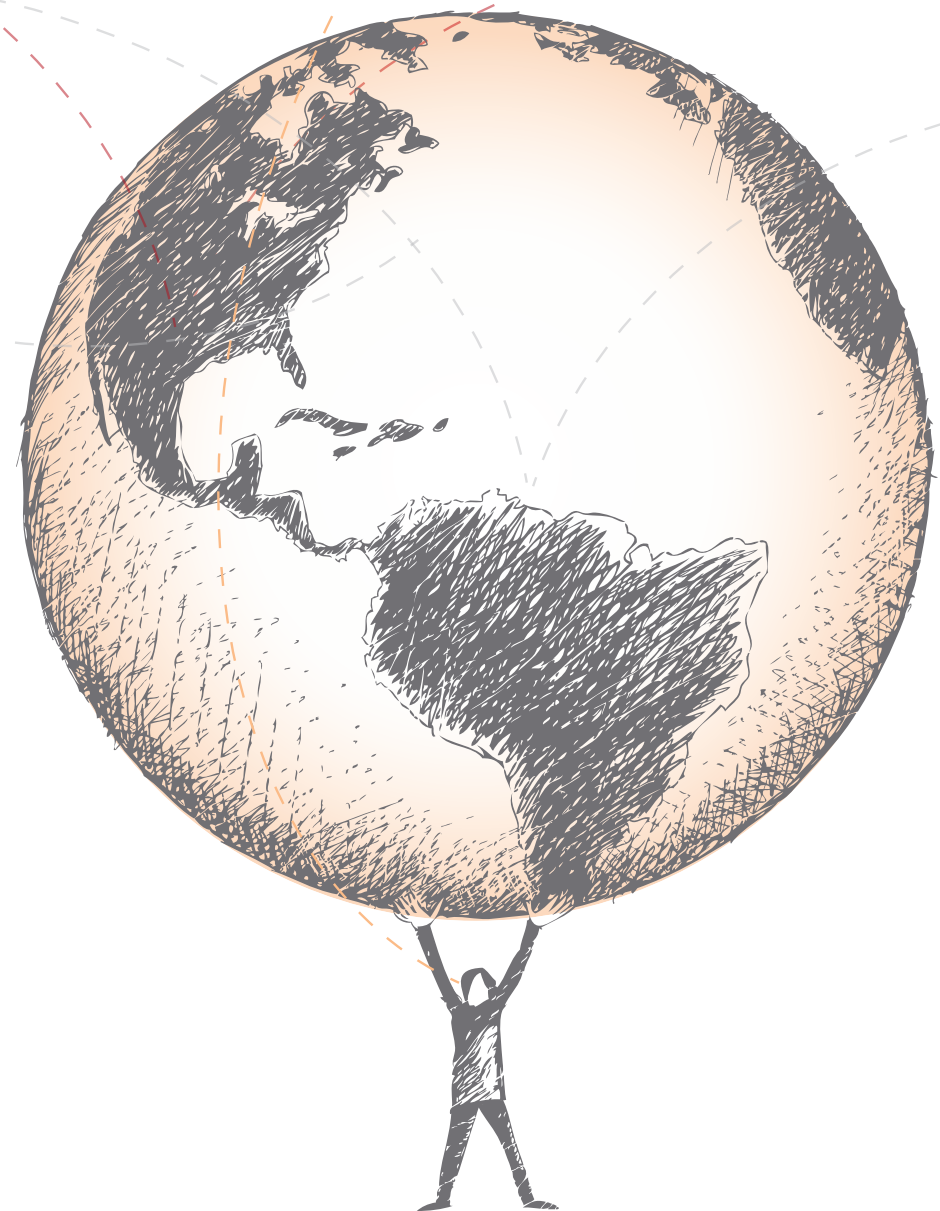
KnowledgeWorks

Building Consensus and Momentum:

A Policy and Political Landscape for K-12 Competency Education



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February 2015

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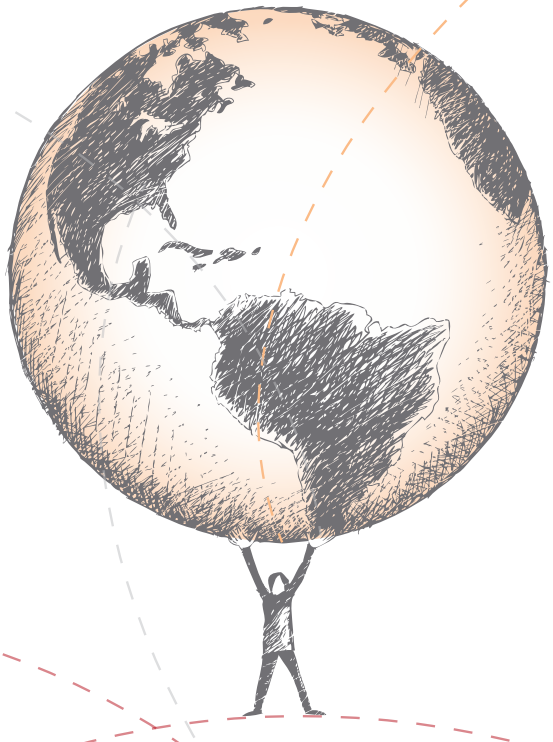


February 2015

Dear Federal Policymaker:

KnowledgeWorks and the Nellie Mae Education Foundation believe that competency education provides a significant opportunity for our nation's children. Our ability to compete as a nation—and for states, regions, and communities to attract growth industries and create jobs—demands a fresh approach to public education. The one-size-fits-all approach of our past and present will not ensure our future economic and democratic success. Personalized, student-centered approaches to teaching and learning are on the rise in schools across the country. We encourage policymakers to help lead this transformation by partnering with states and districts to advance promising competency-based practices that give all students the opportunity and intensive support to master the knowledge and skills they need to succeed.

Federal and state policies governing K-12 education must evolve to support the growth of competency education. Schools and districts implementing competency-based models must keep "two sets of books" - one that aligns with the competency-based system they value, and one to satisfy federal and state laws that align to the traditional system.

In order to address this disconnect, KnowledgeWorks and the Nellie Mae Education Foundation encourage federal policymakers to create a set of state level pilots that will give states the flexibility to test, refine, and scale promising competency-based models. These pilots should ensure states address the following elements:

- Focus on high quality implementation of competency-based approaches that emphasize mastery while closing achievement gaps between subpopulations of students.
- Create a shared accountability structure where each level of the system – federal, state, and, local – has ownership in student success.
- Administer a balanced system of summative, interim, performance, and formative assessments that measure student mastery of academic knowledge and social and emotional competencies.
- Build capacity of states and districts to continuously improve competency-based approaches, identifying what works and refining strategies to maximize success.
- Implement a personalized and adaptive system of learning and supports to close achievement gaps and ensure all students remain on pace to graduation.

As policymakers explore a new vision for K-12 education, it is important to provide states with the flexibility to innovate, evaluate, and build a system that can transform the way we educate our students. A competency-based pilot is the first step in this transformation - one that will help states identify high-quality strategies while empowering policymakers to build a policy framework that will maximize student success.

KnowledgeWorks and the Nellie Mae Education Foundation hope policymakers will use the ideas presented in this report to shape a K-12 competency education pilot program. These ideas are the result of a year-long intensive conversation with practitioners and thought leaders immersed in implementation of competency-based models. While this report does not offer definitive policy recommendations, we believe it accurately captures many of the conversations happening in the rapidly advancing field of competency education. We encourage the policy community to use the ideas in this report as guidance for shaping future policy conversations on next generation education reform.

We hope you find this report informative. Please do not hesitate to contact our organizations if we can serve as a resource as you begin to build a new policy framework for K-12 education.

Sincerely,

Judith A. Peppler
President & CEO
KnowledgeWorks

Nick Donohue
President & CEO
Nellie Mae Education Foundation

Executive Summary

America's education system must undergo significant transformation to keep pace with today's rapidly changing economy. Our nation's skills gap will continue to widen if educators and policymakers do not have a serious conversation about how to transform the K-12 system so every graduate has the knowledge and skills to excel in college and career. Fortunately, a growing number of states and districts have embraced a new approach to teaching and learning that has the potential to solve the nation's workforce challenges. This approach, called competency education, emphasizes student mastery over time, ensuring that every student demonstrates critical knowledge and skills before advancement.

Despite its potential, competency education cannot scale unless policymakers address a number of barriers that make it challenging to transform teaching and learning. Many of these barriers stem from federal laws that reinforce the time-based elements of the traditional system. Without significant policy change, early adopters will be forced to build two systems simultaneously – the competency-based system they believe will prepare their graduates for future success and the traditional system that is not set up to help every student succeed.

This paper dives deeply into the policy areas of accountability, assessment, and supports to capture the critical policy conversations shaping the emergence of a K-12 competency education system. The policy concepts shared in this paper are informed by nearly a year of dialogue with practitioners and thought leaders focused on the adoption of this approach. Firsthand research for this paper included a national survey of competency-based implementers, a convening of thought leaders focused on personalized learning, and interviews with competency-based practitioners to identify effective practices for ensuring all students maintain a rigorous pace to graduation.

The goal of this paper is to help policymakers explore the shift to K-12 competency education by answering the following questions:

"What improvements to federal policy do advocates and practitioners of competency education agree are critical for next generation education systems? And, what emerging issues require further exploration?"

The paper is divided into the following components:

- **Survey Results** - KnowledgeWorks and the Nellie Mae Education Foundation kicked off this project with a survey of practitioners in competency-based settings to better understand the barriers to implementation. This paper opens with an overview of the survey results which reveal that despite strong interest in the approach, a number of accountability and assessment barriers impede successful implementation of competency-based models.
- **Competency Education Policy Convening** - The second section of the paper provides an overview of the February 2014 convening in Dallas, Texas sponsored by KnowledgeWorks and the Nellie Mae Education Foundation where thought leaders and advocates of competency education grappled with development of a new federal accountability and assessment framework.
- **Policy & Political Landscape Scan** – The final section of the paper provides a policy and political landscape scan of three policy areas titled shared accountability, proactive assessment, and personalized and adaptive supports and interventions. Each topic area includes the following components:
    1. One-Page Snapshot – A summary document of the big takeaways.
    2. A Preferred Vision – A visioning statement of what the future education system could look like if policymakers embraced the shift to K-12 competency education.
    3. Points of Consensus – An analysis of the policy changes that a clear majority of competency-based practitioners and advocates support.
    4. Emerging Issues – An analysis of the emerging issues raised by competency-based practitioners and advocates as they conceptualize a new system to support next generation education reform.

This paper attempts to capture the voices that are pioneering challenging policy conversations nationwide. We hope this analysis helps amplify these important points of view so policymakers and practitioners can work together to advance the shift to competency education. Ideally, this paper will help policymakers identify strategies that will give early adopters the flexibility to innovate, replicate, and take important steps toward the creation of a highly successful competency-based system.

Introduction

In a global economy, driven by nimbleness and innovation, it is increasingly clear that our international success depends on the transformation of our education system. Our ability to compete as a nation—and for states, regions, and communities to attract growth industries and create jobs—demands a fresh approach to public education. The one-size-fits-all approach of our past and present will not ensure our future success. Our nation must embrace personalized, student-centered approaches to teaching and learning that are on the rise in schools across the country. These new approaches capitalize on rapidly emerging technologies to help all learners master critical competencies and the social and emotional skills necessary to drive a new and more robust economy.

KnowledgeWorks' most recent forecast, ***Recombinant Education: Regenerating the Learning Ecosystem***,[1] anticipates a shift toward radical personalization over the next decade as the education system experiences the kind of deep disruption and reconfiguration that Amazon, iTunes, and Zipcar brought to their industries. The forecast envisions a diverse and vibrant learning ecosystem characterized by extensive customization, new roles for educators and other adults, a wide variety of digital platforms and content resources, and diverse forms of credentials, certificates, and badges to validate mastery. School and learning will likely evolve from a static creation to a malleable one, taking on many forms, including experiences organized by students themselves. This vision paves the way for the rise of highly personalized learning models, including competency education.

What is Competency Education?

In 2011, the International Association for K-12 Online Learning (iNACOL) and the Council of Chief State School Officers (CCSSO) brought together educators, instructional leaders, and education advocates to develop the following working definition for competency education.

1. Students advance upon mastery, not seat time.
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.[2]

By integrating all five elements, high quality competency education ensures that each student graduates with the knowledge and skills he or she needs to be successful in college and career. This approach contrasts with today's traditional system which advances students based on the amount of time spent in class, not on their mastery of critical content knowledge and skills. Districts and schools interested in competency education must work to integrate all five elements of the definition into their daily practice to ensure high quality implementation.

1 Knowledgeworks. (2012). Recombinant Education: Regenerating the Learning Ecosystem. Retrieved from http://knowledgeworks.org/sites/default/filesForecast3_0_0.pdf

2 Patrick, S. & Sturgis, C. (2013). Necessary for Success: Building Mastery of World-Class Skills. A CompetencyWorks Issue Brief, International Association for K-12 Online Learning. Retrieved from http://www.competencyworks.org/wp-content/uploads/2013/02/inacol_cw_issuebrief_building_mastery_final.pdf

The Purpose of this Work

The rise of competency education will require policy change at every level of government to remove time-based barriers that make it difficult to build a student-centered education system. To this end, KnowledgeWorks has focused significant energy at the federal level, identifying policy barriers and advocating for flexibility to help early adopters craft a new system. KnowledgeWorks published two policy briefs in 2013. The first brief, ***Policy Brief One – An Emerging Federal Role for Competency Education***,[3] provided an introduction to the growing competency-based movement, a continuum for examining the work on the ground, and a list of the federal accountability and assessment barriers impeding this approach. The second policy brief, ***Policy Brief Two – Federal Innovation Competitions: A Catalyst for Competency Education***,[4] provided a detailed account of federal innovation funding (RTTT, i3, and RTTT-D) supporting competency-based work nationally. In 2014, KnowledgeWorks partnered with iNACOL and CompetencyWorks to release ***A K-12 Federal Policy Framework for Competency Education: Building Capacity for Systems Change***,[5] a federal policy framework that would enable states and districts to scale competency education.

Methodology

KnowledgeWorks launched this deep dive project with the Nellie Mae Education Foundation (NMEF) to gain insight from an organization that has invested significant time and resources in the advancement of competency education. NMEF works to reshape public education across New England to be more equitable and more effective so every student graduates from high school ready to succeed in college or the workplace and contribute to their communities as informed citizens. NMEF partners with districts (and other supporting organizations) to support implementation of the principles of student-centered learning at the high school level —learning that is personalized, engaging, competency-based and happens anytime, anywhere. Lastly, NMEF is helping districts strengthen what is working and substantially update and improve policies and practices that are outdated.[6]

To build on this work, KnowledgeWorks decided to launch a deeper dive into three policy areas –Shared Accountability, Productive Assessment, Personalized and Adaptive Supports – which are critical to the success of this transformation. Our goal is to identify points of consensus and emerging issues within each of these three areas to help the field advance its work and establish a greater sense of ownership around the policies necessary to support competency education at scale.

KnowledgeWorks and NMEF decided to kick off the project with a survey of teachers, school leaders, and other practitioners in the field of personalized learning to gain a deeper understanding of the policy challenges to scaling competency education. The survey examined topics such as interest in competency education, level of implementation, and barriers and solutions tied to accountability and assessment. The survey results helped KnowledgeWorks craft a sample policy framework for competency-based accountability and assessment which informed discussions with twenty-five national competency education experts at an event in Dallas, Texas in February 2014. Experts included representatives from the policy and advocacy field, superintendents, state level officials, major national organizations with investments in the competency education space, and assessment specialists. At the conclusion of the convening, KnowledgeWorks and NMEF decided to expand the scope of work

3 Pace, L. (2013). Competency Education Series: Policy Brief One: An Emerging Federal Role for Competency Education. KnowledgeWorks. Retrieved from http://www.knowledgeworks.org/sites/default/files/Competency-Education-Series%20-Policy-Brief-One.pdf

4 Pace, L. (2013). Competency Education Series: Policy Brief Two: Federal Innovations Competitions: A Catalyst for Competency Education. KnowledgeWorks. Retrieved from http://www.knowledgeworks.org/sites/default/files/Competency-based-education-policy-brief-two.pdf

5 Pace, L. & Worthen, M. (2014). A K-12 Federal Policy Framework for Competency Education: Building Capacity for Systems Change. A CompetencyWorks Issue Brief, International Association for K-12 Online Learning. Retrieved from http://www.knowledgeworks.org/sites/default/files/CompetencyWorks_A_K-12_Federal_Policy_Framework_for_Competency_Education_February_2014.pdf

6 Nellie Mae Education Foundation. About Us: Reshaping Education. Retrieved from http://www.nmefoundation.org/about-us

to include supports and interventions given the overwhelming interest from participants. In order to deepen our knowledge of this new focus area, KnowledgeWorks conducted additional interviews with educators in this emerging field implementing proactive strategies for supports and interventions. These interviews provided valuable evidence from the field to explore each of the three policy areas and identify the points of consensus for a new competency-based federal policy framework.

Structure of the Paper

The following paper will provide an overview of the survey results, the event with thought leaders in Dallas, Texas, and a deep dive into key findings in each of the three policy areas –Shared Accountability, Productive Assessment, Personalized and Adaptive Supports. Each policy area opens with a vision of what the future learning environment could look like if the education system embraced competency education at scale. The paper then summarizes the points of consensus and emerging issues for each policy area based on extensive conversations with thought leaders and practitioners focused on competency education. These emerging issues will require further exploration as we define a new system to support competency education at scale.

This paper does not seek to provide definitive recommendations but rather to move the conversation forward on federal education policy. The competency education field is rapidly advancing, and it is incumbent on the policy community to look for guidance and data from the field to shape future policy conversations. As policymakers work through the emerging issues identified in this paper, they should not outpace the field or rush to establish new rules of the game that support competency education, but instead empower early adopters with the flexibility to innovate, evaluate, and build a system that can sustain this transformation at scale.

Survey Results

In November and December of 2013, KnowledgeWorks and NMEF conducted a national survey of innovative practitioners to better understand the barriers to implementation of highly personalized learning models such as competency education. The survey had 72 respondents. Results were used to shape a sample federal policy framework to guide discussions at a convening in Dallas, Texas in February of 2014 and check our assertions about the barriers that exist to scaling this work nationally.

Figure 1

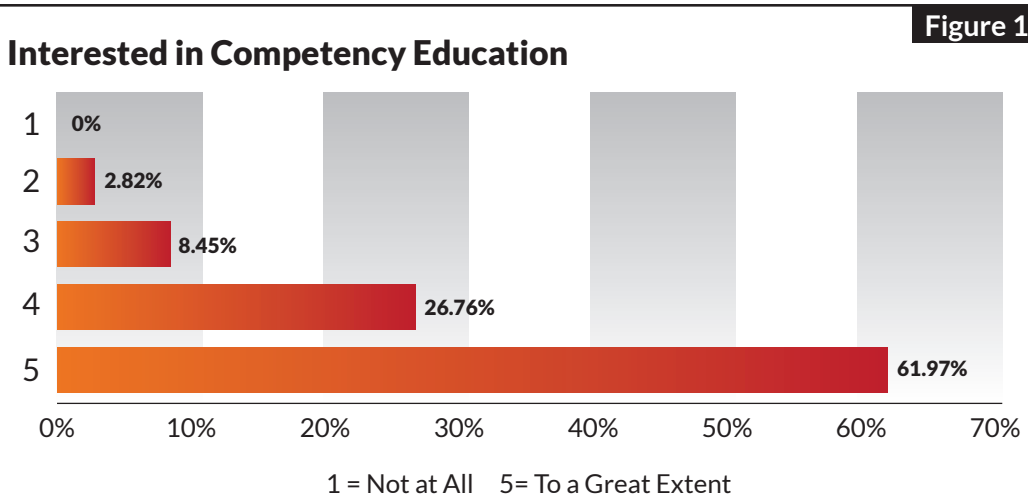


Figure 1: The first survey question focused on interest in implementing competency-based learning in the survey respondent's classroom, school, district, or state. Of the 72 respondents, 88.73% rated their interest at a 4 or a 5 (with 5 being "to a great extent"). This affirms strong interest from the field in the concept and implementation of competency education.

Figure 2

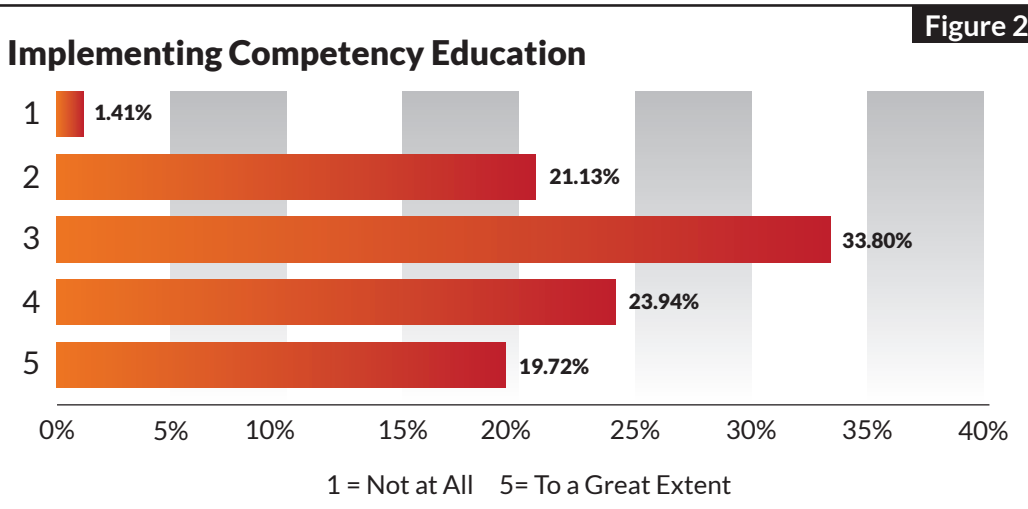


Figure 2: The second survey question asked participants, "To what extent are you implementing competency-based learning today in your context?" Compared to the previous question where 88.73% (4s and 5s) of respondents were interested in competency education, only 43.66% (4s and 5s) had taken action in their own school or district. While there could be many reasons for this disparity, one clear reason that emerged from the survey is the existence of policy barriers that make implementation challenging. Some participants emphasized these barriers in the short-response section of the survey, suggesting that they force early adopters to keep "two sets of books" — one that aligns with the competency-based system the participants value and one to satisfy federal and state reporting requirements.

Figure 3

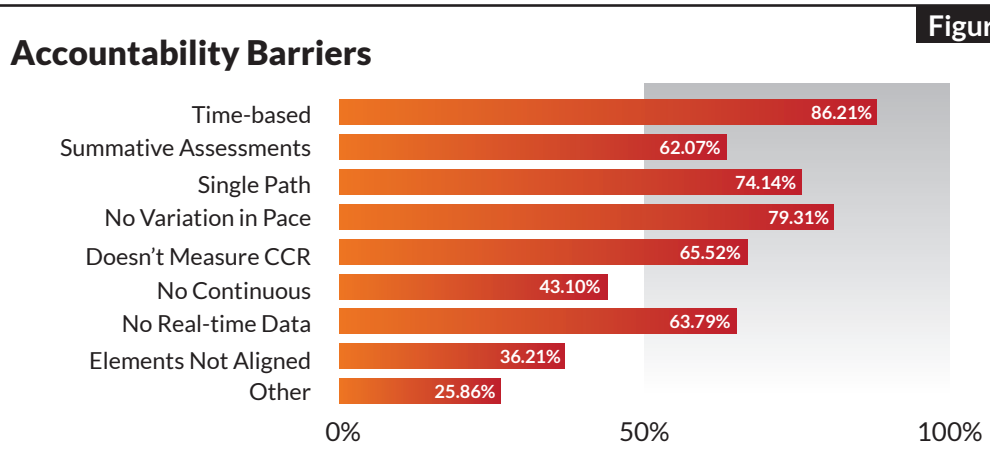


Figure 3: The third survey question explored the barriers that exist within the current accountability system. Respondents were asked, "Which elements, if any, of the current accountability system that your state is implementing present barriers to implementation of competency-based learning?" The barriers with the greatest response rate, measured by above 60%, include:

- Current system is time-based (e.g. annual assessments) – 86.21%
- Current system does not allow for variation in pace – 79.31%
- Current system only offers a single path for students to demonstrate proficiency – 74.14%
- Current system does not measure true college and career readiness – 65.52%
- Current system does not provide real-time, actionable data – 63.79%
- Current system uses only summative assessments – 62.07%

One respondent's short response illustrates many of the barriers enumerated in the question:

> *The tests that we are required to use for federal accountability purposes do not match the standards we are required to teach. Our competency-based system uses our required standards, and the mismatch between standards and test content is immensely problematic. The focus of federal accountability requirements is still very much tied to low level, isolated knowledge and routine application. Additionally, they are tested in isolated ways. We are trying very hard to create a standards (and eventually a competency-based system) that creates a whole that is much greater than a sum of the parts. We want critical thinking, problem solving, passion, self-directedness, but the tests used for accountability purposes do not attend to those things at all.*

Figure 4

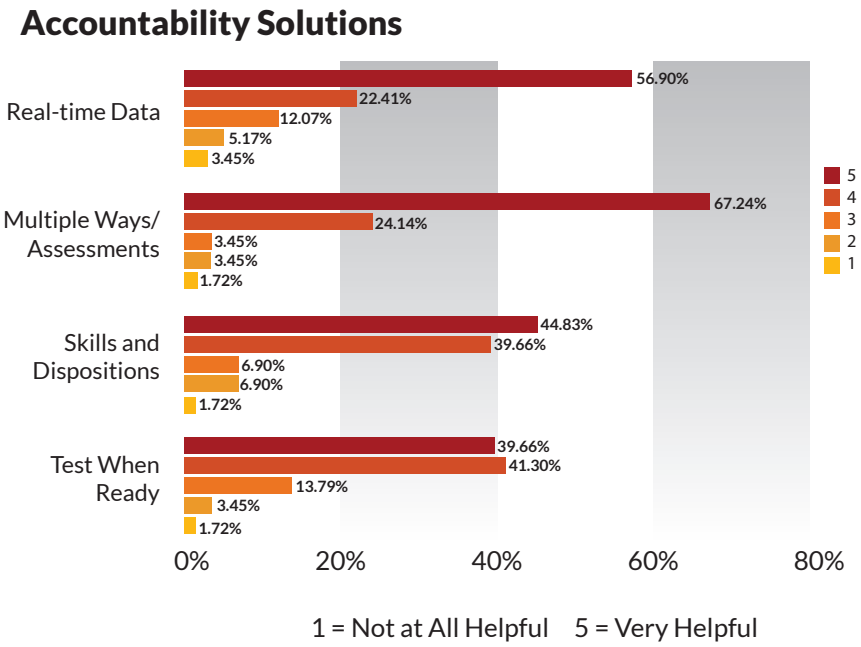


Figure 4: KnowledgeWorks proactively generated a short list of possible solutions to these accountability barriers to get a sense from participants about their potential impact. The next question asked respondents to, "On a scale of one to five, with one being "Not at All Helpful" and five being "Very Helpful," please indicate the extent to which each of the accountability-related policy solutions below would help you implement competency-based learning." Of the options presented to participants, the solutions received the following response rate:

- States and/or districts measure student college and career readiness in multiple ways, possibly with different assessments – 91.38%
- States and/or districts account for student college and career readiness by measuring core knowledge as well as critical skills and dispositions – 84.49%
- States and/or districts measure student college and career readiness as soon as individual students are ready to demonstrate mastery – 80.96%
- States and/or districts build a system of supports and interventions to keep all students on track to achieve college and career readiness by high school graduation based on real-time data – 79.31%

Two short responses from participants provide important considerations for policymakers as they examine accountability barriers and solutions:

> *The measures of readiness for college and career must be suited for the "unknowns" students will face with regard to particular careers. Focusing on students' skills for life-long learning, perseverance, and creative problem-solving, along with understanding their personal strengths, weaknesses, and learning styles is key.*

> *Allow students to show mastery in various ways that get at desired learning outcomes rather than content knowledge. Allow students to demonstrate mastery via performance tasks rather than show mastery through multiple choice tests. Train teachers to use various assessment methods and to create assessments rather than rely on purchased exams and blind scorers.*

Figure 5

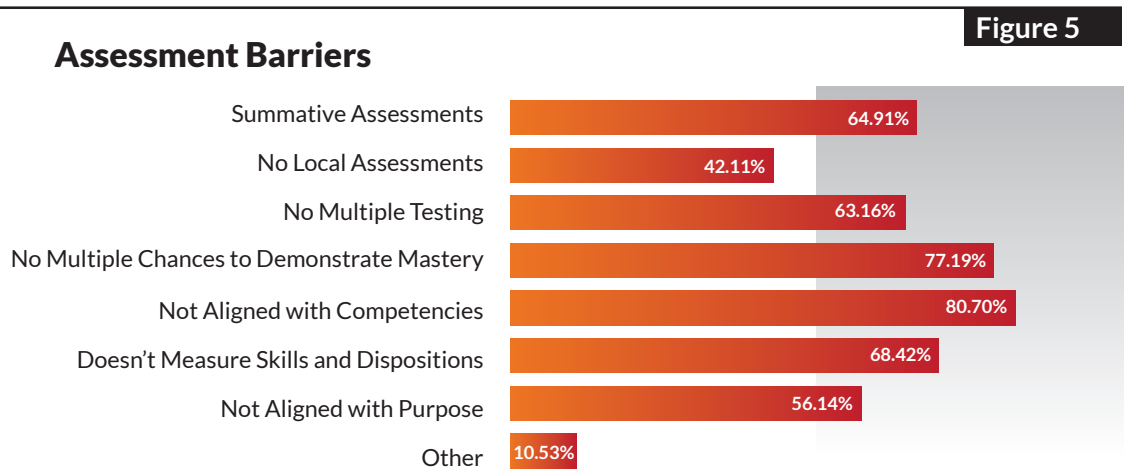


Figure 5: The survey also explored barriers that exist in current assessment policy. Participants were asked, "Which elements, if any, of the current assessment requirements via Title I of the Elementary and Secondary Education Act (a.k.a. No Child Left Behind) that your state is implementing present barriers to the implementation of competency-based learning?" The assessment barriers that garnered the most attention, measured by responses over 60%, include:

- Current system is aligned with grade-level knowledge rather than with competencies – 80.70%
- Current system does not give students multiple chances to demonstrate mastery – 77.19%
- Current system does not measure skills and dispositions – 68.42%
- Current system only includes summative assessments – 64.91%
- Current system does not allow for multiple testing windows – 63.16%

Two short answer responses from respondents provide further context for these barriers:

> *Assessment does not strictly mean a pen and paper test!*
>
> *For public opinion and legislators to truly understand that standardized tests may not be the best measure of learning; to care about the things that matter in education rather than simply filling in the blanks to make themselves feel like they're doing something.*

Figure 6

Figure 6: The survey also presented participants with a short list of possible solutions to the assessment barriers and asked participants to rank them. Participants were asked, "On a scale of one to five, with one being 'Not at All Helpful' and five being 'Very Helpful,' please indicate the extent to which each of the assessment-related policy solutions below would help you implement competency-based learning." Participants ranked the solutions as follows:

- States and/or districts allow students multiple opportunities to demonstrate mastery – 92.98%
- States and/or districts actively implement an assessment system that includes formative, interim, and summative assessments – 89.48%
- States and/or districts allow students multiple testing windows – 87.50%
- States and/or districts include assessments that are aligned to competencies – 85.96%
- States and/or districts include local assessments – 82.45%

These survey results were an essential tool for guiding and informing policy conversations with thought leaders and practitioners in competency education. The decision to incorporate voices from these practitioners helped ensure that policy solutions remain grounded in the emerging work of the field.

Overview of 2014 Dallas Convening

The February 2014 convening in Dallas, Texas assembled national competency education thought leaders and practitioners to help define a new federal accountability and assessment policy framework to support the rise of competency education. Attendees represented a broad range of perspectives, including policy leaders, district superintendents, state level officials, leaders from national organizations, and assessment experts (see Acknowledgements).

On the first evening of the event, KnowledgeWorks and NMEF shared data from the national survey of federal accountability and assessment barriers to help better define the challenges facing practitioners in the field. Next, KnowledgeWorks shared a sample federal accountability and assessment policy framework informed by the survey results, knowledge from the field, and policy research. This framework addressed the following key design principles:

- Development of Standards and Aligned Competencies
- Identification of Long-term and Interim Achievement Goals
- Selection of Performance Indicators
- Development of a Balanced System of Assessments
- Development of an Aligned System of Supports and Intervention
- Integration of a Continuous Improvement Process

After participants were introduced to the framework, they were assigned to one of four groups and given a profile containing the name, background information, achievement and assessment data, and supports and intervention plan for a fictional student. Each group was asked to examine the policy framework through the lens of their "student," while exploring questions related to critical elements of student learning, teaching, and supports.

During the second day of the convening, representatives with extensive federal policy experience from the Penn Hill Group in Washington, D.C. led a series of deep whole-group discussions around each of the areas contained in the policy framework with the goal of identifying points of consensus and emerging issues that will require further study and examination. During the conversation, participants reached consensus on the following points which will be covered in depth in a subsequent section of this paper:

- States should align standards to postsecondary and workforce competencies.
- School and district accountability should be determined by multiple measures outlined in a performance index.
- Accountability systems should incorporate a continuous improvement process.
- States should adopt a balanced system of assessments that validates student mastery and provides real-time feedback so stakeholders can make necessary improvements to maximize learning gains.

Participants also raised the following questions that require further examination before informing policies at-large:

- How should states design competency-based accountability indices? How should states select and weigh performance indicators, and should these indices include additional domains to ensure students have access to high quality learning experiences?
- How should accountability systems inform systems of supports and interventions to ensure all stakeholders take ownership in the success of current and future students?
- What steps are necessary to align current summative assessments to competencies?
- Should the system continue to require time-based, annual summative assessments?
- How far away are assessments aligned to learning progressions instead of grade level?
- What strategies are necessary to build state and local capacity to implement performance assessments?
- How should the system assess social and emotional competencies?

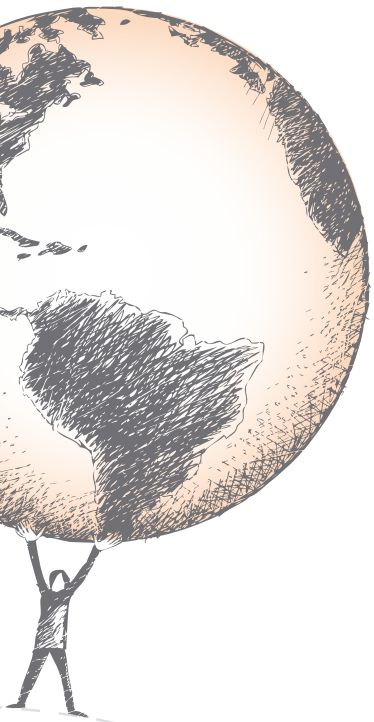
Shared Accountability

What If.....

What if education stakeholders at every level of the system had a role in defining and measuring success? What if accountability systems emphasized mastery over time, aligning more closely with the expectations of both college and career so everyone is academically challenged and has the opportunity to succeed? What if these systems produced comprehensive and readily-available data on student, educator, and system performance that enabled decision-makers to improve every level of the system in real-time? What if policymakers and practitioners worked together to build a competency-based accountability system where all of this was possible?

Exploring the Shift to Competency Education

A Snapshot of Current Policy Conversations



Points of Consensus

(A majority of the competency-based practitioners and advocates surveyed agree)

- State standards should align to postsecondary and workforce competencies.
- States should create a performance index to evaluate district and school performance on multiple measures.
- States should have significant flexibility over the design of their performance index, but every index should incorporate the following common design elements:
  - > Cover three domains: Academic Knowledge, Postsecondary and Career Readiness, and Social and Emotional Competencies.
  - > Disaggregate data by subgroup.
  - > Balance a set of universal goals and performance measures with those unique to the state's and/or district's vision for success.
  - > Incentivize deeper levels of mastery by tracking, throughout the school year, the percentage of students that progress from off-track, to on-track, to advanced.
- States should establish a process to continuously improve their accountability systems.

Emerging Issues

(Challenging issues raised by competency-based practitioners and advocates)

- What are the universal goals and indicators that all states should, at a minimum, include in their accountability indices?
- How much value should the system assign to each accountability domain?
- What constitutes proficiency?
- Should accountability systems include other domains such as school climate, multiple pathways, and systems accountability?
- How should states use the index to inform accountability decisions involving the ranking and interventions of schools and districts?

Part 1: Shared Accountability

Preferred Vision

The following scenario illustrates one possible future if the K-12 education system embraced an accountability system designed around student mastery instead of time.

The U.S. Department of Education's 2011 decision to grant states flexibility from No Child Left Behind (NCLB) was a turning point in education reform. Once the Department empowered state and local leaders to propose their own vision for teaching and learning, energy for education reform shifted to state houses, school districts, and community forums around the country. As new ideas emerged, a significant shift began to take hold: education stakeholders began to favor a shared approach to accountability over the strong federal emphasis of NCLB. Stakeholders were eager to take on more responsibility, granting every level of the system a stake in decisions about how to define and measure success.

Federal, state, and local policymakers responded to this energy, aligning policies to support shared accountability. A newly authorized Elementary and Secondary Education Act (ESEA) emerged which asked states to set the minimum, essential goals and indicators necessary to preserve America's competitiveness. The law also gave states and districts the flexibility to add additional goals and indicators that align to their unique vision for reform. In this system, accountability is greatest at the classroom level, where educators and local leaders have the ability to translate continuous data feedback into results for students.

The accountability systems that emerged during this policy shift focus on deeper levels of learning. They build on the strengths of NCLB, committing to continued transparency and emphasis on the performance of individual subgroups of students while aligning more closely with the expectations of college and career. Improvements include a new emphasis on mastery of academic knowledge and skills, indicators of college and career readiness, and mastery of social and emotional competencies. These new systems also drive at deeper levels of proficiency, encouraging stakeholders to advance all students at a rigorous pace so everyone is challenged, and everyone succeeds. Comprehensive and readily-available data on student performance underpin the success of these systems, driving improvements to student learning. This rich, comprehensive data on student, educator, and system performance rolls up to help decision-makers improve every level of the system.

Points of Consensus

Today's accountability systems were not designed to measure and drive success in competency-based learning environments where mastery of competencies is valued over time spent in school. Time-based policies have forced early adopters to build two separate systems: one that satisfies federal and state accountability requirements and one that reflects the highly-personalized nature of competency-based learning environments. Convening participants expressed frustration with this disconnect, calling on policymakers to develop a new approach to accountability that creates ownership at every level of the education system. While there are many issues to consider in designing this new system, participants did reach consensus on a handful of elements. These elements provide an important starting place for policymakers as they work to design a new accountability system that aligns with next generation school models.

Standards Align to Postsecondary and Workforce Competencies

The recent state-level movement to create and implement college and career ready standards provides an essential foundation for the shift to competency education. For the first time in the history of the competency-based education movement, educators nationwide have a clear understanding of the expectations for students and can use those expectations to develop aligned competencies and classroom-level learning objectives. While these new college and career ready standards are a vast improvement, they do not yet cover the full range of knowledge, skills, and social and emotional competencies that students need to be successful in both college and career. As states look to evolve their standards further, they should integrate and align each of these three critical learning domains. States that would like to develop competency-based systems should also develop aligned competencies that all students must master by graduation. A state could incorporate locally-developed competencies as long as it develops a process for maintaining statewide comparability and validity throughout implementation.

District and School Accountability Determined by Multiple Measures

Competency-based education systems thrive on the availability and use of robust data to provide a comprehensive picture of student learning. While access and use of comprehensive data is critical for classroom-level decisions, it is equally critical for informing high-stakes decisions about accountability determinations and subsequent interventions. As such, each state should develop a set of long-term and intermediate goals for student success as well as a performance index with the set of measures and indicators the state will use to track its achievement toward those goals. Each index should incorporate the minimum, essential goals and measures identified by the federal government for all states to track, a set of state-level goals and measures that align with the state's vision of student success, and local goals and measures unique to each district's vision for teaching and learning. States should determine appropriate weights for each value and report annually a clear, transparent performance score for every district and school. These scores will validate system performance from one year to the next, providing valuable information for national, state, and local policy decisions.

Voices from the Convening

Carmen Coleman, Former Superintendent of Danville Public Schools

Danville, Kentucky

I used to think that if students had great teachers who created great learning experiences for them, they would do well no matter the measure. I was wrong. Experience tells me this just isn't the case. Only seven or so years ago, I would've argued otherwise. I would have even gone so far as to suggest that perhaps someone making this case was simply looking to avoid accountability. That is not the case, at least for our district. We want to be held accountable, but whatever measures make up the accountability system have to lead to an end result that is beneficial for all. We have to realize that state tests have a very direct impact on kids' experiences day-to-day, and if we want those experiences to be rich and meaningful – if we want our kids to be able to think critically and apply what they've learned to new situations, if we want them to become effective problem-solvers and communicators, if we want them to be curious, to learn to ask good questions, to take initiative and work with others – then we have to create assessments with these skills as the focus in addition to content. We have to get away from our one-size-fits-all approach when it comes to assessment and accountability. As someone very wise recently stated, "Teaching to the test is not the problem. The problem is having tests worth teaching to."[7]

7 Coleman, C. (2014, August 19). Taking the Risk [Blog post]. Retrieved from http://blogs.edweek.org/edweek/learning_deeply/2014/08/taking_the_risk.html

Although states should have significant flexibility over the design of their performance index, every index should incorporate the following common design elements:

1. **Covers Three Domains: Academic Knowledge, Postsecondary and Career Readiness, Social and Emotional Competencies.** States have historically focused most, if not all, of their performance measures on the academic domain. While this domain should retain primacy, states should incorporate additional emphasis on postsecondary and career readiness and mastery of social and emotional competencies. Examples of measures and indicators for each of these domains are included below:

   - **Academic Knowledge**
     - Mastery, Growth, and Rate of Growth for all Core Subjects
     - On-track to Graduate in 3, 4, 5, and 6 Years
     - Mastery of Advanced Courses or Deeper Levels of Competencies
   - **Postsecondary and Career Readiness**
     - College Placement Rate
     - College Credit Earned in High School
     - College Remediation Rate
   - **Social and Emotional Competencies**
     - Cognitive – Mastery of Critical Thinking Skills
     - Interpersonal – Mastery of Collaboration Skills
     - Intrapersonal – Mastery of Perseverance Skills

2. **Disaggregates Data by Subgroup.** States should continue to track and report the performance of all students and the achievement of subgroups of students as initially required under the federal NCLB law. This should include, at a minimum, economically disadvantaged students, students from major racial and ethnic groups, students with disabilities, and English Language Learners. A continued commitment to subgroup accountability will shine a spotlight on the challenges facing specific populations and help all stakeholders design customized solutions for success.

3. **Provides Flexibility in the Selection of Accountability Measures.** Aside from the few, essential measures required by the federal government to maintain support for equity and our nation's international competitiveness, states and districts should have flexibility to select their own performance goals, measures, and indicators that align with their vision for success. States should make their selections first and then establish a process where districts can make their own contributions. This approach would give every level of the system a voice in the process, increasing accountability with each contribution. The result is a system that satisfies the federal government's responsibility to preserve equity, national rigor, and comparability while giving states and districts the ability to design a system that reflects the values and demands unique to their region.

4. **Incentivizes Deeper Levels of Mastery.** Under current law, states are required to establish three levels for each performance indicator – basic, proficient and advanced. While this policy helps states disaggregate end of year performance, it does not tell stakeholders anything about student growth. In a competency-based system, the goal is to move every student to deeper levels of proficiency throughout the year. As such, a state performance index should track the growth and pace of students in real-time so stakeholders develop a greater understanding of student mastery. For example, participants in the convening expressed interest in data that illustrates the percentage of students that enter a school off-track, the percentage of students that have advanced to on-track at key points throughout the year, and the percentage of students who have progressed to an advanced or honors level. This information reveals more than the percentage of students that passed an annual exam by the end of the year. It reveals a story about the overall success of a school as it advances students to deeper levels of mastery. This type of real-time data tracking will help educators and policymakers establish systems that ensure all students are supported and challenged.

Integration of a Continuous Improvement Process

Effective systems incorporate a continuous improvement process to prevent repeat failures and capitalize on accomplishments. Federal and state accountability systems should be no exception. As federal and state policymakers establish guidelines for managing the performance of the nation's K-12 education system, they should design dynamic systems that have the ability to adapt when necessary to improve teaching and learning. While adaptability is critical, states should be able to demonstrate why a proposed change will improve student learning for all students and subgroups of students. Changes should not occur when they will threaten the overall goals or sustainability of the reform effort.

Emerging Issues

While convening participants did reach consensus on the aspects of a new accountability framework described above, they struggled to resolve a number of issues related to the design and use of accountability indices. This subsection highlights some of the emerging issues that policymakers and advocates will need to explore in greater depth as they begin to design accountability systems that align to this work.

Design Elements of the Performance Index

Conversations about the design of the performance index surfaced a number of important themes, including: the desire to balance federal and local autonomy; the challenge of selecting essential indicators in a system that values many data points; and the need to build a system that uses performance data to support the improvement of all schools. Many participants felt strongly that federal policymakers should establish minimum guard rails but empower states and districts to address these design challenges as they build accountability systems that support their vision for college and career success. Important design questions raised during the discussion include:

- **What are the essential goals and accountability indicators that all states should measure to ensure student success in college and career?** While participants could agree on the three overarching domains of academic, college and career readiness, and social and emotional competencies, they expressed diverse opinions about the actual indicators states should use to drive reform. Voices in the room expressed a desire to balance college readiness measures with career readiness measures, to transition away from time-based metrics that create disincentives to help all students succeed, to balance equity with the need to challenge advanced students, and to transcend college readiness with an emphasis on college success.

  Many states took advantage of the opportunity to select new accountability indicators during the U.S. Department of Education's 2011 ESEA waiver flexibility process. This process sparked national conversations about which measures are the strongest predictors of college and career success. Those conversations intensified when the Department also extended the opportunity to a group of districts in California, a state that did not receive an approved waiver from the Department. The district proposal included social and emotional and school climate measures in addition to academic measures. California Office to Reform Education (CORE) districts have already identified a handful of social and emotional and school climate indicators but are still in the process of determining how to set the baseline measure for those indicators.

- **How much value should the system assign to each accountability domain?** An index aggregates data points from a variety of sources into a simplified output that policymakers and practitioners can use to make key decisions about system improvement. This requires architects of an index to assign a value, or weight, to each data point. As such, participants discussed whether each of the three domains should be equal or whether the system should emphasize one over the others. Most voices in the room felt strongly that the academic domain must maintain its prominent role in accountability decisions, but compelling arguments were also made to elevate the role of college and career readiness and social and emotional competencies in the education system. Participants emphasized the importance of reporting and transparency, indicating that not every domain or indicator needs to drive accountability decisions. Ultimately, participants agreed that policymakers must have a clear rationale for any decision that assigns value to a domain or a set of indicators as well as any policy decision that impacts how the system will use indicators to drive improvement.

- **What constitutes proficiency?** The definition of proficient is incredibly important in a competency-based system where advancement only occurs once a student demonstrates mastery of required academic content and skills. States and districts will have to establish cut scores on summative assessments and

educators will need to align instruction to ensure that every student can, at a minimum, meet the required level of proficiency. Failure to set rigorous proficiency benchmarks will undermine the effectiveness of the entire system, allowing students to advance from competency to competency with significant gaps in knowledge. States and districts that allow students with previous knowledge to test-out of certain courses or sets of competencies will also have to consider the appropriate benchmark for awarding credit. In some cases, states and districts may decide to make this benchmark higher than the proficiency benchmark for students who have completed the course since those who pass would forego exposure to all related coursework and instruction.

- **What other domains should accountability systems include?** Throughout the discussion, some participants expressed a desire to see additional domains included in the performance index. Recommendations included:
  - **System Accountability** – This domain would integrate data on the opportunities and supports offered to students to ensure that the system is accountable to their overall success. System accountability would help reduce inequities in the education system by addressing resource barriers to learning. Advocates of this approach believe that accountability should balance student-level and system indicators to maximize success. Examples of system accountability measures included in state ESEA waiver proposals include teacher and leader effectiveness in South Dakota, opportunity to learn survey data in New Mexico, and financial efficiency in Georgia (which is reported but not incorporated into accountability scores).
  - **Multiple Pathways** – While related to system accountability above, this domain would specifically integrate data on the pathway options available to students to ensure that every learner has access to multiple options for acquiring and demonstrating mastery of standards and competencies. A significant number of participants felt this domain was especially critical for establishing a successful competency-based system.
  - **School Climate** – This domain would ensure districts and schools provide students with a safe and healthy learning environment. Participants that advocated for school climate indicated that a nurturing learning environment is fundamental to a student's ability to learn.

The following chart provides examples of indicators selected by states and the group of districts in their ESEA waiver proposals. The last row of the chart also reveals some of the competency-based education indicators that participants offered for consideration at the Dallas convening.

Multiple Measures: Emerging Accountability Indicators

Source	Domains	Indicators
ESEA State Waivers[8]	Academic	• Student proficiency in math and ELA • Graduation rates • Individual student growth • Achievement gaps[9] • Dual enrollment courses[10] • ACT or SAT scores[11] • Career and technical education certifications[12] • Advanced Placement test participation or scores[13] • Postsecondary attendance rates[14] • Teacher and principal effectiveness[15]
	School Climate	• School climate[16] • Opportunity to Learn (Accessible Learning Environment)[17]
ESEA District Waiver: CA CORE[18]	Academic	• Achievement and growth • Graduation rate • Persistence rate (all students and NCLB subgroups)
	Social and Emotional	• Suspension/expulsion • Chronic absenteeism • Non-cognitive skills
	School Climate	• Stakeholder voice (students, staff, parents) • Special education identification • English learner entry/exit
Potential Competency Measures	Academic	• Percent of students off track at the beginning, middle, and end of the school year • Percent of students that master advanced or honors level competencies • 3, 4, 5, and 6 year graduation rates • Student access to multiple options for demonstrating mastery
	Postsecondary and Career Readiness	• Mastery of aligned industry certifications • Completion of college credit in high school • College Placement • College Persistence
	Social & Emotional Competencies	• Grit • Perseverance

8 Whiteboard Advisors. (2012). ESEA Waiver Overview. Retrieved from http://www.whiteboardadvisors.com/files/Whiteboard%20Advisors%20ESEA%20Waiver%20Overview%20(final).pdf

9 Ibid. (Georgia)

10 Ibid. (Indiana)

11 Ibid. (Florida)

12 Ibid. (New Mexico)

13 Ibid. (Louisiana)

14 Ibid. (Wisconsin)

15 Ibid. (South Dakota)

16 Ibid. (South Dakota)

17 State of New Mexico Public Education Department. (2012). Opportunity to Learn Survey Items Released [Memorandum]. Retrieved from http://www.ped.state.nm.us/AssessmentAccountability/AssessmentEvaluation/dl12/OPPORTUNITYTOLEARNSURVEYITEMSRELEASED001.pdf

18 Los Angeles Unified School District Board of Education. (2013). NCLB Waiver for CORE Districts [PowerPoint slides]. Retrieved from http://laschoolboard.org/sites/default/files/CORE%20Waiver%20Overview%209%204%2013.pdf

Using the Index to Inform Accountability Decisions

A competency-based accountability system provides decision-makers with access to comprehensive, real-time data on school performance so stakeholders can intervene the minute a problem arises. While this should minimize the need for sweeping, whole school interventions, states still need a process to help schools that are unable to overcome their unique challenges. In these rare circumstances, states need to work with school leaders, students, and parents to design solutions that enable all stakeholders to take ownership in the success of current and future students. As states begin to develop school improvement policies they should consider three primary questions:

1. **What measures should a state take into account to determine which schools are not maintaining sufficient pace toward their performance goals?** Not all measures in a state's accountability system need to contribute to decisions about school rankings and interventions. Once a state designs its accountability index it needs to identify the best measures for ranking school performance and the best approaches for helping schools develop improvement strategies. For example, under New Mexico's approved ESEA waiver proposal, student and parent engagement does not inform school accountability rankings but it can give a school extra points in the school improvement process.[19]

2. **Once the state identifies these schools, when is the appropriate time to intervene?** This is a particularly important question in a competency-based system where performance is valued over time-based metrics and policies. States will need to move away from annual, static rankings to a supports and interventions timeline that responds in real-time to school and student needs.

3. **What structures or processes will help states and districts uncover the root causes of chronic underperformance and empower stakeholders to work together to help schools improve opportunity for both existing and future students?** A proactive system of supports and interventions will require states and districts to establish new structures and policies so they can respond to problems in real-time. States and districts will need to develop strategies that provide immediate support for students currently attending the school as well as plans to reform the school model and activities so future students do not face similar challenges.

   Several participants at the convening recommended the inspectorate model as a potential school improvement strategy in competency-based settings. The inspectorate model is a strategy used in the United Kingdom to ensure every school undergoes a diagnostic review by a team of qualified outside inspectors. Inspectors rate school performance on 27 indicators and report the information publicly for stakeholders to use as they design school improvement plans. The frequency of visits depends on where the school falls on the country's risk scale. Advocates of the inspectorate approach believe its emphasis on comprehensive diagnostic information is a useful strategy for building a proactive system of supports and interventions.[20]

19 The New Mexico Public Education Department's ESEA Flexibility Request. U.S. Department of Education / Law & Guidance / Elementary & Secondary Education. Washington, D.C. http://www2.ed.gov/policy/elsec/guid/esea-flexibility/map/nm.html

20 Jerald, C. D. (2012). On Her Majesty's School Inspection Service. Jerald, Craig D. Education Sector Reports. Washington, D.C. http://www.educationsector.org/sites/default/files/publications/UKInspections-RELEASED.pdf

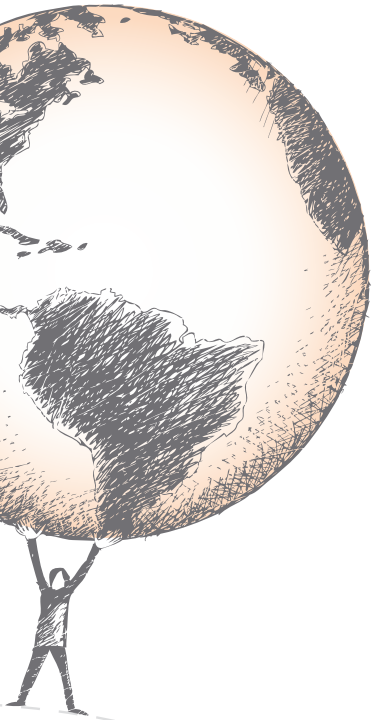
Productive Assessment

What If.....

What if assessments shifted from evaluative, end of year instruments to a balanced system that enhances the quality of teaching and learning in the classroom and validates readiness for success in college and career? What if formative, classroom-embedded assessments helped educators customize and align instruction so students could focus on challenging concepts necessary for advancement? What if summative assessments enabled students, through more meaningful opportunities, to show they had mastered competencies and can advance to higher levels when they are ready? What if policymakers and practitioners worked together to build this balanced system of assessments?

Exploring the Shift to Competency Education

A Snapshot of Current Policy Conversations



Points of Consensus

(A majority of the competency-based practitioners and advocates surveyed agree)

- States should adopt a balanced system of assessment that includes the following components:
  - > A statewide summative assessment in math and English language arts that validates local determinations of competency. This assessment can be implemented at the end of a school year or as a series of smaller, interim exams that aggregate to an end-of-year score.
  - > Performance assessments that states and/or districts may incorporate into the state's accountability system that are of high technical quality and aligned to state standards.
  - > Formative assessments that guide all instructional decisions including when to administer summative assessments and when to apply supports and interventions.
  - > Flexibility for students to demonstrate mastery of standards and aligned competencies in different but comparable ways such as earning credit for prior learning experiences, taking opt-out assessments before the start of the school year, or demonstrating mastery on a performance assessment aligned to individual interests or topic of study.
  - > Flexible testing windows that allow students to demonstrate mastery of standards and competencies when they are ready and to advance upon completion.

Emerging Issues

(Challenging issues raised by competency-based practitioners and advocates)

- What next steps are needed to align current standards-based assessments to competencies?
- Should states continue to administer an annual summative assessment at the same time each year to students in a specific grade?
- What steps need to happen to develop assessments that align to research-based learning progressions instead of grade levels?
- What strategies will help states and districts build capacity to implement performance assessments that are comparable in rigor and free from bias?
- What steps need to happen to develop assessments of social and emotional competencies?

Part 2: Productive Assessment

Preferred Vision

The following scenario illustrates one possible future if the K-12 education system embraced an assessment system that emphasizes student mastery of critical competencies.

As the quality of assessment tools improves, the role of assessment in the education system shifts from an evaluative, end of year instrument, to a balanced system of interactive experiences that enhances the quality of teaching and learning in the classroom and validates readiness for success in college and career. These improvements create a new culture for assessment, replacing testing anxiety for students and educators with demand for engaging assessment experiences that generate clear, useful data on student performance. Assessment data drives productive decision-making at every level of the system so students and teachers can accelerate classroom learning, states and communities can shift resources to the education strategies that work, and national policymakers can establish the policy conditions to bring these strategies to scale.

A balanced assessment system blends formative and summative elements to accelerate and validate student mastery. Formative, classroom-embedded assessments help educators customize and align instruction to each student's performance level so students can focus deeply on challenging concepts necessary for advancement. Summative assessments validate mastery of a set of competencies as soon as a student is ready, creating a positive opportunity to demonstrate mastery of knowledge and skills and advance to higher levels of coursework upon completion.

Key Characteristics of Productive Assessment

- **Balanced** – A series of assessment tools with different purposes and uses help decision-makers at all levels of the system make improvements to teaching and learning.
- **Transparent** – Information on learning targets and expectations for mastery are clear and transparent to students, teachers and other stakeholders that play a role in the education of students.
- **Ongoing** – A series of interactive assessment experiences administered throughout the school year guides teaching and learning.
- **Adaptive** – Individualized feedback from assessment experiences helps educators and students make immediate improvements to the learning process.
- **Rigorous and Engaging** - Assessment tools are aligned to college and career ready expectations, assess mastery of knowledge and higher-order skills, and enable students to apply their knowledge to new situations or problems.
- **High-Quality** – Assessment tools are valid – they represent the knowledge and skills they intend to measure, reliable – they generate the same results across different contexts and scorers, and fair – they do not contain bias or obstacles unique to a subpopulation of students.

Points of Consensus

The shift to a competency-based assessment system will require significant policy change at every level of government to ensure assessments are used for learning and not just to evaluate past learning. Participants in the convening shared many ideas in an attempt to craft a new policy framework that would help states, districts, and schools transition to a competency-based assessment system. While participants did not resolve every issue discussed, the majority reached consensus on the following assessment recommendations.

States should adopt a balanced system of assessment that validates student mastery and provides real-time feedback so stakeholders can make necessary improvements to maximize learning gains. Each element of the assessment system should have a clear purpose and align to the state standards that all students must master in order to be college and career ready upon graduation. This balanced system of assessments should incorporate all of the following elements:

- **Statewide Summative Assessment** – Every state should administer a statewide summative assessment in math and English language arts to validate local determinations of competency and inform the state's accountability system. These assessments can be implemented at the end of a school year or as a series of smaller, interim exams that aggregate to an end of year score. States should collect and report data on the percentage of students that are on track to proficiency by graduation as well as the percentage of students that advance to deeper levels of proficiency throughout the school year. This information will provide states with a more useful account of student learning, resulting in better assessments of state progress toward the goal of college and career readiness for all students.

- **Optional State and/or Local Performance Assessments** – A growing number of states and an even higher number of districts have expressed interest in performance assessments as a tool to validate student mastery of complex concepts and higher-order skills. Performance assessments can be a particularly useful tool in competency-based learning environments where students are expected to demonstrate deeper levels of proficiency. States that choose to implement a statewide performance assessment in addition to the required statewide assessments for math and English language arts should have the ability to incorporate performance data into the state's accountability system as long as the assessment is of high technical quality and aligned to state standards. Similarly, states should be able to permit a district or group of districts that implements a local performance assessment to incorporate performance data into the district's accountability score as long as the assessment is of high technical quality and aligned to state standards. An increasing number of states and consortiums of districts are developing and implementing these types of assessments to assess the skills not covered by current annual, state-wide summative assessments.

Which States or Groups of Districts are Developing or Implementing Performance Assessments?

- Colorado
- Kentucky Districts of Innovation
- New Hampshire
- New York Performance Standards Consortium Districts
- Ohio
- Oregon
- Pennsylvania
- Washington (for selected subjects: social studies, the arts, health and fitness, and educational technology)
- California CORE ESEA Waiver Districts

- **Robust, Ongoing Formative Assessments** – Formative assessment is one of the most important tools in a competency-based classroom, and therefore, a key element of a state's balanced system of assessments. States should help districts implement formative assessment tools so educators can access real-time data on student performance. Formative data should guide all instructional decisions including when to administer summative assessments to students who are ready to demonstrate mastery and when to apply supports and intervention strategies so students receive targeted assistance in real-time.

- **Multiple Pathways to Mastery** – A competency-based system recognizes that students can master the same set of standards and aligned competencies in different ways. As such, a competency-based assessment system should provide different opportunities for students to demonstrate mastery. Students who arrive at school with prior learning experience, for example, may receive credit or have the opportunity to take an

opt-out test to demonstrate mastery. Students that master knowledge and skills during the school year may have the opportunity to take a performance assessment aligned to their interests or specific topic of study. Although pathways to mastery should be diverse, each approach must be comparable, rigorous, and aligned to state standards and competencies.

- **Flexible Testing Windows** – Instead of testing all students at the same time regardless of achievement level, state assessment systems should establish flexible testing windows so students have the opportunity to demonstrate mastery of standards and aligned competencies when they are ready and advance upon completion. Educators should use formative assessment data to indicate student readiness for summative assessments instead of arbitrary one-size-fits-all timelines. Once students demonstrate mastery, they should have the opportunity to advance to the next performance level.

Types of Assessment in a K-12 Competency-Based System

Type	Purpose	Timing	Level of Accountability	National Impact
Federally-Required				
Statewide summative assessment(s) aligned to college and career ready standards and competencies.	To develop valid and comparable data on student achievement.	Once a year, or as a series of smaller, interim assessments that occur when students are ready to demonstrate mastery. Interim scores roll up to an aggregate, annual score.	Federal.	Provides valid and comparable data for national and state comparisons of student performance.
Robust formative assessment system.	To help educators adjust daily instruction so students make sufficient gains in performance to ensure they remain on track to graduate college and career ready.	States should provide evidence of helping districts build and implement ongoing and embedded formative assessments to inform instruction.	May be used for local accountability decisions.	Provides transparent, real-time data on student performance so stakeholders at the local level can refine strategies for advancing student achievement.
Optional				
Summative state or local performance assessments aligned to college and career ready standards and competencies.	To validate deeper levels of student mastery aligned to the state or district's vision of college and career readiness.	Determined by the state or district with state approval.	State determines whether to use for federal, state, or local accountability decisions.	States and districts can gather evidence of student mastery of deeper levels of knowledge and skills.
A series of statewide summative interim assessments aligned to college and career ready standards and competencies.	To validate student mastery as soon as students are ready so they can advance to the next level immediately.	Throughout the year when educators determine there is sufficient evidence that a student is ready to demonstrate mastery of a research-based grouping of standards.	State determines whether to use for federal, state, or local accountability decisions.	Frequent data from interim assessments can help states and districts build a proactive system of supports and interventions.

Emerging Issues

Despite consensus on the design elements above, stakeholders still had questions on a number of issues regarding the transition to competency-based assessment systems. This subsection provides a glimpse into these important conversations, recognizing that further discussion and policy flexibility to pilot these ideas will help stakeholders identify the best path forward.

Alignment of Current Assessments to Competencies

As states and districts develop competencies aligned to state standards, they will need to identify aligned assessment instruments that measure deeper levels of learning. Current assessments, including the Partnership for Assessment of College and Career (PARCC), the Smarter Balanced Assessment Consortium (SBAC), and the ACT Aspire were not designed for use in competency-based systems. While these assessments will provide stakeholders with important information about student mastery of college and career ready standards, they are not sufficient instruments for determining mastery of competencies. They also lack flexible design elements essential for assessing students as soon as they are ready to demonstrate mastery. A group of SBAC member states did form the SBAC Proficiency-Based Learning Task Force to evaluate these shortcomings and explore strategies for bringing the SBAC into alignment with competency-based systems. The task force released a report in 2012 with a handful of recommendations including increasing the task bank and providing greater flexibility for testing students on smaller groupings of standards.[21] Until these issues are addressed, however, states and districts interested in competency education will have to develop new assessments to either replace or supplement current options.

Several states and groups of districts have already begun to explore supplementary assessments to address their needs. New Hampshire, for example, is currently developing a statewide performance assessment system that will align to new statewide college and career ready competencies. The assessment system, called the Performance Assessment for Competency Education (PACE), will include high quality common and locally-developed assessment tasks that align to these competencies.[22] The state plans to incorporate the PACE assessment as an optional element of its state accountability system.[23]

Continuation of Annual Summative Tests

The shift away from time-based policies has led many practitioners in competency-based education environments to question the usefulness of a summative assessment that must be administered at the same time each year to an age-based cohort of students. These practitioners argue instead for a summative assessment system that meets students where they are, validating learning when they are ready to demonstrate mastery instead of when they reach an age-based grade level.

21 Leather, P. & Ruff, D. (2012). Proficiency-Based Learning Task Force: Final Draft 3.0. Smarter Balanced Assessment Consortium. Retrieved from http://newenglandssc.s3.amazonaws.com/4/ee/1/1424/ProfBTK_Report_v_3.0.pdf

22 Freeland, J. (2014). From policy to practice: How competency-based education is evolving in New Hampshire. Clayton Christensen Institute for Disruptive Innovation. Retrieved from http://www.christenseninstitute.org/wp-content/uploads/2014/05/From-policy-to-practice.pdf

23 New Hampshire Department of Education. (2012). Executive Summary: Enriching New Hampshire's Assessment and Accountability Systems through Quality Performance Assessment. Retrieved from http://www.education.nh.gov/assessment-systems/documents/executive-summary.pdf

Several participants expressed interest in a system where states could administer summative assessments a minimum of three times during the course of a student's elementary or secondary career. During the off years, states would collect data from high-quality local assessments to maintain annual reporting on school performance and inform decisions for supports and interventions. Under this approach, states would need to ensure local assessments are comparable across districts in the state through strategies such as state approval of assessment tasks or the creation of a centralized task bank that districts can pull from to customize local assessments. The concept of a centralized task bank is gaining appeal as states and districts try to balance demand for local autonomy with growing concerns over quality and cost of new assessments.

Examples of Centralized Task banks

- **Wyoming Body of Evidence** – Wyoming required students to demonstrate a Body of Evidence before graduation in all of the state's core content areas. Districts considered evidence from district assessments, state assessments, and completion of courses to determine whether a student received a general, comprehensive, or advanced endorsement. Districts pulled from a centralized task bank managed by the state to design the district assessments. Please note that the Body of Evidence was written out of law in Wyoming during the 2013 legislative session.[24]
- **Performance Assessment for Competency Education (PACE)** – New Hampshire is working with the Center for Collaborative Education and the National Center for Improvement of Education Assessment to build a centralized task bank of performance tasks that districts may access to design local assessments as part of their accountability measures.[25]

The decision to move away from annual summative testing would require national and state leaders to craft new strategies for gathering frequent data on student performance. Stakeholders would also have to develop new strategies for gathering comparable data across districts and states to provide valuable information about the relative performance of students. While improvements in assessment have the potential to resolve many of these challenges, stakeholders must work together to ensure that next generation assessment systems provide transparent and meaningful data to ensure all students, regardless of geography, have access to a high quality education.

24 Wyoming Department of Education. District Assessment System. Retrieved from http://edu.wyoming.gov/educators/accountability/district-assessment/

25 Stack, B. (2014). Quality Performance Assessments Are Trending at Sanborn and in NH [Blog post]. Retrieved from http://srhsprincipalsblog.blogspot.com/2014/03/quality-performance-assessments-are.html

Voices from the Convening

Scott Marion, Director, National Center for the Improvement of Educational Assessment

Dover, New Hampshire

Many states are interested in moving toward a competency-based framework in which high levels of student learning are the constant and time is the variable. A competency-based system relies on a well-articulated set of learning targets that helps connect content standards and critical learning that leads to domain proficiency. Further, a true competency-based system encourages student choice of both learning targets—within some bounds—and methods of demonstrating that competency. Such a system requires careful tracking of student progress and ensures that students have mastered key content and skills before moving to the next logical set of knowledge and skills. Currently, large-scale assessment systems, based upon compensatory scoring models are not sufficient for supporting a competency-based system. Therefore, we need comprehensive assessment and accountability systems where the majority of the assessment information is generated at the local level and used to support local competency decisions, but then key components of the local assessment system are used to support state-level accountability determinations.

This notion may sound foreign to those who have been working in U.S. education for the past 20 years or so, but there are many models from other countries that support the efficacy of such a system. When all of the information is determined at and collected by the state, mediocrity becomes the unintentional goal. To move from good-to-great, we need to support the development of local assessment expertise and local agency about assessment and accountability. Many might be concerned about things such as comparability, quality, and ultimately fairness. And it is good to be concerned about such things as long as we are able to broaden our notions of these constructs. For example, multi-level review systems, such as those found in Queensland, Australia, clearly demonstrate that locally-generated information can meet high standards of both quality and comparability. However, to think that such a locally-based system can be implemented without considerable state and other support is misguided. Local educators will need significant opportunities for professional learning and feedback. Typical professional development will not cut it. But, the professional learning that comes through doing "real work" that "counts," as long as it is supported and scaffolded, can lead us to new levels of local capacity. A state test that is "done to" locals does very little to support capacity. This is not a call to eliminate all state testing; rather such a system would see a limited set of state tests serving in an audit role rather than the key determinant of accountability goals.

Assessments Aligned to Learning Progressions Instead of Grade Level

Assessments would look very different in a competency-based system where instruction is organized by performance level instead of grades and students are encouraged to demonstrate mastery as soon as they are ready. In this system, all assessments (formative, interim, and summative) would align to research-based learning progressions, or units of content and skills that build on each other to ensure college and career readiness by graduation. Educators would have the ability to break learning progressions into smaller units, or grain size, so students can demonstrate mastery at key points throughout the year.

Although interest in learning progressions has peaked in recent years, work is still ongoing to develop a set of progressions that can be used for next generation assessments at scale. The Educational Testing Service (ETS) recently launched the Cognitively Based Assessment of, for, and as Learning (CBAL™) Initiative with the goal of creating a comprehensive system of assessments aligned to learning progressions in reading, mathematics and science. The CBAL incorporates findings from learning-sciences research about what it means to be proficient, integrates tasks that model effective teaching and learning practice, provides real-time information on student performance, and provides multiple

sources of evidence on student performance.[26] The CBAL summative assessments have been piloted in grades 6, 7, 8 and 9 as well as in college and university developmental courses, in more than 125 schools in 40 states.[27] Researchers at a number of postsecondary institutions are also working to develop progressions in core content areas including Arizona State University,[28] the University of California at Berkeley,[29] and Michigan State University.[30] Additionally, six states participating in CCSSO's Innovation Lab Network: Kentucky, Maine, New Hampshire, New York, Wisconsin, and West Virginia are working with researchers to test learning progressions in elementary and middle school math and English language arts.[31]

State and Local Capacity to Implement Performance Assessments

States and districts that decide to implement performance assessments in competency-based settings will need additional capacity to safeguard against inconsistencies in implementation. This will require new quality control measures and a significant investment in professional development and training experiences for educators. States and districts need to ensure that every assessment administered is comparable in rigor and free from bias.

Fortunately, there are many examples of emerging international, state, and district policies to ensure performance assessments are of high technical quality. Some examples include:

- The New York Performance Standards Consortium schools participate in "moderation study" in which teachers from other schools look at student work and offer their own grades in order to ensure consistency in assessment.[32]
- In Singapore, teachers are trained to score assessments using common criteria under conditions of both internal and external moderation for consistency.[33]
- In the United Kingdom, an external examination body develops and monitors scoring protocols and processes to ensure consistency in evaluation. [34]
- Vermont and Kentucky standardize portfolio assessments by creating common task expectations and developing analytic rubrics.[35]
- Alberta, Canada convenes teachers for centralized scoring sessions that involve training against benchmark papers and requires repeated calibration of scores until high levels of consistency are achieved. [36]

26 ETS. The CBAL™ Initiative: Innovation in K-12 Assessment. Retrieved from https://www.ets.org/research/topics/cbal/initiative/

27 ETS. The CBAL™ Pilot Testing. Retrieved from https://www.ets.org/research/topics/cbal/pilot_testing/

28 The University of Arizona, Institute for Mathematics and Education. Progression Documents for the Common Core Math Standards. Retrieved from http://ime.math.arizona.edu/progressions/

29 The University of California, Berkeley, Graduate School of Education, BEAR Center. Assessment of Noncognitive Skills: Substantive Interpretations, Technical Challenges and Future Directions. Retrieved from http://bearcenter.berkeley.edu/seminar/assessment-noncognitive-skills-substantive-interpretations-technical-challenges-and-future

30 Michigan State University, CREATE for STEM Institute. Assessing Learning Progressions. Retrieved from http://create4stem.msu.edu/project/alps

31 Patrick, S., & Sturgis, C. (2013). Necessary for Success: Building Mastery of World-Class Skills. A CompetencyWorks Issue Brief, International Association for K-12 Online Learning. Retrieved from http://www.competencyworks.org/wp-content/uploads/2013/02/inacol_cw_issuebrief_building_mastery_final.pdf

32 Barrick, D. & Norton, S. (2012). Student-Centered Learning in New Hampshire: An Overview and Analysis. New Hampshire Center for Public Policy Studies. Retrieved from http://www.nhpolicy.org/UploadedFiles/Reports/nelliemae_final1a.pdf

33 Adamson, F. & Darling-Hammond, L. (2010). Beyond Basic Skills: The Role of Performance Assessment in Achieving 21st Century Standards of Living. Stanford Center for Opportunity Policy in Education, Stanford University. Retrieved from https://edpolicy.stanford.edu/sites/default/files/beyond-basic-skills-role-performance-assessment-achieving-21st-century-standards-learning-report_0.pdf

34 Ibid., pg. 14.

35 Ibid., pg. 23.

36 Ibid., pg. 26.

Assessment of Social and Emotional Competencies

The goal of a competency-based system is to ensure that every student graduates with the knowledge, skills, and social and emotional competencies necessary to excel in college and career. As such, it is essential that the assessment system evaluates mastery of each of these domains. Unfortunately, current K-12 assessments were not designed to evaluate social and emotional competencies, rendering them insufficient tools for measuring success in a competency-based system. The transition to competency-based education will, therefore, require new or improved assessments that provide valuable data on student growth and mastery of social and emotional competencies, such as critical thinking, collaboration, and perseverance.

Despite the lack of aligned assessment tools, an increasing number of districts have incorporated social and emotional competencies into their school models. Montgomery County School District in Maryland, for example, incorporates information on hope, engagement, and well-being into its school improvement process.[37] Similarly, the KIPP charter school network expects graduates to develop skills in seven areas: zest, grit, self-control, optimism, gratitude, social intelligence, and curiosity.[38] While these districts have integrated social and emotional competencies into their school model, the California CORE districts set a precedent when they received federal approval to incorporate these types of measures into its accountability system. Although the districts have yet to determine how they will assess this domain, they did conclude that absentee rate, suspension/expulsion rate, and non-cognitive skills should account for 20% of a school's overall accountability score.[39]

37 Montgomery County Public Schools. Gallup Student and Staff Engagement Survey. Retrieved from http://www.montgomeryschoolsmd.org/info/gallup/

38 KIPP. Character Counts. Retrieved from http://www.kipp.org/our-approach/character

39 Kyllonen, P. (2013). Getting Serious about Testing Non-Cognitive Skills in Schools: From Accountability to Admissions [PowerPoint slides]. Retrieved from http://www.ceppe.cl/images/stories/recursos/presentaciones/nov/kyllonen-santiago-december-2013.pdf

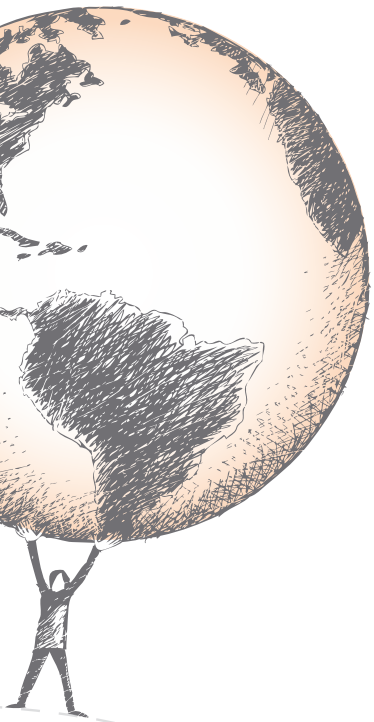
Personalized & Adaptive Supports

What If.....

What if the education system let students progress at their own pace but provided personalized and adaptive supports to ensure every student remained engaged and on track to graduation? What if educators were empowered with high-quality digital tools and resources to differentiate instruction and catch problems before they arise, nearly eliminating the need for end-of-year, after-the-fact interventions? What if policymakers and practitioners worked together to build this type of system so every student had the flexibility and support to succeed?

Exploring the Shift to Competency Education

A Snapshot of Current Policy Conversations



Points of Consensus

(A majority of the competency-based practitioners and advocates surveyed agree)

- States and districts should build personalized and adaptive systems of supports that embody the six elements found in high-performing, competency-based learning environments:
  1) **Community Engagement and Ownership of Vision** – Community partners serve as architects of vision and school design, teaching partners, and providers of wrap-around supports.
  2) **Student Ownership through Transparency of Standards, Competencies, and Learning Targets** – Students have a clear understanding of the standards and competencies required for advancement as well as clear performance expectations for each level of learning.
  3) **Teaching and Learning Aligned to Achievement Level and Pace, Not Age** – Educators group students by achievement level, where they will get the support or challenge they need.
  4) **Real-Time Access and Use of Student Achievement Data** – Access to real-time student achievement data helps educators group and regroup students.
  5) **Learning Experiences Shaped by Student Voice and Choice** – The learning process incorporates student voice and choice including preferred topics, learning styles, and method of demonstrating mastery.
  6) **Emphasis on Content Knowledge and Social and Emotional Competencies** – Mastery of academic knowledge and social and emotional competencies is required for advancement.

Emerging Issues

(Challenging issues raised by competency-based practitioners and advocates)

- How do we remove policy barriers that make it challenging to design and scale new learning models, to use time in different ways, to reallocate resources, to group students by performance level instead of age, and to create new teaching roles?
- How should policymakers and the field define a "rigorous pace"?
- What structural and policy changes are necessary to provide all students with access to rigorous and diverse learning pathways?
- What strategies will help eliminate the cultural stigma of removing grade levels?

Part 3: Personalized and Adaptive Supports

Preferred Vision

The following scenario illustrates one possible future if the K-12 education system embraced a proactive approach to supports and interventions often found in competency-based schools.

Once a significant percentage of the nation's schools embraced the shift to personalized learning education, vast differences in student outcomes ignited concerns over the quality of implementation. While many schools reported dramatic gains in student achievement, others appeared to slip behind. An extensive study of the field revealed one major difference between the high and low performers – the existence of a proactive system of supports and interventions. The highest achieving schools were letting students progress at their own pace but providing ongoing supports and interventions to ensure every student is challenged and on track to graduation. The lowest achieving schools also let students progress at their own pace but failed to intervene until it was too late in the school year to master required standards and competencies.

Armed with this information, federal and state policymakers began to help districts build proactive systems of supports and interventions that incorporate elements from the highest achieving competency-based schools nationwide. District leaders now implement electronic learning management systems that link student demographic and assessment data with digital curricular supports so students receive customized learning plans and timely activities aligned to their individual needs. These changes are beginning to revolutionize the learning experience. Educator satisfaction is also on the rise now that educators have the tools and resources to differentiate instruction for every child. Students also feel empowered because they know exactly what they need to do to excel, and they have the aligned supports and flexibility to accomplish those goals in time for graduation.

Since educators and district leaders now have systems in place to catch problems before they arise, the need for end-of-year, after-the-fact interventions has almost entirely disappeared. Even in the most extreme cases, state and federal support teams are able to diagnose the problem and intervene immediately due to the availability of comprehensive school performance data and increased funding flexibility for school improvement interventions.

Points of Consensus

Widespread adoption of a proactive system of supports will require practitioners and policymakers to identify the school improvement activities with the greatest potential to help students overcome barriers to success the minute those barriers arise. Fortunately, there are a number of early adopters who have begun to implement proactive school improvement strategies as part of their competency-based approach to teaching and learning. KnowledgeWorks conducted interviews with more than a dozen of these early adopters – including superintendents, principals, and school partner organizations working in competency-based learning environments – in an attempt to identify essential strategies for improving student achievement. These interviews revealed six strategies that appear consistently in competency-based districts. As federal and state policymakers work to refine school improvement policies, they should empower states and districts to build proactive systems that integrate the following essential elements of personalized and adaptive supports:

Six Essential Elements of Proactive Supports

1. **Community Engagement and Ownership of Vision**
   In a competency-based system, learning happens anytime and anywhere. As such, it is critical for practitioners to engage community partners in meaningful ways, from the planning stage all the way through implementation. Interview respondents identified three main roles for community partners: architects of vision and school design; teaching partners; and providers of wrap-around supports.

   - **Architects of Vision and School Design** – Many respondents emphasized the importance of engaging community partners alongside educators and students in the process of identifying a vision and mission for a new competency-based school. Benefits of early engagement include widespread awareness of the goals and key points of "celebration," guidance and support in integrating "soft skills" into the design of the school and curriculum, and leveraging of community expertise in the identification and design of multiple pathway options for students.
   - **Teaching Partners** – Many competency-based models provide opportunities for students to earn credit outside of a traditional classroom. Community partners are a great resource for helping design and implement extended learning opportunities. Pittsfield School District in New Hampshire, for example, has over 200 extended learning partners. This vast network ensures that 25% of high school students participate in an extended learning opportunity at any given point during the school year. Similarly, many schools that participate in the Big Picture Learning Network have a designated Learning through Interest/Internships (LTI) coordinator whose sole job is to work with the community to identify internship opportunities and match students to opportunities that align with their interests.
   - **Provider of Wrap-Around Supports** – Practitioners in competency-based learning environments recognize the importance of aligning wrap-around supports to help students overcome barriers to learning. Several practitioners, for example, shared strategies for integrating community supports into the school model including tutoring, counseling, and health programs.

Voices from the Convening

Jason Ellingson, Superintendent, Collins-Maxwell Community School District

Maxwell, Iowa

Collins-Maxwell is committed to providing full support for our students. All of the programs are aligned with our core curriculum so there is a seamless yet expanded scope of opportunities for our students to demonstrate competency-based learning. We offer several wrap-around services, such as at-risk, special education, mentoring, talented and gifted, and Title 1 while developing partnerships within our community to provide real-life application and relevancy to learning. During the 2014-2015 school year, we are making a conscious and concerted effort to review these programs through a lens of competency-based learning in order to ensure alignment between our programs and our redesigned competency statements. From this, we are working with our regional service agencies and state agencies to redesign our personalized learning plans to support students with special education services. Our elementary Title I program is developing reading competencies so we can develop life-long readers through the program. Finally, we are partnering with local service organizations to have our students in these support programs develop service learning projects which we are designing using competencies.

2. Student Ownership through Transparency of Standards, Competencies, and Learning Targets

Transparency is a fundamental part of competency-based models. Educators, parents, and especially students have a clear understanding of the standards and competencies required for advancement. When a student begins a lesson, for example, his teacher should provide him with a rubric outlining the standards, competencies, and specific learning objectives for the lesson. The rubric should also list clear performance expectations for each level of learning so learners know exactly what to do to achieve a proficient or advanced designation. This transparency enables students to take ownership of their learning process. In addition to rubrics, many respondents also use personalized learning plans to help students progress through a series of standards and competencies. These plans incorporate formative assessment data, student interest surveys, and participation in services inside or outside the school district to match students to unique learning opportunities.

3. Teaching and Learning Aligned to Achievement Level and Pace, Not Age

Since competency-based environments treat learning as the constant and time as the variable, educators are encouraged to group students by achievement level, where they are most likely to get the support or challenge they need. This often varies by content area, so it is important for practitioners to create a flexible school design that can accommodate students who may perform significantly higher in one subject and require intensive supports in another. Respondents were quick to point out that when students are grouped according to their achievement level, there is less of a need for pull-out services. Students can remain in class, alongside their peers, benefiting from the level of instruction they need on that day to advance in their learning. Although each model is unique in its approach to accelerating students through performance levels, a number of best practices emerged from the interviews. Those include:

- Establish a rigorous pace to ensure all students remain on-track to master standards and competencies in a sufficient amount of time. At Boston Day and Evening Academy in Boston, Massachusetts, for example, the school expects students to maintain a pace that is equal to the teacher's pace or faster. In Lindsay Unified School District in California, educators develop learning plans that set goals for an accelerated pace. A learner who is a year behind might work with his or her teachers to set a goal of 1.5 years of progress in one year. Lindsay's educators also prioritize competencies for students who are significantly off track. The district has found that once students master essential competencies, it is much easier to catch up on other competencies and remain on pace with their peers.

- Remove the stigma associated with performance levels that are inconsistent with grades by celebrating the progression of levels at the time of promotion, not at the end of the year.
- Regroup students regularly using formative assessment data so instruction is always aligned to student performance level. This gives students the opportunity to accelerate throughout the year instead of waiting for end of the year promotion.
- Create designated times in the school schedule to provide students with customized support. This may include a daily advisory period where students have time to revisit concepts they have yet to master or a semi-weekly block where students are flexibly grouped based around their individual needs.

4. **Real-Time Access and Use of Student Achievement Data**

   In order to provide every student with daily instruction aligned to his or her performance level, educators in competency-based settings must have access to real-time student achievement data. Most respondents used a formative assessment tool to generate this data, making it easier for educators to group and regroup students. An increasing number of formative assessment tools have emerged in recent years to support competency-based approaches. These tools have a variety of useful features including assessments and instructional materials aligned to specific competencies, diverse pathways to mastery, and tracking functions that help stakeholders monitor student pace over time.

5. **Learning Experiences Shaped by Student Voice and Choice**

   A competency-based model is designed with students, for students. Practitioners work to integrate student interests into every stage of the learning process ranging from topic areas, to learning preferences, to differences in the way students demonstrate mastery of competencies. Most interview respondents use some form of personalized learning plan for students that aligns to the student's current performance level and adjusts in real-time based on formative assessment data. The Education Achievement Authority in Detroit, Michigan, for example, uses the Buzz online platform to design unique learning pathways for each student. Matchbook Learning Schools in Detroit specifically use the platform to create playlists by standard so students have options in how they learn and master specific standards and competencies. Even though students are assessed in different ways, alignment to the standards ensures comparability of learning experiences. Many respondents also integrated student interests into the learning experience using internships or extended learning opportunities with community partners. Some districts and schools even created a unique educator role for identifying partnerships that align with student interests.

6. **Emphasis on Content Knowledge and Social and Emotional Competencies**

   Student success has a broader meaning in competency-based environments where practitioners emphasize mastery of academic knowledge and social and emotional competencies. Students are expected to master both domains in order to advance to the next level. As one district leader shared, "We used to be worried about students mastering an academic concept but now we are concerned about supporting the whole child. We want more authentic feedback, more authentic application of knowledge, and better assessment." Some respondents shared existing processes for incorporating and measuring mastery of social and emotional competencies while others expressed ongoing strategies to expand their emphasis in this area, such as the integration of social and emotional measures into the district's online learning platform.

Emerging Issues

While a clear consensus emerged around the six elements of a proactive system of supports, the interviews with competency-based practitioners did reveal a handful of emerging issues unique to this approach. The following subsection highlights some of these issues with hopes that education stakeholders will begin to explore creative and effective solutions.

Policy Flexibility to Design and Scale New Learning Models

Interview respondents often expressed frustration with traditional policies that make it challenging, and at times impossible, to design a competency-based system that emphasizes mastery of learning over time. Respondents called for policy flexibility in the following areas:

- **Use of Time** – Competency-based learning environments do not always adhere to traditional school calendars or bell schedules. In this approach, learning happens anytime and anywhere based on student interests, learning styles, and preferences. The emphasis on 24/7 learning makes it challenging for competency-based educators to help students piece together diverse experiences and still comply with the traditional time-based requirements of state and federal systems. Respondents shared challenges in the design of competency-based learning pathways that still have to satisfy state Carnegie Unit – or credit hour – requirements; the reporting of school and district performance data; and the structuring of the school day so teachers have time to build assessments, use data, and regroup students according to performance level. Although 42 states have enacted policies to provide districts with some flexibility from traditional Carnegie units, flexibility is still limited in most states.[40]
- **Resources** – A number of respondents expressed a desire for greater flexibility in federal and state programs so competency-based schools and districts can shift resources in real-time to address performance issues. Respondents felt that resources were too often tied to rigid requirements that make it challenging to respond to problems the minute they arise.
- **Grouping by Age** – While the traditional education system divides learning into age-based grade levels, a competency-based system divides learning into a series of competencies. This disconnect creates significant problems for competency-based educators, often requiring them to categorize students in two ways to satisfy reporting requirements for both systems. One respondent said the policy disconnect makes it difficult to create "move-when-ready" structures.
- **Teacher Credentialing** – Under the current education system, educators must obtain state credentials to teach in specific subject and grade-level positions often based on mastery of aligned subject matter tests. While it is important to monitor quality of the teaching force, these policies do not reflect the realities of teaching in a competency-based system. Respondents referenced this challenge repeatedly, stating that it has been difficult to change staffing models that comply with state law. As states begin to explore strategies to address the needs of emerging competency models, they should look to early adopters like Kentucky which provides policy waivers to districts seeking to pilot innovative strategies. Kentucky's Districts of Innovation policy gives districts the opportunity to apply for waivers in a number of areas including teacher credentialing.[41]

40 White, T. (2013). Giving Credit Where Credit's Due: A 50-State Scan of Course Credit Policies. Carnegie Foundation for the Advancement of Teaching. Retrieved from http://cdn.carnegiefoundation.org/wp-content/uploads/2013/08/CUP_Policy_MayUpdate1.pdf

41 Kentucky Department of Education. Districts of Innovation. Retrieved from http://education.ky.gov/school/innov/Pages/Districts-of-Innovation.aspx

Defining a Rigorous Pace

One of the greatest misperceptions about competency education is that the model permits students to proceed through coursework at their own pace, without any support from educators. On the contrary, competency education empowers students and educators to create a customized path to graduation that provides students with all of the supports necessary to succeed. For students that are behind their peers, this requires an intensive program to ensure they progress through material at a rigorous pace.

Competency-based districts and schools have developed a number of different strategies to help students who are behind catch-up with their peers. At Campbell High School in Litchfield, New Hampshire, for example, students can participate in competency recovery at the end of a course so they only have to master missing competencies instead of retaking the entire course.[42] At nearby Sanborn High School, students can participate in flex classes which provide additional time for instruction and assessment of missing competencies.[43] Tom Rooney, Superintendent of Lindsay Unified School District in California characterized his district's approach to this challenge in a recent EdWeek article. "Just because students now learn at their own pace does not mean that students can take multiple years to get through one content level…Students who are more than two content levels below their grade levels receive individualized learning plans to help them catch up to their peers. Those students are allowed to test out of certain parts of the curriculum that they may already know to increase their pace."[44]

In order to define a rigorous pace, however, educators have to make a decision about the appropriate timeline for a student to master required standards and competencies. Should the system continue to base performance goals off an on-time graduation calculation, or a pacing metric that might, for example, require all students who are behind their peers to make at least 1.5 years growth in a year's time? As more districts and schools embrace competency education, policymakers and educators will need to reach consensus on a definition for rigorous pace.

Access to Rigorous and Diverse Learning Pathways

Competency-based models provide every student with the opportunity to create a unique pathway to mastery. Educators work with students to create a portfolio of rigorous learning options aligned to standards and competencies. These options may include traditional courses, small group work, online programming, or opportunities for credit outside of the classroom with business or community-based partners. Since multiple pathways to mastery are a critical component of highly effective competency-based models, states and districts interested in competency education will have to establish policies that ensure equal access to rigorous and diverse learning options. Failure to do so will create significant inequities in the education system.

A number of states have already begun to adopt multiple pathways policies to ensure students have choice in how they learn and demonstrate mastery. New Hampshire, for example, offers all students the opportunity to participate in extended learning opportunities outside of the classroom for credit. The state ensures that all students have access by requiring every school to offer a minimum number of extended learning opportunities.[45] Rhode Island established an Office of Multiple Pathways to oversee secondary school redesign, career and technical education, and adult education. The office is responsible for the development of a statewide system of multiple pathways that provides students access to a variety of aligned learning opportunities including coursework in comprehensive schools, virtual learning, career and technical programs, apprenticeships and internships, contextualized adult

42 Concord High School. (2011). CHS – VLACS Competency Recovery Opportunity Overview. Retrieved from http://chs.concordnhschools.net/modules/groups/homepagefiles/cms/498192/File/Protocols%20for%20VLACS%20recovery%202011%2006%2016.pdf

43 Sturgis, C. (2014). Raising the Bar at Sanborn Regional High School [Blog post]. Retrieved from http://www.competencyworks.org/understanding-competency-education/6269/

44 Ash, K. (2012). Competency-Based School Embrace Digital Learning. Education Week: Digital Directions. Retrieved from http://www.edweek.org/dd/articles/2012/10/17/01competency.h06.html

45 New Hampshire State Board of Education. (2014). Minimum Standards for Public School Approval. Retrieved from http://www.education.nh.gov/legislation/documents/ed3062014-min-stands.pdf

learning programs, charter schools, flexible scheduling, and other innovative strategies.[46] The Vermont State Board of Education also adopted rules in 2013 requiring all schools to provide students with access to "flexible and multiple pathways." The state monitors quality by requiring any learning experience to align with state standards and occur under the supervision of a licensed educator.[47]

Cultural Stigma of Removing Grade Level

One of the more controversial elements of competency education is its commitment to organize students by performance level instead of grade level. Research indicates that grouping students by ability has clear positive effects on children. Researchers from the University of Georgia, the University of Virginia, Yale University, and the University of Connecticut found that elementary students in programs where they were grouped by ability outperformed students in the control group from mixed-ability classes by two to three months.[48] While the purpose of this strategy is to ensure students receive targeted support aligned to their individual needs, it can create a cultural stigma for students that are significantly behind their peers. Interview respondents felt it was critical to address these cultural challenges immediately by implementing strategies to ensure students do not feel discouraged by their grouping assignments. Sajan George of Matchbook Learning, for example, emphasized the importance of continual regrouping opportunities to help students who are far behind advance quickly and public celebrations when a student advances to ensure the sense of accomplishment is inherent in the day-to-day school culture.

Another strategy used by some competency-based districts is to target instruction by ability but maintain age-based requirements to ensure students are not grouped with significantly younger students. The Adams County School District 50 in Colorado, for example, replaced grade levels with performance levels so students could advance as they master content within age-based parameters. Under the policy, for example, middle school students must stay in middle school and cannot move down to the elementary level for classes.[49] Similarly, Lindsay Unified School District in California still groups students into grade levels but also provides each student with a content level. This ensures that educators know the exact performance level of students in their class. The district also implemented flexible scheduling policies so students can move from one content level to the next without having to wait for the semester to end.[50]

46 Rhode Island Department of Education. Office of Multiple Pathways. Retrieved from http://www.ride.ri.gov/InsideRIDE/RIDEOffices/MultiplePathways.aspx

47 Vermont State Board of Education. (2014). Education Quality Standards: State Board Rule 2000. Retrieved from http://education.vermont.gov/documents/EDU_EQS_01_23_14_Proposed_Final_Rule.pdf

48 Kulik, J.A. (1992). An Analysis of the Research on Ability Grouping: Historical and Contemporary Perspectives. The National Research Center on the Gifted and Talented. Retrieved from http://www.gifted.uconn.edu/nrcgt/reports/rbdm9204/rbdm9204.pdf

49 Vail, K. (2010). Leveling the Field. American School Board Journal. Retrieved from http://www.sbsadams50.org/wp-content/uploads/2011/08/American-School-Board-Journal.pdf

50 Ash, K. (2012). Competency-Based School Embrace Digital Learning. Education Week: Digital Directions. Retrieved from http://www.edweek.org/dd/articles/2012/10/17/01competency.h06.html

Conclusion

Many in the field of education reference the shift to a personalized, competency-based system of education as a moral imperative. It is certainly an economic imperative that is critical to the success and prosperity of our nation. Our survey results demonstrate high demand for a shift to competency education with over 85% of respondents expressing interest in the approach, yet just over 50% have taken steps to incorporate competency-based elements in their schools and districts. The difference in these two numbers clearly illustrates that policy barriers such as a time-based system of accountability and assessment continue to prevent many advocates from implementing competency-based strategies.

As thought leaders gathered in Dallas, Texas to discuss solutions to some of these policy barriers, clear consensus emerged in a number of policy areas. Participants agreed that standards used for accountability should include knowledge, skills, and social and emotional competencies and should be measured using a performance index instead of a single data point created by one assessment. Further, states should continue to disaggregate data by subgroups, have flexibility in the selection of accountability measures, incentivize deeper levels of mastery, and integrate a continuous improvement process.

Participants also agreed that states should adopt a balanced system of assessments that validates student mastery and provides real-time feedback so stakeholders can make necessary improvements to maximize learning gains. Further, there should be multiple pathways for students to show mastery, and students should be permitted to complete assessments when they have mastered the material, not during a pre-determined testing window.

The adoption of competency-based accountability and assessment policies must accompany improvements in the nation's system for supporting and intervening in schools. Interviews with competency-based practitioners revealed six essential elements to a comprehensive supports and interventions system including: community engagement and ownership of vision; student ownership through transparency; teaching and learning aligned to achievement level, not age; real-time access and use of student data; experiences shaped by student voice and choice; and emphasis on content knowledge and social and emotional competencies.

A number of important policy points of consensus emerged throughout this deep dive as well as additional issues that will require further consideration. For instance, what are the essential goals and accountability indicators all states should use to measure success? Should these indicators include items beyond academic content? How should these indicators be weighted in a performance index? And how should states use this index to improve the performance of all schools?

Equally challenging concerns surfaced about the usefulness of current assessments which are not aligned with college and career ready competencies, including social and emotional skills, or learning progressions instead of grade-level achievement. While this certainly must be remedied, it raises the question of the value of annual summative assessments in a competency-based system. Further, how do we create the policy flexibility to design and scale new models of support and intervention that respond to a new assessment system? Also, how do we eliminate the cultural stigma of eliminating the grade level while designing a new system that gives students access to diverse learning pathways that allow students to advance at their own, rigorous pace?

As competency-based models continue to replicate around the country, policymakers and practitioners must work together to establish systems of accountability, assessments, and supports and interventions that better enable transformation of the education system. While this paper does not offer concrete solutions for all of the pressing issues, it does incorporate key data, research, and voices from the field that will be crucial as policymakers continue to shape an environment that better supports the shift toward competency-based education.

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