



## Transforming to a World of Learning: A Federal Policy Agenda

## Table of Contents

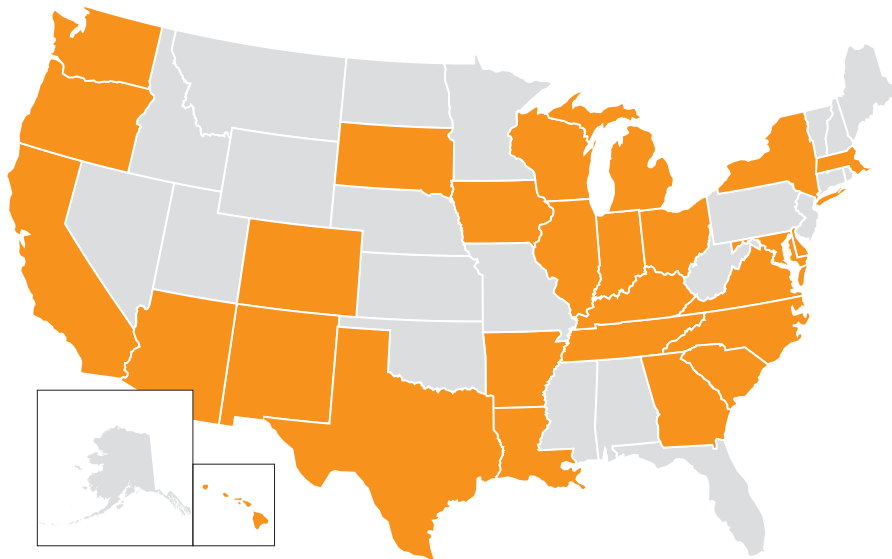
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About KnowledgeWorks . . . . .	1
Introduction to the World of Learning . . . . .	2
Transforming Low Performing Schools . . . . .	3
<i>Case Study: Canton, Ohio to Detroit, Michigan</i>	
Reimagining Districts and Communities . . . . .	4
<i>Case Study: Cincinnati, Ohio;</i>	
<i>Covington &amp; Newport, Kentucky</i>	
Advancing Educational Technology . . . . .	5
<i>Case Study: Manor, Texas</i>	
Fostering Innovation . . . . .	6
<i>Case Study: Columbus, Indiana</i>	
Driving Continuous Improvement . . . . .	7
<i>Case Study: KnowledgeWorks —</i>	
<i>More Than 20 States And Counting</i>	
The Result: The World of Learning . . . . .	8

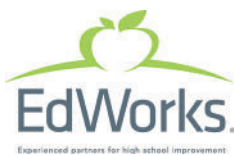
## About KnowledgeWorks

As an educational operating foundation, KnowledgeWorks has more than a decade of experience implementing approaches to high school education that prepare students for tomorrow's challenges, teaching them to create, adapt and solve problems. KnowledgeWorks has significant experience transforming underperforming schools in rural, suburban, and urban areas using an innovative portfolio of high school models. With a presence in more than 100 schools in more than 20 states, KnowledgeWorks is working to formalize the pathway between high school and postsecondary success.

### Our National Presence



KnowledgeWorks launched some of the best educational reform centers in the country, including:



**EdWorks:** EdWorks is a school turnaround organization that partners with schools, districts and states to provide effective, long-term solutions to improve student achievement. EdWorks offers different models of school redesign, which focus on rigorous curriculum and professional development, including STEM schools and early college high schools.



New Tech Network

**New Tech Network:** New Tech Network supports the start-up and implementation of innovative high schools that provide students with the skills to succeed in a dynamic and competitive global workforce. Through the integration of personalized and relevant technology and project-based learning, students master rigorous content and develop essential skills such as critical thinking, communication and leadership.



**Strive:** Strive helps communities create a civic infrastructure of business leaders, educators, policymakers, philanthropists, and community organizations committed to aligning services around shared goals for raising student achievement to ensure all students accomplish college and career success.

## Introduction to the World of Learning

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21st century learning should be fundamentally different than it is today. Despite years of investment and incremental reform, our education system lacks the personalization and relevancy to prepare every learner for the careers of tomorrow. The results of this failing system are all too clear: glaring achievement gaps, record high school dropout rates, declining international rankings, and extensive demand for postsecondary remediation. Our country is in dire need of comprehensive education reform that embraces a new way of thinking — a shift from a world of schooling to a world of learning. In an era increasingly motivated by innovation and international competition, our success depends on our ability to embrace this type of educational transformation.

As a leader in applying future trends to educational transformation, KnowledgeWorks seeks to inform thought leaders about the policy conditions critical to a world of learning. While the emergence of new technologies, school models, and anytime, anywhere learning, have begun to define learning environments of the future, federal policymakers must establish the policy conditions to help these innovations thrive.

### Personalized Learning

As technology continues to transform our daily lives, we have the opportunity to create learning experiences that are relevant, customized, and amplified. Students and families demand such experiences and will choose educational options that best meet their needs. As a result, districts and schools will have to adapt services to be effective in a vast marketplace for personalized learning. This includes investments in online, digital materials, mobile and social media technologies. Educators will also demand customized professional development to lead an explosion of new teaching roles. These changes will enhance the quality of learning for all students and provide richer, clearer career paths for educators.

In order to scale these emerging reforms, we must remove traditional barriers like measuring student progress through seat time which have little relevancy to competency based education. Districts should also explore ways to leverage learning experiences beyond their borders, blurring boundaries between the classroom, community, and the world.

### Efficient Delivery Systems

In an era of declining resources, leaders need to leverage scarce resources in a way that furthers student achievement. Districts must reevaluate governance structures and delivery systems, eliminate duplication, and identify potential cost savings. Efficiency is a critical component to the world of learning.

Districts must also deepen their connections with community. These partnerships should move beyond traditional school-community relationships and focus on integrating data systems, increasing transparency, and sharing accountability to serve all students. Alignment of school and community resources can leverage additional funding toward shared community outcomes and provide more opportunities for personalized, relevant learning experiences.

### Conclusion

The future promises significant opportunities for students if we challenge the way we think about our education system. A strong vision for comprehensive educational transformation can guide policymakers and educators through complex choices to preserve America's economic, political, and national security. The following policy recommendations provide a framework for transforming America's education system to support the world of learning.

## Transforming Low Performing Schools

The federal government has a responsibility to ensure all students have access to a high quality education regardless of who they are, or where they live. Given this responsibility, policymakers must enact policies that expand educational opportunities for millions of students trapped in low performing schools.

**Encourage the development and replication of innovative high school models.** With more than 7,000 students dropping out of high school each day, policymakers must focus resources on comprehensive high school reform. States must adopt college and career ready standards and encourage continued development of innovative new school models that give students in failing high schools the opportunity to enroll in rigorous and engaging academic programs. These models should include early college high schools, systemic technology integration, STEM academies, online and blended learning, and other models that ensure students are college and career ready by graduation. Districts should design curriculum with business and community organizations, integrating activities such as internships and community service to make learning relevant.

**Give states and districts the flexibility and support to ensure continuous improvement of all schools.** In order to ensure continuous improvement of all schools, the federal government should give states the flexibility to dedicate federal resources for school improvement activities in the lowest performing fifteen percent of schools in the state. This will help states target resources strategically and prevent the next tier from falling farther behind. Federal resources should also support ongoing school improvement activities in low performing schools demonstrating significant progress. The federal government should not restrict resources to the limitations of a grant cycle, but help schools transition to long-term sustainable outcomes.

**Create a force of skilled turnaround principals.** Quality leadership is essential to successful transformation of low performing schools. Given the shortage of principals with this expertise, the federal government should invest in principal recruitment and training programs that better prepare principals for the type of reform needed in failing schools. These programs should go beyond traditional leadership training, providing principals with professional development opportunities alongside educators focused on instruction and assessment. Tomorrow's principals should be trained in:

- Entrepreneurial skills
- Using data to ensure continuous improvement
- Developing flexible and resilient learning platforms
- Technology fluency
- Partnership development and community outreach
- Recruiting, developing, and retaining high quality human capital
- Designing and aligning anytime, anywhere learner-centric experiences

### Case Study

#### EdWorks — Transforming Schools from Canton, Ohio to Detroit, Michigan

With a poverty rate nearly twice the state average, and a district graduation rate of 53 percent, Canton Public Schools partnered with KnowledgeWorks to provide students with more engaging educational options. Between 2004 and 2008, the district divided McKinley and Timken high schools into smaller academies for ninth graders and themed academies for 10th–12th graders. The district also opened the Canton Early College High School (CECHS) to help struggling students earn a high school diploma and an associate's degree upon graduation. Graduation rates at McKinley and Timken high schools climbed from 60.5 and 59.7 percent in 2000 to 92.1 and 87.7 percent in 2010, respectively, and more than 50 percent of the graduates from the first two classes at CECHS earned associate's degrees. KnowledgeWorks continues to build on this success, launching EdWorks in 2007 to replicate the work nationwide. EdWorks is now transforming failing schools in some of the country's toughest districts, including seven schools in Detroit, Michigan.



## Reimagining Districts and Communities

Efforts to turn around the country's persistently low performing schools will not create lasting change unless failing districts undergo systemic reform. Districts and communities must play a critical role in supporting comprehensive school transformation and ensuring the continuous improvement of all schools. By working with community leaders to realign resources and support shared data-driven goals, districts can raise the performance of all schools; not just those targeted for intensive reform.

**Transform failing districts by establishing cradle to career community networks.** As an alternative to state takeover, districts with a significant number or percentage of students enrolled in a persistently low performing school should have the opportunity to submit a plan to the State to align student and community services into a more efficient cradle to career education system. Under this initiative, a district improvement team consisting of a broad range of education and community stakeholders would establish annual goals based on a needs and assets assessment and use a district-wide P-16 data system to measure ongoing progress in the following areas:

- School Readiness
- Academic Performance
- School Climate
- Family Engagement
- College and Career Readiness
- Alignment of District Systems and Resources

A substantial number of community organizations must integrate the P-16 data system into their provision of services to promote continuous improvement of all schools. Activities should be aligned with the district's Title I plan and ongoing federal school improvement activities occurring in the district's low performing schools. States should closely monitor district progress and proceed with appropriate state takeover requirements in districts that fail to make sufficient gains on leading indicators after two years of implementation. States should only invest in districts that can demonstrate cost savings and return on investment for realignment of district services.

**Eliminate duplication and misalignment of federal resources in failing schools.** As persistently low performing schools and districts receive an influx of federal, state, and philanthropic funding, the federal government should require districts to eliminate duplication of programs and demonstrate alignment between existing and new programs at the school level around curriculum design and support, leadership development, and professional development. This will ensure that districts have a clear plan for leveraging the greatest productivity from federal, state, and local resources. This alignment is critically important as federal programs prioritize low performing schools for various sources of funding.

### Case Study

#### The Strive Partnership — Cincinnati, Ohio; Covington & Newport, Kentucky

The Strive Partnership launched in 2006 to improve the educational outcomes of Cincinnati and Northern Kentucky youth. The partnership, led by presidents of the areas three main universities; superintendents of the Cincinnati, Covington and Newport school districts; and executives of the region's major employers, civic groups, early childhood organizations, and local charitable foundations, uses common goals and data-driven decision-making to realign district and community services into an efficient cradle to career system. After four years, Strive experienced gains in 40 of 53 of its academic, social, and emotional indicators. More than 30 communities are now exploring ways to adopt Strive's model with demonstration sites underway in Portland, Oregon; Oakland, California; Houston, Texas; and Richmond, Virginia. The annual *Striving Together* Report Card is available at [www.strivetogether.org](http://www.strivetogether.org).



## Advancing Educational Technology

We have a significant disconnect in our educational system. Advanced technologies used in our daily personal and professional lives are not being employed to their fullest in our country's classrooms. We need to accelerate effective use of educational technology to drive a greater level of student engagement and personalization in our schools.

**Invest in the implementation of a systemic technology integration model to transform failing schools.** This model would capitalize on technology usage to differentiate instruction and increase student engagement and achievement through technology rich traditional and blended environments. The federal government could support this innovation by adopting the proposed competitive grants for Systemic Technology Integration included in the Achievement Through Technology and Innovation (ATTAIN) Act or incorporating relevant school improvement activities in Section 1116 of ESEA.

**Improve the capacity of educators to effectively use technology in an integrative way to drive effective instruction, engage students, increase achievement, and assess student learning in real time.**

These efforts should focus on the following areas:

- Create technology infused professional development opportunities for all educators to increase digital literacy as well as the ability to employ technology in relevant, real-world ways in the classroom.
- Build the capacity of all educators, educational institutions, and developers to use technology to drive improvements in the use of formative and summative assessment tools, including tools to gauge real-time student learning.
- Increase opportunities for all educators to have access to technology-based content, resources, and instructional tools using online learning environments.
- Leverage the power of social networking platforms to create national communities of instructional practice to provide personalized professional development opportunities along the career continuum.
- Develop a force of educators skilled in online and blended instruction through partnerships with higher education and the private sector.

**Require states to establish quality control measures for online learning environments.** Online learning options, including mobile and virtual platforms, have exploded in the last few years opening up new and innovative ways to reach students, particularly those in rural or underserved communities. These learning options are valuable and usher in a new age of personalized, anytime, anywhere learning. However, entities using federal funding to provide these cutting-edge opportunities need to be fully aligned to college and career ready standards and fully accountable to state officials.

### Case Study

#### New Tech Network — Manor New Tech High School, Manor, TX

Manor New Tech High School, which opened in 2007, is part of a national network of 62 New Tech Network (NTN) schools in 14 states focused on standards-based educational technology. Manor's classrooms resemble the workplace with one-to-one computing and students working collaboratively to complete complex, real world projects. Teachers at Manor New Tech have taken advantage of New Tech Network's professional development, instructional coaching, and online learning management system to drive technology integration across the curriculum. Manor New Tech works closely with Samsung Semi-Conductors, University of Texas, and National Instruments to provide real world context for its use of technology. Manor has become a nationally recognized STEM school, an Apple Distinguished School, and as Secretary of Education Arne Duncan remarked, "Manor New Tech High School is a model for reaching underserved youth."



## Fostering Innovation

Innovation, research, and development propel our nation's economy. Educators must hone these transformative tools to appeal to next generation learners.

### **Replace Ed-Flex, State-Flex, and Local-Flex with an Innovation Zone program to incentivize flexible, engaging learning environments.**

States would apply for additional federal funding and flexibility to implement a comprehensive strategy that will raise student achievement in one or more of the state's regions. Innovation zones would implement all of the following strategies:

**Aggressive School Turnaround Strategy** Employ a variety of school reform models to ensure all schools in the zone meet their federal and state performance goals within two years. Such strategies may include: Implement a portfolio of innovative school models with open enrollment throughout the region; Build district capacity to support failing schools by implementing a cradle to career system of community, business, philanthropic, and government organizations; and Partner low-performing and high performing schools or districts to share best practices.

**Anytime, Anywhere Learning** Implement strategies to replace traditional learning structures with programs, technology, and community supports that enable 24/7 learning. Such policies may include: Waive requirements such as seat time, course name and sequence; Establish a data management system that provides real-time feedback to all stakeholders; and Incorporate digital learning so students have access to 24/7 digital content.

**Establish a Force of Turnaround Leaders and Educators** Reform the professional leadership and teaching culture to reflect the demands of today's learners. Such strategies may include: Retrain, recruit, and retain leaders with the skills necessary for school turnaround; and Provide customized professional development to prepare educators for the explosion of new teaching roles required to support anytime, anywhere learning.

### **Develop a robust research and development agenda to strengthen the resiliency of our education system as it adapts to new structures and learning environments.** This agenda should focus on the following:

- Teacher evaluation systems that assess teaching roles in emerging digital learning environments.
- Next generation assessments aligned to college and career ready standards and skills demanded by a global economy. These assessments should focus on competency and performance.
- Embedded, real-world, real-time formative assessment technologies, such as simulations, games, virtual worlds, and cognitive tutors to assess student learning and complex skill development.

## Case Study

### **New Tech Network — Bartholomew County School Corporation, Columbus, IN**

Bartholomew County School Corporation (BCSC) in Columbus, Indiana has developed an innovation zone in its school corporation. The state of Indiana, to create greater flexibility in its educational system, issued waivers for seat time, course title, teacher certification, and the ability to use textbook funds for technology. BCSC embraced the state waivers and has developed innovative schools across the K-12 continuum. These schools, anchored by the Columbus Signature Academy New Tech High School, utilize one-to-one technology, project based learning, online learning management systems, and collaborative teaming of students and teachers. BCSC has created greater personalization for students by developing pioneering practices along a designed feeder pattern while exporting these new practices to all schools in the district. BCSC is infusing innovation across their community by creating a portfolio of options for all students while designing new roles and opportunities for educators to usher in a world of learning.



## Driving Continuous Improvement

Over the past decade, data systems have become integral to the design and implementation of effective programs. They provide educators with the tools to create a diverse range of personalized learning experiences. The federal government must build on this progress, encouraging states and districts to invest in robust data and accountability systems that help maximize impact on student learning.

**Invest in the interoperability of state and district longitudinal data systems to enhance data-driven decisionmaking at the state and local level.** Encourage systems to align data from early childhood to workforce, to link with community providers, and to expand access to key stakeholders. Access to data along the education continuum will enable educators and community stakeholders to make more informed decisions regarding education investments.

**Establish a comprehensive accountability system to ensure continuous improvement of state, district, and school reform strategies.** This system should, at a minimum, include the following multiple measures of student learning:

- Evidence of achievement and growth in content as measured by proficiency on state assessments.
- Evidence of achievement and growth in complex demonstrations of learning that measure the full range of knowledge and skills necessary to succeed in college and 21st century careers.
- Evidence of rigor and college and career readiness as measured by rates of credit accumulation, the percentage of students taking and passing college-level coursework, graduation rates, and college enrollment rates.

**Standardize data collection requirements throughout ESEA to minimize reporting burdens on states, districts, and schools.** The federal government should simplify the application process by permitting eligible entities to report the same set of data indicators for all programs authorized by ESEA. Aligned federal data requirements would eliminate unnecessary indicators, lead to greater interagency collaboration, decrease duplication, enhance evaluations, and improve federal administration of programs.

**Federal grant programs should include an efficiency clause that requires applicants to demonstrate the cost-effectiveness of their programs as a condition of continued funding.** The federal government should withhold funding from grantees who fail to meet this benchmark and redirect resources to technical assistance programs designed to help interested applicants develop strong applications.

**Require federal grantees to pursue rigorous continuous improvement training, create systems to track data and outcomes, and develop plans for implementing continuous improvement.** Recipients of federal funding should routinely set student achievement benchmarks, and report on how funded efforts are improving outcomes, not just on how many students are being served.

### Case Study

#### KnowledgeWorks — More Than 20 States and Counting

Given its commitment to data collection and continuous improvement, KnowledgeWorks is developing a robust database to track and analyze data from the work of its three subsidiaries — EdWorks, New Tech Network, and Strive. The foundation has also partnered with third party researchers to refine and improve its work in schools and communities across the country. There is significant potential for national organizations, like KnowledgeWorks, with its presence in more than 20 states, to create robust data systems that could inform education transformation at the local, state, and national levels. The federal government could further empower this work by removing current barriers for cross district and state data comparisons. Better alignment of reporting systems, analysis, disaggregation and timelines will help educators and policy-makers make more informed decisions regarding education investments.



## The Result: A World of Learning

Major forces of change have made it possible to conceptualize a World of Learning that puts learners at the center, leverages technology and human capital in new ways, and incorporates new structures that enable anytime, anywhere learning. While these forces have significantly changed the quality of learning for some students, federal, state, and local policymakers must embrace these reforms to make the World of Learning a reality for all. In this world, learning will be customized, connected, amplified, authentic, relevant, and resilient to prepare the next generation of learners for success in college, careers, and beyond.

In order to fully realize the World of Learning, policymakers must overcome a host of paradoxes. How will we scale innovative bottom-up reforms in our traditional top-down education system? How do we respond to emerging “educitizens” who demand their rights as learners without neglecting the one in five

children living in poverty, many of whom are trapped in persistently low-performing schools? Furthermore, as some communities across the country begin to establish flexible, open, and adaptive infrastructures, how will we encourage other cities to strive for resiliency, especially the industrial cities that have devolved in the economic downturn?

While we face many challenging questions, we cannot lose sight of the significant educational opportunity that lies in the World of Learning. Implementation of these recommendations will redefine learners, learning agents, and learning systems to cultivate the deep knowledge and abilities needed for our country to keep pace with the demands of tomorrow.

### The Learners

- Interact with educators and with experts in their communities and around the world to customize learning experiences based on competency and interest instead of time and age;
- Make an impact on their immediate and broader communities as they engage in service-based, project-based, and other types of immersive and authentic learning experiences;
- Contribute, co-create, take risks, feel ownership, and even make use of failure as they engage in a continuous learning process; and
- Use data to understand their own cognitive, social, and emotional strengths and challenges.

### The Learning Agents — The Educators of Tomorrow

- Seamlessly orchestrate digital learning experiences using technologies of cooperation, immersive games, and other next generation media while also incorporating a multi-faceted understanding of individual learners;
- Amplify their ability to serve “the whole student” by creating connections with their immediate communities and with experts and resources around the world; and
- Integrate multiple ongoing data streams to make continuous authentic assessment processes transparent to learners, parents, and other key stakeholders.

### The Learning System

- Incorporate a diverse range of institutions and organizations;
- Make use of flexible and adaptive learning platforms that support the fluid distribution of high-quality learning experiences across geographic boundaries;
- Make nimble adjustments in response to frequent feedback from multiple data streams; and
- Create new partnerships and models for thinking innovatively about funding.