**Mission:** To build a safe, productive and sustainable workforce of craft professionals.

**Vision:** Recognized by industry, government and education as the training, assessment, certification and career development standard for the construction and maintenance craft professional.

- Not-for-profit education foundation
- Created in 1996 as *The National Center for Construction Education and Research* (affiliated with the University of Florida)
- Support of more than 125 construction CEOs, associations, and academic leaders
- Revolutionized training for the construction industry
COMPREHENSIVE WORKFORCE DEVELOPMENT SYSTEM

- Accreditation
- Instructor Certification
- Standardized Industry-Driven Curricula
- Nationally Recognized Skill Assessments
- Industry-Recognized Credentialing & Certification
- Construction Career/Recruiting Resources (Build Your Future)
- Construction Safety & Front-line Management Education
**SKILLED LABOR SUPPLY/DEMAND GAP**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipated Peak Non-Residential Labor Demand</td>
<td>6.0 M</td>
</tr>
<tr>
<td>Current Non-Residential Labor Force (BLS)</td>
<td>5.6 M</td>
</tr>
<tr>
<td>Less 5-Year Age Attrition (≈10% of Labor Force)</td>
<td>(1.0 M)</td>
</tr>
<tr>
<td>Non-Residential Labor Force Net of Age Attrition</td>
<td>4.6 M</td>
</tr>
</tbody>
</table>

Some estimates predict **shortages of skilled Craft Professionals** to be as high as **1,400,000 by 2021**.
Insulator

*Southwest*

Skilled Labor Supply & Demand

Data as of: 06-Jun-2019
EFFECT OF AGING WORKFORCE AND ATTRITION

2019
16% workforce retirement

2020
22% workforce retirement

2021
22% workforce retirement

2022
34% workforce retirement

2023
34% workforce retirement

2024
34% workforce retirement

2025
47% workforce retirement

2026
47% workforce retirement

2027
47% workforce retirement

2028
47% workforce retirement

2029
47% workforce retirement

2030
47% workforce retirement

2031
47% workforce retirement

2032
47% workforce retirement

2033
47% workforce retirement

Enters Industry
New hire begins craft training

Craft Training
±4 years for minimal competency

Journey-Level
Additional 3-5 years to become competent, productive & experienced

Seasoned Professional
How long until journey-level workers are ready to replace retiring workers?

Last Baby Boomers turn 65
### WHY TRAIN?

*If 1% of the Project Labor Budget Were Invested in Training...*

<table>
<thead>
<tr>
<th>RT-231</th>
<th>Expected Average Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capital Projects</td>
</tr>
<tr>
<td>Productivity</td>
<td>11%</td>
</tr>
<tr>
<td>Turnover Cost</td>
<td>14%</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>15%</td>
</tr>
<tr>
<td>Injury</td>
<td>26%</td>
</tr>
<tr>
<td>Rework</td>
<td>23%</td>
</tr>
</tbody>
</table>

$\textbf{CH}$

$\$1.00$ invested $\approx \$3.00$ ROI
Restoring the Dignity of Work

Transforming the US Workforce Development System into a World Leader
Research Team 335

Restoring the Dignity of Work
Restoring the Dignity of Work
What did we do?

Restoring the Dignity of Work
### ACTION STEPS

1. **Revitalize** our work-based learning programs
2. **Measure** workforce development performance when awarding construction contracts
3. **Establish** the awareness of career opportunities in our nation
4. **Redefine** how we measure the quality of our nation’s secondary education system
5. **Increase** the participation of underrepresented groups in CTE
6. **Establish** and expand collaboration between industry, education, and government
7. **Develop** more balanced funding among post-secondary CTE & higher education

---

**Restoring the Dignity of Work**
Revitalize Work-Based Learning Programs

The three types of Work-based Learning Models

- Internships
- Co-Ops
- Apprenticeships
New approach needed:
Education *through* Occupations
instead of education *for* occupations

*Restoring the Dignity of Work*
The average age of a construction apprentice in the U.S. is:

27


Restoring the Dignity of Work
What Can We Do?

• Streamline administrative processes to participate in registered apprenticeship

• Providing federal and state tax incentives for employers who invest in developing their workers

• Allocating funding to both apprenticeship and work-based programs and track enrollments and their performance
Establish Career Awareness Opportunities

Tertiary degrees
25- to 34-year-olds, % of total

1995 2000 05 10 16

South Korea
US
OECD average

Economist.com

Restoring the Dignity of Work
The Carnage of the New Arms Race

LABOR MARKET FACTS

Only 33% of future jobs are expected to require a 4-year degree or more

1:2:7

Reference: Occupational employment projections to 2024 – Monthly Labor Review

2018 Job Projection’s Education Requirement

- Master’s Degree or Better: 10%
- Bachelor’s Degree: 10%
- Associate Degree: 12%
- Some post secondary education, no degree: 23%
- High school diploma: 28%
- No high school diploma: 17%


Restoring the Dignity of Work
Growth in Student Loan Debt at Graduation

$1.48 trillion in total U.S. student loan debt

National Center for Education (NCES) Statistics Data
What Can We Do?

• Inform young people and parents about career options and related costs
• Raise awareness about ALL career paths
• Rebuild image of Career and Technical Education (CTE)
Redefine How We Measure the Quality of Secondary Education

In today’s economy, a “career” is not just a job, it provides:

• A family-sustaining wage,
• Pathways to advancement,
• And requires postsecondary training or education.

**Career Ready:** Having the knowledge and skills needed to qualify for and succeed in the postsecondary job training and/or education necessary for a chosen career.
Educational Pipeline

100% Entering the 9th Grade
80% Graduating from High School
55% Entering Postsecondary Education
30% Graduating from College within 150% of Normal time

Positive Effects of CTE

- Significantly higher students’ test scores
- Better academic grade point averages
- Improved graduation rates

93% students concentrating in CTE vs. 80% national average

- Much clearer career path
High School Quality

College vs. Career Readiness

• One of the main goals of education system is to provide the economy with the inflow of required talents

• Significant weight on college readiness by both governmental and societal measures

Newsweek Public School Rankings

- Holding Power
- SAT/ACT Scores
- AP/IB Enrollment
- Graduation Rate
- College Enrollment Rate
- Ratio of counselor FTE to Student Enrollment

60% of ranking based on college readiness...
0% based on career readiness
What Can We Do?

• At a minimum, all high school graduates should be career ready

• In addition, all high school graduates must be prepared to pursue a variety of postsecondary opportunities
  – Career and technical education
  – Work-based learning
  – Higher education

• School systems should be evaluated with equal weighting to all post-secondary options
Increase Participation of Underrepresented Groups in CTE

Women at Work
Percentage of Women’s Representation in Selected Occupations

- Speech-Language Pathologists: 98%
- Dental Assistants: 93%
- Social Workers: 82%
- Physical Therapists: 69%
- Pharmacists: 60%
- Lawyers: 36%
- Civil Engineers: 11%
- HVAC and Refrigeration Mechanics and Installers: 1%

Restoring the Dignity of Work
Increase Participation of Underrepresented Groups in CTE

The construction industry must:

- Improve job site conditions and company policies to attract and retain minorities and females into construction

- Strengthen and support recruitment and career opportunities for veterans

- Better support vocational programs within correctional facilities
Establish & Expand Collaboration between Industry, Education and Government

LEAD

LISTEN

CHANGE

Restoring the Dignity of Work
Collaborative Success Models to Imitate

Austrian Economic Chamber Organizations:

Craft and Trades
Industry
Commerce

Restoring the Dignity of Work
Careers vs. Poverty Prevention

AVERAGE CONSTRUCTION CAREER SALARY VS. OTHER JOBS

- Trained & Skilled Worker: $59,267
- College Bachelor Degree: $59,124
- College Associate Degree: $41,496
- Attended College, No Degree: $38,376
- With High School Diploma: $35,256
- $15.00 FED Minimum Wage*: $30,000
- $7.25 FED Minimum Wage: $25,636
- Without High School Diploma: $14,500


Restoring the Dignity of Work
What Can We Do?

- Identify job competencies needed
- Identify career opportunities these jobs provide
- Promote CTE industry involvement and investment
- Assist industry and educational institutions in navigating
  - CTE-related government regulations
  - Work-based training programs
Endorse. Educate. Advocate.

Visit nccer.org/research:
CRAFT PROFESSIONALS AREN’T BORN, THEY’RE BUILT.