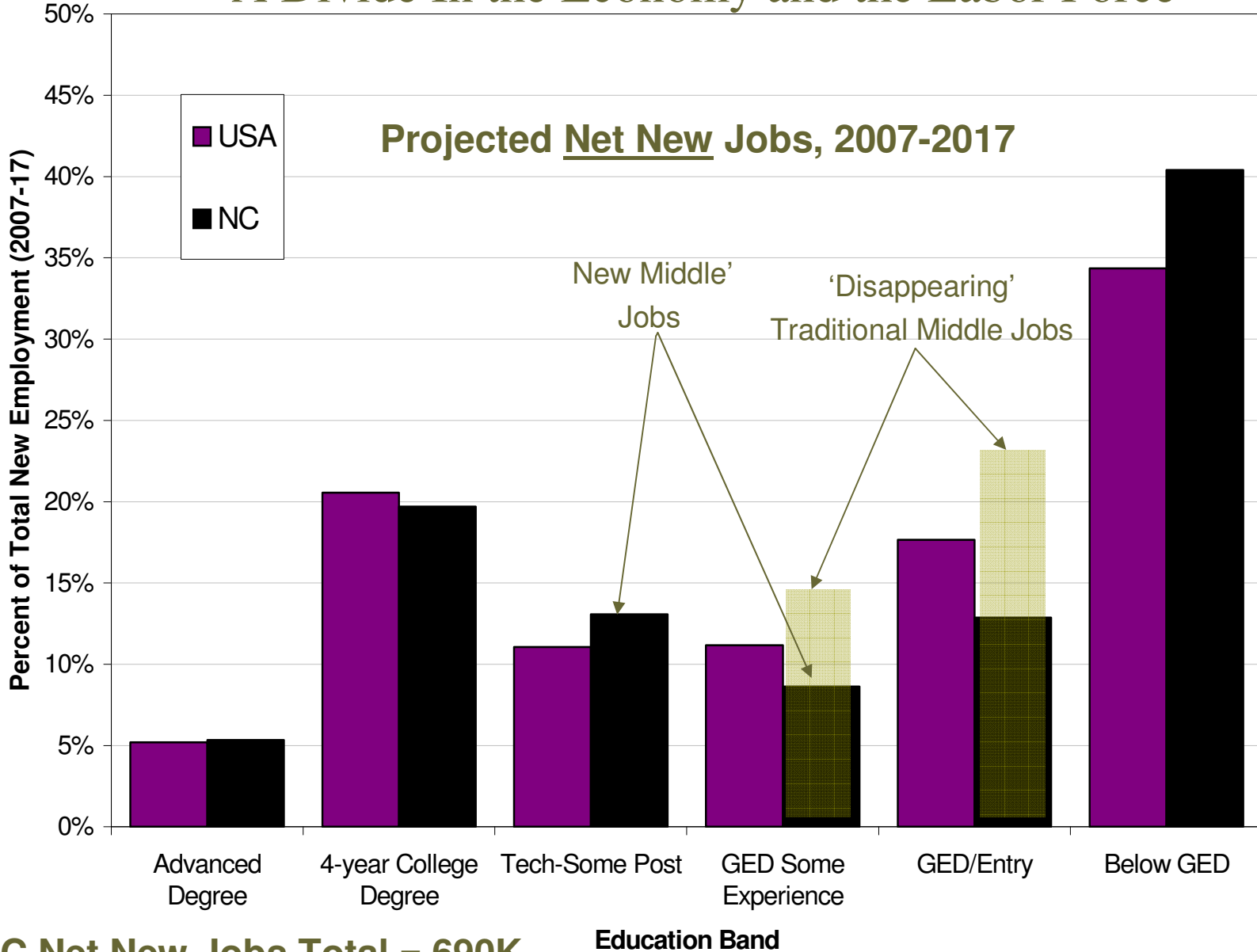
# Educational Attainment In The US And North Carolina (*est. 2007*)

*Total Population*



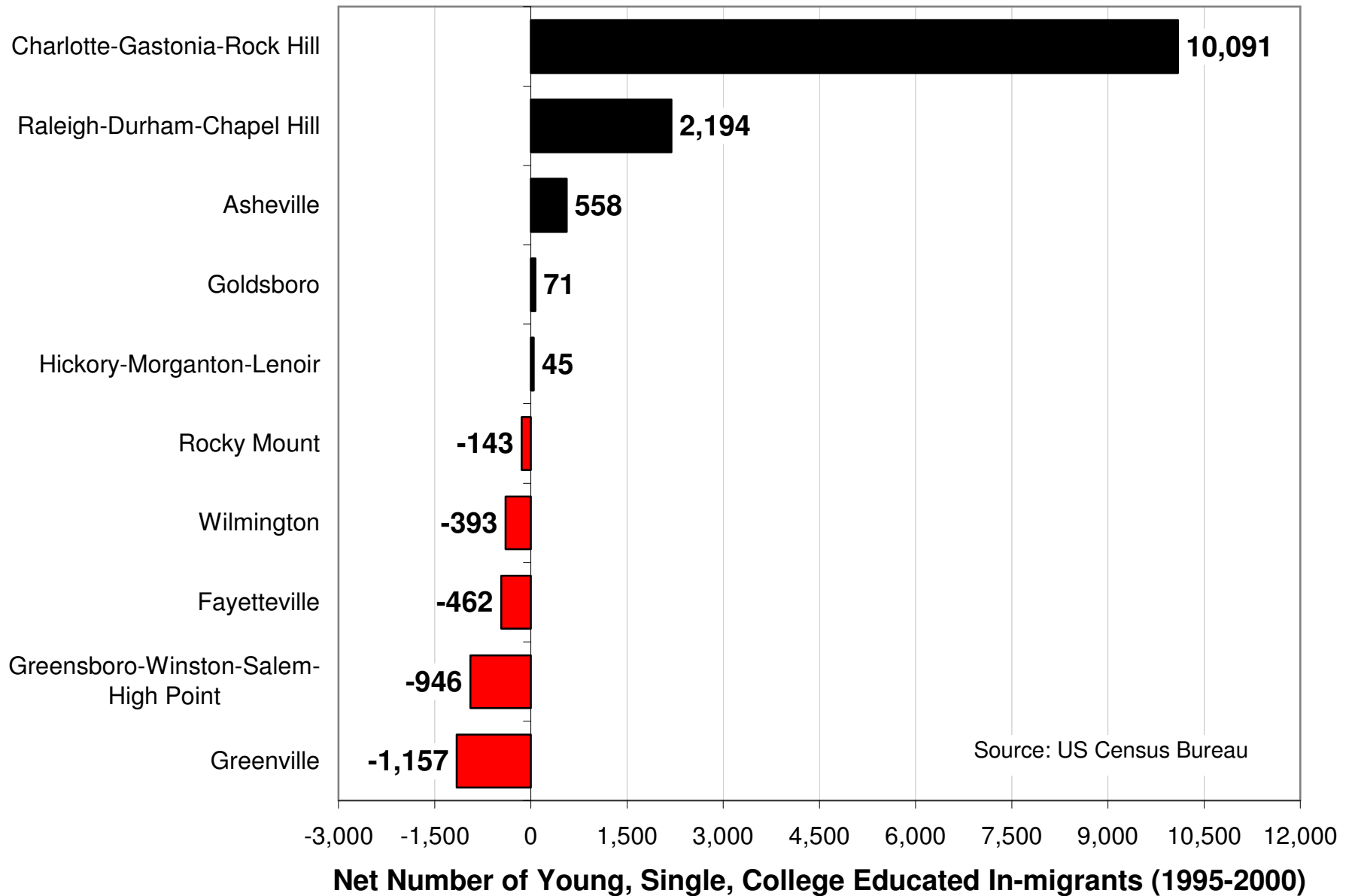
Source: U.S. Census Bureau, AGS Demographics

# A Divide In the Economy and the Labor Force



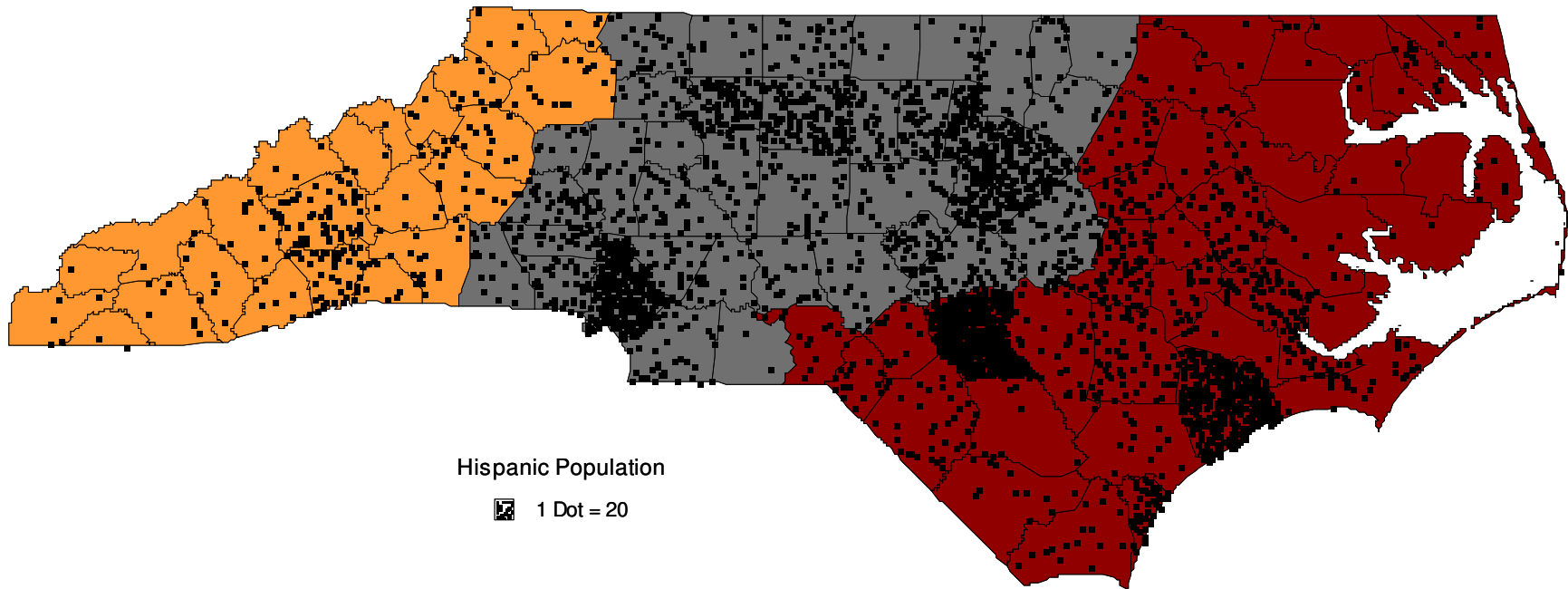
**NC Net New Jobs Total = 690K**

# In-migration Creates Future Workforce Challenges & Opportunities



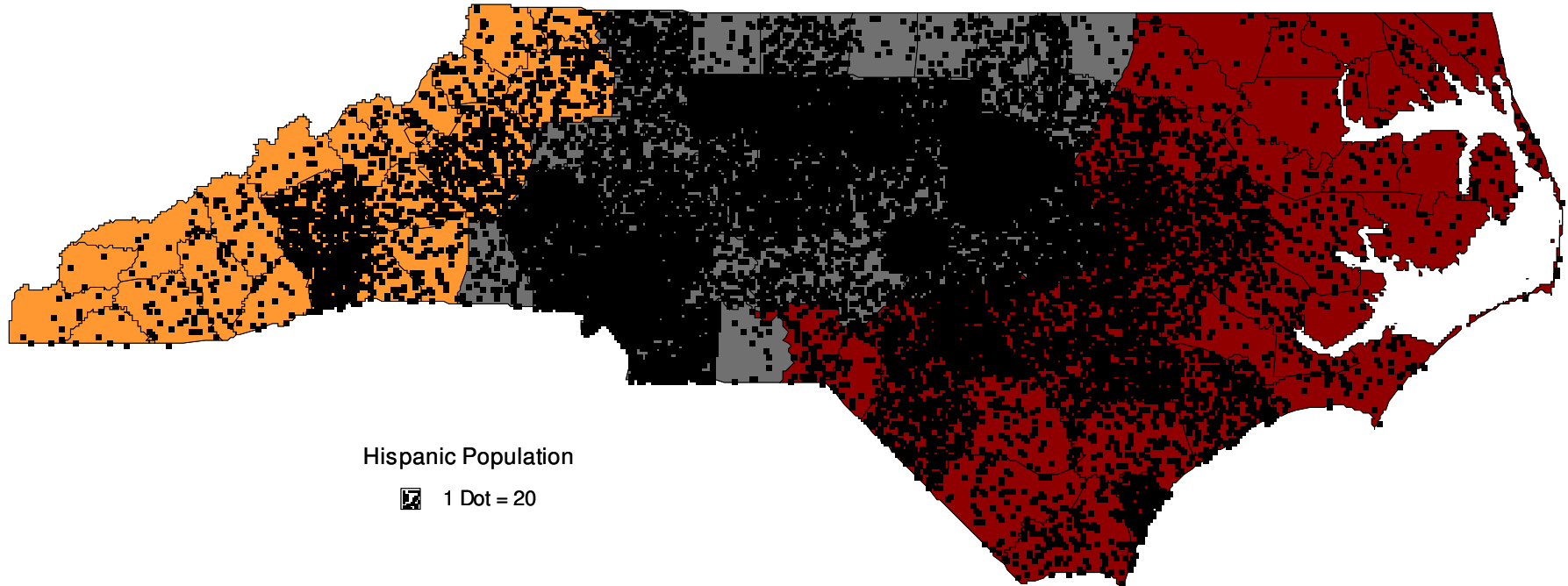
# In-migration Creates Future Workforce Challenges & Opportunities

Hispanic Population Density, 1990



# In-migration Creates Future Workforce Challenges & Opportunities

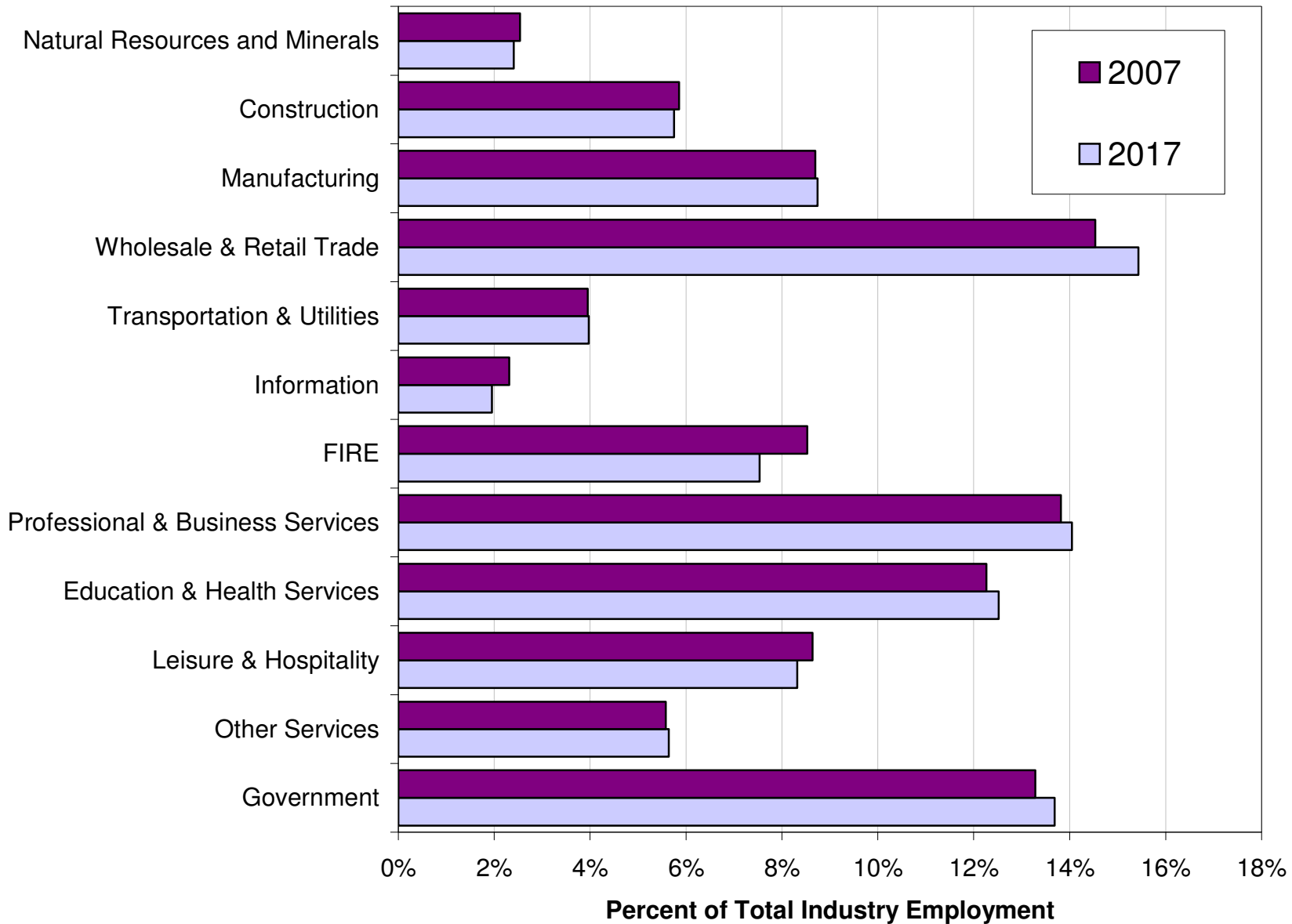
Population Density, 2000



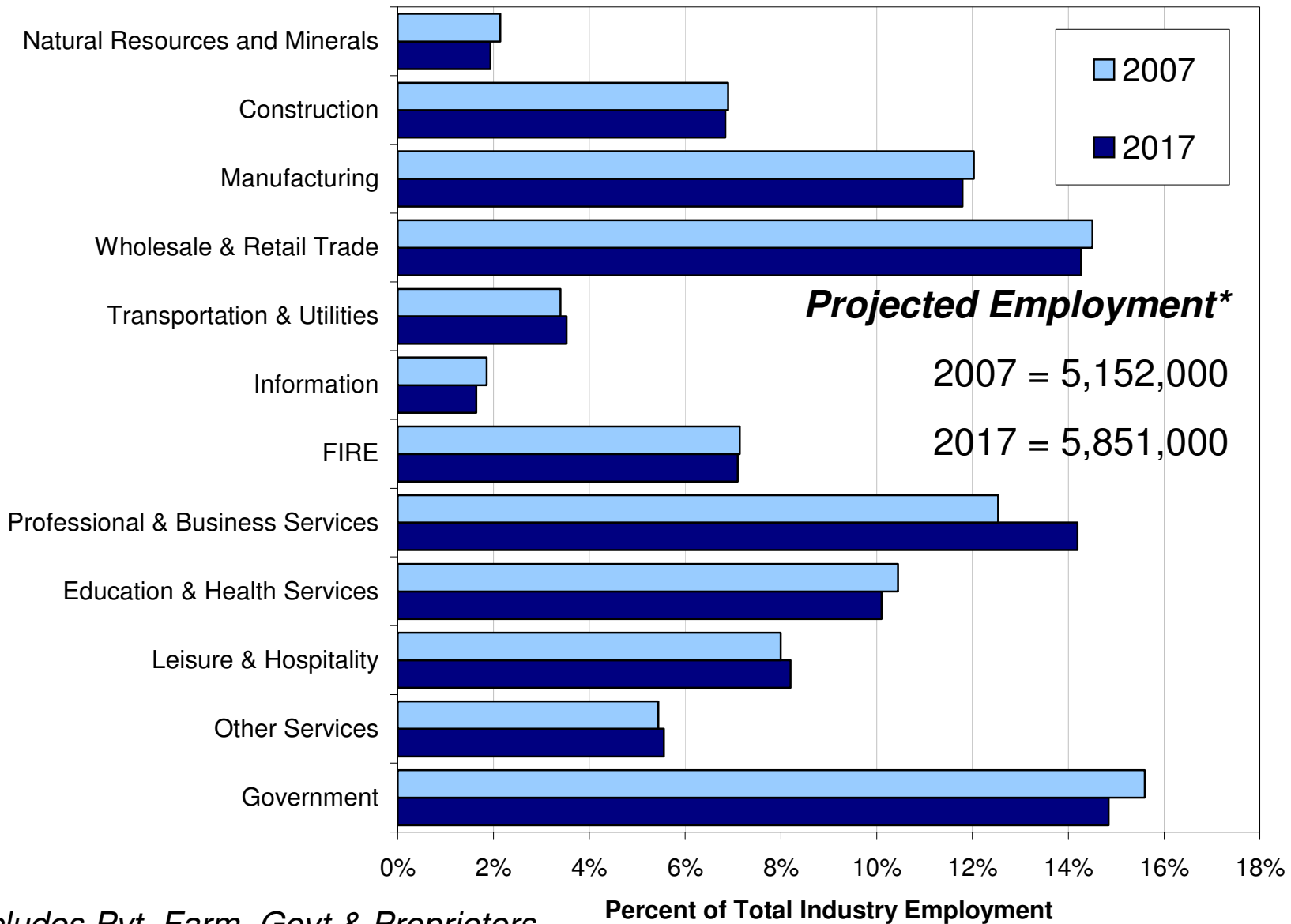
# Industry Trends

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# US Employment by Sector



# NC's Industry Employment Trends



\*Includes Pvt, Farm, Govt & Proprietors

## The State's Traditional Manufacturing Industries Will Likely Shed More Workers

<b>NC Industry</b>	<b>2007</b>	<b>2017</b>	<b>Emp. Change 2007-17</b>	<b>% Change</b>
Tobacco Processing	8,189	5,218	-2,970	-36%
Textiles	74,617	47,670	-26,947	-36%
Apparel	26,152	10,661	-15,491	-59%
Furniture and Wood Products	99,121	107,520	8,399	8%
Select Traditional Industries	208,079	171,070	-37,010	-18%

*Source: Regional Dynamics*

# Occupational Trends

# Overview of US Occupations and Occ Growth by Ed. Requirements

“Success Favors The Prepared Mind” NTHS

## USA

Educational Band	Emp 2007	Net New Jobs (07-17)	Average Earnings 2007	% Total Emp (2007)	% New Jobs (07-17)
Advanced Degree	6,442,947	1,559,103	\$88,639	3.7%	5.2%
4-year College Degree	28,672,368	6,171,171	\$80,623	16.5%	20.6%
Tech-Some Post	14,680,694	3,319,873	\$49,305	8.4%	11.1%
GED Some Experience	23,161,040	3,353,418	\$50,040	13.3%	11.2%
GED/Entry	37,931,763	5,300,947	\$38,055	21.8%	17.7%
Below GED	63,244,115	10,312,306	\$25,275	36.3%	34.4%
<i>Total</i>	<i>174,132,926</i>	<i>30,016,818</i>	<i>\$44,837</i>	<i>100.0%</i>	<i>100.0%</i>

Source: Regional Dynamics

- 64 percent of all jobs require at least a high school diploma
- 29 percent of all jobs require 2 years or more of college
- In the next 10 years, 37 percent of jobs will require 2 years or more of college
- 4-year college graduates earn more than three times as much as people without high school degrees
- Workers without a high school degree make 56 percent of the US average earnings

# Overview of NC Occupations and Occ Growth by Ed. Requirements

“Success Favors The Prepared Mind” NTHS

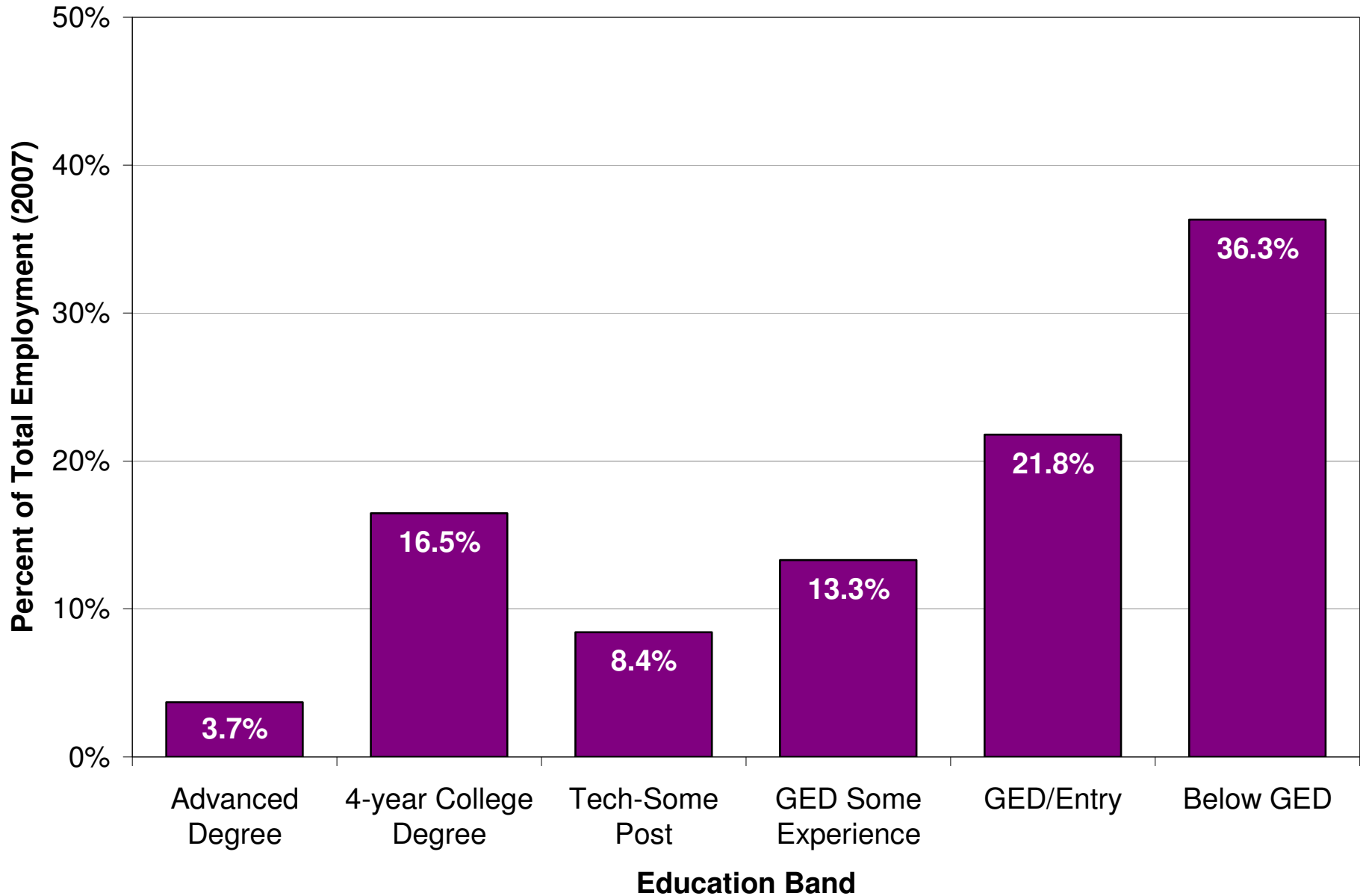
## North Carolina

Educational Band	Emp 2007	Net New Jobs (07-17)	Average Earnings 2007	% Total Emp (2007)	% New Jobs (07-17)
Advanced Degree	160,572	36,560	\$83,785	3.2%	5.3%
4-year College Degree	687,536	134,808	\$77,005	13.7%	19.7%
Tech-Some Post	386,614	89,452	\$46,774	7.7%	13.1%
GED Some Experience	801,703	58,980	\$42,952	15.9%	8.6%
GED/Entry	1,263,563	88,085	\$34,123	25.1%	12.9%
Below GED	1,732,747	276,598	\$24,405	34.4%	40.4%
<b>Total</b>	<b>5,032,734</b>	<b>684,484</b>	<b>\$40,598</b>	<b>100.0%</b>	<b>100.0%</b>

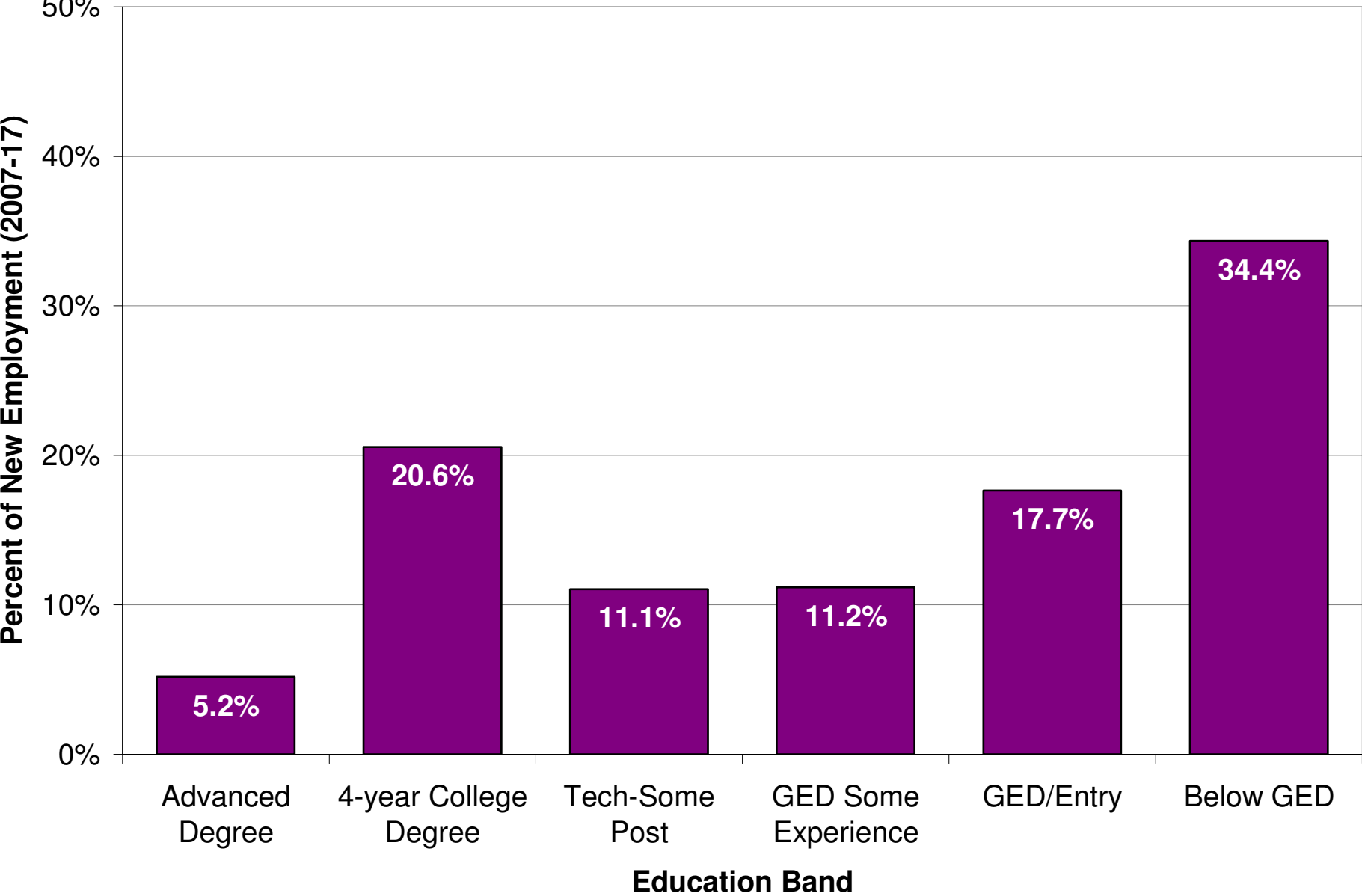
Source: Regional Dynamics

- Two-thirds of all jobs require more than a GED
- 25 percent of all jobs require at least a 2-year degree
- 38 percent of all NEW jobs in the next 10 years will require at least a 2-year degree
- Workers with at least a 4-year degree make over three times as much as someone without a GED
- Someone without a GED makes 60 percent of the state average

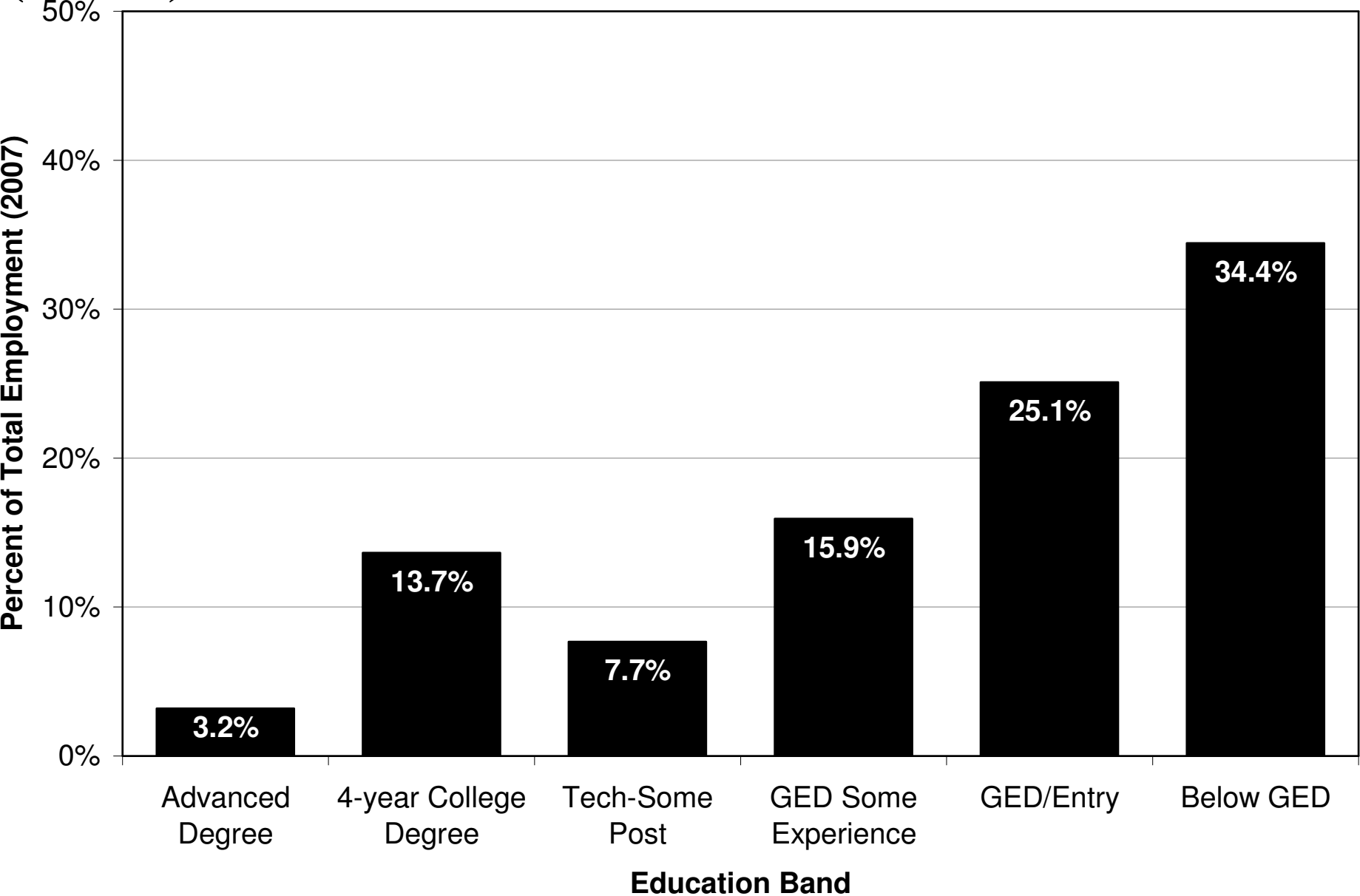
# US Employment by Req. Ed. (2007)



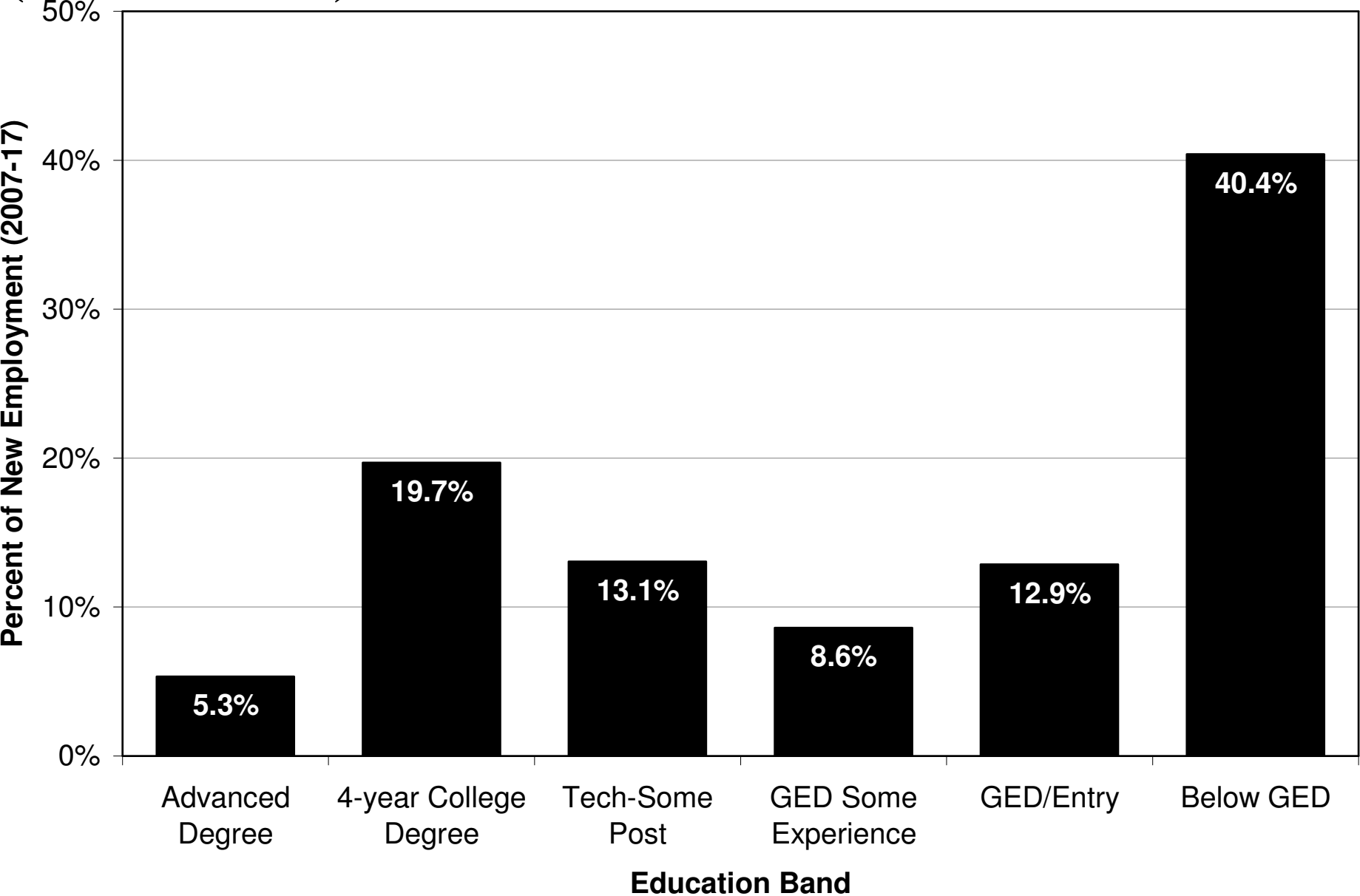
# Net New Jobs in US by Req. Ed. (2007-2017)



# NC Employment by Req. Ed. (2007)



# Net New Jobs in NC by Req. Ed. (2007-2017)



# Where do employers need help?

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## A Company's Breakdown of Labor:

- |                     |     |           |
|---------------------|-----|-----------|
| ■ PhD's and Masters | 15% | Worldwide |
| ■ Bachelors         | 25% | USA       |
| ■ High School Plus  | 60% | Local     |

# Comments on Occupational Trends

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- North Carolina relative to the US
  - NC has a greater proportion of 'Middle Jobs' than the US due in part to the strong influence of manufacturing
  - The NC workforce is becoming more polarized than the US economy, as 40 percent of the state's new jobs will not even require a GED as opposed to 34 percent nationally

# Comments on Occupational Trends

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- Metro, Micro and Rural Areas
  - Counties in metropolitan areas resemble the state patterns
    - Not only possess 74 percent of all employment, but also 81 percent of all new jobs will be in Metro areas
  - Micro and rural areas are far more affected by the loss of middle jobs
    - Future going in the wrong direction as nearly half of all new jobs in the next 10 years will not even require a GED
    - Wages are also significantly lower, as the average wage in micro and rural areas are 82 and 72 percent of the state average, respectively

# Comments on Occupational Trends

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- NC Piedmont
  - Creating the most sophisticated jobs and tends to resemble the state averages
  - No consistent trend throughout
    - Research Triangle and Charlotte regions have relatively high proportion of jobs requiring degrees
    - Piedmont Triad region trends more closely resemble those found in micro and rural areas
- NC Coastal
  - Similar to state trends, albeit with slightly more low-end jobs
  - Northeast region has high proportion of low-end jobs
  - Military influence in Southeast and Eastern regions raises the average wages
- NC Mountains
  - Greater proportion of 'Middle Jobs' than statewide
  - Projections show that there will be significant growth in jobs requiring less than a GED

# Labor Conditions

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# Labor Conditions

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- North Carolina employment grew by 136,500 from 2000 to 2005. Labor force growth was 5.1% while employment growth was 3.4%.
- North Carolina has a higher labor force participation rate than the nation.
- The Piedmont super region has the highest labor force participation of the super regions (the Charlotte partnership region had the highest overall participation rate at almost 70%).
- Rural areas in the state have the lowest labor force participation rates at 57%.

# Labor Conditions

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- Rural areas facing potential labor shortage due to lack of population growth and the decreasing youth population.
- Educational attainment assets located primarily in metro and Piedmont regions.
- Depending on region, 24-30% of population have some college or associates degree to fill jobs requiring long-term OJT to 2-year degree.
- Lower participation rates in micro and rural areas, (there exists a potential labor pool to fill gaps and labor shortages).
- Unemployment beginning to decrease after increases in early late 90's early 2000.
- Hispanic population/workforce shifting to metro counties.

# Target Industries

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# Target Industries in North Carolina

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- Target industries identified in the Regional Partnership Vision Plans
- Many similar and overlapping industries identified
- No formal adoption of statewide set of industry targets

# Targeted Industry Clusters in North Carolina's Regional Partnerships

## Piedmont Triad Regional Partnership

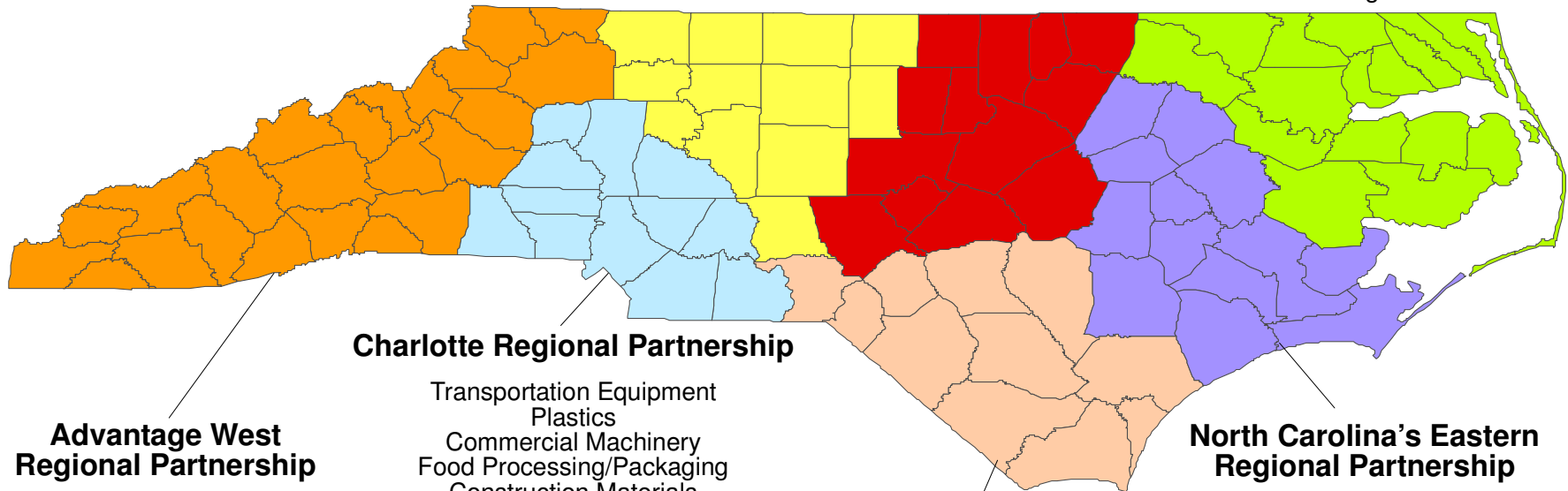
Automotive & Trans. Eqpt. MFG  
 Chemicals & Plastics  
 Healthcare (incl. Biotech)  
 Logistics & Distribution  
 Finance & Insurance  
 Food Processing  
 Arts & Creative Enterprises  
 Tourism  
 Legacy Industries  
 (Furniture, Textiles & Apparel)

## Research Triangle Regional Partnership

Pharmaceuticals  
 Informatics  
 Agricultural Biotechnology  
 Pervasive Computing  
 Advanced Medical Care  
 Analytical Instrumentation  
 Nanoscale Technologies  
 Automotive Parts MFG  
 Logistics & Distribution  
 Biological Agents / Infectious Diseases

## North Carolina's Northeast Regional Partnership

Motor Vehicles (Boat Building)  
 Wood Products & Furniture  
 Basic Health Services  
 Higher Education & Hospitals  
 Value-Added Tourism  
 Bio-Agriculture



## Charlotte Regional Partnership

Transportation Equipment  
 Plastics  
 Commercial Machinery  
 Food Processing/Packaging  
 Construction Materials  
 Value-added Textiles  
 Life Sciences R&D  
 Motorsports R&D  
 Financial Services  
 Healthcare Services  
 Creative Industries  
 Tourism

## Advantage West Regional Partnership

Advanced MFG  
 Arts, Crafts & Design  
 Communications & IT  
 Food-related activities  
 Healthcare  
 Environmental Tech. & Services  
 Life Sciences & Agribusiness  
 Recreation & Tourism  
 Retiree Attraction  
 Security

## North Carolina's Southeast Regional Partnership

Transportation Services  
 Distribution & Warehousing  
 Building Products  
 Technical / Advanced Textiles  
 Motor Vehicles

## North Carolina's Eastern Regional Partnership

Marine Trades  
 Pharmaceutical & Medicine MFG  
 Building Products (Kitchen)  
 Tourism (incl. retiree attraction)  
 Advanced MFG (incl. heating, electrical & engine equipment)  
 Food MFG and Wholesaling  
 (incl. high value-added agriculture)  
 Military & Military Procurement  
 (incl. construction, logistics & aviation)

# Targeted Industry Clusters in NC's Regional Partnerships

Identified Cluster Target	Advantage West	Charlotte Partnership	Piedmont Triad	Research Triangle	NC's Northeast Region	NC's Eastern Region	NC's Southeast Region
Advanced MFG	X	X		X		X	
Arts	X	X	X				
Aviation						X	
Commercial Machinery		X					
Construction Materials		X				X	X
Environmental Tech. & Services	X						
Financial Services		X	X				
Food Processing & Packaging	X		X			X	
Healthcare	X	X	X	X	X		
High Value-Added Agriculture	X				X	X	
Information Technology	X	X		X			
Life Sciences R&D		X		X			
Logistics & Distribution			X	X		X	X
Marine Trades					X	X	
Military Support & Spin-offs						X	X
Motorsports R&D		X					
Pharmaceuticals (Biotech)			X	X		X	
Plastics		X	X				
Recreation & Tourism	X	X	X		X	X	X
Retiree Attraction	X					X	
Security	X						
Transportation Equipment		X	X	X			X
Value-added Textiles		X	X				X
Wood Products & Furniture			X		X		

Source: Partnership Vision Plans

# North Carolina Has A Talent Shortage

<b>Changes in Workforce Demands</b>	<b>Annual Number</b>
<i>To Replace Retiring Workers</i>	60,795
<i>To Fill Projected Net New Jobs</i>	69,825
<b>Total Change in Workforce Demand</b>	<b>130,620</b>
<b>Changes in Workforce Supply</b>	
<i>New Young NC Talent</i>	91,253
<i>In-Migrants, aged 18-54 (assuming all join labor market)</i>	26,760
<b>Total Change in Workforce Supply</b>	<b>118,013</b>
<b>Annual Talent Shortage*</b>	<b>-12,607</b>

*Regional Dynamics annual employment projections 2007 to 2017 Regional Dynamics*

# Policy Focus Areas

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**Are these the  
right questions?**

## I. Many mature, traditional industries continue to shed jobs

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1. How do we respond to the workforce needs of the current and future workers in traditional industries?
2. How do we balance the need for adopting new products and/or processes to help companies compete globally even if job losses may result?
3. How do we support people currently working in these industries pursuing education and training that would qualify them for 'new middle' jobs?

## II. Low-skill service jobs represent a large share of projected growth

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1. How do we ensure that fast-growing, low-wage industries identify career pathways that would allow workers to earn a family-sustaining wage?
2. How do we encourage marginally skilled workers who enter low-wage industries to pursue training and certification while they work with the goal of qualifying for better jobs?
3. How do we help low-wage service companies use technology to create greater numbers of higher wage, high-skilled occupations?

### III. NC produces too many high school dropouts and too few post-secondary grads

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1. How can we help students, parents, and state leaders fully understand the value of education?
2. How can we help more students complete high school and post-secondary educational degree programs?
3. How do we create a more systemic education and training system that links all levels of education to more life-long learning opportunities?

## IV. Baby-boom retirements will contribute to key talent shortages

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1. How can North Carolina better leverage its array of skilled and experienced workers (military, trades, technicians, executives, etc.) beyond retirement age?
2. What kind of incentives can the State offer to encourage experienced workers to remain in the workforce, either full-time or part-time, after retirement age?
3. What kinds of shifts in workplace culture and/or increases in entrepreneurial opportunities should the state consider to motivate older workers?
4. Should North Carolina advocate changes in the federal tax system relative to retirement income and in the social security system to provide incentives for older workers to continue in the workforce?

## V. Low-skill in-migrants create special challenges for NC's education and training systems

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1. How do we prepare our education, training and workforce systems for NC's rapidly growing workforce that frequently has neither a high school degree nor speaks English?
2. How do we better assimilate a workforce from different cultures and leverage them as economic assets for the state?

## VI. Some North Carolina regions successfully attract and retain skilled workers while others cannot generate demand

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1. How do we help micropolitan and rural areas generate the demand for and attract skilled workers?
2. How do we retain our most skilled workers and college graduates, particularly those from disadvantaged regions?
3. How do we better connect skilled workers and recent graduates (from NC and elsewhere) to available job opportunities in North Carolina?

# Questions and Discussion

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Thank You



900 Victors Way, Suite 350

Ann Arbor, MI 48108

(734) 769-2900

(734) 769-2950 (fax)

[www.skilledwork.org](http://www.skilledwork.org)

John Metcalf, [jmetcalf@skilledwork.org](mailto:jmetcalf@skilledwork.org)

704-814-8999