

# New Mexico CTE

## Region A

### Comprehensive Local Needs Assessment

# Introductions



Tracey Bryan, President/CEO  
The Bridge of Southern New Mexico

Dr. Joseph Goins, President  
NS4ed

# Guiding Principals for Conversation



To help us have the most collaborative conversation possible, what values/principals should help us guide the discussion?

# One Abbreviation We Can Agree On



## Career and Technical Education (CTE)

Career and technical education is the practice of teaching specific career skills to students in middle school, high school, and post-secondary institutions.

- *Applied Educational Systems*

Career and Technical Education provides secondary and post-secondary students with the academic and technical skills and knowledge to prepare for the current and future workforce.

- *National Alliance for Partnerships in Equity*


# 16 Career Clusters in CTE



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# Career Pathways in CTE

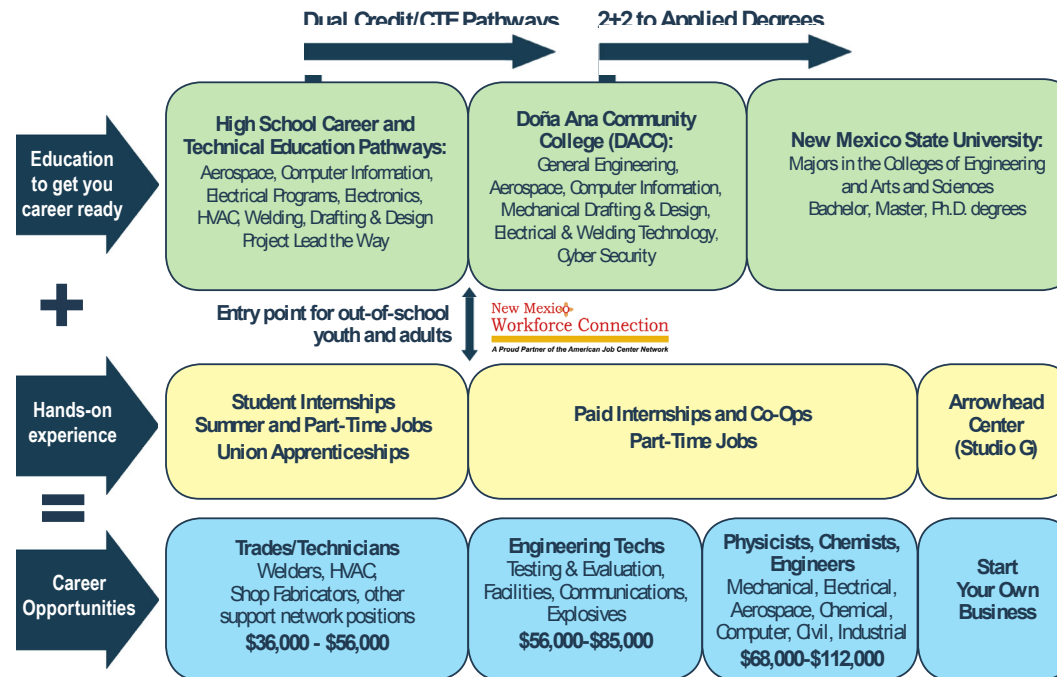


 <b>Arts, Audio/Video Technology and Communications</b>	<ul style="list-style-type: none"> <li>• A/V Technology &amp; Film</li> <li>• Journalism &amp; Broadcasting</li> <li>• Performing Arts</li> <li>• Printing Technology</li> <li>• Telecommunications</li> <li>• Visual Arts</li> </ul>	 <b>Information Technology</b>	<ul style="list-style-type: none"> <li>• Information Support &amp; Services</li> <li>• Network Systems</li> <li>• Programming &amp; Software Development</li> <li>• Web &amp; Digital Communications</li> </ul>
 <b>Business, Management and Administration</b>	<ul style="list-style-type: none"> <li>• Administrative Support</li> <li>• Business Information Management</li> <li>• General Management</li> <li>• Human Resources Management</li> <li>• Operations Management</li> </ul>	 <b>Law, Public Safety, Corrections and Security</b>	<ul style="list-style-type: none"> <li>• Correction Services</li> <li>• Emergency &amp; Fire Management Services</li> <li>• Law Enforcement Services</li> <li>• Legal Services</li> <li>• Security &amp; Protective Services</li> </ul>
 <b>Education and Training</b>	<ul style="list-style-type: none"> <li>• Administration &amp; Administrative Support</li> <li>• Professional Support Services</li> <li>• Teaching/Training</li> </ul>	 <b>Manufacturing</b>	<ul style="list-style-type: none"> <li>• Health, Safety &amp; Environmental Assurance</li> <li>• Logistics &amp; Inventory Control</li> <li>• Maintenance, Installation &amp; Repair</li> <li>• Manufacturing Production Process Development</li> <li>• Production</li> <li>• Quality Assurance</li> </ul>

# Career Pathways in CTE



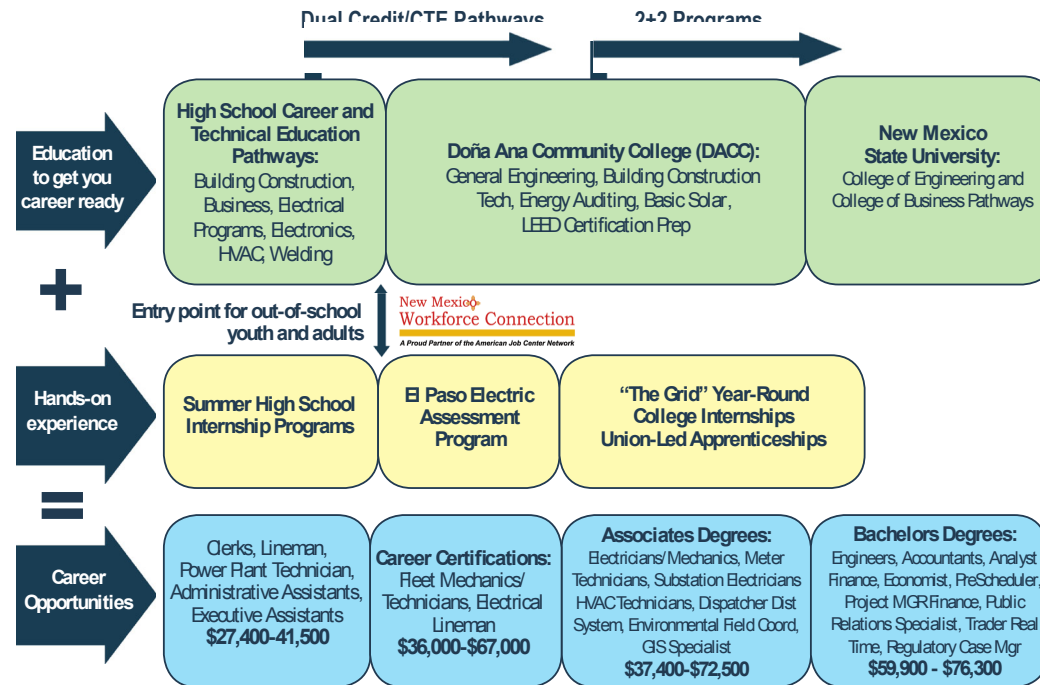
## Aerospace, Space, and Defense Industries Pathways, Partners, and Positions



# Career Pathways in CTE



## Energy Industry Pathways, Partners, and Positions





# OK...One More Abbreviation



**CTE**  
**is**  
**STEM**

**(Science, Technology, Engineering, and Math)**



Previous STEM studies have neglected the many blue collar and technical jobs that require considerable STEM knowledge. But this study finds that

## 50%

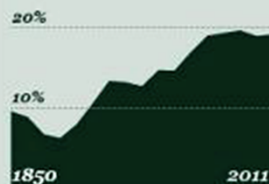
of STEM jobs **do not require** a bachelor's degree. As a result, STEM knowledge plays a much larger role in our economy than previously thought:



There are  
**26** MILLION  
STEM jobs in the U.S.



STEM jobs comprise  
**20%**  
of all U.S. jobs.



The share of jobs requiring  
STEM knowledge has  
**doubled**  
since the Industrial  
Revolution

# Dangers of not doing the work now...



1/2

Roughly **HALF**  
of all Americans  
reach  
their mid-20s  
without the skills or  
credentials essential  
for success in  
today's increasingly  
demanding  
economy

50%

Source: Job for the Future (JFF)



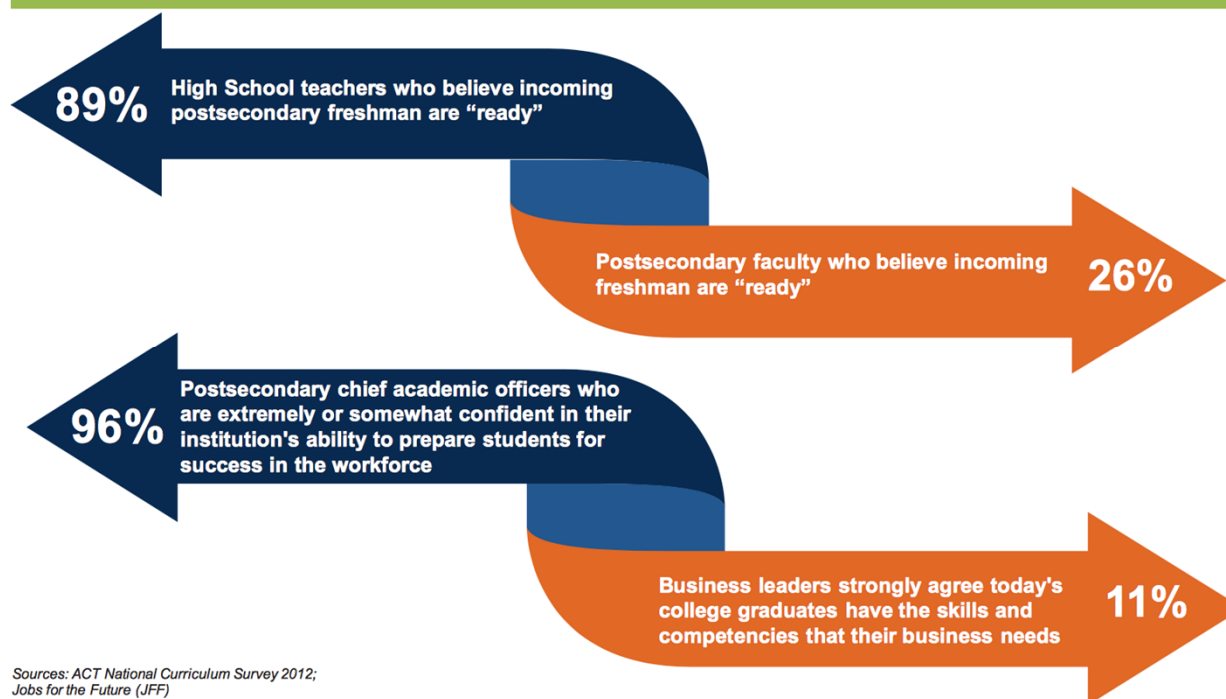
Career Forward Task Force

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# Mismatch will continue to grow...



## MISMATCHES IN "READINESS"



Sources: ACT National Curriculum Survey 2012;  
Jobs for the Future (JFF)

# Benefits of CTE

Source: Association of Career and Technical Education



## For Business:

- Significantly more likely to develop soft skills
- 50% STEM jobs require less than a 4-year degree
- Aligned to middle-, technical-, and high-skilled jobs, hard-to-fill jobs, and jobs in demand

## For the Economy:

- Annual economic benefits (\$3.5 billion in OK)
- Increased contributions to state economy (\$5.1 billion in CO)
- Returns \$26 in lifetime earnings and benefits for every \$1 invested in HS CTE (WA)

# Benefits of CTE

Source: Association of Career and Technical Education/NM PED



## For High School Students:

- Graduate at 94% vs. 71% for non-CTE students
- 91% with 2-3 CTE credits enroll in college
  - 58% of NM CTE concentrators go to college, advanced training, military service, or employment within six mo. after graduation
- 81% of HS dropouts say relevant, real-world opportunities would have kept them in school

# Benefits of CTE

Source: Association of Career and Technical Education



## For College Students and Adults:

- Technical or Associate of Applied Science degrees out-earn bachelor degree holders by \$2,000-\$11,000. (Research from TX, CO, VA)
- 27% of those with licenses or certificates earn more than average bachelor's degree holder
- 48% of CTE concentrators earn credentials or diplomas
- 68% employed, in military service, or apprenticeships in 6 mo. of graduation
- 64% of all degrees awarded statewide

# CTE Matters to New Mexico

(Source: National Alliance for Partnerships in Equity/NM PED)



## Today:

- 49% of low-income families have no post-secondary experience
- 34% of students earn AA/AS degrees in 6 years
- 45% of students earn BA/BS degrees in 6 years
- 66% of all high school students are in CTE
- 54% of all college students are enrolled in CTE and 32% are CTE concentrators



# CTE Matters to Workforce Needs

Source: New Mexico Dept. of Workforce Solutions



From Now to 2026:

- 20% increase in Healthcare & Social Assistance
- 15% increase in Mining
- 11% increase in Professional, Scientific, & Technical Assistance
- 5% increase in Construction
- 5% increase in Educational Services
- 5% increase in Transportation & Warehousing

# Build NM Industry Sectors

Governor Michelle Lujan Grisham



## Target Sectors for a Diversified Economy:

- Cybersecurity
- Intelligent Manufacturing
- Sustainable and Green Industries
- Bioscience and Health
- Tourism and Outdoor Industries
- Digital Media and Film
- Sustainable and Value-Added Agriculture
- Aerospace

# Region A – Perkins Funding



**\$1,294,762**  
**School Year 2020-21**

# Who Can Provide CTE in Region A?



Region A comprises a number of school districts and charter schools:

Aztec Municipal  
Bloomfield  
Central Consolidated

Farmington Municipal  
Gallup-McKinley County  
Grants-Cibola County

Zuni Public  
State Charter-Middle  
College Charter HS

## Five Colleges:

San Juan College  
University of New Mexico-Gallup  
Navajo Technical University

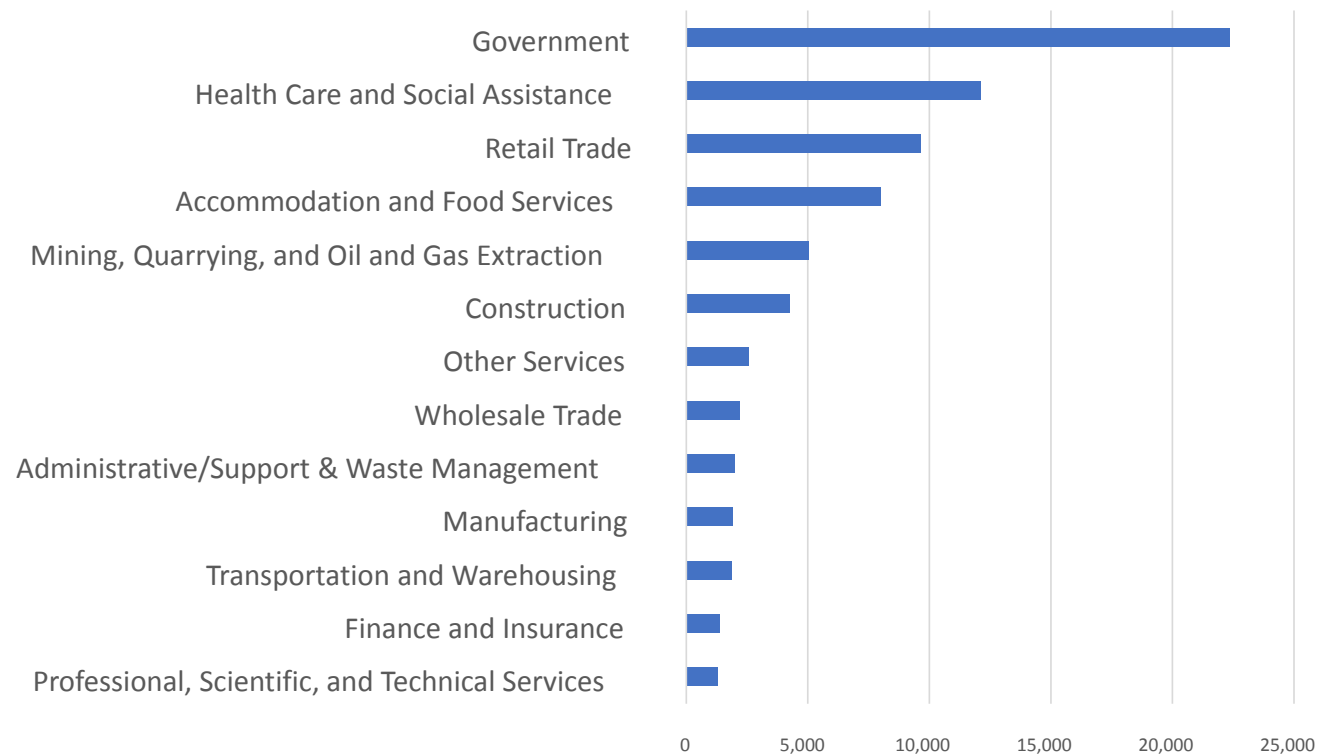
Dine College  
NMSU-Grants

REC 1

# What Does the Labor Market Tell Us?



## Employment, Top Industry Sectors, Region A



# What Does the Labor Market Tell Us?



Sector/Top Detailed Industries	2019 Jobs	Average Wages	Location Quotient
<b>Government</b>			
Education (Local Government)	8,116	\$33,615	1.99
Local Government, Excluding Education and Hospitals	7,935	\$38,933	2.69
Federal Government, Civilian, Excluding Postal Service	3,979	\$70,902	3.39
State Government, Excluding Education and Hospitals	1,043	\$48,567	.90
<b>Health Care and Social Assistance</b>			
General Medical and Surgical Hospitals	2,645	\$71,884	1.09
Services for the Elderly and Persons with Disabilities	2,595	\$15,076	2.63
Home Health Care Services	2,015	\$19,249	2.65
Offices of Physicians	980	\$61,449	0.73
Offices of Dentists	627	\$43,793	1.27
Nursing Care Facilities (Skilled Nursing Facilities)	573	\$33,586	0.70

# What Does the Labor Market Tell Us?



Retail Trade			
General Merchandise Stores, Warehouse Clubs, Supercenters	2,006	\$24,737	1.99
Supermarkets and Other Grocery (except Convenience) Stores	1,387	\$24,073	1.07
Gasoline Stations with Convenience Stores	1,031	\$48,645	2.42
New Car Dealers	1,007	\$47,941	1.73
Department Stores	529	\$16,947	0.91
Mining, Quarrying and Oil and Gas Extraction			
Support Activities for Mining	2,865	\$72,781	16.03
Natural Gas Extraction	986	\$106,200	50.68
Coal Mining	897	\$91,539	33.94
Crude Petroleum Extraction	240	\$70,962	4.47

# What Does the Labor Market Tell Us?



Construction			
Oil and Gas Pipeline and Related Structures Construction	1,279	\$59,766	14.37
Plumbing, Heating, and Air-Conditioning Contractors	403	\$39,223	0.69
Electrical Contractors and Other Wiring Installation Contractors	375	\$59,779	0.76
Industrial Building Construction	348	\$82,079	3.93
Commercial and Institutional Building Construction	313	\$52,218	0.90
All Other Specialty Trade Contractors	303	\$58,762	1.69
Residential Building Construction	256	\$26,237	0.60
Power/Communication Line & Related Structures Construction	253	\$78,783	2.41
Site Preparation Contractors	166	\$43,507	0.92



# What Does the Labor Market Tell Us?



## Accommodation and Food Services

Restaurants and Other Eating Places

6,610

\$14,835

1.20

Hotels (except Casino Hotels) and Motels

1,118

\$16,065

1.33

Food Service Contractors

165

\$16,196

0.63

# What Does the Labor Market Tell Us?



The occupation families with the largest projected growth include:

- Personal Care and Service Occupations (930 new jobs)
- Health Care Practitioners and Technical (357)
- Health Care Support (213)
- Farming, Fishing and Forestry (88)
- Management (64)

# What Does the Labor Market Tell Us?



High Quality Career	2016 Jobs	2026 Jobs	New Jobs	% Change	Annual Openings	Average Earnings
<b>Health Care Practitioners Health Care Support Occupations</b>						
Registered Nurses	1,426	1,576	150	11%	94	\$65,940
Industrial Machinery Mechanics	583	636	53	9%	68	\$59,037
Physical Therapists	79	116	37	47%	8	\$84,262
Physical Therapist Assistants	51	76	25	49%	10	\$47,510
Nurse Practitioners	54	77	23	43%	6	\$100,289
Licensed Practical & Licensed Vocational Nurses	216	237	21	10%	19	\$49,326
Physician Assistants	83	102	19	23%	7	\$112,949
Occupational Therapists	43	60	17	40%	4	\$87,964
Dental Hygienists	141	158	17	12%	11	\$77,498
Respiratory Therapists	90	104	14	16%	6	\$45,161

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# What Does the Labor Market Tell Us?



Management Occupations						
Medical and Health Services Managers	141	170	29	21%	15	\$93,476
Construction Managers	177	192	15	8%	17	\$97,367
Production Occupations						
Welders, Cutters, Solderers, and Brazers	486	549	63	13%	65	\$51,728
Machinists	100	141	41	41%	18	\$55,443
Supervisors-Production and Operating Workers	221	247	26	12%	26	\$70,226
Aircraft Structure, Surfaces, Systems Assemblers	30	46	16	53%	8	\$65,159
Architecture and Engineering Occupations						
Mechanical Engineers	39	61	22	56%	6	\$43,311

# What Does the Labor Market Tell Us?

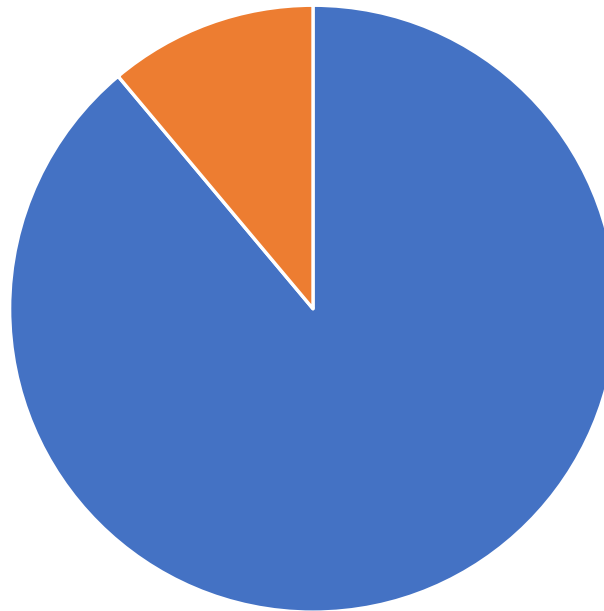


Computer and Mathematical Occupations						
Software Developers, Applications	35	48	13	37%	4	\$113,721
Transportation and Material Moving Occupations						
Heavy and Tractor-Trailer Truck Drivers	1,302	1,387	85	7%	161	\$43,798
Construction and Extraction Occupations						
Plumbers, Pipefitters, and Steamfitters	350	371	21	6%	44	\$40,045
Supervisors-Construction Trades and Extraction	794	808	14	2%	89	\$59,391
Floor Layers	39	57	18	46%	7	\$42,540
Business and Financial Operations Occupations						
Human Resources Specialists	170	189	19	11%	20	\$49,501
Market Research Analysts/Marketing Specialists	55	79	24	44%	9	\$50,578
Financial Managers	110	126	16	15%	10	\$82,028

# What Are Businesses Telling Us?



Do you have difficulty finding well-qualified employees for the majority of your jobs?



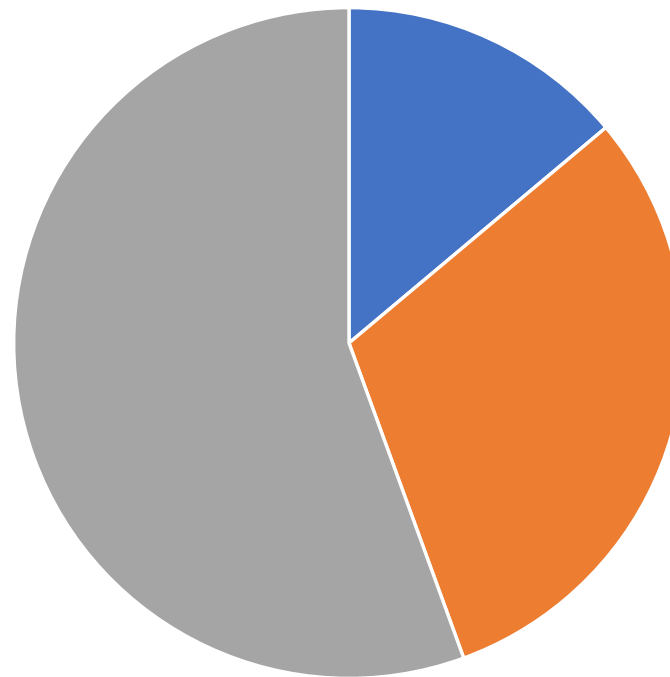
■ Yes ■ No

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# What Are Businesses Telling Us?



What job levels are hardest to fill in your company?



■ Low Skilled ■ Middle Skilled ■ High Skilled

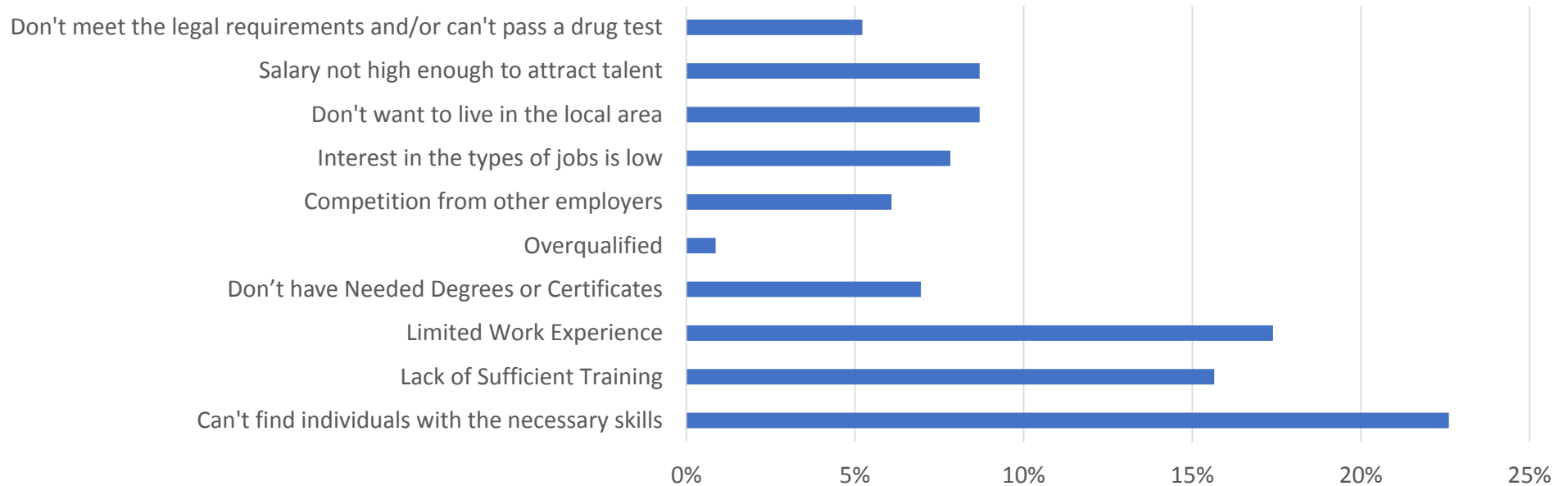
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# What Are Businesses Telling Us?



When your business/company struggles to fill open positions, what are the primary reasons for this?

CHOOSE ALL THAT APPLY





# What Does the Labor Market Tell Us?



A place to start the conversation:

- Healthcare
- Industrial Production Technology
- 21<sup>st</sup> Century Transportation

# How Can We Use These Funds to Build the Next Generation of Talent Here?



## Step 1

What's Our Vision for CTE in Region A?

# How Can We Use These Funds to Build the Next Generation of Talent Here?



## Step 2

Which Industries Should We Focus On?

### Considering:

- Potential economic impact
- Providing opportunities to grow existing and attract new industries
- Offer best connections between students' education and future career success

# How Can We Use These Funds to Build the Next Generation of Talent Here?



## Step 3

Who are the partners who can help us achieve our vision?

### Considering:

- K-12 Districts
- Colleges
- Workforce Connections
- Community Partners

# How Can We Use These Funds to Build the Next Generation of Talent Here?



## Step 4

What commitments can we make to start the process of achieving our vision?

### Considering:

- People
- Programs
- Resources

# Next Steps



When we leave the room today, what are we going to do first?