

CTE Research Update

2011 Summer Conference

Brought to you by your ACTEAZ

- *A Sharper Focus on Technical Workers* (National Governors Association, June 2010)
- *A New Paradigm for Economic Development* (Nelson A. Rockefeller Institute at The University of Albany, March 2010)
- *Breaking New Ground: Building a National Workforce Skills Credentialing System* (ACT, February 2011)
- *Postsecondary and Labor Force Transitions Among Public High School CTE Participants* (NCES, January 2011)
- *Conducting Return on Investment Analyses for Secondary and Postsecondary CTE* (NRCCTE January 2011)
- *CTE's Role in Worker Retraining* (ACTE December 2010)
- *Pathways to Prosperity* (Harvard University)
- *Six Stories of About Six States: Program of Study* (NRCCTE April 2011)

Reports

- President Obama has repeatedly expressed his support of sub-baccalaureate destinations for students: Challenging all Americans to complete at least one year of education past high school.

From the White House

Hollenbeck concluded:

- participants in CTE programs reaped substantial returns-positive earnings-with almost nil or negative costs for secondary CTE.
- At the postsecondary level, any associated participation costs (tuition, foregone earnings) were more than outweighed, even over the short term, by the economic payoffs of participating in CTE

Return on Investment

“For far too long, CTE has been the neglected stepchild of education reform. That neglect has to stop.”

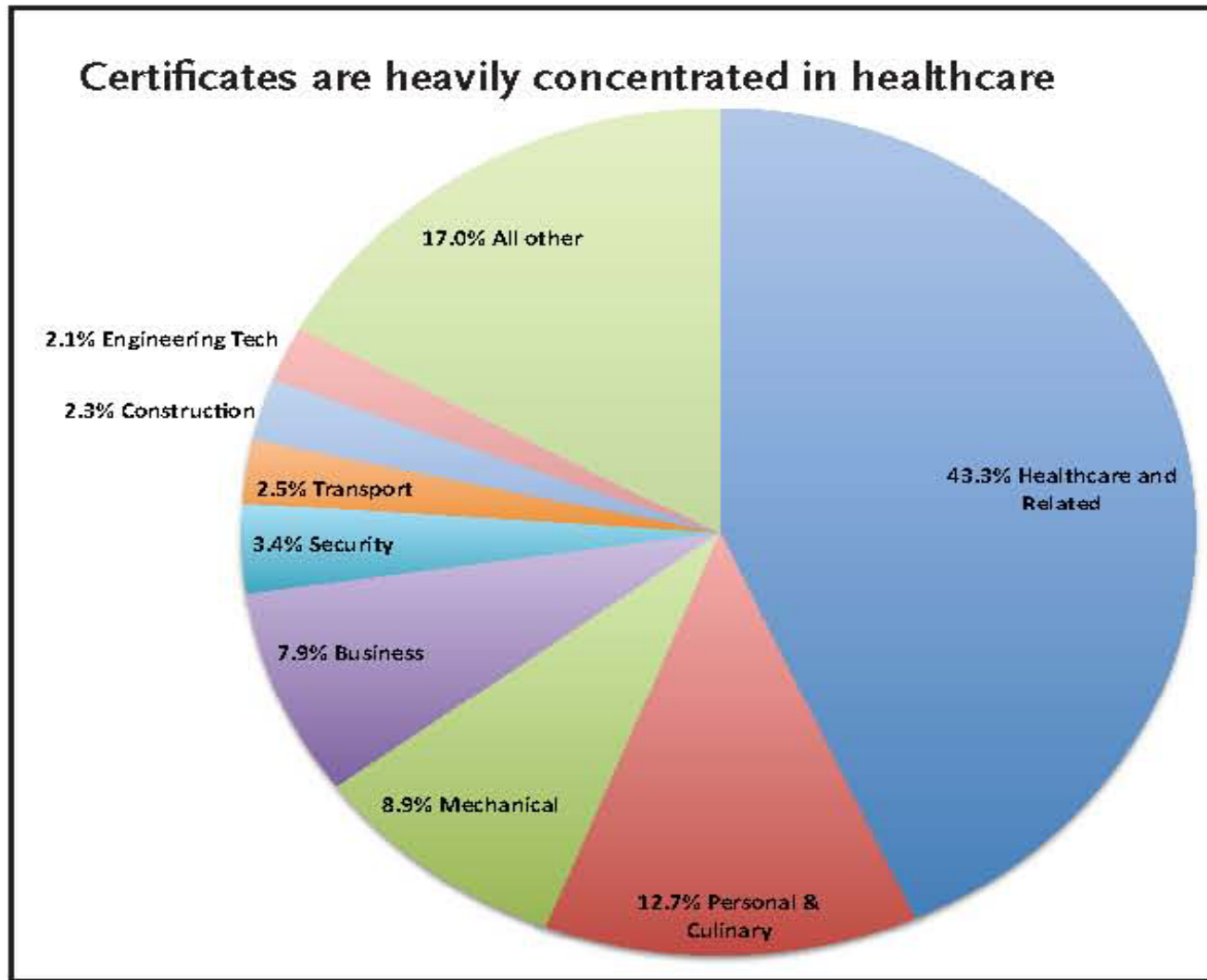
From the Secretary of Education

Transition

- 70% of concentrators (3 or more credits) from class of 2004 enrolled in college within two years of graduation. Average for all grads was 79%.
- 29% of CTE concentrators (3 or more credits) worked. Average is 20% for all students.
- CTE average wage = \$10.04 vs. \$9.70 for all graduates.

Postsecondary and Labor Force Transitions Among Public High School CTE Participants (NCES)

Certificates Count: An Analysis of Sub-baccalaureate Certificates December 2010

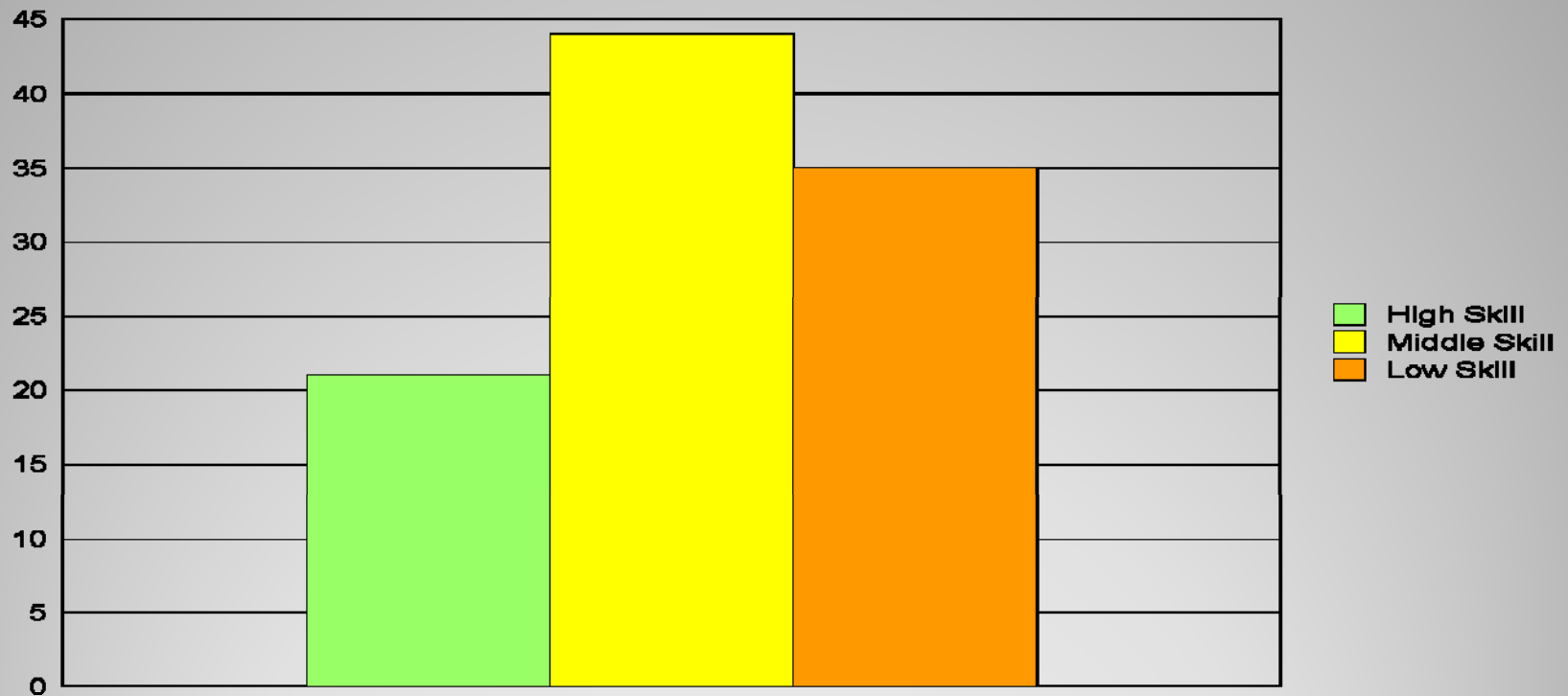


- Arizona ranks second in the nation. Only Wyoming produces more certificate holders.

Certificate Production

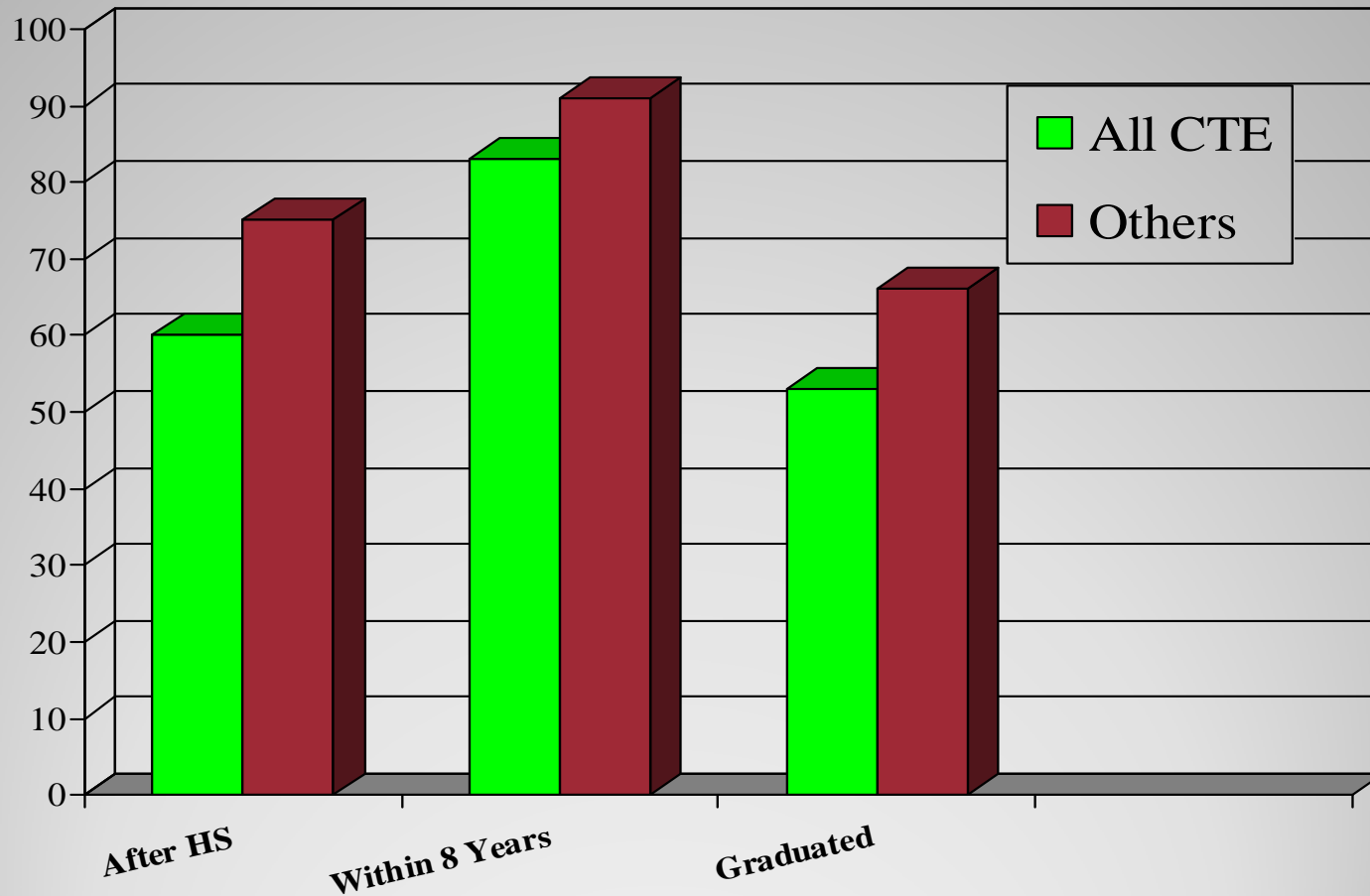
- In some fields the median earnings of long-term certificate (one or more year) earners are equal to , or higher than, those who obtain associate degrees.
- Generally speaking, high quality certificate programs can significantly boost the likelihood of student academic and career success.
- Certificates in all areas of nursing and allied healthcare produce the strongest returns.

Economic Value of Certificates

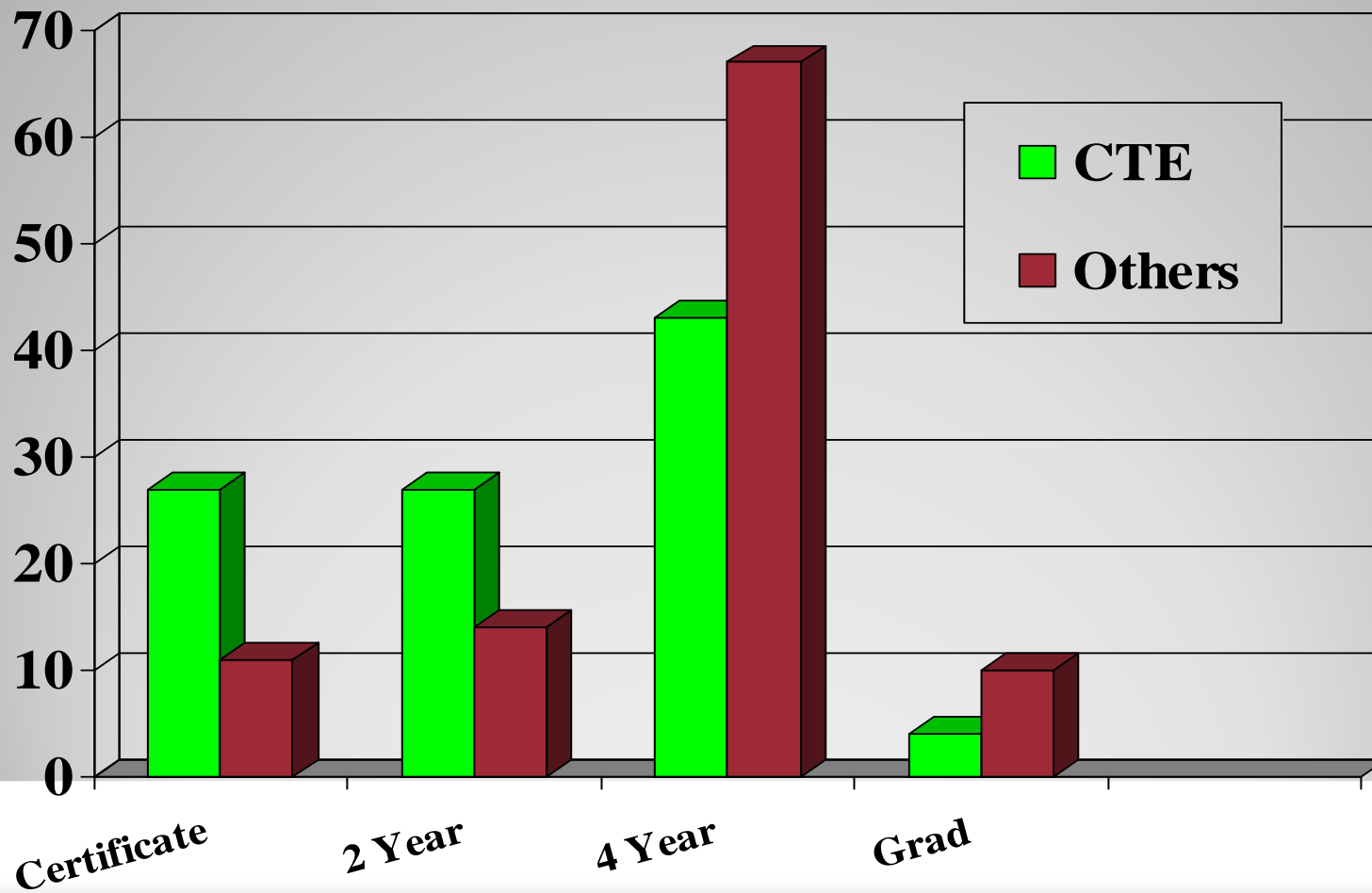


Labor Market Skill Distribution - 2016

College Attendance and Completion



Credential Acquisition



Academic Achievement

- 12th grade reading scores rose 2 points between 2005 and 2009 (38% proficiency)
- Math scores rose by 3 points (26% proficiency)
 - 42 % now taking pre-calculus vs. 10 % in 198

NAEP Update

- 66% meet college readiness benchmark for English
- 52% meet college readiness benchmark for reading
- 43% meet college readiness benchmark for math

ACT Data—2010 Graduates

- Adopted the “default college preparatory curriculum” in 1997
- Results
 - Increase number of students in college-prep classes
 - Test scores did not rise
 - Students were no more likely to take advanced math classes beyond Algebra 2
 - Students no more likely to complete advanced science classes
 - Grades declined
 - Failures increased
 - Absenteeism rose among average and higher-skilled students
 - No improvement in college outcomes

Chicago Public Schools

Could CTE be the answer?

- 95% of CTE concentrators vs. 75% of all other high school students passed AIMS Reading
- 92% of CTE concentrators vs. 70% of all other high school students passed AIMS Math
- 96% of CTE concentrators vs. 72% of all other high school students passed AIMS Writing

Arizona CTE Data Snapshot 2009-10

Pathways to Prosperity

What is the Pathways Challenge?

The United States is increasingly failing to prepare young people to lead successful lives as adults:

- **We have lost our global leadership in educational attainment and achievement**
- **Teen and young adults (20-24) are increasingly unable to find work**
- **The transition to adulthood is far longer**

A More Demanding Labor Market

In 1973, a high school diploma was the passport to the American Dream

- 72% of the workforce of 91 million had no more than a high school degree

Source: Center on Education and the Workforce, Georgetown University

Today's Reality: PSE Credential is the New Passport

Post-secondary education (PSE) is necessary to compete in the global economy in 2010 and beyond:

- Between 1973 and 2007, we added 63 million jobs
- Jobs held by those with no more than a High School education fell by 2 million over this period
- Workers with a HS education or less now make up just 41% of workforce, as compared to 72% in 1971

Source: Center on Education and the Workforce

PSE Does Not Always Mean a B.A. Degree

Even Georgetown Study concedes that most jobs will not require a B.A.

For the next 47 million job openings:

- 36% will require a HS degree or less
- 30% will require some college/ AA degree
- 33% will require a B.A. or better

What is the right goal for the U.S.?

“College for All” needs to be broadened to mean a meaningful “post-high school credential” for all

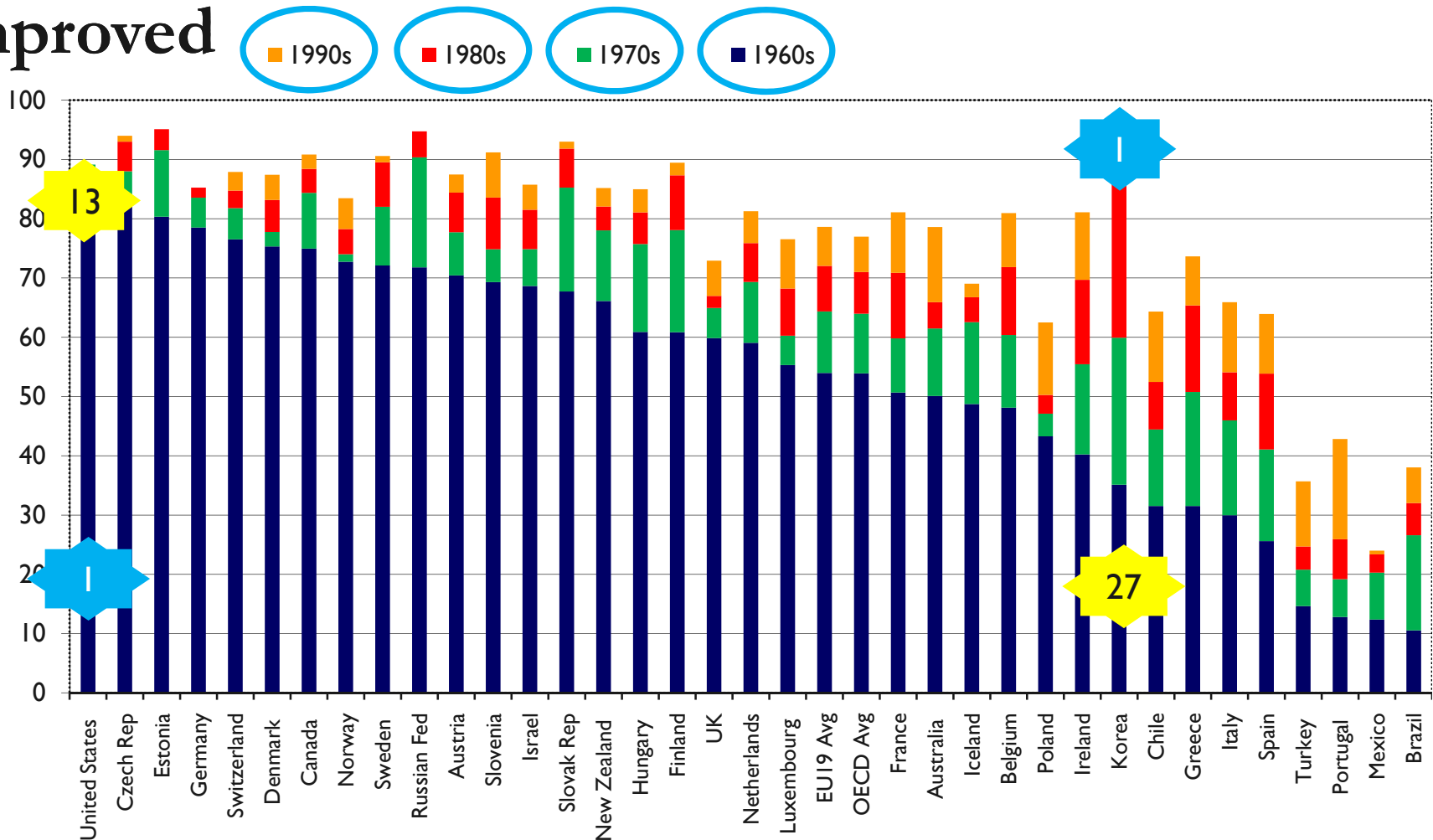
A meaningful credential can be earned in many ways:

- Community college**
- Apprenticeships**
- The military/community service**
- Four year college**

Lessons from Abroad

Dramatic change in global H.S. Graduation Rates

U.S. has stagnated while other countries have improved



Source: Schleicher (2007) based on OECD data. Approximated by percentage of persons with high school or equivalent qualifications in the age groups 55-64, 45-55, 35-44, and 25-34 years

Why Are Other Countries Surpassing the U.S.?

- **The key role of Vocational Education**
- **The OECD's "Learning for Jobs Report:
Reviewed VET (Vocational Education Training in
17 Countries**

Upper-Secondary Students Pursuing VET

- Germany: 60%
- Switzerland: 65%
- Netherlands: 66%
- Austria: 70%
- Australia: 60%
- Britain: 40%

Note: Figures are approximate

The Case for Vocational Education Training

Pedagogical

- **Best way for many young people to learn**
- **Apprenticeships support developmental needs of young people**

Higher attainment

- **Many countries with best VET systems surpass the U.S.**

Finding work

- **Facilitates transition to labor market**

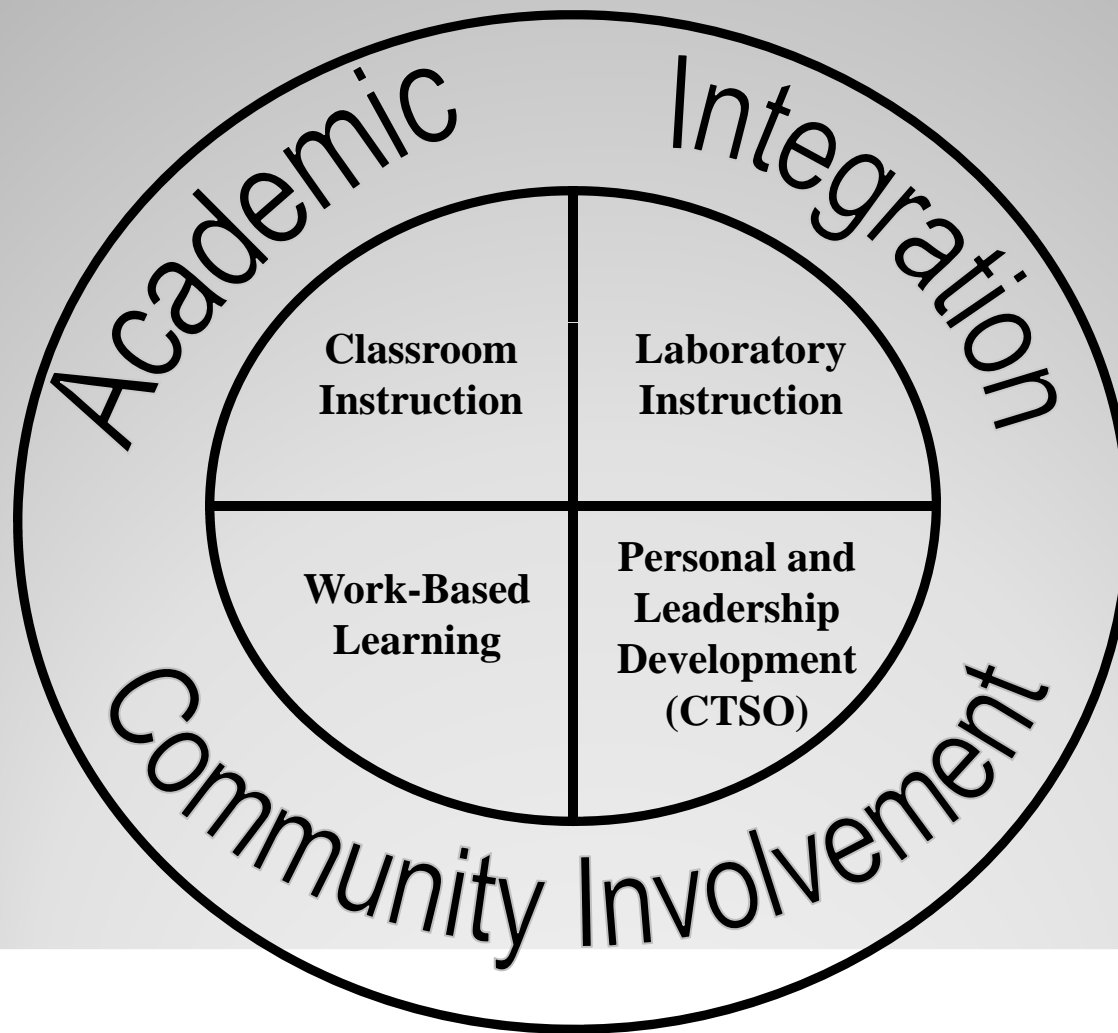
The Bottom Line

- **The U.S. is increasingly an outlier on vocational education**
- **We can use the principles and practices of the best VET systems to develop an improved American approach**

- Released February 2, 2011
- West-MEC and CTE Career Expo Bringing Dr. Bill Symonds to Phoenix on March 18.

Coming to a JTED near you!

CTE Delivery Model



- National Center for Research in Career and Technical Education
- ACTEaz website
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For more information.....