Who We Are

- Local extension of Texas Workforce Commission
- Non-profit organization
- One of 28 Workforce Development Boards in Texas
- Governed by the Workforce Innovation & Opportunity Act
- Not the Unemployment Benefits Office where people register for unemployment benefits, although we assist and refer
- Workforce Solutions is the Job Center
What are STEM careers?

There are eight STEM disciplines identified on the U.S. Department of Labor’s O*NET occupational database website that require a solid educational foundation in science, technology, engineering or mathematics:

1) Chemistry
2) Computer Science
3) Engineering
4) Environmental Science
5) Geosciences [Earth Sciences]
6) Life Sciences
7) Mathematics
**Business Services**

Opportunity:
Data centers, tech support, accounting, insurance

Asset:
Rich fiber infrastructure, non-disruptive weather, UTEP IT graduates

**Advanced Logistics**

Opportunity:
Cyber Security, Drone Tech

Asset:
Major international crossings, I-10 gateway, excellent rail connectivity
Tourism
Opportunity: Outdoor recreation / sports
Asset: Weather & Natural Resources (mountains, landscape)

Defense & Homeland Security
Opportunity: Cyber Security, Drone Tech
Asset: Ft. Bliss, WSMR, Holloman (7,100 sq. mi. one of largest military installations in world)
Life Sciences
Opportunity: Discovery, research, technology
Asset: Hispanic population, international borders, military – diabetes, PTSD, prosthetics

Manufacturing
Opportunity: Production Sharing
Asset: Component manufacturing El Paso, Southern NM; assembly in Cd. Juarez
The need to build the talent pipeline

Technology has become integral to daily life in the 21st Century and mastering STEM knowledge and skills are critical to every individual’s employability and career success. STEM competency also impacts each person’s ability to contribute to the economic success of both the national and global economy.

This is a huge task. Many agencies and organizations – in government, education, the non-profit and private sectors – are beginning to collaborate in order to meet the need for a stronger STEM capability in the U.S.
SB2105 (85th Regular Session)

• Career Exploration Events
  • Help students experience real jobs available in El Paso
  • Invite employers to career days
  • Allow students to visit employer facilities (field trips)
  • Helpful for teachers to understand local business environment

• Youth Employment
  • Provide part-time, summer and/or year-round work experience
    Ex: DECA, BPA

• Research & Guidance for CTE – “Where the Jobs Will Be”
  • Information on the future of our local economy
Industry Feedback Request for Industry-based Certifications and Certificates

Industry Feedback Request for Industry-based Certifications and Certificates House Bill 2804 (84th Texas Legislature, 2015) requires the state to include the percentage of students who earn an industry certification in Domain IV (College and Career Readiness) of the state accountability system. Thus, the Texas Education Agency (TEA) has compiled a proposed list of third-party industry-based certifications and certificates currently offered by local education agencies. While there are hundreds of certifications offered throughout the public school system, it is critical to ensure that the state recognize those that are aligned with workforce needs. Certifications that provide opportunities for employment or continued study in fields offering middle and higher wage jobs are important in preparing students for the workforce.

The statute requires the criterion for inclusion in the accountability system to include recognition by industry groups, as defined by the certification being:

1. Nationally- or internationally-recognized: Certifications that are nationally or internationally recognized through a national or international business, industry, or professional organization.

OR

2. State-recognized: Texas-certified industry certifications are those that are recognized and valued by either a state agency or government entity, or a state-based industry association.

In addition to the base criterion, the TEA has included additional criteria that is representative of extensive conversations with stakeholders, other agency partners, and best practices found in other states who have done similar work in identifying industry-based certifications of value.

3. End of Program
4. Stackable / Direct Transference
5. Industry Valued
Education Level is Related to Employment and Earnings

<table>
<thead>
<tr>
<th>Unemployment Rate</th>
<th>Median Weekly Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than High School Diploma</td>
<td>$457</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>$651</td>
</tr>
<tr>
<td>Some College/Assoc Degree</td>
<td>$741</td>
</tr>
<tr>
<td>Bachelor’s Degree or Higher</td>
<td>$1,189</td>
</tr>
</tbody>
</table>

Source: US Department of Labor, Bureau of Labor Statistics
Data Points based on Census Data:

From 2006-2016, for our population 18 -24
- Less than high school rate has dropped by 11%
- Our HS graduate rate decreased slightly by 3%
- Our Some college or Associates Degree showed the most improvement, an increase of 13%
- Our Bachelor’s Degree or Higher increased 1%

From 2006-2016, for our population 25 and over
- Less than high school rate has dropped showed a decrease of 9%
- Our HS graduate rate showed no significant change
- Our Some college has an increase of 3%
- Post-Secondary degrees shows an improvement of 6%
A study published by the Georgetown University Center on Education and the Workforce suggests newly created jobs since the recession have been filled almost entirely by educated Americans.

• Of the 11.6 million jobs created between January 2010 and January 2016, 11.5 million went to folks with at least some form of college education.

• Of the 7.2 million jobs lost in the recession, 5.6 million were jobs for workers with a high school diploma or less.
Projected Percentage in Job Increases (2010-2020)

- All Occupations: 14%
- Mathematics: 16%
- Computer Systems Analysts: 22%
- Systems Software Developers: 32%
- Medical Scientists: 36%
- Biomedical Engineers: 62%
LMI- Artificial Intelligence and the Future of Education

Artificial intelligence is a rapidly emerging technology that has the potential to change our everyday lives with a scope and speed that humankind has never experienced before.

AI and related technologies are reshaping the economy. Some jobs are being eliminated, many others are being changed, and entirely new fields of work are opening up. Those changes are likely to have big implications for the job market in 2030, when today's 6th graders are set to hit their prime working years.

How Will Automation Affect Different U.S. Cities?  
https://insight.kellogg.northwestern.edu/article/how-will-automation-affect-different-united-states-cities

The knowledge that certain places will lose more jobs could allow workers and industries to better prepare for the change and could help city leaders ensure their local economies are poised to rebound.

STEM Careers – Resource  
http://stemcareer.com/teachers/
21st Century Skills Needed

- **Collaboration**: the ability to work with others, to have social-emotional control, and to form communities.
- **Communication**: the ability to develop strong reading, writing, listening and language skills.
- **Content**: competencies in subject areas, but also in learning to learn.
- **Critical thinking**: the ability to gather information intelligently and to weigh evidence.
- **Creative innovation**: the ability to use information in new ways and to solve problems.
- **Confidence**: the ability to learn from failure and to persist in a problem.
Middle Skills Gap Analysis

• Private Sector Survey Results
  • Over 75% - Moderate to Significant Challenge in finding qualified candidates

• Lowest Reported Skills
  • Technical Writing
  • Critical Thinking/Problem Solving
Reality Check – Fundamental Skills Gap

Employers vs College Graduates

Source: Insidehireed.com/2015
# 2017 H1B Visa Report - Occupations


<table>
<thead>
<tr>
<th>Rank</th>
<th>Job Title</th>
<th>Number of LCA *</th>
<th>Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Programmer Analyst</td>
<td>53,738</td>
<td>$67,421</td>
</tr>
<tr>
<td>2</td>
<td>Software Engineer</td>
<td>30,666</td>
<td>$95,081</td>
</tr>
<tr>
<td>3</td>
<td>Software Developer</td>
<td>14,038</td>
<td>$76,698</td>
</tr>
<tr>
<td>4</td>
<td>Systems Analyst</td>
<td>12,311</td>
<td>$70,809</td>
</tr>
<tr>
<td>5</td>
<td>Computer Programmer</td>
<td>11,668</td>
<td>$67,063</td>
</tr>
<tr>
<td>6</td>
<td>Business Analyst</td>
<td>9,167</td>
<td>$70,240</td>
</tr>
<tr>
<td>7</td>
<td>Computer Systems Analyst</td>
<td>6,899</td>
<td>$71,858</td>
</tr>
<tr>
<td>8</td>
<td>Senior Software Engineer</td>
<td>6,437</td>
<td>$117,634</td>
</tr>
<tr>
<td>9</td>
<td>Developer</td>
<td>6,084</td>
<td>$76,416</td>
</tr>
<tr>
<td>10</td>
<td>Technology Lead - Us</td>
<td>5,410</td>
<td>$81,570</td>
</tr>
<tr>
<td>11</td>
<td>Technology Analyst - Us</td>
<td>4,996</td>
<td>$71,588</td>
</tr>
<tr>
<td>12</td>
<td>Assistant Professor</td>
<td>4,970</td>
<td>$107,241</td>
</tr>
<tr>
<td>13</td>
<td>Consultant</td>
<td>4,877</td>
<td>$89,281</td>
</tr>
<tr>
<td>14</td>
<td>Project Manager</td>
<td>4,606</td>
<td>$86,253</td>
</tr>
<tr>
<td>15</td>
<td>Senior Consultant</td>
<td>4,317</td>
<td>$112,825</td>
</tr>
<tr>
<td>16</td>
<td>Database Administrator</td>
<td>3,012</td>
<td>$74,427</td>
</tr>
<tr>
<td>17</td>
<td>Developer User Interface</td>
<td>3,220</td>
<td>$72,672</td>
</tr>
<tr>
<td>18</td>
<td>Physical Therapist</td>
<td>3,012</td>
<td>$72,672</td>
</tr>
<tr>
<td>19</td>
<td>Software Engineer 2</td>
<td>2,864</td>
<td>$107,022</td>
</tr>
<tr>
<td>20</td>
<td>Lead Engineer</td>
<td>2,848</td>
<td>$72,862</td>
</tr>
<tr>
<td>21</td>
<td>Analyst</td>
<td>2,767</td>
<td>$77,966</td>
</tr>
<tr>
<td>22</td>
<td>Associate</td>
<td>2,758</td>
<td>$106,762</td>
</tr>
<tr>
<td>23</td>
<td>Computer Programmer Analyst</td>
<td>2,737</td>
<td>$70,758</td>
</tr>
<tr>
<td>24</td>
<td>Senior Software Developer</td>
<td>2,602</td>
<td>$98,175</td>
</tr>
<tr>
<td>25</td>
<td>Java Developer</td>
<td>2,341</td>
<td>$76,546</td>
</tr>
</tbody>
</table>
### 2017 H1B Visa Report - Industries


<table>
<thead>
<tr>
<th>Rank</th>
<th>NAICS Industry</th>
<th>Number of LCA *</th>
<th>Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer Systems Design and Related Services</td>
<td>336,513</td>
<td>$78,876</td>
</tr>
<tr>
<td>2</td>
<td>Management, Scientific, and Technical Consulting Services</td>
<td>53,647</td>
<td>$94,320</td>
</tr>
<tr>
<td>3</td>
<td>Colleges, Universities, and Professional Schools</td>
<td>27,641</td>
<td>$74,997</td>
</tr>
<tr>
<td>4</td>
<td>Architectural, Engineering, and Related Services</td>
<td>17,682</td>
<td>$76,937</td>
</tr>
<tr>
<td>5</td>
<td>Software Publishers</td>
<td>12,993</td>
<td>$114,081</td>
</tr>
<tr>
<td>6</td>
<td>Accounting, Tax Preparation, Bookkeeping, and Payroll Services</td>
<td>12,640</td>
<td>$83,704</td>
</tr>
<tr>
<td>7</td>
<td>Scientific Research and Development Services</td>
<td>9,912</td>
<td>$86,594</td>
</tr>
<tr>
<td>8</td>
<td>Semiconductor and Other Electronic Component Manufacturing</td>
<td>8,370</td>
<td>$106,665</td>
</tr>
<tr>
<td>9</td>
<td>General Medical and Surgical Hospitals</td>
<td>8,102</td>
<td>$128,365</td>
</tr>
<tr>
<td>10</td>
<td>Securities and Commodity Contracts Intermediation and Brokerage</td>
<td>7,861</td>
<td>$118,711</td>
</tr>
<tr>
<td>11</td>
<td>Electronic Shopping and Mail-Order Houses</td>
<td>5,898</td>
<td>$119,604</td>
</tr>
<tr>
<td>12</td>
<td>Other Financial Investment Activities</td>
<td>5,534</td>
<td>$108,283</td>
</tr>
<tr>
<td>13</td>
<td>Offices of Physicians</td>
<td>5,178</td>
<td>$206,799</td>
</tr>
<tr>
<td>14</td>
<td>Other Professional, Scientific, and Technical Services</td>
<td>4,714</td>
<td>$86,749</td>
</tr>
<tr>
<td>15</td>
<td>Employment Services</td>
<td>4,709</td>
<td>$78,892</td>
</tr>
<tr>
<td>16</td>
<td>Computer and Peripheral Equipment Manufacturing</td>
<td>4,398</td>
<td>$124,342</td>
</tr>
<tr>
<td>17</td>
<td>Elementary and Secondary Schools</td>
<td>4,150</td>
<td>$51,196</td>
</tr>
<tr>
<td>18</td>
<td>Insurance Carriers</td>
<td>4,140</td>
<td>$100,333</td>
</tr>
<tr>
<td>19</td>
<td>Communications Equipment Manufacturing</td>
<td>3,466</td>
<td>$108,187</td>
</tr>
<tr>
<td>20</td>
<td>Depository Credit Intermediation</td>
<td>3,444</td>
<td>$104,608</td>
</tr>
<tr>
<td>21</td>
<td>Other Information Services</td>
<td>3,109</td>
<td>$110,612</td>
</tr>
<tr>
<td>22</td>
<td>Advertising, Public Relations, and Related Services</td>
<td>3,048</td>
<td>$93,724</td>
</tr>
<tr>
<td>23</td>
<td>Nondepository Credit Intermediation</td>
<td>2,976</td>
<td>$101,652</td>
</tr>
<tr>
<td>24</td>
<td>Offices of Other Health Practitioners</td>
<td>2,954</td>
<td>$76,225</td>
</tr>
<tr>
<td>25</td>
<td>Pharmaceutical and Medicine Manufacturing</td>
<td>2,888</td>
<td>$95,866</td>
</tr>
</tbody>
</table>
Coming Soon

• Virtual Reality Job Videos
• Hot Jobs of the Year
• Industry Snap Shots
• Local career pathways
We Encourage El Paso Businesses to...

- Increase wages – we’re competing globally now
- Provide part-time work experience opportunities for students to work while they go to school
- Form consortiums to take advantage of training grants
Where We Need Your Help

• Connecting current and future job seekers with the plan
• What can we do to develop a pipeline into our target industries?

K-12 Pipeline

High School, College students

Students/workers earning industry certifications or degrees

Employability within regional sector employers
THANK YOU!

A proud partner of the American Job Center Network

Equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Relay Texas: 711 (Voice) or 1-800-735-2989 (TTY)

Igualdad de oportunidades de empleo/programas. Equipo auxiliar y servicios de apoyo están disponibles para personas con discapacidad al ser requeridos. Relay Texas: 711 (Voz) o 1-800-735-2989 (TTY)