

# The Road Ahead: 2017 and Implications for STEM Advocates

*James Brown, STEM Ed Coalition*



Universal Technical Institute, Inc.

ExxonMobil



ITHACA COLLEGE



HANDS-ON  
SCIENCE  
PARTNERSHIP



# STEM EDUCATION COALITION



AMERICAN FARM BUREAU  
FOUNDATION



North American Association  
for Environmental Education



Promoting the Practice and Profession of Statistics



American Society for Biochemistry and Molecular Biology



Battelle  
The Business of Innovation



Lighting and nurturing  
creative, critical scientific minds  
that advance the human condition



National Consortium of  
Secondary STEM Schools



Society of Women Engineers  
Aspire / Advance / Achieve



Channel One News



Learning  
transforms  
lives.

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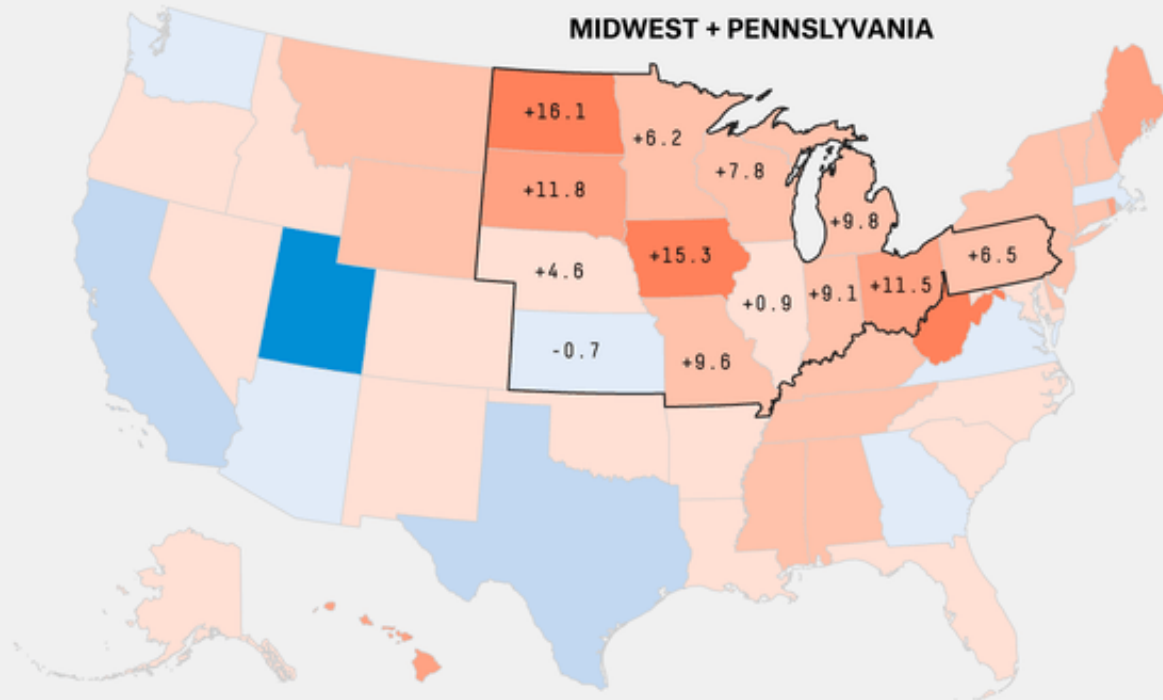
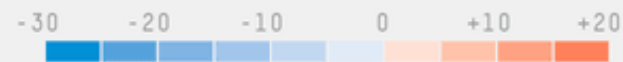
# The Landscape

# Upper Midwest Voters Were the Decisive Block

## The Midwest became much redder

2016 vs. 2012 election results by state

REPUBLICAN 2016 VOTE MARGIN RELATIVE TO 2012



# Republicans Control Majority of State Legislatures and Governorships

## Party control of state legislatures and governorships

- Dem legislature, Dem governor

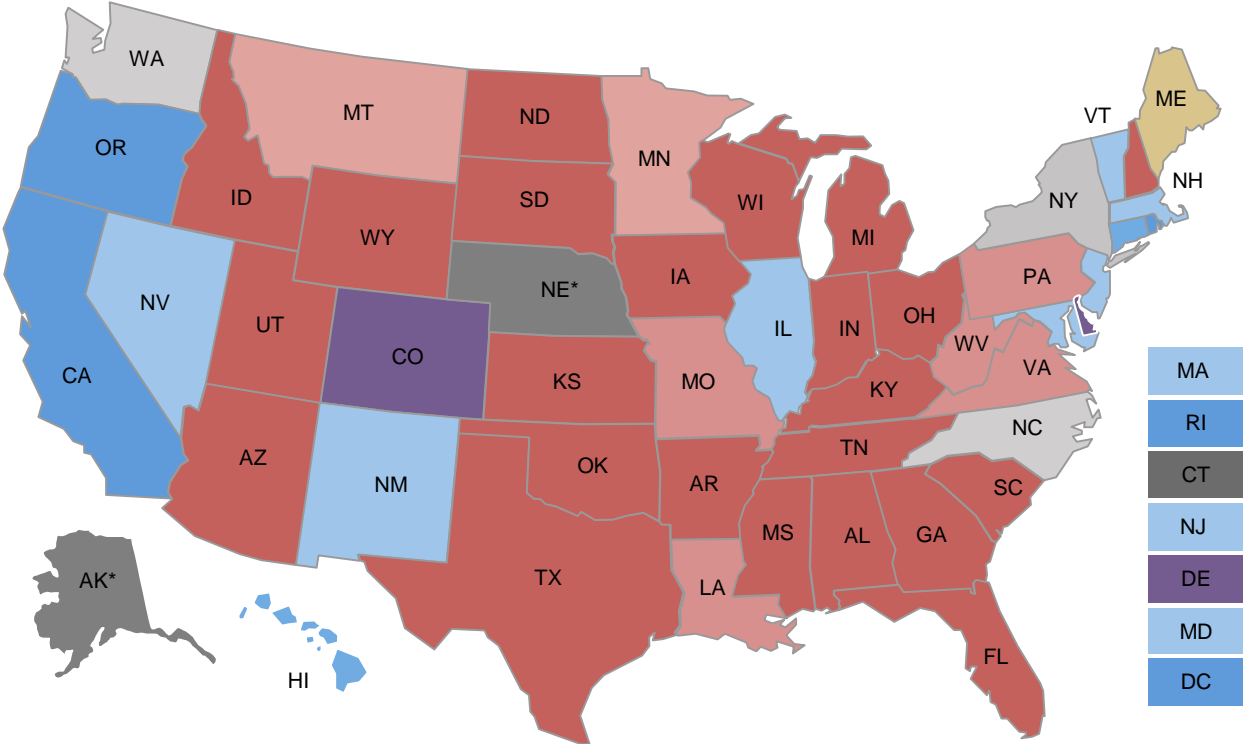
■ Dem legislature, GOP governor

■ Split legislature, Dem governor
- GOP legislature, GOP governor

■ GOP legislature, Dem governor

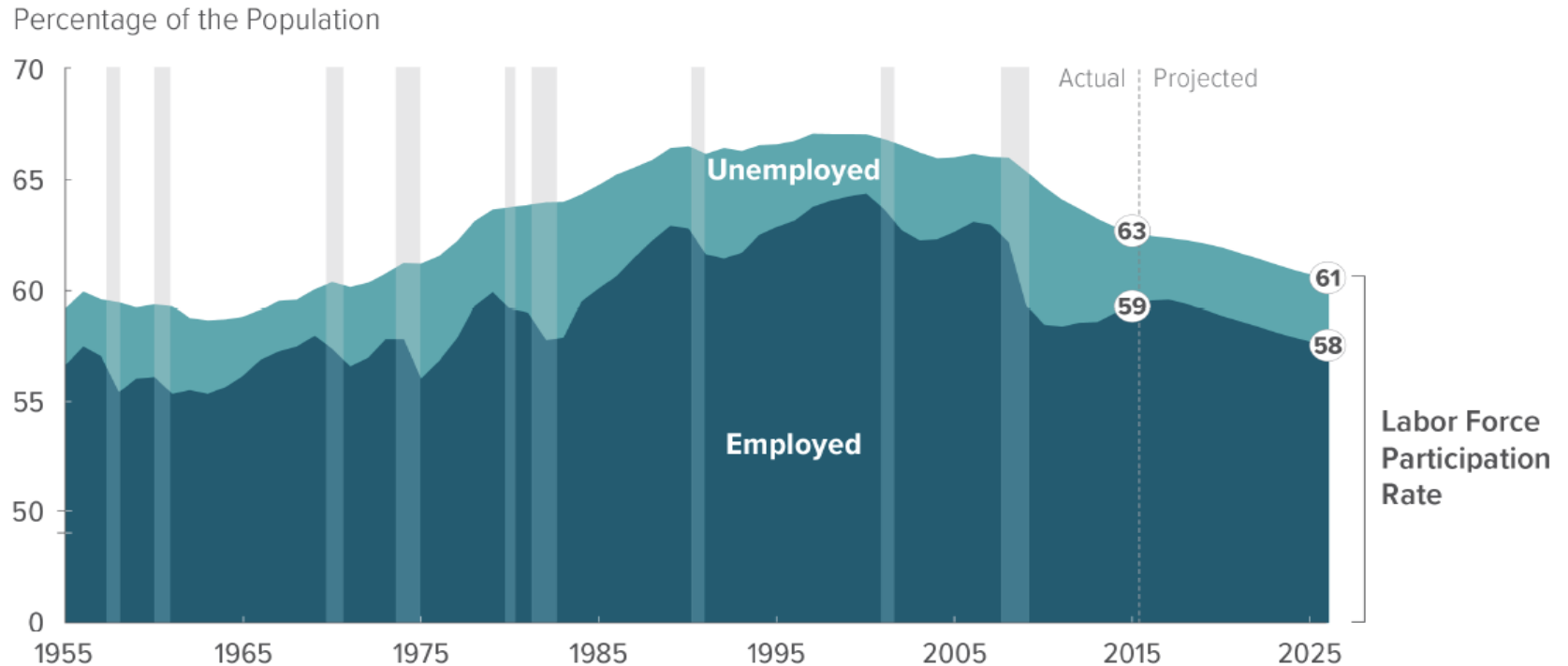
■ Split legislature, GOP governor
- N/A\*

■ Not yet called



\* Nebraska has a unicameral, nonpartisan legislature and a GOP governor, Alaska has an independent governor and a GOP legislature

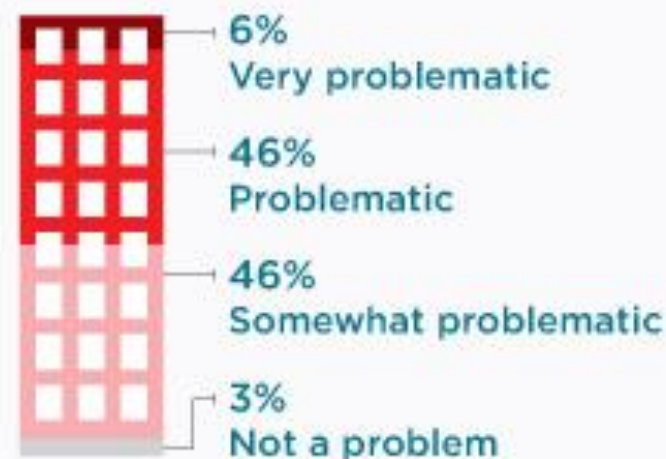
# The Labor Force, Employment, and Unemployment



The percentage of the population that is employed is projected to remain roughly unchanged over the next few years and then decrease through 2026 because of declining participation in the labor force, mainly by baby boomers as they age and move into retirement.

## Skills Shortage

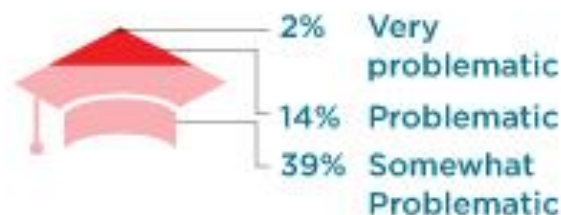
More than half of companies say skills shortages are a significant problem for their companies.



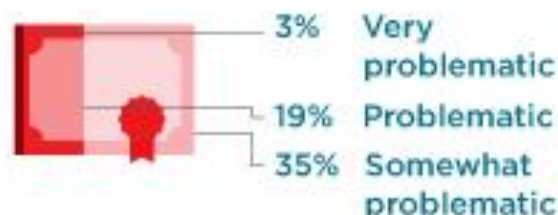
Source: 2014 Survey of CTEq/BRT corporate members

## The Graduate Skills Gap

55% of companies see skills gaps among U.S. applicants with bachelor's degrees.  
57% see gaps in those with industry-recognized certifications.



Bachelor's degree graduates

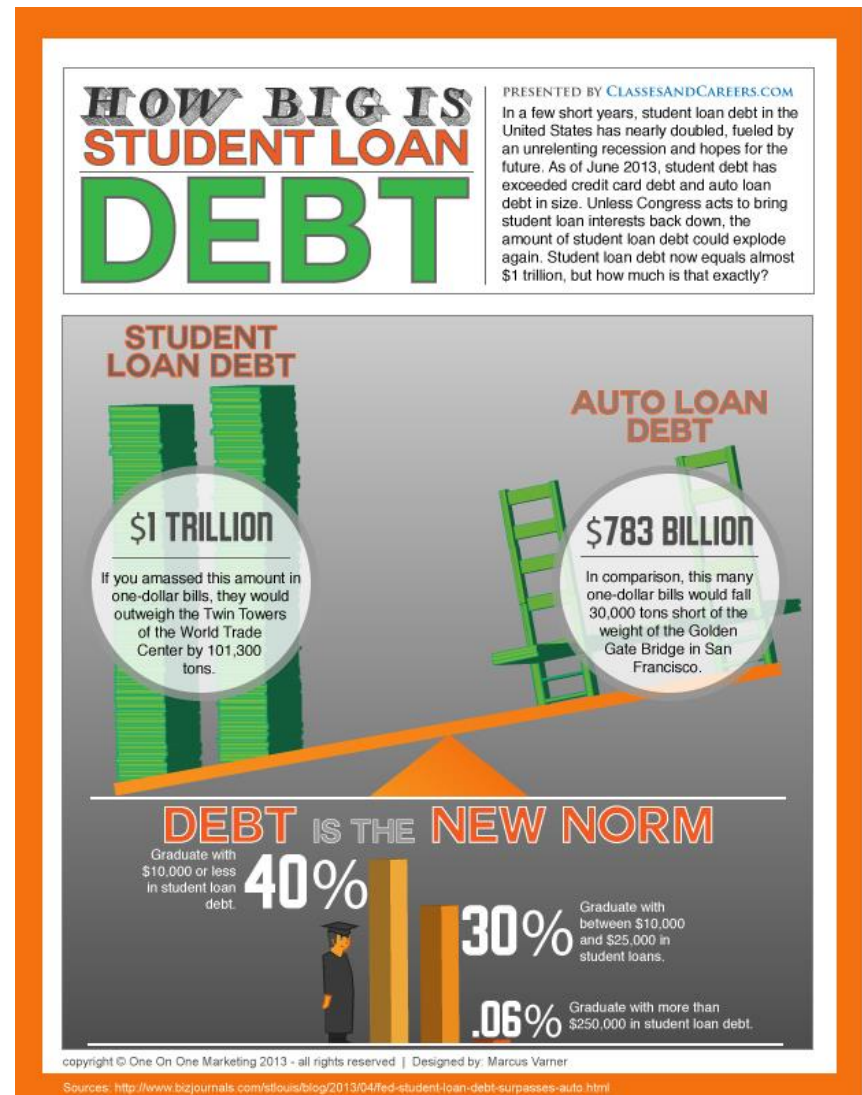
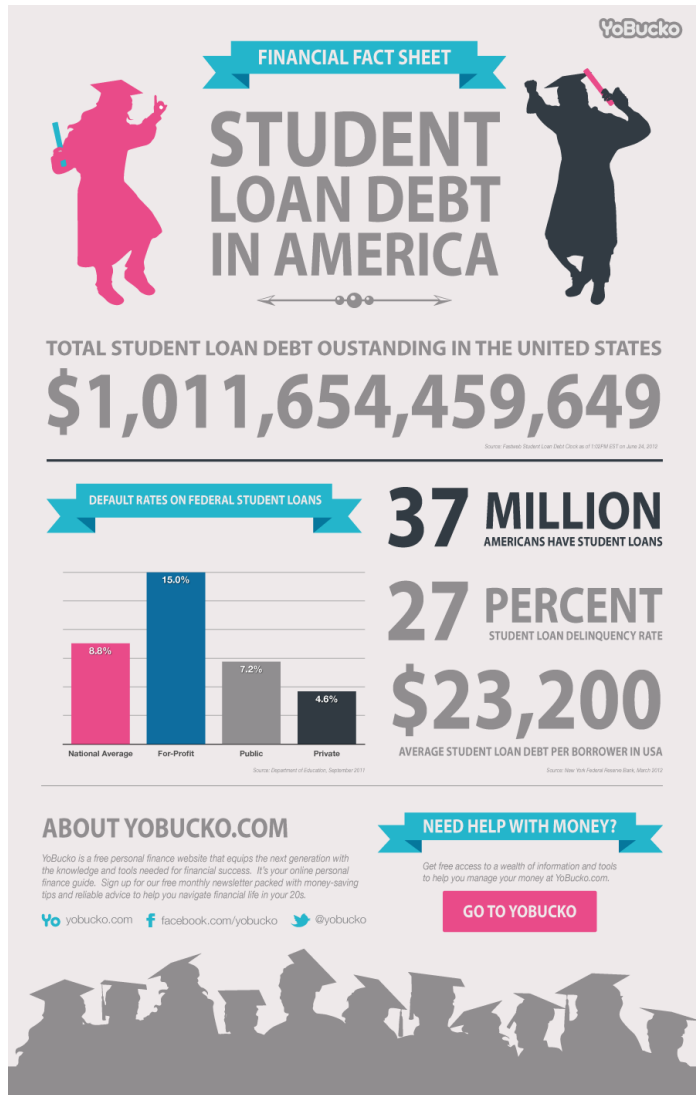


Industry-recognized certifications

Source: 2014 Survey of CTEq/BRT corporate members

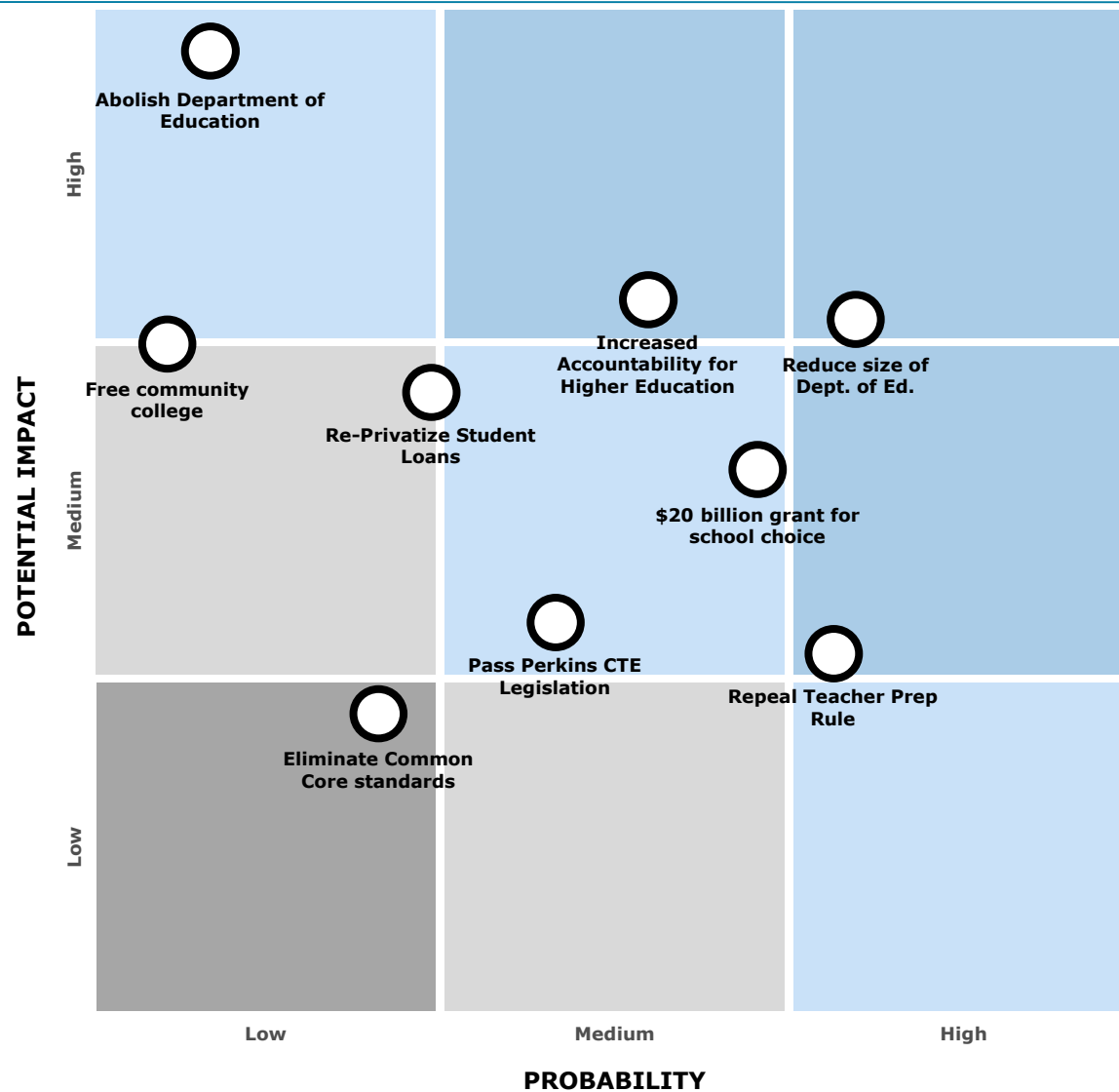


# How Big is Student Loan Debt?





# Education policy heat map, 2017-2018



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# STEM Education Issues and Implications



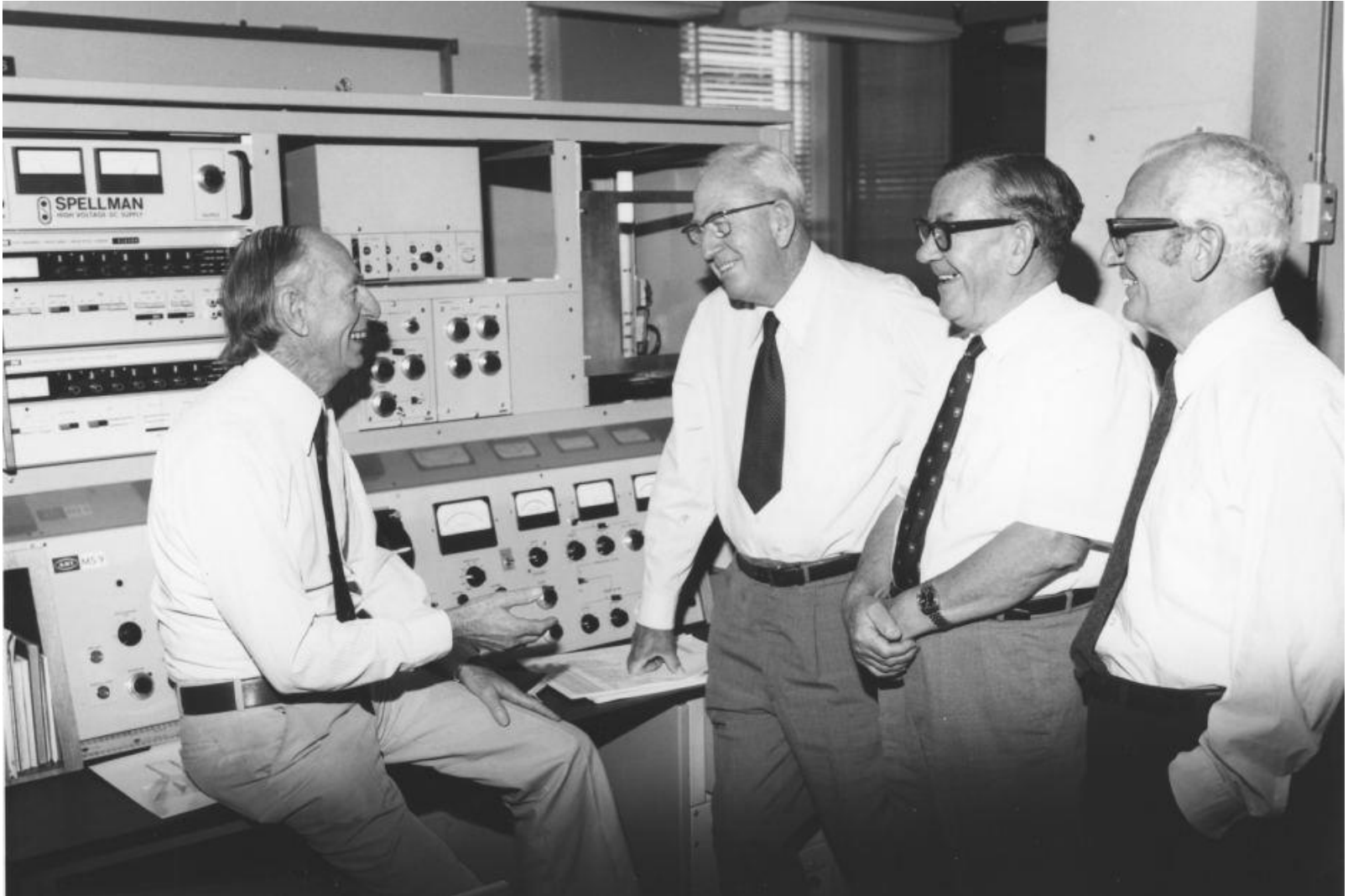
# Hollywood's Historical Image

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# What (Many) Students Think

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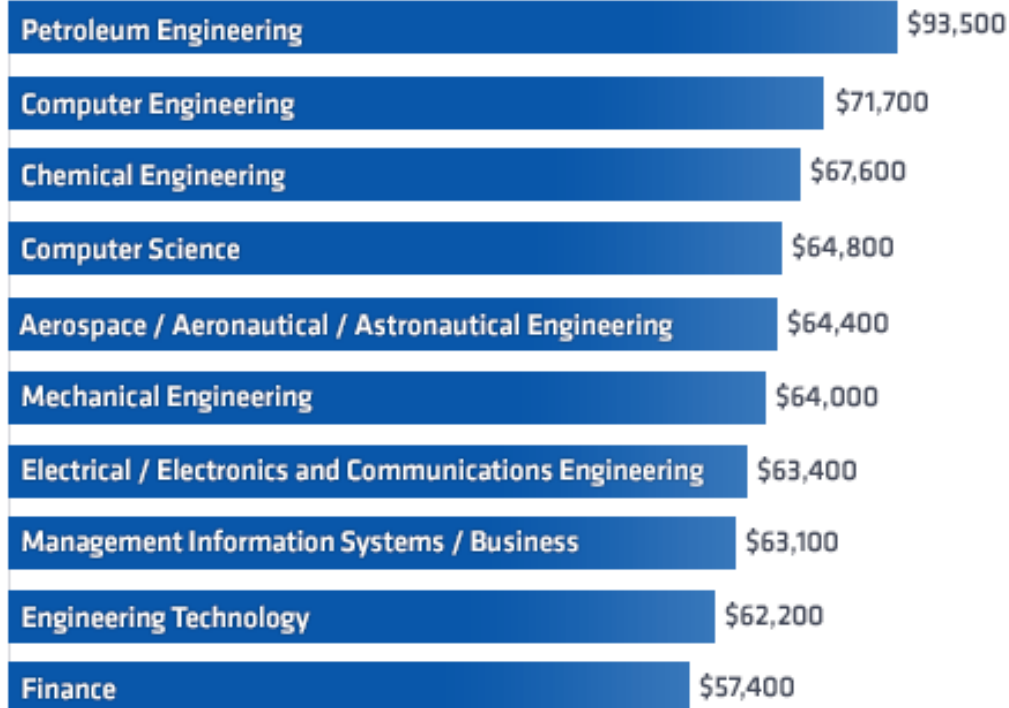
# Actual STEM Careers



# STEM Majors Do Very Well

## TOP-PAYING MAJORS FOR 2012-13 BACHELOR'S DEGREE GRADUATES

### MAJOR



SOURCE: APRIL 2013 SALARY SURVEY, NATIONAL ASSOCIATION OF COLLEGES AND EMPLOYERS





# So Do STEM Technicians

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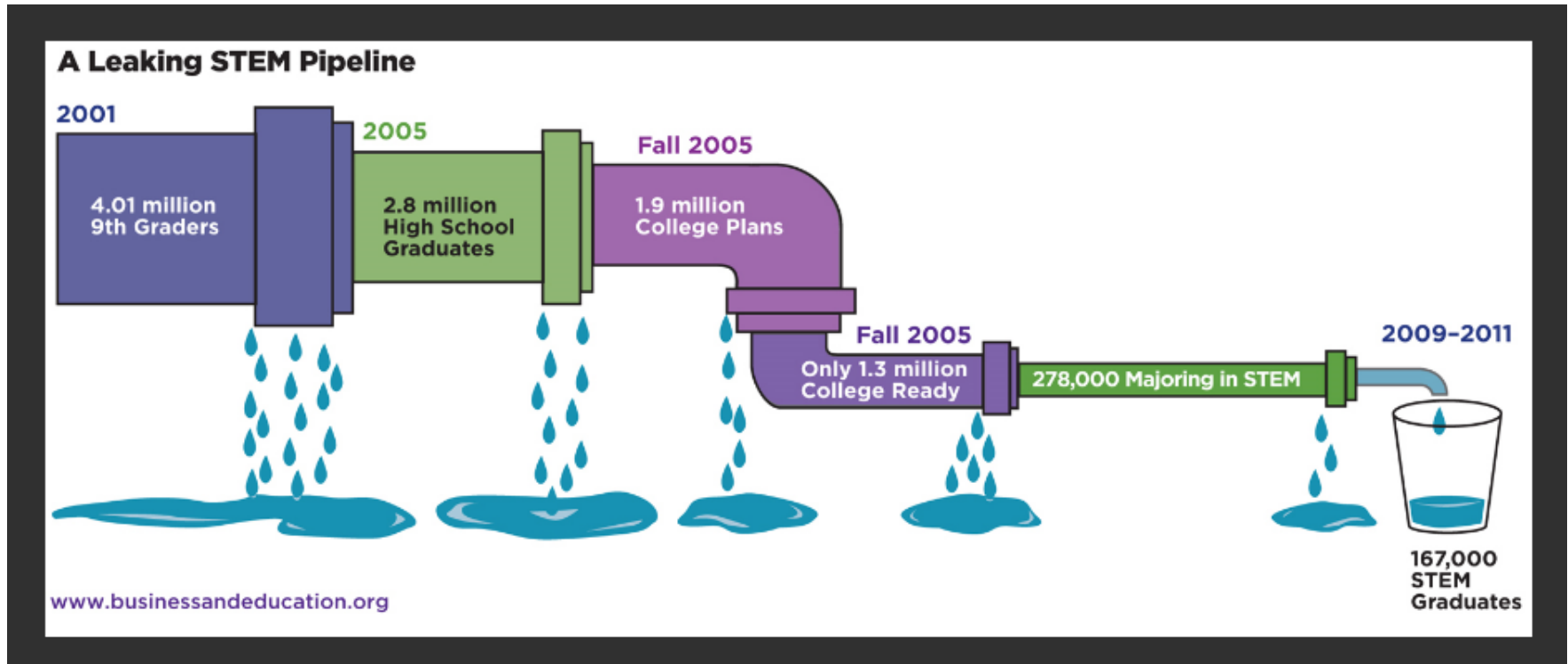
**1/2** OF ALL  
**STEM**  
**JOBS**

don't require a four-year degree and pay an average of \$53,000, which is 10 percent higher than non-STEM jobs with similar education requirements.

{CHANGE THE  
EQUATION}

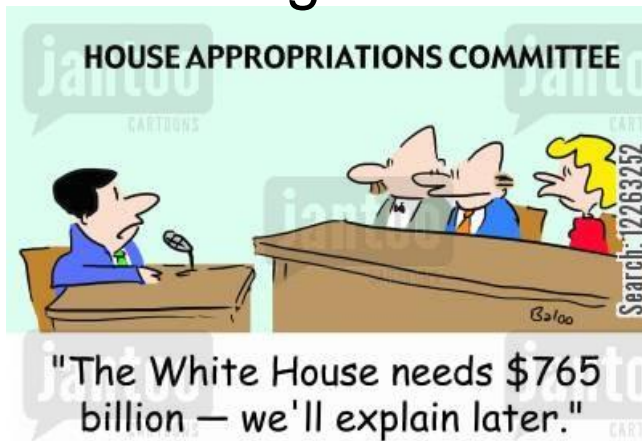
**STEM**tistics  
WORKFORCE

# Strengthening the STEM Pipeline



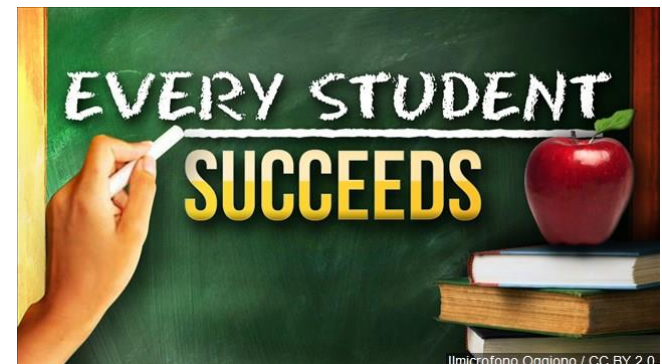
# Where We See STEM Opportunities (-ish)

## Funding Priorities



## State Level Advocacy Under Every Student Succeeds Act

## CTE Legislation



# Thank You!

