Building Your Own Skilled Trades Apprenticeship Program

Thursday July 11th, 2019
2:00 PM - 3:30 PM
Richie Stever

Organization
Building Your Own Apprenticeship Program
Better Buildings Summit
July 11, 2019

Richie Stever, CHFM, CLSS-HC, LEED AP
Director of Operations and Maintenance
University of Maryland Medical Center

- 2 campuses (1 mile apart)
  - 800 bed flagship teaching hospital
  - 200 bed community teaching hospital
- 3.5 million square feet total
- Mission
  - Deliver superior health care
  - Train the next generation of health professionals
  - Discover ways to improve health outcomes worldwide
The U.S. Labor Market
When Labor Shortages Hit, They Can Last Years

As baby boomers retire, the total population is already growing faster than the workforce. That dynamic has happened just two other times in the past 100 years.

Note: Population statistics are calculated using a 10-year compound annual growth rate.

Sources: Fundstrat Global Advisors, Bloomberg

Projected Shortfall (2017-2027)

8,200,000

Skilled Trades

- Masons
- Bricklayers
- Electricians
- Plumbers
- Painters
- Carpenters
- Roofers
- Heating and Cooling (HVAC)
Average Age of Tradesperson

56

Current Number of Skilled Trades Jobs

600,000

Projected Skilled Trades Jobs (10 years)

2,000,000

## Occupations with the most job growth, 2016 and projected 2026

(Numbers in thousands)

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Total, all occupations</td>
<td>10,000,000</td>
<td></td>
<td></td>
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<tr>
<td>Home health aides</td>
<td>31,101,150</td>
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<tr>
<td>Personal care aides</td>
<td>34,069,213</td>
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<tr>
<td>Software developers, applications</td>
<td>15,132,313</td>
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<tr>
<td>Medical assistants</td>
<td>31,999,213</td>
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<tr>
<td>Market research analysts and marketing specialists</td>
<td>13,116,135</td>
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<tr>
<td>Medical secretaries</td>
<td>43,661,374</td>
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<tr>
<td>Financial managers</td>
<td>13,303,135</td>
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<tr>
<td>Combined food preparation and serving workers, including fast food</td>
<td>35,302,135</td>
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<tr>
<td>Registered nurses</td>
<td>28,114,000</td>
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<tr>
<td>Management analysts</td>
<td>13,111,000</td>
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<tr>
<td>Construction laborers</td>
<td>47,208,213</td>
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<tr>
<td>Licensed practical and licensed vocational nurses</td>
<td>29,208,135</td>
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<tr>
<td>Cooks, restaurant</td>
<td>35,201,135</td>
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<tr>
<td>Nursing assistants</td>
<td>31,101,135</td>
<td></td>
<td></td>
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<tr>
<td>Landscaping and groundskeeping workers</td>
<td>37,301,135</td>
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<tr>
<td>Accountants and auditors</td>
<td>13,111,000</td>
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<tr>
<td>Janitors and cleaners, except maids and housekeeping cleaners</td>
<td>37,201,135</td>
<td></td>
<td></td>
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<tr>
<td>Teachers and instructors, all other</td>
<td>25,300,135</td>
<td></td>
<td></td>
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<tr>
<td>Sales representatives, services, all other</td>
<td>41,309,213</td>
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<tr>
<td>General and operations managers</td>
<td>17,102,135</td>
<td></td>
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<tr>
<td>Receptionists and information clerks</td>
<td>43,417,135</td>
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<tr>
<td>Business operations specialists, all other</td>
<td>13,119,135</td>
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<tr>
<td>Teacher assistants</td>
<td>25,904,135</td>
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<tr>
<td>Maintenance and repair workers, general</td>
<td>49,901,135</td>
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<td></td>
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<tr>
<td>Laborers and freight, stock, and material movers, hand</td>
<td>53,706,213</td>
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<tr>
<td>Elementary school teachers, except special education</td>
<td>25,202,135</td>
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<tr>
<td>Waiters and waitresses</td>
<td>35,301,135</td>
<td></td>
<td></td>
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<tr>
<td>Heavy and tractor-trailer truck drivers</td>
<td>43,303,213</td>
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<tr>
<td>Stock clerks and order fillers</td>
<td>43,508,135</td>
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<tr>
<td>Customer service representatives</td>
<td>43,405,135</td>
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</tbody>
</table>

Footnotes:
1. Data are from the Occupational Employment Statistics program, U.S. Bureau of Labor Statistics. Wage data cover non-farm wage and salary workers and do not cover the self-employed, owners and partners in unincorporated firms, or household workers.
Industries with Biggest Labor Shortages

More jobs than workers
Number of job openings per every unemployed worker, by industry

- Education and health services: 2.26
- Professional and business services: 1.8
- Financial activities: 1.78
- Mining and logging: 1.62
- Government: 1.45
- Information: 1.4
- Leisure and hospitality: 1.39
- Wholesale and retail trade: 1.22
- Durable goods: 1.19
- Transportation, warehousing, and utilities: 1.16
- Manufacturing: 1.06
- Nondurable goods: 0.83
- Construction: 0.74

Source: Bureau of Labor Statistics; Nov. 2019
Contributors to the Workforce Shortage

• Decline in high school technical education programs
• Misconception that higher education always equals higher income
• Stricter immigration laws

In Summary
What should we do?

Develop an apprentice program!
What is Apprenticeship?

A system of learning the skills of a craft or trade from experts in the field by working with them for a set period of time.
Apprenticeship
Program Goals

• Make the candidate ready for a specific role
• Provide a combination of classroom learning and on-site on-the-job training
• Pay a living wage to the apprentice
• Convert to full-time employment upon successful completion of the program.
ROI for Employers

150%
Determine the State of Your Department

- UMMC Maintenance Department
  - 28% of the Department nearing Retirement!
  - Average tenure is 24 years.
  - Results in an unprecedented increase in turnover.
  - Most leaders are departing soon.
  - Loss of institutional knowledge.
  - No succession plan.
  - No formal career ladder.
  - Highly skilled candidates demand high wages.
Convince Boss/Finance

• Write a business case
  – Describe the problem
  – List the options
  – Describe the benefits
  – Calculate costs
  – Develop a time table
  – Warn about risks
Modify Job Descriptions

III. Education and Experience
1. High School Diploma or equivalent (GED) required.
2. Possess a journeyman’s license in one of the following areas: Electrical, Plumbing, Steamfitter, HVAC or a certification in electronics from an appropriate technical school.
3. Four years of experience in the primary licensed/certified trade. Two years valid technical experience in the secondary area of expertise with the ability to perform quality workmanship in accordance with accepted standards.
4. No experience required if entering Skilled Trades Apprenticeship Program.

IV. Knowledge, Skills and Abilities
1. Highly proficient technical skills in operating shop equipment, hand tools and measuring equipment, such as, calipers, micrometers, dial indicators, and voltage testers. Knowledge of pipe fitting, soldering, rigging, drilling, tapping and installation.
2. Effective verbal communication skills are required to work with management and clinical staff and external vendors. Effective writing skills are necessary to write deficiency reports on equipment and maintain required documentation. Ability to read complex technical equipment operation manuals.

“Gives us an apprentice with the right attitude and aptitude and we can teach them the rest!”
Develop Step Wages

Proposed wage scale for UMMC 3-year apprenticeship program:

<table>
<thead>
<tr>
<th>Duration</th>
<th>Hourly Rate</th>
<th>Total for</th>
<th>Rate of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>6mths</td>
<td>@ 20.00</td>
<td>$41,600</td>
<td>8.5% per 6-month</td>
</tr>
<tr>
<td>1yr</td>
<td>@ 21.70</td>
<td>$45,136</td>
<td>session, per 1000 hours</td>
</tr>
<tr>
<td>1.5yrs</td>
<td>@ 23.54</td>
<td>$48,972</td>
<td></td>
</tr>
<tr>
<td>2yrs</td>
<td>@ 25.55</td>
<td>$53,135</td>
<td></td>
</tr>
<tr>
<td>2.5yrs</td>
<td>@ 27.71</td>
<td>$57,651</td>
<td></td>
</tr>
<tr>
<td>3yrs</td>
<td>@ 30.07</td>
<td>$62,552</td>
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</tbody>
</table>
Education

• Develop your own curriculum (only if the skill doesn’t exist already)
• Partner with a union
• Partner with an association
• Partner with a community college
• Partner with a university
• Collaborate with others
On The Job Training

- Locate mentors
- Provide tools
- Be flexible with schedules
- Consider work/life balance
- Provide life skills
- Be understanding – they will mess up!
UMMC Apprentices
QUESTIONS?
Laura Duckworth

University of Virginia
If we knock this big one over, everything else will just fall into place!

ENGAGED EMPLOYEES

BETTER SERVICE

INCREASED SALES

HIGHER QUALITY

BETTER SAFETY

HAPPIER CUSTOMERS

MORE PROFIT

GREATER RETAINS

MORE CSR

HAPPIER COMMUNITY

The benefits are going to be ENDLESS!
OBJECTIVES

- Advantages of apprenticeship
- Where to start
WHY APPRENTICESHIP?

• Skilled trades hard to find
• Begin with a culture of safety and sustainability
• Grow your own
• Create a legacy
• Grant funding available to offset costs
• Hire for a career, not a job
• Invest in your people
WHERE TO BEGIN

Engage the registered apprenticeship program in your state
Develop program standards
Identify where apprentices will get the related technical instruction required
Identify and train on-the-job-trainers
Identify and train mentors
Identify needed safety training
Applicable Grants
Initial assignment
WHAT NEXT?

• Develop robust onboarding
• Include safety training
• Robust discussion on sustainability
AND THEN…

• Onboard your apprentices
  – PPE distribution
  – Tool distribution
  – Tours of the work place
HOW DID WE DO IT??

• Leadership support
• Include more people
• Communicate more
• Provide them easier tools
EMPOWERED EMPLOYEES TO MAKE CHANGE
THE STUDENTS BECOME THE TEACHERS
FOLLOW US ON SOCIAL MEDIA!

- [https://twitter.com/UVAApprentice](https://twitter.com/UVAApprentice)
- [https://www.facebook.com/UVAApprentice/](https://www.facebook.com/UVAApprentice/)
- [https://www.instagram.com/uvaapprentice/](https://www.instagram.com/uvaapprentice/)
NOTHING CAN STOP THE MAN WITH THE RIGHT MENTAL ATTITUDE FROM ACHIEVING HIS GOAL; NOTHING ON EARTH CAN HELP THE MAN WITH THE WRONG MENTAL ATTITUDE

THOMAS JEFFERSON
Promoting Sustainable Economic Growth
Better Buildings Summit
July 2019
Eleni Reed
Head of Sustainability, Americas
LENDLEASE

Is one of the leading **fully integrated** property solutions providers in the world

Has more than **50 years** of operation

Approximately 12,000 employees

Develops, constructs, and/or manages **large, complex projects**

Specializes across **multiple asset classes**

Is committed to creating and buildings **innovative and sustainable** solutions

Operates **Incident & Injury Free**

**Sustainability at Lendlease**

As a Global leader, we understand the importance of building communities that stand the test of time, enrich people’s lives and foster economic growth.

“COMPANIES MUST START JUSTIFYING THEIR WORTH TO SOCIETY, WITH GREATER EMPHASIS PLACED ON ENVIRONMENTAL AND SOCIAL IMPACT RATHER THAN STRAIGHT ECONOMICS.”

**Dick Dusseldorp**

Founder of Lendlease, 1973
Sustainability Framework

VISION
TO CREATE THE BEST PLACES

SUSTAINABILITY IMPERATIVES

- SUSTAINABLE ECONOMICS GROWTH
- VIBRANT AND RESILIENT COMMUNITIES AND CITIES
- HEALTHY PLANET AND PEOPLE

ENVIRONMENTAL FOCUS

- RESOURCES AND MATERIALS
- CLIMATE ACTION
- NATURE AND POLLUTION

SOCIAL FOCUS

- ECONOMIC PROSPERITY
- COMMUNITY INCLUSION
- WELLBEING

GOVERNANCE
Economic Prosperity

• Create pathways to employment – learning, skilling and employment, workforce participation
• Support fair and just employment
• Maximize local procurement
Building Capacity

Help to facilitate local employment by investing in skills and training and helping small business thrive.
Barangaroo Skills Exchange
Sydney, Australia

- On-site training and skilling facility at Lendlease’s Barangaroo South project.
- Over 8,900 construction workers trained between 2013 and 2015.
- Generated $ 78.5 M in socio-economic value.*

Be Onsite
London, UK

- Launched as a not for profit in 2008 by Lendlease in the UK.
- Intended to provide training and sustained employment within the construction sector to people from socially-excluded groups.
- Has provided more than 800 disadvantaged people with tailored, industry-specific training and helping in excess of 600 to find permanent, paid employment.*
Barrier Reduction Fund
Chicago, IL

• Reducing barriers to entry in the construction sector for residents of the City of Chicago

• MOU with the Chicago Cook Workforce Partnership

• Barrier Reduction Fund created in March 2019 – Grants for qualified applicants to mitigate certain costs associated with entering the construction industry.
Upskilling Veterans

Private Army Hotels

• Lendlease provides on-the-job training during construction of private army hotel projects.
• Veterans constitute approximately 40% of temporary labor.
• Learning job skills needed for modular and cross-laminated timber construction.
Supplier Diversity in US Construction Projects

• Over $850M spent on qualified minority-owned, women-owned, local and other historically disadvantaged firms on construction projects in FY18.*

* Where supplier diversity spend has been tracked
Thank You

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