A ROADMAP TO COLLEGE READINESS

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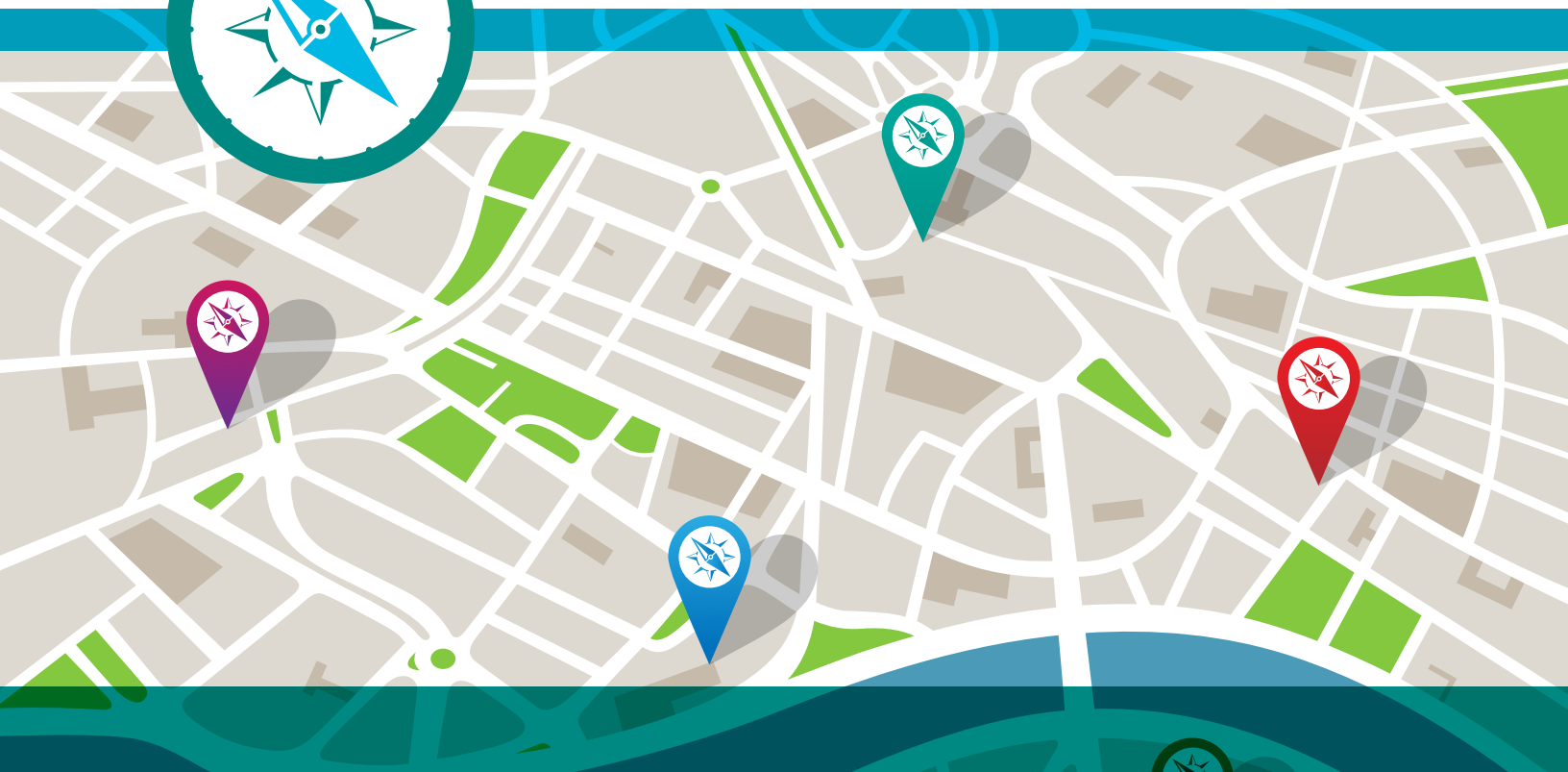
STATE HIGHER EDUCATION EXECUTIVE OFFICERS ASSOCIATION

The State Higher Education Executive Officers is the national association of the chief executives of statewide governing, policy, and coordinating boards of postsecondary education. Founded in 1954, SHEEO serves its members as an advocate for state policy leadership, as a liaison between states and the federal government, as a vehicle for learning from and collaborating with peers, and as a source of information and analysis on educational and public policy issues. SHEEO seeks to advance public policies and educational practices to achieve more widespread access and successful participation in higher education, more new discoveries through research, and more applications of knowledge that improve the quality of human lives.

NATIONAL ASSOCIATION OF SYSTEM HEADS

The National Association of System Heads (NASH) is the association of the chief executives of college and university systems of public higher education. Formed in 1979 for the purpose of seeking improvement in the organization and governance of public higher education systems, NASH serves as a forum for the exchange of views and information among its members and with other higher education organizations, with special attention to the perspectives, problems, and opportunities of heads of systems as a unique category of higher education executives. NASH serves its member systems by organizing system leadership around a series of core initiatives that center on promoting increases in access and degree attainment for all students and leveraging system offices to support efforts of change.

ACKNOWLEDGEMENTS

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INTRODUCTION: WHY DO WE NEED A ROADMAP TO COLLEGE READINESS?

To successfully participate in today's global economy, young people must graduate high school with the skills and competencies that allow them to pursue further study and meaningful work. Yet the data around successful transition from high school to higher education, and then to the completion of a degree, show some alarming trends. In 2007, 70.5% of students graduated from high school on time, and 62.5% went on to enroll immediately in postsecondary education.[1,2] However, only 59.4% of students from that cohort who enrolled full time in a four-year institution graduated in six years; only 29.8% who enrolled full time in a two-year institution graduated in three years.[3] These numbers are even more stark for underserved populations – low-income, minority, and first-generation students. The data clearly indicate that while we have made progress in increasing high school graduation rates and postsecondary enrollment, we are not doing as well at ensuring students are enrolling in college with the "right stuff" – the knowledge and skills necessary for postsecondary success that are the hallmarks of true college readiness.

> ## We are not doing as well at ensuring students are enrolling in college with the "right stuff."

State leaders – governors, legislators, and leadership from both K-12 and postsecondary education sectors – have recognized this issue and, particularly in the last decade, have taken steps in policy and practice to address the problem. In the late 2000s, state superintendents and governors worked together through their respective national associations – the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA) – to develop the Common Core State Standards (CCSS), a set of K-12 standards that would lead students to college readiness by high school graduation.[4] The 2014 edition of the Achieve publication, *Closing the Expectations Gap*, indicates that all 50 states and the District of Columbia (DC) have now adopted college and career ready standards (42 states and DC have adopted the CCSS).[5] Most states have also taken other steps to increase college readiness, including implementing more rigorous courses in high school, college ready assessments in 11th grade, opportunities for acceleration within high school, and dual enrollment opportunities in local colleges. While progress has been variable, some states have been able to demonstrate early successes and build on early initiatives, even as they contend with various local and national challenges.

Several recent publications have laid out frameworks for addressing the college readiness challenge, as well as suggesting component strategies for success. The Association for Institutional Research (AIR) *College and Career Readiness and Success Organizer*, published in May 2014, provides an overview of the many elements that impact readiness.[6] Education Commission of the States' (ECS) *Blueprint for College Readiness*, published in October 2014, highlights ten state-level policies critical to promoting college readiness and success.[7] And *K-12/Higher Education Alignment: An Action Agenda for Increasing Student Success*, a series of six briefs published by

Education First in July 2015, outlines the core ways in which higher education stakeholders can engage in the work.[8] Through our participation in this work as well as in other readiness initiatives with our memberships, SHEEO, the State Higher Education Executive Officers Association, and NASH, the National Association of System Heads, present this document – the ***SHEEO/NASH Roadmap to College Readiness*** – as a complement to prior publications. Through the Roadmap, we seek to demonstrate the steps postsecondary leaders have taken, in collaboration with their K-12 counterparts, to increase college readiness in their states.

To develop the Roadmap, we interviewed lead staff from SHEEO agencies and public university system offices in ten states: California, Colorado, Kentucky, Maryland, New York, Ohio, Tennessee, Texas, Washington, and West Virginia. We chose these ten states because of the early engagement and continuing commitment demonstrated by their leadership in forging a stronger path to college readiness for their students. Using information shared during the interviews, as well as supporting materials from state and national sources, we highlight the policies and practices these ten states have put in place in pursuit of closing the gap between high school and college. We present our findings in six sections, each addressing key aspects of a coherent, multidimensional, statewide college readiness agenda: **Determining College Readiness**; **Assessing College Readiness**; **Communicating College Readiness to Students**; **Developing Pre-College Pathways**; **Determining College Admissions and Placement**; and **Tracking Changes in College Readiness**. We conclude with a discussion of the reflections of lead system and agency staff on the challenges they faced in implementing these policies and practices, as well as their advice to others seeking to embark on this complex journey.

DEVELOPING A ROADMAP: POLICIES AND PRACTICES TO INCREASE READINESS

PART 1: DETERMINING COLLEGE READINESS
"What do we mean by college ready?"

Historically, K-12 education and postsecondary education in the states have worked in separate silos, with separate cultures, governance structures, leadership, policies, and practices.[9] Therefore, in many states, a necessary precursor to cross-sector action is the very act of bringing K-12 and postsecondary sectors together to define a shared agenda. States have employed a wide variety of approaches to establishing cross-sector relationships in pursuit of student success. In some cases, this work has stretched back many decades, with state leadership pursuing a unified vision through cross-sector state strategic plans, legislative mandates, or governors' initiatives such as statewide P-16 councils. For many, the clarion call to higher, college ready standards and assessments, amplified over the past decade by the Common Core State Standards (CCSS) initiative, has driven the movement to bring sectors together.

Like the processes used to bring the sectors together, the collaborative action taken to determine what constitutes college readiness has varied widely across the states. Common components across the states include the development of statements of shared commitment to college readiness by high school graduation, generally signed by state-level leadership from postsecondary and K-12 boards; the development of common definitions of college readiness; and the coordinated adoption of college ready standards and associated assessments that have value for both sectors. Shared college readiness definitions range from a single, agreed-upon cut score on a readiness exam guaranteeing placement in credit-bearing college courses, to a comprehensive written definition including descriptions of necessary skills and competencies as well as specific high school course requirements. Agreements on college ready standards range from adoption of common standards by high-level state leadership to deep engagement in standards development by educators and leaders at multiple levels across sectors.

Such variation is necessary to address readiness within specific state contexts. Well-designed initiatives that get traction and demonstrate sustainability take state history, politics, culture, governance structures, and relationships between agencies into account. As we examined responses from the ten states, however, common themes emerged in the work to establish a collaborative statewide understanding: willingness to engage in cross-sector work; collectively defined college readiness; history of cross-sector collaboration; and legislatively supported collaborative action.

Willingness to Engage in Cross-Sector Work. In all ten states, education leaders and practitioners from both K-12 and postsecondary sectors demonstrated openness to engaging in the type of cross-sector work necessary to move the college readiness agenda forward. In New York, both CUNY and SUNY are engaged with the State Education Department in the development of recommendations for new college readiness cut scores and associated policies. The City University of New York (CUNY) system staff recognize that the majority of their students are drawn from the New York City (NYC) school system. After New York adopted the CCSS, CUNY staff worked closely with the staff of the NYC Department of Education to align curriculum, admissions standards,

and dual enrollment programs across the two systems to ensure that high school graduates in NYC were ready to be successful upon enrollment in CUNY institutions. SUNY has subsequently been scaling these transition course frameworks across the entire state. In Tennessee, the decision to adopt the CCSS was based on collaborative conversations between the Tennessee Board of Education and the Tennessee Higher Education Commission (THEC). In the late 2000s, the disparity between student scores on Tennessee state tests and the National Assessment of Educational Progress (NAEP) served as a wake-up call for both sectors; after adopting new, higher standards, the sectors collaboratively applied for and received Race to the Top funding to support their ongoing readiness work.

Collectively Defined College Readiness. All ten states have developed a shared understanding of college readiness across sectors; eight of the ten indicated they had actively engaged both sectors in a process to define college readiness statewide. Through this process, state leaders were able to build buy-in across multiple education stakeholders from the beginning of the work. In Texas, the Texas Higher Education Coordinating Board (THECB) worked directly with the Texas Education Agency (TEA) in the mid-2000s to define college readiness as "readiness for success in credit-bearing college courses." The agencies convened vertical teams of high school, community college, and university faculty to develop college and career ready standards. The results of this collaborative work – the college ready definition, standards, and associated curriculum guides for K-12 – were codified in statute as HB1 in 2006.[10] West Virginia found its governor and state superintendent serving as the chairs of NGA and CCSSO at the time the two organizations were leading the development of the CCSS. This national engagement translated to a strong, cross-sector, local commitment to collaborative work on readiness; the West Virginia Board of Education, Department of Education, and Higher Education Policy Commission were all engaged in the development of both the CCSS and the associated Smarter Balanced assessment.

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History of Cross-Sector Collaboration. Investing the time to build strong working relationships across sectors, agencies, and state governments pays dividends when new initiatives come along. A majority of the state and system offices interviewed indicated that a history of working across education sectors was helpful to their current efforts in readiness. The California Master Plan for Higher Education, developed in 1960 by the University of California Regents and the State Board of Education, set up a coherent system of postsecondary education defining specific roles for the three postsecondary systems in the state: University of California (UC), California State University (CSU), and California Community Colleges (CCC).[11] Though the plan has undergone revisions over the years, it essentially lays out a framework for college access for all California

high school graduates. Building on the Master Plan, CSU and the California Board of Education worked collaboratively in the mid-2000s to develop the Early Assessment Program (EAP), which incorporates college readiness indicators within end-of-course exams for 11th graders in English Language Arts (ELA) and mathematics.[12] The cross-sector work on the EAP then facilitated the state's readiness work in line with its adoption of the CCSS. Both high school and postsecondary faculty found the new standards to be well aligned with the EAP; this, combined with a history of cross-sector collaboration, eased the way for the three higher education segments – UC, CSU, and CCC – to provide a joint letter of support for the CCSS as a roadmap to readiness for the state.

Prior work and new developments both played a part in Washington's successful work on college readiness. In the mid-2000s, the Washington Community Colleges led a cross-sector effort to define college readiness in English, math, and science. K-12 and postsecondary faculty worked collaboratively to share expectations, align skills, and co-develop resources. Conversations about the gap between high school and higher education led to revisions in college admission and high school graduation requirements that brought the two into better alignment. This work facilitated the state's adoption of the CCSS. When Washington's existing higher education agency was recast in 2012 as the cabinet-level Washington Student Achievement Council (WSAC), its mission was redefined to encompass the whole of public education, from preschool through graduate school.[13] While the transition required shifts in practice and culture for all involved, the earlier cross-sector work paved the way for WSAC to transition into a functional P-20 agency. WSAC continued the state's engagement as a lead partner in both the development of the Smarter Balanced assessment and the Next Generation Science Standards (NGSS); both were adopted by the state in 2013.[14, 15]

Legislatively Supported Collaborative Action. Without question, legislation plays a critical role in both the development and implementation of state policy. In addition, policy and practice are intertwined; in some cases, legislation precedes changes in practice, while at other times practice shapes the development of legislation. In the last five years, with the introduction of the CCSS and the development of aligned assessments, states have seen a blizzard of legislation introduced around college readiness. While legislation can drive state action, it can also be contentious; certainly, the number of bills that have passed into law around readiness is far smaller than the number of bills introduced. Across the ten states, we found that legislation that passed was generally supportive of the development and implementation of college-readiness standards, and tended to support existing cross-sector efforts in readiness. For instance, in addition to establishing multiple readiness policies, wide-ranging college readiness legislation in Colorado (Senate Bill 08-212, Colorado Achievement Plan for Kids (CAP4K), 2008)[16], Kentucky (Senate Bill 1, 2009)[17], Maryland (Senate Bill 740, College and Career Readiness and College Completion Act, 2013)[18], Ohio (House Bill 153, 2011)[19] and Texas (House Bill 1, 2006)[20], facilitated the collaborative development and adoption of cross-sector college and career readiness definitions.

PART 2: ASSESSING COLLEGE READINESS

"How do we know whether our students are ready?"

After coming to agreement on what constitutes college readiness, educators and policymakers must find consistent ways to measure student readiness in high school. As mentioned in the previous section, some states have addressed these two goals simultaneously by defining college readiness as an agreed-upon cut score on a specific exam. Even those states that have not defined college readiness in this way have generally selected or developed an exam to serve as a readiness indicator. Yet the realm of readiness assessments is complex. To implement a consistent assessment of readiness statewide, state leaders must first choose which type of assessment to use: an assessment developed specifically for their state; a nationally normed assessment such as the ACT or SAT; or a collaboratively developed assessment aligned to college ready standards, such as the Partnership for the Assessment of Readiness for College and Careers (PARCC)[21] or Smarter Balanced Assessment Consortium (Smarter Balanced)[22] assessments. The choice of assessment is fraught with repercussions: state-specific assessments may not align with readiness expectations of out-of-state colleges; nationally normed assessments may not align with state standards or curriculum; new, collaboratively developed assessments may not yet demonstrate the level of validity and reliability that state leaders would like.

Beyond the choice of assessment lie questions about use. State leaders must balance avoiding duplicative testing with the knowledge that one test will not necessarily meet all of the needs of students, schools, and colleges. Students need to know if they are on track to be ready for credit-bearing college courses well before they graduate from high school so they have time to make any necessary course corrections. Schools need to meet their own accountability needs for state and federal purposes, in addition to identifying students for intervention or acceleration. Colleges need to know how to place their incoming students in appropriate courses. Each of the ten states we examined had struggled with these issues, and most are still figuring their way through. We found that states grappled with three core questions in their selection and implementation of college readiness assessments: choosing one or more appropriate assessments; associating the assessments with available or required pre-college interventions; and using assessment results for college course placement.

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Choice of Assessment. Most of the states we examined tended to go in one of two directions in selecting readiness exams: requiring all students to take the ACT in 11th grade, or considering/adopting either the PARCC or Smarter Balanced assessment. The exceptions were New York, where students can choose to take the Regents Exam, but there is no statewide required college readiness assessment; and Texas, where educators have incorporated elements of their collegiate placement test into high school end-of-course exams. Since 2001, every state has been using state-developed assessments in K-12, including at least one exam in high school, to meet federal accountability requirements for the No Child Left Behind (NCLB) reauthorization of the Elementary and Secondary Education Act (ESEA).[23] Therefore, state leaders have also been faced with deciding whether the college readiness exam they adopted would replace the current state high school exam for accountability purposes.

Of the ten states, Kentucky and Tennessee are "ACT states" – in other words, the state has decided to administer the ACT to all of its 11th graders.[24] In both states, the ACT is the main exam that students take in 11th grade, and serves as their principal college readiness marker. However, in Kentucky, students who do not score college ready on the ACT in 11th grade are required to retest in their senior year with the state-developed Kentucky Online Testing system (KYOTE); and in Tennessee, students will be required to take the new Tennessee Ready exam in high school, which may provide them with a college readiness determination.

Three of the ten states – California, Washington, and West Virginia – have adopted the Smarter Balanced assessment. All three have chosen to incorporate Smarter Balanced into their assessment frameworks, replacing their current 11th grade state test. However, in West Virginia, high school juniors are also required to take the ACT COMPASS as a college readiness assessment, with student scores used to determine placement into the state's senior year transition course. Three others – Colorado, Maryland, and Ohio – were part of the PARCC consortium; however, only Maryland has chosen to continue with full PARCC implementation including the 11th grade college readiness exam. Colorado is implementing PARCC assessments from grades 3-9; the state is currently using ACT as their college readiness assessment but will be switching to the SAT starting in 2017. Ohio is contracting with AIR to develop all of its assessments for K-12, and also plans to continue administering the ACT. In Ohio, the ACT is not a high school requirement, but results from the ACT exam are used in making admission and placement decisions in the state's public four-year colleges and universities. Ohio currently pays the fees for students to take the exam, and plans to continue to do so in the future.

Association with Pre-College Interventions. Four of the ten states – Kentucky, Tennessee, Texas, and West Virginia – require that students who do not meet college readiness benchmarks in 11th grade participate in college readiness programs in their senior year.[25] The determination of readiness and associated intervention varies by state. In Kentucky, students not meeting the readiness benchmark on the ACT must enroll in an intervention program that is locally determined; after completing the intervention program, students are permitted to retake the ACT at the state's expense. In Tennessee, students not meeting math benchmarks are enrolled in a math bridge course that is common across the state. In West Virginia, students who do not meet the Smarter Balanced cut score must enroll in a transition course in the associated subject area in their senior year. In Texas, local indicators are used to determine whether students are flagged for transition programming in English or math.

Alignment with College Course Placement. As expected, the college readiness exam in each of the ten states was chosen with the primary purpose of identifying whether students were ready to enter into credit-bearing college courses without the need for remediation in English or math. In many states, meeting college ready benchmarks in high school exempts students from placement exams in college; for instance, California students meeting the Smarter Balanced readiness benchmarks in 11th grade will not be required to take placement exams at CSU. However, not all states have chosen to make the high school college readiness assessment the only test required of students for college course placement. In Maryland, for instance, students will be required to take the PARCC exam in 11th grade as a measure of college readiness; however, for the purpose of placement in credit-bearing courses, students will be expected to provide additional test results, such as those from the ACT, SAT, or ACCUPLACER exams. Texas uses end-of-course exams to determine college readiness in high school, but students must take the statewide Texas Success Initiative Assessment (TSIA) once they enroll in college to determine course placement. Education leaders in the state hope to move TSIA testing into high schools in the future to provide students with a unified message of college readiness.

PART 3:   COMMUNICATING COLLEGE READINESS TO STUDENTS
"How do we let students know whether they are ready?"

Selecting and implementing an accurate measure of college readiness in high school is an essential step to addressing the attainment gap between high school and college. However, even the most accurate assessment will not mean much without effective communication around test results. While students, parents, teachers, principals, counselors, and admissions officers must all be included in a state's communications strategy around readiness, we focus here on the central players – the students – since they will be the ones most directly impacted by the test results. Actually improving the readiness of students for the college transition will require not only providing an accurate and understandable assessment early enough to take action, but also guidance on the pathways that lie ahead given each student's current level of readiness.

Improving the readiness of students for the college transition will require guidance on the pathways that lie ahead.

To effectively address the issue of student communications, state education and policy leaders will need to take several essential components into consideration. Students must understand how to interpret the results they receive on the selected statewide assessment. Given their results, students need to know their options – including possible opportunities for intervention or acceleration prior to graduation – and how best to take advantage of these opportunities. Students also need guidance about available college options, how each option is linked to levels of readiness in terms of admissions selectivity and course placement, and what that means for potential college pathways aligned with a student's own educational and career aspirations. Finally, students should have access to information about the practical processes around applying for, enrolling in, and securing financing for college.

States have chosen a variety of methods to communicate to students about their level of readiness and associated options. In the ten states we examined, the strategies were grouped around three methods of delivery: static information, such as flyers and fact sheets; interactive information, provided through web-based tools; and in-person communications with school counselors, either individually or as cohorts. All states are employing multiple strategies in concert to communicate with students about college readiness. In addition, some states are creating centralized resource centers which students can access either through physical locations or through web-based interfaces linked to school resources.

Static Information – Flyers and Fact Sheets. For many states, short documents outlining expectations and opportunities for students are the first step in a communications strategy. Such flyers or fact sheets include information on a variety of areas of readiness – interpreting test results, opportunities for dual credit, required transition courses, the college application process, and navigating financial aid. State leaders reflected that the most effective communications were those limited to one or two areas of student concern. For instance, while it could be helpful to have a single document that linked test scores to early college opportunities, it was generally better to separate that information from guidance on college financial aid processes. Education leaders also found that to be effective as a communications strategy, static information needed to be actively "pushed" to students. California has developed college readiness materials that are directly distributed (rather than simply available) to every 11th grade student. The California "Are you Ready" flyer is distributed prior to state testing, while the state's "College Readiness Guidebook" is distributed when students receive test results; both are discussed in meetings with school counselors. In Washington, students are engaged in creating their own "High School and Beyond" plan based on readiness documentation they receive along with their Smarter Balanced test scores.

Interactive Information – Web-based Tools. Another popular strategy among states is the creation of one-stop web centers that include not only static information, but interactive tools to assist students as well. The California State University (CSU) system has developed a website, CSU Success, for California high school students interested in attending CSU institutions.[26] In addition to providing options and advice for readiness in math and English prior to college matriculation, CSU Success offers free exam preparation, motivational student videos, and a roadmap tool which allows students to check whether they are on track; and recommends actions based on individual levels of readiness. The Colorado Department of Higher Education (CDHE) provides the College Admissions Tool for Colorado which allows students to calculate their likelihood of being admitted to the range of available Colorado institutions.[27] Like static information, state leaders have found that web-based tools must be actively designed to fit student needs. For instance, Maryland is currently in the process of adapting their federally funded "Maryland Go For It" college roadmap site to be available through cell phones, a format that is appealing for student use. To increase student access, Washington is moving their High School and Beyond (HSAB) planning tool online; state leaders are also hoping to increase use by allowing students to access their information even after graduation.

Personal Communications – High School Counselors. High school counselors have long served as the go-to resource for students as they make decisions about their plans for college and careers beyond high school. Yet with growing populations of students and limited school budgets, counselors are often stretched thin – both by the number of students they serve and by the variety of functions they are responsible for. Many states are now working on bolstering their counseling resources in a variety of ways as a method of directly addressing the college readiness and success needs of high school students. Colorado's School Counselor Corps Grant Program (SCCGP) awards state funds to secondary schools to augment school counseling services in order to improve both high school graduation rates and college enrollment and success rates.[28] In West Virginia, school counselors connect directly with college advisors to discuss how to interpret high school college readiness courses; Ohio is currently working to develop a set of professional standards for school counselors. In California, CSU provides an Early Assessment Program coordinator at each of its 23 campuses to work directly with the region's high schools and district offices in advising students, parents, and schools about postsecondary options.

Unified Approach — Resource Centers. With limited money and personnel, most states cannot afford to develop comprehensive resource centers for college going at every public high school. However, some states are choosing to invest in such centers in a selective way. For instance, Texas has chosen to develop "Go Centers" at schools where students seem unlikely to go to college.[29] The program uses the National College Advising Corps "near peer" model, employing recent college graduates to communicate the importance and benefits of college going to current high school students. Go Centers target advising to students who are academically ready to enroll in college but do not list college enrollment as part of their plans. In implementing the Go Centers, Texas educators have found that students are more likely to listen to, and be influenced by, the young adults they bring in to the centers than by traditional college counselors. By targeting students who are eligible but least likely to attend postsecondary institutions, the program has successfully increased college participation for low-income and minority students.

PART 4:   DEVELOPING PRE-COLLEGE PATHWAYS
"How do we help students get to and beyond readiness before high school graduation?"

Though proportions will vary, every school can expect college readiness assessments to identify three groups of students: those who test below college ready, those who meet college readiness benchmarks, and those who exceed those benchmarks. A coherent college readiness policy requires that state leaders address the needs of all three of these populations. Students who do not meet readiness benchmarks need ways to bring their skills and competencies up to the necessary levels by the time of high school graduation. Students who are on track need structures and incentives to stay on track, and those who exceed benchmarks will need opportunities for early postsecondary engagement.[30, 31, 32]

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There are several cross-cutting concerns that emerge in developing appropriate pre-college pathways for all high school students. First, states must decide on the timing of their readiness assessment. While most states have chosen to offer or require the assessment in 11th grade, this does not leave much time for students to make up for any deficiencies prior to graduation. Therefore, some states have added options for students to take assessments earlier in high school. This allows additional time for students needing assistance to reach benchmarks, as well as providing early opportunities for students who are exceeding benchmarks to accelerate. A second key area – communicating the results of assessments to students, as well as pathway options given those results – is discussed in the prior section. Finally, state leaders will need to decide whether interventions and/or accelerations are the default pathway linked to certain readiness scores, or whether it will be up to the students to choose their own paths.

While the specifics of student pathways offered varied by state, there was a surprising amount of agreement in approach to the three populations of students across the ten states we examined. We found that every state was, to some extent, developing transition courses for students needing extra support; using high school graduation requirements to keep prepared students on track; and offering dual enrollment to students ready for acceleration, mainly through community college partnerships.

Developing Transition Courses for Students Needing Extra Support. By far, the most common approach to providing support for students scoring below college ready in 11th grade assessments was to offer a supplemental transition course in the senior year to bring them up to speed by graduation. In all ten states, these courses were developed collaboratively by K-12 and postsecondary educators. Initiatives in New York, Ohio, Tennessee, and Washington led to courses developed at the state level, while other states encouraged the development of courses through local high school and community college partnerships. States showed deference to curriculum choice by local districts; even when state or foundation dollars were used to develop statewide courses, or where state statute required delivery of transition courses to underprepared students, districts were provided discretion in choosing which courses to implement in their schools. Whether developed by state initiative or locally, transition courses were designed specifically to help students graduate from high school with a college and career ready designation that would exempt them from remedial coursework in state colleges. As states, schools, and institutions implement these courses, they are tracking student data to determine whether the interventions are effective in improving readiness and reducing remedial need. Among the ten states, Kentucky, Tennessee, Texas, and West Virginia require students scoring below a readiness threshold to enroll in the appropriate transition course in their senior year.[33]

The development of effective math readiness pathways was of special concern to education leaders. State data support national findings that students who require remediation in math after college enrollment drastically reduce their chances of ever completing a degree.[34] Tennessee has developed an innovative statewide solution to the math readiness dilemma. The Seamless Alignment and Integration of Learning Support (SAILS) is a statewide 12th grade bridge math course that integrates freshman year remedial math coursework into a high school technology-assisted course format.[35] The SAILS course was developed in partnership between Tennessee's community college faculty and high school educators. Upon successful completion of the course, students are awarded high school credit as well as a college ready designation that appears on their high school transcript. Recognizing that students enrolling in SAILS are likely to require significant attention and assistance, the state has made it a requirement that only high school faculty with a demonstrated record of effectiveness may teach the course.

Some states have also taken measures to address more nuanced levels of readiness. In California, for example, CSU has developed the Expository Reading and Writing Course (ERWC) for students who are deemed "conditionally ready" in English. Students who are "conditionally ready" in California are not so far behind that they require a transition course, but they are not quite meeting their college readiness benchmarks. A recent Investing In Innovation Fund (i3) grant study in the state has shown that students who take the ERWC perform at higher levels on CSU placement exams, and earn higher grades in college courses, than "conditionally ready" students who do not take the course. Based on early work with the Califonia State Board of Education and California Department of Education, CSU faculty identified the need for continued improvement in providing college readiness support to students. As a result, CSU spends a considerable amount of resources on the professional development of ERWC teachers.

Using High School Graduation Requirements to Keep Students on Track. Students who score right at the state college readiness benchmark in 11th grade may not require interventions or acceleration, but they do need a path to graduation that keeps them from losing ground in English and math by the time they enroll in college. In general, states have chosen to implement a strong core high school curriculum as the methodology for ensuring these students stay on track. Nine of the ten states we interviewed require at least four years of English for graduation, and four of the ten — Maryland, Ohio, Tennessee, and West Virginia — require at least four years of math as well.

State curricular requirements are conveyed through high school graduation requirements, college readiness designations on high school transcripts, or core curriculum requirements for entry into the state's public postsecondary institutions, and reinforced through direct messaging to students. For instance, through the Closing the Gaps Initiative, the Texas Higher Education Coordinating Board designated the college preparatory curriculum as the default for all high school students. Students wishing to follow a different high school curriculum are required to formally opt out with the permission of their guardians.[36]

Offering Dual Enrollment through Community College Partnerships. State leaders described dual enrollment – either through dual credit courses that are offered at the high school or college, or through early college programs that allow students to get an early start on a college degree – as the main venues of acceleration for students who scored beyond college readiness benchmarks in 11th grade (or earlier). Both types of programs were generally developed and delivered through local partnerships between high schools and community colleges. Most states further encourage participation in these programs by providing funding to defray tuition costs. In many states, both remediation and acceleration are offered to students through dual credit programs offered at the community colleges. Maryland and Tennessee both offer programs where high school students can earn an associate's degree prior to graduation through enrollment in an early college program. In Texas, select Texas A&M campuses offer a campus-based program that allows high-achieving high school students the opportunity to enroll in college courses alongside college freshmen and sophomores. Through the program, these students can earn up to 60 credits prior to high school graduation, including the completion of an associate's degree. In New York, the Pathways in Technology Early College High School (P-TECH) links high school students with college faculty from SUNY or CUNY and business leader mentors from local partners to prepare students for pursuing a four-year degree or moving directly into a well-paying job.

PART 5:   DETERMINING COLLEGE ADMISSIONS AND PLACEMENT
"How will readiness impact college going and course taking?"

The culture of American higher education values institutional autonomy. Even within public postsecondary systems, individual institutions have distinguished themselves to the students they serve. Part of that distinction has included the setting of admissions and placement standards that are unique to each institution. Improving college access and success requires the ability to provide clear signals to students about what constitutes college readiness; however, it is difficult to craft a coherent statewide message of readiness when a different set of admission standards and course placement requirements applies to each institution in the state. In the current era of common college readiness definitions and standards across sectors, state leaders have navigated this terrain by clarifying the difference between admissions and placement. In general, states have moved in the direction of defining college readiness as the ability to enroll and succeed in the first credit-bearing course in math and English without the need for remediation. This way, institutions can come to agreement on readiness while maintaining the ability to distinguish themselves via differences in their admissions requirements and processes.

Like many aspects of the college readiness landscape, however, college course placement is highly complex. Defining college readiness as a cut score on a common exam does not fully solve the issue of communicating readiness to students in a transparent manner. While institutions may agree to exempt students from remedial work based on an agreed-upon benchmark, this neither guarantees admission in the institution, nor placement in the courses that the student will need in order to complete their chosen course of study. Many questions remain: what does an institution consider its first credit-bearing (gateway) college courses? Will students have to take a second exam for placement beyond those first courses? Do gateway courses count towards all degree programs at an institution? Is the course content of gateway courses equivalent across postsecondary systems in a state, or even institutions within a system? If students are not deemed college ready, are there options for them to pursue remediation once they have enrolled in college? Do those interventions differ by institution?

> Defining college readiness as a cut score on a common exam does not fully solve the issue of communicating readiness to students in a transparent manner.

Each of the ten states is actively engaged in working through these issues. While the states had each made different decisions in prioritizing and addressing these components, common trends emerged. Across the states, we found that leaders and educators were setting selectivity frameworks to define admissions across systems and institutions; using cut scores on college readiness exams to determine non-remedial placement; implementing new models of remediation both in and out of college; and working towards aligning course content for gateway courses across institutions.

Setting Selectivity Frameworks for Admissions. To respect institutional autonomy while helping students make sense of readiness, state leaders have taken a multi-tiered approach to addressing admissions requirements in public postsecondary institutions. Most states have created admissions "bands" for each of the systems of education, with research institutions having the greatest selectivity, baccalaureate non-research institutions practicing moderate selectivity, and the state's community colleges serving as nonselective access institutions. Some states, such as Texas, Washington, and West Virginia, have set up minimum admissions requirements across certain systems of institutions but have also allowed each institution to set its own additional requirements. Concurrently, state and system leaders have worked on communications campaigns and interactive tools that provide students the ability to determine their own levels of readiness, and which institutions they qualify to attend.

Using a Readiness Cut Score for Non-remedial Placement. All ten states have spent considerable effort creating and implementing coherent, statewide, non-remedial placement policies. In most cases, the marker for non-remedial placement has been a benchmark score on a single agreed-upon exam. Several states are currently in transition from the use of a prior state exam or ACT as a readiness indicator to the use of a new college readiness exam either commonly developed or specific to the state in question. States are addressing this period of flux in a variety of ways. Students in Maryland will need to take a nationally normed exam such as the ACT or SAT in addition to PARCC until the state feels it has enough data to use the PARCC score alone for placement. In New York, the SUNY system is engaged in a study to develop an algorithm for placement based on multiple measures. Ohio provides students with benchmark scores for multiple assessments; meeting any of the benchmark scores exempts students from remedial work. All colleges in Texas use the Texas Success Initiative Assessment (TSIA), developed in collaboration with the College Board, to determine placement. However, the TSIA is not currently available to high school students, nor are institutions required to use the same cut score to determine non-remedial placement. Finally, placement policy generally does not go beyond the gateway course. Therefore, in most states, students wishing to place immediately into courses beyond the gateway offerings will have to take an additional placement exam upon enrolling in their institution of choice.

Implementing New Models of Remediation. Poor success rates in traditional developmental education courses have led many states to move away from providing these sequences in four-year institutions. Even in two-year institutions, remediation models are being revised to accelerate students quickly to the point where they can engage in credit-bearing work. Often, remedial sequences are being moved to transition courses in high school. Based on the National Center for Academic Transformation model, with funding from the Lumina Foundation, the Bill & Melinda Gates Foundation, and Complete College America, Maryland has developed a corequisite, accelerated model of remediation that front-loads the first three weeks of gateway courses with additional support to get students up to speed. With support from the Bill & Melinda Gates Foundation and the Carnegie Foundation for the Advancement of Teaching, SUNY is scaling Quantway and Statway — new evidence-based math pathways that reduce the time to earn college credit — across its 30 community colleges. Legislation passed in Tennessee mandates that postsecondary institutions do not offer non-credit developmental education courses, yet underprepared students continue to enroll. To serve these students, Tennessee institutions are utilizing a variety of interventions including corequisite remediation, additional support in mathematics, and summer bridge courses between high school graduation and college enrollment. Similarly, in West Virginia, institutions are legislatively prohibited from providing developmental courses, but are allowed to provide "required academic support" alongside credit-bearing courses. West Virginia institutions have therefore adopted a variety of legally compliant delivery models to meet the needs of underprepared students, including corequisite remediation, stretch courses, and accelerated learning.

Aligning Course Content across Institutions. Beyond aligning college course placement with high school readiness assessments, a few states are actively engaged in initiatives to align lower division course content across institutions. These initiatives generally build on strong prior articulation agreements in the state; such agreements create space for educators to examine course content collectively to determine appropriate equivalencies. Faculty at the University System of Maryland have been engaged in developing common frameworks for gateway courses in English and math; course development is currently in process around these frameworks. In Tennessee, there has been significant work at the state level to develop transfer pathways in 50 disciplinary areas. These pathways use curriculum maps to define the 60 credit hours necessary to transfer as a junior in those disciplines, including the gateway courses in math and English. While the requirements differ by discipline, students completing the defined credit-bearing courses in a particular content area are assured that the credit will count towards meeting the requirements of that major at any institution in the state. In New York, at the system level, SUNY's multi-directional, system-wide Seamless Transfer framework offers more than 1500 programs within 54 transfer paths. Students at both four-year and two-year institutions take comparable courses in the first two years of full-time study, and are guaranteed transfer into a four-year program as a junior after completing the transfer path.

PART 6: TRACKING CHANGES IN COLLEGE READINESS

"How do we know how we are doing on readiness?
How can we do better?"

As states develop and implement new college readiness policies and practices, they have defined a variety of progress and success metrics — including the rates of high school graduation, college enrollment, remediation, and degree completion — that will serve as indicators of effectiveness. By tracking these metrics, schools, institutions, systems, and states gather information to learn how well new policies are serving their state's college readiness agenda. Schools and colleges necessarily have a localized view of progress on these indicators; system offices and SHEEO agencies, as well as statewide longitudinal data banks, allow for a more global view. In the last decade, most states have made progress toward developing statewide longitudinal data systems that are able to connect student data from early learning through workforce. However, the utility of these data systems varies across states.

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Nine of the ten states we examined fell into one of two camps: about half were currently in the process of developing or implementing a new statewide longitudinal data system, while the other half had well-developed data systems that were being put to use to track information statewide. (California does not have a statewide data system.) All states were using data to inform continuous improvement efforts; however, states that had access to robust cross-sector data systems were able to track progress at a state level, while those in development focused on tracking data within institutional systems.

Statewide Data System in Development. Maryland, New York, Ohio, and West Virginia have all recently invested in the development of statewide longitudinal data systems; however, these systems are not yet developed to the point where they are able to effectively inform improvement efforts. Leaders in each of these states were especially excited about the prospect of the new systems allowing better tracking of student performance in transitional and remedial courses across the sectors. In the absence of state-level data, each of these states has utilized institutional system-specific data collection efforts to track progress and inform changes on college readiness and success initiatives.

- In Maryland, two federal grants — Statewide Longitudinal Data Systems (SLDS) and Race to the Top (RTTT) — funded the creation of a new longitudinal data system housed in a new state agency. The system links K12, postsecondary, and workforce data, but has only been functional for a few months. In the past, the Maryland Higher Education Commission (MHEC) would collect data directly from state institutions to track progress on readiness indicators; those data have been driving changes in remedial education in the state.

- The City University of New York (CUNY) and the State University of New York (SUNY) systems have received funding from the state to develop a longitudinal database spanning early childhood through workforce for CUNY and SUNY students, respectively. Once developed, the system will connect CUNY and SUNY system data to data from the New York City Department of Education (for CUNY), the New York State Education Department (for SUNY), and the New York State Department of Labor. In the past, CUNY and SUNY have relied on their system institutional research office to evaluate the effectiveness of their programs.

- In Ohio, state leaders are able to access a limited set of data through the state longitudinal data system currently in development. The state is actively engaged in tracking data on educator preparation, which it presents on the state website through a dashboard interface.[37] In addition, the state is tracking data on students requiring remediation, making connections with feeder high schools to learn more about student progress through gateway courses. State leaders are hopeful that future developments will allow tracking of an expanded set of measures.

- The state longitudinal data system in West Virginia was established by statute a few years ago. Though it is governed by a board separate from the education sectors, both K-12 and higher education agencies were engaged in the development of the system, and the board includes representatives from both the West Virginia Department of Education and the West Virginia Higher Education Policy Commission. The Higher Education Policy Commission is using individual compacts with each of the state's public institutions to gather student success data until the new data system is able to meet those needs.

Well-established Statewide Data System. Colorado, Kentucky, Tennessee, Texas, and Washington all benefit from strong statewide longitudinal data systems. These systems have allowed each of these states to track the effects of interventions undertaken through statewide initiatives, legislative mandates, and strategic plans. State leaders appreciated the utility of the state systems, but were also glad to be able to combine state longitudinal data with other trusted sources, such as the state's K-12 database, institutional IPEDS reports, and data collected by postsecondary system offices.

- In Colorado, a Statewide Longitudinal Data Systems (SLDS) grant brought together the state's Departments of Education, Higher Education, and Labor in 2010 to implement an aligned data system that would connect data resources across agencies, anchored by a common definition of postsecondary and workforce readiness.[38] Education leaders in Colorado have been able to use the state's longitudinal data system to track changes in remedial education and concurrent enrollment, employment and wages (within Colorado) in years 1 and 5 after graduation, as well as the college success patterns of low-income students.

- Kentucky employed consultants from the U.S. Education Delivery Institute (EDI) to help them make better use of their state's longitudinal data system. While the state had been creating high school feedback reports for some time, their work with EDI increased the state's capacity to make use of the data they were collecting. In Kentucky, college readiness metrics are part of the higher education accountability framework; leaders from the two education sectors have been able to collectively use the power of the state's data system to track retention and graduation rates for underprepared students.

- Over the years, state leaders in Tennessee have used their state's longitudinal data system to investigate and develop interventions in multiple policy areas around college readiness. Data that tracks students into the workforce has demonstrated the dire outcomes of students who graduate from high school without meeting college and career readiness benchmarks, which provided the impetus for the Governor's Drive to 55 campaign to increase college participation and degree completion.[39] Data on state assessment scores and NAEP scores drove Tennessee's work to revise its K-12 standards; the development of the statewide SAILS transition math course came about due to early data on a pilot initiative that the state chose to scale up.

- In Texas, strong data systems at both the high school and college levels have allowed the Higher Education Coordinating Board to pursue research projects in service of state goals. Through the Board's Closing the Gaps initiative of 2000, college preparatory curriculum was set as the default high school curriculum for all students.[40] There was some public concern that this would have a negative effect on underserved populations; the Board was able to demonstrate that the new curricular requirements correlated with improved high school graduation rates and college completion rates, particularly for low-income and minority students.

- Washington leaders use the state's longitudinal data system in combination with a multitude of other data sources — including the American Community Survey, institutional IPEDS data, and data gathered by the Washington Student Achievement Council (WSAC) — to systematically link a series of progress indicators including 9th grade performance, high school graduation, college enrollment and retention, and degree completion. The data inform revisions to the Washington Roadmap, the state's strategic plan to increase educational attainment. The state also features its data work through dashboards on multiple state websites, including the site for the governor's accountability system, Results Washington,[41] and the accountability section of the WSAC website.[42]

CONCLUSION: CHALLENGES AND ADVICE ON THE ROAD TO READINESS

During our interviews with state agency and system office leadership, we directly inquired about the challenges the ten states had faced in making progress on college readiness, and the advice they might provide to others embarking on this work. The responses highlighted the fact that all states struggled with similar challenges. We present their reflections, as well as advice on addressing challenges, in six key areas of cross-state concern: working in partnership across sectors and agencies; working within the constraints of state and institutional governance systems; engaging campuses in the work of readiness; engaging in effective communications with multiple constituencies; and finding the financial resources necessary to engage in and sustain the work of implementing a readiness agenda.

CHALLENGE: WORKING IN PARTNERSHIP

Working in a transition space requires partnerships across sectors and agencies; there was general agreement across most states that partnership is difficult work. Collaboration across K-12 and higher education can be particularly difficult, as sectors have long been siloed from each other due to differences in governance, culture, and accountability structures. Some specific challenges included a lack of trust between sectors; reluctance to engage in uncomfortable discussions on the way to developing a shared agenda; sector leaders viewing suggestions for changes in practice as threats to long-standing values and mission; and the difficulty of building buy-in for state-level agendas.

State leaders have addressed these challenges by focusing on building strong relationships between agencies, institutions, leaders, and faculty within and across the sectors. Many remarked on the need to bring all engaged parties to the table to meet often, discuss concerns, and work on understanding each other's language. While it takes significant effort over time to build trusting relationships, individuals and agencies that have invested this time find they are better able to work through the inevitable challenges and barriers that would otherwise impede progress. Some states even credited strong working relationships between agencies for progress in the face of political opposition.

Common work requires a common agenda; buy-in requires a shared process for arriving at common goals. State leaders reported that the first step in initiating new work on college readiness was to bring together representatives from multiple constituencies important to the work – including early learning, K-12, postsecondary, and workforce – to discuss their own sector's aspirations in service of the readiness agenda. Such conversations allowed the sector representatives to find common ground; since all were engaged in developing the common agenda, the process itself ensured early buy-in. Key to this process was selecting the right partners for success. Thoughtful leadership prioritized the engagement of individuals already leading initiatives that were complementary to shared goals.

CHALLENGE: SYSTEM LOGISTICS

Many state leaders commented on the difficulties of working within the constraints of state governance structures. Authority for determining policy on student readiness, progress, and success is often vested across multiple state agencies; it takes a culture shift to cede some autonomy in order to engage in shared work. Statewide coordinating boards often lack the authority to require institutional action, making it difficult to implement initiatives consistently. Postsecondary systems often have greater governance responsibility, though with varying levels of institutional authority. The small numbers of staff at postsecondary state and system offices are often tasked with delivering on a multitude of priorities, limiting the time available for consistent cross-sector engagement. Meanwhile, the diversity of institutions within a state or system can complicate reaching agreement on a shared agenda; respect for local control can limit the use of resources developed across sectors at the state level.

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While many of these constraints are real, they need not prevent effective cross-sector work. States that managed to make progress despite the limitations of governance structures indicated the key to success lay in employing effective personnel. When state, agency, and campus-level leadership make the readiness agenda a priority, cross-sector work becomes a focus of individual and collective strategic plans. Such individuals make time to connect with colleagues across structures, both to develop initiatives and to ensure the work moves forward. States and systems found it helpful to create a position within their organizations tasked with managing the college readiness work. By embedding the responsibility in a job, rather than an individual, states were able to ensure continuity of focus across changes in staffing. Finally, state leaders indicated that they found themselves moving from a compliance to a resource mind-set. Instead of considering it a failure if a specific initiative was not adopted across all institutions and districts immediately, they used state reporting mechanisms to highlight the successes of those who did adopt the initiative, thereby creating greater demand for the resource in question.

CHALLENGE: ENGAGING CAMPUSES

Postsecondary state and system leaders are often directly engaged with early childhood, workforce, and K-12 agencies in developing the state's college readiness agenda. However, agencies and system offices are distinct from institutions; the energy and buy-in generated through engagement of state- or system-level leadership does not automatically pass on to campus leadership. Given the culture of institutional autonomy, even if a state postsecondary agency or system office legally could require institutions to fall in step with a state agenda, they would be unlikely to get good results unless they had invested the time to build relationships at the campus level. Several state

leaders indicated difficulties in navigating campus bureaucracies and getting campus leaders to pay attention to, much less enact, state agendas. Campus leaders brought their own complaints to system and state agency staff; they felt excluded from state-level discussions, and lacked the resources required to hire and retain the right staff for cross-sector readiness work.

To overcome these challenges, state leaders found it effective to directly engage campus leaders and, even more critically, postsecondary faculty, in college readiness conversations – particularly those faculty engaged in developing and teaching concurrent enrollment, bridge, transition, remedial, and gateway courses. State leaders specifically emphasized the importance of engaging community college faculty. As open access institutions, community colleges receive the majority of underprepared students; improving readiness would therefore provide them a direct benefit. Since these faculty members would eventually be responsible for implementing (or not implementing) any new initiatives in the college readiness arena, they became ready ambassadors to their institutions. Early engagement built campus-level buy-in and provided a practitioner's voice to state policy development.

CHALLENGE: EFFECTIVE COMMUNICATIONS

Inadequate or misleading communications can derail even the best designed initiatives. State leaders discussed communication challenges at every level: with students and parents, counselors and faculty, and even across systems, institutions, and agencies. Addressing students and parents amounted to addressing the public; states ran into messaging barriers such as political pushback and misconceptions. Student communications proved difficult because different populations of students did not respond equally to the same messages. High school counselors and teachers did not always know how to access the latest college readiness information available in the state, much less relay the information to students; college advisors did not understand how to interpret new high school graduation and assessment requirements. Even communications among state-level agencies proved challenging; within a single state, different agencies presented widely variable levels of understanding of state priorities. Communication challenges were heightened with the introduction of data, particularly new data from newly formed state data systems. Students, parents, and educators did not understand how to interpret the data; agencies worried they'd be held accountable for progress in areas they did not control.

State leaders found their way through this set of challenges in a variety of ways. To better address student needs, agencies and systems worked together to develop multiple communication tools and messaging strategies, often targeted to specific student populations. In cross-sector conversations, it was important to remain open to all voices, and to actively listen to one another's concerns. By presenting readiness as a problem that was integrated across the sectors, state leaders made the case that a solution would require a similarly integrated approach. Readiness was presented as a continuum, with a host of defined elements – high school assessments, transition courses, early college, remediation, and gateway courses. This approach allowed multiple players to quickly see where they "fit" into the wider picture. While misunderstandings about data could certainly serve as a barrier, state leaders indicated that clear presentations of data could actually serve to bring the sectors together. When all sectors understood the nature and extent of the problem, they were more willing to collectively devise appropriate interventions and agree upon a common set of indicators to track progress.

CHALLENGE: SECURING FUNDING

It is no secret that state resources, particularly for higher education, are constrained. Every state leader indicated struggling with funding issues. Many commented on the difficulty of moving forward a legislative requirement (such as creating and implementing a state readiness agenda) without any additional funding. Some emphasized the difficulty of hiring and retaining effective staff with limited budgets. Still others discussed concerns about sustainability where initial funding was available but future funds were not guaranteed. Funds can certainly ease the path to buy-in, implementation, tracking, and reporting; however, given the reality of current state budgets, most agencies found themselves working within significant fiscal constraints.

Funding challenges were addressed in a variety of ways. Some states chose to reallocate resources from one priority area to another, which required careful communication across agencies, systems, institutions, and personnel to keep everyone on track toward the shared goal. Others chose to gather data on multiple pilot initiatives in the state, then use a portion of state funds to scale up interventions that were particularly successful. Many looked beyond state funds to supplement their resources. The most commonly cited sources of external funding were foundation grants for specific initiatives, federal SLDS or RTTT grants, and participation in national cross-state initiatives. State leaders indicated that participation in multi-state initiatives, whether through national, foundation, or federal grants, allowed them to learn from the successes and struggles of others, which they greatly appreciated.

ENDNOTES

1   National Center for Higher Education Management Systems, NCHEMS Information Center: College Access. (2015). *www.higheredinfo.org*

2   Brian Prescott and Peace Bransberger. (2012). Knocking at the College Door: Projections of High School Graduates (eighth edition). Boulder, CO: Western Interstate Commission for Higher Education. *www.wiche.edu/knocking-8th*

3   National Center for Education Statistics. (2015). Digest of Education Statistics 2014. Washington, DC: Institute of Educational Sciences. *http://nces.ed.gov/programs/digest/2014menu_tables.asp*

4   Common Core State Standards Initiative, About the Standards – Development Process. (2015). *www.corestandards.org/about-the-standards/development-process*

5   Achieve. (2015). Closing the Expectations Gap: 2014 Annual Report on the Alignment of State K-12 Policies and Practice with the Demands of College and Careers. Washington, DC. *www.achieve.org/files/Achieve-ClosingExpectGap2014%20Feb5.pdf*

6   Kathryn Balestreri, Megan Sambolt, Chad Duhon, Becky Smerdon, and Joseph Harris. (2014). The College and Career Readiness and Success Organizer. Washington, DC: College & Career Readiness & Success Center at American Institutes for Research. *www.ccrscenter.org/ccrs-landscape/ccrs-organizer*

7   Emmy Glancy, Mary Fulton, Lexi Anderson, Jennifer Dounay Zinth, Maria Millard and Brady Delander. (2014). Blueprint for College Readiness: A 50-State Policy Analysis. Denver, CO: Education Commission of the States. *ecs.org/bpcr/docs/ECSBlueprint.pdf*

8   Paolo DeMaria, Anand Vaishnav, Katie Cristol, and Sharmila Basu Mann. (2015). Achieving the Benefits of K-12/Higher Education Alignment: An Action Agenda for Increasing Student Success. Washington, DC: Education First. *education-first.com/library/publication/k-12higher-education-alignment-an-action-agenda-for-increasing-student-success*

9   The National Center for Public Policy and Higher Education. (2009). States, Schools, And Colleges: Policies to Improve Student Readiness for College and Strengthen Coordination Between Schools and Colleges. San Jose, CA. *www.highereducation.org/reports/ssc*

10 Texas Higher Education Coordinating Board. (2008). College Readiness Initiatives: Alignment with Closing the Gaps by 2015; Explanation of FY07 and FY08 Funding, Purpose, and Evaluation. Austin, TX. *www.thecb.state.tx.us/reports/PDF/1598.PDF*

11 The University of California, Master Plan for Higher Education in California. (2009). *www.ucop.edu/acadinit/mastplan/welcome.html*

12 The California State University, Early Assessment Program. (2015). *www.calstate.edu/eap/about.shtml*

13 Washington Student Achievement Council (2015). *www.wsac.wa.gov*

14 State of Washington Office of Superintendent of Public Instruction, Smarter Balanced Assessment Consortium. (2015). *www.k12.wa.us/smarter*

15 State of Washington Office of Superintendent of Public Instruction, Next Generation Science Standards. (2015). *www.k12.wa.us/science/NGSS.aspx*

16 Colorado Department of Education, Laws, Rules and Standards. (2015). *www.cde.state.co.us/schoolreadiness/rules*

17 Kentucky Council on Postsecondary Education, Senate Bill 1. (2015). *cpe.ky.gov/policies/academicinit/senbill1*

18 Maryland Association of Community Colleges Regional Meetings May 2013, College and Career Readiness and Completion Act of 2013. Annapolis, MD. *www.mdacc.org/PDFs/Publications/Special%20Reports/SB740_Regional_Meeting_Presentation.pdf*

19 Ohio College Readiness Advisory Council. (2012). College Readiness and Remediation Free Standards Recommendations: Report to the Provosts and Chief Academic Officers of Ohio's Public Universities and Colleges. Columbus, OH. *www.ohiohighered.org/sites/ohiohighered.org/files/uploads/college-readiness/2012_College_Readiness_Advisory_Council_Recommendations_to_Provosts.pdf*

20 Texas Higher Education Coordinating Board. (2008). College Readiness Initiatives: Alignment with Closing the Gaps by 2015; Explanation of FY07 and FY08 Funding, Purpose, and Evaluation. Austin, TX. *www.thecb.state.tx.us/reports/PDF/1598.PDF*

21 Partnership for Assessment of Readiness for College and Careers (PARCC). (2015). *www.parcconline.org*

22 Smarter Balanced Assessment Consortium (Smarter Balanced). (2015). *www.smarterbalanced.org*

23 U.S. Department of Education, No Child Left Behind (NCLB), Elementary and Secondary Education Act (ESEA). (2015). *www2.ed.gov/nclb/landing.jhtml*

24 ACT, State Services: ACT and Statewide Testing. (2015). *http://www.act.org/content/act/en/products-and-services/state-and-district-solutions.html*

25 Jennifer Zinth and Maria Millard. (2015). Using assessments to inform 12th-grade interventions and accelerations. Denver, CO: Education Commission of the States. *www.ecs.org/clearinghouse/01/18/05/11805.pdf*

26 California State University, CSU Success. (2015). *www.csusuccess.org/shome2*

27 Colorado Department of Higher Education, College Admissions Tool for Colorado. (2015). *www.coadmissionstool.org*

28 Colorado Department of Education, School Counselor Corps Grant Program. (2015). *www.cde.state.co.us/postsecondary/schoolcounselorcorps*

29 Texas Higher Education Coordinating Board. (2000). GO Center Toolkit: High School. Austin, TX. *www.thecb.state.tx.us/reports/PDF/6575.PDF*

30 Higher Ed for Higher Standards. (2015). Proficient Means Prepared: Tools: Best Practices in P-20 Alignment. Washington, DC. *higheredforhigherstandards.org/wp-content/uploads/2015/07/BestPractices.pdf*

31 Joel Vargas. (2015). Why 12th Grade Must Be Redesigned Now – And How. Washington, DC: Jobs for the Future. *www.jff.org/sites/default/files/publications/materials/Why-12th-Grade-Must-Be-Redesigned-Now-And-How-100715.pdf*

32 Joel Vargas and Andrea Venezia. (2015). Co-Design, Co-Delivery, and Co-Validation: Creating High School and College Partnerships to Increase Postsecondary Success. Washington, DC: Jobs for the Future. *www.jff.org/sites/default/files/publications/materials/Co-Design-Co-Delivery-Co-Validation-111815.pdf*

33 Jennifer Zinth and Maria Millard. (2015). Using assessments to inform 12th-grade interventions and accelerations. Denver, CO: Education Commission of the States. *www.ecs.org/clearinghouse/01/18/05/11805.pdf*

34 Strong American Schools. (2008). Diploma to Nowhere. Washington, DC: Rockefeller Philanthropy Advisors. *www.broadeducation.org/asset/1128-diploma%20to%20nowhere.pdf*

35 Tennessee Higher Education Commission, Seamless Alignment and Integration of Learning Supports (SAILS). (2015). *www.tn.gov/thec/topic/sails*

36 Texas Higher Education Coordinating Board. (2008). College Readiness Initiatives: Alignment with Closing the Gaps by 2015; Explanation of FY07 and FY08 Funding, Purpose, and Evaluation. Austin, TX. *www.thecb.state.tx.us/reports/PDF/1598.PDF*

37 Ohio Department of Higher Education, 2014 Ohio Educator Performance Reports. (2015). *www.ohiohighered.org/educator-accountability/2014-performance-reports*

38 Colorado Department of Education, Statewide Longitudinal Data System (SLDS). (2015). *www.cde.state.co.us/slds*

39 Drive to 55 Tennessee. (2015). *driveto55.org*

40 Texas Higher Education Coordinating Board. (2008). College Readiness Initiatives: Alignment with Closing the Gaps by 2015; Explanation of FY07 and FY08 Funding, Purpose, and Evaluation. Austin, TX. *www.thecb.state.tx.us/reports/PDF/1598.PDF*

41 Results Washington. (2015). *www.results.wa.gov*

42 Washington Student Achievement Council. (2015). *www.wsac.wa.gov*

APPENDICES

APPENDIX A

Participant Agencies by State

CALIFORNIA
University of California System
California State University System

COLORADO
Colorado Department of Higher Education
University of Colorado System
Colorado State University System

KENTUCKY
Kentucky Council on
Postsecondary Education

MARYLAND
Maryland Higher Education Commission
University System of Maryland

NEW YORK
State University of New York System
City University of New York System

OHIO
Ohio Department of Higher Education

TENNESSEE
Tennessee Higher Education Commission
University of Tennessee System
Tennessee Board of Regents

TEXAS
Texas Higher Education Coordinating Board
University of Texas System
Texas A & M University System

WASHINGTON
Washington Student Achievement Council

WEST VIRGINIA
West Virginia Higher Education
Policy Commission

APPENDIX B

Interview Protocol

1. How has your system/agency been involved in the adoption and implementation of higher K-12 standards in your state?

2. Who are the most important players in developing college readiness policy in your state, and how has your system/agency connected with them?

3. What steps have you taken to define and assess college readiness in high school?

4. What steps have you taken to provide for effective use of the 12th grade?

5. What policy changes have been necessary?

6. What data are you collecting to track your progress?

7. What have been your areas of greatest challenge?

8. What advice would you have for systems/agencies just beginning on this path?

APPENDIX C

Resource Websites by State

CALIFORNIA

- California State University System, main website. (2015). *www.calstate.edu*

- California State University, CSU Success. (2015). *www.csusuccess.org/shome2*

- California State University, Early Assessment Program. (2015). *www.calstate.edu/eap/about.shtml*

- University of California System, main website. (2015). *www.universityofcalifornia.edu/uc-system*

- University of California, Master Plan for Higher Education in California. (2009). *www.ucop.edu/acadinit/mastplan/welcome.html*

COLORADO

- Colorado Department of Higher Education, main website. (2015). *highered.colorado.gov*

- Colorado Department of Education, Laws, Rules and Standards. (2015). *www.cde.state.co.us/schoolreadiness/rules*

- Colorado Department of Education, School Counselor Corps Grant Program. (2015). *www.cde.state.co.us/postsecondary/schoolcounselorcorps*

- Colorado Department of Education, Statewide Longitudinal Data System (SLDS). (2015). *www.cde.state.co.us/slds*

- Colorado Department of Higher Education, College Admissions Tool for Colorado. (2015). *www.coadmissionstool.org*

- Colorado State University System, main website. (2015). *www.csusystem.edu*

- University of Colorado System, main website. (2015). *www.cu.edu*

KENTUCKY

- Kentucky Council on Postsecondary Education, main website. (2015). *www.cpe.ky.gov*

- Kentucky Council on Postsecondary Education, Senate Bill 1. (2015). *www.cpe.ky.gov/policies/academicinit/senbill1*

MARYLAND

- Maryland Association of Community Colleges, main website. (2013). *www.mdacc.org*

- Maryland Higher Education Commission, main website. (2015). *www.mhec.state.md.us*

- University System of Maryland, main website. (2015). *www.usmd.edu*

NEW YORK

- State University of New York System, main website. (2015). *www.suny.edu*

- City University of New York System, main website. (2015). *www2.cuny.edu*

OHIO

- Ohio Department of Higher Education, main website. (2015). *www.ohiohighered.org*

- Ohio Department of Higher Education, College Readiness. (2015). *www.ohiohighered.org/college-readiness*

TENNESSEE

- Drive to 55 Tennessee, main website. (2015). *www.driveto55.org*

- Tennessee Board of Regents, main website. (2015). *www.tbr.edu*

- Tennessee Higher Education Commission, main website. (2015). *www.tn.gov/thec*

- Tennessee Higher Education Commission, Seamless Alignment and Integration of Learning Supports (SAILS). (2015). *www.tn.gov/thec/topic/sails*

- University of Tennessee System, main website. (2015). *www.tennessee.edu*

TEXAS

- Texas A & M University System, main website. (2015). *www.tamus.edu*

- Texas Higher Education Coordinating Board, main website. (2015). *www.thecb.state.tx.us*

- University of Texas System, main website. (2015). *www.utsystem.edu*

WASHINGTON

- Results Washington, main website. (2015). *www.results.wa.gov*

- State of Washington Office of Superintendent of Public Instruction, Smarter Balanced Assessment Consortium. (2015). *www.k12.wa.us/smarter*

- State of Washington Office of Superintendent of Public Instruction, Next Generation Science Standards. (2015). *www.k12.wa.us/science/NGSS.aspx*

- Washington Student Achievement Council, main website. (2015). *www.wsac.wa.gov*

WEST VIRGINIA

- West Virginia Higher Education Policy Commission, main website. (2015). *www.wvhepc.edu*

APPENDIX D

Readiness Checklist

PART 1: DETERMINING COLLEGE READINESS

"What do we mean by college ready?"

___Willingness to Engage in Cross-Sector Work

___Collectively Defined College Readiness

___History of Cross-Sector Collaboration

___Legislatively Supported Collaborative Action

PART 2: ASSESSING COLLEGE READINESS

"How do we know whether our students are ready?"

___Choice of Assessment

___Association with Pre-College Interventions

___Alignment with College Course Placement

PART 3: COMMUNICATING COLLEGE READINESS TO STUDENTS

"How do we let students know whether they are ready?"

___Static Information – Flyers and Fact Sheets

___Interactive Information – Web-Based Tools

___Personal Communications – High School Counselors

___Unified Approach – Resource Centers

PART 4: DEVELOPING PRE-COLLEGE PATHWAYS

"How do we help students get to and beyond readiness before high school graduation?"

___Developing Transition Courses for Students Needing Extra Support

___Using High School Graduation Requirements to Keep Students on Track

___Offering Dual Enrollment through Community College Partnerships

PART 5: DETERMINING COLLEGE ADMISSIONS AND PLACEMENT

"How will readiness impact college going and course taking?"

___Setting Selectivity Frameworks for Admissions

___Using a Readiness Cut Score for Non-Remedial Placement

___Implementing New Models of Remediation

___Aligning Course Content across Institutions

PART 6: TRACKING CHANGES IN COLLEGE READINESS

"How do we know how we are doing on readiness? How can we do better?"

___Statewide Data System in Development

___Well-established Statewide Data System

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