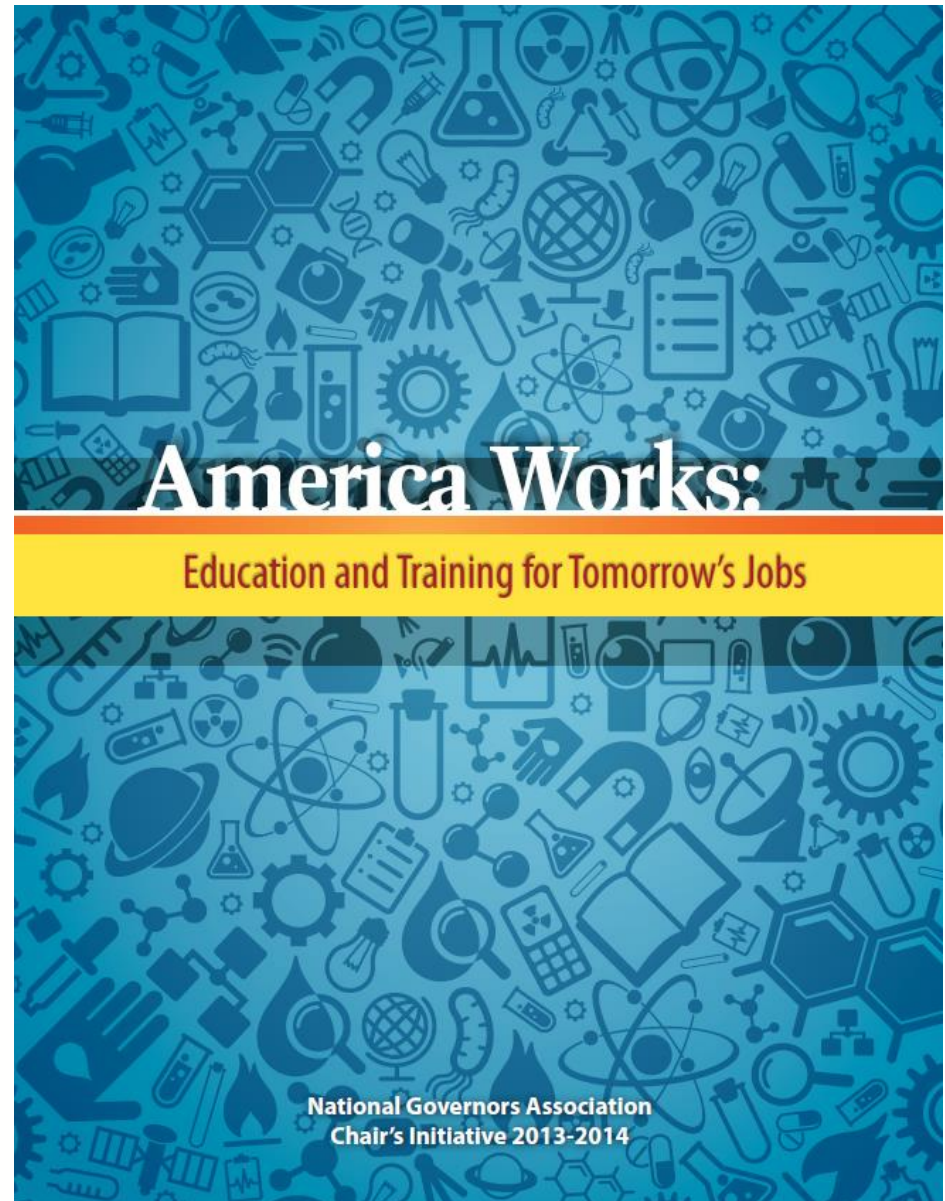


America Works:

Education and Training for Tomorrow's Jobs

Scott Jenkins
August 9, 2014



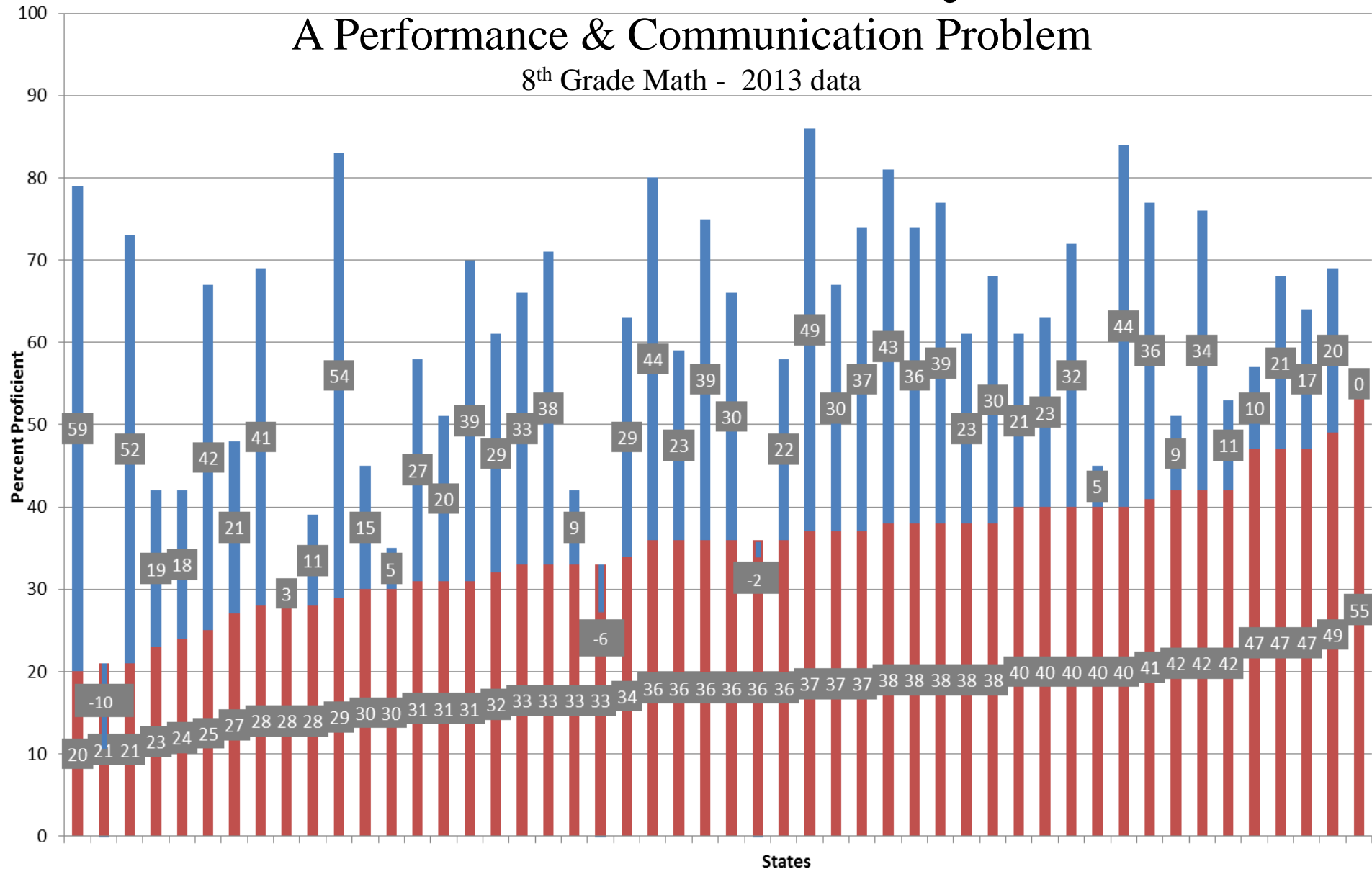
New Realities

- I. American students are academically underperforming
- II. U.S. workforce not keeping up with international competition
- III. Skill demands are changing in the U.S. labor market
- IV. Postsecondary education (certification or degree) is the “New Minimum” for access to the middle class and beyond
- V. States are leading efforts to transform workforce systems to ensure students attain the “new minimum.”

NAEP & State Proficiency Levels

A Performance & Communication Problem

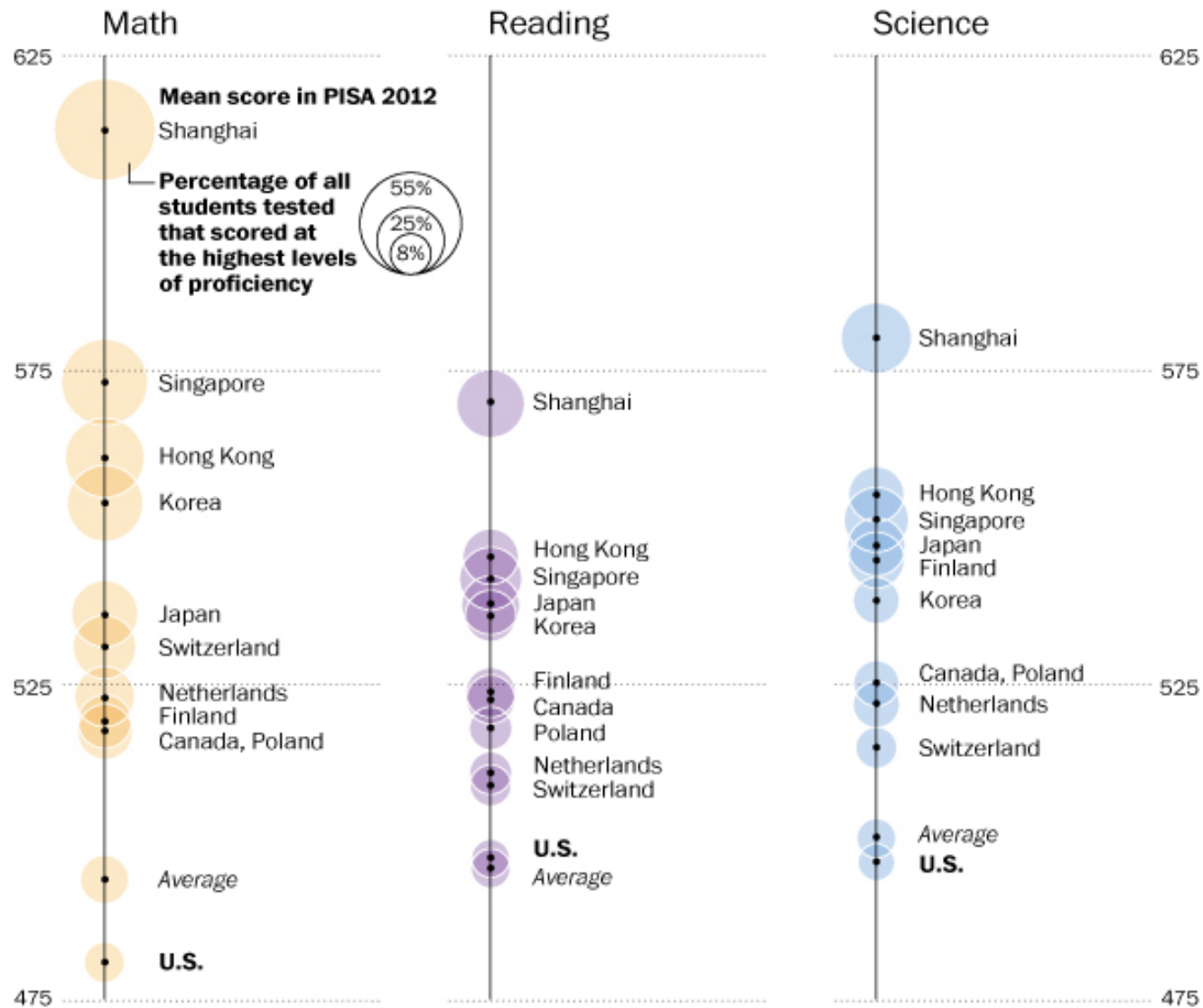
8th Grade Math - 2013 data



■ Gap between percentage of students meeting State Proficiency and NAEP Proficiency
■ Percent of students proficient on the National Assessment of Educational Progress (NAEP), the "Nation's Report Card"

The sum of the two lines is equal to the percent of students proficient on the state assessment.

PISA: How U.S. Student Compare Internationally



Changing Skill Demands

High-Skill Occupations

Traditional Middle-Skill Occupations

Low-Skill Occupations

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

Changing Skill Demands

High-Skill Occupations

Workers with analytical ability, problem solving, and creativity.

Traditional Middle-Skill Occupations

Low-Skill Occupations

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

Changing Skill Demands

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Workers with analytical ability, problem solving, and creativity.

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Low-Skill Occupations

Service oriented, manual labor, security

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

Changing Skill Demands

High-Skill Occupations

Workers with analytical ability, problem solving, and creativity.

Traditional Middle-Skill Occupations

Workers who perform routine tasks that are procedural and repetitive

Low-Skill Occupations

Service oriented, manual labor, security

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

Changing Skill Demands

High-Skill Occupations

Workers with analytical ability, problem solving, and creativity.

Automation

~~Traditional Middle Skill Occupations~~

~~Workers who perform routine tasks that are procedural and repetitive~~

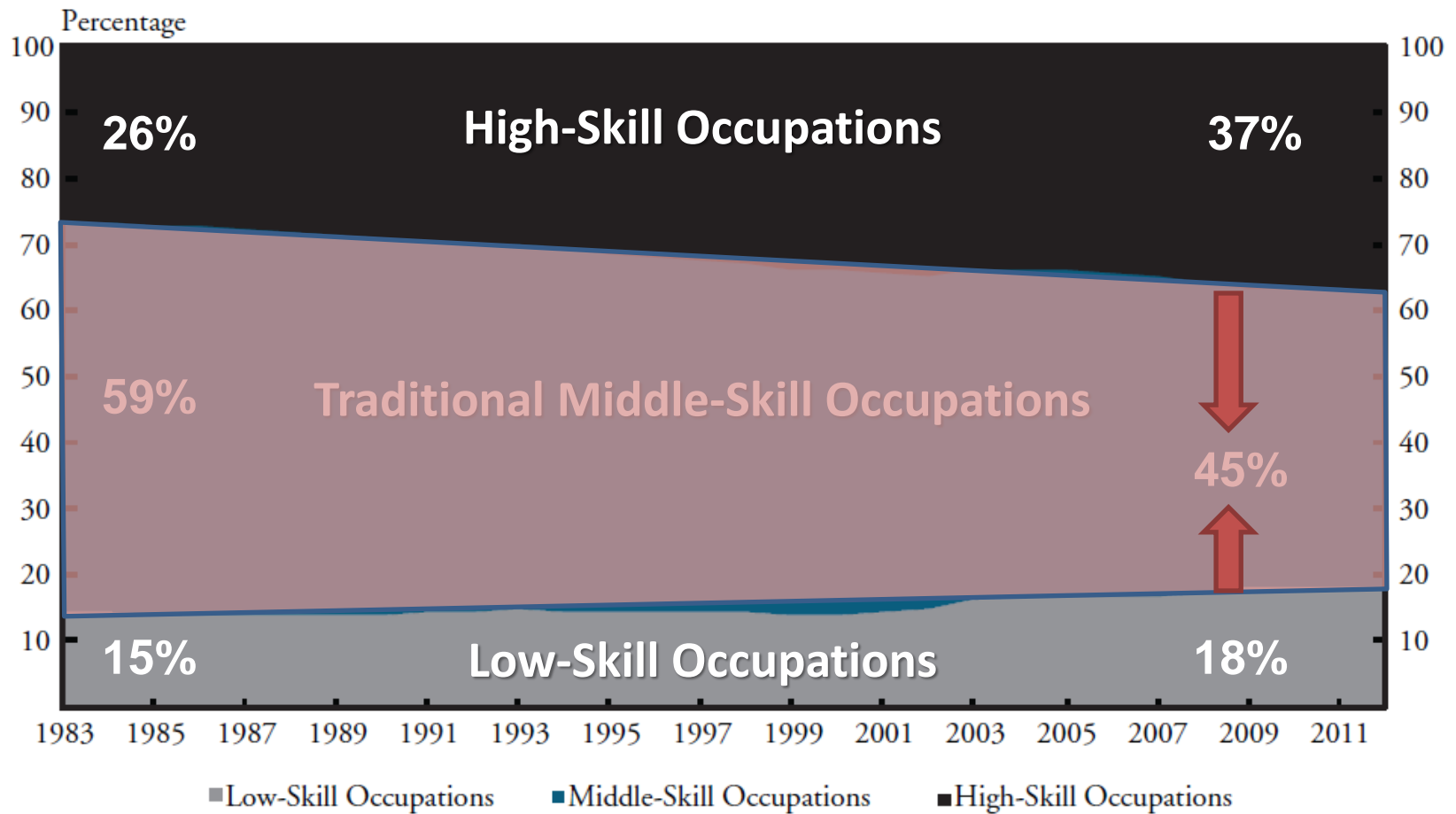
Low-Skill Occupations

Service oriented, manual labor, security

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

Changing Skill Demands

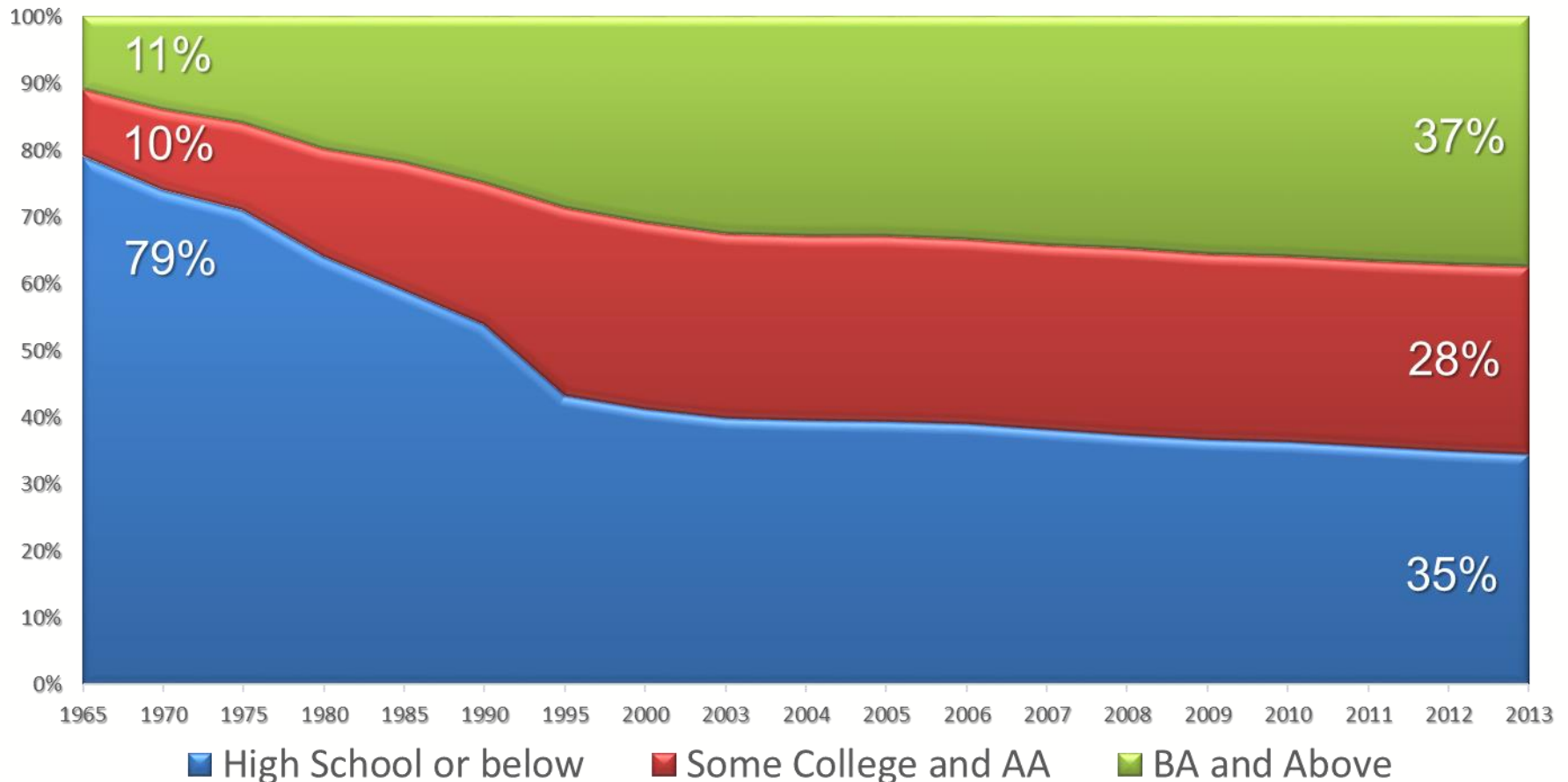
EMPLOYMENT SHARES BY SKILL LEVEL



Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

The “New Minimum”

Increasing Need for More Education Nationally



Changing Skill Demands

New High-skill Occupations

Bachelors Degree and Above

New Middle-Skill Occupations

AA Degree or Certificate with Labor Market Value

Low-Skill Occupations

Workers with no formal education beyond high school.

Source: *The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs*, Didem Tüzemen and Jonathan Willis, Kansas City Federal Reserve Bank, 2013.

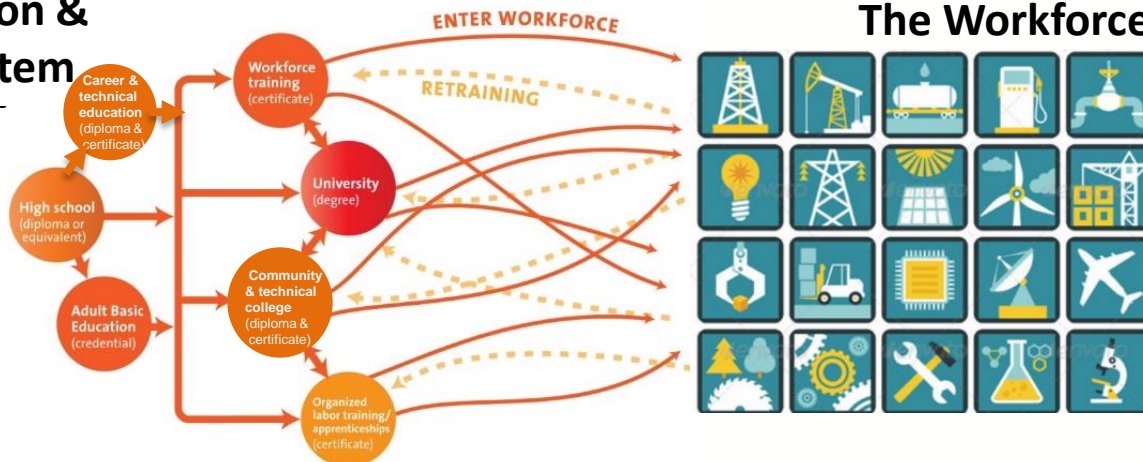
A Better State System

America Works:

Education and Training for Tomorrow's Jobs

ELEMENTS OF A SYSTEM TO PREPARE MORE STUDENTS AND ADULTS FOR SUCCESS IN THE WORKFORCE

The Education & Training System

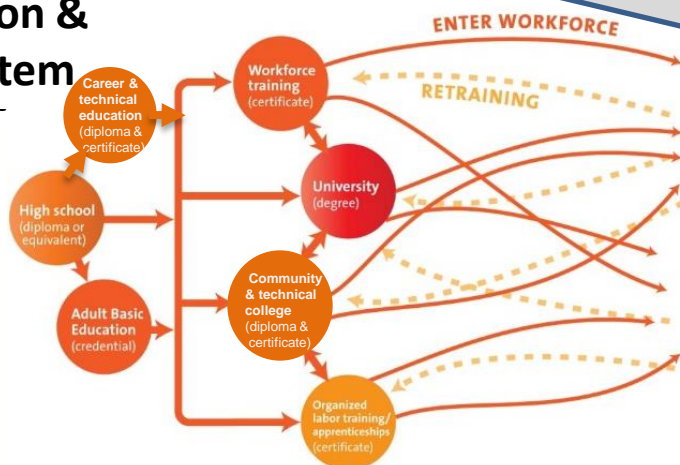


A Better State System

ELEMENTS OF A SYSTEM TO PREPARE MORE STUDENTS AND ADULTS FOR SUCCESS IN THE WORKFORCE

1. Statewide vision
2. Improved data
3. Public-private partnerships
4. Aligned incentives

The Education & Training System



The Workforce



A Better State System



STATEWIDE VISION

1. State goal or vision for postsecondary completion and attainment.
2. State vision or strategy for economic development.

☐ Are they connected?

☐ Is there meaningful activity taking place related to the vision?

A Better State System

1. Statewide Vision
2. Improved Data Systems
3. High-Quality Partnerships
4. Aligned Use of Incentives and Resources

A Better State System



STATEWIDE VISION

TENNESSEE

- Increase the percentage of Tennesseans with college degrees or certifications to 55% by the year 2025.
- A mission for higher education, workforce and economic development.
- A drive to reduce unemployment and improve the quality of life.

A Better State System

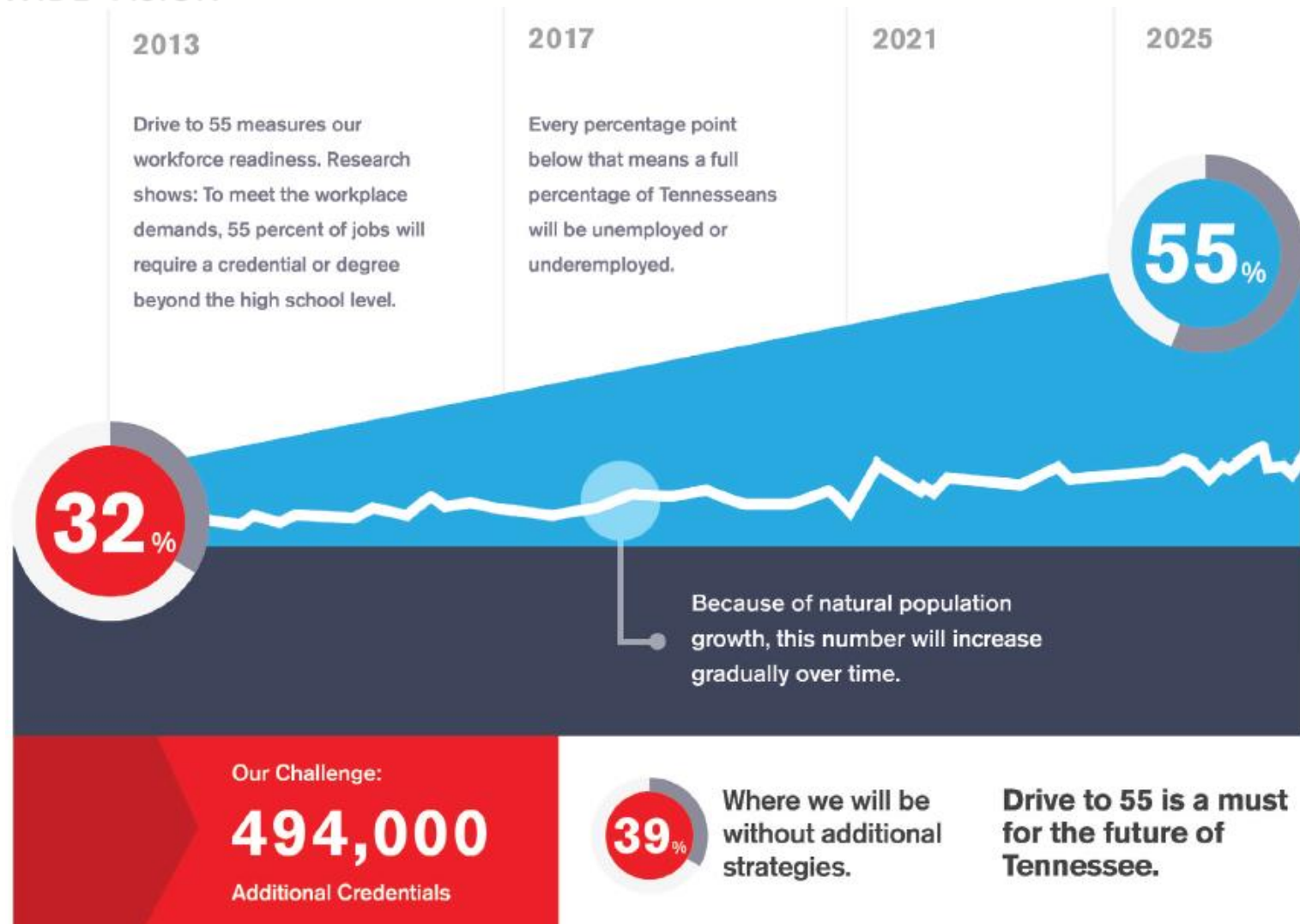
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A Better State System



STATEWIDE VISION



A Better State System



IMPROVED DATA SYSTEMS

- ☐ Identify Key Policy Questions
- ☐ Strengthen and Align the State's Data Infrastructure
- ☐ Produce Relevant Products

A Better State System

1. Statewide Vision
2. **Improved Data Systems**
3. High-Quality Partnerships
4. Aligned Use of Incentives and Resources



The Maryland Longitudinal Data System (MLDS) links together data for Maryland students from preschool through college and out into their career. The data supports the continuous improvement of educational outcomes and research to increase student achievement and support accountability.

Featured Dashboards (Click on a dashboard to View)

What percentage of high school students enroll in college?

Are high school graduates college ready?

How quickly do residents graduate college?

Are we producing the right degrees for state jobs?

What percent of students are engaged in STEM?

How many degrees awarded are STEM related?



MLDS Center

Maryland Longitudinal Data System

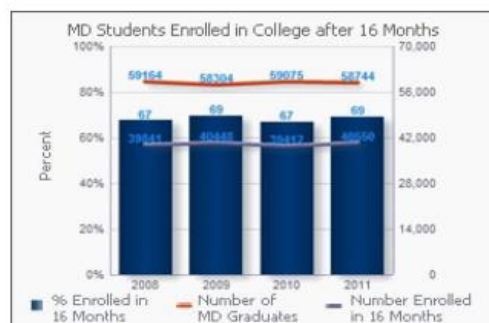
[Home](#) |
 [Policy Maker and Analyst](#) |
 [Parent & Student](#) |
 [Educator](#) |
 [Researcher](#) |
 [MLDS Center Staff](#)

[About Us](#) |
 [Mission & Vision](#) |
 [History](#) |
 [Governance](#) |
 [Data Glossary](#)

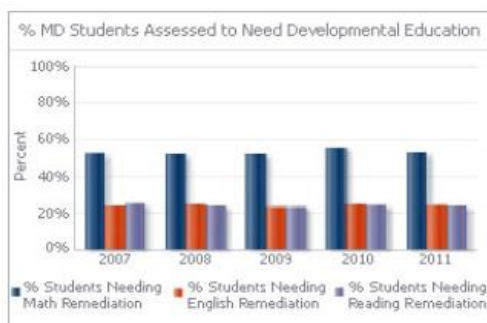
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Featured Dashboards (Click on a dashboard to View)

What percentage of Maryland high school students enroll in college?



Are Maryland's High School graduates college ready?



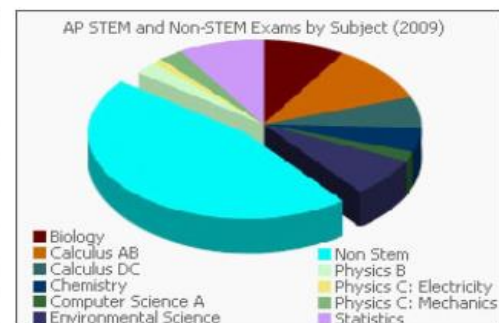
How quickly and effectively do Marylanders graduate from college?



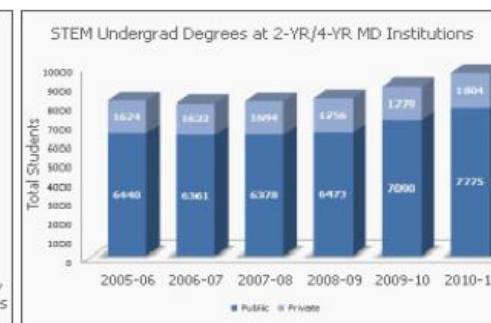
Are we producing the right degrees for Maryland jobs?

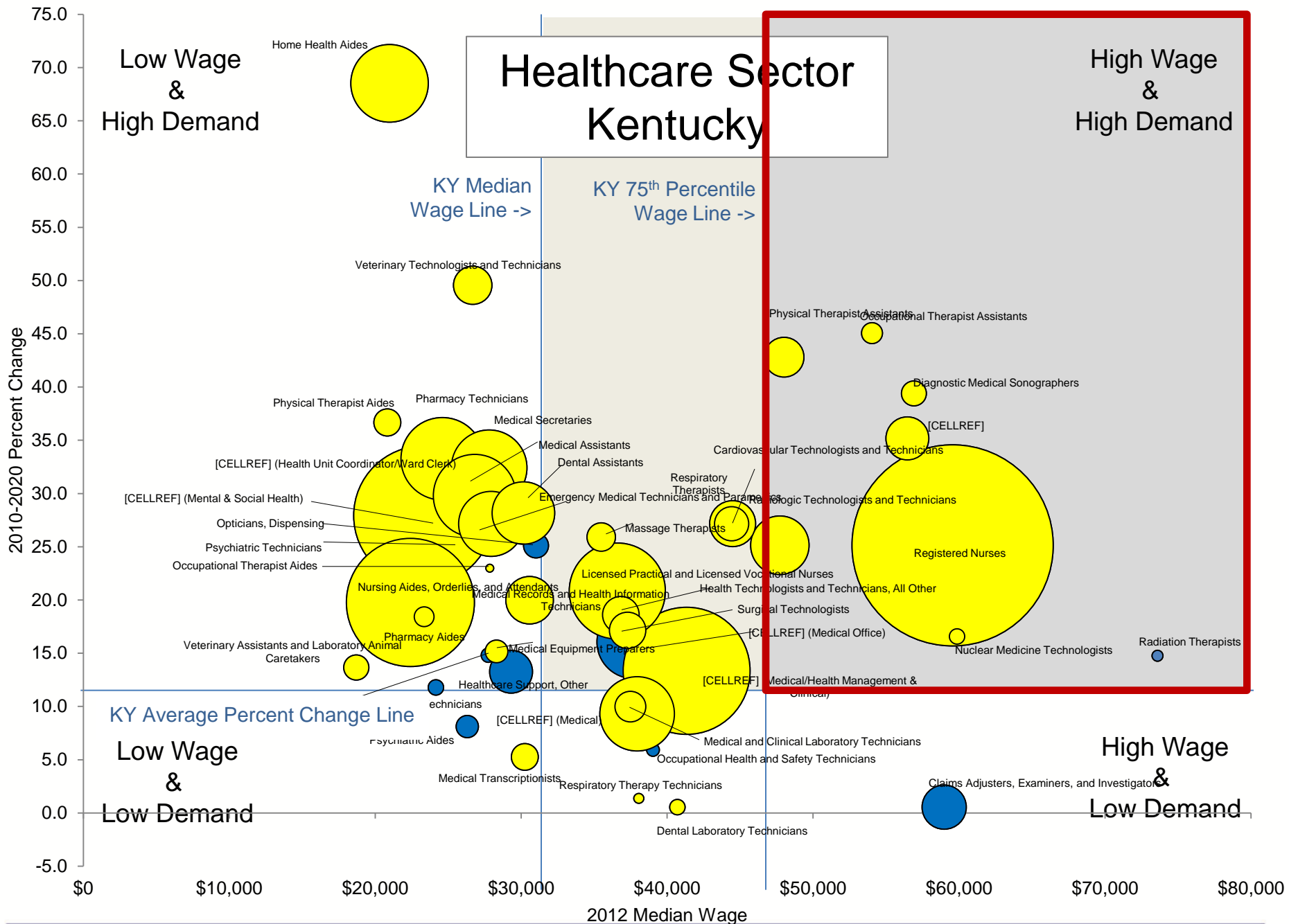


What percentage of high school students are engaged in STEM education?



How many 2-yr and 4-yr college degrees awarded in Maryland are STEM-related?





A Better State System



STATEWIDE PARTNERSHIP SUPPORT

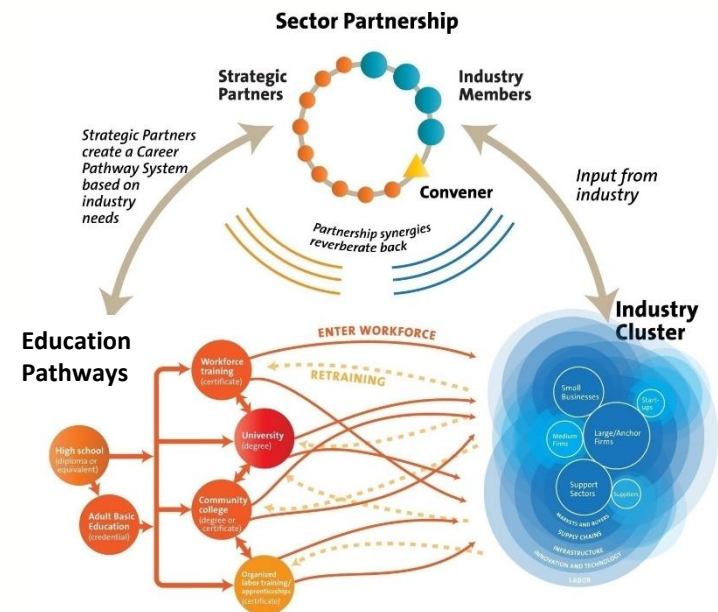
- Where does statewide system alignment take place?
 - State Workforce Board
 - P-20W Council
 - Other Cross-Agency Entity

REGIONAL PARTNERSHIP SUPPORT

- Where are the strongest examples of local or regional partnerships?

A Better State System

1. Statewide Vision
2. Improved Data Systems
3. **High-Quality Partnerships**
4. Aligned Use of Incentives and Resources



Washington State Industry Skill Panels



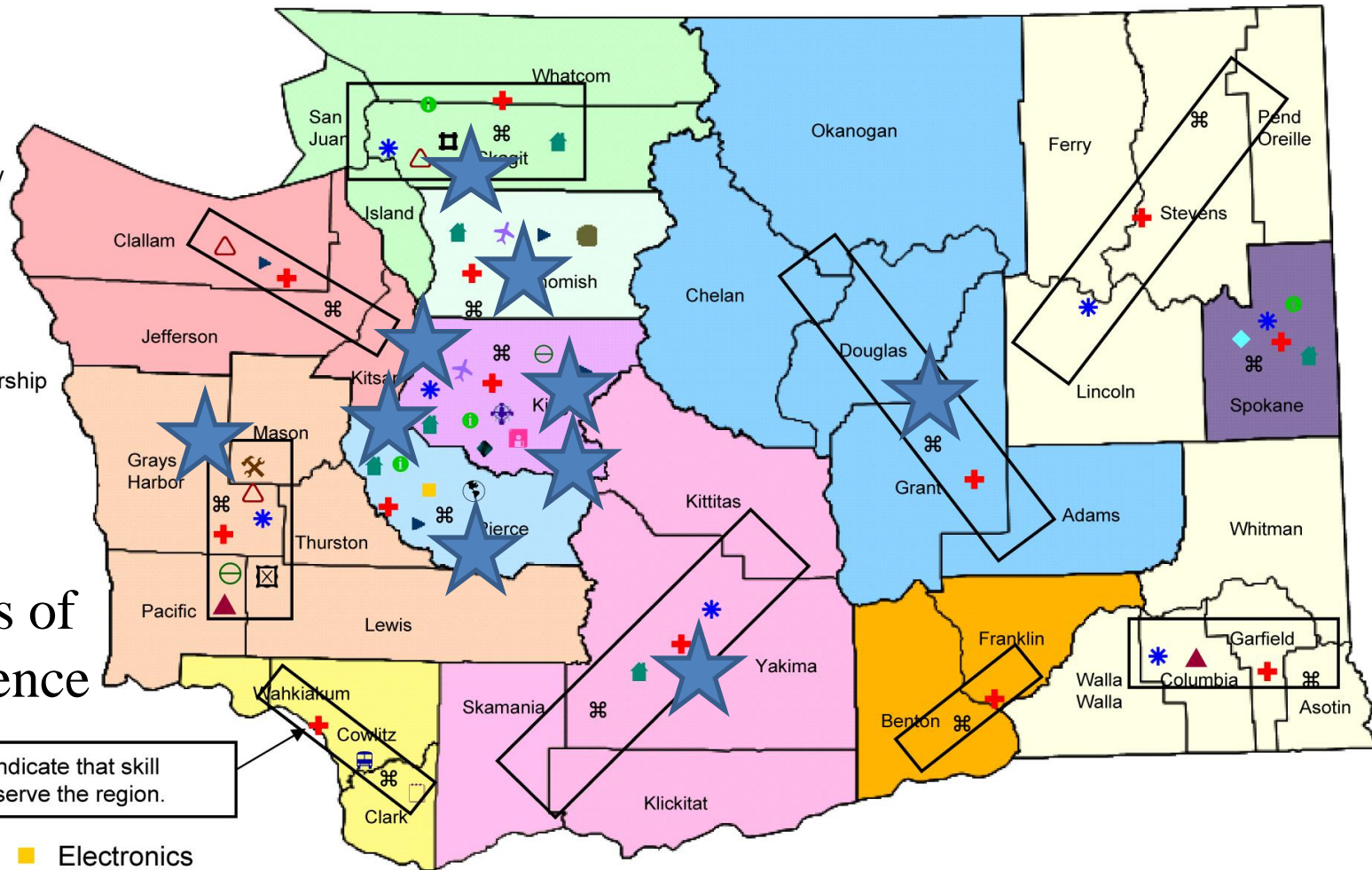
Workforce Training and Education Coordinating Board

- Olympic
- Pacific Mountain
- Northwest WA
- Snohomish County
- Seattle-King County
- Pierce County
- Southwest WA
- North Central WA
- Tri-County
- Eastern WA Partnership
- Benton-Franklin
- Spokane Area

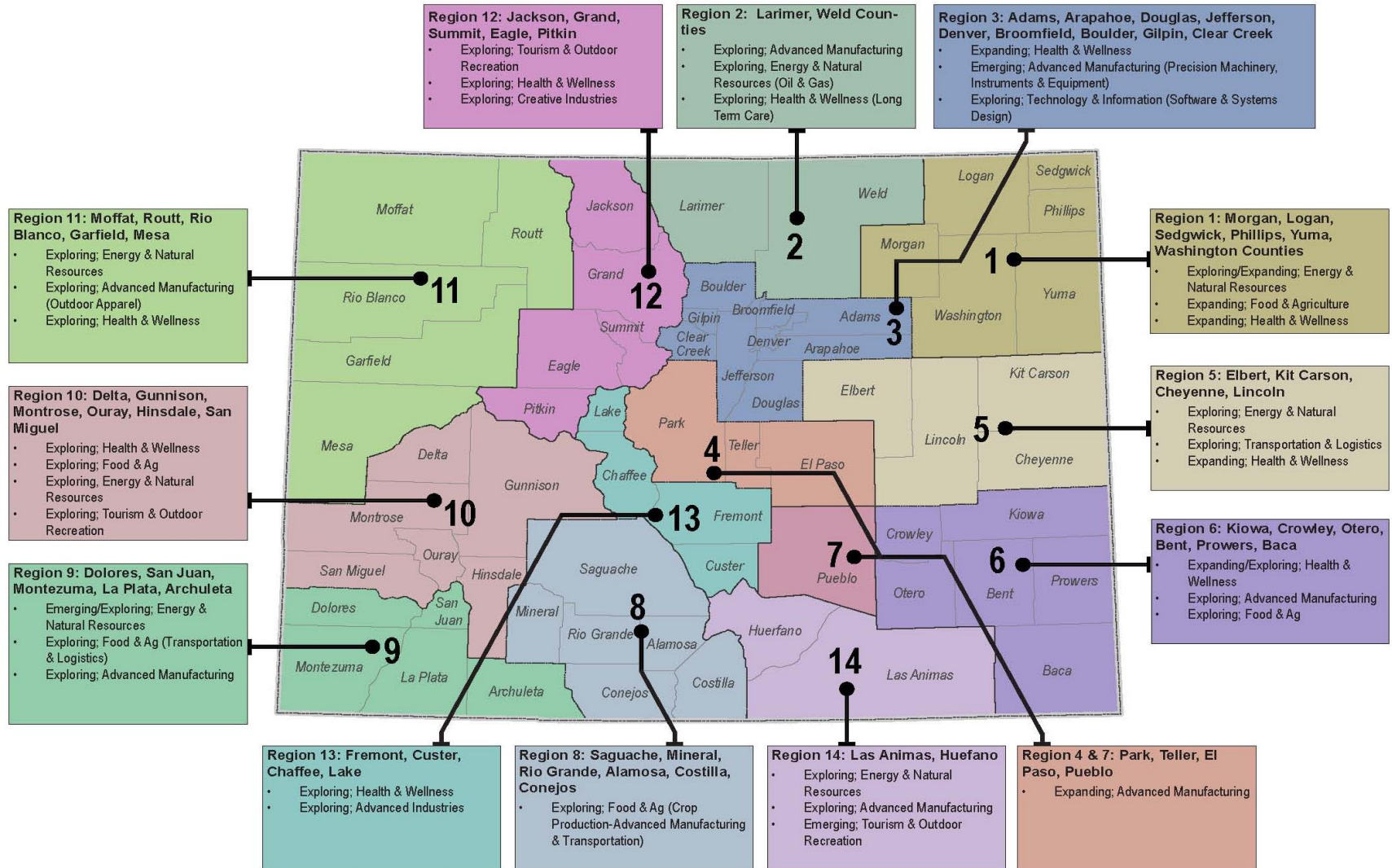
Centers of Excellence

Boxes indicate that skill panels serve the region.

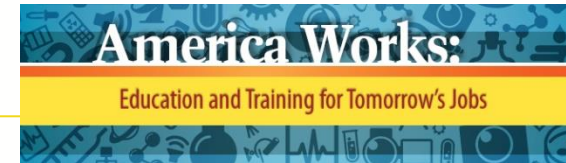
- | | | | |
|--------------|-------------------------------|------------------------|----------------------|
| Aerospace | Electronics | Homeland Security | Marine Manufacturing |
| Biomedical | Energy Technology | Maritime Industries | Pulp & Paper |
| Biotech | Food Processing & Agriculture | Electronic Gaming | Software Support |
| Boatbuilding | Game Software Development | Information Technology | Transportation |
| Construction | Health Care | Manufacturing | Life Sciences |
| Wood | Medical Devices | | |



Colorado's Next Generation Sector Partnerships



A Better State System



ALIGNED USE OF INCENTIVES AND RESOURCES

STATE EXAMPLES

- Statewide Asset or Capacity Mapping
- Performance Funding Programs
- Workforce Board Certification Process
- Cross-System Report Cards/Dashboards
- Cross-System Grant Funding and Review

A Better State System

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4. **Aligned Use of Incentives and Resources**

A Better State System

America Works:

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ALIGNED USE OF INCENTIVES AND RESOURCES

Virginia
Performs

Measuring what matters to Virginians

VIRGINIA'S WORKFORCE SYSTEM REPORT CARD

STEM-H Pipeline

GOAL: Increase the number of students with science, technology, engineering, math, and healthcare skills.

Registered apprenticeships and secondary & postsecondary enrollments in STEM-H programs ↑

Registered apprenticeships and secondary & postsecondary STEM-H credentials earned ↑

DATA SOURCES: VA Dept. of Labor and Industry, State Council of Higher Education for Virginia, VA Dept. of Education

Secondary Educational Attainment

GOAL: Enable all students, including at-risk students, to complete high school and prepare for college.

Advanced Studies diplomas earned ↑

Standard diplomas earned →

Enrollment in GED or adult high school diploma preparation program ↓

GED or adult high school diplomas earned ↓

DATA SOURCE: VA Dept. of Education

Postsecondary Educational Attainment

GOAL: Increase the number of students entering college and earning degrees, certifications, licenses, & apprenticeships.

Career & College Readiness

GOAL: Increase student readiness for both postsecondary education and the workplace.

Workplace Readiness Skills Credentials earned ↑

Career Readiness Certificates earned ↑

Community college certificates or degrees earned by secondary students ↑

Dual-enrollment credits earned →

Advanced Placement (AP) course enrollment and/or exam completion ↑

DATA SOURCES: VA Dept. of Education, State Council of Higher Education for Virginia, VA Community College System

Employment & Business Development

GOAL: Reduce unemployment and increase both employment and income.

Labor force participation rate →

Percentage change in total annual wages ↑

Unemployment rate ↑

Average weeks on unemployment →

Percentage change in employment →

Percentage change in establishments →

Emerging Workforce in Manufacturing

GOAL: Increase credentials and enrollments in manufacturing-related programs; improve the reach of manufacturing instruction and overall employment.

Dual-enrollment students in manufacturing-related career and technical education courses ↑

Participation by secondary students in project-based competitive events ↑

Completions of career and technical education within a manufacturing program of study ↑

Participation in manufacturing-related community college internship programs ↑

State-registered apprentices in manufacturing ↑

Secondary students earning certifications related to manufacturing ↑

Community college students earning credentials in a manufacturing program of study ↑

Annual new hires in the manufacturing industry →

Shared assets (labs, equipment, instructors) -

Shared manufacturing curriculum programs -

DATA SOURCES: VA Employment Commission, VA Community College System, VA Dept. of Education, VA Dept. of Labor and Industry

A Better State System

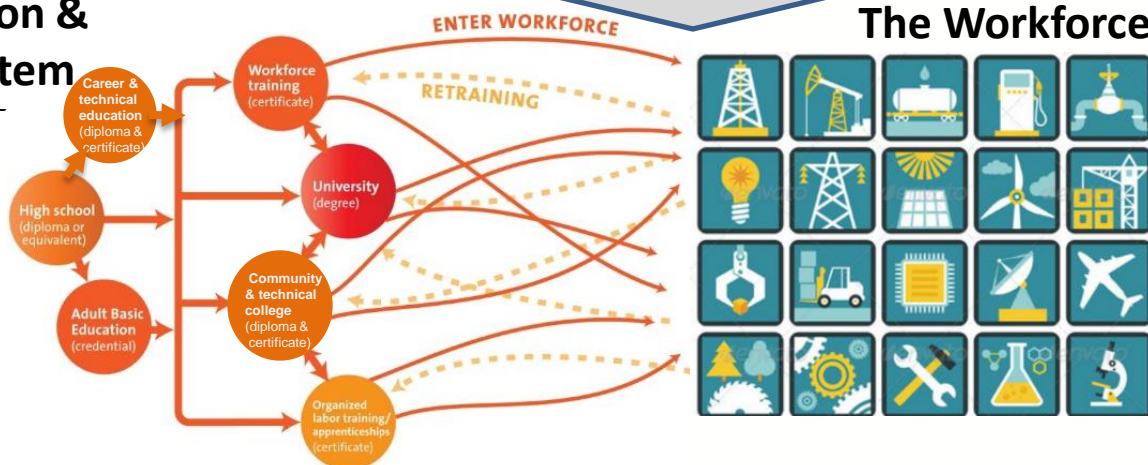
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The Education & Training System



The background of the entire graphic is a dense, repeating pattern of white icons on a blue background. These icons represent various fields of science, technology, and education, including atoms, light bulbs, gears, DNA helices, microscopes, books, and chemical structures.

America Works:

Education and Training for Tomorrow's Jobs

National Governors Association
Chair's Initiative 2013-2014