TRIANGLE TALENT
A Regional Skills Assessment
INTRODUCTION
Regional Workforce Skills Analysis

Workforce development and understanding the skills gap is a much different conversation today. With an ever-changing economy, shifts in industry, the introduction of technology, and changing views on education, preparing people for the workforce has changed. For communities that are experiencing rapid growth like Wake County (growing by 67 people per day), there is a need to understand how individuals, companies, and educators are planning when it comes to workforce development.

73% of companies surveyed expect to grow in the next three years

Wake County Economic Development, the City of Raleigh, and Capital Area Workforce Development Board partnered to conduct a workforce skills analysis survey with the help of RTI International. The goal of the survey was to capture the critical skill needs of businesses over the next three years. The survey was also a tool to take a look into the future and to prepare for growth and perceived skill gaps. Growing and nurturing the talent pipeline and workforce is a strategic objective for many organizations, but in order to fully understand the current state of the Research Triangle regions workforce, the survey was created and deployed to more than 4,000 businesses and business representatives across 15 counties.

Survey Objectives
✓ Understand both short & long-term hiring needs
✓ Inform training & education providers of the current workforce needs
✓ Provide current workforce information for policy makers in workforce, education, & economic development
✓ Develop an effective cradle-to-career talent pipeline strategy
✓ Create an efficient structure for ongoing industry feedback

NO. 2
Most Educated City
Raleigh, NC
Forbes
Overall, the survey findings indicated many industries are **projecting growth in the next three years**. Therefore, the workforce will need to expand and be equipped with the right skills. The survey revealed multiple key themes that will help inform better alignment of the region’s workforce ecosystem.

**Businesses are looking to expand:**
73 percent of companies surveyed expect to grow in the next three years. This is indicative of the strong local economy.

In the next three years, businesses surveyed expect to hire between 22,000 and 36,700 people for new jobs.

**High growth industries:**
IT, Software & Analytics (87%), Life Sciences & Bioscience (85%), and Construction & Skilled Trades (84%) are among the most likely to grow.

**Need for degrees and technical education:**
Companies value employees with a four-year college degree, but there is variation in education expectations across industries. Some industries place a higher value on education, while others focus on technical training.

**Respondents have a positive opinion of talent pipeline:**
The majority of industry sectors indicate satisfaction with the quality of the local pipeline for well-trained workers.

**Missing qualities and soft skills:**
Respondents across all industries search to find employees that can take initiative and think critically.

**Sourcing talent from networks:**
Networks are a common tool for recruiting and sourcing talent. The top four most frequently cited tools are:
- Friends and networks
- Online job portal
- Internal employee references
- Social media

<table>
<thead>
<tr>
<th>Industry Findings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional &amp; Technical Services</td>
<td>4</td>
</tr>
<tr>
<td>IT, Software, &amp; Analytics</td>
<td>5</td>
</tr>
<tr>
<td>Restaurant, Lodging, &amp; Hospitality Services</td>
<td>6</td>
</tr>
<tr>
<td>Life Sciences &amp; Bioscience</td>
<td>7</td>
</tr>
<tr>
<td>Public Sector &amp; Education</td>
<td>8</td>
</tr>
<tr>
<td>Construction &amp; Skilled Trades</td>
<td>9</td>
</tr>
<tr>
<td>Healthcare &amp; Social Assistance</td>
<td>10</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11</td>
</tr>
<tr>
<td>Energy, Utilities, &amp; Cleantech</td>
<td>12</td>
</tr>
<tr>
<td>Logistics, Transportation, &amp; Warehousing</td>
<td>13</td>
</tr>
</tbody>
</table>
PROFESSIONAL & TECHNICAL SERVICES

What qualities or soft skills are most difficult to find in the workforce?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>47</td>
</tr>
<tr>
<td>Strong Writing Skills</td>
<td>32</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>31</td>
</tr>
<tr>
<td>Time Management</td>
<td>30</td>
</tr>
<tr>
<td>Verbal Communication</td>
<td>30</td>
</tr>
</tbody>
</table>

What credentials or education experience are you seeking in your future workforce?

<table>
<thead>
<tr>
<th>Education</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-year Colleges &amp; Universities</td>
<td>81</td>
</tr>
<tr>
<td>Professional Certifications &amp; Training</td>
<td>59</td>
</tr>
<tr>
<td>Community College, Associates Degrees &amp; Certificates</td>
<td>42</td>
</tr>
</tbody>
</table>

Which positions do you expect to have the most openings in the next 3 years?

<table>
<thead>
<tr>
<th>Position</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistants</td>
<td>44</td>
</tr>
<tr>
<td>Marketing Professionals</td>
<td>42</td>
</tr>
<tr>
<td>Supervisors &amp; Managers</td>
<td>35</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
</tr>
<tr>
<td>Computer &amp; IT Support Professionals</td>
<td>24</td>
</tr>
</tbody>
</table>

What skills are the most important for hiring?

<table>
<thead>
<tr>
<th>Skill</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Communication Appropriate to Intended Audience</td>
<td>71</td>
</tr>
<tr>
<td>Ability to Work Efficiently</td>
<td>69</td>
</tr>
<tr>
<td>Creating &amp; Maintaining Positive Client Relations</td>
<td>67</td>
</tr>
<tr>
<td>Information Gathering &amp; Analysis</td>
<td>50</td>
</tr>
<tr>
<td>Knowledge of Relevant Computer Software</td>
<td>32</td>
</tr>
</tbody>
</table>

Do you expect your workforce to grow in the next 3 years?

- 77% Expect their Workforce to Grow
- 21% Expect to Maintain their Current Workforce
- 2% Expect their Workforce to Downsize

Key Takeaway

Of the respondents in this category, 69 percent are small businesses who plan to double their footprint in the next three years.
**Key Takeaway**

Of all 10 industry sectors, IT, software and analytics is expected to grow the most in the next three years, with a number of respondents having 1,000 or more employees. Not only is this industry growing quickly, but it’s also scaling rapidly.
**Key Takeaway**
For the restaurant, lodging and hospitality industry, the most in-demand positions are expected to be the most difficult to fill like, food preparation roles, wait staff, guest services, supervisors, managers, and housekeepers.
LIFE SCIENCES & BIOSCIENCE

What qualities or soft skills are most difficult to find in the workforce?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking Initiative</td>
<td>8</td>
</tr>
<tr>
<td>Creative Thinking</td>
<td>6</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>6</td>
</tr>
<tr>
<td>Willingness to Work Varied or Long Hours</td>
<td>6</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>5</td>
</tr>
</tbody>
</table>

What credentials or education experience are you seeking in your future workforce?

<table>
<thead>
<tr>
<th>Education</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-year Colleges &amp; Universities</td>
<td>16</td>
</tr>
<tr>
<td>Professional Certifications &amp; Training</td>
<td>7</td>
</tr>
</tbody>
</table>

Which positions do you expect to have the most openings in the next 3 years?

<table>
<thead>
<tr>
<th>Position</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Assurance/Quality Control Professionals</td>
<td>9</td>
</tr>
<tr>
<td>Project Managers</td>
<td>8</td>
</tr>
<tr>
<td>Technicians</td>
<td>7</td>
</tr>
<tr>
<td>Research Associates/Scientists</td>
<td>6</td>
</tr>
<tr>
<td>Engineers</td>
<td>5</td>
</tr>
</tbody>
</table>

What skills are the most important for hiring?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Design, Analysis &amp; Data Management</td>
<td>9</td>
</tr>
<tr>
<td>Experience with Specific Laboratory Techniques &amp; Ability to Learn &amp; Adapt to New Technologies</td>
<td>8</td>
</tr>
<tr>
<td>Current Good Laboratory Practice (cGMP)</td>
<td>7</td>
</tr>
<tr>
<td>Current Good Manufacturing Practice (cGMP)</td>
<td>6</td>
</tr>
<tr>
<td>Knowledge of Regulatory Affairs &amp; Approval Process</td>
<td>6</td>
</tr>
</tbody>
</table>

Do you expect your workforce to grow in the next 3 years?

- **85%** Expect their Workforce to Grow
- **15%** Expect to Maintain their Current Workforce

Key Takeaway

Respondents represented both small, early stage companies, and major employers. The life sciences and bioscience industry is most satisfied with the workforce overall.
PUBLIC SECTOR & EDUCATION

What qualities or soft skills are most difficult to find in the workforce?

<table>
<thead>
<tr>
<th>Skills</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>27</td>
</tr>
<tr>
<td>Taking Initiative</td>
<td>25</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>18</td>
</tr>
<tr>
<td>Creative Thinking</td>
<td>18</td>
</tr>
<tr>
<td>Strong Writing Skills</td>
<td>16</td>
</tr>
</tbody>
</table>

What credentials or education experience are you seeking in your future workforce?

<table>
<thead>
<tr>
<th>Education Levels</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-year Colleges &amp; Universities</td>
<td>41</td>
</tr>
<tr>
<td>Professional Certifications &amp; Training</td>
<td>33</td>
</tr>
<tr>
<td>Community College, Associates Degrees &amp; Certificates</td>
<td>24</td>
</tr>
</tbody>
</table>

Which positions do you expect to have the most openings in the next 3 years?

<table>
<thead>
<tr>
<th>Positions</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative, Technical &amp; Support Staff</td>
<td>41</td>
</tr>
<tr>
<td>Teachers/Faculty</td>
<td>28</td>
</tr>
<tr>
<td>Administrators</td>
<td>25</td>
</tr>
<tr>
<td>Researcher Professionals</td>
<td>15</td>
</tr>
<tr>
<td>Marketing Professionals</td>
<td>13</td>
</tr>
</tbody>
</table>

What skills are the most important for hiring?

<table>
<thead>
<tr>
<th>Skills</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Organize, Plan &amp; Set Goals</td>
<td>36</td>
</tr>
<tr>
<td>Ability to Implement Plans &amp; Policies</td>
<td>34</td>
</tr>
<tr>
<td>Effective Management &amp; Leadership Skills</td>
<td>31</td>
</tr>
<tr>
<td>Information Gathering &amp; Analysis</td>
<td>24</td>
</tr>
<tr>
<td>Strong Writing Skills</td>
<td>18</td>
</tr>
</tbody>
</table>

Do you expect your workforce to grow in the next 3 years?

- **69%** Expect their Workforce to Grow
- **26%** Expect to Maintain their Current Workforce
- **5%** Expect their Workforce to Downsize

Key Takeaway

This industry requires a variety of credentials and/or education experience for positions like teachers, administrators, counselors, and leadership staff.
CONSTRUCTION & SKILLED TRADES

What qualities or soft skills are most difficult to find in the workforce?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility &amp; Self-discipline</td>
<td>22</td>
</tr>
<tr>
<td>Taking Initiative</td>
<td>21</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>19</td>
</tr>
<tr>
<td>Time Management</td>
<td>13</td>
</tr>
<tr>
<td>Willingness to Work Varied or Long Hours</td>
<td>13</td>
</tr>
</tbody>
</table>

What credentials or education experience are you seeking in your future workforce?

<table>
<thead>
<tr>
<th>Education</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community College, Associates Degrees &amp; Certificates</td>
<td>21</td>
</tr>
<tr>
<td>Apprenticeship Programs</td>
<td>20</td>
</tr>
<tr>
<td>Professional Certifications &amp; Training</td>
<td>20</td>
</tr>
<tr>
<td>4-year Colleges &amp; Universities</td>
<td>12</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
</tr>
</tbody>
</table>

Which positions do you expect to have the most openings in the next 3 years?

18 Supervisors & Managers
16 Commercial Construction Field Supervisors
16 Estimators
16 Commercial Construction Projects Managers
10 Other

What skills are the most important for hiring?

29 Efficient Completion of Tasks
26 Communication & Visualization of Proposed Work
24 Participate & Contribute to a Safe Work Environment
20 Selection & Effective Use of Appropriate Tools, Machinery, Equipment, & Resources
14 Willingness to Adapt to Current Technology

Do you expect your workforce to grow in the next 3 years?

84% Expect their Workforce to Grow
16% Expect to Maintain their Current Workforce

Key Takeaway
This industry ranks two-year degrees and other certifications as the most desirable requirement needed for future workforce.
HEALTHCARE & SOCIAL ASSISTANCE

What qualities or soft skills are most difficult to find in the workforce?

- Critical Thinking: 16
- Taking Initiative: 16
- Interpersonal Skills: 23
- Time Management: 9
- Understanding & Participation in Company Culture: 8

What credentials or education experience are you seeking in your future workforce?

- 4-year Colleges & Universities: 23
- Professional Certifications & Training: 22
- Community College, Associates Degrees & Certificates: 19

Which positions do you expect to have the most openings in the next 3 years?

- 13 Social Workers
- 12 Health Aides & Assistants, Including Home & Health Aides
- 12 Case & Care Managers
- 12 Nurses (RN & LPN)
- 9 Other

Do you expect your workforce to grow in the next 3 years?

- 79% Expect to Maintain their Current Workforce
- 19% Expect their Workforce to Grow
- 2% Expect their Workforce to Downsize

Key Takeaway

Healthcare and social assistance represent larger companies who are projected to hire thousands of employees over the next three years.
What qualities or soft skills are most difficult to find in the workforce?

- 18 Taking Initiative
- 12 Willingness to Work Varied or Long Hours
- 10 Critical Thinking
- 10 Responsibility & Self-discipline
- 9 Interpersonal Skills

What credentials or education experience are you seeking in your future workforce?

- 16 4-year Colleges & Universities
- 16 Community College, Associates Degrees & Certificates
- 13 Apprenticeship Programs
- 13 Professional Certifications & Training

Which positions do you expect to have the most openings in the next 3 years?

- 15 Front-line Production Workers
- 13 Supervisors & Managers
- 11 Machine Operators (Not Computerized)
- 11 Maintenance & Repair Personnel
- 10 Engineers

What skills are the most important for hiring?

- 14 Effective Use of Resources, Limiting Waste, Continuous Improvement
- 10 Selection & Effective Use of Tools, Machinery, Equipment & Other Resources in Production
- 10 Participates & Contributes to a Safe Work Environment
- 10 Effective Communication to Share the Status of Work & Problems
- 9 Effective Implementation of Operational Manuals & Instructions

Do you expect your workforce to grow in the next 3 years?

- 81% Expect their Workforce to Grow
- 16% Expect to Maintain their Current Workforce
- 3% Expect their Workforce to Downsize

Key Takeaway

Respondents in this category place equal weight on four-year college and community college credentials.
ENERGY, UTILITIES, & CLEANTECH

Key Takeaway
This category had the second highest rating of the quality of the talent pipeline for well-trained workers. Respondents ranked quality at 3.5 of 5.

What qualities or soft skills are most difficult to find in the workforce?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Communication</td>
<td>8</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>7</td>
</tr>
<tr>
<td>Strong Writing Skills</td>
<td>7</td>
</tr>
<tr>
<td>Collaboration/Teamwork</td>
<td>5</td>
</tr>
<tr>
<td>Responsibility &amp; Self-discipline</td>
<td>5</td>
</tr>
</tbody>
</table>

What credentials or education experience are you seeking in your future workforce?

<table>
<thead>
<tr>
<th>Education Experience</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community College, Associates Degrees &amp; Certificates</td>
<td>13</td>
</tr>
<tr>
<td>4-year Colleges &amp; Universities</td>
<td>9</td>
</tr>
</tbody>
</table>

Which positions do you expect to have the most openings in the next 3 years?

<table>
<thead>
<tr>
<th>Position</th>
<th># of Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers</td>
<td>12</td>
</tr>
<tr>
<td>Data Analysts</td>
<td>8</td>
</tr>
<tr>
<td>Software Developers &amp; Programmers</td>
<td>7</td>
</tr>
<tr>
<td>Field Technicians</td>
<td>5</td>
</tr>
<tr>
<td>Customer Service Specialists</td>
<td>4</td>
</tr>
</tbody>
</table>

What skills are the most important for hiring?

<table>
<thead>
<tr>
<th>Skill</th>
<th># of Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management Skills</td>
<td>11</td>
</tr>
<tr>
<td>Effective Communication Appropriate to Intended Audience</td>
<td>9</td>
</tr>
<tr>
<td>Participates &amp; Contributes to a Safe Work Environment</td>
<td>6</td>
</tr>
<tr>
<td>Assessment, Negotiation &amp; Implementation of Measures to Comply with Laws &amp; Regulations</td>
<td>5</td>
</tr>
<tr>
<td>Information Gathering &amp; Analysis</td>
<td>5</td>
</tr>
</tbody>
</table>

Do you expect your workforce to grow in the next 3 years?

- **78%** Expect their Workforce to Grow
- **22%** Expect to Maintain their Current Workforce
LOGISTICS, TRANSPORTATION & WAREHOUSING

What qualities or soft skills are most difficult to find in the workforce?

- Responsibility & Self-discipline: 6 responses
- Critical Thinking: 4 responses
- Time Management: 4 responses
- Collaboration/Teamwork: 3 responses
- Interpersonal Skills: 3 responses

What credentials or education experience are you seeking in your future workforce?

- Community College, Associates Degrees & Certificates: 7 responses
- Professional Certifications & Training: 7 responses
- 4-year Colleges & Universities: 6 responses

Which positions do you expect to have the most openings in the next 3 years?

- Transportation & Drivers: 6 openings
- Labors & Material Movers: 4 openings
- Supervisors & Managers: 4 openings
- Business & Engineering Professionals: 3 openings
- Financial Professionals: 3 openings

What skills are the most important for hiring?

- Allocation of Resources to Minimize Gaps in Operation: 4 skills
- Development of Proposals & Budgets: 4 skills
- Data Synthesis to Improve Performance & Increase Reliability: 4 skills
- Communication of Relevant Information for Decision Making: 4 skills
- Implementation & Evaluation of Risk Management Strategies: 3 skills

Do you expect your workforce to grow in the next 3 years?

50% Expect their Workforce to Grow

50% Expect to Maintain their Current Workforce

Key Takeaway

This industry has an even split of degree requirements in candidates ranging from four-year, two-year, and professional certifications.
Based on the key themes described in the introduction and general consensus from the data, the following items were identified as the strongest takeaways from the survey:

- Businesses expect to grow
- Skill gaps exist due to supply and demand, interest, skills, education, and experience
- The region’s workforce has a mix of strengths and challenges that are consistent with national trends
- Networks are being used for sourcing talent
- Wide range of demand for skilled workers (technical/university level)

Overall, the Research Triangle region is well-suited to proactively address skill gaps due to world-class education resources, access to training, and a community that is focused on growing a strong talent pipeline. The data contained on the previous pages are reflective of the survey completed in February 2017.

Stay Connected & Keep the Conversation Going.

Visit our web page at Raleigh-wake.org/talent for updates on workforce needs as we take steps to strengthen and grow talent in the region.
PARTNERS

Local
Capital Area Workforce Development Board
City of Raleigh
Greater Raleigh Chamber of Commerce
Raleigh-Wake HR Management Association
RTI International
Wake County Economic Development

Construction & Skilled Trades
Associated Builders & Contractors
Associated General Contractors
Construction Managers Association of America
Durham, Orange, Chatham Home Builders Association
Wake Home Builders Association

Life Sciences
NC Bio
NC Biotech Center

Healthcare & Social Assistance
Benchmarks NC
NC Healthcare Engineers Association
North Carolina Healthcare and Communications Alliance
North Carolina Hospital Association
WakeMed Health & Hospitals
Wake Network of Care

IT, Software & Analytics
NC TECH
NC RIOT

Energy, Utilities & Cleantech
Duke Energy
Research Triangle Cleantech Cluster

Logistics
NCSU Additive Manufacturing and Logistics

Manufacturing
NC State Industry Expansion Solutions/
NC Manufacturing Extension Partnership

Public Section, Education & Nonprofit
North Carolina Business Committee for Education

Hospitality
Greater Raleigh Convention and Visitors Bureau
NC Restaurant and Lodging Association

Education
NC State University
Wake County Public School System
Wake Tech Community College
William Peace University

Regional
Apex Economic Development
Cary Economic Development
Chatham County Economic Development
Durham Economic Development
Franklin County Economic Development
Fuquay-Varina
 Garner Economic Development
Harnett County Economic Development
Holly Springs
Johnston County Economic Development
Lee County Economic Development
Morrisville Chamber of Commerce
NC Chamber
Person County Economic Development
Research Triangle Park Foundation
Research Triangle Regional Partnership
Wake Forest Economic Development
Wilson County Economic Development Corporation
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