

# NGA Center Innovation Initiative

PCAST Meeting

October 22, 2009

Washington, DC

Angela Baber, NGA

# National Governors Association

## Center for Best Practices

### **NGA**

- Founded in 1908
- Bi-partisan
- Collective voice of the nation's governors

### **NGA Center**

- Only research and development firm that directly serves the nation's governors
- Home of NGA innovation and STEM work



# The Case for Strengthening STEM

- Workforce Capacity
- Innovation Capacity
- Economic Growth

# Postsecondary and Workforce

- U.S. ranks 15th of 29 countries in college completion.
- Two-thirds of the 30 fastest growing jobs in the U.S. will require a college degree.
- Growth in math-intensive science and engineering jobs is outpacing overall job growth by three to one.
- In the United States, only about 5% of all bachelor's degrees are being earned in engineering.

# Innovation Capacity

- High numbers of researchers and advanced degrees in science and engineering are the greatest predictor of increased innovation capacity.
- United States awarded among the lowest percentages of first university degrees in STEM-related fields of all the G-8 countries in 2006.

# Economic Growth

- State revenues will be down over 20 percent before most states bottom in the first quarter of 2010.
- Dropouts cost the United States over \$300 billion in lost wages and increased public sector expenses.
- 9.8% unemployment rate, but have jobs left unfilled due to a lack of talented workers.

# NGA Center STEM Initiative

- NGA Center STEM Initiative
- Six States
  - Colorado
  - Hawaii
  - Minnesota
  - Ohio
  - Pennsylvania
  - Virginia

# Governors are Key

- Build understanding
- Align standards and assessments
- Place STEM at the center of school innovation
- Support teachers
- Build public-private partnerships to advance STEM
- Invest in research and development
- Scale best practices in STEM education

# Policy Accomplishments

- Standards and assessments
- Teachers
- Data systems
- Low performing schools and closing the achievement gap

# Implementing a STEM Agenda

- STEM Centers
- STEM Networks

# Implementing a STEM Agenda Minnesota

## Governor Pawlenty's Overarching Goals:

- build an educational system that promotes success for all students in a postsecondary setting;
- provide money for time, tools and technical assistance for schools dedicated to STEM initiatives; and
- build public awareness about competing in a global economy.

# NGA Center State Example – Minnesota

- 2007 \$3 million approved
- High School Honor State
- Completed college and career ready standards
- Focusing on teacher effectiveness

# NGA Center State Example – Minnesota

- “GetSTEM” Website ([www.getSTEMmn.com](http://www.getSTEMmn.com)).
- 9 regional centers
- 11 cohort STEM schools
- TIMSS Student Achievement
- Sustainability

# Common Core State Standards

- 48 states and 3 territories
- College and career ready standards
- K-12 math and English language arts standards
- Science and social studies next
- NGA Center STEM states

# NGA Center Future STEM Work

- Expanding focus beyond K-12
- STEM Co-leads
- Race-to-the-Top



# Next Steps

## NGA Center will:

- Provide a series of technical assistance to states in developing state Race-to-the-Top applications focused on STEM.
- Expand the NGA STEM Network to all 50 states.

## With additional funding, NGA Center will:

- Expand the state framework for advancing STEM education.
- Publish a “2.0” version of the original Governors Guide to Building a K-12 STEM Education Agenda.
- Convene a national summit.
- Award challenge grants to states.

# Thank you!

Angela Baber

Senior Policy Analyst

Education Division

National Governors Association Center for Best Practices

444 North Capitol Street, Suite 267

Washington, DC 20001-1512

Ph: (202) 624-7700

Fx: (202) 624-7825

[ababer@nga.org](mailto:ababer@nga.org)

[www.nga.org/center](http://www.nga.org/center)