NORTH CAROLINA BEYOND THE CONNECTED AGE

The Tar Heel State in 2050

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Author of North Carolina in the Connected Age
TOPICS

POPULATION
PLACES
ECONOMIC SECTORS
JOBS
TRAINING
RESOURCES
GOVERNMENT
PEOPLE
DIFFERENCE BETWEEN US AND NC POPULATION GROWTH RATES

% points

1790s 1800s 1810s 1820s 1830s 1840s 1850s 1860s 1870s 1880s 1890s 1900s 1910s 1920s 1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s
COMPONENTS OF NORTH CAROLINA POPULATION GROWTH

<table>
<thead>
<tr>
<th>Decade</th>
<th>Births-Deaths</th>
<th>Immigration</th>
<th>Net In-Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s</td>
<td>10</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>1990s</td>
<td>20</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>2000s</td>
<td>10</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>2010s</td>
<td>10</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>2030</td>
<td>2050</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td>9.6</td>
<td>11.6</td>
<td>13.4</td>
</tr>
<tr>
<td><strong>Under 18</strong></td>
<td>2.3</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>18-24</strong></td>
<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>25-44</strong></td>
<td>2.6</td>
<td>3.0</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>45-64</strong></td>
<td>2.5</td>
<td>2.8</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>65&amp;+</strong></td>
<td>1.2</td>
<td>2.3</td>
<td>2.9</td>
</tr>
</tbody>
</table>
PLACES
COUNTY POPULATION GROWTH: 1970 TO 2010

100% or above growth
50% to 99% growth
0% to 49% growth
population loss
COUNTY POPULATION GROWTH 2010-2050
OR, COULD A RURAL RENAISSANCE OCCUR?

VIRTUALIZATION

E-COMMERCE + DRONE DELIVERY

DRIVERLESS TRANSPORT

METRO “TIPPING POINT”
ECONOMIC SECTORS
FORCES SHAPING THE ECONOMIC FUTURE

AGING POPULATION

TECHNOLOGICAL INNOVATION AND IMPLEMENTATION

SHIFT OF INFLUENCE TO DEVELOPING COUNTRIES

SHIFTS IN TASTES AND PREFERENCES

ALTERNATIVE ENERGY
FOUR SECTORS TO WATCH FOR FUTURE GROWTH

TECHNOLOGY
 TOURISM
 AGRIBUSINESS
 RETIREMENT
JOBS
BIG QUESTION: IS THIS TIME DIFFERENT?

FARMING TO MANUFACTURING

MANUFACTURING TO SERVICES

SERVICES TO WHAT?

1,000,000 NEW JOBS IN 2050 OR 460,000 LESS?
WHERE ARE THE NEW JOBS?

DEVELOPMENT/MAINTENACE OF NEW TECHNOLOGY
GLOBAL INTERACTION
LOGISTICS AND DATA MANAGEMENT/ANALYSIS
AGED ASSISTANCE
EDUCATION/RE-TRAINING
SOCIAL INTERACTION
ARTISANSHIP
TRAINING
21st Century Education System

K-12: College Track
Employment Track

Technical College
Interaction with Job Market
Interaction with High School

Core College

Advanced College

Renewal Education
MUST CLOSELY MONITOR JOB CHANGE

AND EDUCATIONAL INSTITUTIONS WILL NEED TO RAPIDLY REDEPLOY RESOURCES
RESOURCES
Note: Inundation from sea-level rise is one of a number of considerations in coastline evolution. Other factors not accounted for in this map (including severe storm erosion, subsidence, vertical accretion of marshes, and barrier island collapse) will also determine the actual shape of NC’s coastline in decades to come.
NORTH CAROLINA WATER USAGE EFFICIENCY

gallons

gallons per $

daily gals. per person
daily gals. per GDP 2015 $


0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
1150 1200 1250 1300 1350 1400 1450 1500

1150 1200 1250 1300 1350 1400 1450 1500


daily gals. per person
daily gals. per GDP 2015 $
## CURRENT AND FUTURE NC POWER SOURCES

<table>
<thead>
<tr>
<th>Power Source</th>
<th>2014</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>19.6%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>16.8%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Oil</td>
<td>31.3%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>18.0%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Hydro</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Renewable</td>
<td>6.1%</td>
<td>11.3%</td>
</tr>
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</table>
GOVERNMENT
THE COMING GENERATIONAL SQUEEZE?

% OF GDP

Years: 1950, 1980, 2010, 2050

- Education
- Transportation
- Health care
OTHER PUBLIC ISSUES

UNEMPLOYMENT COMPENSATION

ECONOMIC DEVELOPMENT POLICY

STATE PENSION SYSTEM

TAX SYSTEM
NEHRU ONCE SAID:

“LIFE IS LIKE A GAME OF CARDS. THE HAND YOU ARE DEALT IS DETERMINISM; THE WAY YOU PLAY THE HAND IS FREE WILL.”