Your Workforce Pipeline: Training the Future Today

SCAPA Winter Conference

January 16, 2020
SC Jobs by Skill Level, 2015

% Jobs by Skill

- High Skill: 27%
- Middle Skill: 57%
- Low Skill: 16%

SC Job Openings by Skill Level, 2014-2024

% Job Openings

- High Skill: 26%
- Middle Skill: 54%
- Low Skill: 20%

Source: NSC analysis of long-term occupational projections from state labor/employment agency
SC Jobs and Workers by Skill Level, 2015

Reason for the Workforce Gap

Workers are needed here ... “Middle-skills”

<table>
<thead>
<tr>
<th>Where 9th Graders Are Headed*</th>
<th>vs.</th>
<th>Where the Jobs Are**</th>
</tr>
</thead>
<tbody>
<tr>
<td>28% will enter a 4-year college</td>
<td>20% require a 4-year college degree</td>
<td></td>
</tr>
<tr>
<td>32% will enter an associate degree program or advanced training</td>
<td>65% require an associate’s degree or advanced training</td>
<td></td>
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<tr>
<td>10% will lack the skills needed for employment</td>
<td>15% require minimum skills for employment</td>
<td></td>
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<tr>
<td>30% will drop out of the system before completing high school</td>
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</tbody>
</table>

Too many people either seeking a 4-year degree or have a HS diploma or less

Where the jobs are – those with more than a HSD/GED and less than a 4-year degree.
Heavy/Highway Construction Survey (Potential “Stackable Credential” 2-yr Degree)

• 17 employers responded
  – Highway Contractors
  – Aggregate Suppliers
  – SCDOT
  – Engineering Firms

• All regions of SC
Initial Investigation

• Workforce Needs Survey Results
  – Hiring barriers:
    • Lack of qualified applicants
      – Lack of training
      – Lack of experience
      – Lack of skill
      – Lack of license or certification
    • Lack of training centers teaching these skills in local area
Initial Investigation

• Workforce Needs Survey Results
  – Hiring barriers:
    • Small overall application pool
    • General public not aware of opportunities in the highway construction industry
    • Lack of desire for a career in construction
    • Lack of work ethic/desire to work
    • Applicants not able to pass drug screening
Survey Results
Job Openings

<table>
<thead>
<tr>
<th>Skill Type</th>
<th>Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagger</td>
<td>312</td>
</tr>
<tr>
<td>Backhoe</td>
<td>69</td>
</tr>
<tr>
<td>Broom Tractor</td>
<td>82</td>
</tr>
<tr>
<td>Excavator</td>
<td>71</td>
</tr>
<tr>
<td>Loader</td>
<td>79</td>
</tr>
<tr>
<td>Roller</td>
<td>82</td>
</tr>
<tr>
<td>Skid Steer</td>
<td>80</td>
</tr>
<tr>
<td>Class A CDL</td>
<td>225</td>
</tr>
<tr>
<td>Class B CDL</td>
<td>223</td>
</tr>
<tr>
<td>ART</td>
<td>106</td>
</tr>
<tr>
<td>CA Level 1</td>
<td>96</td>
</tr>
<tr>
<td>Concrete</td>
<td>83</td>
</tr>
<tr>
<td>Earthwork</td>
<td>94</td>
</tr>
<tr>
<td>HMA Level 1</td>
<td>114</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
</tbody>
</table>

Skill Type
Survey Results
Average Starting Pay Rates

- Flagger: $12.40
- HEO: $15.40
- Class A CDL: $15.65
- SCDOT Certs: $15.50
- AS Degree: $20.20
- AS Degree + Intern: $23.00
Survey Results

Types of Classes Requested

- Local classes: 14
- Night classes: 15
- Compressed classes during off-season: 10
- Distance learning/online: 13
Survey Results
Types of Company Actions

- Review curriculum and provide suggestions: 14
- Serve on advisory board: 12
- Provide internship opportunities: 11
- Interview graduates: 15
- Reverse referrals: 11
Heavy Equipment Operator Training

• 2018 Vulcan Clay Shoot Fundraiser raised $47,000 towards a training program at TCTC
  – Vulcan spearheaded fundraiser
  – Many sponsors participated

  ...THANK YOU!!!

• These funds were leveraged to gain $250,000 in grant funds from ARC for equipment to start the TCTC Heavy Equipment Operator training program
Heavy Equipment Operator Training

• 2019 Vulcan Clay Shoot Fundraiser raised $66,000 in additional funds towards the new HEO training program at TCTC

...THANK YOU again!!!

• TCTC intends to use for additional equipment and is currently looking for new grants to leverage with matching funds
Heavy Equipment Operator Training

- Funding from 2018 Clay Shoot and ARC grant were used to purchase the following:
  - *Simulator Modules
    - Wheel Loader
    - Hydraulic Excavator
    - Off-Road Truck
    - Dozer
    - Backhoe Loader
  - Equipment
    - Wheel Loader
    - Hydraulic Excavator
    - Skid Steer
    - Steel Wheel Roller

*Simulator to be installed at new facility currently under renovation
Heavy Equipment Operator Training

• Curriculum refined based on input from employers
  – NCCER Core Curriculum (required for NCCER certs)
    • Includes OSHA 10-Hour Construction Standards and Flagger Certification
  – NCCER Heavy Equipment Operator Level 1
  – NCCER Skid Steer module
  – NCCER Loader module
  – NCCER Compactor/Roller module
  – NCCER Excavator module
Heavy Equipment Operator Training

• Class schedule
  – 8:00 am – 5:00 pm on Monday – Thursday and
  – 8:00 am – 2:00 pm on Friday

• Training includes
  – 2 weeks classroom (mostly NCCER Core curriculum)
  – 6 ½ weeks actually operating equipment
    • Integration of safety and basic maintenance training as well as operation
  – Vulcan has offered to host students for a “ride along” day at their quarry as well as some classroom safety training

• Possible future night class based on feedback
Heavy Equipment Operator Training

• Total current training cost $4,390 per student
  – Before Vulcan Clay Shoot/ARC grant, > $10,000 per student
• TCTC Workforce scholarships up to $2,500 available
  – Additional scholarships may be available (varies over time)
  – Other grants for employers may be available (varies over time)
  – Employers can refer potential hires or new hires
  – Students can apply directly to TCTC for scholarships
    • Attend an Open House (held twice monthly; schedule posted at www.tctc.edu/learn) or
    • Email mcorley1@tctc.edu for application
Heavy Equipment Operator Training
Heavy Equipment Operator Training
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Heavy Equipment Operator Training

• Challenges
  – New program = slow student recruitment
  – High school market difficult to penetrate

• Initial progress
  – Partnering with Anderson, Oconee, and Pickens County Sheriff’s Offices to train low-level offenders
  – Partnering with Fatherhood Coalition for pre-trial intervention training
  – Working on creation of television ads
Other Workforce Opportunities

• CDL training
  – Day and evening classes
    • CDL Permit Prep training
    • Class A CDL training
    • Class B CDL training
      – Standard box truck
      – Dump truck
  – Same scholarships and financial aid available as for HEO training
  – Constant stream of graduates available for employers to interview
  – Offered at many Technical Colleges around SC
Other Workforce Opportunities

• Pre-Highway Testing Technician training
  – Currently offered Pendleton and Columbia
  – SCDOT Asphalt Roadway Certification
  – SCDOT Earthwork and Base Course Certification
  – SCDOT HMA Level 1 QC Technician Certification
  – No experience required prior to attending class
  – 1 month OJT + pass all test requirements = certification
  – Same scholarships and financial aid available as for our other training
Other Workforce Opportunities

• Potential Maintenance Technician training
  – Initial meeting with employers early Dec. 2019
  – Potential training modules could include:
    • Safety
    • Basic welding and fabrication
    • Basic electrical
    • Blueprint reading
    • Rigging
Other Workforce Opportunities

• TCTC potential “stackable” 2-yr degree focused on Heavy/Highway Construction
  – Embed certifications into curriculum
    • Pre-Highway classes for SCDOT certs
    • Heavy Equipment Operation classes
  – Curriculum planned to allow matriculation
    • Training/certifications provide credit towards 2-yr degree
    • Most of 2-yr degree credit to transfer towards 4-yr degree
  – Would allow for heavier recruitment of high school students
Other Workforce Opportunities

• Career pathway for high school students
  – Entry-level training in high school
    • Either go straight to work or
    • Get credit towards a certification or 2-yr. degree
  – Initially pitched to Anderson Institute of Technology
    • Initially supportive feedback, but declined to implement at this time
    • Did indicate willingness to have heavy construction/mining employers talk to students about careers
Other Workforce Opportunities

• Career pathway for high school students
  – TCTC project team to approach individual area high schools instead of AIT
  – After plan is implemented, roll out to other SC technical colleges and school districts
The Formula

• Qualified Applicants & Labor Pool
• Ag Mech
• Partnerships
Qualified Applicants & Sourcing

• Applicants
  – Drug Abuse
  – Operators vs “operators”

• Labor Pool
  – High School Students
  – Career School (DCCTC)
Agricultural Mechanization (Ag Mech)

• Who has spent time in the Mid-West?
• Pieces of Farm Equipment?
• Ag Mech = 16 Year Old allowed to operate equipment
Partnerships

• Career School
  – Dorchester County Career & Technology Center (DCCTC)

• Equipment

• Location

• Instructors
Simulators
Equipment
Instructors
Location
Other Workforce Opportunities

• Industry support still needed in the future
  – More detailed curriculum review closer to implementation
  – Pay data for continuing career paths
  – Workforce marketing partnership opportunities
Workforce Marketing

• Next generation workforce
  – Individual employers work with high schools/career center to recruit high school students to these careers
  – Industry support for internships
    • High school students
    • Technical College students
Workforce Marketing

• Reverse referrals from employers
  – Applicants without required skills
  – Refer to TCTC “Open Houses”
  – Scholarships available
    • TCTC Workforce Scholarships
    • Various grants (currently applying for ARC grant)
  – Support services also available for students who qualify (SCWorks, Goodwill, Voc Rehab, AIM, etc.)
Questions?