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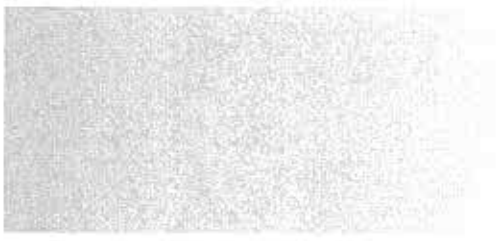
Transition Brief

Policy Recommendations on Preparing Americans for the Global Skills Race

November 2008



PARTNERSHIP FOR 21ST CENTURY SKILLS

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Preparing Americans to Triumph in the Global Skills Race

The central economic competitiveness issue for the Obama administration is creating an aligned, 21st century public education system that prepares students, workers and citizens to triumph in the global skills race.

On Jan. 20, 2009, the Obama administration will take command of the White House facing unprecedented challenges to the U.S. economy and competitiveness. Americans are hungry for visionary presidential leadership, foresighted policies and bold actions that will strengthen economic opportunities and security at home and build collaboration abroad.

Our ability to compete as a nation—and for states, regions and communities to attract growth industries and create good jobs—depends on the ingenuity, agility and skills of the American people. Today as never before, meeting the nation's challenges demands educational excellence. Reinvigorating the economy, achieving energy independence with alternative technologies and green jobs, and strengthening our health care system require a skilled workforce that is ready for the critical work and jobs ahead.

There is widespread consensus, however, that our education and workforce development systems are failing to adequately prepare all students and workers with the essential skills—21st century skills—necessary for success in a global economy. We need a fresh approach to education that recalibrates workforce preparation to the demands of a 21st century economy built on information, knowledge, innovation and creativity.

To that end, the Partnership for 21st Century Skills offers three specific recommendations to President Obama and the new administration:

- **Lead:** Advocate 21st century skills as a major theme of this presidency, beginning with the Inaugural Address and a White House Summit on 21st Century Skills in 2009.
- **Mobilize:** Coordinate the policies and actions of federal agencies in promoting and creating an aligned, 21st century public education and workforce development system, including the reauthorization of the Elementary and Secondary Education Act and other federal legislation.
- **Empower:** Support states and communities with investments to build a strong infrastructure and capacity for preparing students, workers and citizens with 21st century skills.

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If adopted, the policy recommendations in this transition brief will put the administration on the right track—and position the nation for a second century of American leadership around the world.

Why the Obama Administration Needs to Act Now

Three significant competitive realities underscore why our education and workforce development systems are due for dramatic change:

1. Fundamental changes in the economy, jobs and businesses have reshaped industry, workplaces and the nature of work. Over the last several decades, the industrial economy based on manufacturing has shifted to a service economy driven by information, knowledge, innovation and creativity. Jobs also have shifted from manufacturing to services, particularly in higher-paid information services. Today, more than 80 percent of jobs are in the service sector, which includes high-growth, high-wage and high-skilled occupations in new and emerging industries.

In this new, globally interconnected economy, companies have changed how they are organized and the way they do business. Technology has supported these changes, which include flatter management structures, decentralized decision making, information sharing and the use of task teams, cross-organizational networking, just-in-time inventory and flexible work arrangements. Tellingly, technology displaces workers with low-level skills who perform routine tasks—but it complements workers with higher-level skills, empowering them to be more creative, productive and valuable in the workplace.

2. The fundamental changes in the economy, jobs and businesses are driving new, different skill demands. Advanced economies, innovative industries and firms, and high-growth jobs require more educated workers with the ability to respond flexibly to complex problems, communicate effectively, manage information, work in teams and produce new knowledge. To meet these demands, the majority of U.S. workers now have at least some postsecondary education—although, untenably, the nation still has one of the highest high school dropout rates in the industrialized world. Plus, many students who enter postsecondary education are unprepared for college-level work and are consigned to remedial coursework.

Just as important as educational attainment, however, are the skills required by the new economy. A different set of skills—21st century skills—increasingly powers the wealth of nations. Advanced economies have a high capacity for innovation, which

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requires workers who can invent and create, implement global strategies in international marketplaces, and apply such skills as foreign language competency, flexibility, and openness to new and different ideas.

3. The United States faces two student achievement gaps. So far, the nation is only paying attention to one of them—inadequately. For the past decade, the United States has focused nationally on closing achievement gaps between the lowest- and highest-performing students, and between the poorest and most affluent. This is a legitimate and critical objective, and one that is putting proficiency in reading, mathematics and science within reach of millions more students.

Equally important, however, is the global achievement gap between U.S. students—including our top-performing students—and their international peers in competitor nations. U.S. students fare poorly compared to their counterparts on international assessments, such as the Programme for International Student Assessment (PISA). These results are economically significant. Countries that do well on PISA, which measures 21st century skills such as critical thinking and problem solving, have demonstrated higher increases in GDP growth than countries that do not, according to a series of studies by Stanford researchers.

An unintended consequence of progress in closing national achievement gaps has been a lack of attention to the global achievement gap—and to the growing competitive demand for advanced skills. Going forward, the nation must redress these circumstances by redefining rigor as mastery of both academic subjects and 21st century skills. This is not an either–or agenda. Students can acquire and use 21st century skills while they learn in school and at home, in after-school and community activities, and in work experiences. And, as the PISA results show, proficiency in 21st century skills contributes to world-class educational performance. This must be the new benchmark for public education.

Without concerted action, sweeping demographic changes will exacerbate the two achievement gaps. National and global demographic trends, including the diversification and aging of the U.S. workforce, could slow economic output if productivity does not increase. Boosting productivity and sustaining competitiveness requires many more highly skilled workers throughout the labor pool.

More about these three competitive challenges, and the research behind them, is available in 21st Century Skills, Education & Competitiveness: A Resource and Policy Guide, *released by the Partnership for 21st Century Skills in 2008.*

For a summary of the Partnership for 21st Century Skills Framework for 21st Century Learning, see page 13.

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PARTNERSHIP FOR 21ST CENTURY SKILLS

Policy Recommendations for the Obama Administration

Recommendation 1: Lead

Advocate 21st century skills as a major theme of this presidency, beginning with the Inaugural Address and a White House Summit on 21st Century Skills in 2009.

The Partnership for 21st Century Skills urges the Obama administration to signal its commitment to creating an aligned, 21st century public education and workforce development system that is worthy of an advanced, competitive nation. A clarion call to action would galvanize the public and private sectors to work for the change we need to strengthen the economy, keep America competitive and reestablish our engagement in the world.

The administration's single most important role in this critical endeavor is leadership. The Inaugural Address is the signature opportunity to advocate and articulate a new course for education and workforce development. Prominent participation in a White House Summit on 21st Century Skills in June of 2009 is a chance to set this course in motion nationwide.

Our goal is inclusion for every American in the global economy and active participation in our democracy. The 2008 election demonstrated that all Americans yearn for change to solve the nation's problems and create a better life for everyone. There is much we can learn from the rest of the world. To create a world-class education for every student and workers, we need to work with other countries to find the best ways of preparing people for work, life and citizenship.

Doing so will require more than tinkering. This administration must lead the conversion of the nation's education and workforce development infrastructure, policies and practices to function differently and powerfully in a transformed economy. Nothing less than the same spirit of creativity and innovation, flexibility and adaptability, and global perspective that we expect of our students, workers and citizens will suffice in accomplishing this feat.

A single purpose should drive every action: For students, proficiency in 21st century skills—the skills, knowledge and expertise students must master to succeed in college, work and life—should be the outcome of a 21st century education system.

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Voters, employers and educators in both K–12 and postsecondary institutions agree that the nation needs to do a much better job teaching and measuring advanced, 21st century skills that are the indispensible currency for participation, achievement and success in the global economy.

Creating an aligned, 21st century public education will energize the nation's K–12 schools, postsecondary institutions and workforce training programs. It will redefine rigor by emphasizing both core content knowledge and 21st century skills. And it will engage and motivate educators, students, citizens and workers to achieve results that matter.

Recommendation 2: Mobilize

Coordinate the policies and actions of federal agencies in promoting and creating an aligned, 21st century public education and workforce development system.

A. Establish a senior advisor for 21st century skills and workforce development at the White House. A high-ranking advisor to the President would facilitate a comprehensive, government-wide initiative on 21st century skills in education, workforce development, and research and development. Under the auspices of the National Economic Council, the White House Advisor on 21st Century Skills would be responsible for:

- Coordinating and facilitating a workforce development, education and research policy focused on promoting 21st century skills across key federal agencies, including—but not limited to—the U.S. Departments of Education, Labor, Commerce and Defense, and the National Science Foundation

- Creating an interagency working group tasked with aligning education and workforce development goals with 21st century skills

- Organizing and hosting a White House summit on 21st century skills

- Ensuring that 21st century skills are incorporated into major pieces of federal legislation, including the reauthorization of the Elementary and Secondary Education Act (ESEA), the Workforce Investment Act (WIA) and the Education Sciences Reform Act (ESRA)

- Maintaining the administration's focus and commitment to building a world-class, 21st century education and workforce development system

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B. Form an Office of 21st Century Skills within the Office of the U.S. Secretary of Education at the U.S. Department of Education. This office would guide national efforts to incorporate 21st century skills into preK–20 education and plan for future educational requirements. The office would be responsible for:

- Assisting the U.S. Secretary of Education in developing public education strategies to promote the importance of 21st century skills among key education, after-school and youth development stakeholders

- Ensuring that a 21st century skills focus is broadly integrated into existing federal education programs, including preK–12, postsecondary, and career and technical education; science, technology, engineering and mathematics (STEM) initiatives; and programs such as the Regional Education Laboratory Program, National Research and Development Centers and Comprehensive Center Program, which provide technical assistance and research to states, districts and schools

- Working closely with the White House Advisor on 21st Century Skills to advocate and implement coordinated policy across all agencies focused on preK–adult education to ensure that 21st century skills are incorporated into the ESEA and ESRA reauthorizations

- Investing in state-led partnerships aimed at incorporating 21st century skills into state standards, assessment and professional development policies

- Highlighting effective policies and practices by showcasing and convening states and districts that have taken a leadership role in developing 21st century schools

C. Create an Office of 21st Century Skills within the Office of the U.S. Secretary of Labor at the U.S. Department of Labor. This office would guide the development of a national workforce development policy that ensures every aspect of the workforce pipeline is infused with the same set of 21st century skills. This office also would plan for future workforce needs. The office will be responsible for:

- Assisting the U.S. Secretary of Labor in designing workforce development strategies to promote the importance of 21st century skills among key business and education stakeholders

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- Ensuring that the 21st century skills agenda is broadly integrated into existing programs, including workforce development resources that support community college programs, after-school and youth development programs, and adult education and worker retraining programs

- Working closely with the White House Advisor on 21st Century Skills to advocate and implement coordinated policy across all agencies focused on preK–adult education to ensure that 21st century skills are incorporated into the WIA reauthorization

Recommendation 3: Empower

Support states and communities with investments to build a strong infrastructure and capacity for preparing students, workers and citizens with 21st century skills.

At the Federal Level

The current national investment in education research, assessment and statistics is $546 million, a woefully inadequate 0.9 percent of the total federal education investment. No other competitive industry invests so little in its future. We must enrich the nation's collective wisdom about teaching and assessing 21st century skills.

A. Create a significant Global Competitiveness Research and Development Fund for U.S. education, and target a quarter of the funding to innovation in 21st century skills. This research and development (R & D) fund should amount to slightly more than three percent of the combined federal contribution for preK–20 education. A quarter of this investment should be targeted to a 21st Century Innovation Initiative, which would define and execute an interdisciplinary R & D agenda with the goals of:

- Developing 21st century assessment practices that emphasize problem solving, critical thinking and innovation

- Designing instructional strategies and curricular resources, including new media that support 21st century skills and place a strong emphasis on problem-based approaches to student learning. These strategies and resources could be used in formal and informal learning environments, such as after-school and youth development programs, including those for high-need, underserved students.

- Constructing professional development experiences that support educators in implementing new strategies that emphasize 21st century skills

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At the State and Local Levels

The federal government must encourage states to integrate 21st century skills comprehensively, intentionally and purposefully into their education and workforce development systems. In an era of budget constraints, states need federal incentives for launching and implementing 21st century skills initiatives.

Clearly, ESEA reauthorization will present an opportunity for creating a balanced approach to closing national and global achievement gaps and developing student proficiency in 21st century skills. Specific actions—either as part of or separate from ESEA reauthorization—would support states in developing education systems capable of addressing the challenges of globalization and the increasing competitiveness of nations around the world:

B. Create a State Incentive Fund for 21st Century Skills for launching statewide initiatives. Legislation was introduced in the 110th Congress (S. 1483) to provide federal matching funds for states that secure state dollars, foundation grants or private donations for the advancement of students' 21st century skills. The bill provides corporate tax incentives to businesses that support the 21st century skills. States that are eligible for funding would:

- Develop a comprehensive plan for implementing a statewide 21st century skills initiative
- Demonstrate a commitment to infusing 21st century skills into:
  - Standards and assessments
  - Curriculum
  - Professional development
  - Learning environments
- Achieve broad support for a statewide 21st century skills initiative from among the state's education, business and civic leaders and classroom practitioners

C. Create a State Implementation Fund for 21st Century Skills to support 21st century learning. States will need to increase their capacity to create educational strategies and practices that are globally competitive. A State Implementation

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Fund for 21st Century Skills would assist states in developing and disseminating new approaches to educating students. These funds would be available to consortia, which could include state education agencies, local education agencies, cross-state consortia, business stakeholders, educators, regional laboratories and comprehensive centers, and colleges of education. The funds would provide support to the states to:

- Revise their standards to reflect 21st century skills
- Develop and implement approaches to assessment that encompass 21st century skills
- Create programs for professional development of 21st century skills and establish regional 21st Century Skills Teaching Academies
- Conduct research and evaluation to identify best practices for teaching, attaining and measuring 21st century skills

D. Make the assessment of 21st century skills a priority: To promote accountability of student performance in the 21st century, the National Academy of Sciences (NAS) should be required to report to Congress within three months of ESEA reauthorization on states' current capacity to assess 21st century skills, along with recommendations on how states should fully develop metrics and assessments of 21st century skills. Three months following the NAS report, the U.S. Secretary of Education should be required to respond to Congress with recommendations on how to implement the findings of the NAS report.

The purpose of this recommendation is to create substantial progress on the assessment of 21st century skills early in the next ESEA cycle. Nations such as the United Kingdom are investing tens of millions of dollars in developing information and communications technologies (ICT) assessment tools alone. The United States is behind much of the world in developing assessments for 21st century skills. This proposal is intended to create a roadmap for assessing the 21st century skills that would encourage lawmakers to fully incorporate these into future ESEA reauthorizations.

E. Support states' ability to meet accountability requirements and foster 21st century skills. To enhance states' ability to provide a 21st century education to students, Congress and the U.S. Department of Education should review the rules and regulations for state standards, assessments and accountability so states can better incorporate 21st century skills into every aspect of education.

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F. Ensure that schools are equipped with a 21st century technology infrastructure and 21st century technology tools. Schools must routinely use technologies in support of teaching and learning so that students can compete academically for top grades and globally for the best-paying jobs. This requires:

- Supporting access for all students to technology and the Internet
- Increasing federal funding for educational technology through the U.S. Department of Education's budget, such as through the Achievement Through Technology and Innovation (ATTAIN) bill, introduced in 2007
- Preserving the E-Rate and providing robust bandwidth in all classrooms to allow students and educators to use cutting-edge digital applications and services
- Incorporating information, media and technology literacy into state standards, training and professional development for educators
- Encouraging student information, media and technology literacy by the eighth grade

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States Take the Lead on 21st Century Skills

Already, 10 Leadership States—Arizona, Iowa, Kansas, Maine, Massachusetts, New Jersey, North Carolina, South Dakota, West Virginia and Wisconsin—have committed to infusing 21st century skills into their education and workforce development systems. Many more states and organizations are using the Partnership's Framework for 21st Century Learning to improve their education and workforce development policies and programs as well.

States are using the Framework for 21st Century Learning to meet the unique academic, educational, economic and workforce challenges they face. For example:

- **Arizona** plans to align teacher preparation to 21st century skills and incorporate 21st century skills into statewide youth development programs.
- **Iowa** is building 21st century skills into the Iowa Core Curriculum.
- **Kansas** is improving workforce development by adopting career and technical education policies that strengthen the focus on 21st century skills.
- **Massachusetts** is developing a Pathways to Success 21 Initiative to improve prospects of young people who drop out of education and employment systems and reconnect them to a pathway to success. The state also is embedding 21st century skills into its workforce development system.
- **Maine** is addressing 21st century skills statewide through its newly formed 21st Century Skills Advisory Council, which brings together educators, business and government.
- **New Jersey** is revising its state standards in every subject to reflect 21st century skills student outcomes.
- **North Carolina's** New Literacies Collaborative and Student STEM Symposium are multidisciplinary initiatives to build 21st century skills into literacy, media, technology and STEM (science, technology, engineering and mathematics) instructional programs.

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- **South Dakota** is convening business leaders, legislators, state education leaders and educators to examine its education system and make comprehensive plans for 21st century learning.

- **West Virginia** is developing internationally rigorous standards, assessments and teacher preparation programs. The state also has created a Teacher Leadership Institute and a Teach 21 Web site to help educators learn about 21st century skills and work collaboratively to plan and deliver 21st century instruction.

- **Wisconsin** is coupling its 21st Century Skills Initiative with its participation in Achieve's American Diploma Project to revise its academic standards. The state also has committed to bringing international perspectives and skills to preK–16 education, including global literacy and world languages for all students and global training for all educators.

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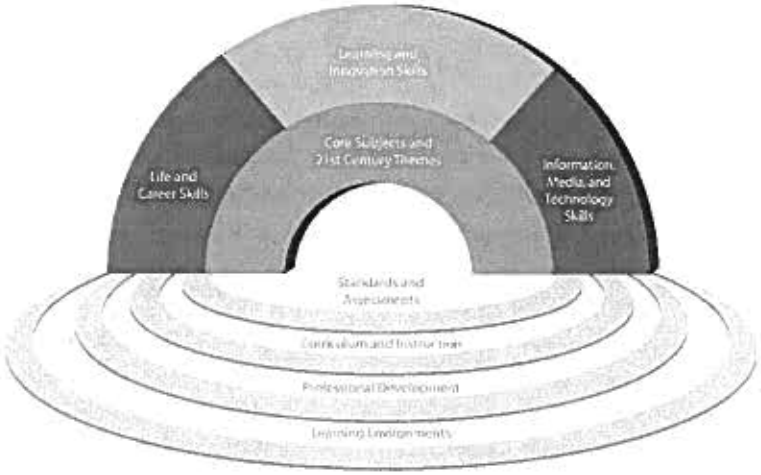
What Are 21st Century Skills?

The Partnership for 21st Century Skills has developed a unified, collective vision for 21st century learning and education support systems that should be the touchstone for creating an effective infrastructure, policies and practices:



21st Century Student Outcomes

Core Subjects and 21st Century Themes

Core Subjects
- English, reading or language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and civics

21st Century Themes
- Global awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health literacy

Learning and Innovation Skills
- Creativity and innovation skills
- Critical thinking and problem solving skills
- Communication and collaboration skills

Information, Media and Technology Skills
- Information literacy
- Media literacy
- ICT (information and communications technology) literacy

Life and Career Skills
- Flexibility and adaptability
- Initiative and self-direction
- Social and cross-cultural skills
- Productivity and accountability
- Leadership and responsibility

21st Century Education Support Systems

21st Century Standards and Assessments
21st Century Curriculum and Instruction
21st Century Professional Development

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Partnership for 21st Century Skills Members

- Adobe Systems, Inc.
- American Association of School Librarians
- Apple Inc.
- Association for Supervision and Curriculum Development
- Atomic Learning
- Blackboard, Inc.
- Cable in the Classroom
- Cisco Systems
- Corporation for Public Broadcasting
- Davis Publications
- Dell, Inc.
- Discovery Education
- EF Education
- Education Networks of America
- Educational Testing Service
- Ford Motor Company Fund
- Gale, Cengage Learning
- Hewlett Packard
- Intel Corporation
- JA Worldwide®
- K12
- KnowledgeWorks Foundation
- Learning.com
- Learning Point Associates
- LEGO Group
- Lenovo
- Measured Progress Corporation
- National Education Association
- Oracle Education Foundation
- Pearson
- PolyVision
- Scholastic Education
- Sesame Workshop
- THINKronize
- Verizon
- Wireless Generation

About the Partnership for 21st Century Skills

The Partnership for 21st Century Skills has emerged as the leading advocacy organization focused on infusing 21st century skills into education. The organization brings together the business community, education leaders and policymakers to define a powerful vision for 21st century education to ensure every child's success as citizens and workers in the 21st century. The Partnership encourages schools, districts and states to advocate for the infusion of 21st century skills into education and provides tools and resources to help facilitate and drive change.

To learn more about 21st century learning and state actions to date, visit www.21stcenturyskills.org.