

# Meeting the Demands of the Future Workforce

*Building blocks for a globally competitive economy*

***Dr. David Gardner***

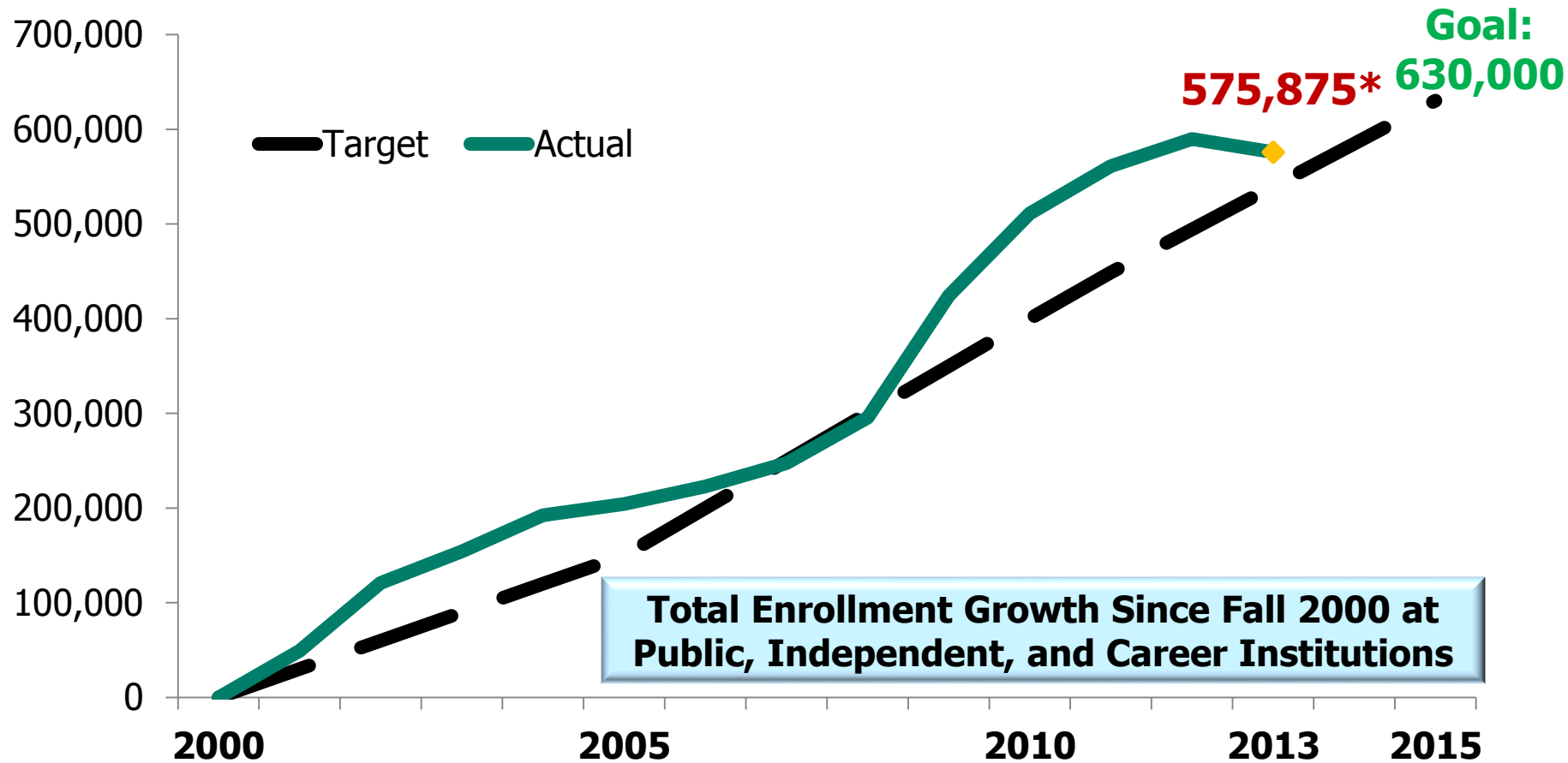
*Deputy Commissioner for Academic Planning and Policy/  
Chief Academic Officer*

Presentation to the Senate Committee on Education  
April 14, 2014



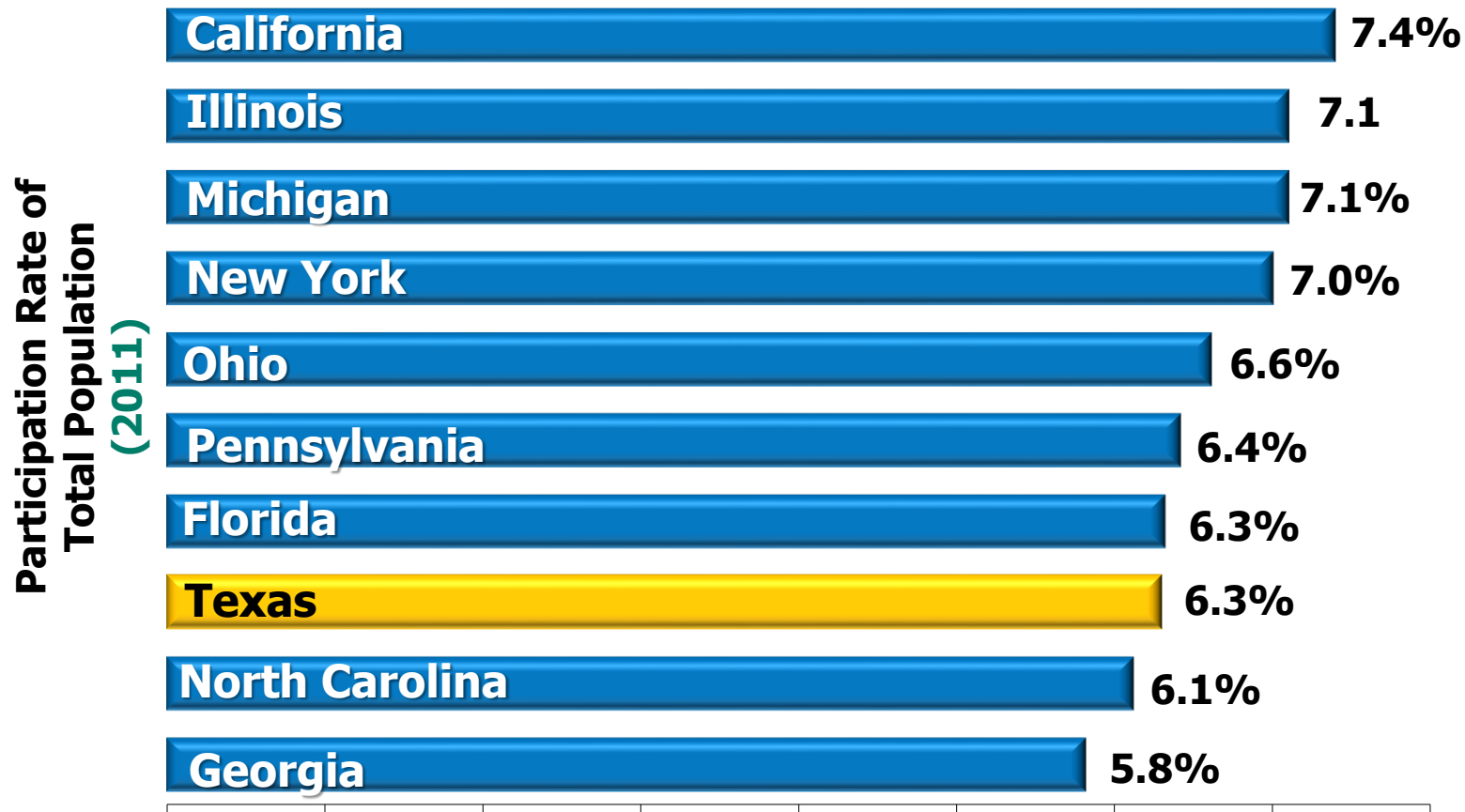
TEXAS HIGHER EDUCATION  
COORDINATING BOARD

# 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.

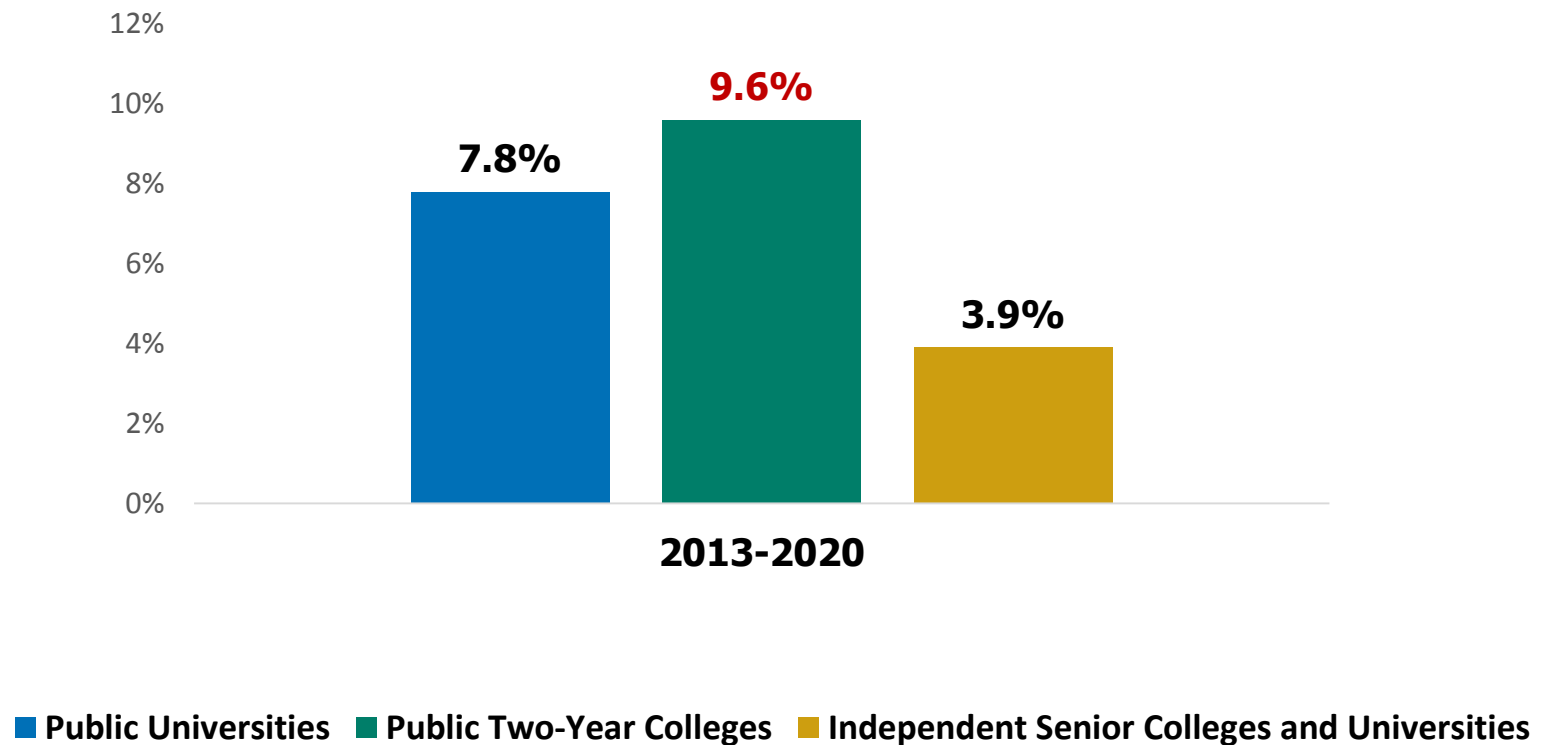
# Texas has achieved the participation target of 5.7% of the population but remains lower than peer states



Source: U.S. Dept. of Education and Census Bureau

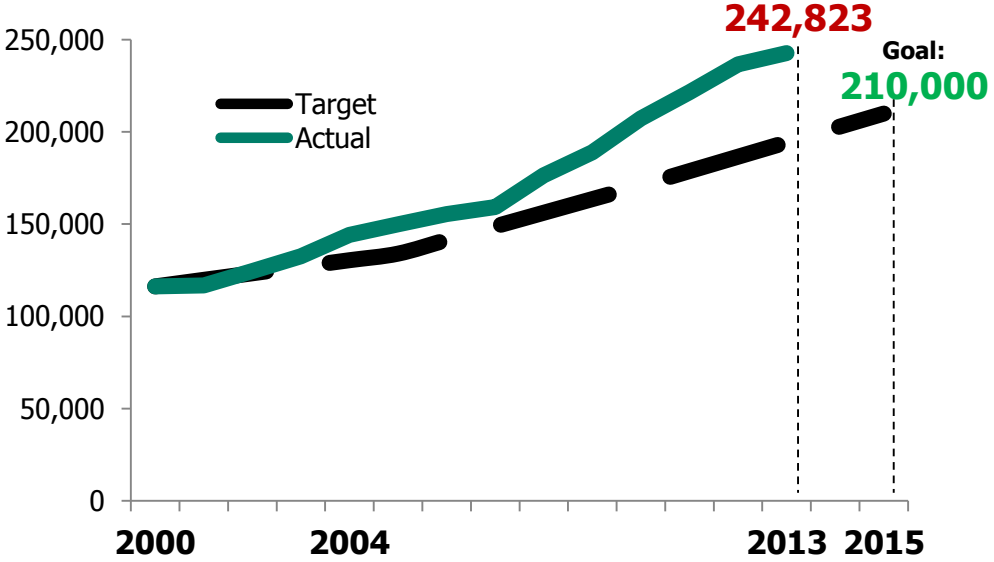
# Public two-year colleges are projected to experience the **greatest increase in future enrollment** according to projections

## Fall Headcount Participation Forecasts by Institution Type



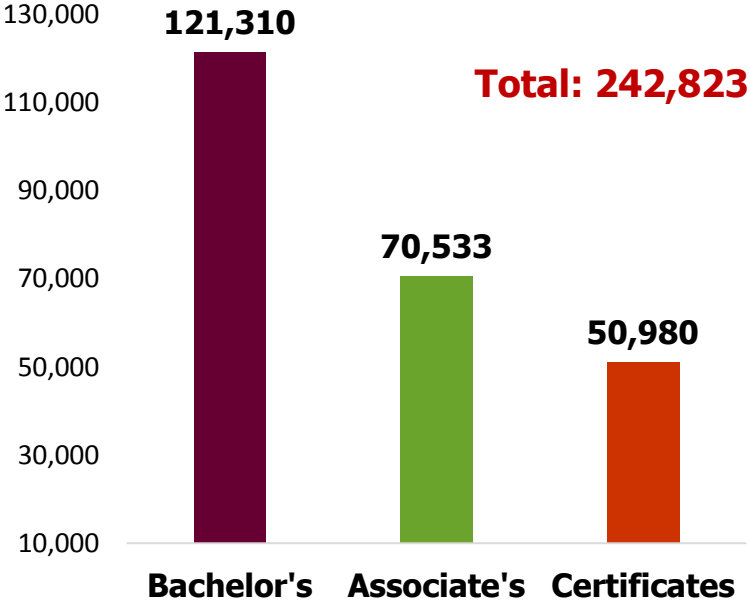
# The state has surpassed the 2015 goal for annual undergraduate credentials awarded

**Total Annual Undergraduate Degrees and Certificates**  
*By Year*



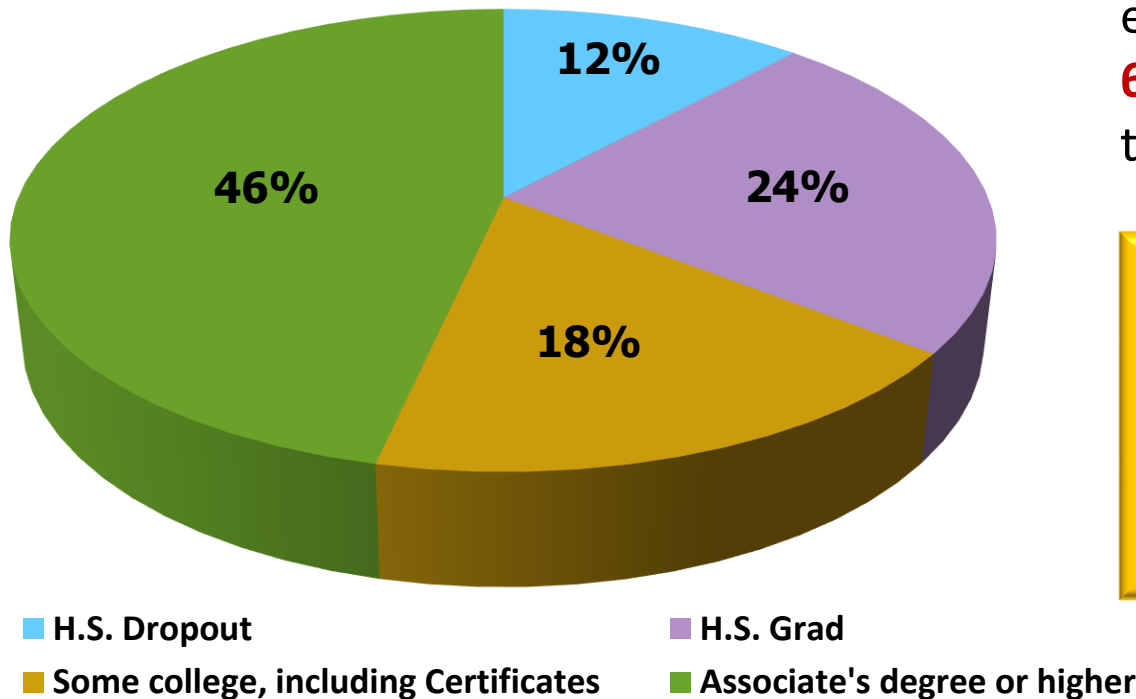
NOTE: Collection of career institution data began in 2004

**Undergraduate Credentials Awarded by Type, Fall 2013**



# Our future workforce **will demand even more** postsecondary trained and educated workers

U.S. Workforce Projections by Required Education Level, 2020



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.

# THE CHALLENGE: Two-thirds of all jobs in U.S. by 2020 will require some form of postsecondary training or education

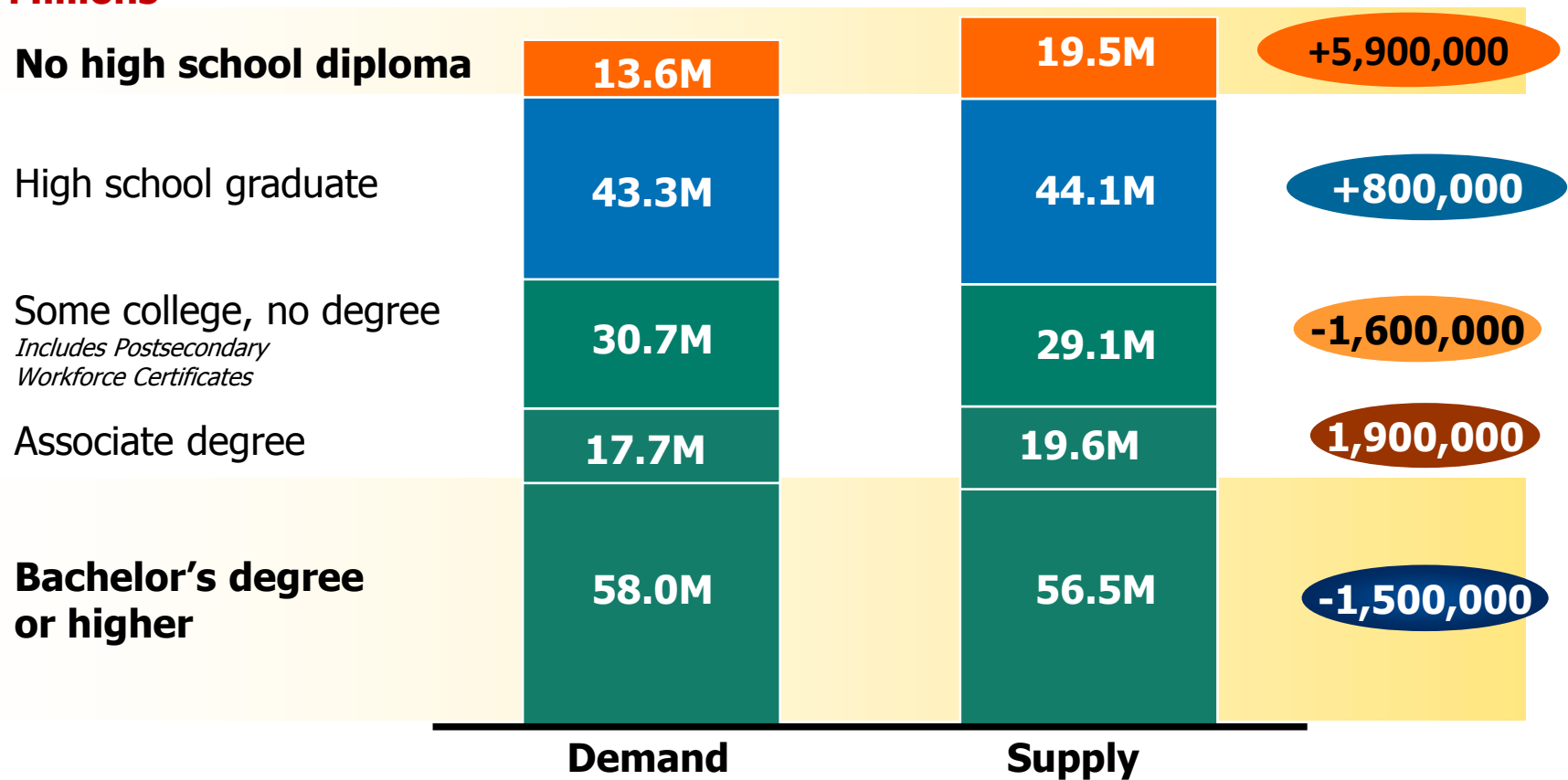
These occupations are projected to have the **highest growth rate between now and 2020**, and require high levels of postsecondary education

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

**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

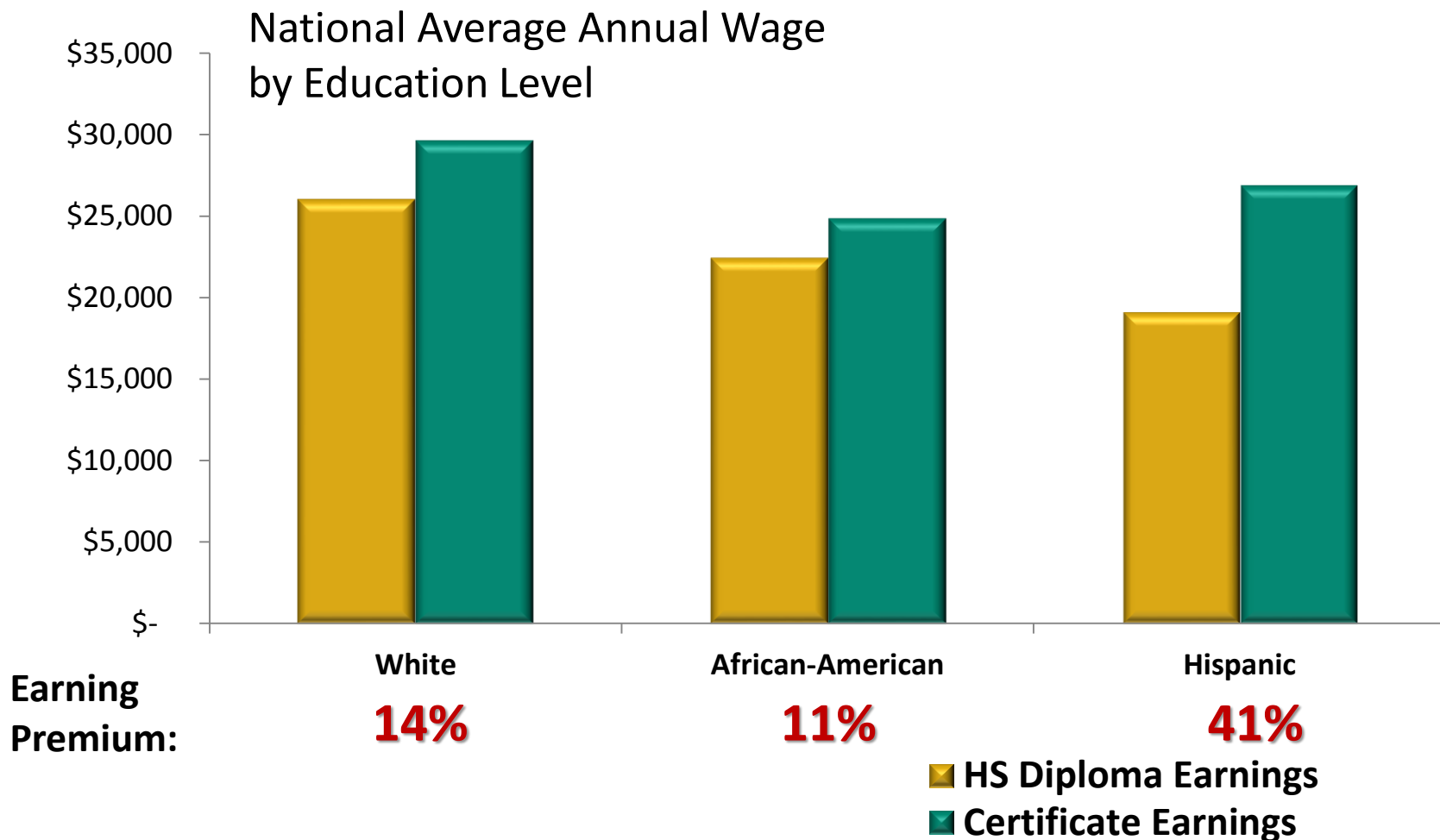
**Demand vs. supply – 2020 projections**  
**Millions**



**Source:** U.S. Bureau of Economic Analysis,  
 U.S. Bureau of Labor Statistics, Mckinsey Global Institute analysis

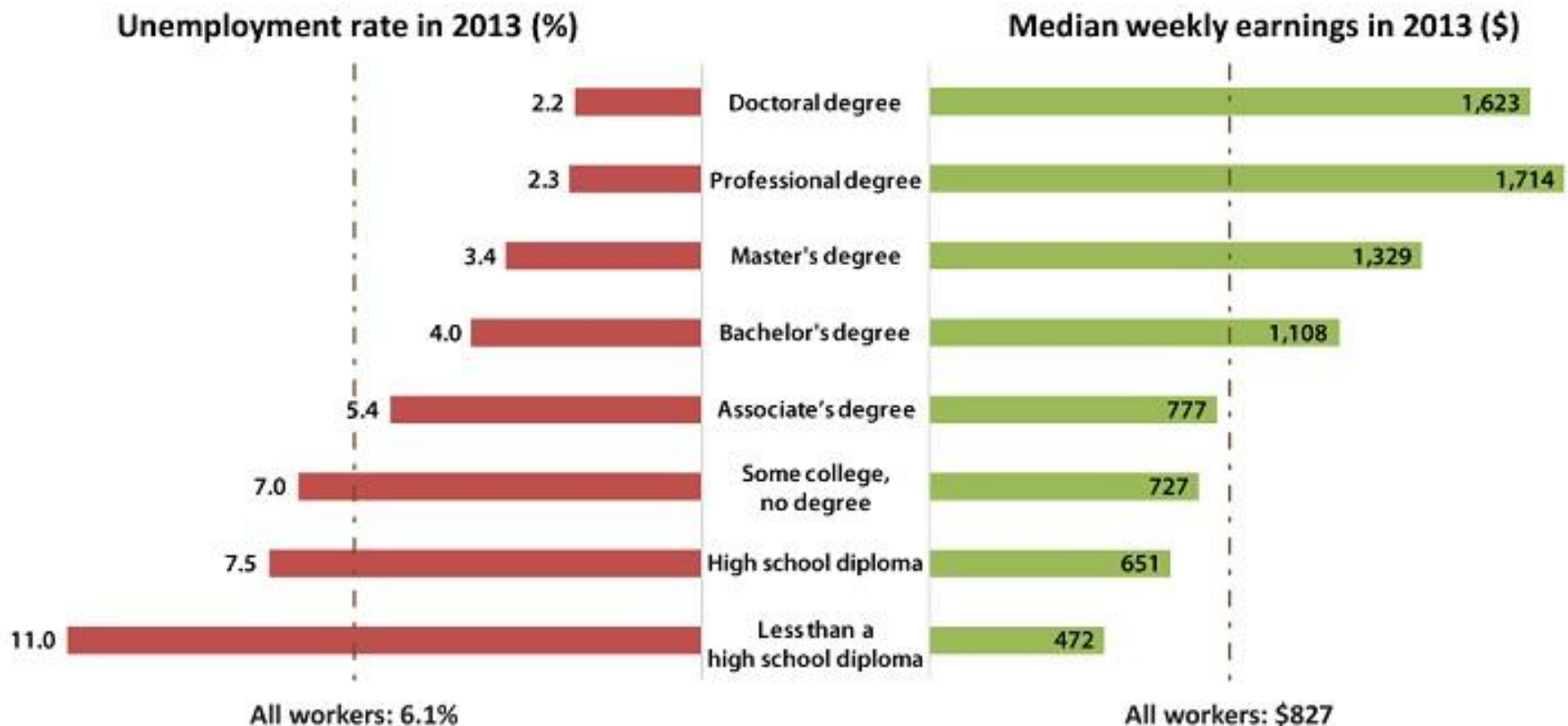


# Postsecondary workforce certificates will be in short supply, yet represent great opportunities for **quality jobs and higher wages**



# Postsecondary education of all types leads to better opportunities in any economic climate

## Earnings and unemployment rates by educational attainment



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.  
Source: Current Population Survey, U.S. Bureau of Labor Statistics, U.S. Department of Labor

## 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

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- ✓ 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.



**COLLEGE ADVISING CORPS**

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