The Value of Apprenticeship Data

May 26, 2016

@workforcedqc @skillscoalition

www.workforcedqc.org
www.nationalskillscoalition.org
Panelists

Jenna Leventoff
Policy Analyst, Workforce Data Quality Campaign

Pamela Howze
SPHR, Executive Director of Work Based Learning, Business & Veterans Services, NC Department of Commerce/ NC Works

Katie Spiker
Federal Policy Analyst, National Skills Coalition

Deb Lindner
HR Manager, Precor Incorporated

Betty McGrath
Director of Workforce Research and Evaluation, Labor and Economics Analysis Division, NC Department of Commerce
WDQC Mission

• Advocate for **inclusive, aligned and market-relevant** education and workforce data that can help our nation’s human capital policies meet the challenges of a changing economy.

• Promote federal and state reforms for data systems that provide useful information for **policymakers, students and workers, business leaders and educators**.
  – State Blueprint with 13 key features of a high-quality data infrastructure
  – Address federal legislation, funding and technical assistance
  – Policy agenda developed by broad coalition of national organizations, state leaders and technical experts across education/workforce spectrum
Our Mission

• We **organize** broad-based coalitions seeking to raise the skills of America’s workers across a range of industries.

• We **advocate** for public policies that invest in what works, as informed by our members’ real-world expertise.

• And we **communicate** these goals to an American public seeking a vision for a strong U.S. economy that allows everyone to be part of its success.
Apprenticeship

• Earn and Learn model that results in industry recognized credential

• 1-6 years, most around 3-4; generally, 2,000 hours OJT completed
Benefits of Apprenticeship

Apprentices
• Increased earnings
• Skill attainment
• Career pathway
• Credential attainment

Employers
• Higher employee retention
• Customized training
• Increased productivity
• Predictable talent pipeline

Apprentices earn more
Apprentices earn $300,000 more than non-apprentices over the course of their career.


www.nationalskillscoalition.org
Employers Support Apprenticeship

Ninety-four percent of employers would recommend apprenticeship to other employers.

Types of Apprenticeship Programs

- Registered Apprenticeships
- Non-Registered Apprenticeships
Non-Registered Apprenticeships

Sorry?
No Data Available
Registered Apprenticeships

• **Defining Characteristics**
  – Meet Certain National Criteria
  – Participants Earn Nationally Recognized Certificates of Completion

• **Governance Structure**
  – Administered by either the US Department of Labor Office of Apprenticeship (OA) or a State Apprenticeship Agency (SAA)
Where is Registered Apprenticeship Data Maintained?

- RAPIDS
- State Longitudinal Data Systems
RAPIDS

• Individual-level Data
  – 25 State Programs Administered by OA
  – 9 State Programs Administered by SAA’s

• Aggregate Data
  – 17 State Programs Administered by SAA’s’s
Individual-level Data in RAPIDS

• Apprentice Data
  – Demographic Information
  – Education Level
  – Contact Information
  – Current Enrollment Status in an Apprenticeship program
• Program Data
  – Duration of on-the-job instruction
  – Related Instruction Provider
  – Employer ID Number
  – Apprentice Wage Rates
  – Type of Program
Aggregate Data in RAPIDS

- **Apprentice Data**
  - Number of Apprentices Served
  - Number of Completion Certificates Issued
  - Average Starting/Ending Wages
  - Demographics

- **Program Data**
  - Total Number Active Programs
  - Number Employers Served
  - Number of Programs With Certain Approaches (competency based, etc)
State Longitudinal Data Systems

- Hawaii
- Michigan
- Nebraska
- North Carolina
- Texas
- Washington
Shortfalls of Registered Apprenticeship Data

• No Comprehensive Centralized Database
• Lack of Publically Accessible Information
Improving Apprenticeship Data: Suggested Performance Metrics

- Credential Attainment
- Employment Outcomes
- Wages
- Outcomes by Demographic
- Employer Return on Investment
WH Efforts around Apprenticeship

• American Apprenticeship Initiative - $175M to 46 grantees – expected to lead to 34,000 new apprenticeship slots

• Registered Apprenticeship – College Consortium – joint DOL-ED initiative

• $2B “Apprenticeship Training Fund,” $90M apprenticeship grant proposal in FY 2017 budget
FY 2016 Appropriated Funds: $90m

- $9.5m in Accelerator State Grants: estimated award late May

- $52m in LEADERS State Grants (awards Fall 2016)

- $28.5m in Contracts to complement state work and scale apprenticeship to new industries and workers (Summer 2016)
Apprenticeship Legislation

- EARN Act – (Murray/Hatch)
- LEAP Act – (Booker/Scott)
- Apprenticeship and Jobs Training Act (Cantwell/Collins)
Funding for expanding apprenticeship

$75m for increasing awareness of pre-apprenticeship and apprenticeship

$5m for aligning with postsecondary education (Registered Apprenticeship College Consortium)

$20m for subsidies to sponsors of new apprenticeship programs
Supplying a Talent Pipeline through Apprenticeship

Program Overview and Outcomes

Pamela Howze
NCWorks

Betty McGrath
Labor and Economic Analysis

Supplying a Talent Pipeline through Apprenticeship
Program Overview and Outcomes
North Carolina’s Workforce System

• **What is NCWorks**
  • North Carolina’s strategy to ensure that the state has the best workforce in the country.
  • **Alignment and coordination of workforce development programs in Department of Commerce, Community Colleges, University of North Carolina, Department of Public Instruction, Department of Health and Human Services.**
  • **Customer focused system, responsive** to the needs of the economy.
  • System prepares workers to **succeed** in the North Carolina economy and continuously **improve their skills.**
North Carolina’s Workforce System

**NCWorks**

- **Adult Education and Training** (4-year & graduate degrees)
- **K-12 Education and Training**
- **Adult Education, Training and Retraining** (short term and 2-year degrees)
- **University System**
- **Health and Human Services**
- **K-12**
- **Community Colleges**
- **Commerce**

Assist Individuals with disabilities and other barriers obtain employment.

Assist Individuals with gaining skills and obtaining employment. Assist businesses with finding and retaining a qualified workforce.
NCWorks Apprenticeship

Helping North Carolina’s employers build a high quality talent pipeline.

• Apprenticeship offers employers in every industry the tools to develop a highly skilled workforce to help grow their business.

• Apprenticeship offers individuals the opportunity to earn a salary while learning the skills necessary to succeed in high-demand careers.

• Apprenticeship exemplifies high standards, instructional rigor and quality training.
NCWorks Apprenticeship

• **Services to Businesses**
  
  • Identify *skill gaps*.
  
  • Develop *comprehensive programs* to train workers including *classroom* and *on-the-job training*.
  
  • Connect employers with related instruction providers.
  
  • Consult on recruiting, screening, and testing of potential apprentices.
  
  • Create and register apprenticeship programs with the U.S. Department of Labor.
  
  • Monitor and audit apprenticeship programs.
NCWorks Apprenticeship

Voluntary System of Employer Driven Training

• Employers agree to sponsor apprenticeship programs
  • Approved plan,
  • On-the-Job Training Requirements,
  • Technical Instruction Requirements,
  • Defined Training hours,
  • Wage Scale Progression,
  • Voluntary agreement with the apprentices,
  • Wage rates typically begin at half journey rate,
  • Wages rise as apprentice gains skills and competencies,
  • Successful Completion receive certificate of completion.
NCWorks Apprenticeship

North Carolina Department of Commerce Division of Workforce Solutions oversees the program.

- Apprenticeship Council
  - Establish Standards for apprentice agreements
  - Issue rules and regulation for program operation
- Collaboration with Community Colleges
- Diverse Group of Industries
  - 600 Employers
- Diverse Group of Occupations
  - Over 300 Occupations
- Overcoming Past Challenges
  - State funding was cut during economic downturn
  - Decline of participation
- Today NCWorks Apprenticeship
  - Growing number of employers
  - Growing number of apprentices
Common Follow-up System (CFS)

North Carolina’s Workforce Data Quality Initiative
North Carolina WDQI

• North Carolina Common Follow-up System
  • Early 1990’s, education, employment and training agencies interested in following up on participants.
  • Agencies agreed to voluntarily share information.
  • Legislatively Mandated with Department of Commerce
  • Technology has become dated
  • WDQI being used to upgrade Technology and help enhance system outputs
  • Working with Government Data Analytics Center (GDAC)
    • Development of Data Warehouse
    • Relational Database
    • Analytical Data Mart
North Carolina Common Follow-up System

• CFS

• Extensive longitudinal information across NC’s education, training, workforce development and employment.
• State law mandates data confidentiality and defines use of data
• Over 9.2 Million Individual Program Participants
• Over 219 Million Program Records – Begin in mid 1990’s
• 23 Years of Employment and Wage Information
• Over 15 Years of Industry Information
• Over 15 Years of Unemployment Insurance Claims Information
• Provides the capacity to link program participation to employment and wage data.
• Utilized to develop and enhance information and performance measures for education and workforce development initiatives.
• Performance Measures for NCWorks Performance.
• **CFS Current Operation**
  • Contributing Agencies provide extract files that contain demographic and programmatic information on participants.
    • Social Security Number (SSN),
    • Demographics,
    • Location (institution) of participation,
    • Program Participation,
    • Program Completion,
    • Entry and Exit Dates,
    • Transactional Service Information,
    • Degree Attainment Information.

• **Employment and Wage Information**
  • Unemployment Insurance Wage Information
  • Unemployment Insurance Claims Information
  • Unemployment Insurance Benefit Payment Information
  • Employer Information including industry
## Education, Employment and Training Entities

### UNIQUE NUMBER OF INDIVIDUALS BY AGENCY AND SYSTEM WIDE ACROSS THE 10-YEAR TIME PERIOD JULY 1, 2005 THROUGH JUNE 30, 2015

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>Number of Individuals Across the 10 Year Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIVISION OF ADULT CORRECTION</td>
<td>613,268</td>
</tr>
<tr>
<td>DEPARTMENT OF PUBLIC INSTRUCTION</td>
<td>1,200,018</td>
</tr>
<tr>
<td>DIVISION OF SERVICES FOR THE BLIND</td>
<td>10,902</td>
</tr>
<tr>
<td>DIVISION OF SOCIAL SERVICES</td>
<td>1,056,373</td>
</tr>
<tr>
<td>DIVISION OF VOCATIONAL REHABILITATION SERVICES</td>
<td>199,049</td>
</tr>
<tr>
<td>DIVISION OF WORKFORCE SOLUTIONS</td>
<td>3,233,715</td>
</tr>
<tr>
<td>NORTH CAROLINA COMMUNITY COLLEGE SYSTEM</td>
<td>3,269,612</td>
</tr>
<tr>
<td>UNIVERSITY OF NORTH CAROLINA</td>
<td>786,822</td>
</tr>
<tr>
<td><strong>TOTAL UNIQUE PARTICIPANTS</strong></td>
<td><strong>6,166,252</strong></td>
</tr>
</tbody>
</table>
Across 4 Quarters (2014Q3 – 2015Q2)

4.8 Million Individuals with Wages Reported in the Unemployment Insurance System

2.9 Million (62%) of the 4.8 Million Wage Earners were Education, Training, and Workforce Development Participants Between July 2005 and June 2015
Across 4 Quarters (2014Q3 – 2015Q2)

182.8 Billion Dollars Reported to the Unemployment Insurance System

82.8 Billion Dollars (47%) of the Wages Paid were Paid to Individuals who participated in Education, Training, and Workforce Development Programs Between July 2005 and June 2015
Economic Impacts of North Carolina’s Education, Training and Workforce Programs

[Chart showing the economic impacts by sector, with bars indicating the number of participants and percentages.]
NCWorks Performance Initiative

- Performance of State Workforce Programs
  - NCWorks Performance Taskforce
  - 16 Workforce Programs
  - Data from the Common Follow-up System (CFS)
  - Utilized Cohort Design
  - Two Cohorts
    - 2009-2010
    - 2010-2011
  - Common Definition of Program Exit across programs
  - Outcome Measures
    - Employment and Wages
    - Further Participation in Education and Workforce Programs
# NCWorks Apprenticeship Performance

## NCWorks Apprenticeship

### 2009-2010

<table>
<thead>
<tr>
<th></th>
<th>Base Year 2009-2010</th>
<th>1 Year Later 2010-2011</th>
<th>2 Years Later 2011-2012</th>
<th>3 Years Later 2012-2013</th>
<th>4 Years Later 2013-2014</th>
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<tbody>
<tr>
<td>Number of Participants</td>
<td>N 7,976</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Number of Participants not Enrolled in same program in the following year</td>
<td>N 3,707</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Employed</td>
<td>N 3,023</td>
<td>2,829</td>
<td>2,711</td>
<td>2,627</td>
<td>2,563</td>
</tr>
<tr>
<td></td>
<td>% 82%</td>
<td>76%</td>
<td>73%</td>
<td>71%</td>
<td>69%</td>
</tr>
<tr>
<td>Average Wage</td>
<td>$33,781</td>
<td>$35,299</td>
<td>$37,232</td>
<td>$38,426</td>
<td>$39,676</td>
</tr>
<tr>
<td>Median Wage</td>
<td>$33,405</td>
<td>$34,524</td>
<td>$35,968</td>
<td>$36,542</td>
<td>$38,429</td>
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<tr>
<td>Enrolled in Public Higher Education and/or Workforce Development</td>
<td>N 3,707</td>
<td>1,740</td>
<td>1,640</td>
<td>1,503</td>
<td>1,368</td>
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<tr>
<td></td>
<td>% 100%</td>
<td>47%</td>
<td>44%</td>
<td>41%</td>
<td>37%</td>
</tr>
<tr>
<td>Enrolled in UNC</td>
<td>N 35</td>
<td>39</td>
<td>56</td>
<td>52</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>% &lt;1%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Enrolled in NCCCS</td>
<td>N 1,634</td>
<td>1,414</td>
<td>1,307</td>
<td>1,226</td>
<td>1,132</td>
</tr>
<tr>
<td></td>
<td>% 44%</td>
<td>38%</td>
<td>35%</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>Enrolled in Other Workforce Program</td>
<td>N 1,869</td>
<td>1,634</td>
<td>1,461</td>
<td>1,386</td>
<td>1,251</td>
</tr>
<tr>
<td></td>
<td>% 50%</td>
<td>44%</td>
<td>39%</td>
<td>37%</td>
<td>34%</td>
</tr>
<tr>
<td>Receiving Unemployment Insurance</td>
<td>N 451</td>
<td>430</td>
<td>378</td>
<td>309</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>% 12%</td>
<td>12%</td>
<td>10%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Not Found</td>
<td>N 0</td>
<td>612</td>
<td>707</td>
<td>837</td>
<td>976</td>
</tr>
<tr>
<td></td>
<td>% 0%</td>
<td>17%</td>
<td>19%</td>
<td>23%</td>
<td>26%</td>
</tr>
</tbody>
</table>
NCWorks Apprenticeship Performance

NCWorks Apprenticeship 2009-2010 Cohort
Employment and Average Wage in North Carolina

Employed in North Carolina
Average Wage

76%  $37,232  $38,426  $39,676
$35,299  73%  71%  69%

1 Year Post  2 Years Post  3 Years Post  4 Years Post

$0  $5,000  $10,000  $15,000  $20,000  $25,000  $30,000  $35,000  $40,000  $45,000  $50,000
# NCWorks Apprenticeship Performance

## NCWorks Apprenticeship

**2010-2011**

<table>
<thead>
<tr>
<th></th>
<th>Base Year 2010-2011</th>
<th>1 Year Later 2011-2012</th>
<th>2 Years Later 2012-2013</th>
<th>3 Years Later 2013-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participants</td>
<td>N 5,591</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Participants not Enrolled in same program in the following year</td>
<td>N 2,863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>N 2,162</td>
<td>2,058</td>
<td>2,006</td>
<td>1,971</td>
</tr>
<tr>
<td></td>
<td>% 76%</td>
<td>72%</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>Average Wage</td>
<td>$36,685</td>
<td>$38,362</td>
<td>$40,025</td>
<td>$41,461</td>
</tr>
<tr>
<td>Median Wage</td>
<td>$36,158</td>
<td>$37,558</td>
<td>$38,716</td>
<td>$40,361</td>
</tr>
<tr>
<td>Enrolled in Public Higher Education and/or Workforce Development</td>
<td>N 2,863</td>
<td>1,320</td>
<td>1,249</td>
<td>1,181</td>
</tr>
<tr>
<td></td>
<td>% 100%</td>
<td>46%</td>
<td>44%</td>
<td>41%</td>
</tr>
<tr>
<td>Enrolled in UNC</td>
<td>N 25</td>
<td>40</td>
<td>34</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>% &lt;1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Enrolled in NCCCS</td>
<td>N 1,223</td>
<td>1,158</td>
<td>1,086</td>
<td>1,048</td>
</tr>
<tr>
<td></td>
<td>% 43%</td>
<td>40%</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>Enrolled in Other Workforce Program</td>
<td>N 1,331</td>
<td>1,229</td>
<td>1,150</td>
<td>1,094</td>
</tr>
<tr>
<td></td>
<td>% 46%</td>
<td>43%</td>
<td>40%</td>
<td>38%</td>
</tr>
<tr>
<td>Receiving Unemployment Insurance</td>
<td>N 244</td>
<td>224</td>
<td>206</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>% 9%</td>
<td>8%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Not Found</td>
<td>N 0</td>
<td>614</td>
<td>683</td>
<td>748</td>
</tr>
<tr>
<td></td>
<td>% 0%</td>
<td>21%</td>
<td>24%</td>
<td>26%</td>
</tr>
</tbody>
</table>
NCWorks Apprenticeship Performance

NCWorks Apprenticeship 2010-2011 Cohort
Employment and Average Wage in North Carolina

- Employed in North Carolina
- Average Wage

1 Year Post: 72% Employment, $38,362 Average Wage
2 Years Post: 70% Employment, $40,025 Average Wage
3 Years Post: 69% Employment, $41,461 Average Wage

$0 - $5,000 - $10,000 - $15,000 - $20,000 - $25,000 - $30,000 - $35,000 - $40,000 - $45,000 - $50,000
North Carolina Common Follow-up System

• Going Forward
  • Common Follow up System
    • Development of Data Warehouse
    • Expanded Data from new Contributing Agencies
    • Expanded Data submittals from current Contributing Agencies
      • Services
      • Courses
      • Financial Aid
    • Expanded ability to produce more detailed analyses
    • Expanded ability to develop output
  • Apprenticeship Use of Data
    • More detailed analysis by Occupation
    • Reviewing capacity to develop ROI study
North Carolina Common Follow-up System

Information from the Common Follow-up System

• Measuring the Performance of North Carolina's Workforce Development System (January 2016)

• Measuring the Performance of North Carolina's Workforce Development System (January 2015)

• Measuring the Performance of North Carolina's Workforce Development System - A First look

• Common Follow-up System Evaluation Report

• North Carolina Tool for Online Workforce and Education Reporting NCTOWER.com
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Partner Companies

Guilford County
North Carolina

Sponsor Organizations

Triad Workforce Solutions Collaborative
Greensboro Partnership
Guilford County Schools
Guilford Technical Community College
NC Dept. of Commerce
Workforce Development Board
First Year (High School Senior):
   ½ day high school
   ½ day hands-on training at company (paid)

Second through Fourth Year (paid):
   1 day/week community college
   4 days/week hands-on training at company

Apprentices are paid for work hours and college school hours including tuition and books.

- 6400 hours on the job learning manufacturing skills
- 1600 hours of college
- AAS degree – Manufacturing Technology
- Journeyman Certification by NC Department of Commerce
2015 – 2016 Timeline

- Business Partners and Sponsor Organizations Meetings
- 1 High School Principals Meeting (September 2015)
- 3 School and Career Counselors Meeting (September 2015)
- 13 School Visits – Meeting with Students/Parents (October 2015)
- Open House – Business Partners (December 2015)  80 students
- Orientation (April 2016)  35 students selected – 49 applied

**Pre-Apprenticeship (June-July 2016)**  24 students selected

**Selection of Candidates (August 2016)**

**Apprenticeship Program Begins (August 2016)**
Registered Apprenticeship is a highly flexible training and workforce development model that combines on-the-job learning, related instruction and paid work experience. A skilled workforce is the single most critical element of innovation and success, but the hardest asset for manufacturers to acquire.

Benefits:

• To meet future business needs – grow our own talent!
• Provides opportunities for lower labor costs
• Opportunity for workforce and education funds to offset wages-education
• Increased productivity and knowledge transfer due to well developed on-the-job learning
• High return on investment, apprentices produce while they are learning
• Tailored workforce trained to meet the needs and demands of our business
• Establish pipeline for next generation of workers
Data collection and maintaining good records are important components of a Quality Apprenticeship Program.

**GAP Data Collection**
- Identify kinds of data needed: What, When and Who
- No systems – spreadsheets
- Locating and gathering data
- Collecting data on program improvement
- Employer, Community College, High School Data
- Easy or Difficult
- What have we learned with our data

**Data Collection is needed to**
- Continue program expansion
- ROI
- Assist other small-medium employers to join partnership

**Important Support Organizations:**
NC Department of Commerce Division of Workforce Solutions
NC Apprenticeship Council
Guilford County Workforce Development Board

<table>
<thead>
<tr>
<th>Year Since GAP Began</th>
<th>Orientation Participation</th>
<th>Employed Pre-Apprenticeship</th>
<th>Graduates to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>24</td>
<td>0</td>
</tr>
</tbody>
</table>
Your Questions

Please submit your questions using the question box.
Stay Connected

- Visit our websites:
  WorkforceDQC.org
  NationalSkillsCoalition.org

- Follow us
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  @skillscoalition