Meeting the Demands of the Future Workforce

Building blocks for a globally competitive economy

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Texas needs about **54,000 additional students** to reach 2015 goal for participation

*These data are certified fall 2013 data for public and independent institutions. Flexible (flex) entry data not yet available. Flex entry students are those enrolled in classes that began after the official reporting date of the semester.*
Texas has **achieved the participation target** of 5.7% of the population but remains lower than peer states.

<table>
<thead>
<tr>
<th>State</th>
<th>Participation Rate of Total Population (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>7.4%</td>
</tr>
<tr>
<td>Illinois</td>
<td>7.1%</td>
</tr>
<tr>
<td>Michigan</td>
<td>7.1%</td>
</tr>
<tr>
<td>New York</td>
<td>7.0%</td>
</tr>
<tr>
<td>Ohio</td>
<td>6.6%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>6.4%</td>
</tr>
<tr>
<td>Florida</td>
<td>6.3%</td>
</tr>
<tr>
<td><strong>Texas</strong></td>
<td>6.3%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>6.1%</td>
</tr>
<tr>
<td>Georgia</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

**Source:** U.S. Dept. of Education and Census Bureau
Public two-year colleges are projected to experience the greatest increase in future enrollment according to projections.

Fall Headcount Participation Forecasts by Institution Type

- Public Universities: 7.8%
- Public Two-Year Colleges: 9.6%
- Independent Senior Colleges and Universities: 3.9%

Source: Texas Higher Education Coordinating Board
The state has surpassed the 2015 goal for annual undergraduate credentials awarded.

Total Annual Undergraduate Degrees and Certificates
By Year

Goal: 210,000

242,823

NOTE: Collection of career institution data began in 2004

Undergraduate Credentials Awarded by Type, Fall 2013

- Bachelor's: 121,310
- Associate's: 70,533
- Certificates: 50,980

Total: 242,823
Our future workforce will demand even more postsecondary trained and educated workers.

In 1973, only 28% of all U.S. jobs required postsecondary education/skills. By 2020, 65% of all jobs will require this level of education.

59% of all jobs in Texas will require postsecondary training or education by 2020. Currently, 33% of Texans 25 and older have an Associate’s degree or higher.

Source: Georgetown University Center on Education and the Workforce, June 2013
THE CHALLENGE: Two-thirds of all jobs in U.S. by 2020 will require some form of postsecondary training or education

These occupations are projected to have the highest growth rate between now and 2020, and require high levels of postsecondary education

<table>
<thead>
<tr>
<th>2020 Occupations</th>
<th>% of Total 2020 Occupations</th>
<th>Postsecondary Education Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales &amp; Office Support</td>
<td>25.5%</td>
<td>66%</td>
</tr>
<tr>
<td>Blue Collar</td>
<td>18.6%</td>
<td>34%</td>
</tr>
<tr>
<td>Food &amp; Personal</td>
<td>16.6%</td>
<td>43%</td>
</tr>
<tr>
<td>Managerial &amp; Professional Services</td>
<td>15.0%</td>
<td>86%</td>
</tr>
<tr>
<td>Education</td>
<td>6.1%</td>
<td>94%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>5.1%</td>
<td>94%</td>
</tr>
<tr>
<td>STEM</td>
<td>4.6%</td>
<td>94%</td>
</tr>
<tr>
<td>Community Services</td>
<td>4.8%</td>
<td>91%</td>
</tr>
<tr>
<td>Healthcare support</td>
<td>2.8%</td>
<td>58%</td>
</tr>
<tr>
<td>Social Science</td>
<td>0.5%</td>
<td>100%</td>
</tr>
<tr>
<td>ALL OCCUPATIONS</td>
<td>--</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: Georgetown University, Center on Education and the Workforce Recovery: Job Growth and Education Requirements through 2020, July 2013; percentages may not equal 100 due to rounding
Unfortunately, the U.S. is projected to have a mismatch between future jobs and workforce skill/education.

### Demand vs. supply – 2020 projections

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Demand</th>
<th>Supply</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No high school diploma</td>
<td>13.6M</td>
<td>19.5M</td>
<td>+5,900,000</td>
</tr>
<tr>
<td>High school graduate</td>
<td>43.3M</td>
<td>44.1M</td>
<td>+800,000</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>30.7M</td>
<td>29.1M</td>
<td>-1,600,000</td>
</tr>
<tr>
<td>Includes Postsecondary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workforce Certificates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate degree</td>
<td>17.7M</td>
<td>19.6M</td>
<td>1,900,000</td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>58.0M</td>
<td>56.5M</td>
<td>-1,500,000</td>
</tr>
</tbody>
</table>

### Source:
- U.S. Bureau of Economic Analysis,
- U.S. Bureau of Labor Statistics,
- Mckinsey Global Institute analysis
Postsecondary workforce certificates will be in short supply, yet represent great opportunities for quality jobs and higher wages.
Postsecondary education of all types leads to better opportunities in any economic climate.
Even jobs once considered low-skill, will require higher levels of training and expertise

Employment in “high-skill” manufacturing occupations has increased 37% since early 1980s.

--Federal Reserve Bank of NY

“It’s not just what is being made, but to the degree that you make it at all, you make it differently.”

--David Autor, economist, MIT

“...today’s skilled factory worker is really a hybrid of an old-school machinist and a computer programmer....advanced manufacturing requires a basic understanding of metallurgy, physics, chemistry, pneumatics, electrical wiring and computer code.”

--”Skills don’t pay the bills”, NY Times Magazine, 11/20/12
THECB, TEA and Texas Workforce Commission are collaborating more than ever

✓ Traveling around the state to **advance educational workforce training opportunities**
✓ Sharing data to help **inform public policy**
✓ Collaborating on informational materials for students and parents regarding HB 5
✓ Establishing **Early College High Schools** focused on **career and technical education**
✓ Conducting studies on **future workforce needs** and **educational/training requirements**
✓ Developing **expedited workforce programs** (Texas Fast Start Program) with community and technical colleges
TX is training advisors to help students **navigate HB 5 diploma options** and how they impact higher education

- Advisors receive 4-6 weeks of intensive pre-service training prior to their placement in selected high-need high schools across the state.

  Advisors will receive HB 5 training including information relating to:
  
  - Endorsement options available to students
  - New graduation plans and what they mean for higher education enrollment and state financial aid eligibility

Advisors help students understand all the postsecondary options available (career/technical schools, community colleges, and four-year colleges) and how each differ in terms of time investment, cost, and career preparation.