America Works:

Education and Training for Tomorrow's Jobs

The Benefit of a More Educated Workforce to Individuals and the Economy

National Governors Association
Chair's Initiative 2013-2014

THE NATIONAL GOVERNORS ASSOCIATION (NGA), founded in 1908, is the collective voice of the nation's governors and one of Washington, D.C.'s, most respected public policy organizations. Its members are the governors of the 55 states, territories, and commonwealths. NGA provides governors and their senior staff members with services that range from representing states on Capitol Hill and before the Administration on key federal issues to developing and implementing innovative solutions to public policy challenges through the NGA Center for Best Practices. NGA also provides management and technical assistance to both new and incumbent governors.

THE NGA CENTER FOR BEST PRACTICES (NGA Center) is the only research and development firm that directly serves the nation's governors and their key policy staff. Governors rely on the NGA Center to provide tailored technical assistance for challenges facing their states, identify and share best practices from across the country, and host meetings of leading policymakers, program officials and scholars. Through research reports, policy analyses, cross-state learning labs, state grants, and other unique services, the NGA Center quickly informs governors what works, what does not, and what lessons can be learned from others grappling with similar issues.

For more information about NGA and the NGA Center, please visit www.nga.org.

The Benefit of a More Educated Workforce to Individuals and the Economy

Worker productivity is a major factor affecting a state's long-term prospects for economic growth.[1] More highly educated and trained workers typically are more productive than those who have less education and training.[2] And more productive workers generally earn higher incomes.

States are generally limited in their ability to increase worker productivity, except for the substantial role that governors play in improving the quality of the education pipeline. On average, states account for 43 percent of all spending on elementary and secondary education and direct 58 percent of spending on public postsecondary education.[3] To the extent that governors can establish policies and allocate funds to raise the educational attainment of their current and future workforce, they can expand economic opportunities both for individuals and for their states' economy overall.

To develop state policies and funding priorities that support economic growth by increasing the quality of its current and future workforce's education and training, a governor needs better information about the job skills employers require. Pairing that information with an understanding of how well the skills and education level of a state's current population matches with projected employment demand, a governor is then well positioned to craft effective education and workforce training policies. Such policies can be aimed at closing specific skill gaps that yield significant benefits compared to their costs for both the state's citizens and employers.

National Governors Association (NGA) Chair **Oklahoma** Gov. Mary Fallin launched a yearlong effort to better prepare Americans to work in the new economy through improved postsecondary education and workforce training. *America Works: Education and Training for Tomorrow's Jobs* raises awareness about the significant benefits for individuals, businesses, and state economies when governors act to raise their population's educational attainment and better align their education and training systems with the likely future demands of employers.

---

1 Other factors include increases in the supply of labor and capital as well as improvements in technology.

2 L. Leslie and P. Brinkman, *The Economic Value of Higher Education* (New York: Macmillan, 1988) and W. Becker and D. Lewis, eds., *Higher Education and Economic Growth* (Norwell, MA: Kluwer, 1993).

3 S. Q. Cornman, *Revenues and Expenditures for Public Elementary and Secondary School Districts: School Year 2009–10* (Fiscal Year 2010) (Washington, DC: National Center for Education Statistics, April 2013), http://nces.ed.gov/pubs2013/2013307.pdf, and *State Higher Education Finance FY 2010* (Boulder, CO: State Higher Education Executive Officers, 2011), http://www.sheeo.org/sites/default/files/publications/SHEF_FY10.pdf.

The Mismatch Between the Talent We Have and the Talent We Will Need: Implications for Individuals and State Economies

Failing to provide all Americans with opportunities to successfully navigate postsecondary education will limit far too many students' potential to enhance their livelihood and contribute to the economy.

For most of the 20th century, Americans led the world in educational attainment. That position provided a substantial catalyst to what came to be known as the American Century, a period in which the United States leveraged its broad educational base and other resources to lead the world in economic growth, wealth creation, and technological innovation.[4]

Now, more than a decade into the 21st century, Americans risk falling behind as technological advances accelerate demands for talented workers. Today, the United States trails 11 other developed nations in postsecondary attainment among those between 25 and 34 years of age. It has fallen even farther behind in the percentage of young adults graduating from high school, trailing 21 developed nations.[5] Even more startling are the results of the 2012 Program for International Student Assessment exam, which measures the performance of 15-year-olds in 65 countries. U.S. students ranked 20th, 23rd, and 30th in reading, science, and math, respectively, a decline in each subject.[6]

Those troubling trends have direct economic consequences for states and individuals. Failing to provide all Americans with opportunities to successfully navigate postsecondary education will limit far too many students' and members of the current workforce's potential to enhance their livelihood and contribute to the economy. Similarly, a lack of skilled workers in a regional economy can constrain growth, limiting employers' ability to expand unless they move jobs to where talent resides or accept the cost of upgrading the skills of local workers.

As the demand for highly educated workers has increased, employment opportunities for those without postsecondary credentials have declined.

4 C. Goldin and L. Katz, *The Race Between Education and Technology* (Cambridge, MA: Belknap of the Harvard UP, 2009).
5 Education at a Glance 2013: OECD Indicators, charts A1.2 and A2.1 (Paris: OECD Publishing, 2013).
6 National Center for Education Statistics, Program for International Student Assessment (PISA), "Selected Findings from PISA 2012," http://nces.ed.gov/surveys/pisa/pisa2012/index.asp.

The current lifetime wage premium for an individual who has a two- or four-year degree is $423,000 and $964,000, respectively, compared with a person who has a high school diploma.[7]

Looking at this issue in another way, the average person who graduates high school and then attains an associate's degree earns $1,727,000 over a lifetime. A typical high school graduate, in contrast, earns $1,304,000 over the same period. This roughly 32 percent variation in individual earnings may be the difference between living below or above the poverty line. In addition, the increased wages represent new dollars that can then be spent in the local economy, thereby driving business growth and expanding state and local tax revenues.

The Need to Raise Skill Levels to a "New Minimum"

A postsecondary degree or relevant workforce certification is the "new minimum" for the future workforce to meet the demands of the emerging job market and access a middle-class life or beyond. Fifty years ago, nearly 80 percent of jobs required only a high school diploma or less, and most paid a good wage. Today, that number has dropped to 35 percent for jobs available to high school graduates and dropouts, and more than two-thirds of those jobs pay less than $25,000 a year.[8] The emerging economy will provide few well-paying jobs for workers who merely have a high school education or less. In addition, researchers estimate that approximately half of all job openings over the next decade will require more than a high school diploma, although not necessarily a four-year degree.[9]

Every state in the nation can realize significant economic and social benefits from providing additional educational opportunities for its citizens. Based on trends that show

A postsecondary degree or relevant workforce certification is the "new minimum" for the future workforce to meet the demands of the emerging job market and access a middle-class life and beyond.

7 A. Carnevale, S. Rose, and B. Cheah, *The College Payoff: Education, Occupations, Lifetime Earnings* (Washington, DC: Georgetown University Center on Education and the Workforce, August 2011), http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/collegepayoff-complete.pdf.

8 National Governors Association Chair's Initiative 2013–2014, *America Works: Education and Training for Tomorrow's Jobs* (Washington, DC: National Governors Association Center for Best Practices, 2013), http://www.nga.org/files/live/sites/NGA/files/pdf/2013/CI1314AmericaWorks.pdf.

9 A. Carnevale, N. Smith, and J. Strohl, *Recovery: Job Growth and Education Requirements Through 2020* (Washington, DC: Georgetown University Center on Education and the Workforce, August 2013), http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Recovery2020.FR.Web.pdf.

the potential economic growth by industry, Moody's Analytics projects that employers nationwide could demand slightly more than 24 million workers with a postsecondary degree between 2013 and 2030.

Comparing that forecast with Moody's projection of educational attainment of the population over the same period, there would be a shortfall in excess of 3 million workers with postsecondary degrees.

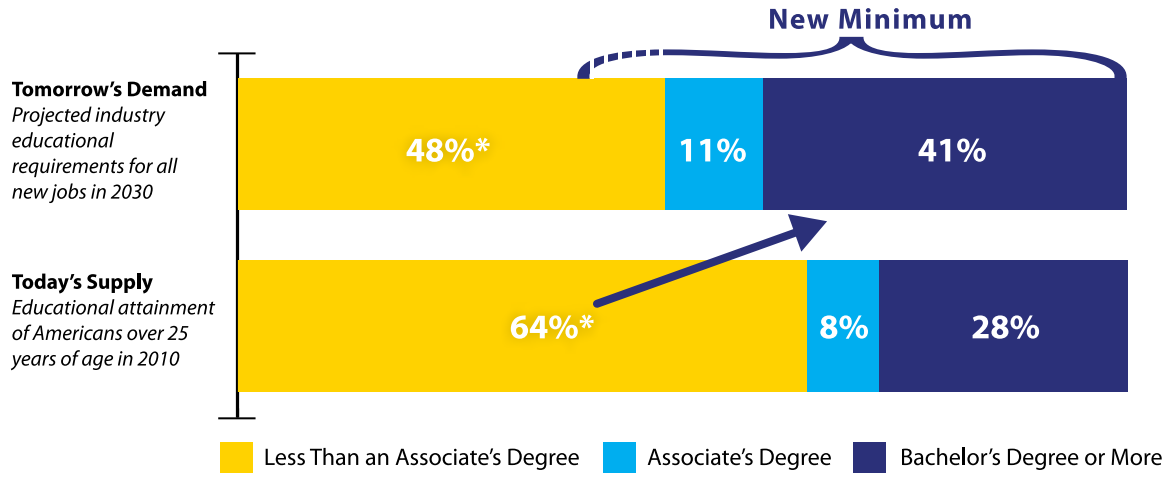
Such a shortfall would limit growth in affected industries as employers cut back on production, employed less educated (and presumably less productive) workers, and or bid up the wages of more highly trained workers thereby raising industry's costs. More positively, meeting the projected industry demand would allow businesses to expand and incomes to rise by an estimated $540 billion over the next 17 years.

Without a substantial shift in the current system to enable workers to attain these higher levels of education, there will not be a sufficient supply of individuals with the "new minimum" of postsecondary education credentials (a relevant workforce certification or associate's degree or above). Failing to provide more students or members of the current workforce with opportunities to successfully navigate postsecondary education will limit many people's ability to achieve their potential and a higher standard of living.

The chart below shows the nation's projected misalignment between the education level Americans over 25 attained in 2010 versus the projected level of education required for new jobs in 2030. While the number of young people with postsecondary credentials has continued to increase since the 1980s, the increase has not kept pace with the needs of employers.

Mismatch In the Nation's Talent Pipeline

Current educational attainment and projected industry requirements by education level



* *Includes an unknown number of workforce certificates with labor market value that are part of the new minimum.*

Note: The state's current educational attainment is based on the U.S. Census Bureau's *American Community Survey, 2010.* Projected demand estimates are based on Moody's Analytics forecasts of employment by industry in 2030, multiplied by the nation's 2010 postsecondary attainment rate for each industry and summed to produce the nation's total job requirements by education level.

Closing Skill Gaps by Aligning a State's Education Pipeline with the Talent Needs of its Industry

Through the *America Works* initiative, NGA has identified a set of actions that governors can take to improve the educational attainment of their citizens and the alignment of those credentials with employer demand. The following four policy components, undertaken in an integrated approach, suggest ways governors can improve and better align state education and training institution results with industry demand for a talented workforce.

- Articulate and implement a strong vision connecting education and the workforce to have more Americans achieve the "new minimum;"
- Use data to inform policy, track progress, and measure success;
- Build partnerships to get results; and
- Modify the use of resources and incentives to support the integrated vision.

The precise mix of policies and priorities that a governor may enact to close specific educational attainment gaps will depend on the state's unique economic composition and demographics, the current educational attainment of its citizens, and the quality of its education pipeline. Examples of actions governors can take under each of these four policy components are detailed below.

Articulate and implement a strong vision connecting education and the workforce to have more Americans achieve the "new minimum."

Declare and act to implement a statewide vision to connect the education pipeline with the needs of the state's economy. Governors can publicly articulate a vision to connect the education pipeline—kindergarten through 12th grade (K–12), career tech and workforce training programs, and higher education—with the needs of their state's economy. The declaration should include specific goals and actions to achieve stronger results for a state's citizens and its economy. It should elevate the message that a relevant workforce certification or postsecondary degree is the "new minimum" for achieving a middle-class lifestyle or beyond.

Use data to inform policy, track progress, and measure success.

Identify key policy and budget questions. Governors can elevate key policy questions to improve the alignment between the education pipeline and workforce needs. Key questions include:

- How many students complete high school prepared for college or career training–level work? How many students leave high school with college credit and industry credentials?
- What are the quality, capacity, and efficiency of postsecondary education and workforce training providers?
- How many and what percentage of college or career training program graduates get high-wage, high-demand jobs?

Integrate and use education and workforce data to answer key policy and budget questions. Governors can support the alignment and use of education, workforce, and economic development data, including longitudinal data systems and real-time labor market data, to answer key policy questions and establish policy and budget priorities.

Build partnerships to get results.

Provide state support for cross-system partnerships tied to the vision. Governors can strengthen state partnerships to launch new or improve existing initiatives that support more precise alignment between their state education and workforce training systems and the needs of their economy. Such partnerships may include preschool-to-grade 20 (P20) councils and state workforce investment boards (WIBs). Examples of actions include:

- Coordinating strategic planning processes to integrate the missions of key state agencies, including education, workforce training, and economic development;
- Bringing together leaders from industry and education to agree on standards (for example, more rigorous and relevant K–12 standards), competencies, and a system of quality credentials tied to emerging high-wage, high-demand careers;
- Enacting policies and programs (for example, dual-credit courses, career-tech programs, career pathway systems) that better prepare high school students for college or career training; and
- Enacting policies and programs (for example, revised high school equivalency credentials, strengthened adult career pathway systems) to support retraining unemployed and underemployed adults for high-wage, high-demand careers.

Identify and promote effective regional or local partnerships. Governors can identify and promote active and emerging regional partnerships that connect education and training pipelines to high-wage, high-demand careers within key industries in their state's economies. Examples of actions include:

- Establishing criteria to measure the quality of partnerships that connect education and training providers to employers' needs;
- Creating a state map of high-quality partnerships; and
- Funding programs that support existing or spur new local or regional partnerships and their expansion.

Modify the use of resources and incentives to support the integrated vision.

Governors can change the current use of funds and incentives in the state's education and workforce training systems to better align results and improve quality in meeting the needs of state employers. This could include:

- Reviewing state funding and incentives to increase alignment between education and the workforce; and
- Enacting performance funding to increase the effectiveness and efficiency of a state's postsecondary education system.

Conclusion

Preparing America's 21st century workforce to stay competitive not only calls for national attention but demands gubernatorial leadership. Governors across the United States are providing that leadership. As demand for skilled workers continues to rise, governors are playing an increasingly pivotal role in aligning states' education and training resources with the needs of their growing economies. Because governors are responsible for both public education and economic development, they are uniquely positioned to foster stronger connections between education and the workforce. Using a combination of the policy components outlined above, governors can do more to align the education pipeline with the needs of employers and thus benefit their citizens and their economies.

Through Governor Fallin's leadership, the National Governors Association will continue to support governors and other state leaders in their efforts to increase the educational and economic opportunities available to all citizens.

NGA CENTER DIVISIONS

The NGA Center is organized into five divisions with some collaborative projects across all divisions. The NGA Center provides information, research, policy analysis, technical assistance and resource development for governors and their staff across a range of policy issues.

- Economic, Human Services & Workforce covers economic development and innovation, workforce development focused on industry-based strategies; pathways to employment and populations with special needs; and human services for children, youth, low-income families and people with disabilities.

- Education focuses on helping governors develop effective policy and support its implementation in the areas of early education, readiness, and quality; the Common Core State Standards, Science Technology Engineering and Math, and related assessments; teacher and leader effectiveness; competency-based learning; charter schools; data and accountability; and postsecondary (higher education and workforce training) access, success, productivity, accountability, and affordability. The division also works on policy issues related to bridging the system divides among the early childhood, K-12, postsecondary. and workforce systems.

- Environment, Energy & Transportation focuses on several issues, including improving energy efficiency, enhancing the use of both traditional and alternative fuels for electricity and transportation, developing a modern electricity grid, expanding economic development opportunities in the energy sector, protecting and cleaning up the environment, exploring innovative financing mechanisms for energy and infrastructure, and developing a transportation system that safely and efficiently moves people and goods.

- Health covers issues in the areas of health care service delivery and reform, including payment reform, health workforce planning, quality improvement, and public health and behavioral health integration within the medical delivery system. Other focus areas include Medicaid cost containment, state employee and retiree health benefits, maternal and child health, prescription drug abuse prevention, and health insurance exchange planning.

- Homeland Security & Public Safety focuses on emerging policy trends across a range of homeland security and public safety issues. Current issues include cybersecurity, prescription drug abuse, public safety broadband, sentencing and corrections reform, homeland security grant reform, justice information-sharing, and public health preparedness.

National Governors Association
444 North Capitol Street, Suite 267
Washington, D.C. 20001
202-624-5300
www.nga.org