

# CENTER FOR HOUSTON'S FUTURE

The Region's Think Tank



The Center works to  
solve our region's  
toughest problems by  
engaging diverse leaders,  
providing impactful  
research, and defining  
actionable strategies.





# LEADERSHIP FORUMS





# LeadershipNEXT

## Reaching The New Millennials



# 2012 Community Indicator Report

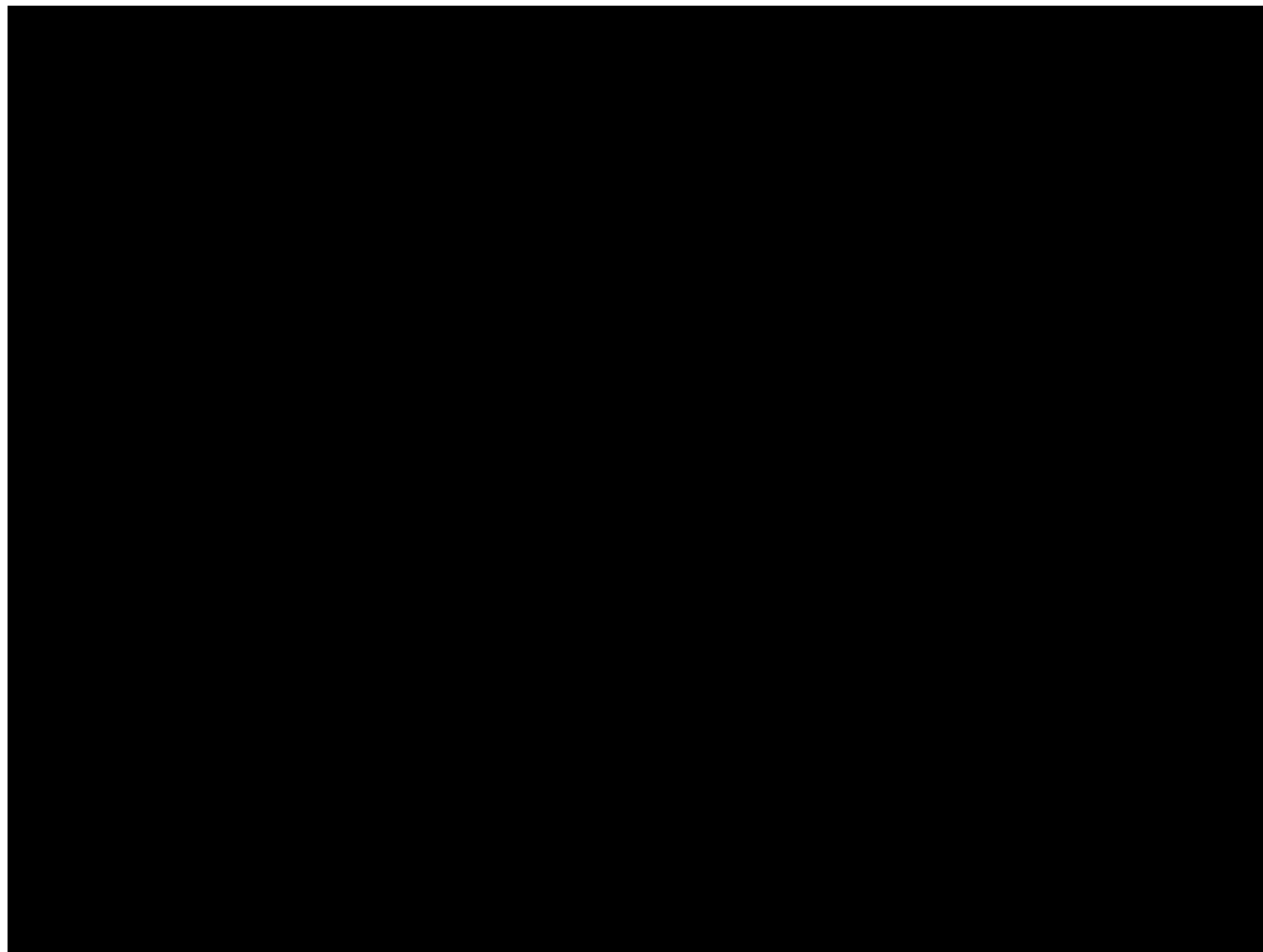
## Human Capital Development & Education



**Early Childhood  
Kindergarten - 12  
Workforce Preparedness**

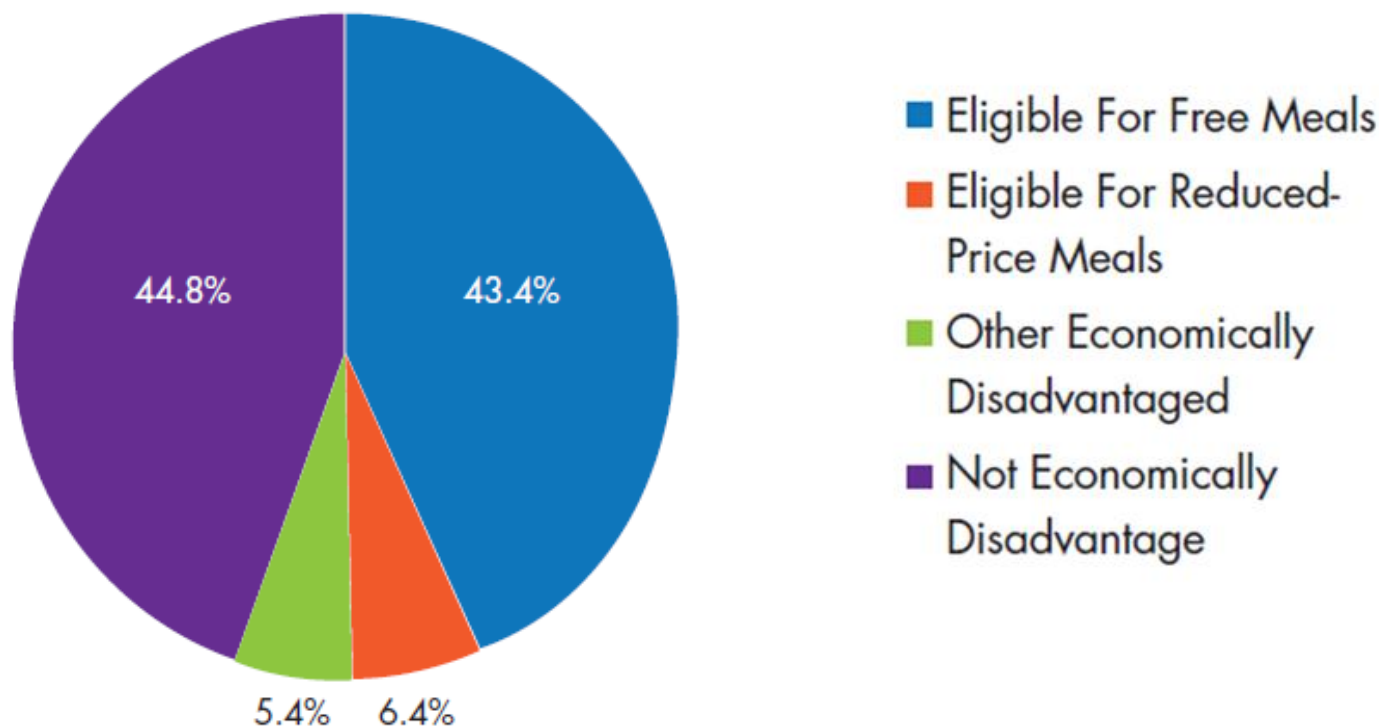
# 2011 Community Indicator Report

## Introductory Video



# ECONOMIC DISADVANTAGE OF GREATER HOUSTON STUDENTS

2010-2011



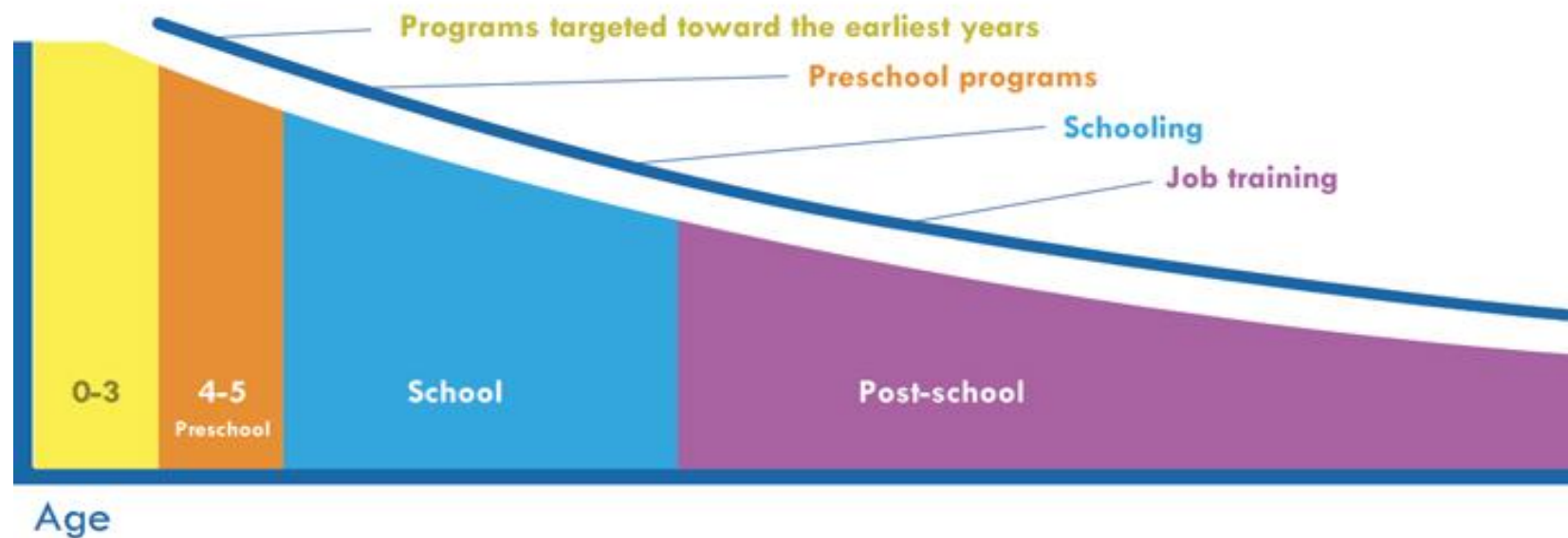
Source: Texas Education Agency, PEIMS Standard Reports (2011)



# EARLY CHILDHOOD

## Higher ROI for Early Investments

### Return to an Extra \$ Invested at Various Ages

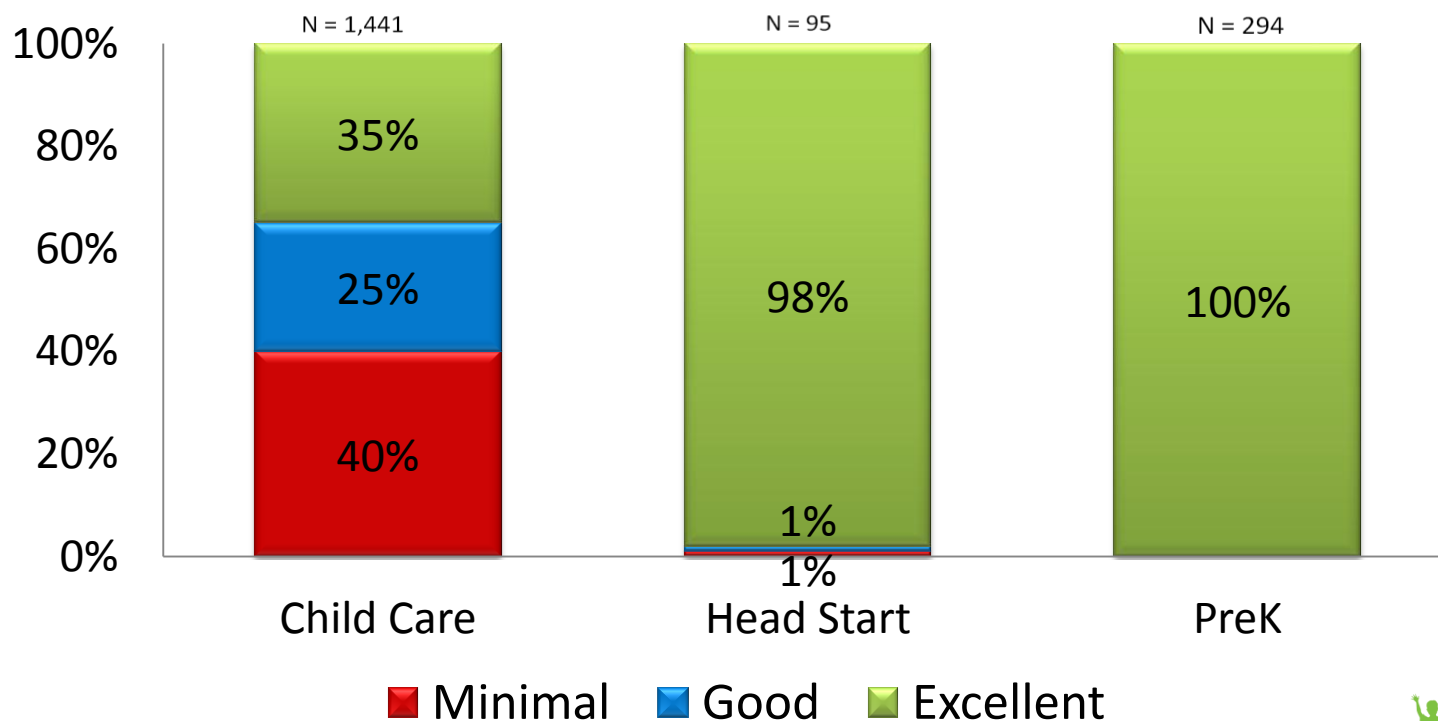


Source: James J. Heckman, Ph.D., Nobel Laureate in Economics, University of Chicago, 2008

# EARLY CHILDHOOD

Teacher Quality, an important metric in the report card

## QualiFind Ratings on Teacher Education, All Gulf Coast Counties

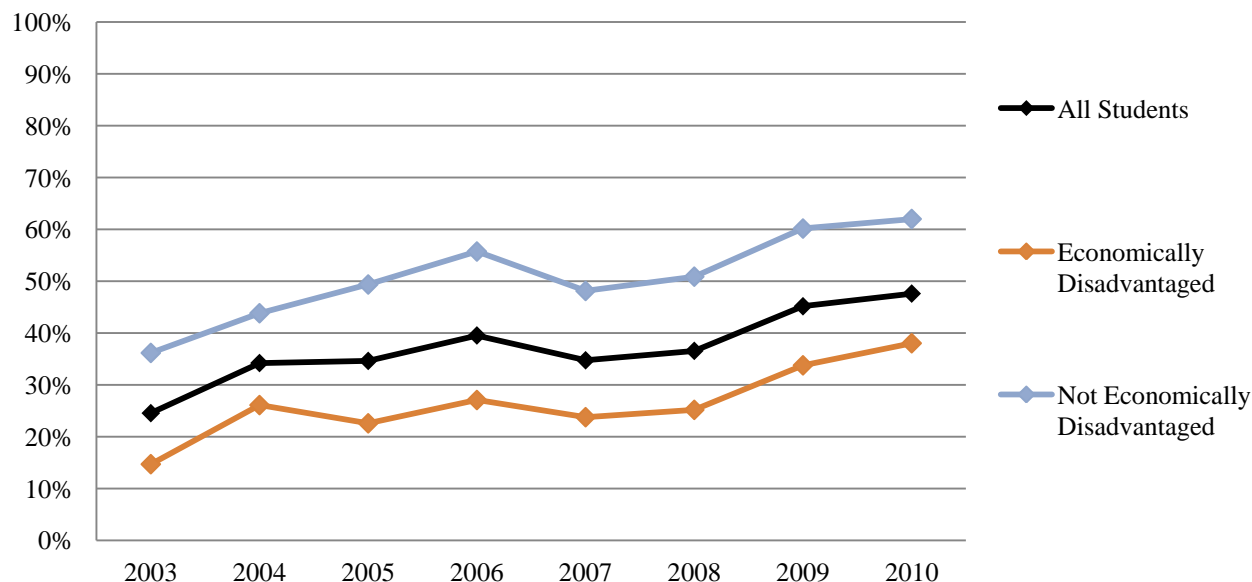


Source: Collaborative for Children's QualiFind Early Childhood Education Database, 2011

# K-12

## Third Grade Reading – A Critical Metric

**Percent of Region's Third Graders Reading at Commended Level on TAKS by Economic Disadvantage Status, 2003-2010**



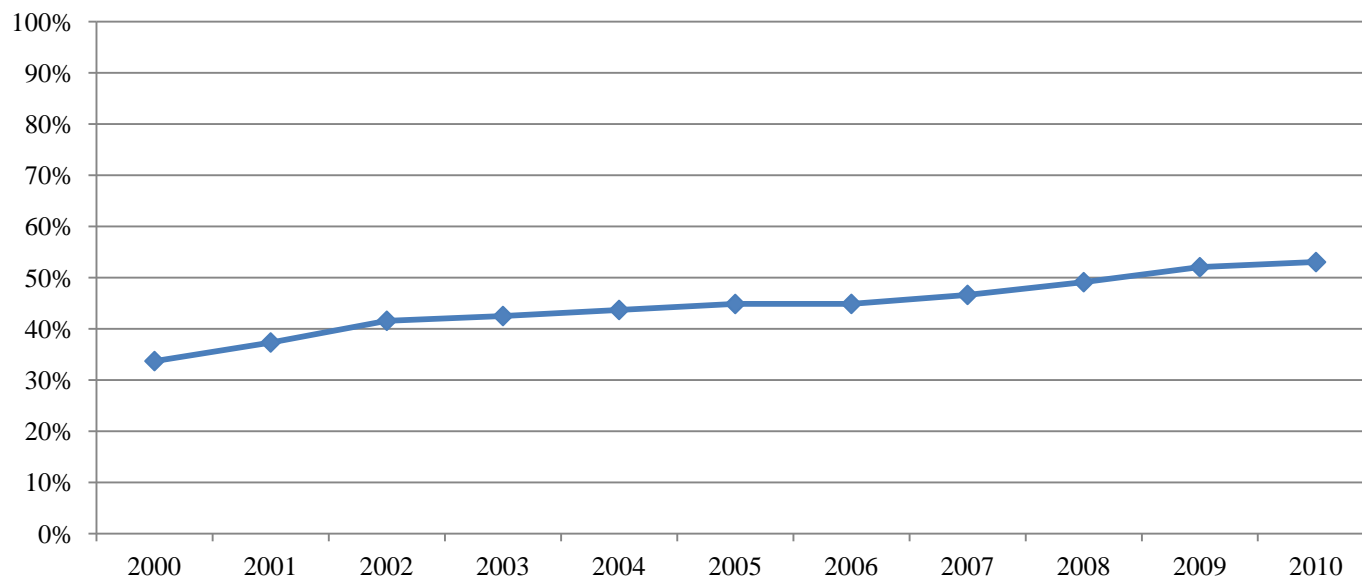
Source: TEA, Children at Risk analysis

SPEAKING OUT AND DRIVING CHANGE FOR CHILDREN  
**children**  
*at Risk*

# K-12

## Algebra I – gateway to higher education

Regions' Ninth Graders Passing Algebra I 2000-2010



Source: TEA



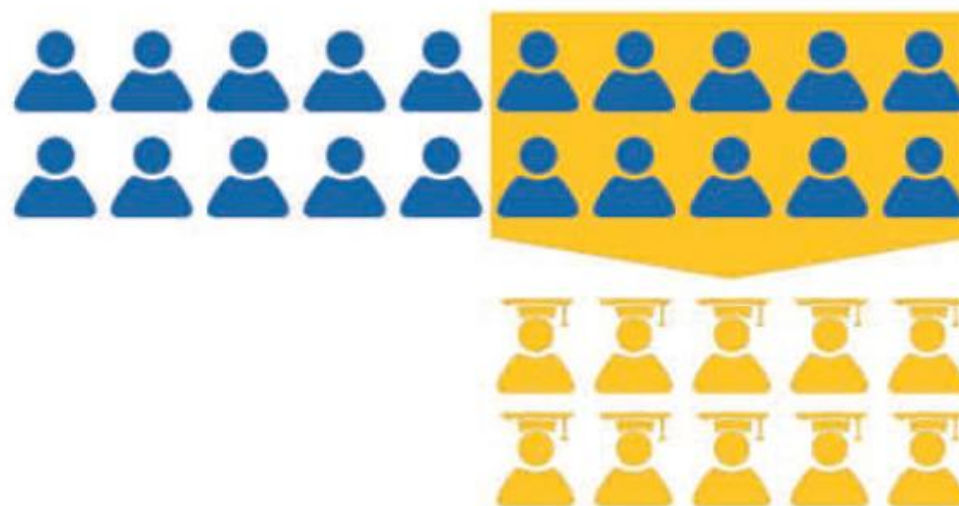


# HIGH SCHOOL ATTAINMENT RATES

## The Cost...

Texas' drop outs = \$9.6 billion loss/year

**What if...half of Texas's 135,100 dropouts from the Class of 2010 had stayed in school and earned a high school diploma?**



## The results would be...



**\$593**  
million in  
increased  
earnings



**\$786**  
million in  
increased  
home  
sales



**\$715**  
million in  
gross  
state  
product



**\$470**  
million in  
increased  
spending



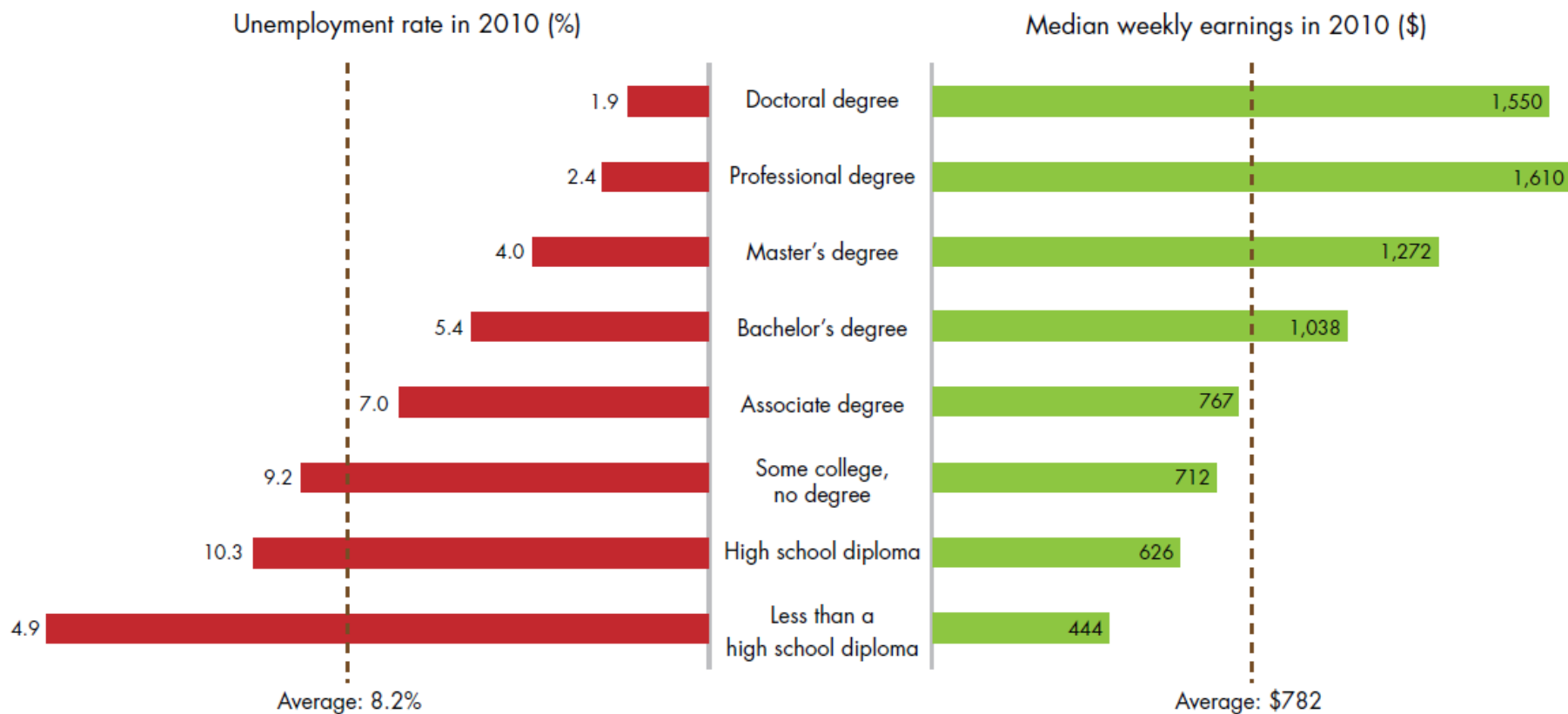
**3,950**  
new jobs



**\$43 million**  
in  
increased  
state tax  
revenue

# HIGHER EDUCATION PAYS...

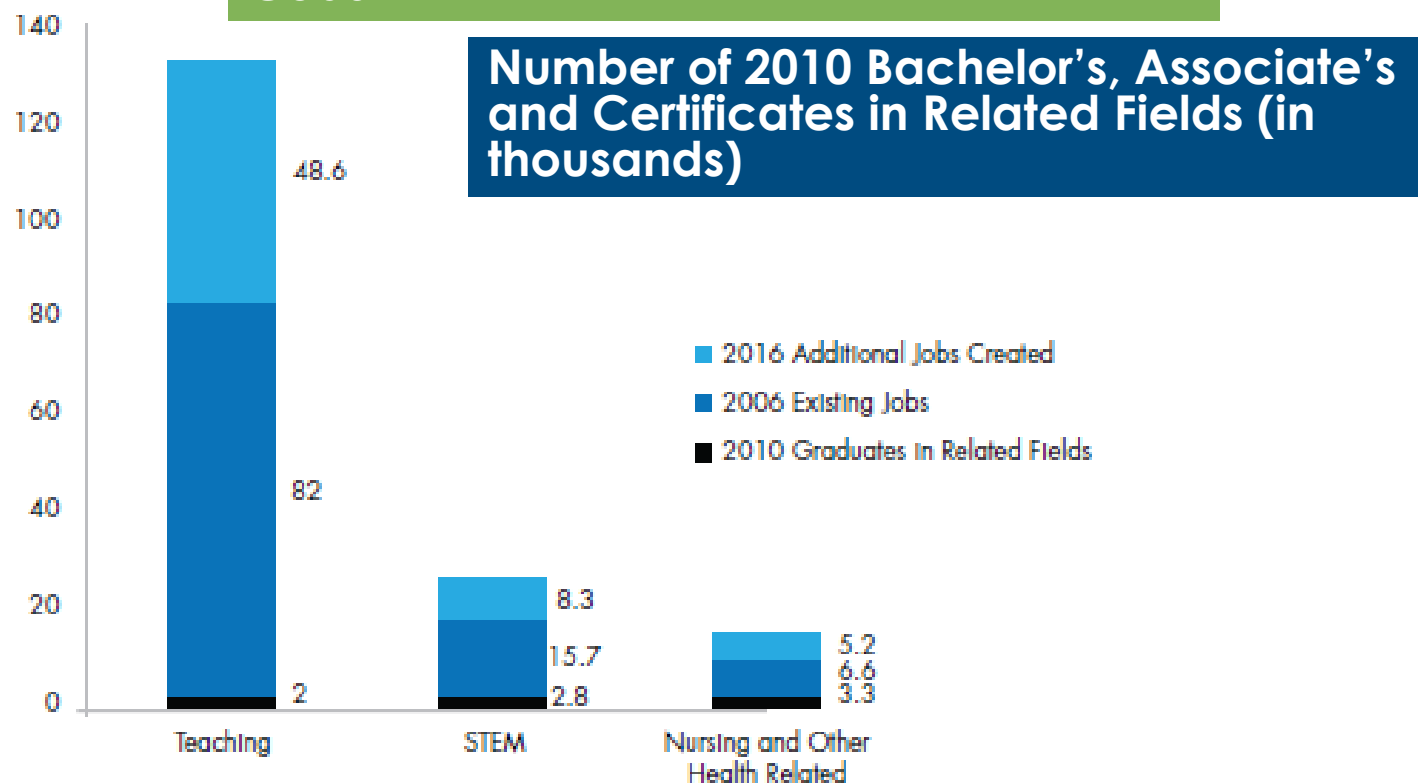
2010 US Full-Time Wage & Salary Worker Annual Averages (Ages 25+)



Bureau of Labor Statistics, Current Population Survey

# HIGHER EDUCATION AND HIGH-DEMAND JOBS

Occupations Adding the Most New Jobs or Growing the Fastest 2006-2016, Gulf Coast



Source: FSG Social Impact Consultants

Brazoria • Chambers • Fort Bend • Galveston • Harris • Liberty • Montgomery • Waller



# WORKFORCE PREPAREDNESS

Necessity of post-secondary education

In the 2013 Houston  
Growth and Staffing  
Outlook Survey,

**66%**

Of respondents said  
finding qualified  
workers was their main  
concern



# WORKFORCE PREPAREDNESS

**By 2018, 63%  
of jobs will  
require some  
postsecondary  
education**

**1973 workforce  
composition:  
72% high school graduates  
28% college or above**

**2018 workforce  
composition:  
38% high school graduates  
62% college or above**

**THIS MEANS 20 MILLION NEW AND REPLACEMENT JOBS  
WILL REQUIRE SOME COLLEGE OR ABOVE**



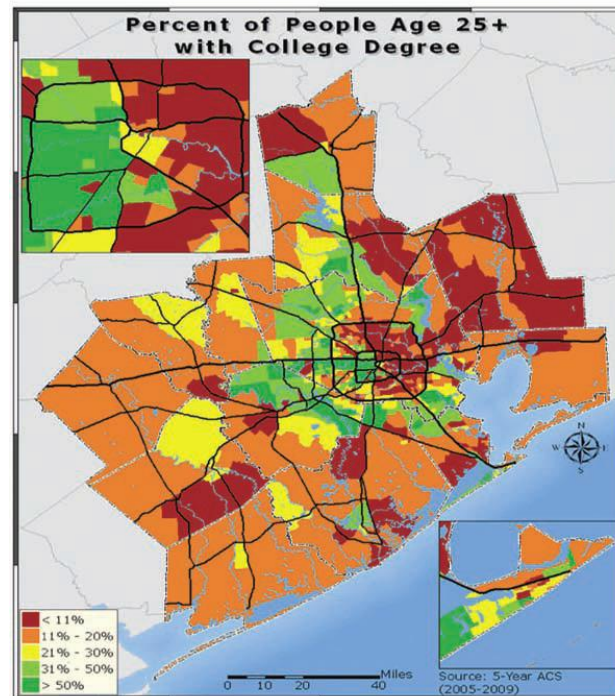
Source: Georgetown U. Center on Education & the Workforce

**Brazoria • Chambers • Fort Bend • Galveston • Harris • Liberty • Montgomery • Waller**

# WORKFORCE PREPAREDNESS

Necessity of post-secondary education

**In 2009,  
only 28.9% of  
people 25+  
had a college  
degree**



# SCENARIOS 2040

## Major Media Launch of Scenarios 2040





# REGIONAL ROUNDTABLES

Outreach to 3,000 plus Across Region

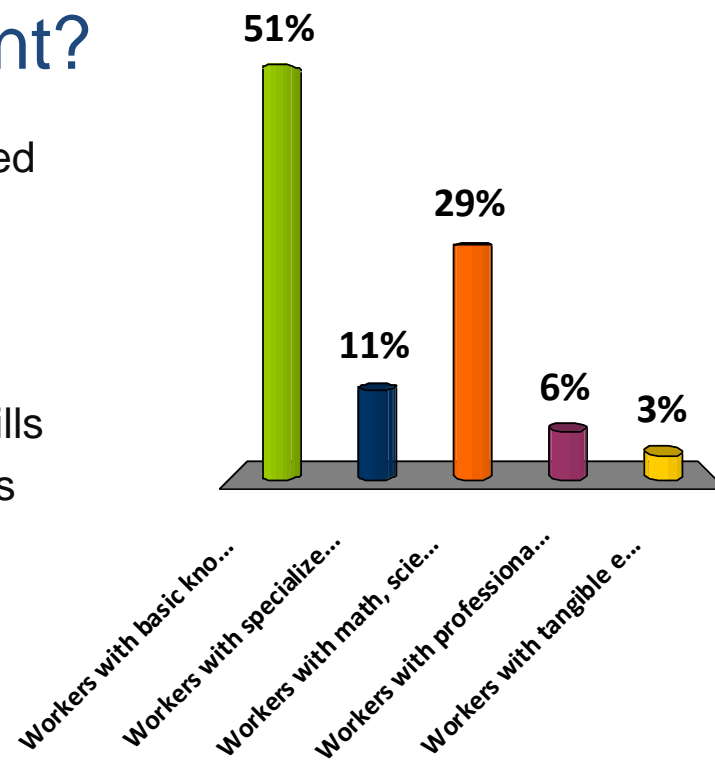


# WORKFORCE SUMMIT

## Live Audience Poll

From your perspective, where is the skills deficit most significant?

- a) Workers with basic knowledge and skills provided by traditional K-12 education
- b) Workers with specialized knowledge and skills provided by vocational schools
- c) Workers with math, science and engineering skills provided by community colleges and universities
- d) Workers with professional degrees from universities
- e) Workers with tangible experience garnered through internships and apprenticeships

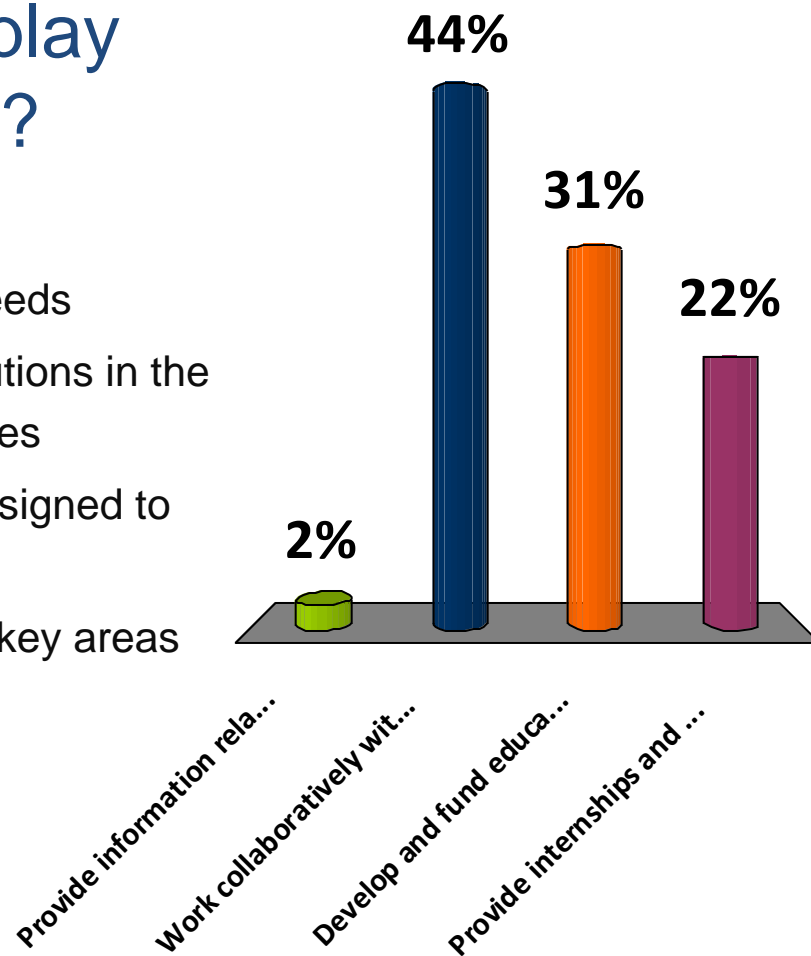


# WORKFORCE SUMMIT

## Live Audience Poll

What role should business play in closing the skills deficit?

- a) Provide information relative to workforce needs
- b) Work collaboratively with educational institutions in the development of curriculum and best practices
- c) Develop and fund educational programs designed to address specific skill deficits
- d) Provide internships and apprenticeships in key areas of skill deficit





McKinsey conducted a global survey across 9 countries and launched an extensive investigation of over 100 case studies



**~4,500** youth  
**~3,000** employers  
**~1,000** post-

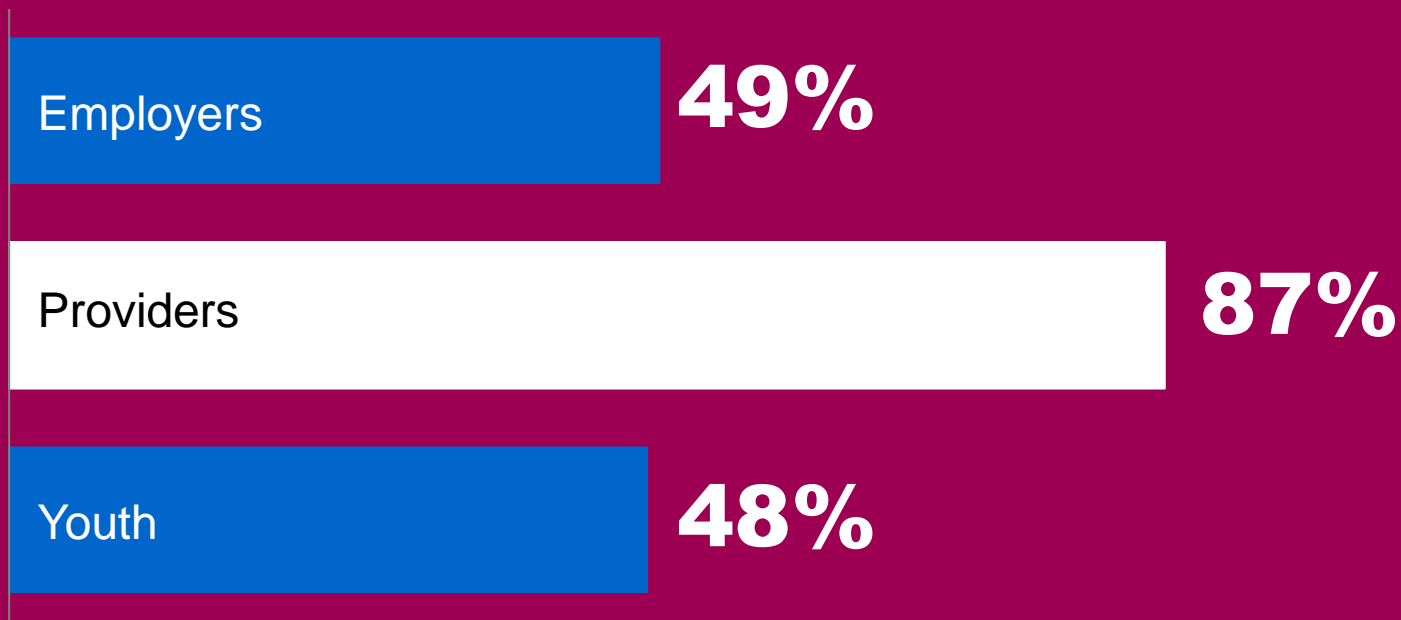
These countries account for  
**~40%** of global GDP and  
**~30%** of the population

**100** case studies covering  
**25** countries





# Preparation of new graduates for the US workforce

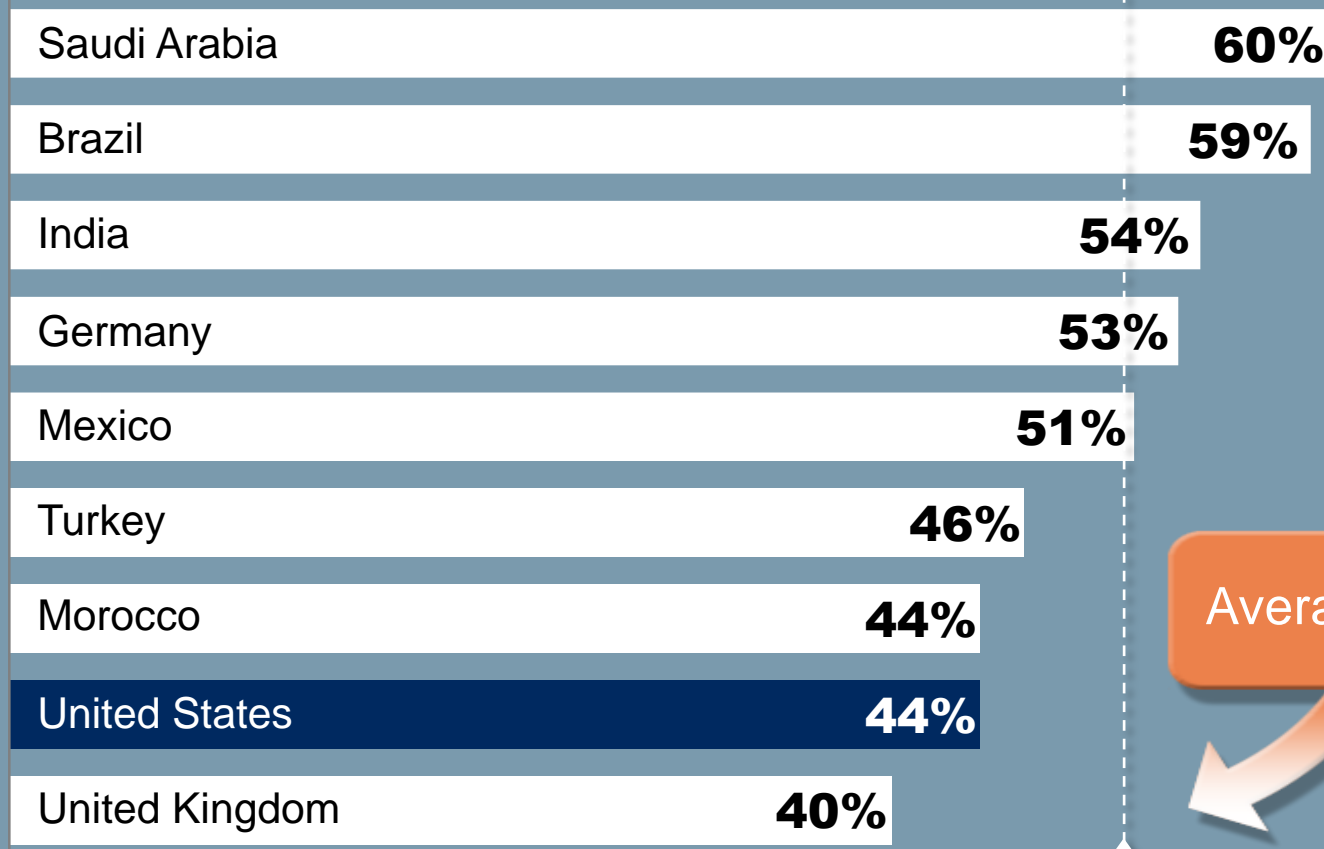


% who agree youth are adequately prepared



# Only one in two youth believe their education improved their chances of finding a job

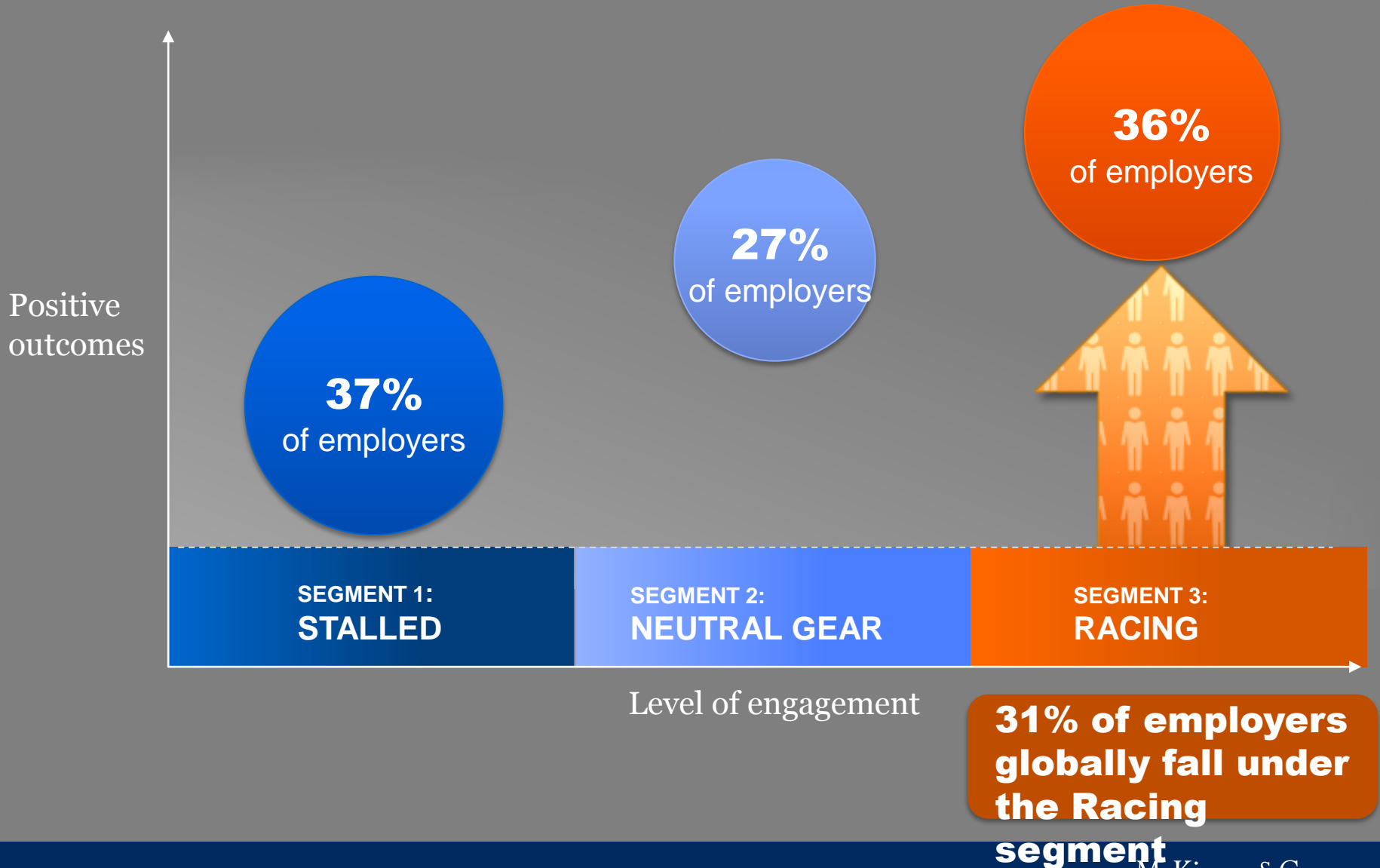
% of respondents agreeing



Average: **50%**

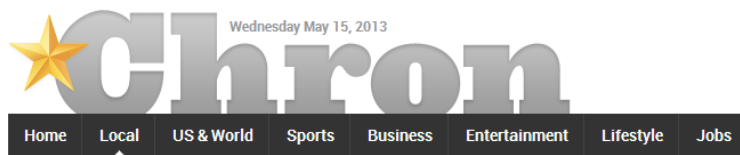


# Only one out of the three US employer segments is engaging heavily – and seeing results



# Scenarios 2040 Summit: Investing in a Skilled Workforce

Op-ed in the Chronicle by our Chairman, James Calaway



Opinion > Outlook

## Houston's workforce not ready for the future

Businesses, schools must do more to prep workers for success

By James Calaway | March 27, 2013 | Updated: March 27, 2013 8:20pm

Comments 2 | E-mail | Print

Recommend 6

Tweet 3

+1 0

Great change is afoot in the global economy. As occupations and industry sectors constantly trade positions as the top-paying jobs of the future, the current workforce is ill-equipped to handle the challenges ahead.

Laid-off workers today are struggling to find new employment opportunities.

Businesses, schools must do more to prep workers for success

By James Calaway | March 27, 2013 | Updated: March 27, 2013 8:20pm

A recent report on workforce and education from the Center for Houston's Future highlights the lack of readiness in our region, including ranking Houston 34th out of the 50 largest metropolitan areas for college degrees and 60th out of 75 cities in literacy.

The McKinsey Global Institute points out that "too few Americans who attend college and vocational schools choose fields of study that will give them the specific skills that employers are seeking."

Research by the Center for Houston's Future shows that the fastest growing jobs in our region, including engineers, nurses, accountants and educators, will face a shortage of more than 600,000 in the next several years.

All of this puts enormous pressure on the overall cradle-to-career system of education and workforce readiness. This is a burden that must be shared by the business community.

Pre-K-12 institutions need to equip students with the basic skills required to successfully navigate post-secondary academic requirements, and seek innovative ways to include marketable skills training into their curriculum.



# Shell Workforce Development

***Middle School***

***High School***

***College***

Teacher & Faculty Development

Math & Science Competition

Engineering & Science Field Days

Science & Career Fairs

Traveling Science Exhibits

Energy Education Tools

Shell education website

Dual Credit Program

Scholarships

Summer Camps (Engineering & Process Tech)

College/ University Funding

Internships

Trade Associations

Mentoring Programs

Student Associations

**Shell Hires**

**Strengthen & Encourage STEM Attract to Technical Careers Support for Success E**

**PARTNERSHIPS**



# WORKFORCE PREPAREDNESS

## Exxon Mobil Baytown Expansion: Demand for Skilled Labor

- Announced June 2013, Houston Chronicle

- ExxonMobil commits \$500,000 to workforce training program
- Houston-area community colleges to expand recruitment and training
- Fifty-thousand students and educators to benefit over five years

-46,000 permanent chemical industry jobs  
-264,000 jobs with supporting companies  
and contractors

Source: Texas Higher Education Coordinating Board, 2011



# WORKFORCE PREPAREDNESS

## Sub-bachelor's STEM jobs overlooked by policy makers

“The Hidden Stem Economy”

-Brookings, 2013

- Since 2011- 20% US jobs require a high level of knowledge in any one STEM field.
- Half of all STEM jobs are available to workers without a four-year college degree. These jobs pay on average 10% higher than jobs with similar educational requirements.
- STEM jobs that require at least a bachelor's degree are highly clustered in certain metropolitan areas, while sub-bachelor's STEM jobs are prevalent in every large metropolitan area.





<http://www.centerforhoustonsfuture.org/>