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Competency Education Series: Policy Brief One

An Emerging Federal Role for Competency Education

KnowledgeWorks.

College & Career Readiness for Every Student

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INTRODUCTION

After two decades of standards-based reform, a new education paradigm has begun to take hold – the rise of competency education. This new vision builds on the strong foundation of new college and career ready standards, challenging stakeholders to design an education system that emphasizes mastery of content standards and the transferable skills critical to success in college and today's workforce. A competency education system puts students at the center, replacing rigid time-based structures with flexible learning environments that ensure students receive the support and extra time they need to succeed. This highly-personalized approach provides clear, individualized pathways to student proficiency that help mobilize stakeholders around the collective goal of college and career readiness for all students.

A growing number of states and districts have begun to embrace this vision for education, leading to an explosion of new policies, pilot initiatives, and tools designed to help schools implement competency-based approaches.

The success of the competency movement depends heavily on the federal government's willingness to partner with states and districts as they design education systems that put students at the center. A true partnership will grant states the flexibility to innovate and develop equally ambitious accountability and assessment policies that better align with student centered education to ensure all students graduate with the knowledge and skills to succeed.

This paper is the first in a series to help policymakers define the appropriate role for the federal government supporting competency education in the nation's K-12 schools. In this inaugural paper, KnowledgeWorks will help

> "Despite growing national interest, a number of challenges created by federal policy make it complex and difficult for states and districts to redesign their education systems to support competency education at scale. The most significant barriers stem from the federal government's reliance on time-based accountability and assessment systems that conflict with the core elements of competency education."

policymakers develop a deeper understanding of the competency model, the growing national movement, and key barriers within federal accountability and assessment systems that pose a challenge to this work. This paper will conclude with the vision for KnowledgeWorks' competency education series, including a plan to engage policymakers and implementers critical to this paradigm shift in the development of a federal accountability and assessment framework that supports continued innovation.

PART ONE: Understanding Competency Education

America's education system has mobilized around the shared goal of college and career readiness for all students. States have adopted and are implementing new college and career ready standards and assessments, districts and schools are increasing their rigor, and community leaders are working alongside schools to provide the necessary supports to meet this goal. Yet amidst this activity, a growing number of stakeholders have begun to ask an important question, "What do we really mean by college and career readiness for all students?"

According to recent studies of postsecondary and workforce readiness, today's graduates face significant gaps in both knowledge and skills. A 2012 study by Complete College America found that a record 51.7 percent of students enrolled in community colleges and 19.9 percent of students enrolled in four year institutions place into remedial coursework.[1] Recent surveys conducted by the Business Roundtable found similar issues in the workforce. An alarming 60 percent of employers say it is difficult to find qualified employees, especially those with "soft skills" such as work ethic, accountability, and self-motivation. Workers seemed equally aware of this skills gap, with 80 percent expressing an interest in additional skills training.[2]

While the adoption of new college and career ready standards is a significant step in the right direction, these standards will not achieve their intended impact unless states, districts, and schools build dynamic instructional programs that enable students to engage in deeper learning. The Common Core State Standards, which were developed with the leadership of the Council of Chief State School Officers (CCSSO) and the National Governor's Association, have received high marks from educators for improving alignment to postsecondary and integrating concepts that will require students to apply knowledge using high-order thinking skills.[3] Despite this improvement, competency implementers agree that the common core state standards lack the full depth needed to ensure students also master the workforce and social and emotional skills necessary for graduation. Successful implementation of these standards will depend on the adoption of models like competency education that challenge learners to apply standards through mastery of deeper learning objectives.[4]

[1]Remediation: Higher Education's Bridge to Nowhere," Complete College America, pg. 6, (April 2012) <http://www.insidehighered.com/sites/default/ser er_files/files/CCA%20Remediation%20ES%20FINAL.pdf.>..

[2]Lifelong Learning: An Essential Factor in Workforce Success and Global Competitiveness," Business Roundtable, (8 October 2009) <http://businessroundtable.org/studies-and-reports/american-worker-survey-telebriefing/>.

[3]National Governors Association Center for Best Practices, Council of Chief State School Officers, Common Core State Standards, National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C., (2010) <http://www.corestandards.org/>.

[4]"Deeper Learning Defined," The William and Flora Hewlett Foundation, (March 2013) <http://www.hewlett.org/library/grantee-publication/deeper-learning-defined>.

A Working Definition

A growing awareness of America's knowledge and skills gaps gave rise to a number of deeper learning models, including competency education. At its core, competency education is an approach that empowers students to demonstrate mastery of a wide range of knowledge and skills at their own pace. This approach gives graduates an ability to showcase true mastery of learning instead of a transcript that tells colleges and future employers little more than an accumulation of credits or classes.

To more fully define this approach, educators and advocates went in search of a new solution, one that relies less on how many hours a student sits inside a classroom each day and more on the knowledge and skills that student needs to ensure a smooth transition to postsecondary and the workforce. In 2011, CCSSO and the International Association for K-12 Online Learning (iNACOL) convened innovators and policy leaders at a competency education summit to develop a working definition for competency education. This definition, listed in the chart below, has helped implementers and policymakers nationwide explore the transition to competency education.

In 2012, the Smarter Balanced Assessment Consortium's (SBAC) Proficiency-Based Learning Task Force released a new working definition for competency education informed by the growing body of work on the ground. This definition, also listed in the chart below, provides an excellent description of competency education. The new emphasis on personalized learning, student voice and the broadening of learning experiences to those outside the classroom are critical elements to quality implementation.

2011 Competency-Based Summit Co-sponsored by CCSSO & iNACOL	2012 SBAC Proficiency-Based Learning Task Force Final Report
1) Students advance upon mastery. 2) Competencies include explicit, measurable, transferable learning objectives that empower students. 3) Assessment is meaningful and a positive learning experience for students. 4) Students receive timely, differentiated support based on their individual learning needs. 5) Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.	1) Students advance upon demonstration of mastery of content, 21st century skills, and dispositions that prepare them for college and careers. 2) Learning standards are explicit, understood by students, and measurable. 3) Assessments – formative, interim, and summative – measure and promote learning. 4) Demonstration of learning uses a variety of assessment methods including in-depth performance assessments that expect application of learning. 5) Instruction is personalized, flexible, and adaptable to student needs – both initially and as required by student learning. 6) Students both direct and lead their learning even as they learn from and with others – both within and outside of school. 7) Grading is used as a form of communication for students, parents, and teachers – not control or punishment.

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Competency Education in Practice

Competency education represents a significant shift in teaching and learning. This shift does not happen overnight, it often takes years of planning and phased implementation for schools to implement a model with fidelity. As more educators explore competency-based approaches, it is important to visualize implementation along a continuum. This phased approach gives all stakeholders the opportunity to engage in the transformation, identifying the best strategies for their specific learning environment. Many schools may be surprised to learn they have already begun the journey through adoption of strategies such as blended learning, personalized instruction, and grading systems that reflect mastery of academic content and skills.

The continuum below will help innovators and policymakers differentiate between full-scale competency models and those that have begun to pave the way for this work. Schools that take the first step from a traditional learning environment to an emerging competency system will begin to see significant improvements in the quality of learning. Student engagement and performance will increase, teachers will leverage more resources and partnerships to impact learning, and graduates will be better prepared for the transition to college and career. Schools that aspire to go a step farther with implementation of a full-scale competency model will experience a complete transformation. Students will take control of their education, learning will happen everywhere, and educators will play a dynamic role in personalizing every day of the learning experience for their students.

Competency Education Continuum

	Traditional	Emerging	Competency-Based
School Culture	Learning happens inside a traditional classroom with little to no accommodation of student interests and learning styles.	Educators make limited accommodation for student interests and learning styles by incorporating real-world experiences and partners into the classroom.	Students choose from a wide range of learning experiences at school, online, and in their community. Educators work with diverse partners and students to piece together individual learning pathways that accommodate student interests and learning styles.
Learning Progression	Students are expected to master grade level college and career ready standards.	Students are expected to master grade level college and career ready standards and transferable skills.	Students are expected to master competencies aligned to college and career ready standards. Each competency has clear, transferable learning objectives.
Learning Pace	Students advance at the instructor's pace regardless of whether they mastered the learning objectives or need additional time.	Students may take accelerated courses if they demonstrate readiness. Students receive specialized support when they fall behind peers. Educators continually group students to encourage peer learning and maximize learning gains for all.	Students receive customized supports and accelerated opportunity both in-school and out-of-school to ensure they stay on pace to graduate college and career ready.

Instruction	Every classroom has one teacher who designs and delivers an instructional program with very little differentiation for individual students.	Educators engage in some collaboration across teams and content areas to align and differentiate instruction based on real-time feedback on student performance.	Educators work collaboratively with each other, community partners, and students to develop a unique learning plan for every student based on student interests, learning styles, and real-time data.
Assessment System	Assessment instruments are used at set times to evaluate and classify students, not to guide instruction. Students have one opportunity to take the summative assessment at the end of the year.	Educators use formative assessment instruments when they believe students are ready to demonstrate mastery. These assessments help educators tailor instruction so that more students are ready to master the summative assessment at the end of the year.	A comprehensive assessment system is an essential part of the learning system. Formative assessments guide daily instruction and student selection of customized learning opportunities. Summative assessments show mastery of competencies. Students take these assessments when they are ready and have multiple opportunities to demonstrate mastery.
Grading Policies	Grades are norm-referenced, reflect mastery of course standards, and are typically based on weighted quarters and a final exam.	Grades reflect mastery of course standards and skills and are typically based on weighted quarters and a final exam or project. Students have multiple opportunities to demonstrate mastery of required coursework.	Grades reflect the degree of mastery of competencies ranging from advanced to not yet competent. When students do not earn course credit their record indicates competencies that need to be re-learned instead of the entire course.

A Pathway to High Quality Competency Learning Environments
Tracking the Paradigm Shift

Thanks in large part to the early leadership of states like New Hampshire, Maine, and Oregon, competency-based approaches have experienced tremendous growth in recent years. Significant milestones exist at every level of the education system, representing a shift from early stage replication to systems reform at the state and national level. Some of these key milestones include:

▶ At least 40 states have one or more districts implementing competency education in their state due in large part to growing competency providers such as the Reinventing Schools Coalition (RISC)[5], Diploma PLUS[6], and Expeditionary Learning.[7]

▶ 39 states have enacted seat time waivers or competency education laws. iNACOL's 2013 scan of state policies[8] breaks this down further:

[5]<http://www.reinventingschools.org/about/risc-in-action/>.
[6]<http://www.diplomaplus.net/our-schools.html>.
[7]<http://elschools.org/about-us/school-network>.
[8]<http://www.competencyworks.org/wp-content/uploads/2013/02/inacol_competency_snapshot_feb_2013.pdf>

- Four states have implemented statewide policies to redesign their education systems to support competency based learning at scale (IA, ME, NH, OR)

- Fourteen states have implemented competency education pilots, credit-flexibility policies, or advanced next generation policies for equivalents to seat-time (AL, AZ, CT, CO, FL, ID, KY, NC, NY, OH, RI, TN, UT, WV)

- Eight states are beginning to explore competency education through district waivers or exploratory task forces (MI, NJ, SC, TX, VA, VT, WA, WI)

- Ten states have joined the Council of Chief State School Officers (CCSSO) Innovation Lab Network[9] to identify new designs that further student centered learning and the conditions to help these innovations thrive. (CA, IA, KY, ME, NH, NY, OH, OR, WV, WI)

▶ SBAC launched a Proficiency-Based Learning Task Force to develop recommendations for aligning the SBAC assessment with emerging competency education systems.[10] A wide range of formative assessments are also being developed to support growing demand for personalized learning approaches such as competency education.

▶ The Federal Government signaled support for this movement by including a competitive priority for personalized learning in its 2012 District Race to the Top competition.

▶ Competency education has become a common practice in the higher education community as a growing number of postsecondary institutions launch competency-based options for students. Western Governors University, a private online institution, has formed partnerships with Texas, Washington, Indiana, Missouri, and Tennessee to provide flexible options for adults seeking a postsecondary degree. In early 2013, the University of Wisconsin System became the first public university system to offer multiple, competency-based bachelor's degrees.[11] The Federal government responded to growing interest from the higher education community with a March 2013 Dear Colleague Letter to Institutions of Higher Education (IHEs) clarifying legislative authority for institutions seeking federal approval for degree programs that do not rely on the credit hour to measure student learning.[12]

▶ The philanthropic community has begun to invest in competency-based strategies including the Bill & Melinda Gates Foundation, the Lumina Foundation, and the Nellie Mae Education Foundation.

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[9]<http://www.ccsso.org/What_We_Do/Innovation_Lab_Network.html>.
[10]Ruff, David J. and Paul Leather, "Proficiency-Based Learning Task Force, June 1 – September 30, 2012: Final Report, October 11, 2012," Smarter Balanced Assessment Consortium, (11 October, 2012) <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxjb21wZXRlb mN5YmFzZWRwYXRod2F5c3xneDoxNTFlZGY4ZTkyZmEyNzA0>.
[11]Porter, Caroline, "College Degree, No Class Time Required: University of Wisconsin to Offer a Bachelor's to Students Who Take Online Competency Tests About What They Know," Wall Street Journal, (January 24, 2013) <http://online.wsj.com/article/SB10001424127887323301104578255992379228564.html.>
[12]Fain, Paul, "Beyond the Credit Hour,' Inside Higher Ed, (March 19, 2013) <http://www.insidehighered.com/news/2013/03/19/feds-give-nudge-competency-based-education>.

<p style="text-align:center">PART TWO: An Emerging Federal Role</p>

While the federal government has begun to advance competency education through small innovation grants and guidance to postsecondary institutions, federal policymakers have yet to implement systemic changes to support this movement. Of the many barriers to implementation of this work, the greatest conflict stems from disconnect with the work on the ground and federal accountability and assessment systems. Implementers faced with this disconnect have no choice but to juggle two systems: one required by federal law and one developed by the educators, students, parents, and community leaders committed to successful implementation of competency education.

<p style="text-align:center">Accountability</p>

An ambitious accountability system is a critical component of an effective school system. Clear goals and benchmarks help stakeholders track progress and make necessary adjustments to the education system to ensure every student graduates college and career ready. Competency education shares this commitment to an ambitious accountability system. In these models, a broad spectrum of stakeholders engage in the learning process, using data continuously to ensure all students are on track to meet benchmarks and goals. When students are off-track, educators identify the problem immediately and reallocate supports to ensure students make the necessary growth to be on-track. When students appear advanced, educators recognize this immediately and provide students with accelerated learning options to prevent boredom and disengagement. This approach emphasizes the daily performance of students and the personalized strategies for ensuring progress throughout the year. Summative data provides the necessary check to ensure all students are progressing at an acceptable pace and ready to advance to the next level.

The federal accountability system, however, serves a different purpose. The Elementary and Secondary Education Act (ESEA) requires states to report annual performance of districts and schools on state summative assessments and to use this data to classify districts and schools for interventions and supports. Although classifications do provide transparency of annual performance data, they do little to support continuous improvement of the education system. This time-based approach makes it difficult for competency implementers who generate summative and formative data continuously according to student learning pace, not school year. These differences raise significant challenges around reporting, classification of schools, and selection and timing of interventions.

Competency education advocates also question the federal accountability system's selection and weighting of metrics. The heavy emphasis on state math and English language arts tests, for example, does not represent the depth of learning in competency-based schools where students are expected to master standards and transferrable workforce and social and emotional skills. The additional focus on graduation rates, while critically important, needs to be complimented by an even more rigorous focus on graduation requirements.

When adopting a competency based system, states should reevaluate what students need to master in order to obtain a high school diploma. The question is not about whether to collect and use graduation rates – we should. The real question is how to improve the way graduation rates and requirements are used in competency based systems to ensure they inform and improve instruction.

The chart below provides an overview of elements within the federal accountability system that currently fail to align with competency education.

Accountability Barriers

- Federal Law Requires States to Implement a Time-Based Accountability System
Federal law requires states to establish Annual Measurable Objectives (AMOs) for each school and district based in large part on student achievement on the annual summative assessments. States are also required to use this
information to make annual determinations regarding the classification of schools and districts for interventions and supports. This structure does not lend itself toward demonstration of competency.

- The Metrics of the Federal Accountability System Do Not Align With a Competency-Based System
The Federal accountability system takes into account annual student achievement in math and English language arts for all students and subgroups and annual graduation rates. The ESEA waiver flexibility extended this to include
student growth in the above subjects as well as student achievement in other subjects. None of these metrics take into account mastery of competencies or other measures that states find important to the implementation of a
competency-based system.

- The Federal Accountability System is Designed to Classify Schools and Districts for Improvement
Federal law requires states to use annual accountability data to rank schools and districts for improvement. This conflicts with the purpose of a competency-based system which aims for continuous improvement of all students, schools, and districts. An accountability system in a competency environment would use real-time instead of annual data to drive improvement.

- Federal Law Does not Account for Student Growth, only Achievement
While the ESEA waiver flexibility process does permit states to incorporate student growth into their accountability calculations, this provision is not codified by federal law. States moving to a competency-based system must have a way to track student progression on college and career ready standards and aligned competencies for accountability purposes.

Assessment

Much like accountability, a comprehensive assessment system is essential to a high-performing school. When implemented well, assessment instruments can empower educators to make critical decisions about school design, instruction, and student supports. Competency models depend heavily on a robust assessment system.

Daily diagnostic tools help educators, parents, and students monitor proficiency levels to ensure adequate pacing of the instructional program. They also help educators know when a student is ready to take a performance-based summative assessment. Those who pass the assessment have the opportunity to advance immediately to more challenging work while those who need additional support receive targeted instruction until they are ready to retake the test. In these environments, assessment is an embedded tool to guide learning. Formative, interim, and summative assessments build on each other to ensure every student has timely, targeted support to meet his or her academic goals. Together, these assessments form a comprehensive system that provides educators with the information they need to design personalized learning plans (PLPs) for every student.

The nation's current assessment system must undergo a number of systemic changes to fulfill the promise of competency education. Fortunately, a national movement to improve the quality and comparability of state assessment systems has the potential to elevate discussions critical to competency education. The two state-led assessment consortia leading this movement, the Partnership for Assessment of Readiness for College and Careers (PARCC) and the SBAC, are working to develop next generation assessments aligned to the new College and Career Ready Standards. These assessments – a combination of formative, interim, and summative systems - will provide educators with timely and meaningful feedback on student performance so all stakeholders in the system can better target instruction and supports. Both consortiums intend to develop real-time digital assessment systems to ensure expedited delivery of results.

While these improvements are a significant step in the right direction, a number of federal assessment policies continue to pose challenges to competency education. Federal law requires states to administer annual assessments in grades three through eight and once in grades ten through twelve for math, English language arts, and science. The annual testing window assumes all students learn at the same pace, giving states and districts little flexibility to design personalized learning systems. This time-based approach, once again, does not align with the basic principles of competency education. In a competency environment, a student would not have to wait until the end of the year to demonstrate mastery of concepts achieved earlier in the year.

Similarly, as mentioned before, state summative tests are not sufficient measures of success in competency-based learning environments. A test is only considered valid if it was designed for the purpose in which it is used. Since current state assessments were designed to measure the achievement of students on state standards, not competencies aligned to those standards, they do not provide a comprehensive view of student learning. States and districts interested in competency approaches have begun to supplement current state tests with performance-based assessments designed to measure mastery of competencies. While this gives educators a better understanding of student performance, federal policies requiring comparability of assessments statewide make it difficult for competency-based districts in search of a more appropriate assessment solution.

In addition to the above barriers, cost remains a significant challenge in the development of comprehensive

assessment systems. According to a recent poll conducted by SBAC, states spend on average $31 per student to develop and administer current assessments.[13] That estimate amounts to nearly $200 million in a state like California where more than six million students attend public schools. Although the federally-funded assessment consortia hope to drive this cost down, states will need to invest significant dollars just to implement and maintain these new assessment systems. These financial challenges will make it very difficult to engage in state-wide conversations about next generation assessments. Challenging topics could include whether to give students multiple opportunities to demonstrate mastery on summative assessments, how to develop through-course assessments, and whether states should financially support the development of formative assessment systems that help educators target instruction. Unfortunately, current federal resources for assessment systems remain inadequate to fund these types of improvements.

The chart below provides an overview of elements within the federal assessment system that currently fail to align with competency education.

Assessment Barriers

• <u>Federal Law Requires States to Implement a Time Based Assessment System</u> Federal law requires states to verify academic performance through annual assessments in grades 3 through 8 and once in grades 10 through 12 for math, reading/English language arts, and science. These assessments shape, in a significant way, the education system's instructional focus and time.
• <u>Federally Required Assessments Were Not Designed to Measure Mastery of Competencies</u> Federal law requires states to administer high quality assessments aligned to academic achievement standards but does not require or incentivize alignment of those assessments to competencies. As a result, states interested in a competency-based system must either develop an expensive new summative assessment that measures mastery of standards and competencies or supplement their current assessment system with performance-based or local assessments. Federal law requiring standardization of any system of assessments makes the latter equally costly and time consuming.

• <u>Federal Resources Are Inadequate to Develop a Robust Competency Assessment System</u>
Federal resources are not intended to develop assessment systems that would do the following:
  ▸ Enable states to administer the summative assessment multiple times in a given year to ensure students are assessed when ready and have multiple opportunities to demonstrate mastery.
  ▸ Enable states to use a series of through course assessments for summative purposes.
  ▸ Help districts develop a performance tracking system to better understand the likelihood of student mastery of summative assessments throughout the year instead of on an annual basis.

Next Steps in the Policy Conversation

KnowledgeWorks believes the federal government has a critical role to play in the competency education movement. Despite significant state and district leadership, widespread replication cannot happen without systemic change led by federal leaders. Federal action should not be taken lightly, however. Policymakers should engage in a national dialogue with thought partners at every level of the system to identify a policy balance that enables innovation without jeopardizing the core values of equity and excellence for all students.

Over the next year, KnowledgeWorks will conduct a deep dive with competency education implementers and state policy experts to assist policymakers in determining the proper federal role for advancing this work.

This deep dive will focus on three main questions:

1) *What are the key elements of a student-centered accountability system that emphasizes mastery of college and career competencies over time-based approaches and policies?*

2) *As more states and districts adopt competency approaches, how can the federal government ensure all students have access to a valid and robust assessment system that provides immediate feedback on student performance and guides targeted instruction to ensure mastery of college and career competencies?*

3) *As the rise of competency education begins to erode the traditional boundary between the K-12 and postsecondary education systems, how should the federal role change to ensure college and career success for all students?*

In an effort to share our findings with policymakers and education thought leaders, we plan to release a series of policy briefs on competency education throughout the year. These publications will explore the guiding questions above and elevate best practices in implementation and policy to help policymakers connect to pockets of innovation across the country.

Highlights of forthcoming publications include:

• <u>Evaluating the Impact of Early Federal Investment in Competency Education</u>– The best starting point for a discussion on the proper federal role in competency education is a scan of recent federal actions that helped communities launch or replicate this work. This analysis will provide policymakers with greater awareness of the early federal investments in competency education, helping lay the groundwork for deeper policy discussions.

- Lessons from State Efforts to Build Competency-Based Accountability and Assessment Systems–
A growing number of states have enacted policies to support competency education, including policies impacting accountability and assessment. This paper will help policymakers explore options for improving accountability and assessment policies by showcasing state approaches to these issues.

- A Federal Accountability and Assessment Framework for Competency Education– This paper will provide federal policymakers with an accountability and assessment framework that would support continued growth and resiliency of a competency-based education system. The policies outlined the framework will reflect extensive interviews and site visits with competency implementers and state policy leaders. The goal of this paper is to help policymakers grasp the policy conditions necessary for a complete transformation to competency education.

CONCLUSION

The competency education movement has had a significant impact on education in recent years. In just under a decade, the movement has evolved from a few isolated experiments to a national network representing work on the ground in nearly every state in the country. Widespread implementation has generated significant policy momentum, elevating conversations about mastery of competencies, elimination of seat-time, and student pacing. As this work continues to grow, and policy conversations become more complex, federal policymakers will have no choice but to reexamine the federal role in competency education. A thoughtful discussion about the barriers inherent in federal accountability and assessment systems is central to this effort. KnowledgeWorks will help policymakers navigate these challenging conversations, bringing together thought partners from all levels of the system to help design a policy environment that supports this educational transformation. Collectively, we will work to ensure that all students have the opportunity to master the competencies critical for college and career success.

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ABOUT KNOWLEDGEWORKS

We are a social enterprise focused on creating sustainable improvement in student readiness for college and careers. Through our portfolio of school and community approaches, we provide innovative tools, training and assistance to school leaders, teachers and community stakeholders. The KnowledgeWorks portfolio includes three subsidiary organizations: New Tech Network, EDWorks and Strive.