



National Governors Association

Center for Best Practices

**NGA High School Honor States Initiative:
Retooling Career Technical Education**

Presentation to the American Youth Policy Forum

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Presentation on Career Technical Education

Goals of the Presentation

- Why do governors care about CTE?
- What is the impact of CTE upon student outcomes?
- Are there promising school- and state-level practices?
- How can state leaders retool CTE to better reflect the emerging set of high-wage/high-skill industries?






Context: Changes in the American Workplace

- Today's jobs demand academic and technical skills, technological proficiency, further education and training beyond high school (US DOE)
- Today's young people will change jobs as many as 15 times over career (Business-Higher Education Forum)
- Technology and global economic competition are combining to redefine the American workplace (NGA Innovation America)
- The American high school is 'obsolete' (Bill Gates, 2005)






Context: governors launch high school redesign activities

Creating Political Will

- The 2005 National Education Summit on High Schools
- An Action Agenda for Improving America's High Schools
- NGA Graduation Rate Compact
- Next generation reform: Innovation America Initiative

Providing Resources

- *Honor States Grant Program*
 - \$23.6m Governor-Led initiative across 26 states to develop college-and career-ready policy set
 - Supported by coalition of national Foundations
- *K-12 STEM Center challenge grant*
 - \$3m for six states to develop intermediate STEM capacity
 - Supported by Bill & Melinda Gates Foundation and Intel Foundation



CTE exists at nexus of education and the economy

In NGA's ten Phase I Honor States alone,

- IN: advancing STEM programs using CTE funds
- ME: combined literacy training for CTE and ELA teachers
- MI: developed CTE instructional units that align with the new Merit Core expectations
- MN: high school and community college CTE programs must jointly develop plans of action





CTE is a popular choice

...For Students

- Half of all students enroll in at least one CTE course
- 25-40 percent complete CTE program of study (3-4 high school courses)

...And Adults


- Many leaders believe that CTE can make high school experience more relevant
- Others view CTE as a second tier track that disproportionately impacts poor and minority students
- State efforts to create more rigorous high school graduation requirements often result in outcry that 'CTE will die'



Though the impact is uneven

- CTE has a positive impact upon high school graduation rates, postsecondary enrollment, and labor market outcomes
- CTE course taking reduces dropout for most at-risk students
- But, 2/3 of CTE concentrators scored below basic on recent 12th grade math NAEP
- Still, when CTE integrates more rigor, results are impressive
 - High Schools that Work
 - The 'Math in CTE' experiment
- Ideal ratio ~ 3 CTE courses: 4 academic courses





Not either/or, but yes, and...

Retooling Career Technical Education

- Promote high expectations for all students based upon a platform of rigorous academics and relevant CTE courses
- Governors and other state leaders can implement a policy set to accelerate the shift of CTE programs around high-wage/high-demand industries.





Promising programmatic examples exist

Trend 1: Traditional CTE programs have become more broad

- Ex: carpentry → construction trades career cluster

Trend 2: Emerging CTE programs center on the new innovation economy

- Ex: biotech, information technology, pre-engineering





Promising state examples also exist






States face considerable hurdles...

- Deep ideological differences
- Few linkages b/w state education and economic systems
- Students lack workplace and industry-specific skills
- CTE teachers face few academic or industry requirements
- Student face a bewildering set of choices in high school
- Student credits often fail to articulate from high school to community college and beyond





Retooling CTE can accelerate high school redesign and American competitiveness

Given some needed changes in policy and practice -

- Connect education to economic growth industries
- Use the bully pulpit to promote CTE
- Include the skills employers demand in state standards, assessment and accountability systems
- Base CTE curricula around state standards
- Improve the quality of CTE teaching
- Design quality control measures that promote rigorous programs
- Require high school students to declare a course of study
- Eliminate duplicated coursework between high school and postsecondary systems



Looking ahead...

- CTE faces a stark choice
- Forward thinking states have eliminated less-compelling programs, replacing them with the ‘new CTE’
- States that retool their CTE programs can expect more engaged and persistent graduates who have added earning potential and are better prepared to enter high-wage/high-skill occupations.

